

TB1200

SAP Business One – Implementation and Support Release 9.0



- SAP Business One
- Version Col96
- Material number: 50116776

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Target Audience



This course is intended for the following audiences:

- Partner employees responsible for the implementation and ongoing support of business processes with SAP Business One at customer sites

Duration:

- 5 days including certification

Course Goals



This course will prepare you to:

- Follow a structured implementation methodology
- Use the tools provided in SAP Business One:
 - Customization tools
 - Data migration tools
 - Implementation tools
 - Administration tools
- Map and configure a set of customer requirements in SAP Business One 9.0
- Follow the support and services processes provided by SAP

Course Prerequisites



- Required Knowledge
 - TB1000 SAP Business One – Logistics
 - TB1100 SAP Business One – Accounting
- Other prerequisites
 - S-user id
 - Basic general IT skills
- Recommended Knowledge
 - Project management experience
 - Presentation or training experience
 - Consulting experience with at least one ERP product
 - Basic knowledge of business processes in the SME sector
 - Basic knowledge of SQL query language

Course Content

Unit 1 Implementation Tools:

Implementation Methodology, Express Configuration Wizard, Quick Copy, Solution Packager

Unit 2 Project Realization:

Software and Licensing, Security, User Accounts, Document Numbering and Printing

Unit 3 Customization Tools:

Queries, User-Defined Values, User-Defined Fields and Tables, Alerts, Approval Procedures

Unit 4 Data Migration Tools:

Import from Excel, Data Transfer Workbench, Opening Balances

Unit 5 Support Processes:

Support Tools, Support Messages, Remote Platform Support (RSP)

Unit 6 Case Study

Unit 1 - Contents

Implementation Tools

- Implementation Methodology
- Express Configuration Wizard
- Quick Copy
- Solution Packager

Implementation Tools: Implementation Methodology

SAP Business One
Version 9.0



In this topic, you will learn about SAP's recommended methodology and tools for managing implementation projects.

Objectives



Objectives:

- Describe the purpose and milestones of each phase in the Accelerated Implementation Project methodology (AIP)
- Explain how the AIP methodology and related tools can help to manage risk-free projects
- Use the embedded project plans in SAP Business One as the basis for your own projects and create new project plans in accordance with the methodology.

On completion of this topic, you will be able to:

- Describe the Accelerated Implementation Project methodology, including the purpose and milestones in each phase.
- Explain how the AIP methodology and related tools can help to manage risk-free projects.
- Use the embedded project plans in SAP Business One as the basis for your own projects, and create new project plans in accordance with the methodology.

Business Example



As a new partner, you want your first implementation project to be a success. You need to create a project plan. Where do you start? How do you ensure the plan includes all the necessary tasks?

Solution: Successful projects follow a structured, phased approach. SAP's Accelerated Implementation Program (AIP) provides a proven methodology for an SAP Business One implementation. It is based on the practical experiences of SAP and many partners. Within this methodology, you will find project plans, as well as tools and documents to help you be successful.

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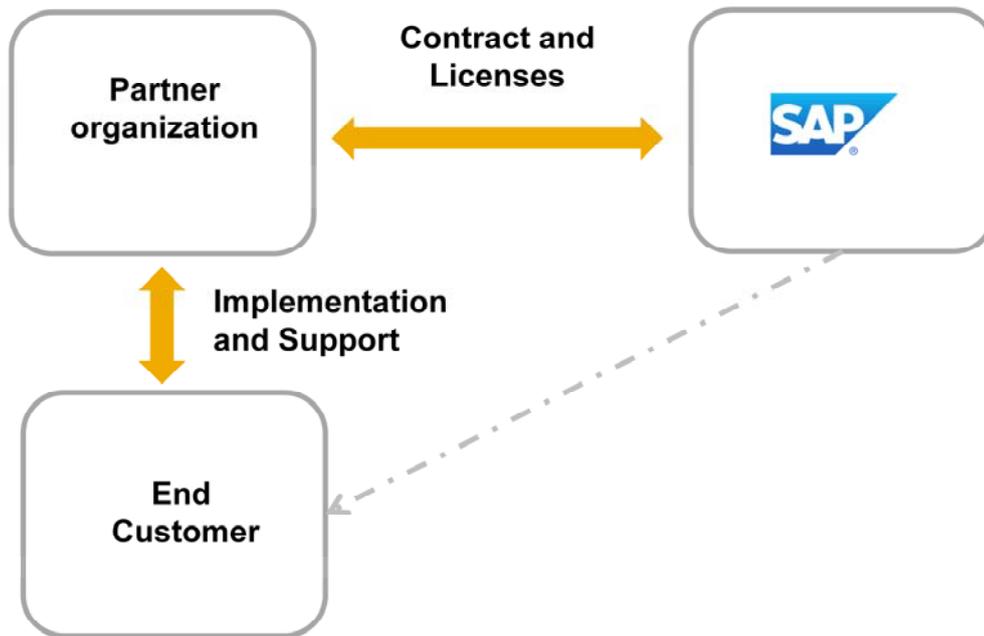
Agenda

- **Methodology**
- Tools, Templates and Documents



The first part of this topic examines the AIP methodology.

Engagement of Implementation Consultant



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As an implementation consultant, you are usually engaged at the end of the sales cycle, after the partner sales team signs a contract with SAP.

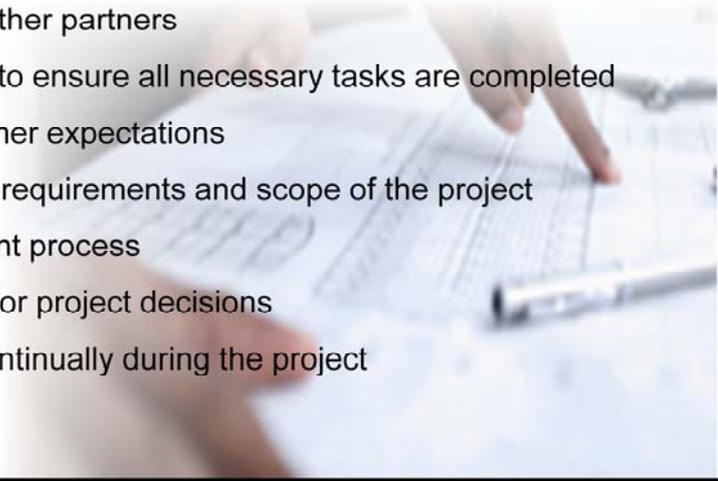
The partner sales team purchases the required SAP Business One user licenses on behalf of the customer.

Thus, from a contractual standpoint, there is no direct relationship between SAP and the end customer.

The partner is responsible for implementation and support of the customer. SAP is responsible for defects in the SAP Business One software.

Quiz

What strategies can you use to be successful in an implementation project?

- Leverage SAP's experience
 - Leverage the expertise of other partners
 - Use a detailed project plan to ensure all necessary tasks are completed
 - Set and manage the customer expectations
 - Thoroughly understand the requirements and scope of the project
 - Have a change management process
 - Involve the customer in major project decisions
 - Assess and mitigate risk continually during the project
- 

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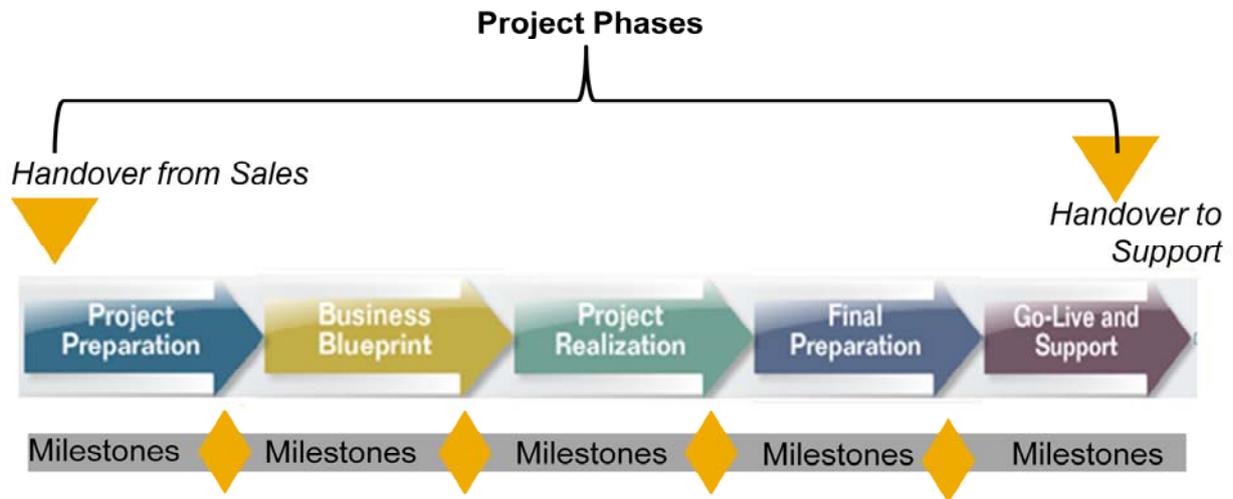
What strategies can you use to be successful in an implementation project?

Take a few moments to review the list and identify one or more strategies that you would use to increase your chances of success.

Would you:

- Leverage SAP's experience?
- Leverage the expertise of other partners?
- Use a detailed project plan to ensure all necessary tasks are completed?
- Set and manage the customer expectations?
- Thoroughly understand the requirements and scope of the project?
- Have a change management process?
- Involve the customer in major project decisions?
- Assess and mitigate risk continually during the project?

AIP Implementation Methodology



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Successful implementation partners follow a structured or phased process for implementation.

The SAP Accelerated Implementation Program (AIP) is specifically designed for SAP Business One implementations.

The AIP methodology divides an implementation into five phases. These phases cover the period starting with the *handover from the sales team* to right before the *handover to the support organization*.

The methodology provides *milestones* for each phase. Each milestone marks the completion of a discreet activity in the project: software installation, system configuration, testing, and so on. The milestones have been selected by SAP and partners as crucial checkpoints in your project plan.

Since all the methodology materials are published as a template, partners have the opportunity to adapt the methodology to their own practices.

Project Preparation



Customer transitions from the sales cycle to implementation mode

■ Key Activities:

- Handover from sales
- Project plan
- Kick-off meeting
- Delivery and installation of SAP Business One software

The AIP methodology provides sample templates for a pre-sales business analysis, handover from sales meeting, project plan, and kick-off meeting.

Project Preparation is the first phase in the implementation, during which the customer transitions from the sales cycle to implementation mode.

For the implementation partner, the key activities are to:

- Conduct a project handover with the sales team
- Create a project plan for the implementation
- Conduct an official kick-off meeting with the customer team
- Deliver and install the SAP Business One software and demo database at the customer site.

Note that the customer project manager and other key team members should have been appointed during the sales cycle.

You can use the sample templates provided in the AIP methodology for a pre-sales business analysis of the customer, handover from sales meeting, project plan, and kick-off meeting.

Project Preparation - Milestones



- | | |
|-----|---|
| 1.1 | Clear understanding of the sales process and the customer |
| 1.2 | Kick-off meeting conducted with customer |
| 1.3 | SAP Business One software delivered and installed |
| 1.4 | Phase sign-off by customer |

To keep the project focused and on track, you should complete four milestones in this first phase:

1. First, you must clearly and thoroughly understand all aspects of the sales process, including the customer background, business processes, any risks or constraints, and any special or unusual requirements. You must have this information before you meet the customer. The handover meeting with the sales team is crucial to ensure a smooth transition of the customer from sales to implementation.
2. The kick-off meeting is the next milestone. This meeting marks the official start of the project. Ideally this meeting should be a face-to-face meeting, since that gives you the opportunity to create a relationship with the customer team and to set correct expectations for the implementation. Make sure you cover the agenda items outlined in the kickoff meeting template.
3. After the kickoff meeting, the delivery and installation of the software is important contractually. The software, including add-ons, must be fully installed. The implementation consultant should install the demo database (OEC Computers) for use later in the project.
4. The last milestone is a checkpoint. A big advantage of the AIP methodology is as a **control mechanism for keeping the project on track**. To achieve this, the customer project manager is asked to acknowledge the completion of the phase with a signature. This final checkpoint gives you the opportunity to ascertain that the customer is happy with the project and does not have unrealistic expectations before the project moves on.

Business Blueprint



Focus is detailed analysis of customer's business processes

■ Key Activities:

- Business processes analysis workshops
- Business blueprint

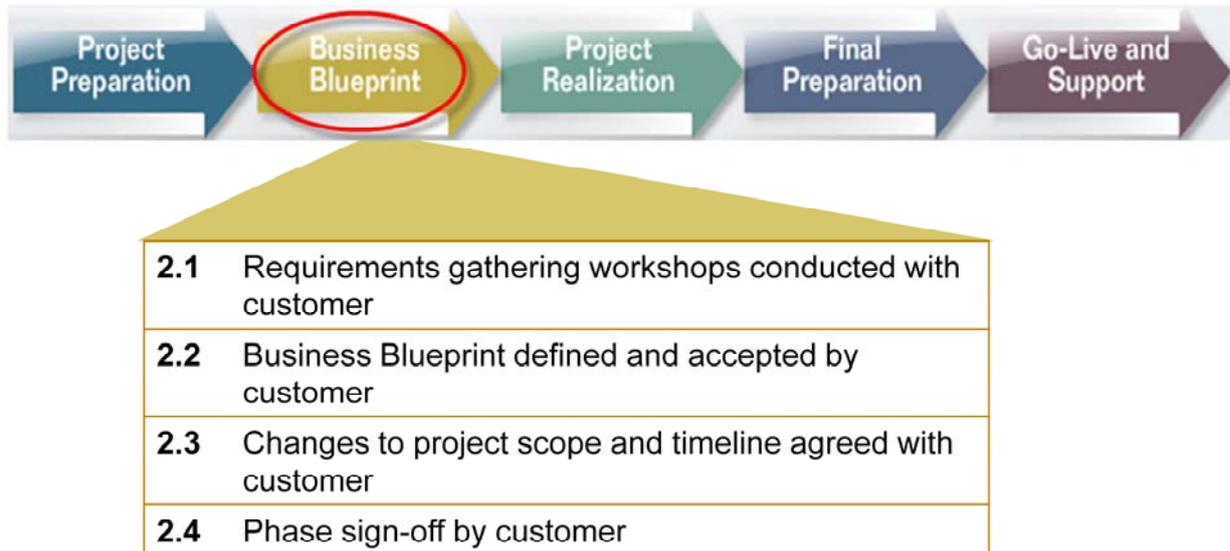
The AIP methodology provides templates for assessing business processes

Business Blueprint is the second phase in the project and the project team focuses on a detailed analysis of the customer's business processes and requirements. The requirements are now mapped to a solution in SAP Business One. The documentation of the solution is known as the business blueprint.

The AIP methodology recommends you conduct workshops with the customer representatives from each business area or department. In these workshops, you should analyze the detailed steps in each of the customer's processes. In addition to major processes such as sales, purchasing, and service, you should cover reporting and financial processes. At the same time, you should identify the sources and volume of the legacy data that needs to be migrated.

Check the templates provided in the AIP for assessing business processes.

Business Blueprint - Milestones



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The AIP recommends **four milestones** for this phase:

1. First you must complete the requirements gathering workshops for each of the customer's processes.
2. Next, perform a "**fit/gap analysis**" to map the processes to an SAP Business One solution. The documented solution must be reviewed and accepted by the customer. The blueprint then becomes the focal document for the next phase of the project.
3. This third milestone serves as a checkpoint to ensure that you assess the impact to the project of any gaps or change requests you identify during the fit/gap analysis. It is possible that these changes will affect the scope (work effort, timeline and/or cost) of the project. Factors that can increase scope include a large amount of customized reports, or high volumes of legacy data. It is important that the project plan is updated based on the Business Blueprint and that the customer agrees to the new schedule. Some partners prefer to conduct the requirements gathering exercise as a separate project, so that the scope can be fully defined and agreed prior to the start of the implementation. This is not a problem for the AIP methodology - phases 1 and 2 can be switched in sequence.
4. As in all phases, there is a final milestone that is a checkpoint. To keep the project on track, the customer should agree that all the phase deliverables and milestones have been met.

Project Realization



Implementation of customer's business and technical requirements

■ Key Activities:

- Configuration of company database
- Import of master data
- Validation and testing
- Plans for training and cutover

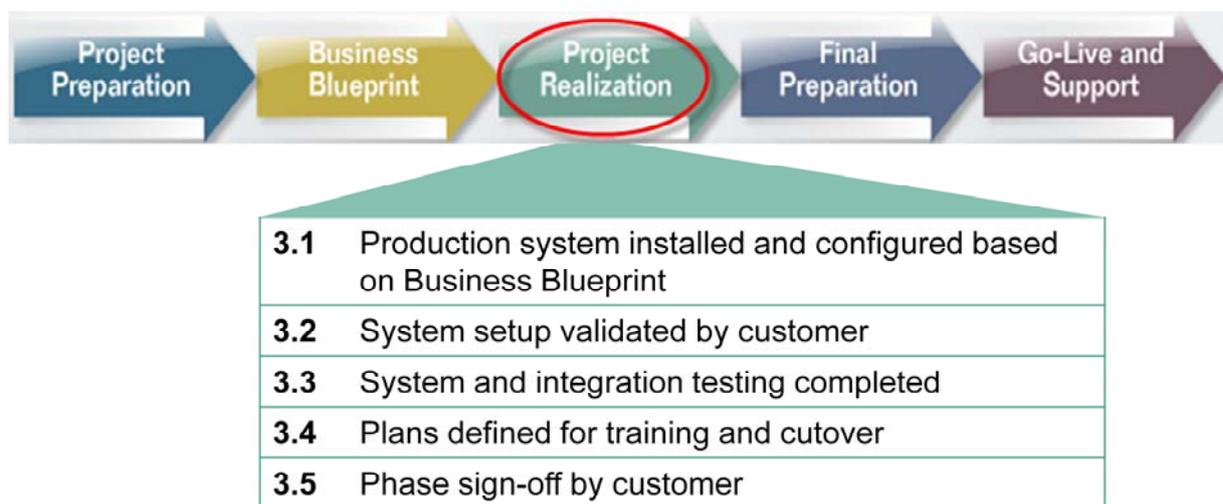
Project Realization is the heart of the project, and in this phase the consultants implement all the business process and technical requirements defined during the previous phase.

In addition, the legacy master data is migrated.

The newly-built system and master data is validated and tested by the customer using a test copy of the customer database. All issues arising during testing should be logged and resolved before moving onto the next phase.

At the same time, the project manager draws up plans for training end users, and for the cutover period. The cutover period happens just before go-live, when many activities must take place in the correct sequence and in a very short timeframe, so that the new system can fully run the production workload.

Project Realization - Milestones



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The AIP has **five milestones** for this phase:

1. Milestone one is the Production system installed and configured based on the documented business blueprint. This includes the import of legacy master data.
2. The second milestone is the validation of the configured system by the customer. Validation involves an iterative process whereby the customer tests each configuration change made by the consultant. This activity is sometimes known as "unit testing."
3. The third milestone is provided to cover the broader testing that is required once the individual processes have been validated. System and integration testing involves the testing of entire business processes end-to-end, including the integration with other processes and external systems. This testing is performed exclusively by the customer team, with support from the implementation team.
4. The next milestone is a project planning milestone. While the production system is being built and tested, the project manager focuses on planning for go-live. A plan for training end users and a cutover plan must be completed and are crucial to the success of the project.
5. The final milestone is the checkpoint for completion of the phase. Sign off for this phase indicates that the customer has accepted the new system functionality.

Final Preparation



Transition of the SAP Business One system and the client into production

■ Key Activities:

- Training of end users
- Decision and date for go-live agreed with customer
- Accounting balances and final transactions transferred to production system (cutover)

The **Final Preparation** phase covers the time period prior to go-live. During this phase, the SAP Business One system and the client organization are transitioned into production mode.

This includes training end users to use the new system.

A decision and date for go-live is agreed with the customer.

Accounting balances and final transactions from the legacy system are transferred to the production system. The transfer of the balances takes place before go-live in what is called the “cutover” period.

The actual switch to go-live happens at the end of this phase.

Final Preparation - Milestones



The AIP methodology provides a *Phase and Risk Analysis* tool to help you manage the system readiness and cutover activities.

- | | |
|-----|--|
| 4.1 | End user training delivered |
| 4.2 | System readiness for go-live confirmed with customer |
| 4.3 | Cutover activities completed |
| 4.4 | Phase sign-off by customer |

The AIP includes **four milestones** for this phase:

1. End users must be fully prepared to use the new system. Escalations can occur if end users are not trained in the new system. Depending on the contract terms, end user training is sometimes the responsibility of the customer. Even so, the partner still has a responsibility to assess that users can perform their jobs effectively.
2. System readiness is a key decision that you and the customer make together. Is the system ready for production operations? Everything must be in place: users trained, IT procedures written, backup and recovery tested, external interfaces working, and so on. The AIP methodology provides a *Phase and Risk Analysis* tool to help you manage the system readiness and cutover activities.
3. The third milestone stipulates that all cutover tasks are completed. There are many critical activities that must be completed in a short period of time to transfer operations from the legacy system to the new SAP Business One system, including:
 - Import of open transactions from the legacy system
 - Entering opening balances from the legacy balance sheet
 - Reconciliation of accounting between the legacy system and the new system
 - Closing down the legacy system and starting production on SAP Business One
4. The last milestone is the checkpoint for the phase. Sign-off indicates that the customer agrees that all the conditions for go-live have been met. The SAP Business One system can now be put into production, at an agreed time and date.

Go-Live and Support



Key Activities:

- Monitoring of new system in production
- Resolution of outstanding issues
- Handover to customer, partner support organization and to SAP support
- Project review

Go-Live and Support is the final phase in the project. As the name suggests, the newly-built system is now running in production.

The implementation team should monitor and resolve any critical problems, then hand over the system to the customer team, to the partner support organization, and to SAP support.

Go-Live and Support - Milestones



5.1 SAP Business One system fully implemented and in production

5.2 Sign-off for phase and final project completion

5.3 Review and optimization conference conducted

The new system is now running in production. The AIP includes three milestones for this final phase:

1. Once the new system has been running with no critical issues for a designated period of time, you should hand over the system to your support group, and to SAP support. It is a good idea to provide your support staff with the documented Business Blueprint. At the same time you must ensure that the customer can manage the day to day administrative tasks such as backup.
2. The second milestone marks the closure of the project. In this sign-off, the customer is acknowledging and accepting the system in production.
3. The final milestone is met when a "Review and Optimization" conference takes place, to review how well the project went. The sales account manager and the sponsor from the customer side should attend. This meeting also provides an opportunity to plan for a further phase or additional enhancements.

AIP Project Plan in Microsoft Excel

- Project plan provided with AIP methodology
- In Microsoft Excel
- Master document for the AIP phases, tasks, milestones and best practices

	Task Description	Startdate	Enddate	Status
0	Project Handover			
0.1	Dependencies	1/0/1900	1/0/1900	0%
1	Project Preparation			
1.1	Internal prep	1/0/1900	1/0/1900	0%
1.1.1	Conduct handover with sales team			0%
1.1.2	Allocate project resources (partner side)			0%
1.1.3	Create high-level project plan (outline)			0%
1.1.4	Conduct Initial planning call with client team			0%
1.1.4.1	Confirm project scope with the client			0%
1.1.4.2	Identify project team members (client side)			0%
1.1.4.3	Confirm availability of hardware and software to be provided by client			0%
1.1.4.4	Derive project timelines and project tasks for the project plan (with client)			0%

A complete project plan is provided with the AIP implementation methodology. The project plan is in Microsoft Excel, and you can easily adapt the plan to your needs. This plan serves as the master document for the AIP phases, and contains all the required tasks, milestones and best practices.

You can use the plan to assign tasks and manage task status.

AIP Project Plan - Embedded

Administration > System Initialization > Implementation Center > Implementation Project

Implementation Project

Progress Plan

Select Level 5

Project Template Detailed Project Plan A complete project plan based on

Complete	Step	I...	N...	A...	Start Date	Finish Date	Actual Duration (Hours)	Total Planned Time (H...	Progress (%)
<input type="checkbox"/>	Project Handover							10	100
<input type="checkbox"/>	Dependencies							0	0
<input type="checkbox"/>	Project Preparation							37	0
<input type="checkbox"/>	Internal Prep							8	0
<input type="checkbox"/>	Conduct Handover with Sales Team								0
<input type="checkbox"/>	Allocate Project Resources (Partner Si								
<input type="checkbox"/>	Create High-Level Project Plan (Outlin								
<input type="checkbox"/>	Conduct Initial Planning Call with Clie								
<input type="checkbox"/>	Confirm Project Scope with Client								
<input type="checkbox"/>	Identify Project Team Members (Cli								
<input type="checkbox"/>	Confirm Availability of Hardware an								
<input type="checkbox"/>	Derive Project Timelines and Projec								
<input type="checkbox"/>	Project Plan								
<input type="checkbox"/>	Create Full Project Plan								
<input type="checkbox"/>	Project Resources (from Part								
<input type="checkbox"/>	Project Resources (from Part								
<input type="checkbox"/>	Project Resources (from Part								

Template plans available in all supported languages:

- Detailed (all AIP phases)
- Narrowed (configuration-only phases)
- Pre-configured (Starter Package)

Can also create own plans from scratch

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The same project plan is also embedded in the SAP Business One application at release 9.0 and above. You can access this plan from the *Implementation Center* menu.

There are three template project plans available, in all languages supported by SAP Business One:

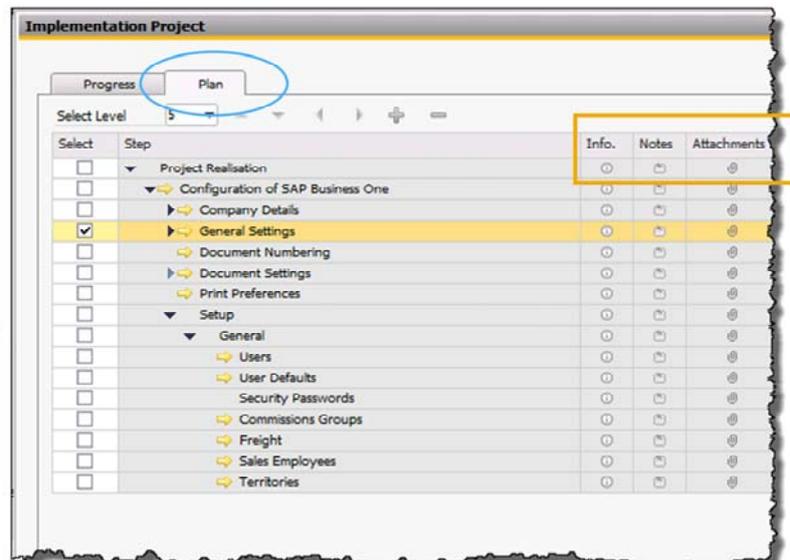
- Detailed project plan. This plan allows you to manage an implementation based on the five phases defined in SAP's Accelerated Implementation Project (AIP) methodology.
- Narrowed project plan. This plan contains tasks for just the configuration phases of the Accelerated Implementation Project methodology.
- Pre-configured project plan. This plan contains the necessary tasks to manage an implementation based on the entry-level SAP Business One Starter Package.

You can edit the plan templates as needed, or create your own plans based on a template, or you can create a new blank project plan and add your own tasks.

AIP Project Plan – Embedded (Cont.)

Administration > System Initialization > Implementation Center > Implementation Project

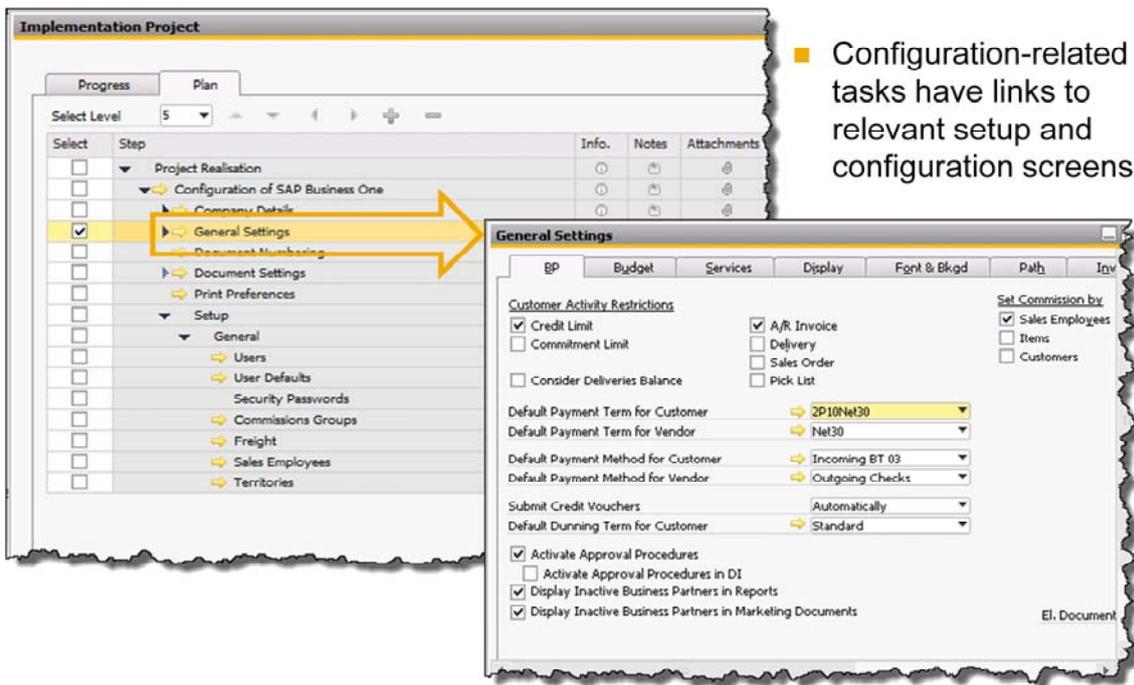
- Embedded plan can be used by multiple consultants and customer project team members
- Can attach project documents, information and notes to any task



There are some advantages in using an embedded project plan. You can maintain the plan at the customer site, enabling multiple consultants to share the plan, including customer project team members. Each person on the team and can view their required tasks with completion dates.

On the *Plan* tab, you can also attach project documents and notes to any of the tasks. This is a very useful way of storing project files and sharing them with the project team members.

Integration with Configuration Screens



The screenshot shows the 'Implementation Project' interface. On the left, a tree view under 'Project Realisation' includes 'Configuration of SAP Business One' with sub-items like 'Company Details', 'General Settings', 'Document Numbering', 'Document Settings', 'Print Preferences', and 'Setup'. A yellow arrow points from the 'General Settings' item in the tree to a 'General Settings' configuration window on the right. The window contains various settings for customer activity restrictions, payment terms, and approval procedures.

- BP
- Budget
- Services
- Display
- Font & Bkgd
- Path
- Inv

Customer Activity Restrictions

<input checked="" type="checkbox"/> Credit Limit	<input checked="" type="checkbox"/> A/R Invoice	<input checked="" type="checkbox"/> Set Commission by Sales Employees
<input type="checkbox"/> Commitment Limit	<input type="checkbox"/> Delivery	<input type="checkbox"/> Items
<input type="checkbox"/> Consider Deliveries Balance	<input type="checkbox"/> Sales Order	<input type="checkbox"/> Customers
	<input type="checkbox"/> Pick List	

Default Payment Term for Customer: 2P10Net30
Default Payment Term for Vendor: Net30
Default Payment Method for Customer: Incoming BT 03
Default Payment Method for Vendor: Outgoing Checks
Submit Credit Vouchers: Automatically
Default Dunning Term for Customer: Standard

Activate Approval Procedures
 Activate Approval Procedures in DI
 Display Inactive Business Partners in Reports
 Display Inactive Business Partners in Marketing Documents

El. Document

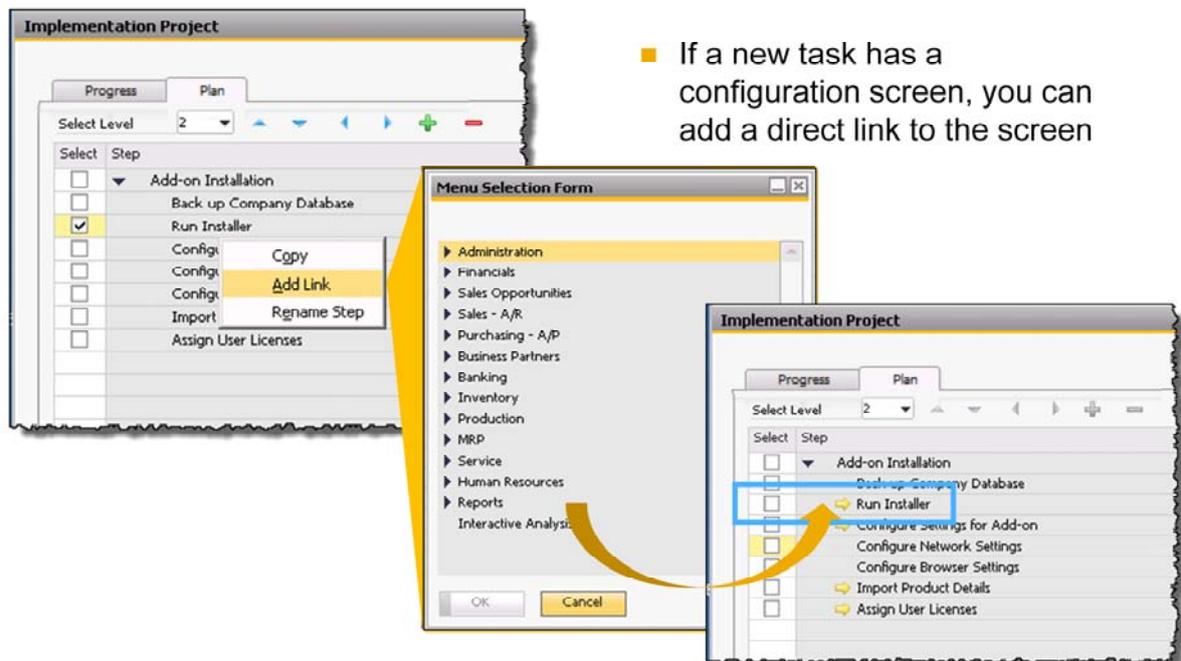
- Configuration-related tasks have links to relevant setup and configuration screens

The embedded project plans contain links to the relevant SAP Business One configuration screens.

In the example shown, when you select the link arrow for the task “General Settings”, the *General Settings* window automatically opens.

As you can imagine, this can speed up the time for a consultant to make the configuration settings. Once the setting is done, the consultant can then select the task complete checkbox to indicate as a record that the configuration is done.

Embedding Links for a Task



- If a new task has a configuration screen, you can add a direct link to the screen

When you add a new task to an existing plan, or to a new plan, you have the option to add links to related configuration screens. This is useful if you have an add-on as part of the solution – you can add tasks for installing the add-on and provide links to the configuration of the add-on.

To add a link to a task:

- First, select the checkbox for the task.
- Next, right-mouse click and choose *Add Link* from the context menu.
- In the *Menu Selection Form*, you can select the appropriate menu item from the SAP Business One menu. You can select an existing SAP Business One menu item, or new menu items that you created using the Software Development Kit.
- After you make a selection, the orange link arrow appears to the left of the task name.



Agenda

- Methodology
- **Tools, Templates and Documents**



The second part of this topic looks at the tools, templates and documents that support the AIP methodology.

AIP Methodology – Tools, Templates and Documents

	Pre sales / Project Preparation	Blueprint	Realization	Final Preparation	Go Live & Support
Business Process Analysis	<ul style="list-style-type: none"> Pre-Sales Analysis Handover from Sales 	<ul style="list-style-type: none"> Blueprint Process questions BPML tool BPML User guide 	<ul style="list-style-type: none"> Data Migration guide 	<ul style="list-style-type: none"> Data Migration guide 	
Configuration / Infrastructure / Testing	<ul style="list-style-type: none"> Software Delivery receipt 	<ul style="list-style-type: none"> Blueprint Configuration Data Migration Assessment Data Migration guide 	<ul style="list-style-type: none"> Blueprint Configuration Migration Object list BPML tool Test Strategy guide Test Cases 		
Project Management	<ul style="list-style-type: none"> Kickoff Meeting presentation Service Level Agreement 	<ul style="list-style-type: none"> Training guide Change Request form 	<ul style="list-style-type: none"> Change Request form Training Plan by Role Training guide Issue and Change log 	<ul style="list-style-type: none"> Training Plan by Role 	
	<ul style="list-style-type: none"> Project Plan Meeting Agenda Meeting Minutes Phase and Risk Analysis tool Phase Sign-off 				

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The downloaded AIP materials include tools, templates, and documents organized according to each phase and by purpose:

- **Business Process Analysis tools and templates** are provided for pre-implementation scoping and fact finding, for gathering detailed business process requirements, and for gathering data migration requirements. A Business Process Master List (BPML) tool is provided for defining complex processes and roles. A Data Migration Guide provides a step-by-step approach to data migration and can be used in multiple phases.
- **Configuration, Infrastructure and Testing tools and templates** are provided to record the handover of software to the customer, and to document the setup and configuration. A tracking spreadsheet tool is provided for object migration. Sample test cases are provided in a spreadsheet, along with a Test Strategy guide.
- **Project Management tools and templates** include a PowerPoint template for the initial kick-off meeting with the customer, and a sample Service Level Agreement (SLA). You can use the Training Guide as a reference for planning training during the implementation. Also supplied is a Change Request form and a change/issue log for managing issues during the implementation. The final tool worth a mention is the Phase Sign-off form. You should use this to get customer sign-off for a key deliverable or phase in order to keep the project on track.

A selection of the tools, templates and documents are explained next.

Kick-off Meeting Template

Recommended agenda and content for initial kick-off meeting with customer:



Agenda

1. Introduction and Project Goals
2. Project Timeline
3. Project Team Organization
4. Project Scope
5. Project Team Roles
6. Project Procedures

The kick-off meeting with the customer serves as the foundation for the project. The AIP template can help you plan this meeting. The template includes the following agenda:

- **Introductions and Project Goals.** The goals should summarize your understanding of the customer's goals and the success factors.
- **Project Timeline.** The plan should inform the customer of the timeline and key events, including project meetings. The plan may be revised later, once the detailed requirements are gathered in Phase 2.
- **Project Team Organization.** The success of the project depends on participation from the business process owners from each area, as well as the IT administrator.
- **Project Scope.** Describe how you did the scoping or how you came up with the estimates.
- **Project Team Roles and Responsibilities.** Team members need to understand the roles and their individual responsibilities as a member of the project team.
- **Project Procedures.** You should cover project-related administration. For example, space for implementation consultants to work on site, and remote access. You should also cover where project documentation will be stored.

Business Process Templates

The image shows a man in a dark shirt writing on a whiteboard. Overlaid on the whiteboard are several SAP Business Process templates. The templates are:

- Handover from Sales** (circled in yellow): A table with columns for 'Yes' and 'No' and rows for questions about budget, Go-Live target date, and proposal explanation.
- Pre-Sales Business Analysis** (circled in yellow): A section titled '2. Business Process Snapshot' with a sub-section '2.1. Financials' containing questions about posting periods, approvals, currencies, and budget processes.
- Blueprint Process Questionnaire** (circled in blue): A section titled '2.12. Sales Administration Management and Analysis' with a table of questions and demo paths in SAP Business One.
- Data Migration Assessment** (circled in blue): A section titled '1.6. Item Master Data' with questions about legacy systems, inventory balances, and frequency changes.

A text box on the right side of the image states: "Templates can help you get a high-level picture of the customer's business before the project start, and gather detailed requirements during the Business Blueprint phase."

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You can also find templates to help you with the business requirements analysis:

- The Pre-Sales Analysis and the Handover from Sales can be used before the start of the implementation, to get a high-level picture of the customer's business.
- The Blueprint Process Questionnaire and the Data Migration Assessment can be used during the Business Blueprint phase to gather the details of the customer's business processes.

Phase and Risk Analysis Tool

TOPIC	TASKS	ANSW. (YES/NO)	RISK LEVEL (1 to 10)	ACTIVITIES TO MITIGATE THE RISK
Risk Assessment	Solution			
	1. The customer's business objectives are unclear, lack detail, or are poorly documented.	No	Fill	
	2. The critical success factors are unclear, lack detail, are poorly documented, or are not available to us.	No	Fill	
	3. The customer has no or very little experience with business management software.	Yes	3	Training
	Product			
	1. The solution will not meet the customer's requirements.	No	Fill	
	2. There are gaps between the solution and the business process, or the functional fit, local external requirements, or integration with other systems is not clear.	Yes	8	Work with add-on vendor
	3. Significant development changes are required to meet the customer's requirements.	No	Fill	
	4. The solution will not meet the customer's requirements or interfaces with other systems.	No	Fill	
	5. Performance issues, such as a high number of transactions, product limitations, or volumes are unknown.	No	Fill	
Commercial				
1. The customer may be unable or unwilling to meet its financial obligations under the contract.	Fill	Fill		
2. The consulting estimates and assumptions are not documented in sufficient detail.	Fill	Fill		

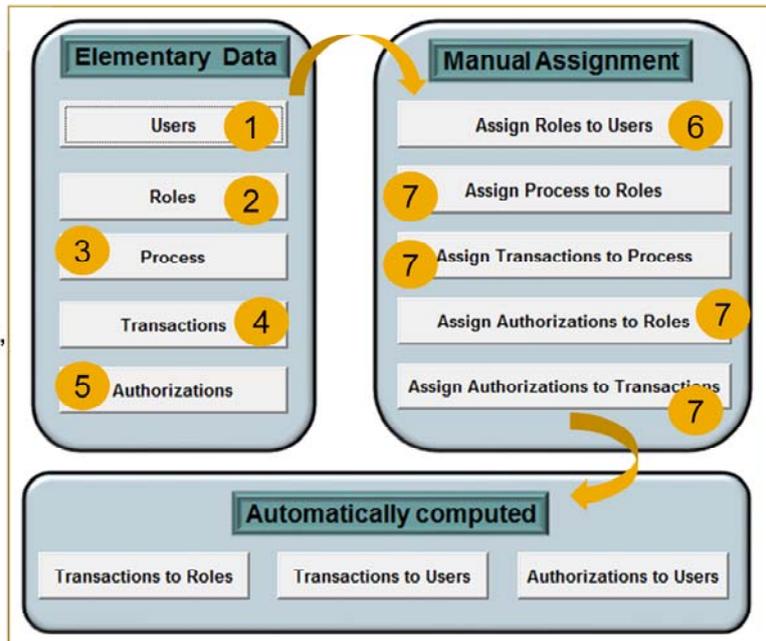
- Tool asks a series of critical questions to evaluate and document the risk
- Use the questions as a checklist for reviewing a completed phase, or to anticipate the risk in an upcoming phase

The *Phase and Risk Analysis* tool can be used in all phases of a project. The spreadsheet contains a worksheet for each of the five phases. The tool asks a series of critical questions and you can assess the risk to the project based on your answer to each question.

In this way, you can use the questions as a checklist for reviewing a completed phase, or as a checklist for anticipating risk in an upcoming phase.

Business Process Master List Tool

1. Define the users
2. Select the roles
3. Select the processes to be implemented
4. Select the transactions to be used
5. Fine tune authorizations, if needed
6. Assign roles to the user names
7. Tool provides a default assignment of processes, transactions and authorizations



The *Business Process Master List* (BPML) tool is recommended for larger companies with many users. It helps to define complex job roles and authorizations according to the processes in SAP Business One. Much of the required data is pre-loaded and you need only to:

- Define the names of the users.
- Select the roles in use, or define new roles.
- Select the processes in use, or define new processes.
- Select the SAP Business One transactions that will be used by the customer, or define new transactions.
- Fine tune the list of authorizations, if needed,

Once you have defined the elementary data, you can assign roles to the user names. This assignment automatically associates the processes, transactions and authorizations to each role, so all you need to do is review these assignments and make necessary adjustments.

For more information, refer to the BPML User Guide provided with the AIP materials.

Data Migration Object List Tool

Mig	Loc	Include	Status	Type	Object Menu Path	Object	Data Volume	Input method	Include UDF?	DTW Template Path	Legacy System Source
Y		Y	In Progress	Master	Financials Chg Chart of Accounts		500	Predefined or DTW	N	Financials Chart of Accounts OACT - ChartOfAcc	accounting package
				Master	Financials Bud Budget Scenarios			B1 client		Financials Budget Setup Budget Scenarios OB	
				Master	Financials Bud Budget Distribution			B1 client		Financials Budget Setup Budget Distribution	
				Master	Financials Bud Budget			B1 client		Financials Budget Setup Budget OBG - Budg	
Y				Master	Business Partne Business Partner Master Data		50,000	DTW		Business Partners Business Partner Master Data	
				Master	Business Partne Deduction Tax Hierarchies			DTW		Business Partners Deduction Tax Hierarchies Q	
				Trans.	Banking Incom Incoming Payments			DTW		Banking Incoming Payments Incoming Payment	
				Trans.	Banking Outgd Outgoing Payments			DTW		Banking Outgoing Payments Outgoing Payment	
				Trans.	Banking Incom Payments Drafts			DTW		Banking Incoming Payments Payments Drafts	
				Trans.	Banking Outgd Checks for Payment			DTW		Banking Outgoing Payments Checks for Paymen	
				actions				DTW		Banking Bill of Exchange Bill of Exchange Trans	
				Log Numbers			10,000	DTW		Inventory Item Master Data Inventory Item M	
								DTW		Inventory Item Management Batches Business	
								DTW		Inventory Inventory Transactions Goods Receipt	
								DTW		Inventory Inventory Transactions Goods Issue	
								DTW		Inventory Inventory Transactions Inventory Tran	
								DTW		Inventory Inventory Transactions Inventory Post	
								B1 client		Inventory Inventory Transactions Inventory Rev	
								DTW		Inventory Price Lists Price Lists OPLN - PriceLis	
								DTW		Inventory Price Lists Special Prices Special Pri	
								DTW		Inventory Pick and Pack Pick List OPKL - PickLis	
								DTW		Production Bill of Materials OITT - ProductTree	
								DTW		Production Production Orders OWOR - Productio	
								B1 client		MRP Sales Forecast OFCT - SalesForecast.xlt, FC	
								DTW		Service Service Call OSCL - ServiceCalls.xlt, SCL	
								DTW		Service Customer Equipment Card OINS - Custor	
								DTW		Service Service Contract OCTR - ServiceContracts	
								DTW		Service Knowledgebase Solutions OSLT - Knowl	
								DTW		Services Employee Master Data HEM	
								DTW		Services Employee Master Data HEM	

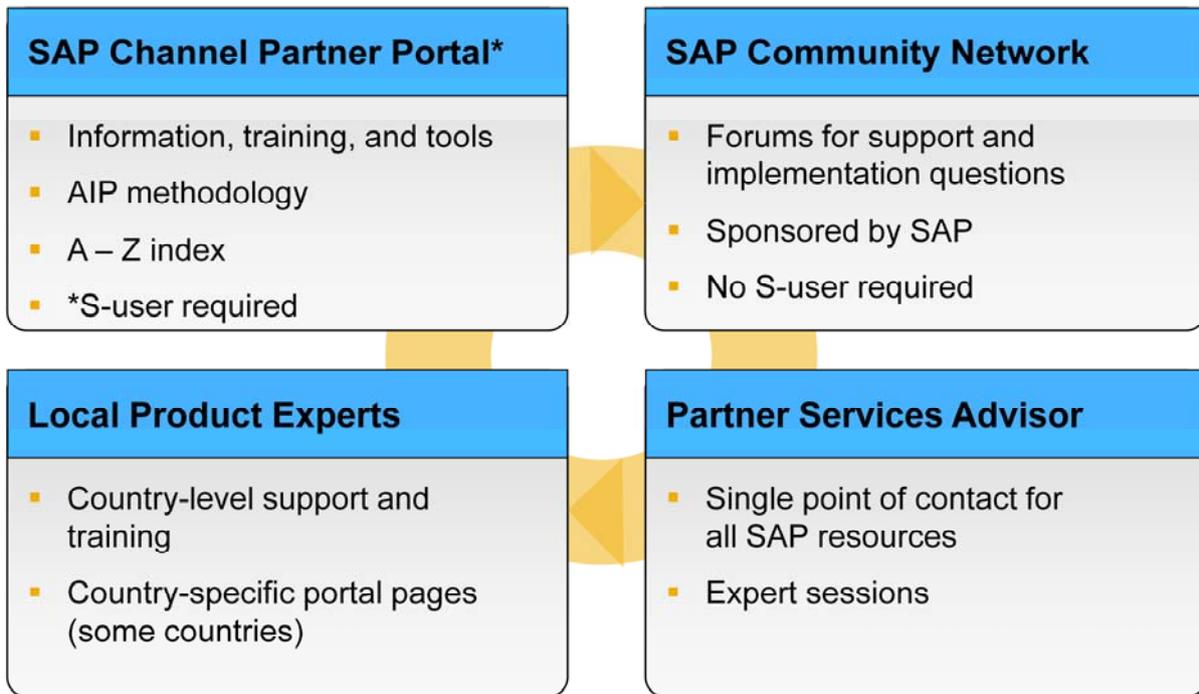
- Document data migration requirements and data volumes during Business Blueprint phase
- Tool shows options for migrating each object
- Track the migration of each object during Project Realization

The *Data Migration Object List* can be used to document the data migration requirements and data volumes from the legacy system, during the Business Blueprint phase.

The tool shows the input method options for migrating an object. For example, some objects can be easily entered manually, whereas high volume master data should be imported using the Data Transfer Workbench.

Lastly, you can use the tool to track and sign-off each object after migration, during the Project Realization phase.

Resources



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SAP provides various resources to help you as an implementation consultant. Going clockwise from left to right, the resources are:

- The **SAP Channel Partner Portal** at <http://service.sap.com/smb>. Note that you need a user ID (the S-number*), which authorizes you to the services on the portal. You can download the AIP methodology materials from here, as well as free training courses.
- The **SAP Community Network** is a series of forums sponsored by SAP where you can post implementation questions and have them answered by other partners.
- A **Partner Service Advisory** (PSA) organization provides you with a single point of contact to all SAP resources and provides guidance and advice to implementation partners. The Partner Services Delivery also facilitates enablement sessions on a variety of topics for implementation consultants.
- Most countries have a country product specialist (**Local Product Expert**) who is an expert in the SAP Business One product and the requirements of your localization. There are also country-specific portal pages for many countries.

*Every employee from an SAP Business One partner should get a personal user ID. If your organization has signed SAP's partner agreement, one person from your organization will be authorized to request a user ID for you from SAP. You can use a Single-Sign-On passport to log on to the portal. Note: If you do not know who your super-administrator is, contact your local support office (see <http://service.sap.com/local-support>) or send an e-mail to support@sap.com.

Key Points



Key points from this topic:

- SAP's Accelerated Implementation Program (AIP) is a proven methodology for an SAP Business One implementation.
- The AIP methodology divides an implementation into phases. These phases cover the period from the *handover from the sales team* to right before the *handover to the support organization*.
- The phases are: Project Preparation, Business Blueprint, Project Realization, Final Preparation and Go-Live and Support.
- The project plan is the master document for the AIP methodology.
- The project plan is available as a template in Microsoft Excel format. Several plan templates are also provided in the Implementation Center in SAP Business One. An embedded plan can be shared by the customer team, and you can store project attachments.
- You can create a new plan based on one of the template plans, or add a new plan with your own tasks.

Here are some key points to take away from this session.

- SAP's Accelerated Implementation Program (AIP) is a proven methodology for an SAP Business One implementation. It is based on the practical experiences of SAP and many partners.
- The AIP methodology divides an implementation into phases. These phases cover the period starting with the *handover from the sales team* to right before the *handover to the support organization*:
 - Project Preparation: The project plan is created for the implementation. A kick-off meeting is held with the customer, and the software is delivered.
 - Business Blueprint: The focus is on analyzing the customer's business processes and requirements, and mapping them to a solution.
 - Project Realization: The heart of the project where the company is configured to match the business blueprint. Testing also takes place.
 - Final Preparation: The focus is on preparing for go-live. The go-live date is set, the users are trained, and the final balances transferred over.
 - Go-Live and Support: After go-live the customer moves into support mode.
- The project plan is the master document for the AIP methodology. Since the plan is based on SAP's experience plus the experience of many partners, you can ensure that no critical tasks are missed.
- The AIP project plan is available as a template in Microsoft Excel format. Several plan templates are also provided in the Implementation Center within SAP Business One. An embedded plan can be shared by the customer team, and you can store project attachments in the plan.
- You can create a new plan based on one of the template plans or you can add a new plan in SAP Business One, with your own tasks. You can add drill-down links to new tasks if there is an applicable menu screen.

Implementation Tools: Express Configuration Wizard

SAP Business One
Release 9.0



In this topic, we will look at how to easily create a new company database and configure common settings for an SAP Business One company, in one simple step using a guided wizard.

Objectives



At the end of this course, you will be able to:

- Create a new SAP Business One company and configure common settings by following an easy to use wizard

At the end of this topic, you will be able to create a new SAP Business One company and configure the common settings by following an easy to use wizard.

Business Example



This is your first implementation project and you want to make sure that you make the required configuration settings in the correct order. Due to data dependencies, there is a recommended order for initializing a new company.

Solution: The Express Configuration Wizard provides a structured, systematic way to configure common settings for a company.

Let us look at a business example.

This is your first implementation project and you want to make sure that you make the required configuration settings in the correct order. Due to data dependencies, there is a recommended order for initializing a new company. This should be done before master data is imported. In addition, some initialization settings cannot be altered after you have posted transactions.

Solution: You can easily create a new company and configure common settings, using a step-by-step approach provided by the Express Wizard.

Implementation Center

Administration > System Initialization > Implementation Center > Implementation Tasks

Implementation Tasks



- **Express Configuration Wizard**
- DTW
- Solution Packager
- Quick Copy

Implementation Project



- Project Plan templates (with embedded configuration screens)

Configuration Management



- Saved configuration settings
- Compare saved configurations

Path Settings



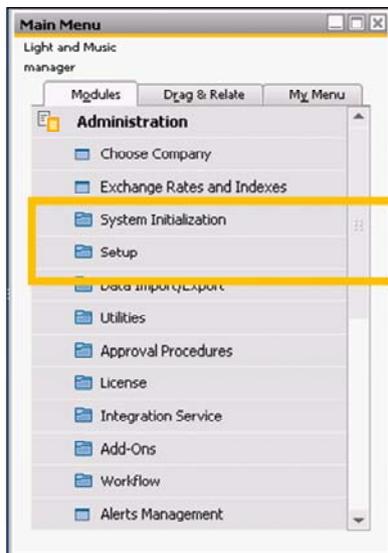
- Folder locations for use with tools

The Implementation Center provides a central location for SAP's configuration and implementation tools.

The Express Configuration Wizard is one of the tools provided in the Implementation Center. The tools are located under the Implementation Tasks menu.

To run any of the tools, the general authorization *Administration > System Initialization > Implementation Tasks > Implementation Tasks* is required.

Configuring a Company



- To prepare a company, you must configure various settings
- Individual configuration screens located under the menus:
 - Administration > System Initialization***
 - Administration > Setup***
- The Express Configuration Wizard groups the individual configuration screens in an easy to use wizard

To prepare SAP Business One for use at a company, you must configure various settings, such as accounting, inventory, business partners, users, sales, and purchasing. Due to data dependencies, there is a suggested order for completing the system initialization and setup for a new company.

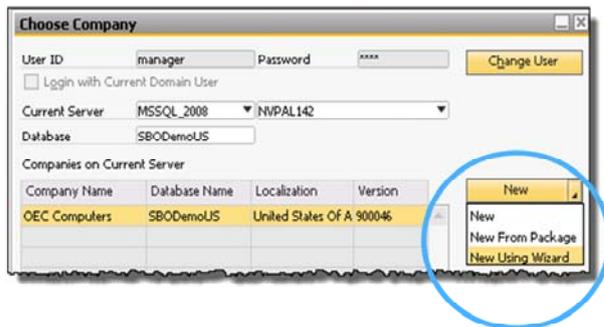
The individual configuration screens are located under the *Administration > System Initialization* and *Administration > Setup* menus.

For less experienced partners, it is often easier to use the Express Configuration Wizard, since the wizard groups the required screens in an easy to use wizard.

Launching the Express Configuration Wizard

1 New Company

**Administration > Choose Company >
New Using Wizard**



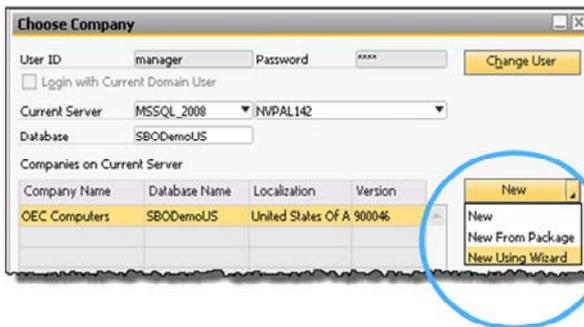
* Site user password
needed to create a new
company

To create a new company and configure it in one step, choose the option *New Using Wizard* from the Choose Company screen. Note that you need to enter the site user password whenever you create a new company.

Launching the Express Configuration Wizard

1 New Company

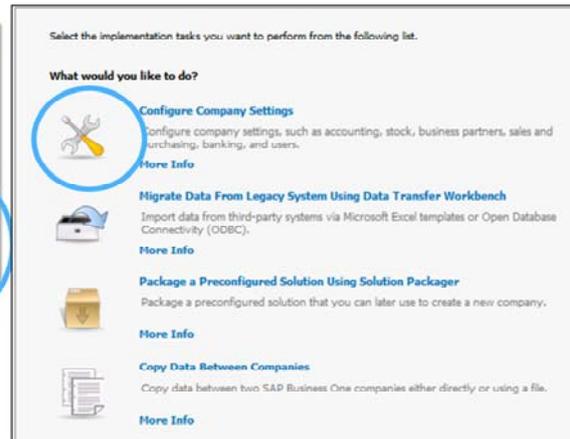
Administration > Choose Company > New Using Wizard



* Site user password needed to create a new company

2 Existing Company

Administration > System Initialization > Implementation Center > Implementation Tasks



You can also use the wizard to configure an existing company. Open the *Implementation Tasks* screen in the Implementation Center. Choose *Configure Company Settings* from the Implementation Tasks screen.

New Company with Express Configuration Wizard

- Company name and database
- License / Trial Version
- Copy user-defined fields and tables
- Copy user-defined objects
- Localization

The screenshot shows the 'Express Configuration Wizard' interface for 'Creating a New Company'. The left sidebar lists steps 1 through 7, with '1 Company Details' selected. The main area contains the following configuration options:

- Trial Version
- Company Name: Light and Music
- Database Name: Light and Music
- Copy User-Defined Fields and Tables
- Copy User-Defined Objects
- License: Trial Version
- Local Settings: United Kingdom
- Chart of Accounts: GB-CoA
- Base Language: English (United Kingdom)
- Define Posting Periods: ...

When you create a new company using the Express Configuration Wizard, the wizard first takes you to the standard company creation screen where you enter the name for the company and database.

If a license is installed, the new company must be for the same localization. If this is a new SAP Business One installation, you can select the *Trial Version* checkbox. After the 31 day window expires, you can install the license key and apply it to the trial company.

You can choose to copy the user-defined fields, tables and objects from your existing company to the new company. This can be useful when there is a need to create an additional company for the customer's business.

When you select the localization settings, this activates local tables and functionalities for the new company. You cannot change the localization after the company is created.

New Company with Express Configuration Wizard (Cont.)

- Chart of Accounts template/user-defined
- Base language
- Initial posting periods

User “manager” is created by default. You need to supply password and sign EULA.

Express Configuration Wizard

Creating a New Company

Trial Version

Company Name: Light and Music

Database Name: Light and Music

Copy User-Defined Fields and Tables

Copy User-Defined Objects

License: Trial Version

Local Settings: United Kingdom

Chart of Accounts: GB_CoA

Base Language: English (United Kingdom)

Define Posting Periods: ...

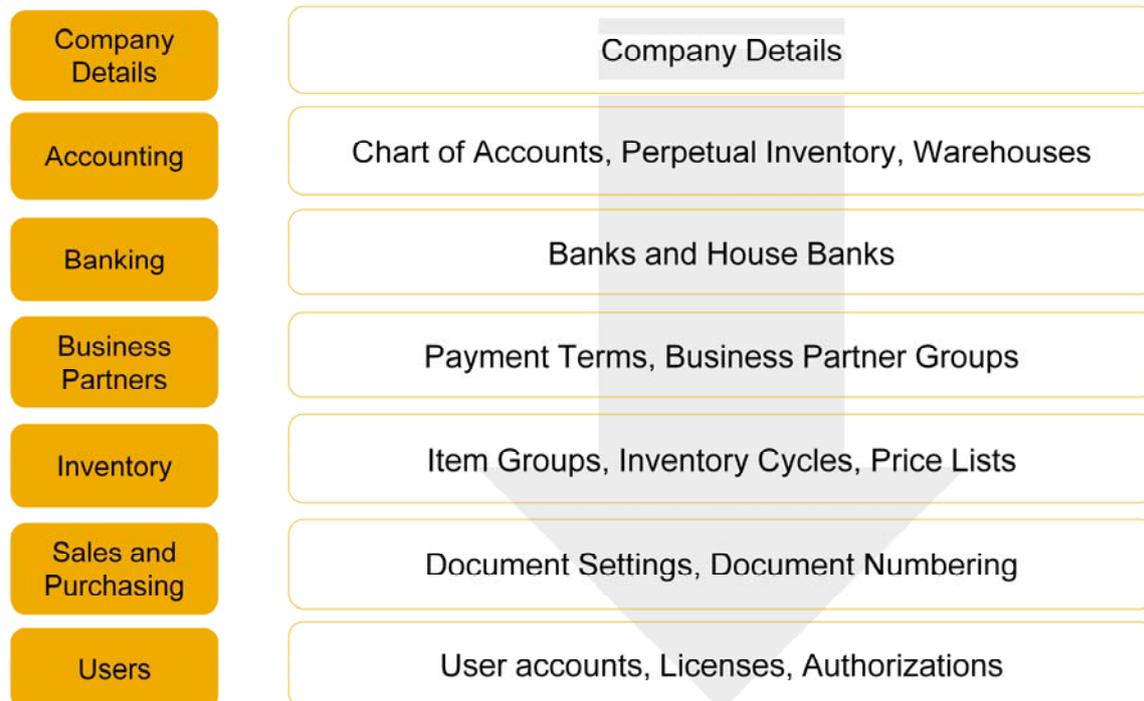
SAP Business One is supplied with chart of account templates for the selected localization. If you choose the “template” option, a default chart of accounts will be created automatically based on the localization; and you can edit these accounts as desired. Alternatively you can choose the option “user-defined”. Only the top-level drawers are provided in a user-defined chart of accounts, allowing you to manually add accounts to the drawers. **Note:** You cannot change the chart of accounts option after you have posted transactions in the new company.

You can select the base language, used for the UI display. The display language can be changed at any time, and can be set for each user.

Lastly, you define the posting periods. At a minimum you should define the *initial posting periods* for the first fiscal year. You can define posting periods for subsequent fiscal years after the company is created. **Note:** If you intend to import or post transactions for the previous fiscal year, you must define the posting periods for the previous year before you define the periods for the current year. Once you have defined the periods for the current year you cannot add posting periods for an earlier year.

When you create a new company, the user “manager” is created by default. You supply a password for this user, and you use these credentials to login to the company for the first time. You also need to electronically sign the End-User License Agreement (EULA).

Express Wizard Configuration Steps



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After the new company is created, the wizard guides you through the configuration process steps for configuring the company setup:

- Company Details
- Accounting
- Banking
- Business Partners
- Inventory (Stock)
- Sales and Purchasing
- Users.

Instead of having to select the individual menu items from the *Administration* menu, the wizard automatically groups related configuration screens together in a step.

The wizard also ensures that you follow the correct sequence for configuring a company, and advises you of any settings that cannot be changed after transactions have been posted for the company.

Note: The Express Wizard covers the most common settings needed for a new company. However, you may still need to access the *Administration* menus to complete the settings for a customer.

Express Wizard – Company Details



- Company address
- Contact information

In step one, the wizard guides you to configure the company details. The information here is roughly equivalent to information in the menu *Administration > System Initialization > Company Details – General* tab.

Express Wizard - Accounting

- Basic initialization for accounting, including local and system currencies, default account currency and currency exchange rates

The screenshot shows the 'Express Configuration Wizard' window, specifically the 'Accounting' step titled 'Defining Currencies and Exchange Rate Postings'. The left sidebar lists seven steps: 1. Company Details, 2. Accounting (selected), 3. Banking, 4. Business Partners, 5. Inventory, 6. Sales & Purchasing, and 7. Users. The main content area contains the following configuration options:

- Local Currency:** British Pound (dropdown)
- System Currency:** British Pound (dropdown)
- Default Account Currency:** All Currencies (dropdown)
- Currencies:** (button with three dots)
- Exchange Rate Posting:**
 - Direct: Defines that exchange rates are maintained as the local currency price of one unit of a foreign currency
 - Indirect: Defines that exchange rates are maintained as the foreign currency prices of one unit of a local currency
 - Radio buttons: Direct, Indirect
- Display Credit Balance with Negative Sign
- Allow Negative Amounts for Reversal Transaction Posting

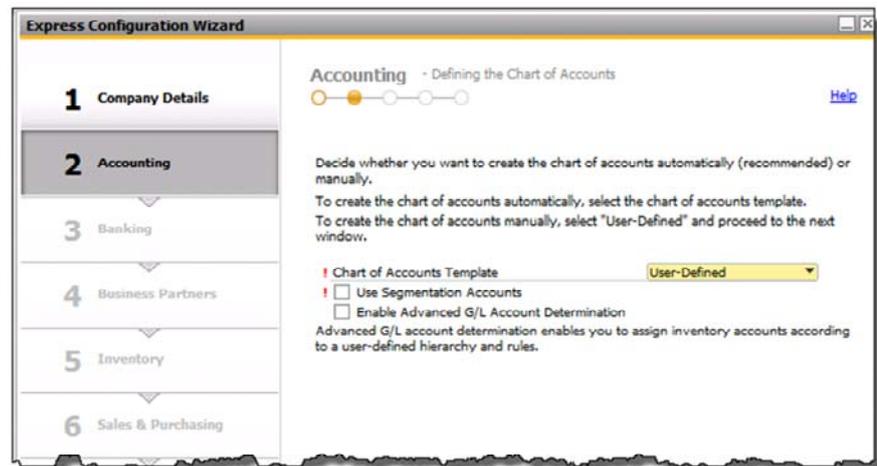
In the accounting step, the wizard guides you through the setup for general accounting and perpetual inventory.

There are several screens for accounting setup.

The basic initialization for accounting includes the local currency, system currency, default currency and exchange rate currency. The equivalent configuration menu is *Administration > System Initialization > Company Details – Basic Initialization* tab.

Express Wizard – Accounting (Cont.)

- Change chart of accounts template
- Enable advanced G/L account determination
- Use segmentation accounts



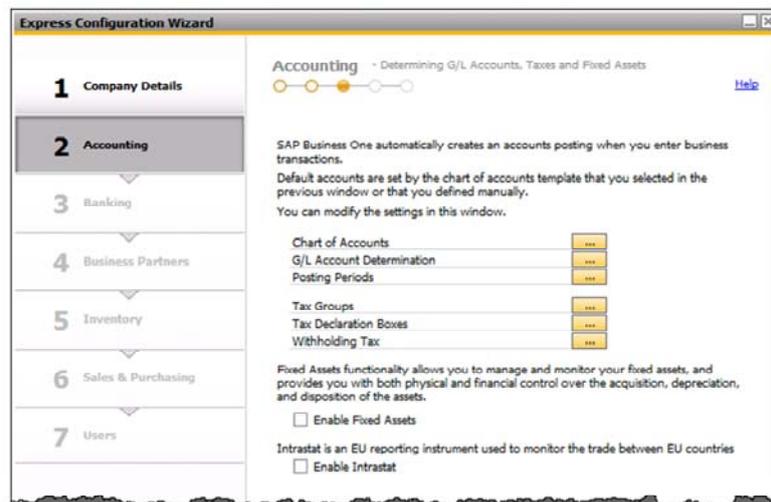
In the next accounting setup screen you have the option to select a different chart of accounts template. You cannot change the template after postings have been made.

You can enable the advanced G/L account determination feature in this step. You can also enable the use of segmented accounts if available in the localization.

The equivalent configuration menu is *Administration > System Initialization > Company Details – Basic Initialization* tab.

Express Wizard – Accounting (Cont.)

- Add G/L accounts
- Select accounts for G/L account determination
- Define additional posting periods
- Set up tax groups and other tax-related information
- Enable fixed assets



In the accounting setup step, you can additionally:

- Add accounts to the chart of accounts. The equivalent configuration menu is *Financials > Chart of Accounts*.
- Select accounts for the G/L account determination. If you selected the chart of accounts as “user-defined”, you need to select the default accounts. The equivalent menu is *Administration > Setup > Financials > G/L Account Determination*. If you enabled advanced G/L account determination, you can set advanced G/L account determination rules from here. You should always review these default accounts with the client accountant before any transactions are posted.
- Define additional posting periods, in addition to the initial posting period defined earlier. This is equivalent to the menu *Administration > System Initialization > Posting Periods*.
- Set up tax-related information. This is equivalent to the menu *Administration > Setup > Financials > Tax*.
- Enable the use of fixed assets and other functionality, depending on localization.

If you enabled fixed assets, you will have the option to define depreciation types and areas and asset classes.

Express Wizard – Accounting (Cont.)

- Enable and set up perpetual inventory
- Define warehouses and the default warehouse
- Set the default accounting level for inventory postings

The screenshot shows the 'Express Configuration Wizard' window with the 'Accounting' step selected. The left sidebar lists steps 1 through 7, with 'Accounting' highlighted. The main area is titled 'Accounting - Defining the Inventory System' and contains the following settings:

- Specify whether you use perpetual inventory and if so, select the default valuation method for newly added item groups and make the required settings regarding item costs. If you use a nonperpetual inventory system, leave the "Use Perpetual Inventory" checkbox deselected.
 - Use Perpetual Inventory
 - Item Groups Valuation Method: **Moving Average**
 - Manage Item Cost per Warehouse
 - Use Purchase Accounts Posting System
 - Allow Stock Release Without Item Cost
- Specify the warehouses you use and other warehouse-related settings.
 - Warehouses: **...**
 - Default Warehouse: **General Warehouse**
 - Set G/L Accounts By: **Warehouse**
 - Auto. Add All Warehouses to New and Existing Items
 - Manage Inventory by Warehouse

In the final accounting setup screen, you can enable and set up information for perpetual inventory such as the default valuation method. The equivalent configuration screen is *Administration > System Initialization > Company Details – Basic Initialization* tab.

Here you can also define warehouses and indicate the default warehouse.

The *Set G/L Accounts By* selection is just the default accounting level for new items: warehouse, item group, or item level, and can be overwritten in the item master data. The G/L account determination for inventory postings will be taken from the level specified in the item master data.

On this screen you can select the option to manage inventory stock levels by warehouse.

Express Wizard - Banking



- Banks
- House bank accounts
- Default house bank account

The banking step in the wizard allows you to enter the details for the house banks and business partner banks. The equivalent configuration menu is *Administration > Setup > Banking*.

The Banks table holds the country codes and bank codes for the banks that the company deals with.

The House Banks table holds bank and branch information for the bank codes defined in the Banks table.

You can select a default bank account for payments.

Express Wizard – Business Partners



- Payment terms
- Payment methods
- Dunning terms
- Business partner groups

The business partners step allows you to define default payment terms and payment methods, dunning terms, and groups for business partners. The equivalent configuration menus are *Administration > General Settings – BP tab* and *Administration > Setup > Business Partners*.

Express Wizard - Inventory



- Units of measure
- Units of measure groups
- Item groups
- Inventory cycles
- Price lists
- Bin locations

In the inventory step, you can define:

- Units of measure and units of measure groups.
- Item groups and inventory cycles. The equivalent configuration screens are found under the menu *Administration > Setup > Inventory*.
- New price lists and item prices in a price list (assuming items exist in the new company). This is equivalent to the menu *Inventory > Price Lists*.
- Bin locations in warehouses.

Express Wizard – Sales and Purchasing



- General and per document settings
- Permit More than One Document Type per Series
- Manage Freight in Documents
- Decimal places for documents
- Document numbering series
- Settings for gross profit calculation
- Landed costs
- Sales stages
- Reference field links

In the sales and purchasing step, you can configure the common settings for sales and purchasing documents:

- General and per document type settings. This is equivalent to the configuration menus *Administration > System Initialization > Document Settings*
- Global checkboxes for *Permit More than One Document Type per Series* and *Manage Freight in Documents*
- How decimal places are displayed in documents. This is equivalent to the menu *Administration > System Initialization > General Settings - Display* tab.
- Document numbering series for each document type. The equivalent configuration menu is *Administration > System Initialization > Document Numbering*. **Note:** Document numbering is covered in detail in a companion topic

You can set the way gross profit is calculated in documents. You can also set up landed costs allocations for purchasing, and stages to define the company's sales process. The equivalent menus are *Administration > Setup > Purchasing > Landed Costs*, and *Administration > Setup > Sales Opportunities*.

You can select fields from documents as reference fields for journal entries. The equivalent menu is *Administration > Setup > General > Reference Field Links*.

Express Wizard - Users



- User accounts
- Sales Employees/Buyers
- License administration
- General authorizations
- Master data for employees

In the users step, you can define user accounts and designate employees as sales employees or buyers. This is equivalent to the administration menus *Administration > Setup > General > Users* and *Administration > Setup > General > Sales Employees/Buyers*.

You can assign user licenses to user accounts - equivalent to the administration menu *Administration > License > License Administration*.

You can grant general authorizations to users - equivalent to the administration menu *Administration > System Initialization > Authorizations*.

You can create master data for the company's employees - equivalent to the menu *Human Resources > Employee Master Data*. Employee master data is required in order to set up data ownership authorizations.

Note: User accounts, licenses and general authorizations are covered in detail in a companion topic.

Configuration Report



- On completion of wizard, a baseline configuration report is created
- New configuration report created for subsequent changes made using wizard

Administration > System Initialization > Implementation Center > Configuration Management

Configuration Management					
General		Saved Configurations			
#	Name	Date	Time	User	Created By
1	Wizard Execution-2013-0	07.02.13	17:19	manager	Express Configuration Wizard

On completion of the wizard, a baseline configuration report is created. You can view and print this report.

When you make any subsequent configuration changes using the Express Wizard, a new configuration report will be created.

You can access and compare these reports at any time from the Implementation Center menu *Administration System > System Initialization > Implementation Center > Configuration Management*.

Note that when you make configuration changes outside of the wizard, a configuration report is not created automatically; however, you can save the current configuration as a report from the *General* tab of the Configuration Management screen.

Irreversible Settings

Settings:

Chart of Accounts template
Local and system currencies



Company Details

Checkboxes:

- ! Display Credit Balance with Negative Sign
- ! Use Segmentation Accounts (selected localizations)
- ! Use Perpetual Inventory
- ! Manage Item Cost per Warehouse
- ! Use Purchase Accounts Posting System
- ! Permit More than One Document Type per Series
- ! Manage Freight in Documents

The Express Wizard marks with a red exclamation mark (!) any settings and checkboxes that cannot be changed after a transaction has been posted for the company.

You should carefully plan these settings with the customer since you cannot change most of them after you have posted transactions in the company.

These settings are grayed out in the wizard and cannot be changed after transactions are posted:

- Chart of Accounts template
- Local and System Currencies

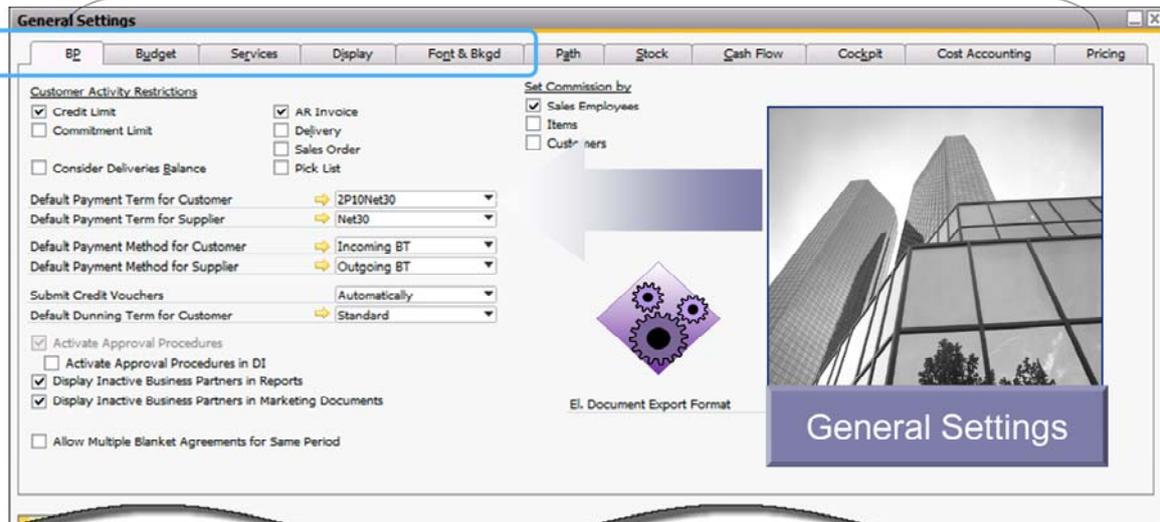
These checkboxes are grayed out and cannot be changed:

- Display Credit Balance with Negative Sign
- Use Segmentation Accounts
- Use Perpetual Inventory (Use Continuous Stock)
- Manage Item Cost per Warehouse
- Use Purchase Accounts Posting System
- Permit More than One Document Type per Series
- Manage Freight in Documents

General Settings

Administration > System Initialization > General Settings

Tabs cover default and initialization parameters for different areas:



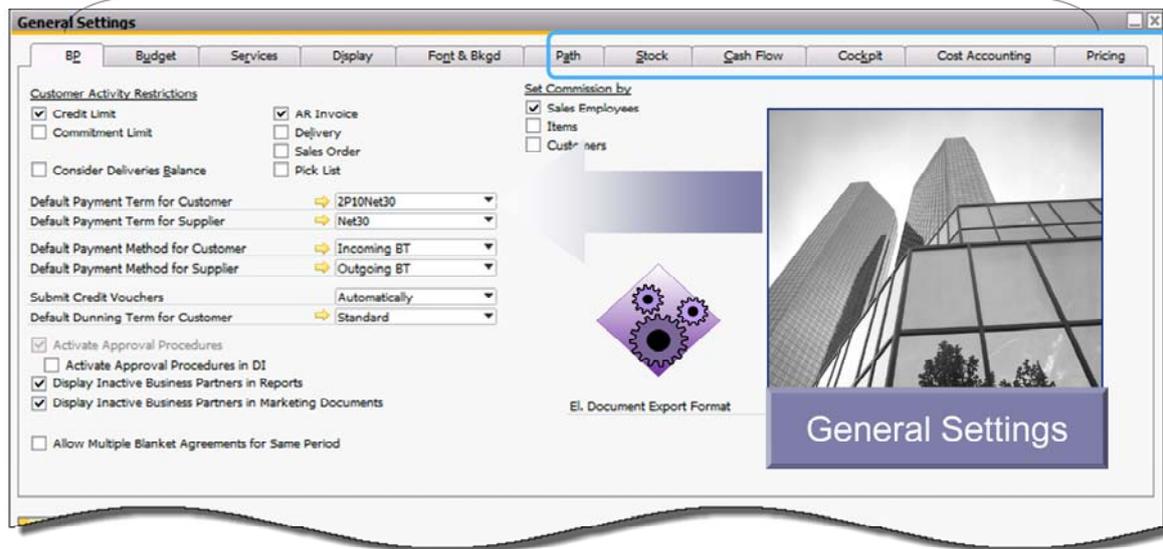
To complete the configuration for a customer, you can set General Settings. These settings cover a wide range of defaults and initialization parameters for different areas. Choose *Administration > System Initialization > General Settings* and select the required tab. Note that some localizations may have additional tabs in the General Settings.

- BP – You can activate credit checking and approval procedures from this tab.
- Budget – You can activate budget management. Once this option is selected, the budget-related functions appear in the Financials module.
- Services – Actions specified under this tab are carried out each time the user logs on. These settings are specific to the current user.
- Display – You can define the display language and the 'skin' for the user, and how dates, numbers, and currencies are displayed. Some settings apply per company, for example, time and date formats, decimal places and character separator.
- Font & Background – Set the text, font size and background for the current user from this tab.

General Settings (Cont.)

Administration > System Initialization > General Settings

Tabs cover default and initialization parameters for different areas:

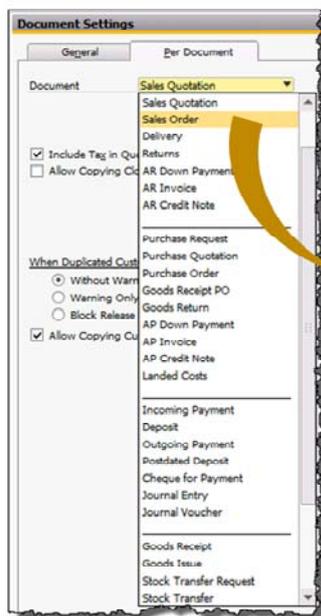


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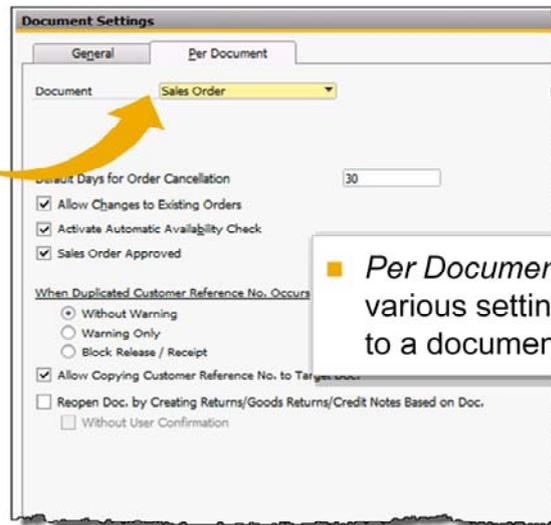
25

- Path – Set the default folder paths for storing images and attachments. You can also set the paths to the server folders for Microsoft Word and Excel templates which are referenced when the user exports a document to Word or Excel. These settings apply to all users.
- Inventory – Define defaults for serial and batch numbering, warehouses, and MRP-related information. These settings are updated immediately, per company, for all users.
- Cash Flow – Define the global settings for assigning cash flow line items to cash flow relevant transactions.
- Cockpit – Enable the cockpit and the display of dashboards at the company level. Note that the cockpit must also be enabled for each user. The dashboard requires the installation of the SAP Business One Integration Component.
- Cost Accounting - Set configurations relevant to cost accounting.
- Pricing - Define settings related to zero-priced items and inactive price lists.

Document Settings



Administration > System Initialization > Document Settings



■ Per Document tab contains various settings that apply to a document type

The Document Settings window contains two tabs: *General* and *Per Document*.

In addition to the settings made in the Express Configuration Wizard, you can also apply settings to a specific type of document. For example:

- For sales orders you can enable automatic checks on the available quantities of items and offer alternate products if necessary. If you enable the “Allow Changes to Existing Orders” checkbox, you cannot change this setting once documents have been posted.
- For purchase orders, you can split a purchase order that relates to more than one warehouse.

Key Points



Key points from this topic:

- You can create and configure a new company in one step using the Express Configuration Wizard. This can reduce the time needed to configure a company, and makes it possible for a partner to adopt a uniform approach to configuration
- You can use the wizard to configure common settings instead of navigating through individual configuration screens
- The wizard guides you through the correct order for configuration and alerts you to irreversible settings
- You can also run the wizard from the *Implementation Center* to configure the settings for an existing company
- After you run the wizard for the first time, the system saves a baseline configuration report. Each time you use the wizard, a new report is created and you can compare the changes.

These are the key points from this topic:

- You can create and configure a new company in one step using the Express Configuration Wizard. The wizard can reduce the time required to configure a new company, and makes it possible for a partner organization to adopt a uniform approach to configuration.
- Use the wizard to configure common settings instead of having to select the individual configuration screens.
- The wizard guides you through the correct order for configuration, automatically grouping related configuration screens. The wizard alerts you to irreversible settings.
- You can also run the Express Configuration Wizard from the Implementation Center to configure the settings for an existing company.
- After you run the wizard for the first time, the system saves a baseline configuration report. Each time you use the wizard to make additional configuration changes, a new report is created and you can compare the changes in the reports using the Configuration Management function.

Implementation Tools: Quick Copy

SAP Business One
Release 9.0



In this topic, we will look at how to select and copy information between SAP Business One company databases.

Objectives



Objective:

- Select and copy records between SAP Business One company databases

This topic covers the use of the Quick Copy tool during an implementation project. On completing this topic, you will be able to select and copy records between SAP Business One company databases.

Business Scenario



SW Doors and Windows has three trading entities which are implemented as three separate company databases.

All three databases require the same customizations, including user-defined data, reports, and configuration settings.

Solution: Make the common customizations on one company database, then use Quick Copy to export them to the other company databases.

A customer has three distinct trading entities which are being implemented as three separate company databases. All three databases require the same customizations, including user-defined fields and tables, customized reports, and standard configuration settings.

Solution: Customizations can be copied from one company to another using the Quick Copy tool.

Implementation Center

Administration > System Initialization > Implementation Center > Implementation Tasks > Copy Data Between Companies

Implementation Tasks



- Express Configuration Wizard
- DTW
- Solution Packager
- **Quick Copy**

Implementation Project



- Project Plan templates (with embedded configuration screens)

Configuration Management



- Saved configuration settings
- Compare saved configurations

Path Settings



- Folder locations for use with tools

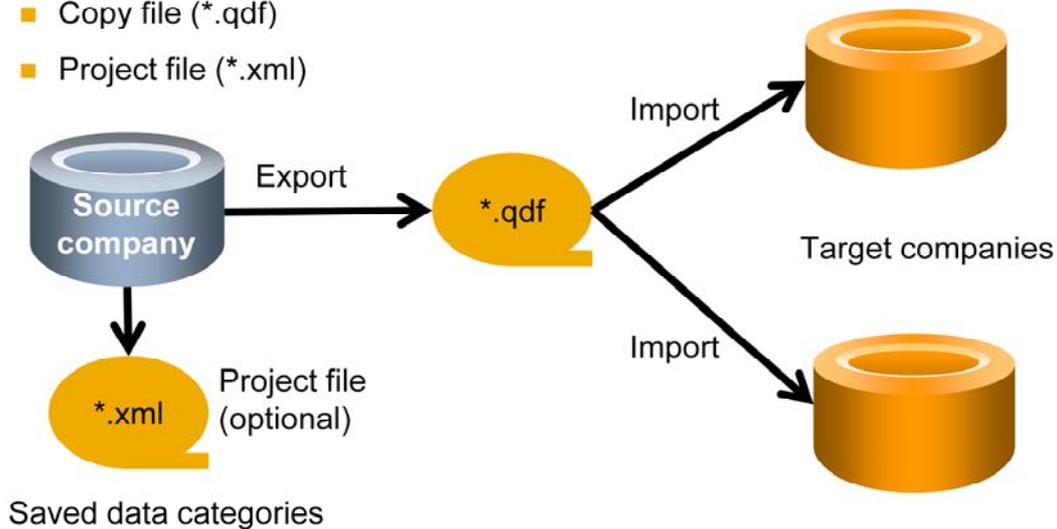
Quick Copy is one of the tools provided in the Implementation Center in SAP Business One.

To launch Quick Copy, choose *Administration > System Initialization > Implementation Center > Implementation Tasks*. Then choose *Copy Data Between Companies*.

Note that, unlike previous releases of SAP Business One, the Quick Copy tool is part of the core application in release 9.0 and is installed automatically with the SAP Business One server.

Quick Copy Overview

- Selectively copy data records between company databases of same localization
- Uses two file formats:
 - Copy file (*.qdf)
 - Project file (*.xml)



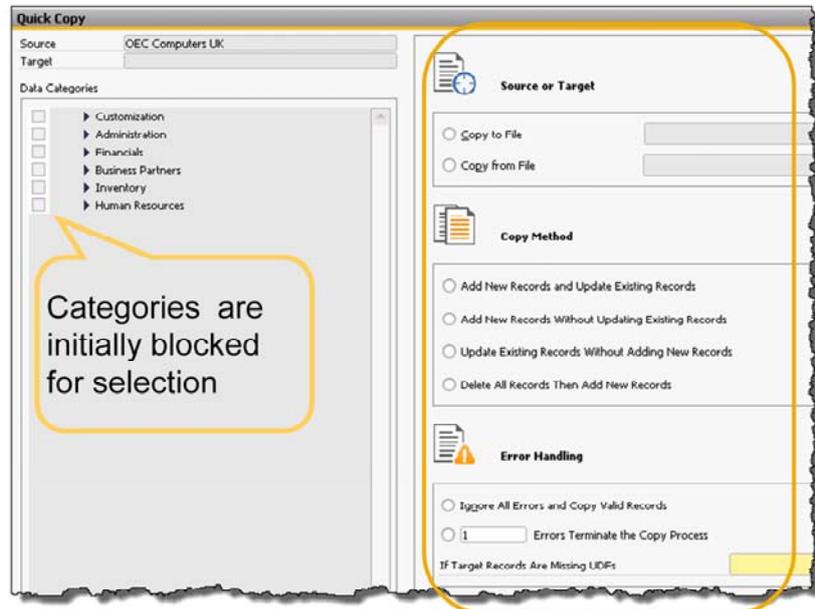
Quick Copy is a very useful tool during an implementation project. It allows you to selectively copy data records between company databases. For example, you can copy master data or customizations to a test database for testing and validation. Or you can copy configuration settings from one company entity to a different company entity. Note that this is not a full database copy. You still need to maintain full database backups for recovery purposes.

Quick Copy saves the copied data records in a file with the extension .qdf. Using Quick Copy, you can import this file into another company database.

You can optionally save an XML project file containing the saved data categories. This file can be opened in the tool and can save time if you repeatedly need to export the same types of data.

Using Quick Copy

- Data categories are blocked from selection until you select the settings on the right-hand side
- The data categories become selectable after settings are saved



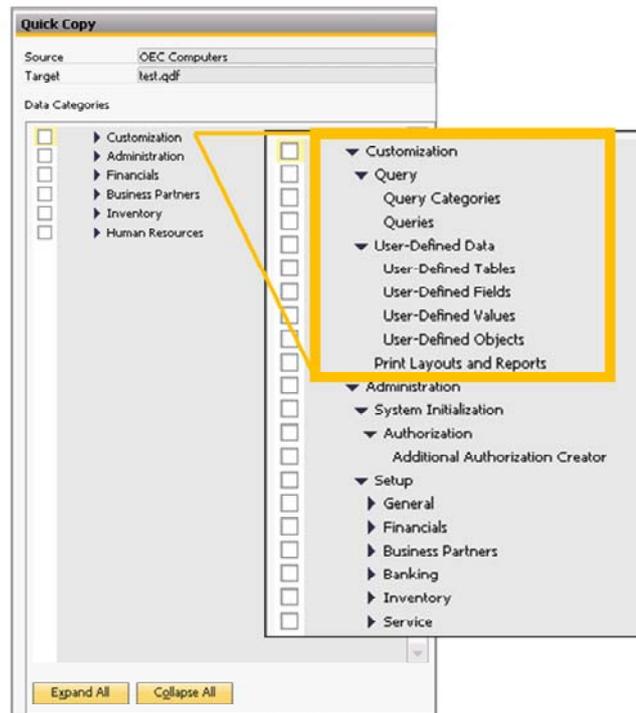
When you open the Quick Copy screen you can see the data category hierarchy on the left-hand side of the screen. The categories are initially blocked for selection until you select the required settings on the right-hand side of the screen:

- Select the function (Copy to File for export, Copy from File for import) and file name.
- Select the copy method (this applies only for import).
- Set options for handling errors.
- Select the copy options (for import only).

Once you have made these settings, and choose OK, the data categories on the left-hand side of the screen will open up for selection.

Using Quick Copy (Cont.)

- Categories are shown in a tree structure that aligns with SAP Business One menu structure
- Expand tree to view and select objects within a category's structure



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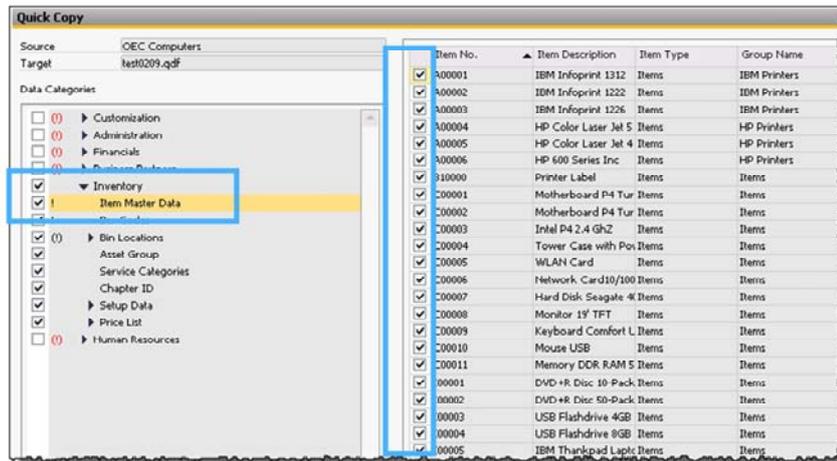
You select data from a category tree structure that aligns with the SAP Business One menu structure. Note that the structure does not change from company to company.

The categories cover customizations (including queries and reports), administration and configuration settings, financial settings, business partner master data, inventory (including item master data and price lists), and human resource master data.

You can drill-down the tree structure to view and select objects within a category structure.

Using Quick Copy (Cont.)

- You can select any object in a category's tree structure for copy
- When you select a top level category, all objects within the tree are selected, but can be individually deselected
- When you select an object at the lowest level in a category, the system will display the detailed records in the right-hand pane



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You can select any object in the category's tree structure for the copy.

When you select the top level of a category, all the objects within the category's tree structure are also selected for copy. You can individually deselect objects in the tree that are not required for copy.

When you select an object at the lowest level in a category, the system will display the detailed records for the object in the right-hand pane. This is shown in the graphic for the Item Master Data category.

The records are selected by default, but you can deselect individual records not required for the copy.

When you later import the copy file to another company, you have the option to select categories or individual records from the data copy file.

Dependent Categories

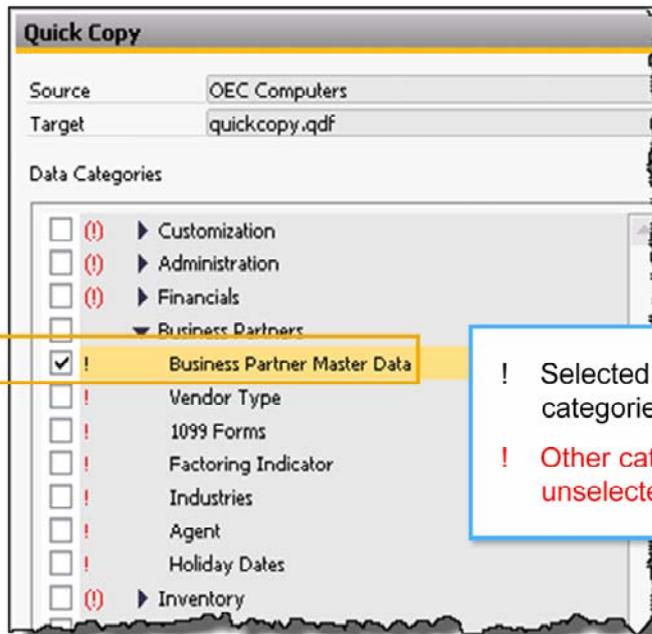


Inventory > Item Master Data



When you select a category, there might be data dependencies on other categories. For example, the item master data category has dependencies on business partner master data (vendors or resellers) as well as item groups and price lists.

Dependent Categories (Cont.)



The screenshot shows the 'Quick Copy' tool interface. At the top, 'Source' is 'OEC Computers' and 'Target' is 'quickcopy.qdf'. Below, a list of 'Data Categories' is shown with checkboxes and dependency indicators. The 'Business Partner Master Data' category is selected (checkbox checked) and has a black exclamation mark (!) next to it. Other categories like 'Vendor Type' have a red exclamation mark (!) next to them. A callout box points to the 'Business Partner Master Data' entry with the text: '! Selected category is dependent on other categories' and '! Other categories are dependent on this unselected category'.

- Quick Copy indicates possible dependencies on other categories
- Marked dependencies are provided as a warning

The Quick Copy tool will indicate possible dependencies on other categories. These dependencies are derived from the database table structure, and not from the actual data records to be copied, and are therefore provided as warning not an error.

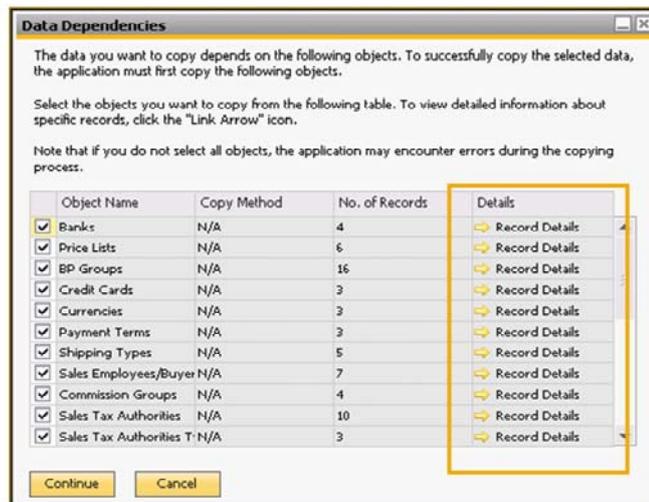
In the example shown, the Business Partner Master Data category is selected:

- A *black* exclamation mark '!' indicates that a selected category is dependent on other data categories.
- A *red* exclamation mark '!' indicates for an unselected category that other categories are dependent on this unselected category. In the example, the unselected category Vendor Type has this indicator.

When you see a category marked with parentheses '(!)', this indicates that the dependencies are deeper in the category structure. You can expand the category to see the dependent objects within its structure.

Viewing Dependent Records

- During the copy process, the system displays real dependent objects dynamically derived from the data records to be copied
- Dependent objects are automatically selected for copy with the other data
- Links provided to view dependent records
- If you deselect a dependent object, copy may fail



After you have selected the categories, choose Export to start the copy.

During the copy process, the system displays the real dependent objects, dynamically derived from the data records to be copied. These dependent objects are automatically selected for copy with the other data.

Links are provided to view the dependent records, enabling you to decide whether to include them in the copy.

Be aware that if you deselect a dependent object, the copy may fail.

Copy Log

- Full log with link to copied records

The screenshot shows two SAP windows. The main window, 'Quick Copy Log Category Details', displays a table with columns: Data Categ..., Object Name, Number of Records Copied, and Number of Records Failed. The 'Business Partners Business Partner Master D' category is highlighted, showing 38 records copied and 0 failed. To the right, a smaller window titled 'Quick Copy Log Instance Details - Business Partner Master Data' shows a list of record keys and their results, all marked as 'Copied successfully'. A blue arrow points from the 'Business Partner Master D' row in the main window to the instance details window. The instance details window has columns for Record Key/Insta..., Result, and Description. The record keys listed include C50000, C60000, C65300, C70000, C99998, C99999, L10001, L10002, V10000, V10001, V2000, V23000, V30000, V50000, V60000, and V70000.

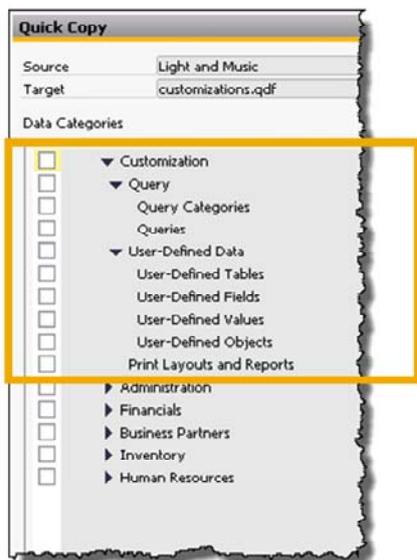
Data Categ...	Object Name	Number of Records Copied	Number of Records Failed
Administration	Currencies	3	0
Administration	Dunning Terms	1	0
Administration	File Formats	2	0
Administration	House Bank Accounts	4	0
Administration	Languages	1	0
Administration	Payment Methods	9	0
Administration	Payment Terms	3	0
Administration	Sales Employees/Buyers	7	0
Administration	Sales Tax Authorities	10	0
Administration	Sales Tax Authorities Type	3	0
Administration	Sales Tax Codes	7	0
Administration	Shipping Types	5	0
Administration	States	10	0
Business Partners	Business Partner Master D	38	0
Business Partners	Holiday Dates	1	0
Customization	Queries	2	0
Customization	Query Categories	2	0
Customization	User-Defined Fields	11	0
Customization	User-Defined Tables	3	0
Customization	User-Defined Values	7	0
Inventory	Price Lists	6	0

Record Key/Insta...	Result	Description
C50000	Copied successfully	
C60000	Copied successfully	
C65300	Copied successfully	
C70000	Copied successfully	
C99998	Copied successfully	
C99999	Copied successfully	
L10001	Copied successfully	
L10002	Copied successfully	
V10000	Copied successfully	
V10001	Copied successfully	
V2000	Copied successfully	
V23000	Copied successfully	
V30000	Copied successfully	
V50000	Copied successfully	
V60000	Copied successfully	
V70000	Copied successfully	

After the copy, the system provides a full log record of the records copied, together with a link to the copied records.

In the example, shown, we can see the number of records copied for the Business Partner Master Data category. And we can drill-down to see the codes of the master data records.

Quick Copy Restrictions



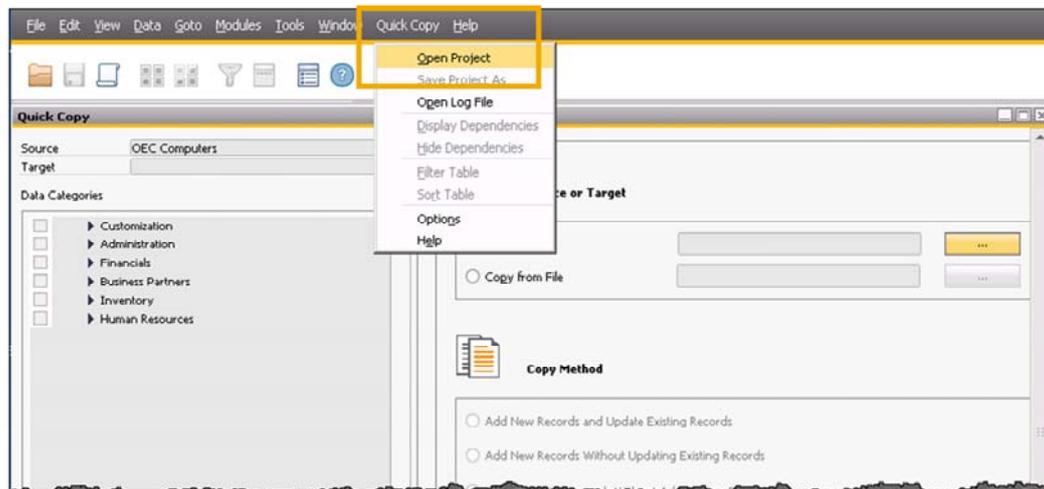
- Source and target companies must have same localization and version
- Only Customization category can be copied to a different localization:
 - Queries
 - Query categories
 - User-defined Tables
 - User-defined Fields
 - User-defined Values
 - User-defined Objects
 - Print Layouts and Reports

The source and target companies must have the *same* localization, and run on the same version of SAP Business One.

If you need to copy records to a company with a different localization, the only category that can be successfully copied to a different localization is the *Customization* category. Therefore you can copy user queries and categories, user-defined data (UDTs, UDFs, UDVs, UDOs), and print layouts and reports to a company with a different localization.

Using a Project File

- Option to save settings and selected categories in a project file
- To open the project file, choose *Quick Copy > Open Project*



After you have exported data to a file, the Quick Copy tool will prompt you to optionally save a project file. When you make frequent copies, a project file can save you time since the settings and data categories used in the previous copy operation are recorded in the project file.

The project file can be opened from the Quick Copy menu on the top menu bar. Choose *Quick Copy > Open Project* to open a saved xml project file.

Note that you can only open the project file on the company on which it was created. You can also save a project file when you import on the target company.

Import Settings

The screenshot displays the 'Import Settings' dialog box with three main sections:

- Copy Method:** Contains four radio button options:
 - Add New Records and Update Existing Records
 - Add New Records Without Updating Existing Records
 - Update Existing Records Without Adding New Records
 - Delete All Records Then Add New Records
- Error Handling:** Contains two radio button options and a dropdown menu:
 - Ignore All Errors and Copy Valid Records
 - Errors Terminate the Copy Process
 - If Target Records Are Missing UDFs: A dropdown menu with two options: 'Do Not Copy Records with Missing UDFs' (highlighted) and 'Copy Records and Ignore Missing UDFs'.
- Copy Options:** Contains two dropdown menus and one checked checkbox:
 - When Copying Objects with Accounts: A dropdown menu with 'Use Accounts in Source' selected.
 - When Copying Empty Fields: A dropdown menu with 'Use Default Accounts in Target' selected.
 - Force Backup Before Starting Copy Process

When you import records, you need to select the copy method, error handling option, and copy options. The choice of these options may depend on the data that already exists in the target company.

The copy method can be chosen to:

- Add new records and update records with matching keys
- Add new records but not update records with matching keys
- Update records with matching keys without adding new records
- Erase all existing records in the target database and add new records

Import Settings (Cont.)

The screenshot displays the 'Import Settings (Cont.)' interface with three main sections:

- Copy Method:** Contains four radio button options:
 - Add New Records and Update Existing Records
 - Add New Records Without Updating Existing Records
 - Update Existing Records Without Adding New Records
 - Delete All Records Then Add New Records
- Error Handling:** Contains two radio button options and a text input field:
 - Ignore All Errors and Copy Valid Records
 - Errors Terminate the Copy ProcessBelow these is a section titled 'If Target Records Are Missing UDFs' with a dropdown menu showing two options:
 - Do Not Copy Records with Missing UDFs
 - Copy Records and Ignore Missing UDFs
- Copy Options:** Contains two dropdown menus and one checked checkbox:
 - 'When Copying Objects with Accounts' dropdown showing 'Use Accounts in Source'
 - 'When Copying Empty Fields' dropdown showing 'Use Default Accounts in Target'
 - Force Backup Before Starting Copy Process

The error handling choices govern the Quick Copy response to an error while copying the records. You can choose to:

- Skip the affected record and continue copying valid records, or
- Stop the copy process when the number of errors reaches a specified limit

If the records to be copied contain user-defined fields, the user-defined fields will be automatically selected for copy, since they are a dependent category. However, if the dependent category is deselected, you must choose whether to copy records if the user-defined fields are not present in the target company.

Import Settings (Cont.)

The screenshot displays three sections of the SAP Import Settings interface:

- Copy Method:** A list of four radio button options:
 - Add New Records and Update Existing Records
 - Add New Records Without Updating Existing Records
 - Update Existing Records Without Adding New Records
 - Delete All Records Then Add New Records
- Error Handling:** A section with a warning icon and three radio button options:
 - Ignore All Errors and Copy Valid Records
 - Errors Terminate the Copy Process
 - If Target Records Are Missing UDFsBelow these options is a dropdown menu with two visible items:
 - Do Not Copy Records with Missing UDFs
 - Copy Records and Ignore Missing UDFs
- Copy Options:** A section with a wrench icon and three settings:
 - When Copying Objects with Accounts: A dropdown menu with "Use Accounts in Source" selected.
 - When Copying Empty Fields: A dropdown menu with "Use Default Accounts in Target" selected.
 - Force Backup Before Starting Copy Process

Yellow squares on the right side of the image label each section: "Copy Method", "Error Handling", and "Copy Options".

In the copy options, you can set how to copy accounts and empty fields. Since objects such as item and warehouse data may contain assigned accounts, the copy option for accounts can be chosen to:

- *Use Accounts in Source* – If the source accounts also exist in the target, then the application copies the account assignments from the object in the source to the object in the target. However, if the source accounts do not exist in the target, then the application encounters an error during the copy process.
- *Use Default Accounts in Target* – The application assigns the default accounts in the target to the object, and does not copy the source assignments.

The copy option for empty fields can be chosen to:

- *Do Not Overwrite Target Fields and Keep Original Values* – If a field in the source is empty, then the application skips copying this field. The application keeps the original value of the corresponding field in the target, which remains the same before and after the copy process.
- *Overwrite Target Fields with Empty Values* – If a field in the source is empty, then the application removes the value from the corresponding value in the target.

You also have the option to enforce a backup before the import starts. If you select the *Enforce Backup before Copying* checkbox, the import will not proceed if the target database has not been backed up within two hours.

Key Points



Key points from this topic:

- Quick Copy allows you to selectively copy data records between SAP Business One company databases with the same localization and version. Quick Copy does not create a new company database.
- Several categories of data are supported for copying.
- The exported data records are saved in a file with the extension qdf.
- You can optionally save the selected categories and settings in an xml file, for subsequent use.
- When you select a category for export, Quick Copy automatically selects dependent objects for copying.
- Quick Copy is useful during implementations for copying customizations and configuration information, and master data, to a test system or to a different database for the same company.

Here are some key points to take away from this session.

- The Quick Copy tool allows you to selectively copy data records between SAP Business One companies with the same localization and version. Quick Copy does not create a new company database.
- The categories supported for copying include customizations, administration and configuration settings, financial settings, business partner master data, inventory, and human resource master data.
- The exported data records are saved in a file with the extension .qdf. Using Quick Copy, you can import this file into another company database.
- You can optionally save an XML project file containing the export settings as well as the saved data selections. This can save time if you repeatedly need to export the same types of data.
- When you select a category for copy, the Quick Copy tool automatically marks and selects dependent objects for copying. Links are provided to view the dependent records, enabling you to decide whether to include them in the copy.
- Quick Copy is useful during an implementation project for copying customizations and configuration information, or master data, to a test system or to a different database for the same company.

Implementation Tools: Solution Packager

SAP Business One
Release 9.0



In this topic, we will cover the Solution Packager tool that enables partners and Software Solution Providers to create pre-packaged solutions for distribution to other partners.

Objectives



Objective:

- Use the Solution Packager tool to package a solution that includes an SAP Business One database
- Create a new company based on a pre-packaged solution
- Position the Solution Packager and Quick Copy tools

This topic covers the Solution Packager tool. You will be able to:

- Use the Solution Packager tool to package a solution that includes an SAP Business One company database
- Create a new company based on a pre-packaged solution
- Position the Solution Packager tool compared to the Quick Copy tool.

Business Example



Auto-ssp sells a micro-vertical add-on for the automotive industry. To support volume business, partners must be able to install this as a pre-packaged solution.

Solution: *Auto-ssp* can use the Solution Packager tool in the *Implementation Center* to package the add-on with a preconfigured company database containing item master data, UDFs, reports and an embedded project plan.

Partners can quickly deploy the package at a customer site, and follow the project plan to fine tune the add-on.

Let us look at a business example. *Auto-ssp* is a Software Solution Provider (SSP) that produces and sells a micro-vertical add-on for the automotive industry. To support volume business, partners must be able to install this as a pre-packaged solution.

Solution: The Solution Packager tool provided in the Implementation Center allows *Auto-ssp* to package the add-on together with a preconfigured company database containing item master data, user-defined fields, reports, and an embedded project plan.

Partners can quickly deploy the package at a customer, and follow the project plan to fine tune the add-on.

Implementation Center

Administration > System Initialization > Implementation Center > Implementation Tasks

Implementation Tasks



- Express Configuration Wizard
- DTW
- **Solution Packager**
- Quick Copy

Implementation Project



- Project Plan templates (with embedded configuration screens)

Configuration Management



- Saved configuration settings
- Compare saved configurations

Path Settings

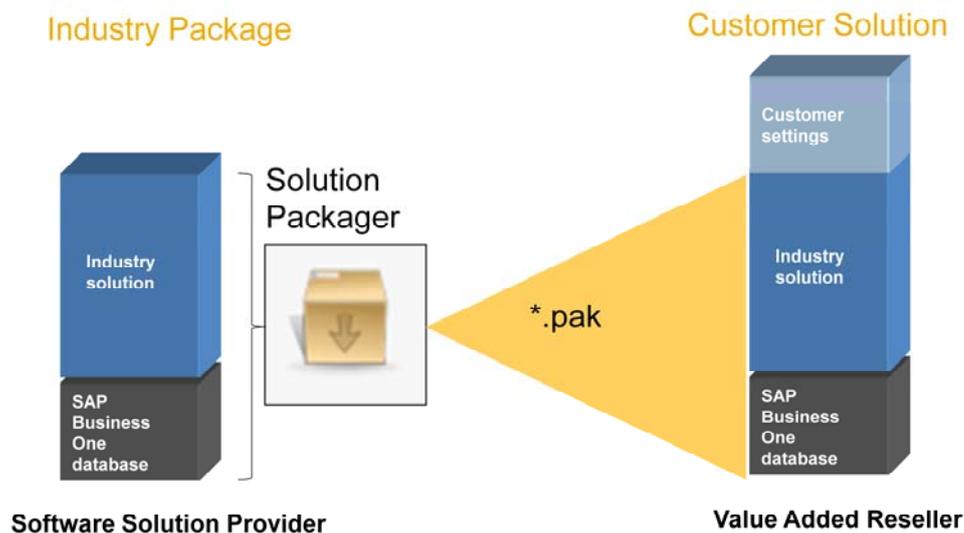


- Folder locations for use with tools

Solution Packager is an optional tool that can be selected for install during the SAP Business One server installation. When this tool is installed with the server, the executable path is automatically entered in the Path Settings in the Implementation Center, enabling the tool to be launched from the Implementation Center. To launch this tool, choose *Administration > System Initialization > Implementation Center > Implementation Tasks*, then choose *Package a Preconfigured Solution Using Solution Packager*.

Solution Packager can also be installed independently on the desktop, and can be started using the *Start > All Programs* menu.

Solution Packager



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A solution package consists of an SAP Business One company database together with configurations and customizations that are generic to an industry-wide or vertical solution.

The concept behind Solution Packager is that Software Solution Providers (SSPs) can develop industry solution add-ons and bundle them with a preconfigured SAP Business One database.

Value Added Resellers (VARs) can quickly deploy these packages at the customer, with the addition of customer-specific settings. This facilitates volume business and reduces implementation time for partners.

The Solution Packager provides an easy to use wizard to create the package as a transportable file with the suffix .pak.

Implementation Scenarios

Scenario	SSP	VAR
Classic	Create add-on	<ul style="list-style-type: none"> ▪ Create company ▪ Install add-on ▪ Configure company and add-on
Volume	Create package	<ul style="list-style-type: none"> ▪ Deploy package ▪ Configure customer-specific settings
Horizontal		<ul style="list-style-type: none"> ▪ Create package ▪ Deploy package

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In a classic SAP Business One implementation, a company is created and configured individually for each new customer, usually at the customer site.

The Solution Packager makes other deployment scenarios viable:

- In the *volume scenario*, a Software Solution Provider (SSP) packages a pre-configured company database and add-on, using Solution Packager. The package is sold to partners. The implementation by the partner is much faster because the partner does not have to configure the solution.
- Partners (VARs) can also get benefits by using Solution Packager to package *horizontal solutions*. A partner can package a pre-configured solution for sectors of customers with similar requirements and processes. The package can include customizations, reports, and any common add-ons. The packaging can be done remotely, saving on travel time and costs. The partner can quickly deploy the package at each customer site. This scenario is extremely useful for creating branch companies for an existing company.

Quick Copy Functions Relative to Solution Packager

	Quick Copy	Solution Packager
Views and stored procedures		✓
External databases		✓*
Add-ons		✓
UDO, UDT, UDF, UDV	✓	✓
Queries, reports and layouts	✓	✓
Cockpits and dashboards	✓	✓
Master data	✓	Item-related
Project plan		✓
File type	.qdf	.pak
Use	Copy to existing company	Deploy new company

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Some basic differences between the Quick Copy and Solution Packager tools are shown in this slide.

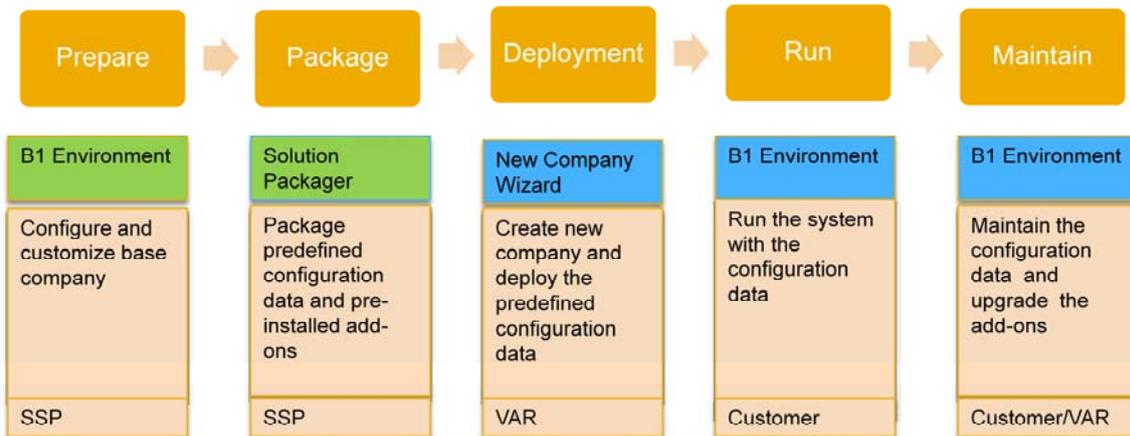
Quick Copy is designed for a partner to select and copy data objects from one company database to another, existing company database.

Solution Packager is designed to package a complete solution including a company database. A partner can directly deploy the package as a new company.

*Note this limitation - the total size of the SAP Business One and external database combined cannot exceed 2 gigabytes.

Configuration Data Life Cycle

- SSP prepares and packages a base company and configured solution
- VAR deploys package as a new company



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- The SSP prepares an SAP Business One base company, configured to meet the generic needs of customers in that industry. This might include a chart of accounts, G/L account determination, general settings, print layouts, financial reports for the industry, customizations and installed add-ons.
- The SSP then uses the Solution Packager tool to create a bundled package. The SSP can even include a detailed project plan or task list for partners to follow when they deploy the package.
- When the package is deployed at the customer site by the VAR, a new company database is created directly from the package. This new company contains the predefined configuration from the base company, as well as the industry specific data. The partner can configure this company to meet any special requirements for each customer. The partner can change the chart of accounts in the new company, but not the localization. To distribute a solution for multiple localizations, the SSP should create a package for each localization.

Running Solution Packager Wizard

- Enter details of the solution
- Enter vendor contact information
- Option to select any company from server

The image displays three overlapping screenshots of the SAP Solution Packager wizard. The top screenshot, titled 'Solution Information', shows fields for 'Solution Name' (My Solution), 'Industry' (Manufacturing), 'Industry-Specific' (None), and 'Solution Version' (1.0). The middle screenshot, titled 'Solution Vendor Information', shows 'Company Name' (IKL Consulting) and 'Contact Person' (A. Partner). The bottom screenshot, titled 'Company Selection', shows a table of companies on the current server. The table has columns for Company Name, Database Name, Version, and Localization. The 'SSP_Solution_UK' entry is highlighted.

Company Name	Database Name	Version	Localization
DEC Computers UK	SBOdemoUK	900056	United King
DEC Computers	SBOdemoUS	900056	United Stat
SSP_Solution_FR	SSP_Solution_FR	900056	France
SSP_Solution_UK	SSP_Solution_UK	900056	United King
SSP_Solution_US	SSP_Solution_US	900056	United Stat

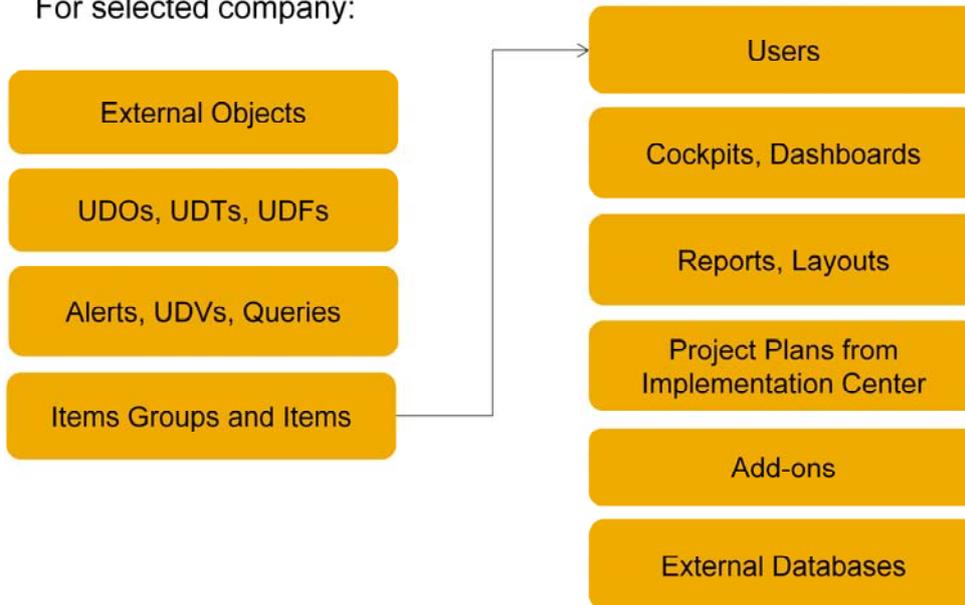
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- When you run the Solution Packager, you first enter information describing the solution, and contact information for the vendor.
- You are prompted to select the SAP Business One company. You have the option to select any company database on the server as the base company for the package.

Solution Packager - Selections

For selected company:



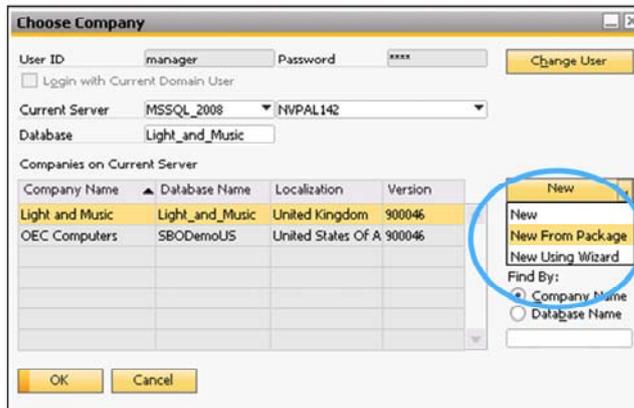
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When you package the solution, in addition to the SAP Business One database, the wizard prompts you to include:

- External objects such as SQL scripts and stored procedures. If you have created custom SQL scripts, SAP recommends that scripts are written in Unicode to avoid any future coding problems. Split every batch of transact-SQL statements (a script) by inserting a single line with the “Go” statement between each batch. The “Go” statement indicates the end of one batch.
- User-defined objects, tables and fields from the company database
- Alerts, user-defined values and queries from the company database
- Item groups, and associated item master data
- User accounts and authorizations. This makes it possible to define a job role with authorizations, that can be assigned to a user in the new company. For security reasons, when packaging users, the wizard does not copy the user password. Later, when you are creating new companies from the package, the company creator wizard sets the password of these users to be 1234.
- Cockpits and dashboards
- Reports and print layouts
- Project plans related to the installation of the solution, from the Implementation Center.
- Other add-ons required as part of the solution.
- External databases required as part of the solution. The total size of the external database and the SAP Business One database must be less than two gigabytes; otherwise, the packaging may fail. You may not package an encrypted database.

Create New Company from Package



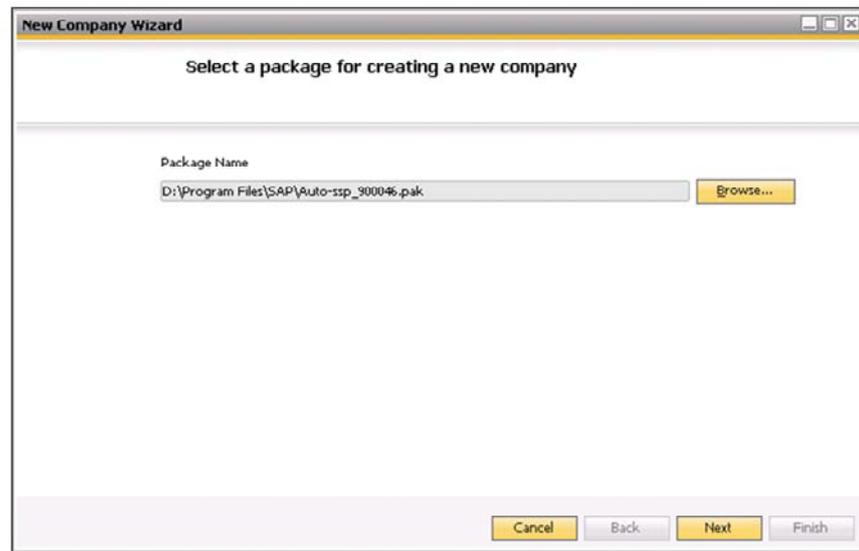
- To create a new company based on a solution package, choose *New From Package* in the *Choose Company* screen
- Make sure SQL Server is not lower than the version used for packaging

To create a new company based on a solution package, choose *New From Package* in the *Choose Company* screen.

Make sure that the version of the Microsoft SQL Server you select here is not lower than the version used for the original packaging.

Select Package

- Select the .pak file



Follow the wizard steps to select the components from the package.

The first step is to select the .pak file which was built by the Solution Packager wizard and provided to you by the SSP.

Verify Solution Information

New Company Wizard

Package Information

Solution Package Information

Solution Name	Auto-ssp
Industry	Manufacturing
Industry-Specific	Automotive
Country	USA
SAP Business One Version	900046
Solution Version	v 1.1
Creation Date	2013-02-11T10:04:33.399

Vendor Information

Company Name	Auto-ssp
Contact Person	Mike Dean
E-Mail	mike@auto-ssp.com
Telephone Number	

Step 2 of 9

Cancel Back Next Finish

- Verify the solution and vendor information in the package file

Verify the solution and vendor information from the package file.

Specify Company Name

- Specify a name for the new company

New Company Wizard

Specify company name

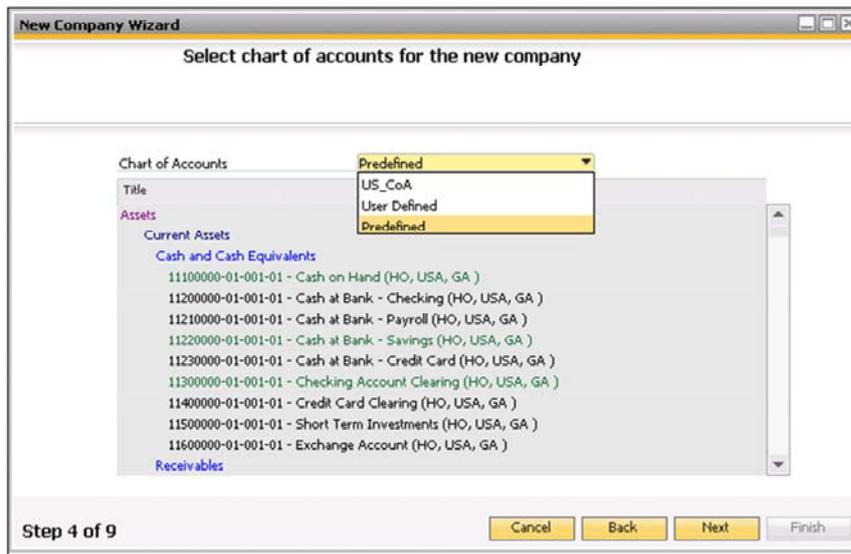
Local Settings	United States Of America
Base Language	English (United States)
Company Name	New Company
Database Name	DB_New_Company

Step 3 of 9

Cancel Back Next Finish

Specify a name for the new company that will be created.

Select Chart of Accounts



- Option to select a different chart of accounts template

You can select a different chart of accounts from the one in the package. Note that if you select a different chart of accounts template, you should verify the G/L account determination from the package and make any changes for the new accounts.

Define Posting Periods

- Define posting periods for the new company

The screenshot shows the 'New Company Wizard' dialog box at Step 5 of 9. The title is 'Define posting periods for the new company'. The form contains the following fields:

Period Code	2013		
Period Name	2013		
Sub-Periods			
No. of Periods			
Dates			
Posting Date From	01/01/2013	To	31/12/2013
Due Date From	01/01/2013	To	31/12/2013
Document Date From	01/01/2013	To	31/12/2013
Start of Fiscal Year	01/01/2013		
Fiscal Year	2013		

At the bottom, it indicates 'Step 5 of 9' and has buttons for 'Cancel', 'Back', 'Next', and 'Finish'.

At this point, the wizard follows the normal process for creating a new company, and you can define the posting periods.

Create External Database (if applicable)

New Company Wizard
Create External Database for the Solution

External Database Name

In this step, you can define an additional external database (other than SAP Business One Database) which is part of your vendor solution. The default database name is the same as was packaged by your vendor. You can change the database name.

Step 6 of 9

Cancel Back Next Finish

- Create external database (if packaged with solution)

If the solution package contains an external database, you can create a database in addition to the SAP Business One database. The default database name is the name provided in the package, but you can change it.

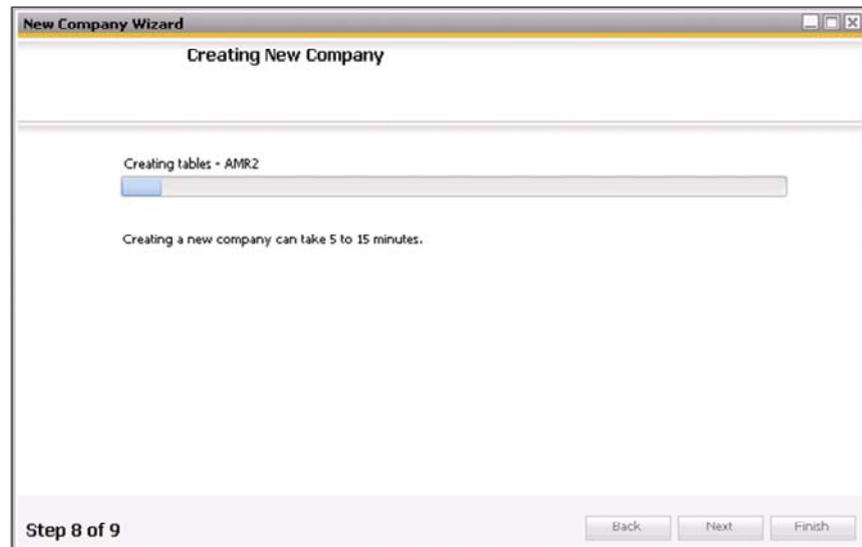
If an external database was not packaged for the solution, this step displays *No external database exists for this package*.

Note: If earlier in the *Choose Company* window, you specified a remote SAP Business One server, then in this step, the *External Database Name* field is disabled.

You need to deploy the package using the new company wizard on the SAP Business One server machine, so that you can create the external database.

Company Creation

- Standard company creation
- Error messages logged in System Messages



Now the standard process of creating the new SAP Business One company starts, and the tables are created.

When user accounts are packaged, the default password for each user (except for the user "manager") is set to "1234". When the users are re-created in the newly created company, the users are locked by default for security reasons, and you must manually unlock them.

Error messages may be logged in the System Messages area during the creation of tables in the new company.

Key Points

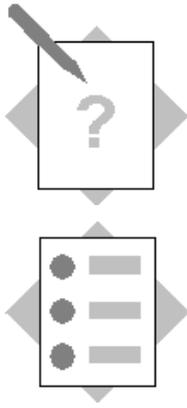


Key points from this topic:

- Solution Packager allows an SSP to package a solution consisting of a company database with stored procedures, external databases, add-ons, and other customizations. A partner can deploy a new company directly from the package.
- SSPs can use Solution Packager to package a vertical solution for volume deployment by VARs.
- Partners (VARs) can also benefit by using Solution Packager to package horizontal solutions, such as creating branch companies for an existing company. The packaging can be done remotely, saving on travel time and costs.
- Solution Packager is provided in the Implementation Center. You can also install it on the desktop and launch using the *Start > All Programs* menu.

Here are some key points to take away from this topic.

- Solution Packager allows a Software Solution Provider to package a vertical-industry solution consisting of a company database with stored procedures, external databases, add-ons, and other customizations. A partner can deploy a new company directly from the package.
- SSPs can use Solution Packager to package a vertical solution for volume deployment by VARs.
- Partners (VARs) can also benefit by using Solution Packager to package horizontal solutions, such as creating branch companies for an existing company. The packaging can be done remotely, saving on travel time and costs.
- Solution Packager is one of the implementation tools provided in the Implementation Center. To launch this tool, choose *Administration > System Initialization > Implementation Center > Implementation Tasks*.
- You can also install Solution Packager on the desktop and launch it using the *Start > All Programs* menu.



Unit: Implementation Tools

Topic: Implementation Methodology

1.1. Create a new project plan based on a template

Choose *Administration* → *System Initialization* → *Implementation Center* → *Implementation Project*.

In the **Plan** tab, select the *Detailed Project Plan* template from the dropdown list.

Select the icon to create a duplicate template. Enter **Light & Music** as the name and provide a description.

Delete the task called “Project Handover” from the plan.

Add a new task to the plan called “**Learn the implementation tasks**”.

Move this task up to the start of the plan.

1.2. Add a link to a configuration screen

Select the row for the new task and right-mouse click to open the context menu.

Choose *Add Link*.

In the *Menu Selection Form*, navigate to *Administration* → *System Initialization* → *Implementation Center* → *Implementation Tasks*.

Test the link. The *Implementation Tasks* window will open. You can close this window.

Choose **Update** to save your changes to the new plan.

1.3. Record progress in the plan

In the **Plan** tab, choose Level 1 to see the high level tasks (phases).

Enter a value of 4 hours in the Planned Time column for the new task.

Switch to the **Progress** tab and choose the drill-down arrow in the Actual Duration column for the new task.

In the Time Record window, enter today’s date, the current time as the Start Time, and the current time + 2 hours as the End Time.

If the Owner column is not visible, use Form Settings to make it visible and active.

Select an owner. If there is no employee master data, choose New to create an employee record for yourself.

Choose **Update**.

The **Progress** column will show the actual progress based on the planned time.

Save your changes to the plan.



Unit: Implementation Tools

Topic: Implementation Methodology

1.1. Create a new project plan based on a template

Choose *Administration* → *System Initialization* → *Implementation Center* → *Implementation Project*.

In the **Plan** tab, select the *Detailed Project Plan* template from the dropdown list.

Choose the *Duplicate Template* icon to create a copy of the Detailed Project Plan.

Enter **Light & Music** as the name and provide a description.

Choose OK.

Select the task called “Project Handover” and remove it from the plan by choosing the *Remove Step* icon (minus sign). If you choose a task that has child entries, you are given the option to remove the child entries as well as the task.

Select a task row and add a new task by choosing the *Add Step* icon (+ sign).

Add a task called “**Learn the implementation tasks**”.

Choose the up and down arrows to move this task up to the start of the plan.

1.2. Add a link to a configuration screen

Select the row for the new task and right-mouse click to open the context menu.

Choose *Add Link*.

In the *Menu Selection Form*, navigate to *Administration* → *System Initialization* → *Implementation Center* → *Implementation Tasks*.

Choose OK.

Test the link. The *Implementation Tasks* window will open. You can close this window.

Choose **Update** to save your changes to the new plan.

1.3. Record progress in the plan

In the **Plan** tab, choose Level 1 to see the high level tasks (phases).

Enter a value of 4 hours in the Planned Time column for the new task.

Switch to the **Progress** tab and choose the drill-down arrow in the Actual Duration column for the new task.

In the Time Record window, enter today’s date, the current time as the Start Time, and the current time + 2 hours as the End Time.

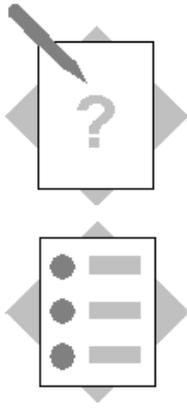
If the *Owner* column is not visible, use *Form Settings* to make this field visible and active.

Select an owner from the list. If there is no employee master data, choose New to create an employee record for yourself. Enter your own name as the employee name, then choose **Add**.

Select the employee name and choose **Update**.

The **Progress** column will show the actual progress based on the planned time.

Save your changes to the plan.



Unit: Implementation Tools

Topic: Express Configuration Wizard

In this exercise, you will create a new company called **Light & Music**. In the new company, make the configuration settings necessary for your localization. You do not have to configure every setting, since there are defaults provided in the localization. However, you should view each setting to gain experience in configuration.

1-1 Create and Configure a Company using the Express Wizard

From the Main Menu, choose *Administration* → *Choose Company*.

In the Choose Company window, select **New**, open the dropdown list, and choose *New Using Wizard*.

Enter the site user password.

1.1.1. Company Details

Enter the following information for the new company:

Field	Information
<i>Company name</i>	The name of the company (Light & Music)
<i>Database name</i>	The name of the database (Light_Music) Note: Do not include spaces or special characters in the database name.
<i>License</i>	If a license has been installed, it will appear here. If no license is installed and this is a new installation, check the Trial Version checkbox.
<i>Local Settings</i>	Select the localization
<i>Chart of Accounts</i>	Select a chart of accounts template for the localization
<i>Base Language</i>	Select the display language
<i>Posting Periods</i>	Enter the Period Code and Period Name for the current fiscal year. Select the sub-period from the list. Choose Continue . Note: Make sure you enter the posting periods for the <i>earliest</i> fiscal year required.

Note: If you leave the *Copy User-Defined Fields and Tables* and *Copy User-Defined Objects* checkboxes as selected, these objects will be copied from the current database.

The system will create the new company. This may take a few minutes.

Enter a password for the **manager** account in the new company.

Enter information for the EULA and accept the EULA.

Enter the company name, address and other details, as required.

1.1.2. Accounting

Review the accounting setup for the localization.

Make the following changes:

1. Add a new G/L account to the chart of accounts. The account is an active, cash account in the Assets drawer, called **National Bank**.
2. Enable the Fixed Assets functionality. You will be prompted to set the initial settings, such as depreciation types and asset classes.
3. Enable Intrastrat (if used in your localization).
4. Enable segmentation accounts (if used in your localization).

Note: Depending on the localization, other settings may appear in this window.

Field	Information
<i>Local Currency</i>	The local currency.
<i>System Currency</i>	Select a parallel currency, if desired, for financial reporting.
<i>Default Account Currency</i>	The default account currency for new G/L accounts.
<i>Currencies</i>	Define additional currencies, if needed.
<i>Exchange Rate Posting</i>	Select an option to display exchange rates.
<i>Display Credit Balance with Negative Sign</i>	Select to display credit balances with a negative sign.
<i>Allow Negative Amounts for Reversal Transaction Posting</i>	Select to have journal entries for reversals posted with negative amounts.
<i>Use Segmentation Accounts</i>	Account segmentation (localization specific).
<i>Enable Advanced G/L Account Determination</i>	Advanced G/L account determination rules.
<i>Chart of Accounts</i>	Add or remove accounts in the template chart of accounts.
<i>G/L Account Determination</i>	Change the default accounts, and define rules if advanced determination is enabled.
<i>Posting Periods</i>	Define posting periods for future fiscal years.
<i>Tax</i>	Define additional tax information, such as tax groups, withholding tax codes, sales tax codes, etc.
<i>Enable Fixed Assets</i>	Enable Fixed Assets functionality.
<i>Enable Intrastrat</i>	Enable Intrastrat functionality (localization specific).

Note: Settings marked with a red exclamation mark (!) can only be changed before the first transaction is posted.

1.1.3. Banking

Review the banking setup for the localization.

Make the following changes:

1. Add the National Bank to the Banks table.
2. Define a House Bank for the National Bank.
3. Set the National Bank as the default house bank.

Field	Information
<i>Banks</i>	Bank codes.
<i>House Bank Accounts</i>	House bank branch accounts.
<i>House Banks</i>	Default bank for the new company.

1.1.4. Business Partners

Review the business partner setup for the localization.

Make the following changes:

1. Define a new payment term for customers – Net 30 days.
2. Define a new customer group – Hotels.

Field	Information
<i>Payment Terms</i>	Payment terms for customers and vendors. Note: The default payment terms for new business partner master data is set in the General Settings.
<i>Payment Methods</i>	Payment methods for the Payment Wizard.
<i>Dunning Terms</i>	Dunning terms for customers.
<i>Customer Groups</i>	Customer groups.
<i>Vendor Groups</i>	Vendor groups.

1.1.5. Inventory

Review the inventory setup for the localization.

Make the following changes:

1. Define a new item group – Screens.

Field	Information
<i>Units of Measure</i>	Units of measure.
<i>Units of Measure Groups</i>	Unit of measure groups.
<i>Item Groups</i>	Item groups.
<i>Inventory Cycles</i>	Cycles for inventory counting.
<i>Price Lists</i>	Add new price lists, and enter item prices in a price list.
<i>Warehouses</i>	Warehouses and bin locations.

1.1.6. Sales and Purchasing

Review the sales and purchasing setup for the localization.

Make the following changes:

1. Set the default gross profit for service documents to 30%.

Field	Information
<i>Document Settings</i>	General document settings and settings per document type.
<i>Permit More than One Document Type per Series</i>	Certain country regulations permit document numbering series that contain more than one document type. Select this checkbox if these regulations are relevant for the company.
<i>Manage Freight</i>	Include a <i>Freight</i> field in sales and purchasing documents.
<i>Decimal Places</i>	The number of decimal places displayed for amounts, prices, exchange rates, quantities, percentages, units, and calculated values in queries.
<i>Document Numbering</i>	Document numbering and additional numbering series.
<i>Calculate Gross Profit</i>	Activate gross profit calculation in sales documents. Select whether to calculate the gross profit percentage as the base price or the sales price.
<i>Landed Costs</i>	Landed costs for importing goods.
<i>Sales Stages</i>	Stages for sales opportunities.
<i>Reference Field Links</i>	Select which fields from documents will be used as reference fields in journal entries posted from the document (reference1, reference2, reference3).

1.1.7. Users

Note: The setup screens in this step will be covered in a later exercise, therefore you can skip this step.

Choose **Finish**.

1.1.8. Configuration Report

Select the link to open the configuration report.

A Crystal Report will open, showing the configuration settings.

Close the wizard.

1.1.9. Compare Configuration Reports

When you make a change to the configuration using the Express Wizard, a new configuration report is generated.

Open the Express Configuration Wizard again by choosing *Administration* → *System Initialization* → *Implementation Center* → *Implementation Tasks* → *Configure Company Settings*.

Make a change to one of the fields on the Company Details screen.

Choose **Finish** to close the wizard.

Choose *Administration* → *System Initialization* → *Implementation Center* → *Configuration Management*.

You should see an additional report listed.

Choose *Ctrl + Click* to select both reports and choose **Compare Configurations**.

A Crystal report will open showing the changes.



Unit: Implementation Tools

Topic: Express Configuration Wizard

In this exercise, you will create a new company called **Light & Music**. In the new company, make the configuration settings necessary for your localization. You do not have to configure every setting, since there are defaults provided in the localization. However, you should view each setting to gain experience in configuration.

1-1 Create and Configure a Company using the Express Wizard

From the Main Menu, choose *Administration* → *Choose Company*.

In the Choose Company window, select **New**, open the dropdown list, and choose *New Using Wizard*.

Enter the site user password.

Choose *Next*.

1.1.1. Company Details

Enter the following information for the new company:

Field	Information
<i>Company name</i>	The name of the company (Light & Music)
<i>Database name</i>	The name of the database (Light_Music) Note: Do not include spaces or special characters in the database name.
<i>License</i>	If a license has been installed, it will appear here. If no license is installed and this is a new installation, check the Trial Version checkbox.
<i>Local Settings</i>	Select the localization
<i>Chart of Accounts</i>	Select a chart of accounts template for the localization
<i>Base Language</i>	Select the display language
<i>Posting Periods</i>	Enter the Period Code and Period Name for the current fiscal year. Select the sub-period from the list. Choose Continue . Note: Make sure you enter the posting periods for the <i>earliest</i> fiscal year required.

Note: If you leave the Copy User-Defined Fields and Tables and Copy User-Defined Objects checkboxes as selected, these objects will be copied from the current database.

Choose *Next*.

The system will create the new company. This may take a few minutes.

Enter a password for the **manager** account in the new company.

Choose **Update**.

Enter information for the EULA and select the checkbox to accept the EULA.

Choose the **I Accept** button.

Choose *Next*.

Enter the company name, address and other details, as required.

Choose *Next*.

1.1.2. Accounting

Review the accounting setup for the localization.

Make the following changes:

1. Add a new G/L account to the chart of accounts. The account is an active, cash account in the Assets drawer, called **National Bank**.
2. Enable the Fixed Assets functionality. You will be prompted to set the initial settings, such as depreciation types and asset classes.
3. Enable Intrastrat (if used in your localization).
4. Enable segmentation accounts (if used in your localization).

Note: Depending on the localization, other settings may appear in this window.

Field	Information
<i>Local Currency</i>	The local currency.
<i>System Currency</i>	Select a parallel currency, if desired, for financial reporting.
<i>Default Account Currency</i>	The default account currency for new G/L accounts.
<i>Currencies</i>	Define additional currencies, if needed.
<i>Exchange Rate Posting</i>	Select an option to display exchange rates.
<i>Display Credit Balance with Negative Sign</i>	Select to display credit balances with a negative sign.
<i>Allow Negative Amounts for Reversal Transaction Posting</i>	Select to have journal entries for reversals posted with negative amounts.
<i>Use Segmentation Accounts</i>	Account segmentation (localization specific).
<i>Enable Advanced G/L Account Determination</i>	Advanced G/L account determination rules.
<i>Chart of Accounts</i>	Add or remove accounts in the template chart of accounts.
<i>G/L Account Determination</i>	Change the default accounts, and define rules if advanced determination is enabled.
<i>Posting Periods</i>	Define posting periods for future fiscal years.
<i>Tax</i>	Define additional tax information, such as tax groups, withholding tax codes, sales tax codes, etc.
<i>Enable Fixed Assets</i>	Enable Fixed Assets functionality.
<i>Enable Intrastrat</i>	Enable Intrastrat functionality (localization specific).

Note: Settings marked with a red exclamation mark (!) can only be changed before the first transaction is posted.

Choose *Next*.

1.1.3. Banking

Review the banking setup for the localization.

Make the following changes:

1. Add the National Bank to the Banks table.
2. Define a House Bank for the National Bank.
3. Set the National Bank as the default house bank.

Field	Information
<i>Banks</i>	Bank codes.
<i>House Bank Accounts</i>	House bank branch accounts.
<i>House Banks</i>	Default bank for the new company.

Choose *Next*.

1.1.4. Business Partners

Review the business partner setup for the localization.

Make the following changes:

1. Define a new payment term for customers – Net 30 days.
2. Define a new customer group – Hotels.

Field	Information
<i>Payment Terms</i>	Payment terms for customers and vendors. Note: The default payment terms for new business partner master data is set in the General Settings.
<i>Payment Methods</i>	Payment methods for the Payment Wizard.
<i>Dunning Terms</i>	Dunning terms for customers.
<i>Customer Groups</i>	Customer groups.
<i>Vendor Groups</i>	Vendor groups.

Choose *Next*.

1.1.5. Inventory

Review the inventory (stock) setup for the localization.

Make the following changes:

1. Define a new item group – Screens.

Field	Information
<i>Units of Measure</i>	Units of measure.
<i>Units of Measure Groups</i>	Unit of measure groups.
<i>Item Groups</i>	Item groups.
<i>Inventory Cycles</i>	Cycles for inventory counting.
<i>Price Lists</i>	Add new price lists, and enter item prices in a price list.
<i>Warehouses</i>	Warehouses and bin locations.

Choose *Next*.

1.1.6. Sales and Purchasing

Review the sales and purchasing setup for the localization.

Make the following changes:

1. Set the default gross profit for service documents to 30%.

Field	Information
<i>Document Settings</i>	General document settings and settings per document type.
<i>Permit More than One Document Type per Series</i>	Certain country regulations permit document numbering series that contain more than one document type. Select this checkbox if these regulations are relevant for the company.
<i>Manage Freight</i>	Include a <i>Freight</i> field in sales and purchasing documents.
<i>Decimal Places</i>	The number of decimal places displayed for amounts, prices, exchange rates, quantities, percentages, units, and calculated values in queries.
<i>Document Numbering</i>	Document numbering and additional numbering series.
<i>Calculate Gross Profit</i>	Activate gross profit calculation in sales documents. Select whether to calculate the gross profit percentage as the base price or the sales price.
<i>Landed Costs</i>	Landed costs for importing goods.
<i>Sales Stages</i>	Stages for sales opportunities.
<i>Reference Field Links</i>	Select which fields from documents will be used as reference fields in journal entries posted from the document (reference1, reference2, reference3).

Choose *Next*.

1.1.7. Users

Note: The setup screens in this step will be covered in a later exercise, therefore you can skip this step.

Choose *Next*.

Choose *Finish*.

1.1.8. Configuration Report

Select the link to open the configuration report.

A Crystal Report will open, showing the configuration settings.

Close the Express Wizard.

1.1.9. Compare Configuration Reports

When you make a change to the configuration using the Express Wizard, a new configuration report is generated.

Open the Express Configuration Wizard again by choosing *Administration* → *System Initialization* → *Implementation Center* → *Implementation Tasks* → *Configure Company Settings*.

Make a change to one of the fields on the Company Details screen.

Choose **Finish** to close the wizard.

Choose *Administration* → *System Initialization* → *Implementation Center* → *Configuration Management*.

You should see an additional report.

Choose *Ctrl + Click* to select both reports and choose **Compare Configurations**.

A Crystal report will open showing the changes.



Unit: Implementation Tools

Topic: Quick Copy



In this exercise, you will copy business partner and item master data records from one SAP Business One company to another company.

Important: Before you start the exercise, you need to identify your source and target companies. The companies must have the same localization. If necessary, create a new company with the same localization as your source company. **Note:** If you are not able to create a new company, you can copy the *Customization* category to a company with a different localization.

1-1 Copy Data to a File (Export)

Log in to the source company.

From the Main Menu, choose *Administration* → *System Initialization* → *Implementation Center* → *Implementation Tasks* → *Copy Data Between Companies*.

In the Quick Copy window, select **Copy to File** and choose **Browse** to enter a name for the qdf file.

Select one of the error handling options.

The **OK** button will now become active. Choose **OK**.

The **Data Categories** on the left-hand side are now selectable.

Expand the *Business Partners* hierarchy.

Select the checkbox for the *Business Partner Master Data* category.

If you select the row, the business partner master records will display on the right. They will automatically be selected for copying.

Expand the *Inventory* (Stock) hierarchy.

Select the checkbox for the *Item Master Data* category and select the row to display the records selected for copying.

Choose **Export**.

A window will open showing any data dependencies. For example, there will be dependencies on BP Groups, Currencies, Item Groups and item warehouses.

To view the actual dependent records, select the link arrow for one of the dependent rows.

Note: The dependent records will be copied by default with the master data records.

Choose **Continue**.

The copy will start and the copy progress will show in the status bar at the bottom of the screen.

The Quick Copy log will show the actual number of records exported to the qdf file.

Close the Quick Copy windows. The system will prompt you to save a project file. This is optional. If you choose **Yes**, enter a name for an xml file that saves the settings and selected categories. Note that you can only reuse the xml file in the source company.

1-2 Copy Data from a File (Import)

Log in to the target company.

From the Main Menu, choose *Administration* → *System Initialization* → *Implementation Center* → *Implementation Tasks* → *Copy Data Between Companies*.

In the Quick Copy window, select **Copy from File** and choose **Browse** to select the qdf file you saved in step 1-1. Choose **Open**.

Select one of the **Copy Method** options.

Select one of the **Error Handling** options for responding to errors.

Note: If the selected records contain user-defined fields, the category *Customization > User-Defined Data > User-Defined Fields* is automatically selected as a dependent category and the UDFs will be copied. If you do not want to copy the UDFs from the source company, you must select the option to ignore missing UDFs, otherwise the import will fail.

Select one of the **Copy Options**:

- The first option determines the response of the application when copying objects with assigned accounts:
 - *Use Accounts in Source* – If the source accounts also exist in the target, then the application copies the account assignments from the object in the source to the object in the target. However, if the source accounts do not exist in the target, then the application encounters an error during the copy process.
 - *Use Default Accounts in Target* – The application assigns the default accounts in the target to the object, and does not copy the source assignments.
- The next option determines whether a blank field will overwrite a non-blank field when target records are being updated.

Important! For this exercise, deselect the *Force Backup* checkbox.

Choose **OK**.

The selected data categories from the copy file are displayed on the left. You can select the Business Partners and Inventory categories to check the individual records to be copied.

Choose **Import**.

Check for any error messages in the system messages log.

Note: To review the log later, open Quick Copy and choose *Open Log File* from the **Quick Copy** menu on the top menu bar.

1-3 Validate the data

Check the item and business partner master data records in the target company.



Unit: Implementation Tools

Topic: Quick Copy

In this exercise, you will copy business partner and item master data records from one SAP Business One company to another company.

Important: Before you start the exercise, you need to identify your source and target companies. The companies must have the same localization. If necessary, create a new company with the same localization as your source company. **Note:** If you are not able to create a new company, you can copy the *Customization* category to a company with a different localization.

1-1 Copy Data to a File (Export)

Log in to the source company.

From the Main Menu, choose *Administration* → *System Initialization* → *Implementation Center* → *Implementation Tasks* → *Copy Data Between Companies*.

In the Quick Copy window, select **Copy to File** and choose **Browse** to enter a name for the qdf file.

Select one of the error handling options.

The **OK** button will now become active. Choose **OK**.

The **Data Categories** on the left-hand side are now selectable.

Expand the *Business Partners* hierarchy.

Select the checkbox for the *Business Partner Master Data* category.

If you select the row, the business partner master records will display on the right. They will automatically be selected for copying.

Expand the *Inventory (Stock)* hierarchy.

Select the checkbox for the *Item Master Data* category and select the row to display the records selected for copying.

Choose **Export**.

A window will open showing any data dependencies. For example, there will be dependencies on BP Groups, Currencies, Item Groups and item warehouses.

To view the actual dependent records, select the link arrow for one of the dependent rows.

Note: The dependent records will be copied by default with the master data records.

Choose **Continue**.

The copy will start and the copy progress will show in the status bar at the bottom of the screen.

The Quick Copy log will show the actual number of records exported to the qdf file.

Close the Quick Copy windows. The system will prompt you to save a project file. This is optional. If you choose **Yes**, enter a name for an xml file that saves the settings and selected categories. Note that you can only reuse the xml file in the source company.

1-2 Copy Data from a File (Import)

Log in to the target company.

From the Main Menu, choose *Administration* → *System Initialization* → *Implementation Center* → *Implementation Tasks* → *Copy Data Between Companies*.

In the Quick Copy window, select **Copy from File** and choose **Browse** to select the qdf file you saved in step 1-1. Choose **Open**.

Select one of the **Copy Method** options.

Select one of the **Error Handling** options for responding to errors.

Note: If the selected records contain user-defined fields, the category *Customization* > *User-Defined Data* > *User-Defined Fields* is automatically selected as a dependent category and the UDFs will be copied. If you do not want to copy the UDFs from the source company, you must select the option to ignore missing UDFs, otherwise the import will fail.

Select one of the **Copy Options**:

- The first option determines the response of the application when copying objects with assigned accounts:
 - *Use Accounts in Source* – If the source accounts also exist in the target, then the application copies the account assignments from the object in the source to the object in the target. However, if the source accounts do not exist in the target, then the application encounters an error during the copy process.
 - *Use Default Accounts in Target* – The application assigns the default accounts in the target to the object, and does not copy the source assignments.
- The next option determines whether a blank field will overwrite a non-blank field when target records are being updated.

Important! For this exercise, deselect the *Force Backup* checkbox.

Choose **OK**.

The selected data categories from the copy file are displayed on the left. You can select the Business Partners and Inventory categories to check the individual records to be copied.

Choose **Import**.

Check for any error messages in the system messages log.

Note: To review the log later, open Quick Copy and choose *Open Log File* from the **Quick Copy** menu on the top menu bar.

1-3 Validate the data

Check the item and business partner master data records in the target company.



Unit: Implementation Tools

Topic: Solution Packager



In this exercise, you will use the Solution Packager to package a company database and optional add-on into a file, then create a new company from the package file.

Important! You need to know the database user and password for the server.

1-1 Check for installed add-ons (optional)

This step is optional, but if you have an add-on installed on your system, you will see how Solution Packager can package the add-on for distribution.

If you do not have an add-on installed on your system, you can install one of the SAP add-ons as follows:

Note: You must have access to the SAP Business One installation files.

Choose *Administration* → *Add-Ons* → *Add-On Administration*.

Select a SAP add-on from the list of available add-ons and choose the **Register Add-On** button.

In the Add-On Registration window, choose **Browse** to locate the AddOn Registration Data file (*.ard).

Choose **Open**.

Select **Install as Part of Registration**.

1-2 Create a package file

You can launch Solution Packager from the SAP Business One client or as a standalone application:

Launch	Path
From the SAP Business One client	From the Main Menu, choose <i>Administration</i> → <i>System Initialization</i> → <i>Implementation Center</i> → <i>Implementation Tasks</i> → <i>Package a Preconfigured Solution Using Solution Packager</i> . Note: If Solution Packager does not open, check the path settings. Choose <i>Administration</i> → <i>System Initialization</i> → <i>Implementation Center</i> → <i>Path Settings</i> .
As a standalone application	Choose <i>Start</i> → <i>All Programs</i> → <i>SAP</i> → <i>SAP Business One</i> → <i>Solution Packager</i> . Note: The path may be different in your system.

Enter information for the package. The first three fields are mandatory:

Field	Information
<i>Solution Name</i>	A short description of the package
<i>Industry</i>	Select an industry from the dropdown list, or choose <i>Other</i> .
<i>Industry-Specific</i>	De-select the checkbox for the purposes of this exercise
<i>Solution Version</i>	Enter the version

Enter the name and contact information for the vendor of the solution.

Enter the database login credentials.

Select an SAP Business One company to package.

Note: Make sure no one is logged into the chosen company.

In the next steps the wizard displays the following objects from the source company. You can select these objects to go into the package:

- External objects added by a Software Solution Provider, such as stored procedures, functions and custom SQL scripts.
- User-Defined Objects
- User-Defined Tables
- User-Defined Fields
- Alerts
- UDV
- Queries
- Item data for selected item group
- Users
- Cockpits and dashboards
- Reports and print layouts
- Project templates
- Add-ons
- External databases added by a Software Solution Provider.

If the system does not find any objects, the selections are grayed out.

Select a folder to store the .pak file, then choose **Package**.

Choose **Finish**.

1-3 Create a new company from the package file

From the Main Menu, choose *Administration* → *Choose Company*.

Select the **New** button and choose *New from Package* from the dropdown list.

Enter the site user password.

Select the package file.

Verify the solution information.

Enter a name for the new company.

You have the option to select a chart of accounts template, or you can use *Predefined* from the package.

Verify the posting periods and sub periods.

The tables for the new company are created. This step may take several minutes.

Note: If the system is unable to create a table, a message will be logged in the *System Messages* area of the new company.

Choose **Finish** to exit the wizard.

Enter a new password for the manager user.

Sign and accept the EULA.

You can now fine tune the configuration of the new company.



Unit: Implementation Tools

Topic: Solution Packager

In this exercise, you will use the Solution Packager to package a company database and optional add-on into a file, then create a new company from the package file.

Important! You need to know the database user and password for the server.

1-1 Check for installed add-ons (optional)

This step is optional, but if you have an add-on installed on your system, you will see how Solution Packager can package the add-on for distribution.

If you do not have an add-on installed on your system, you can install one of the SAP add-ons as follows:

Note: You must have access to the SAP Business One installation files.

Choose *Administration* → *Add-Ons* → *Add-On Administration*.

Select a SAP add-on from the list of available add-ons and choose the **Register Add-On** button.

In the Add-On Registration window, choose Browse to locate the AddOn Registration Data file (*.ard).

Choose Open.

Select **Install as Part of Registration**.

1-2 Create a package file

You can launch Solution Packager from the SAP Business One client or as a standalone application:

Launch	Path
From the SAP Business One client	From the Main Menu, choose <i>Administration</i> → <i>System Initialization</i> → <i>Implementation Center</i> → <i>Implementation Tasks</i> → <i>Package a Preconfigured Solution Using Solution Packager</i> . Note: If Solution Packager does not open, check the path settings. Choose <i>Administration</i> → <i>System Initialization</i> → <i>Implementation Center</i> → <i>Path Settings</i> .
As a standalone application	Choose <i>Start</i> → <i>All Programs</i> → <i>SAP</i> → <i>SAP Business One</i> → <i>Solution Packager</i> . Note: The path may be different in your system.

In the Solution Packager wizard, choose *Next* to start the packaging.

Enter information for the package. The first three fields are mandatory:

Field	Information
<i>Solution Name</i>	A short description of the package
<i>Industry</i>	Select an industry from the dropdown list, or choose <i>Other</i> .
<i>Industry-Specific</i>	De-select the checkbox for the purposes of this exercise
<i>Solution Version</i>	Enter the version

Choose *Next*.

Enter the name and contact information for the vendor of the solution.

Choose *Next*.

You will be prompted to login to the database server. Enter the database login credentials.

Choose *OK*.

The system displays all the available databases on the server. Select an SAP Business One company to go into the package.

Note: Make sure no one is logged into the chosen company.

In the next steps the wizard displays the following objects from the source company. You can optionally make selections to go into the package:

- External objects added by a Software Solution Provider, such as stored procedures, functions and custom SQL scripts. Select the checkbox and select the objects to go into the package.
- User-Defined Objects
- User-Defined Tables
- User-Defined Fields
- Alerts
- UDV
- Queries
- Item data for selected item groups
- Users
- Cockpits and dashboards
- Reports and print layouts
- Project templates
- Add-ons
- External databases added by a Software Solution Provider

If the system does not find any objects, the selections are grayed out.

Select a folder to store the .pak file, then choose **Package**.

Choose **Finish**.

1-3 Create a new company from the package file

From the Main Menu, choose *Administration* → *Choose Company*.

Select the **New** button and choose *New from Package* from the dropdown list.

Enter the site user password.

Select the package file.

Choose *Next*.

Verify the solution information, then choose *Next*.

Enter a name for the new company.

Choose *Next*.

You have the option to select a chart of accounts template, or you can use *Predefined* from the package.

Verify the posting periods and sub periods, then choose *Next*.

Verify the summary, then choose *Next*.

The tables for the new company are created. This step may take several minutes.

Note: If the system is unable to create a table, a message will be logged in the *System Messages* area of the new company.

Choose **Finish** to exit the wizard.

Enter a new password for the manager user.

Sign and accept the EULA.

You can now fine tune the configuration of the new company.

Unit 2 - Contents

Project Realization

- Software and Licensing
- Security
- User Accounts
- Document Numbering and Printing

Project Realization: Software and Licensing

SAP Business One
Release 9.0



In this topic we will cover the software components and licensing for SAP Business One.

Objectives



Objective:

- Describe the architecture and components of SAP Business One and the process for installation
- Explain when the site user password is required
- Explain the purpose and functions of the Service Manager
- Follow the license key request process and install a license key

In this topic, you will learn about the architecture and components of SAP Business One and the process for installation.

You will be able to explain when the site user password is required, and the purpose and functions provided by the Service Manager.

Lastly, you will be able to follow the SAP processes to request a license key and install it in SAP Business One.

Business Scenario



- During the Project Preparation phase, you install the SAP Business One software at the customer. Before you download and install the software, you need to verify the following for release 9.0:
 - The system and hardware requirements
 - The installation process and sequence for installing components
 - The various landscape options for deploying SAP Business One
 - SAP's licensing model.

Before you download and install the SAP Business One software for the first time, you need to verify the following for release 9.0:

- The system and hardware requirements
- The installation process and sequence for installing components
- The various landscape options for deploying SAP Business One
- SAP's licensing model.



Agenda

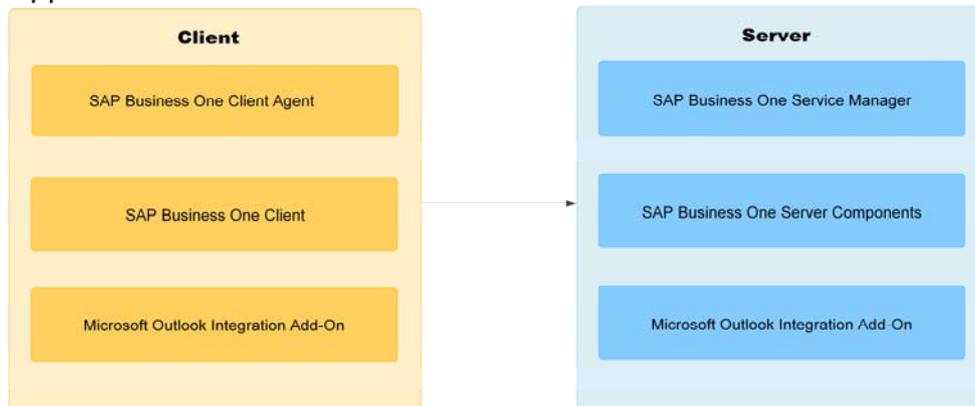
- **Architecture**
- Installation
- Licensing



The first part of this topic examines the architecture and components of SAP Business One.

Architecture Basics

- Client-server architecture with client installed on each user's workstation
- Client executable contains GUI and business objects
- The SAP Business One server stores only data
- Client agent service facilitates silent updates
- Support for mobile clients



SAP Business One uses a client-server architecture.

The client executable is installed on each user's workstation (also on the server for local administration purposes). The client is available in 32 bit and 64 bit versions. You can run both versions on the same machine.

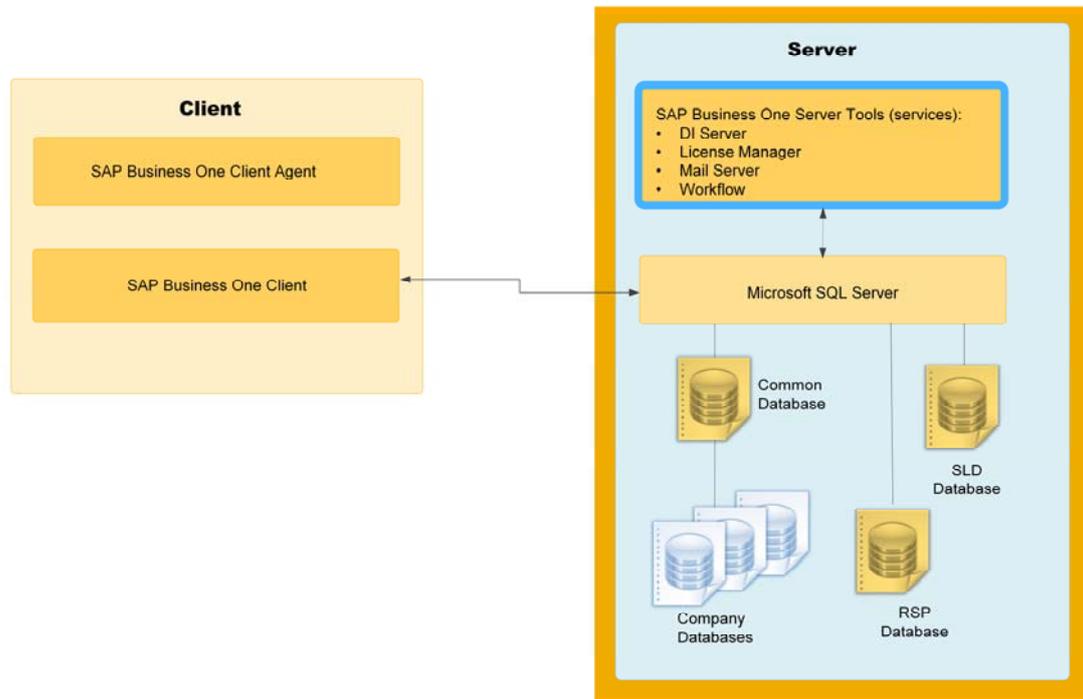
The client executable consists of a graphical user interface and the business object classes connecting to the database. The SAP Business One server stores only data and does not use triggers.

The client agent is installed automatically with the client install. This is a Microsoft Windows service that runs in the background. It saves any parameters that you provide during the client installation, for possible future use. It also facilitates "silent" updates to the client and any installed add-ons on the client workstation.

SAP Business One also supports mobile clients using the Mobile App for iPhone and iPad.

If the Microsoft Outlook Integration add-on is installed, there a server component and the add-on must be installed on the client as well.

Architecture – Server Tools



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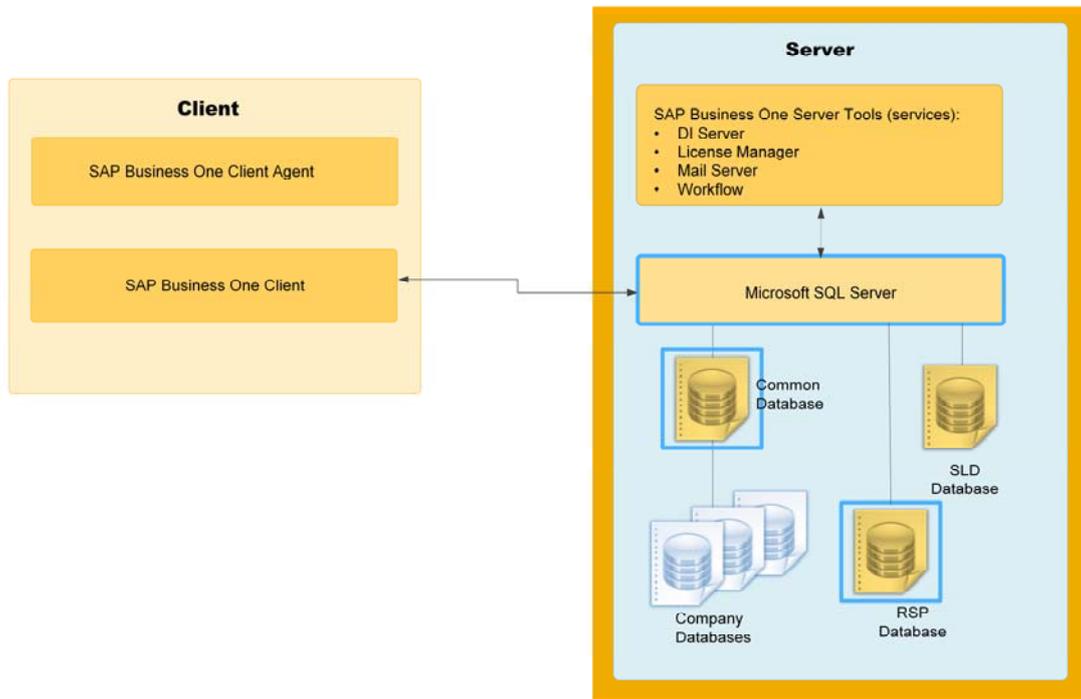
Server components include the server tools.

The server tools run as services. The *Service Manager* is installed with the server tools and provides an interface for configuring, starting and stopping these services:

- The *DI Server* enables partners to use SAP Business One data in a browser without the need to install any SAP Business One component on the client or the application server of the web-based application. A separate license is required for the DI-Server. One license is needed per machine.
- The *License Manager* tracks user sessions and purchased licenses, and is automatically installed during the SAP Business One installation. You have the option to install it on a different machine from the main server, in which case the license server is accessed using an IP address and port number.
- The *System Landscape Directory* database is also installed, and is used for managing the landscape and authenticating users.
- The optional *Workflow* service allows users to visually design the flow of tasks for a work process and assign tasks to different users to complete the process.
- The optional *Mailer* service allows for the sending of emails and faxes from the SAP Business One client to external users.

The SLD database is installed with the Server Tools and is used for authentication of users.

Architecture – SAP Business One Server



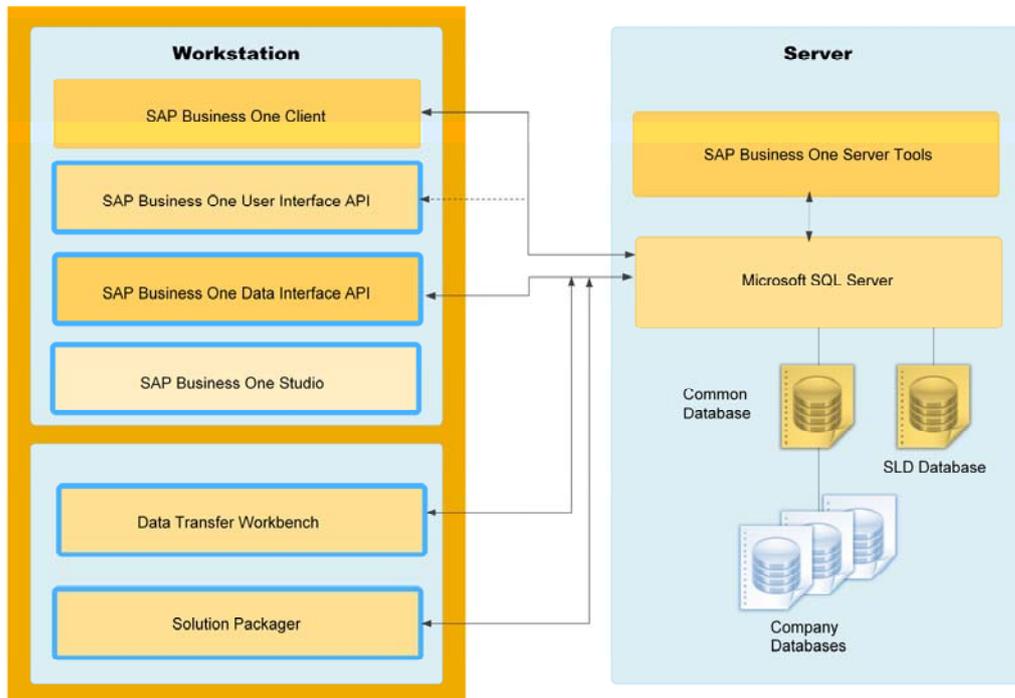
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The SAP Business One server components include the database server, the common database (SBO-Common) and the individual company databases. Each SAP Business One company uses a separate database on the server. The common database holds system, version and upgrade information and does not hold any company data. The common database does not appear in the list of company databases.

The *Remote Support Platform* (RSP) service is installed with the server installation, and has its own database on the server. RSP proactively manages the maintenance and support of the server, and is used for distribution of software patches.

Optional Client Components



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Optional client side components that can be installed include the Software Development Kit, the Data Transfer Workbench, and the Solution Packager tools. The *Software Development Kit* (SDK) allows partners to extend SAP Business One using APIs and other features. The SDK consists of:

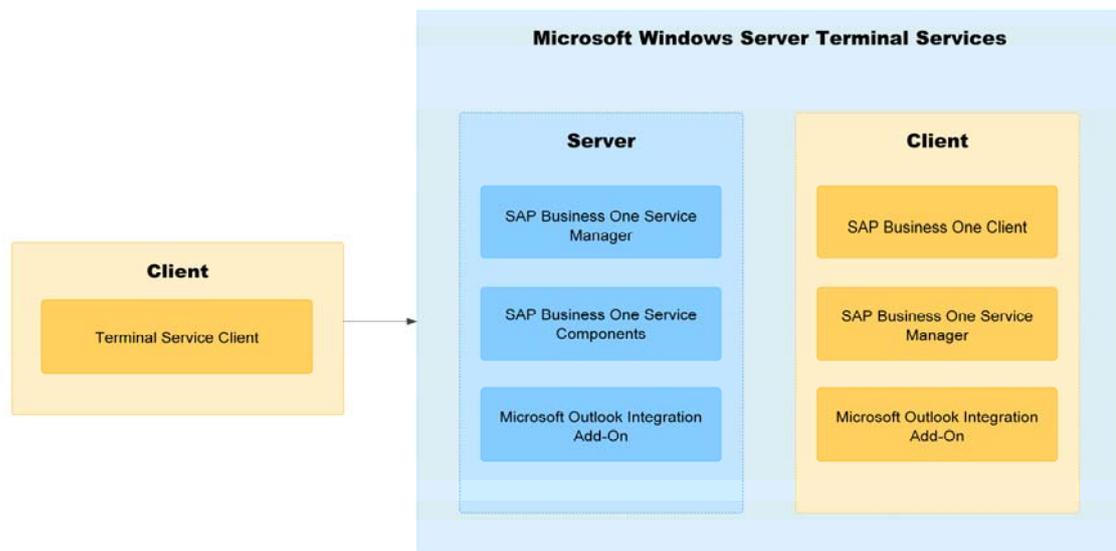
- The User Interface API. This SDK component is used by add-ons and allows the add-on to access and edit GUI forms and menus.
- The Data Interface API. This SDK component is used by add-ons to access SAP Business One objects. Most SAP Business One objects are exposed in this API.
- The SAP Business One Studio. SDK developers can use the Studio to create add-ons, and partners can use the Studio to design and implement workflows in SAP Business One.

A development environment, for example, Microsoft Visual Basic .NET, or Microsoft Visual Studio 6.0, is required to use the APIs and the SAP Business One Studio.

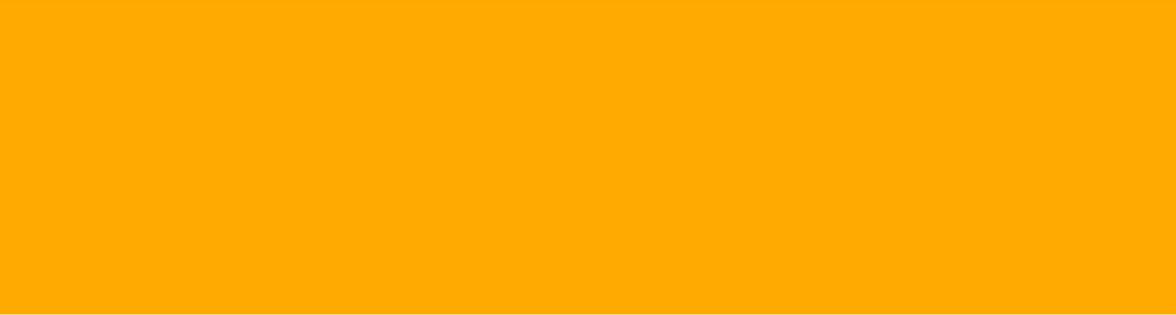
The *Data Transfer Workbench* and *Solution Packager* tools can be installed on the desktop with or without the client. They use the DI API to communicate to the SAP Business One server, and this is installed automatically with these tools. If these tools are installed during the server installation, they are also accessible from within the Implementation Center in the SAP Business One client.

Note that the SDK includes documentation for SAP Business One objects and tables. This is a useful resource for partners who migrate data using the Data Transfer Workbench.

Remote Client



The client is normally installed on each user's workstation; however, it only needs to be installed once if using client presentation software such as Windows Terminal Services or Citrix Server.



Agenda

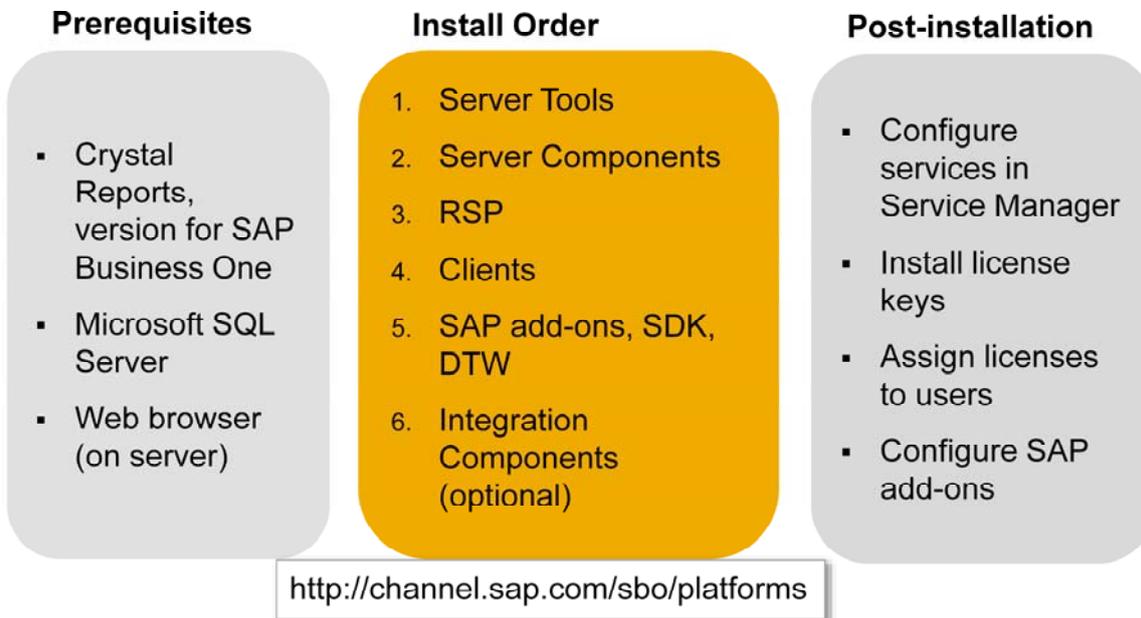
- Architecture
- **Installation**
- Licensing



The next part of this topic covers the installation process for SAP Business One.

Installation Process/Checklist

Installation process described step-by-step in *Administrator's Guide*



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You can download the installation files from the PartnerEdge portal, or purchase an installation DVD. The installation process is easy to follow, since it is driven by a wizard. The process is described step-by-step in the *Administrator's Guide* distributed with the product.

The prerequisites before installation are:

- SAP Crystal Reports, version for SAP Business One. You can download this software from the PartnerEdge portal.
- Microsoft SQL Server installed and login credentials available. Note that Microsoft SQL Server licenses can be optionally purchased from SAP.
- Web browser on the server machine, for access to the System Landscape Directory.

The installation order for the components is:

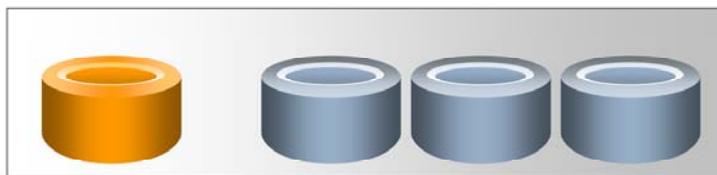
1. The SAP Business One Server Tools. The license server is installed in this step.
2. The SAP Business One Server. This step creates the SBO-Common database and registers the SAP add-ons.
3. The Remote Support Platform for SAP Business One.
4. The SAP Business One Client. Always run the client setup executable with Administrator privileges. When installing multiple clients, run the installation from the shared folder created on the SAP Business One Server.
5. Optional client components, such as add-ons, the SDK, Solution Packager and DTW.
6. Integration components for the SAP Business One Server, if required.

For information on supported hardware and software platforms, refer to <http://channel.sap.com/sbo/platforms>.

Site User

The site user password is set during installation and is required to:

- Configure the Service Manager settings for a new installation
- Create new companies
- Run the upgrade wizard
- Assign credentials to the read-only database user
- Access the System Landscape Directory (SLD)



The site user is created during the installation of the server tools, and you will be prompted to create a password. The site user (b1siteuser) provides an additional layer of security in SAP Business One, that is higher than the super user. The site user is not associated with a user account.

The site user password should be carefully controlled in the client company, since it is required to:

- Configure the Service Manager settings, the first time after a new installation (one time)
- Create new companies
- Run the upgrade wizard to upgrade to a new release or patch level
- Assign the credentials for a read-only database user within SAP Business One
- Access the System Landscape Directory (SLD)

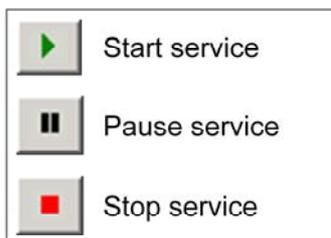
Post-Installation Work

Start > Programs > SAP Business One > Server Tools > Service Manager



Services:

- License Manager
- DI Server
- Workflow
- Mailer



After installing SAP Business One, you need to configure and start the services in the Service Manager:

- License Manager
- DI Server
- Workflow
- Mailer (optional)

The License Manager service must run continuously, to allow users to login. Therefore you should select the *Start when operating system starts* checkbox.

The other services can be started when required.

Once the system is up and running, you can use the Service Manager to start and stop these services. Alternately, you can start and stop these services from Microsoft Windows.

SAP Add-ons

Administration > Add-Ons > Add-on Administration

32-bit Add-ons

Electronic File Manager
Microsoft Outlook
Integration
Payment Engine
Screen Painter
Datev FI Interface
ELSTER Electronic Tax
Return (for EU countries)

64-bit Add-ons

Electronic File Manager
Microsoft Outlook
Integration
Payment Engine
Screen Painter



During the installation, the SAP provided add-ons are registered and you can now install them. To install an add-on, choose *Administration > Add-Ons > Add-On Administration*.

Note that some add-ons are available in 64 bit version; however, if the SAP Business One client is 32 bit, you can only run 32-bit add-ons.

Note that the Fixed Assets, Intrastat, and Copy Express add-ons from previous releases have been integrated into the core in release 9.0.

Server Directories



B1_SHR:

- Installation files for client software (32-bit and 64-bit)
 - DI API software for client install
 - Crystal Reports integration package
-
- Make sure client workstations have permissions to access shared folders

During installation, the *B1_SHR* folder is created on the SAP Business One server, in the path specified during the server installation.

The *B1_SHR* directory should be accessible from all client workstations. This folder contains the installation files for the client software. You should install the client software on the client workstations from this path.

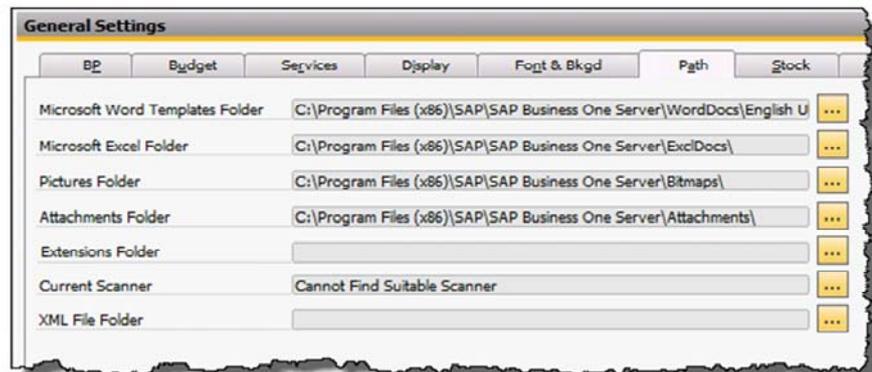
Make sure that the client workstations have permissions to access the shared folders on the server.

Paths to Shared Files

Administration > System Initialization > General Settings

Set paths to shared folders for:

- Microsoft Word templates
- Microsoft Excel
- Pictures
- Attachments
- Extensions
- Scanner
- XML files



You can also store common files and templates in the SAP Business One server folders. These folders are used by the system when users perform functions such as exporting a document as a PDF file.

You must first define the paths for the common folders. Choose *Administration* → *System Initialization* → *General Settings* and then select the *Path* tab. After the paths are set, they apply to *all* SAP Business One users.

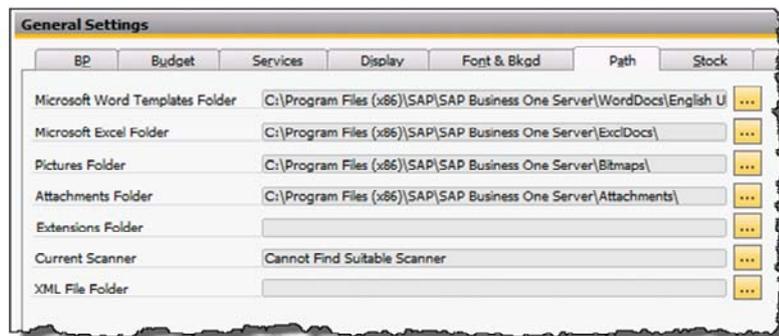
Note that you do not have to use the *B1_SHR* directory for these paths; you can use any shared folder on the server that is accessible by all users.

Paths to Shared Files (Cont.)

Administration > System Initialization > General Settings

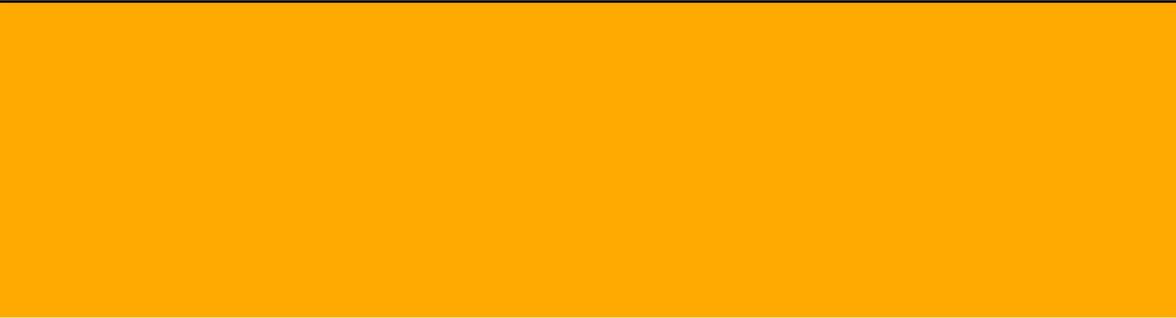
Set paths to shared folders for:

- Microsoft Word templates
- Microsoft Excel
- Pictures
- Attachments
- Extensions
- Scanner
- XML files



The shared folders are used as follows:

- The WordDocs folder contains templates for exporting data to Microsoft Word. There are templates provided for each localization.
- The ExclDocs folder is used for exporting data to Microsoft Excel.
- In the Pictures folder you can store images for use in master data and print layouts. If you do not specify a path for the Pictures folder, you cannot perform certain actions, such as adding images to master data records, printing documents with company logos, and so on.
- The Attachments folder is used to export data to a PDF, and also for attachments used in internal e-mails, contacts, and so on. The attachments folder is also required when adding a user-defined field that will hold a Web address.
- In the Extensions folder you can store secured images, include official stamps, which, due to legal requirements, can be saved on your computer as *.dll files only, and not as picture formats.
- If a document scanner is connected to the system, it is automatically detected when you choose the *Browse* button for the Current Scanner path. The scanner location is then stored in this path, allowing scanned documents to be integrated with relevant screens. For example, when you enter an item, you can scan an image directly from the images tab for a master record.
- The XML Files folder is used by the system when you export to XML.



Agenda

- Architecture
- Installation
- **Licensing**



The final part of this topic covers the licensing aspects of SAP Business One.

Licensing Basics

- A license must be assigned to a specific user in SAP Business One
- License server checks if user has required license for form
- License server check takes place before general authorization validation
- Contract specifies user license types and localizations
- When a user first logs in, they must sign EULA
- To see record of EULAs in SAP Business One, choose *Administration* → *License* → *End User License Agreement*



A license must be assigned to a specific user in SAP Business One, in accordance with the contract.

- Whenever a logged-in user accesses a form in SAP Business One, the license server checks if the user has the required license for that form. This check takes place before the general authorization validation. If a user is not authorized to a function provided by the license type, the user will receive an error from the license server if they try to access these functions.
- The contract specifies the user license types and the localizations. When the partner enters the order in the SAP channel partner portal, the number and type of the licenses is recorded. When a user first logs on to SAP Business One, they are prompted to sign the End User License Agreement (EULA). To see a record of EULAs, choose *Administration* → *License* → *End User License Agreement*.

License Comparison Chart

Functionality	Professional	Limited CRM	Limited Logistics	Limited Financial	Starter Package
Sales Opportunities	✓	✓			✓
Sales Quotations	✓	✓	View	View	✓
Sales Order	✓	✓	✓	View	✓
A/R Invoice	✓	View	✓	View	✓
Purchase Order	✓	✓	✓	View	✓
Goods Receipt PO	✓	<i>Note: this is a partial list of functions for each license type. For a full list, refer to the license comparison chart on the portal.</i>			
A/P Invoice	✓				

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There are several types of licenses for SAP Business One, at different prices for access to different functionality:

- The *Professional* license type provides unrestricted access to all SAP Business One functionality, and the SDK tools. If the user is a super user (checkbox in user account), you should assign a *Professional* license type.
- The *Limited CRM*, *Limited Logistics*, and *Limited Financials* license types are aimed for employees that perform daily operational tasks. Limited licenses do not provide access to all functionality in SAP Business One. However, you can assign multiple limited license types to a user, if needed. In this case the highest authorization will apply.
- The *Starter Package* license type provides access to all functionality available with the Starter Package. A maximum of 5 users is allowed for this license type.

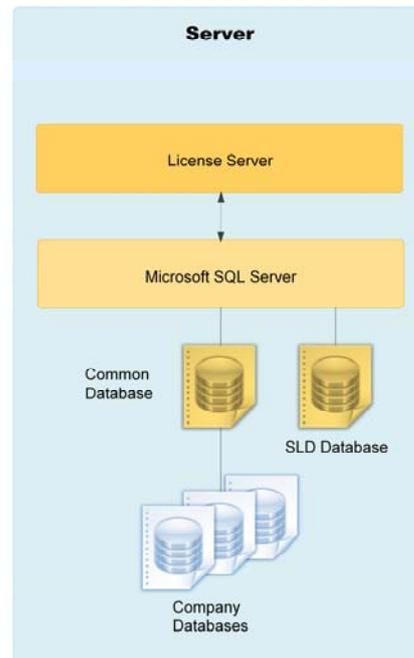
This slide shows a partial list of the functions for each license type. For a full list, see the license comparison chart on the PartnerEdge portal at <http://sappartneredge.com/B1/license>.

The above license types cover the SAP Business One mobile application for the iPhone and iPad.

There is another license type, the *Indirect Access* type, which provides access to licensed third party add-ons developed with the SAP Business One DI-API. The user is *not* authorized to any of the standard SAP Business One screens, and will require a limited or professional license to access SAP Business One functionality. The Indirect Access license type is included by default in all the other license types.

License Localization

- License key is country specific
- Customers operating across multiple localizations need license key for each localization
- Multiple license keys can be loaded in the license server
- Global license available only by special request
- Server tools can be installed on separate server
- See the *License Guide* for more information



The license key is country specific, meaning that users are only permitted to access companies of the licensed localization. Customers who will be operating across multiple localizations need multiple license keys – one for each localization.

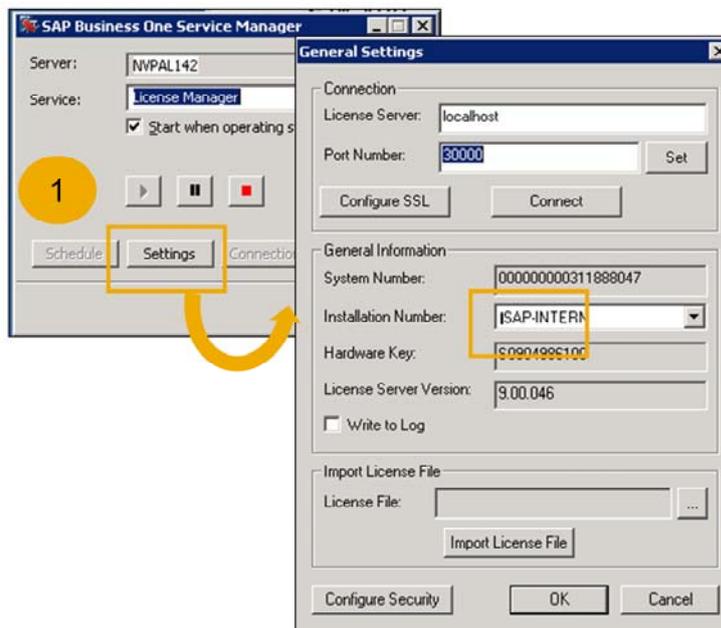
Multiple license keys can be loaded in the license server, and you can select the localization license when you assign a license to a user.

Note that a single, global license to cover multiple localizations is only available by special request.

The license server can be installed on a separate server within the network, and user workstations can access the license server using the IP address and port number.

For more information on the licensing architecture, reference the *License Guide* supplied with the installation software.

License Key Request



License key is required for a new SAP Business One system, and when:

- The hardware key has changed
- The number of users has changed
- Additional SAP components are added

Process:

1. Obtain Hardware key

You can run the newly-installed SAP Business One product version for 31 days without a license. To continue working with the application after 31 days, you must request and install a valid license key assigned by SAP.

In addition, you must request a new license key when:

- The hardware key has changed
- The number of users has changed
- Additional SAP components are added to the contract

To install a valid license key, you first obtain the Hardware Key from the server. The hardware key is generated from the hardware data (motherboard) of the server on which the license manager is installed. To obtain the hardware key for the server, open the Service Manager and select the License Manager service. Choose *Settings* to open the General Settings screen, and copy the string for the Hardware Key field. The Hardware Key is also available from the *Help > About SAP Business One* menu in the application.

License Key Request (Cont.)

2

<http://service.sap.com/smb/sbo/licensekeys>

Process:

1. Obtain Hardware key
2. **Request License Key**

Please choose the number of users for the SAP components and for Partner components.

Existing Components	
Component	Number of Users
<input type="checkbox"/> Professional User	2

Add SAP Standard Components	
Component	Number of Users
<input type="checkbox"/> Limited Financials User	2
<input type="checkbox"/> Limited Logistics User	3

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To request the license key, navigate to the license key request page on the PartnerEdge portal at <http://service.sap.com/smb/sbo/licensekeys>.

You need an S-user with the authorization "License key request for partner" for the corresponding installation number.

The super-admin within your organization can provide you with this authorization.

To see the contracted license types, select the customer installation and system. If this is a new system, you can add it.

Enter the required fields and paste the string for the hardware key.

Select the component license types and enter the number of users for each license type.

Submit the license request.

Note that, you need to request a license for every localization that the client will run, and if you select any third-party add-ons, the third-party partner will receive a list of licenses that have been given out to customers.

License Key Request (Cont.)

General Settings

Connection
License Server: localhost
Port Number: 30000
Set
Configure SSL
Connect

General Information
System Number: 000000000311888047
Installation Number: ISAP-INTERN
Hardware Key: S0904986100
License Server Version: 9.00.046
 Write to Log

Import License File
License File:
Import License File

Configure Security
OK
Cancel

Process:

1. Obtain Hardware key
2. Request License Key
3. **Import License Key file**

License Administration

License Server: localhost Port: 30000 Browse

Allocation Components

Company: OEC Computers License: SAP-INTERN-SAP-INTERN(Global) Change

Users	B1 User Type Licenses	Used	Available
alex	Limited Financials User	<input type="checkbox"/>	5
B II	Indirect Access User	<input type="checkbox"/>	6
B III	Limited Logistics User	<input type="checkbox"/>	6
bill	Professional User	<input type="checkbox"/>	10
bob	SAP AddOns	<input type="checkbox"/>	99998
brad	External Licenses	Used	Available
carlos			
christin			
dana			

OK Cancel Import License File Refresh

Shortly after you submit the request, your license key will be available for download on the SAP Channel Partner Portal, and you will also receive the license key text file by e-mail.

You need to import the text file into SAP Business One.

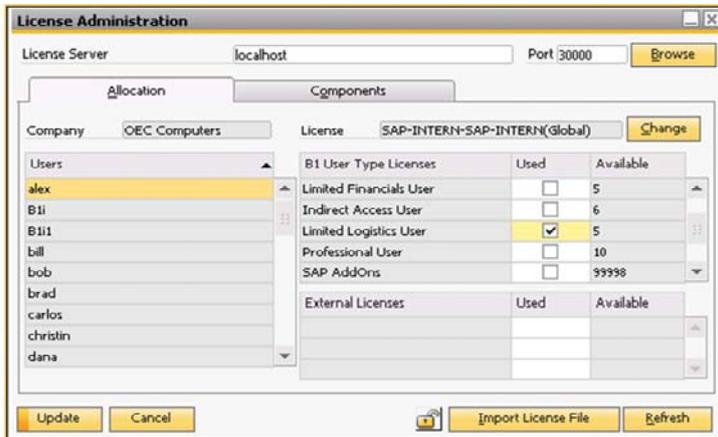
To do this, open the Service Manager and select the License Manager service. Choose *Settings* in the License Manager.

Next, browse for the saved text file and select *Import License File*.

Alternately, you can import the license text file from the *License Administration* screen in SAP Business One. To access this screen, choose the menu *Administration* → *License* → *License Administration*.

License Administration

Administration > License > License Administration



1. Select user code
2. Assign license for user type (more than one type can be assigned)
3. Assign external licenses if needed

After you install the license key you can view and assign licenses. Choose *Administration → License → License Administration*.

Select a user name and select the appropriate license type from the available licenses.

Once assigned, the license is not specific to a company database and the same user can access up to two databases at the same time. License localization checks apply. This is designed primarily for access to a test and a production server, and is not designed to circumvent licenses.

If you want to change the license assignment for a user, the user must be logged off from the system. Only super users can change the license assignment.

If you want to remove a user account from the system, you need to first remove the license assigned to the user. The license goes back into the pool of available licenses.

License Validation Service (LVS)



- Collects information and suggests license requirements based on actual usage

The screenshot shows the SAP LVS Report Viewer interface. It includes a 'Server Address' field with the value 'http://NCEN60164887A:30005', a 'Date from' field set to '01/01/2010', and a 'Date until' field set to '12/31/2010'. The 'Report' dropdown is set to 'License Requirement per Machine'. A description box states: 'Displays the access dates and required license type for each user accessing the specified database from a particular machine.' Below this is a 'Query' button. The main area displays a table with the following data:

Database	Machine_Name	Required_License_Type	Usage_Data_From	Usage_Data_To	User_ID
SBCDemoFR	NCEN60164887A	LCRM or L.Financials or L.Logistics or Professional	20100126	20100126	bill
SBCDemoUS	NCEN60164887A	L.Financials or L.Logistics or Professional	20100126	20100130	bill
SBCDemoFR	NCEV0000010A	LCRM or L.Financials or L.Logistics or Professional	20100129	20100129	bill
SBCDemoUS	NCEV0000010A	LCRM or Professional	20100124	20100129	bill
SBCDemoFR	NCEN60164887A	LCRM or L.Financials or L.Logistics or Professional	20100124	20100124	manager
SBCDemoUS	NCEN60164887A	Professional	20100124	20100112	manager
SBCDemoFR	NCEN60164887A	LCRM or L.Financials or L.Logistics or Professional	20100123	20100123	test
SBCDemoUS	NCEN60164887A	L.Financials or L.Logistics or Professional	20100123	20100124	test

The license validation service is a free tool that reports the real-life view of SAP Business One license usage.

You can download this tool from the SAP Community Network. There is a server and client components. The server component is installed on the database server and the client component must be installed on each client machine, as an add-on). The LVS tool captures the accesses by the users.

An ideal time to run this tool is after the customer has been using the new system for several weeks.

The report compares actual use versus users licensed by the contract. This allows you to fine tune the licenses.

Key Points



Key points from this topic:

- SAP Business One uses a client-server architecture. The client can be installed on each user's workstation, or accessed through Windows Terminal Server or Citrix. Mobile clients are also supported.
- In the installation process, Crystal Reports version for SAP Business One and the SAP Business One Server Tools must be installed before the SAP Business One Server.
- The site user password is set during installation and is required to configure the Service Manager settings for a new installation, and to create new companies.
- You can run SAP Business One for 31 days without a license.
- SAP uses a named user licensing model. A license must be assigned to a specific user name.
- After you install the license key, assign the individual licenses installed by the license file to your named users.

Here are some key points to take away from this session.

SAP Business One uses a client-server architecture. The client can be installed on each user's workstation, or accessed through Windows Terminal Server or Citrix. Mobile clients are also supported.

In the installation process, Crystal Reports version for SAP Business One and the SAP Business One Server Tools must be installed before the SAP Business One Server.

The site user password is created during the software installation and is required to:

- Configure the Service Manager settings for a new installation (one time)
- Create new companies
- Run the upgrade wizard
- Assign credentials to the read-only database user
- Access the System Landscape Manager

You can run the newly-installed SAP Business One product version for 31 days without a license. To continue working with the application after 31 days, you must request and install a valid license key assigned by SAP.

SAP uses a named user licensing model. A license must be assigned to a specific user name. The license key is localization specific.

After you install the license key, you assign the individual licenses installed by the license file to your named users.

Project Realization: Security

SAP Business One
Release 9.0



In this topic we will cover the security functionality provided with SAP Business One.

Objectives



Objectives:

- Describe the security functions provided by the System Landscape Directory
- Set up single sign-on for access to SAP Business One using Windows domain credentials
- Change the site user password
- Change the database admin user for a company database
- Manage and change user passwords
- Create a read-only database user
- Describe the information logged in the Access and Change history logs

After completing this topic, you will be able to:

- Describe the security functions provided by the System Landscape Directory
- Set up single sign-on for access to SAP Business One using Windows domain credentials
- Change the site user password
- Change the database admin user for a company database
- Manage and change user passwords
- Create a read-only database user
- Describe the information logged in the Access and Change logs

Business Scenario

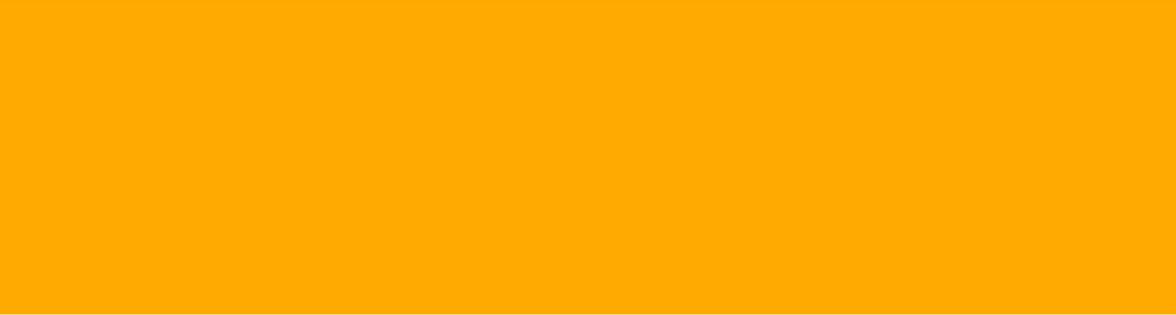


Your customer processes sensitive information and you need to ensure that this information is safeguarded when you implement SAP Business One.

Solution: At a meeting with the customer you demonstrate the security options provided in SAP Business One to safeguard user access to the database. Together with the customer, you determine which options will best meet the customer's security requirements.

When you implement SAP Business One, you should ensure that you take all steps to safeguard the customer's information.

SAP Business One provides multiple features for implementing security measures, and you should work together with the customer to determine which options will best meet the customer's security requirements.



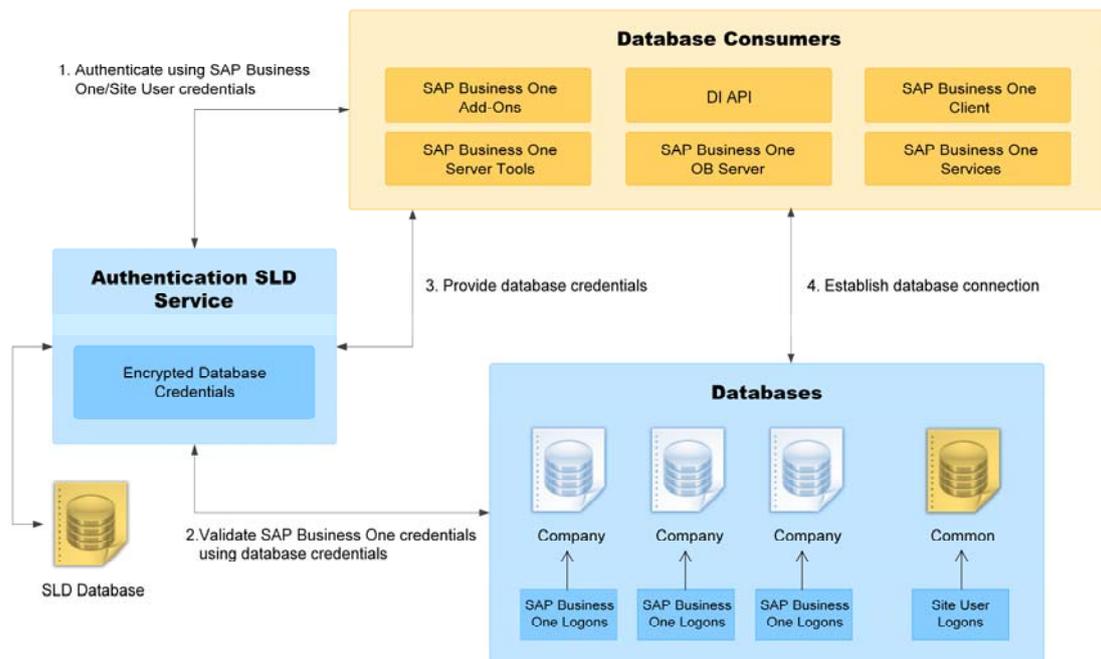
Agenda

- **System landscape directory**
- Password administration
- Access and change logs



The first part of this topic covers the security features provided in the System Landscape Directory.

Security Landscape

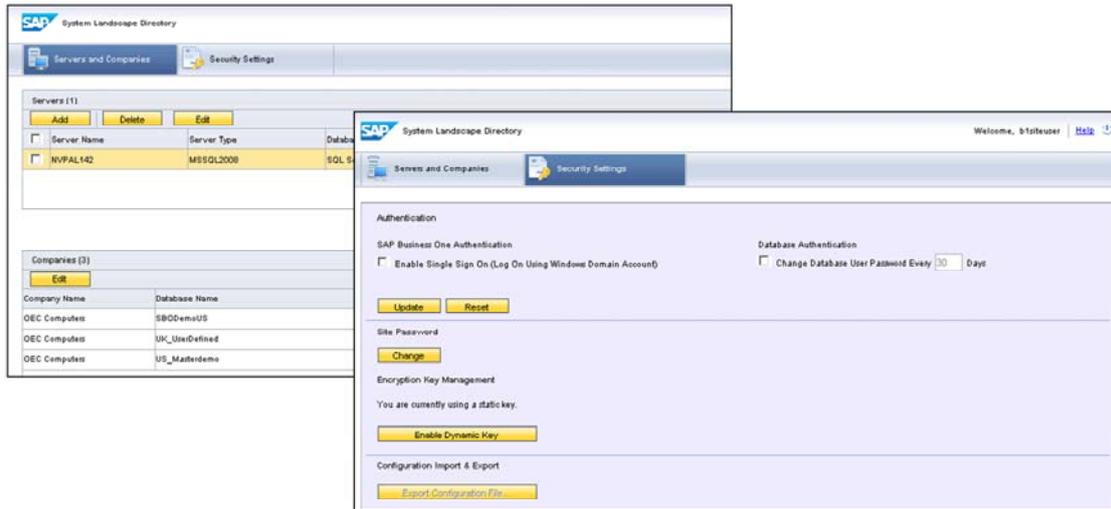


When a user logs on to an SAP Business One company, the user's credentials are validated by the *System Landscape Directory* service, and after they have been validated the client then connects to the company database using the database credentials. Therefore security is maintained since database credentials are hidden from the end user.

The security landscape directory service (SLD) is responsible for authenticating the users' logon credentials. Therefore SAP Business One users do not connect directly to the database, but receive access credentials from the SLD.

System Landscape Directory (SLD) Service

Secure web interface for managing the landscape of servers and company databases



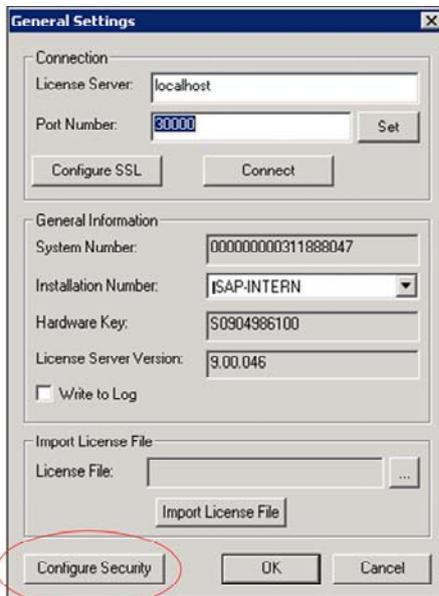
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The System Landscape Directory (SLD) provides a secure web interface for an administrator to manage the overall landscape of a system, including servers and company databases.

We will examine some of the functions provided in the SLD.

Accessing the System Landscape Directory (SLD)



- Access in two ways:

- Open License Manager settings and select *Configure Security*, or
- Enter url in Web browser

<https://localhost:30010/ControlCenter>

Note: Web browser must be on same machine as license server

- Need to install security certificate or self-certify

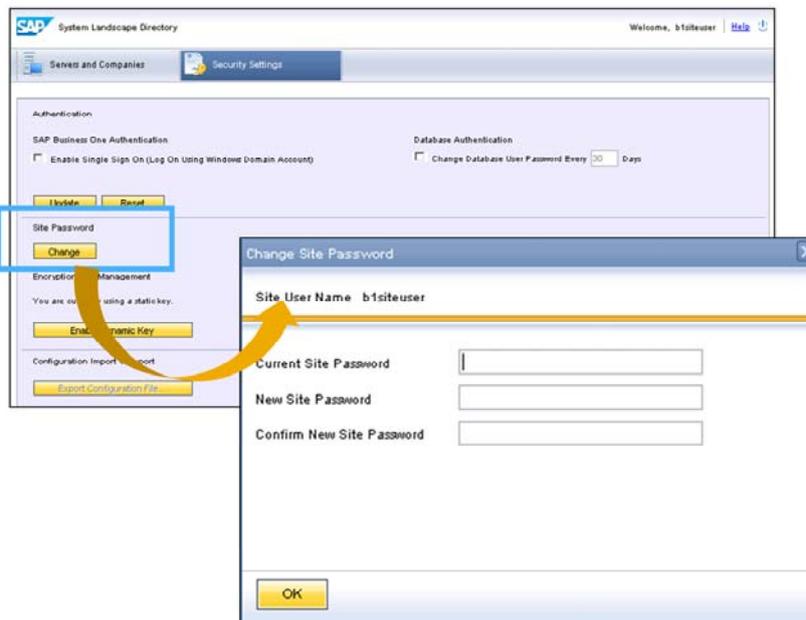
The SLD server is installed as part of the SAP Business One server tools.

To access the SLD, open the License Manager service in the Service Manager. Open the *General Settings* screen then select *Configure Security*. The System Landscape Directory will open up in a Web browser.

You can also enter the url <https://localhost:30010/ControlCenter> in a Web browser on the SAP Business One server.

The SLD enforces a secure connection using HTTPS protocol. During the installation you are given the choice of installing a purchased third-party security certificate (PKCS12) or self-certifying that the connection is secure. If you choose to self-certify, you will get a warning from the Web server, and you can ignore the warning to continue to the site.

SLD – Site User Password



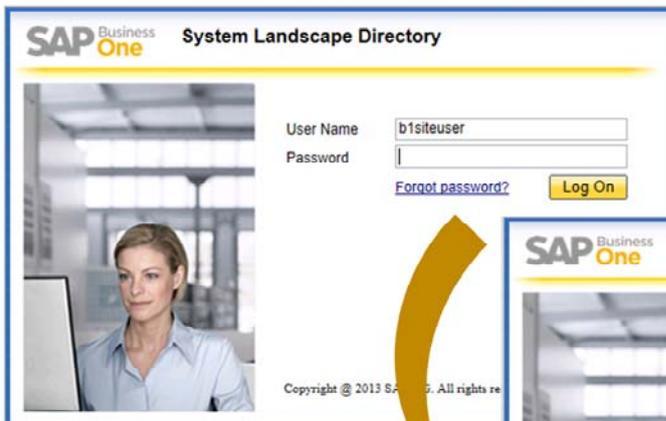
- Access to SLD controlled by site user password
- Change site user password on *Security Settings* tab of SLD
- To maintain security, change the site user (b1Siteuser) password regularly

You need to enter the site user password to proceed to access the SLD.

On the Security Settings tab of the SLD, you can change the site user password.

The site user password is required to create new companies and to upgrade companies. To maintain security for the landscape, the customer should change the site user password regularly.

SLD – Site User Password (Cont.)



SAP Business One System Landscape Directory

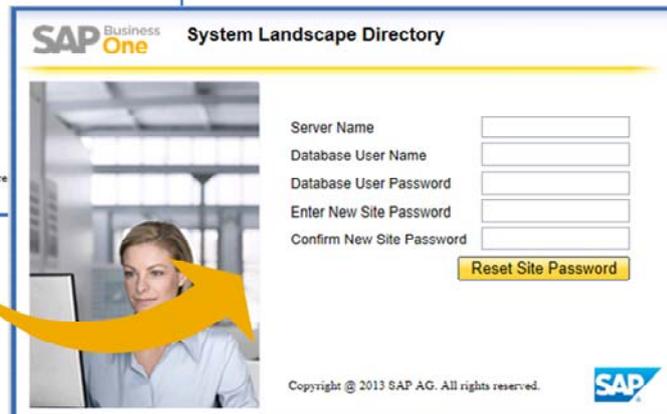
User Name:

Password:

[Forgot password?](#)

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- To reset the site user password, you need to provide the database admin name and password



SAP Business One System Landscape Directory

Server Name:

Database User Name:

Database User Password:

Enter New Site Password:

Confirm New Site Password:

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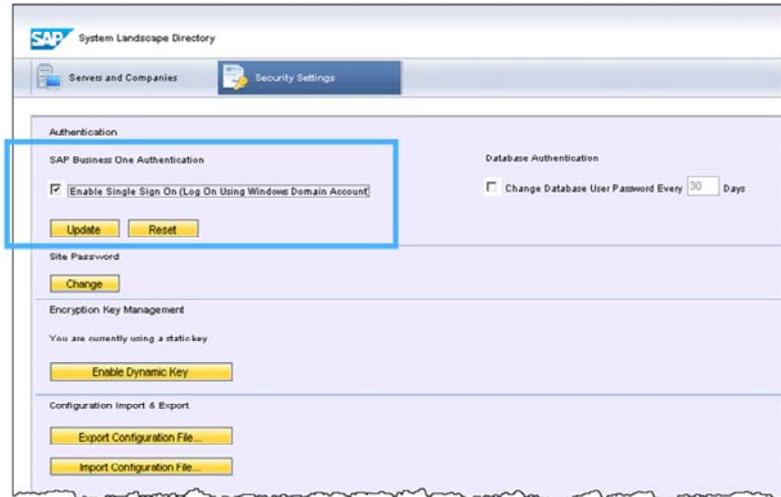
If the site user password is forgotten, you can reset it from the SLD.

You need to provide the database admin name and password, and then supply a new password for the site user.

SLD - Single Sign-On

- Single sign-on allows users to bypass the SAP Business One login
- To enable single sign-on, select the checkbox in the System Landscape Directory (SLD)

Note: Single sign-on applies to all companies in the landscape.



The SLD also allows the administrator to manage the authentication mode. There are two types of logon authentication:

- *SAP Business One Managed Authentication* – Each SAP Business One user can access a company database using their user account code and password that is managed from within SAP Business One.
- *Windows Authentication* – Each SAP Business One user can access a company database using their windows domain account (single sign on).

Whichever logon method is used, internally the user identity is the same.

Single sign on allows users to bypass the standard SAP Business One login screen. If the user has already logged into the windows domain, they do not need to login again to SAP Business One.

To use single sign on, you must first enable it in the System Landscape Directory. Once set, this applies to all companies on all servers in the landscape.

SLD - Single Sign-On (Cont.)

Administration > Setup > General > Users

The screenshot shows the 'Users - Setup' dialog box. A blue box highlights the 'Bind with Microsoft Windows Account' field, which contains the text 'domain\user'. The 'User Name' field contains 'Donna Brown'. The 'E-Mail' field contains 'donna.brown@oec.com'. The 'Branch' field is set to 'Main' and the 'Department' field is set to 'Accounting'. There are checkboxes for 'Superuser', 'Mobile User', 'Password Never Expires', 'Change Password at Next Logon', and 'Locked'. Buttons for 'Update', 'Cancel', and 'Copy Form Settings' are at the bottom.

- To enable single sign on for a user, you must bind the SAP Business One user account with the user's Windows domain account
- The user's client machine must be in the same domain as the server

To enable single-sign on for a user, you must bind the user's SAP Business One user account with the user's Windows domain account. This is a one-to-one mapping between the user account and the Windows account. The domain user name (without domain) will be used as the user code. The user's client machine must be in the same domain as the server.

For security reasons, the bind between the SAP Business One user account and the domain user cannot be changed once established.

SLD - Single Sign-On (Cont.)



- After user account is bound, user can select checkbox on *Choose Company* screen to bypass the SAP Business One login step
- First time prompt for SAP Business One credentials. Once provided, the logon screen will not appear for the next logon
- The *Choose Company* window only displays companies in which the user account is bound with the domain

After the user account is bound, the user can then select a checkbox on the SAP Business One login window and start using the application without being prompted to enter their SAP Business One logon credentials.

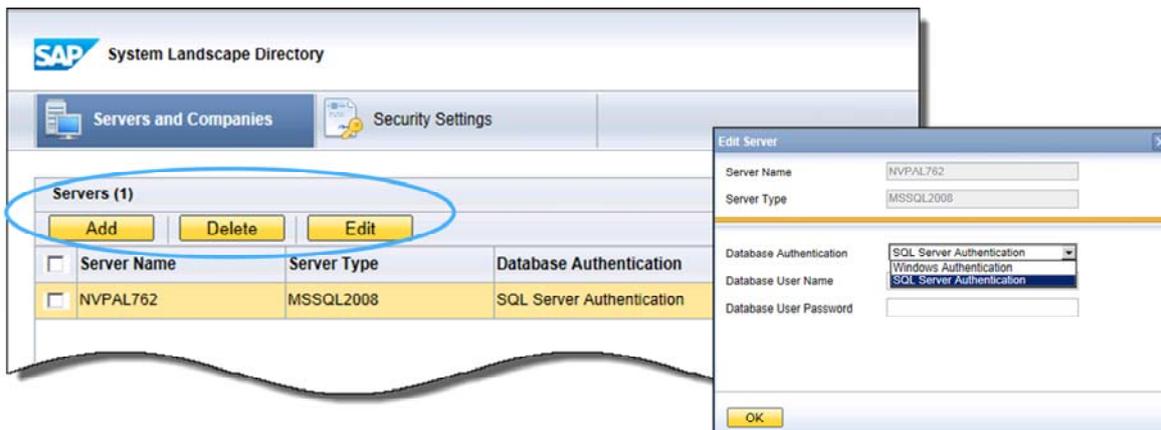
If the user's machine is not in the same domain, the checkbox is not selectable. The user can still login using their SAP Business One account by unchecking the checkbox in the *Choose Company* screen.

The first time a user selects the checkbox on the *Choose Company* screen, the user is prompted to provide their SAP Business One account code and password. Once this is provided, no further prompting occurs and subsequently the user does not have to login to SAP Business One. The logon screen will not appear for the next login, instead SAP Business One will be launched directly with the last company and current domain user.

If there are multiple company databases on the server, the *Choose Company* window will only display companies in which the user account is bound with the domain. Therefore if a user needs to access two companies, you need to bind the user account in each company.

SLD – Manage Servers

- Add additional servers to landscape
- Remove a server
- Edit a server to set the type of authentication (SQL Server or Windows based)



On the Servers and Companies tab, the SLD displays the server specified in the installation, and the company databases on the server. You can add new servers to the landscape (post installation), and remove servers from the landscape.

You can edit the server to set the type of authentication as either SQL Server authentication or Windows authentication. Note that SAP recommends using SQL Server authentication. For more information, consult the *SAP Business One Administrator's Guide*.

SLD – Manage Servers (Cont.)

The screenshot shows the 'Servers and Companies' interface. The 'Edit Company' dialog box is open, showing details for 'OEC Computers UK' (Database Name: SBODemoUK, Version: 900056, Localization: GB). Under 'Database User', the 'Use Specified Database User' option is selected. Below the dialog, a table shows the generated database user for this configuration.

Version	Localization	Database User
900056	US	sa
900056	GB	##SAPB1-DB-USER-SBODemoUK##

Below this, a larger table lists all companies and their database users:

Company Name	Database Name	Version	Localization	Database User
OEC Computers	SBODemoUS	900056	US	sa
OEC Computers UK	SBODemoUK	900056	GB	sa

Annotations in the screenshot include a blue circle around the 'Edit' button in the 'Companies (8)' section, a blue circle around the 'Use Specified Database User' radio button, and a yellow arrow pointing from the '##SAPB1-DB-USER-SBODemoUK##' user name to the 'sa' user in the bottom table.

- Default admin account “sa” used for access to company databases
- For extra security, you can change to an account with fewer admin privileges. New account is automatically generated on Microsoft SQL Server

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Also on the Servers and Companies tab, you can change the default database account (typically “sa”) that is used by the client for access to all company databases. This user account has system admin privileges which are not needed for SAP Business One access.

So for enhanced security, you can change to a database user with fewer admin privileges. Select and edit a company database, and, in the pop-up window, select the option *Use Specified Database User* instead of the default *Use Database Admin User*. A new user account is automatically generated on Microsoft SQL Server and the company database is mapped to this new account. The database user account is now displayed in the row in the SLD. You can maintain the password for this account using SQL Server Management Studio.



Agenda

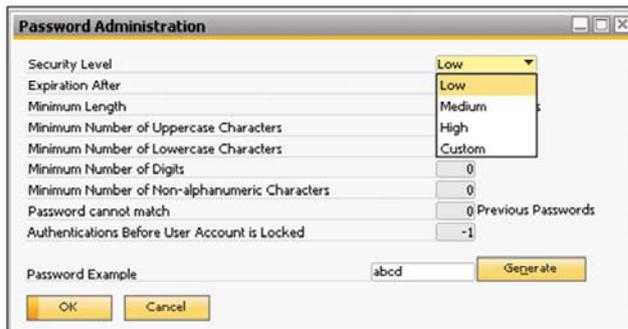
- System landscape directory
- **Password administration**
- Access and change logs



The next part of this topic focuses on the administration of user passwords.

Password Administration

Administration → Setup → General → Security → Password Administration



- Can configure a global password policy for users
- Policy dictates the password strength and how often it needs to be changed
- When a new user is created, the password must adhere to the password policy

You can configure a global password policy for all users, which will dictate the strength of the user password and how often it needs to be changed. To change the password policy from the default, choose *Administration → Setup → General → Users → Security → Password Administration*. Here you can set the password strength (low, medium, high, or custom) and any special requirements for characters that need to be part of the password.

When a new user is created, an initial password is set by the administrator. The new password must adhere to the password strength defined in the Password Administration screen.

If single-sign on is in use throughout the company, the user still has the option to login using their SAP Business One credentials, so the password policy should be maintained.

Changing a User Password

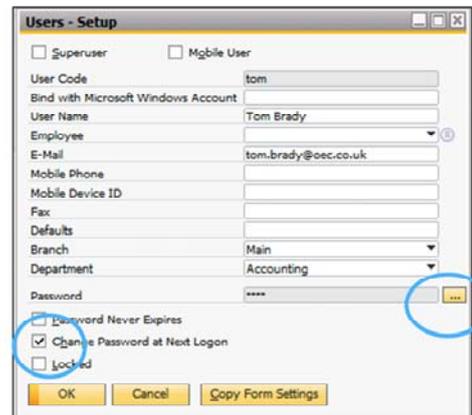
Administration → Setup → General → Security → Change Password

- Users can change their password at any time



Administration → Setup → General → Users → Users - Setup

- Super user can change password for another user and force user to change password at next logon



Users can change their password at any time by choosing the menu *Administration → Setup → General → Security → Change Password*.

The super user change the password for another user by selecting the browse button in the user account. The super user should inform the user so they can login successfully using the new password.

The super user also has the option to force a user to change their password when they next login, by selecting the *Change Password at Next Logon* checkbox in the user account.

Locking a User Account

The screenshot shows the 'Users - Setup' dialog box. It contains several fields for user information: User Code (tom), User Name (Tom Brady), E-Mail (tom.brady@oec.co.uk), Branch (Main), and Department (Accounting). There are also checkboxes for 'Superuser', 'Mgible User', 'Password Never Expires', 'Change Password at Next Logon', and 'Locked'. The 'Locked' checkbox is circled in blue. At the bottom, there are buttons for 'OK', 'Cancel', and 'Copy Form Settings'.

- User account can be locked by super user, or after a specified number of unsuccessful login attempts (as defined in the password policy)
- Only a super user can unlock a user account

A user account can be locked to prevent the user from logging on to SAP Business One. The super user can lock an account manually, and the account will be automatically locked after a specified number of unsuccessful login attempts by the user, if this is defined in the password policy. The default password policy does not lock a user account.

Only a superuser can unlock a user account.

Read Only Database User

Administration > Setup > General > Security > Read-Only DB User

Read-Only DB User

Enter user ID and password of read-only DB user

DB User ID: report_user

DB Password: XXXX

Update Cancel

Authorisations

Find: Query Generator

Subject	Authorisation
Saved Queries - Group No. 7	No Authorisation
Saved Queries - Group No. 8	No Authorisation
Saved Queries - Group No. 9	No Authorisation
Saved Queries - Group No. 10	No Authorisation
Saved Queries - Group No. 11	No Authorisation
Saved Queries - Group No. 12	No Authorisation
Saved Queries - Group No. 13	No Authorisation
Saved Queries - Group No. 14	No Authorisation
Saved Queries - Group No. 15	No Authorisation
Saved Queries - Group No. 16	No Authorisation
Saved Queries - Group No. 17	No Authorisation
Saved Queries - Group No. 18	No Authorisation
Saved Queries - Group No. 19	No Authorisation
Saved Queries - Group No. 20	No Authorisation
Execute Non-select SQL Statement	No Authorisation
Modify SQL Statement	No Authorisation
Query Wizard	No Authorisation
Query Manager	No Authorisation
Report Scheduling	No Authorisation

1. Add new login user in Microsoft SQL Server database
2. Map to SBO-Common and company database
3. Select database role memberships:
 - db_datareader
 - db_denydatawriter
4. Enter the user id and password in SAP Business One
5. Authorization "Execute Non-select SQL Statement" should not be enabled

In order to prevent illegal updates to the database, you can restrict users to read-only operations on the database.

First you need to set up a read-only user account in the Microsoft SQL Server database. Map the user account to the SBO-Common and company database. Select the role memberships as *db_datareader* and *db_denydatawriter*.

Next, in SAP Business One, choose *Administration > Setup > General > Read-Only DB User*. Enter the read-only user name and password.

Users are now restricted and will *not* be able to run SQL update or delete queries unless they are assigned the general authorization *Reports > Query Generator > Execute Non-select SQL Statement*.

For more information, see the *Administrator's Guide*.

Only SAP Business One super users are able to specify read-only users.



Agenda

- System landscape directory
- Password administration
- **Access and change logs**



The final part of this topic covers the access and change logs provided in SAP Business One.

Access Log

Tools > Access Log

Record of each user logon, logoff, and password change

The screenshot displays the SAP Access Log interface. The main window shows a table of user access records. The 'michael' row is highlighted in yellow. A 'Details' button is visible. A secondary window titled 'Access Log Details for michael' is open, showing a detailed view of the user's actions, including 'Logon Succeeded' and 'Password Changed'.

User Code	User Name	Superuser	Locked	Latest Logon	Latest Access Status	Latest Logoff	Last Password Change	No. of Failed Access Attempts
linda	Linda Hudson	No	No		N/A		04/02/2007	0
manager	Jayson Butler	Yes	No	07/02/2013 14:48:31	Succeeded	06/18/2013 16:09:20	04/13/2013 17:16:10	0
maria	Maria Bridi	No	No	07/02/2013 15:52:33	Succeeded		07/02/2013 15:50:49 By	0
mary	Mary Heske	No	No		N/A		06/14/2009	0
merlina	Merlina Francis	No	No		N/A		06/14/2009	0
michael	Michael Spear	No	No	07/02/2013 15:52:15	Succeeded		07/02/2013 15:51:13 By	0
sophie	Sophie Klogg	Yes	No	07/02/2013 15:51:46				
susie	Sue Olsen	No	Yes	07/02/2013 15:22:45				
timothy	Timothy Stevens	No	No					
tom	Tom Brady	No	No					

User Code	Client IP	Client Name	Date and Time	Reas...	Reason Descri...
Logon Succeeded	10.48.148.87/10.48.210	NVPAL762	07/02/2013 15:52		
Password Changed	10.48.148.87/10.48.210	NVPAL762	07/02/2013 15:51		

An audit log is maintained that records each user logon, logoff, and password change.

This is especially useful for monitoring password changes and failed login attempts.

To view the log, choose the *Tools* menu then choose *Access Log*.

You can double-click a row to see details for a user. The IP address is included in the details, allowing the administrator to track the source of an attempted login.

Change Log

Tools > Show History

The screenshot shows a SAP Sales Order window with the 'Show History' dialog box open. The dialog box contains a table with the following data:

#	Instance	Object Code	Updated	Updated by	Created	Created By
1	1	252	02/28/2013	Jayson Butler	02/28/2013	Jayson Butler
2	2	252	02/28/2013	Jayson Butler	02/28/2013	Jayson Butler

A callout box with a yellow square bullet point contains the text: "Change log menu active only when a relevant document or form is in the active window".

The change log records changes in many objects, including sales and purchasing documents, and setup windows such as tax groups, withholding tax, house banks, freight, credit cards, general authorizations, general settings, document settings, employee master data, production orders, and the charts of accounts.

To determine if a window has a change log, open the document or form and choose *Tools > Show History*. This menu option will only be active if the document or form in the active window has a change log.

The change log shows a row for each change made to the document or window. When a document is first added, the change log shows one row. If the document is subsequently changed, the change log will show an additional row for each change.

Change Log Details

- Choose *Show Differences* to see a detailed comparison of field differences
- Double-click a row to see a saved image of the document, with the change

The screenshot displays two overlapping windows from the SAP system. The background window is titled 'Show History...' and contains a table with the following data:

#	Instance	Object Code	Updated	Updated by	Created	Created By
1	1	252	02/28/2013	Jayson Butler	02/28/2013	Jayson Butler
2	2	252	02/28/2013	Jayson Butler	02/28/2013	Jayson Butler

The foreground window is titled 'Differences' and shows a detailed comparison of field values. A blue box highlights the first two rows of this table, and a blue arrow points from the 'Show Differences' button in the background window to this area.

#	Date	Changed Field	Previous Value	New Value	User Name
2	02/28/2013	Total Tax	108.00	114.75	Jayson Butler
2	02/28/2013	Total Document	1,308.00	1,389.75	Jayson Butler
2	02/28/2013	Gross Profit	508.17	539.20	Jayson Butler
2	02/28/2013	Tax Amount (SC)	108.00	114.75	Jayson Butler
2	02/28/2013	Total Document (S	1,308.00	1,389.75	Jayson Butler
2	02/28/2013	Gross Profit (SC)	508.17	539.20	Jayson Butler
2	02/28/2013	Quantity	2.00	3.00	Jayson Butler
2	02/28/2013	Remaining Open C	2.00	3.00	Jayson Butler
2	02/28/2013	Total Row	150.00	225.00	Jayson Butler
2	02/28/2013	Open Amount	150.00	225.00	Jayson Butler
2	02/28/2013	Credited Quantity	2.00	3.00	Jayson Butler
2	02/28/2013	Total Row (FC)	150.00	225.00	Jayson Butler
2	02/28/2013	Open Amount (SC)	150.00	225.00	Jayson Butler
2	02/28/2013	Packing Quantity	2.00	3.00	Jayson Butler
2	02/28/2013	Total Tax	13.50	20.25	Jayson Butler
2	02/28/2013	Tax Amount (SC)	13.50	20.25	Jayson Butler

If you choose *Show Differences*, you will see a detailed comparison of each field with the field differences highlighted.

If you double-click the first row you will see a saved image of the document before the change was made. If you double-click the second row you will see a saved image of the document with the change, and so on.

Note that the maximum number of rows that can be recorded for a document or window is set in the *General Settings > Services* tab, in the *History* field. The default is 99 rows.

Key Points



Key points from this topic:

- SAP Business One users do not connect directly to the database, but receive database access credentials from the SLD.
- The SLD provides a web interface for managing the overall landscape as well as security.
- The SLD can be accessed from the License Manager settings or using the url <https://localhost:30010/ControlCenter>
- From the SLD you can change the site user password, enable single-sign on, add servers to the overall landscape, and change access credentials to the database.
- A super user can set a password policy for users, change a user password, and lock a user account.
- Access and change logs provide useful information for managing security.

Here are some key points to take away from this session:

- When a user logs on, user credentials are validated by the System Landscape Directory (SLD). After they have been validated, SAP Business One users do not connect directly to the database, but receive access credentials from the SLD.
- The System Landscape Directory provides a web interface for managing the overall landscape as well as security.
- The SLD can be accessed from the License Manager settings or from a Web browser using the url <https://localhost:30010/ControlCenter>. You need to enter the site user password to login to the SLD.
- From the SLD, you can change the site user password, enable single-sign on, add servers to the overall landscape, and change access credentials to the database.
- Access and change logs provide useful information for managing security.

Project Realization: User Accounts and Authorizations

SAP Business One
Release 9.0



This topic covers user accounts and user authorizations.

Objectives



Objectives:

- Define accounts for users
- Grant general authorizations to functions and menus in SAP Business One
- Copy general authorizations to multiple users
- Permit or deny access to documents using data ownership authorizations

On completion of this topic, you will be able to define user accounts, and grant general authorizations to a user account so they can access functions and menus in SAP Business One.

You will also learn how to copy a set of general authorizations to multiple users, and how to limit access to documents using data ownership authorizations.

Business Example



DG Industries has 15 users in the sales department. These users will access the same functions and reports in SAP Business One.

When processing sales documents, the users need to have the same form settings.

The sales manager also needs to access the same functions and reports, but also needs to access additional sales reports and sales analysis dashboards.

Solution: Set up one user with the basic profile for form settings, then copy the form settings to the other users. Set up general authorizations for one sales user, then copy these authorizations to the other sales users. Fine tune the general authorizations for the sales manager.

DG Industries has 15 users in the sales department. These users will access the same functions and reports in SAP Business One.

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Agenda

- **User Accounts**
- General Authorizations
- Document Ownership and Authorizations



The first part of this topic covers user accounts.

User Accounts

You can create user accounts from:

- **Administration** → **Setup** → **General** → **Users**
- **Express Configuration Wizard**

Superusers

- Have all authorizations by default
- Need professional license

Users

- No authorizations by default
- Authorizations set in General and Data Ownership Authorization

To login to SAP Business One, users need an account. To create user accounts, choose *Administration* → *Setup* → *General* → *Users*. You can also create user accounts from the *Express Configuration Wizard*. The *User Code* must be unique and can have up to 8 characters.

There are two types of user:

- If you check the Superuser checkbox when you create a user account, the user will have full authorization to every function in SAP Business One. A super user can reset the passwords of other users and can set authorizations for other users. Obviously you should limit the number of superuser accounts.
- If you do not check the Superuser checkbox, the user by default has *no authorizations* to any system functionality. *General* and *Data Ownership Authorizations* must be set for each user.

Select the *Mobile User* checkbox to enable any user to work with a mobile device to access their company data. You should also enter the ***ID of the user's mobile device***, which they can use to access their company information.

If a user fails to login successfully for the number of times specified in the *Password Administration* screen, their account will be locked (*Locked* checkbox). This is indicated in a checkbox in the user account. Only a superuser can unlock the locked user account.

User Defaults

**Administration > Setup > General
> User Defaults**

Defaults include:

- General (Address and Communication Data)
- Default Warehouse
- G/L accounts for cash and checks
- Print Settings
- Credit Card Accounts

User Defaults

Code	Description
001	Sales users

General Defaults Print Credit Cards

Color: Classic
Language: English (United Kingdom)
Font: Arial
Font Size: 9

Preview: AaBbYyZz - abcd

Sales Employee:
Warehouse: 01 General Warehouse
Cash on Hand: 11100000-01-001 Cash on Hand (HO, USA, <
Checks Received: 11300000-01-001 Checking Account Clearing

Default Customer for A/R Invoice and Payment:
Tax Code:

Use Tax
 Use Warehouse Address in A/P Documents

Add Cancel

In the User Defaults screen, you can pre-define a set of default values that are common to a group or department, such as print preferences for documents, warehouses, and certain G/L accounts used in sales. You can then assign these defaults to one or more user accounts by selecting the code for the user defaults in the user account. To set up user defaults, choose *Administration* → *Setup* → *General* → *User Defaults*.

Copy Form Settings

The image shows two SAP dialog boxes. The 'Users - Setup' dialog on the left is for configuring user 'sophie'. It includes fields for User Code, Name, Email, and Department, along with checkboxes for 'Superuser', 'Mobile User', 'Password Never Expires', 'Change Password at Next Logon', and 'Locked'. A 'Copy Form Settings' button is highlighted with a blue box. The 'Copy Form Settings to Users' dialog on the right shows a table of users with checkboxes for copying settings. An arrow points from the 'Copy Form Settings' button in the first dialog to the 'Copy' button in the second dialog.

- Define the form settings for one user
- Copy the form settings to other users

#	User Code	User Name	Department	Branch	
1	manager	Jayson Butler	General	Main	<input type="checkbox"/>
2	bill	Bill Levine	Sales	Main	<input checked="" type="checkbox"/>
3	sophie	Sophie Klogg	Sales	Main	<input type="checkbox"/>
4	brad	Brad Thomps	Sales	Main	<input checked="" type="checkbox"/>
5	jim	Jim Boswick	Sales	Main	<input checked="" type="checkbox"/>
6	bob	Bob Shone	Production	Main	<input type="checkbox"/>
7	john	John Petersor	Logistic	Main	<input checked="" type="checkbox"/>
8	linda	Linda Hudson	Production	Main	<input type="checkbox"/>
9	donna	Donna Brown	Accounting	Main	<input type="checkbox"/>
10	tom	Tom Brady	Accounting	Main	<input type="checkbox"/>

Often groups of users who work in the same department have similar requirements for Form Settings in the documents they use.

You can set the required Form Settings for one user, then copy the Form Settings to other users.

This can save time during the implementation.



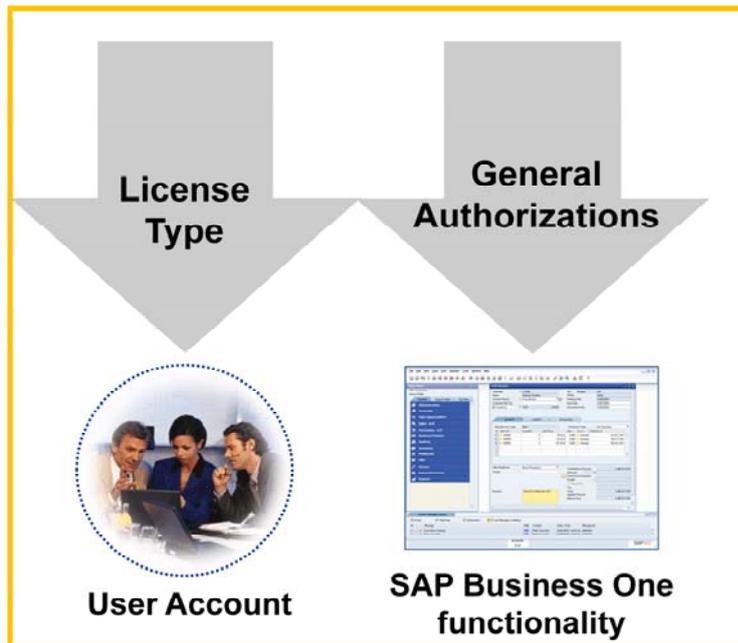
Agenda

- User Accounts
- **General Authorizations**
- Document Ownership and Authorizations



The next part of this topic looks at the general authorizations needed to access functions in the system.

Authorizations - Overview



- Access to functionality is controlled through license and general authorizations
- All newly created users who are not super users have no authorizations to any SAP Business One function
- General authorizations must be set for non super users

Access to the various functions in SAP Business One is controlled through a combination of license and general authorizations. These are set by user account.

- The license type assigned to a user determines which functions the user is legally contracted to use. If the user tries to access a function that is outside the scope of the license, the user will get an error generated from the license server.
- The General Authorizations granted to a user permit the user to access to the SAP Business One functions required for their job. This has nothing to do with the license but is set based on client requirements for a user's job role. If the user has access to a function through the license, and the general authorization to the function is not set, the user will receive an authorization error when they access the function.

By default, all newly created users (except for super users) have **no authorizations** to any SAP Business One function. General Authorizations must be set for each user.

A user defined as superuser has full authorization to all SAP Business One modules and functions and it is not possible to modify the authorizations for this user.

General Authorizations

Administration → System Initialization → Authorizations → General Authorization

- Assign full access, read-only access or no access to a function or menu



General authorizations can restrict if a user is allowed full access, read-only access, or no access to a function or menu.

A user designated as a superuser automatically has *Full Authorization* to all functions, but you can limit this functionality using general authorizations.

You must assign a Professional License to each superuser.

For all other users you must assign an authorization for each functional area:

- *Full Authorization* - The user can display and change data of this authorization object.
- *Read Only* - The user can only display data of this authorization object.
- *No Authorization* - The user has no access to this authorization object.

General authorizations basically follow the SAP Business One module and menu order. You can assign the same authorization to each object, or, if you expand the tree structure for the object you can assign different authorizations to the menus and windows within each area. If you do this, you see the authorization for the area becomes "Various Authorizations."

Tip: To see the entire list of expanded general authorizations, choose the *Expand* button.

Authorizations and Roles

- Define authorizations by role for representative user, then copy to other users



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General authorizations are set user-by-user; however, if the customer has groups of users who perform the same tasks, the fastest way to assign general authorizations is by role.

One way of doing this is to present the various SAP Business One functions (modules and menus) to a nominated representative user for each role. This person then marks the functions that they use.

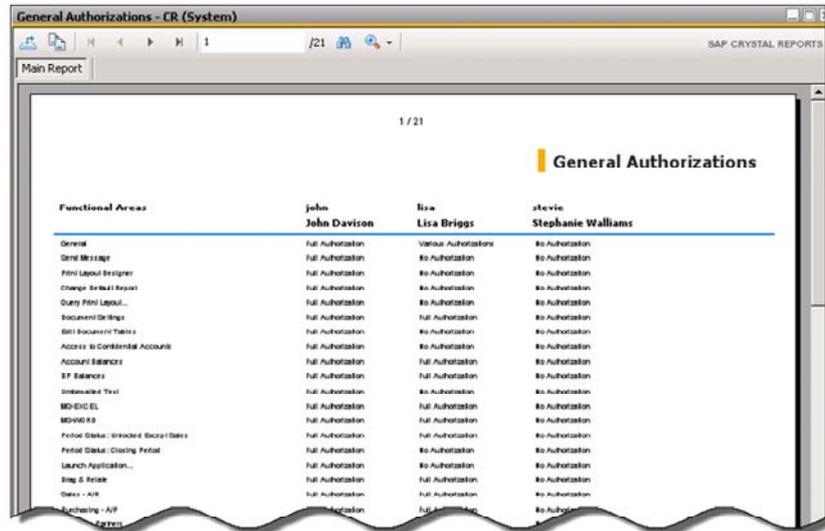
Next, create a user account for the representative user and assign the correct license type to this user. Test to make sure that the combination of license and general authorizations provides access to the required functionality for the role.

You can then copy this set of authorizations from one user to another user, from the general authorizations window. Select the source user name in the authorizations window, then drag the source user name over the target user name.

In the AIP materials you can use the Business Process Master List (BPML) tool to help you define customized roles according to SAP Business One functions.

Authorizations Report

- Print report of authorizations for selected users
- Export list of authorizations to Microsoft Excel



Functional Areas	John Davison	Lisa Briggs	Stephanie Williams
General	Full Authorization	Various Authorizations	No Authorization
Send Message	Full Authorization	No Authorization	No Authorization
Print Layout Designer	Full Authorization	No Authorization	No Authorization
Change Serial Report	Full Authorization	No Authorization	No Authorization
Query Print Layout...	Full Authorization	No Authorization	No Authorization
Document Deletion	Full Authorization	No Authorization	No Authorization
Bill Document Tables	Full Authorization	No Authorization	No Authorization
Access to Controlling Accounts	Full Authorization	No Authorization	No Authorization
Accounts Balance	Full Authorization	No Authorization	No Authorization
RF Release	Full Authorization	No Authorization	No Authorization
Intermediate Test	Full Authorization	No Authorization	No Authorization
MD EXCEL	Full Authorization	No Authorization	No Authorization
MD EXCEL	Full Authorization	No Authorization	No Authorization
Print Data: Unchecked Serial Data	Full Authorization	No Authorization	No Authorization
Print Data: Closing Period	Full Authorization	No Authorization	No Authorization
Launch Application...	Full Authorization	No Authorization	No Authorization
Stop & Release	Full Authorization	No Authorization	No Authorization
Data - Ask	Full Authorization	No Authorization	No Authorization
Purchasing - AP	Full Authorization	No Authorization	No Authorization

After you have set the general authorizations you can print a report with a full list of authorizations for up to four selected users.

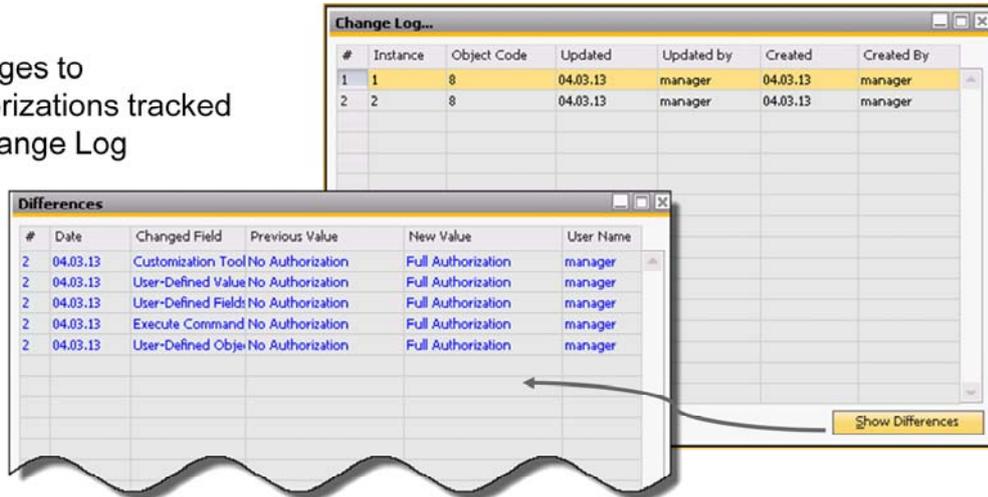
Additionally, you can export the complete list of authorizations to Microsoft Excel or as a PDF file. This allows you to review each authorization offline with the client, and make any required adjustments.

To see the effect of each general authorization, refer to the how-to guide *How to Define Authorizations*.

Tracking Changes

Tools > Show History

- Changes to authorizations tracked in Change Log



Changes to authorizations are tracked in the change log. To open the change log, make sure the General Authorizations window is active, then choose *Tools > Show History*.



Agenda

- User Accounts
- General Authorizations
- **Document Ownership and Authorizations**



The last part of this topic looks at document ownership and document ownership authorizations.

Ownership of Documents

- Document can be optionally linked to a designated sales or purchasing employee
- Document can have a designated owner that can be different to the sales employee or buyer, or to the business partner contact person



#	Item No.	Quantity	Unit Price
1	C00003	1	162.50 \$
2	C00005	3	75.00 \$
3	C00007	1	625.00 \$
4	I00004	2	37.50 \$
5	I00009	1	187.50 \$
6			

Every document can be optionally linked to a designated sales or purchasing employee. And every document can have a designated owner. The owner can be a different user from the sales or purchasing employee, and from the contact person for the business partner.

So how can you designate the sales employee / buyer or the owner for a document?

Sales Employees/Buyers

Administration > Setup > General > Sales Employees/Buyers

Sales employee / buyer defaults in from business partner master data

1. Define sales employees and buyers in system
2. Assign sales employee or buyer to business partner master data
3. Sales employee or buyer selected in documents for the business partner

The screenshot displays two SAP forms. The top form is 'Business Partner Master Data' with fields for Code (Manual), Name (Parameter Technology), Foreign Name, Group (High Tech), Account Balance (68,584.65), Deliveries (21,258.30), Orders (37,913.55), and Opportunities (5). The bottom form is 'Sales Order' with fields for Customer (C23900), Name (Parameter Technology), Contact Person (Daniel Brown), and Sales Employee (Brad Thompson). A yellow box highlights the Sales Employee field in the Sales Order form, and a yellow arrow points from it to the Business Partner Master Data form.

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The sales employee / buyer that is linked to a document defaults in from the business partner master data.

First you need to define the sales employees and buyers in the system. Choose *Administration > Setup > General > Sales Employees/Buyers*.

Once setup, you can now assign the responsible sales employee or buyer to relevant business partner master data records.

The name of the sales employee or buyer will be automatically selected in all marketing documents created for the business partner.

Of course the sales employee or buyer name can be changed in an individual document if required.

Assigning the relevant sales employee / buyer to the respective business partners, and later to each sales or purchasing document, enables the customer to do the following:

- Generate sales analysis and purchasing analysis reports by sales employee or buyer
- Assess the sales / purchasing volume achieved by each sales employee / buyer

Document Owner

- The owner is normally the user who creates the document
- However, if there is a designated sales employee or buyer for a document, and the sales employee / buyer is linked to an employee master data record, then the sales employee / buyer becomes the owner of the document

Employee Master Data

First Name: Bill Employee No.: 2
 Middle Name:
 Surname: Levine Active Employee
 Job Title:
 Position:
 Department: Sales Office Phone:
 Branch: Main Ext.:
 Manager:
 Mobile Phone:
 Payer:
 User Code: bill Home Phone:
 Sales Employee: Bill Levine Fax:
 E-Mail:
 Address Membership Administration Personal Finance Remarks
 Work Address Home Address

Sales Order

Customer: C40000
 Name: Earthshaker Corporation
 Contact Person: Bob McKensly
 Customer Ref. No.:
 Local Currency:
 Contents Logistics

#	Item No.	Quantity	Unit Price
1	C00003	1	162.50 \$
2	C00005	3	75.00 \$
3	C00007	1	625.00 \$
4	I00004	2	37.50 \$
5	I00009	1	187.50 \$
6			

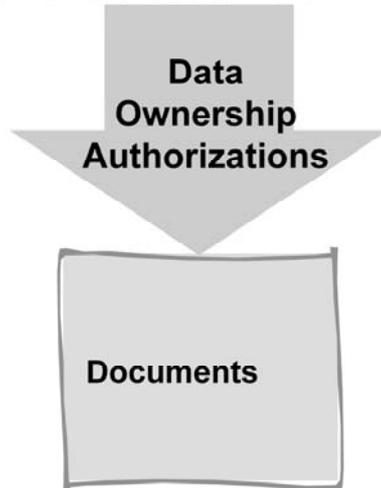
 Sales Employee: Sophie Klogg
 Owner: Levine, Bill

The owner of a document is normally the user who creates the document; however, if there is a designated sales employee or buyer for the business partner, and the sales employee or buyer is linked to an employee master data record, then the sales employee or buyer becomes the default owner.

In the example, the user Sophie Klogg has created a sales order for Earthshaker Corporation. Bill Levine is set as the designated sales employee for this customer, and since Bill Levine also has a linked employee master data record, then Bill Levine automatically becomes the owner.

Data Ownership Authorizations

- Who else should be allowed to view or change a document or document rows?
- What is the person's relationship to the owner of the document?



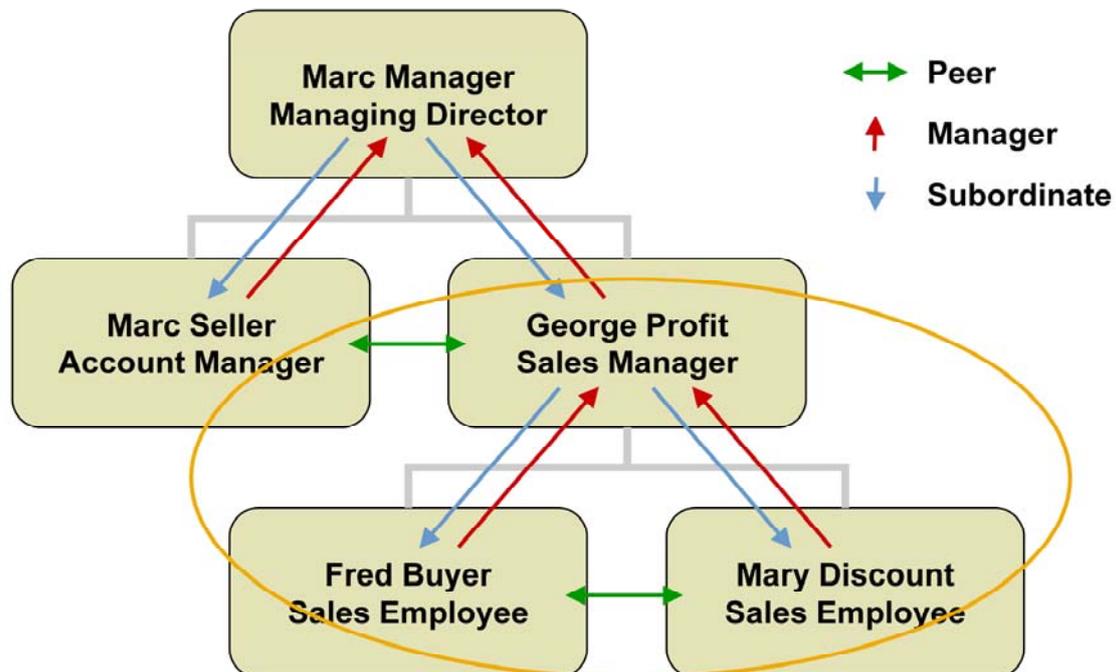
A screenshot of the SAP Sales Order form. The form is titled "Sales Order" and contains several fields for customer information, including Customer (C40000), Name (Earthshaker Corporation), Contact Person (Bob McKendly), and Local Currency. Below these fields are tabs for "Contents" and "Logistics". The "Contents" tab is active, showing a table with columns for Item No., Quantity, and Unit Price. The table contains five rows of data. At the bottom of the form, there is a field for "Owner" which is highlighted in yellow and contains the name "Levine, Bill".

#	Item No.	Quantity	Unit Price
1	C00003	1	162.50 \$
2	C00005	3	75.00 \$
3	C00007	1	625.00 \$
4	I00004	2	37.50 \$
5	I00009	1	187.50 \$
6			

The owner of a document is the basis for another type of authorization – Data Ownership Authorizations.

Using data ownership authorizations, you can permit another person access to a document and even to the rows in a document based upon the person's relationship to the *owner*. This is mostly relevant for departments such as sales and purchasing where there might be a need to restrict access to documents from within a department.

Data Ownership Authorizations – Example



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Here is a simple example. We can set up employee master data records to model this organization, for the purposes of data ownership.

In the master data for the sales employees Fred Buyer and Mary Discount, we select George Profit as the manager. We also need to create a master data record for the manager.

Also in the master data we select the same department for all three employees, thus linking them using both the department and the management structure.

For data ownership authorization purposes, we can define the relationships as:

- Peer: The user can access documents *owned* by a colleague at the same level in the hierarchy.
- Manager: The user can access documents *owned* by his or her direct manager.
- Subordinate: The user can access documents *owned* by any of his or her direct subordinates.

Employee Master Data

Human Resources > Employee Master Data

Employee Master Data

First Name	Bill	Employee No.	2
Middle Name			
Surname	Levine	<input checked="" type="checkbox"/> Active Employee	
Job Title			
Position		Office Phone	
Department	Sales	Ext.	
Branch	Main	Mobile Phone	
Manager		Pager	
User Code		Home Phone	
Sales Employee	Bill Levine	Fax	
		E-Mail	

Users - Setup

<input type="checkbox"/> Superuser	<input type="checkbox"/> Mobile User
User Code	bill
Bind with Microsoft Windows Account	
User Name	Bill Levine
Employee	Levine, Bill
E-Mail	
Mobile Phone	
Mobile Device ID	
Fax	
Defaults	
Branch	Main
Department	Sales
Password	****

- You can model the reporting structure of the organization using employee master data
- Fields such as branch and department are common to employee master data and the user account

You can use employee master data to model the organization of a company. To define employee master data records, choose *Human Resources > Employee Master Data*.

In the master data, you can specify information about an employee, such the department, manager, and role within the organization. You can also record personal information for the employee, and some HR data.

Many fields are common between the employee master data and the user account. When you add an employee master data record, you can optionally generate a user account, if one does not exist. If a user account exists, you can have common fields copied from the master data to the user account.

Enabling Data Ownership Authorizations

Administration > System Initialization > Authorizations > Data Ownership Exceptions

- Enable / disable data ownership system wide
- Once set, users have restricted access to documents and sales opportunities, and even to document rows, based on a defined relationship with the document owner
- You can bypass filtering on a document by document basis

Document	Filtered
AP Credit Note	By Header and Row Owners
AP Down Payment	No Filtering
AP Invoice	By Header and Row Owners
AR Correction Invoice	By Header Owner Only
AR Credit Note	By Header and Row Owners
AR Down Payment	By Header and Row Owners

Data ownership can be enabled or disabled system wide using the *Data Ownership Exceptions* screen. Once set, users will have restricted access to documents and sales opportunities, and even to document rows, based on a *defined relationship* with the document owner.

In this window, you can also select which objects are subject to data authorization restrictions, either fully or partially. If you select *No Filtering*, for an object, then data ownership is not active for the object. In the case that a document or sales opportunity has no owner defaulted in, then any user can access it as if no data ownership is in place.

Assigning Data Ownership Authorizations

Administration → System Initialization → Authorizations → Data Ownership Authorizations

- After enabling data ownership filtration, the next step is to define the permissions for each user for each relationship, by document

	Document	Peer	Manager	Subordinate	Department	Branch	Team
User: Fred Buyer	Sales Order	Full	None	None	Read Only	None	Full
	A/R Invoice						
	Purchase Order						
	...						

Fred Buyer can view (and optionally update) sales orders owner by peers and team colleagues.

After enabling data ownership filtration, the next step is to define the permissions for each user, in the *Data Ownership Authorizations* screen.

A user can access a document as long as he or she has a defined relationship with the owner of the document and has been granted either *Read Only* or *Full* for the data ownership permission for that relationship. The full range of possible relationships is:

By reporting line:

- Peer: The user can access documents owned by a colleague on the same level in the hierarchy.
- Manager: The user can access documents owned by his or her direct manager.
- Subordinate: The user can access documents owned by any of his or her direct subordinates.

By organizational line:

- Department: The user can access documents owned by a member of the same department.
- Branch: The user can access documents owned by a member of the same branch.
- Team: The user can access documents owned by a member of the same team.

In the example, the user Fred Buyer can view (and optionally update) sales orders owner by his peers and colleagues in the same team. Fred has no access to sales orders owned by his manager or by users in his branch. He can only view sales orders owned by users in the same department.

Key Points



Key points from this topic:

- There are two types of user account:
 - A superuser has by default full authorization to every function and needs a Professional license
 - Non superusers have no authorization to any function and you need to grant general authorizations to each user
- The easiest way to grant authorizations is by role, and copy the authorizations from one user to other users
- You can designate users as a sales employees or buyers, and can assign a default sales employee or buyer for a business partner
- Employee master data enables you to define an organizational structure with reporting lines. Employee master data is required for data ownership authorizations
- If the business partner has a designated sales employee or buyer, linked to employee master data, the sales employee or buyer is the owner of documents created for the business partner.

Here are some key points to take away from this session.

- There are two types of user account. If you check the Superuser checkbox when you create a user account, the user will have full authorization to every function in SAP Business One. Super users need a Professional license. If you do not check the Superuser checkbox, the user by default has *no authorizations* to any function and you need to grant general authorizations to each user.
- The easiest way to grant general authorizations is by role, and you can copy the authorizations from one user to other users with similar roles.
- You can designate users as sales employees or buyers. Once setup, you can assign the responsible sales employee or buyer as a default for a business partner.
- You can also define employee master data. This enables you to define an organizational structure with reporting lines. Employee master data is required for data ownership authorizations. These authorizations permit or deny another user access to a document based upon the user's relationship to the owner of the document.
- If the business partner has a designated sales employee or buyer, and the sales employee / buyer is linked to employee master data, then the sales employee or buyer is by default the owner of documents created for the business partner.

Project Realization: Document Numbering and Printing

SAP Business One
Release 9.0



This topic focuses on the setup required for numbering and printing of documents.

Objectives



Objectives:

- Describe the options available for numbering and printing documents
- Create and assign numbering series for documents and master data
- Change menu names in the main menu
- Set default print layouts for users and business partners

On completion of this topic, you will be able to:

- Describe the options available for numbering and printing documents
- Create and assign numbering series for documents and master data
- Change menu names in the main menu
- Set default print layouts for users and business partners

Business Scenario



The sales staff at DG Industries are divided into three separate market areas. The documents produced by each area should be numbered differently so they can be tracked to each area. Additionally, the customers for each area are coded differently.

Solution: You can define multiple document numbering and customer master data numbering ranges, and assign them to specific users.

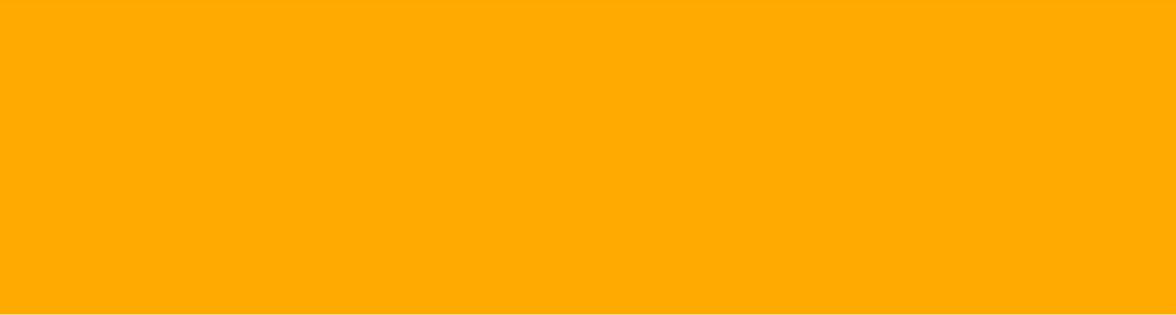


The sales staff at DG Industries are divided into three separate market areas, each with a different set of customers.

The sales documents produced by each area should be numbered differently so they can be tracked to each area.

Additionally, the customers for each area are coded differently.

Solution: You can define multiple document numbering and customer master data numbering ranges, and assign them to specific users. .



Agenda

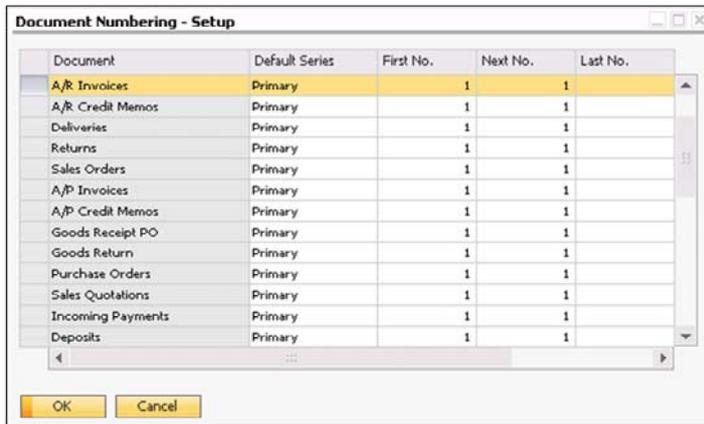
- **Document Numbering**
- Document Printing



In the first part of this topic, we will cover document numbering.

Document Numbering

Administration > System Initialization > Document Numbering



Document	Default Series	First No.	Next No.	Last No.
A/R Invoices	Primary	1	1	1
A/R Credit Memos	Primary	1	1	1
Deliveries	Primary	1	1	1
Returns	Primary	1	1	1
Sales Orders	Primary	1	1	1
A/P Invoices	Primary	1	1	1
A/P Credit Memos	Primary	1	1	1
Goods Receipt PO	Primary	1	1	1
Goods Return	Primary	1	1	1
Purchase Orders	Primary	1	1	1
Sales Quotations	Primary	1	1	1
Incoming Payments	Primary	1	1	1
Deposits	Primary	1	1	1

- Document numbers initially set to start at 1
- One series is provided by default – *Primary* series
- You should set actual document numbers allocated to each document type
- Note: Document numbering regulations can vary by localization

When you first create a company, the first document number is set to start at 1 for each document type, and there is a default series – the *Primary* series.

The document numbering function lets you define the actual document numbers allocated to each document type.

Note that the client accountant should specify the requirements for document numbering, since legal regulations can vary depending on localization.

Document Numbering Series

Document	Default Series	First No.	Next No.	Last No.
A/R Invoices	Primary	1	1	1

#	Name	Number			String			Group	Period Ind.	Lock
		First No.	Next No.	Last No.	Prefix	Suffix	Remarks			
1	Primary	981	981		2013			1	Default	<input type="checkbox"/>

- To set the starting number, double-click the row for the document type
- Enter the first and optional ending number

To set the starting number for the default primary series, double-click the row for the document type. A new window opens, allowing you to enter the first and optionally the ending number for the series. The system will automatically allocate numbers incrementally from the first number and will record the next number to be allocated for each document type.

If only one series is required, you can use the default *Primary* series for all users. You can define a prefix or suffix for the series. The prefix or suffix is only relevant for printing, and is not added to the document number.

Authorizations for Document Numbering Series

Administration > System Initialization > Authorizations > General Authorizations

- To create documents, users need authorization to the numbering series through the *Group*

The image shows two overlapping SAP configuration windows. The background window is titled "Series - A/R Invoices - Setup" and contains a table with columns: #, Name, First No., Next No., Last No., Prefix, Suffix, Remarks, Group, Period Ind., and Lock. The first row is highlighted with a yellow background and contains the following data: # 1, Name Primary, First No. 981, Next No. 981, Last No. (empty), Prefix 2013, Suffix (empty), Remarks (empty), Group 1, Period Ind. Default, and Lock (checkbox). A yellow arrow points from the "Group" field in this row to the "Authorizations" window in the foreground.

The foreground window is titled "Authorizations" and shows a list of users on the left: alex, Bti, Bill, bill, bob, brad, carlos, and christin. The main area is a table with columns "Subject" and "Authorization". Under the "Subject" column, there is a dropdown menu for "Numbering Series" which is expanded to show a list of "Series - Group No." from 1 to 10, plus "E-Mail Settings". The "Authorization" column shows the permission level for each series: "Various Authorizati...", "Read-Only", "Full Authorization", and "No Authorization". A yellow arrow points from the "Group" field in the background window to the "Full Authorization" entry for "Series - Group No. 1" in the foreground window.

Below the "Authorizations" window, there is a text box containing the navigation path: *Administration > System Initialization > Numbering Series*.

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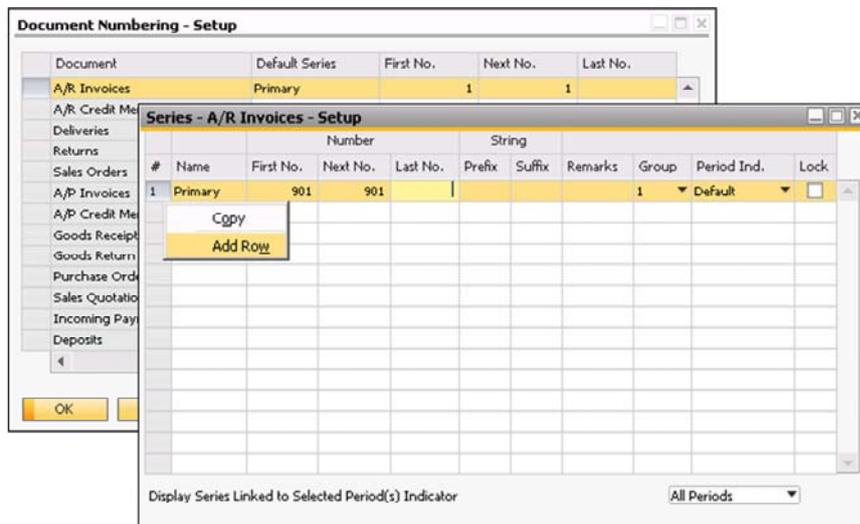
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When a user account is created, the user has no access to the document numbering series, even to the default series. Before users can create documents, they need authorization to the series. Users are given permission to the numbering series through the corresponding *Group* selected on the series row. In the *Group* field, you can select a number between 1 and 10. This means you can define up to 10 different numbering series in total.

You need to make sure that each user who will create documents has authorization to the *Group*, even for the *Default* series, otherwise the user cannot open the initial window for this type of document. The authorization is set in the *General Authorizations* screen. Navigate to *Administration > System Initialization > Numbering Series* and select the appropriate *Series – Group No.* from the list. As an example, the primary series shown here has *Group 1* selected, so users need the authorization *Administration > System Initialization > Numbering Series > Series – Group No. 1*.

Note: Users with the general authorization *Document Manual Numbering* also have the option to select manual numbering when creating a document and can assign a manual document number.

Multiple Document Numbering Series



- To define an additional numbering series, right-mouse click on the Primary series row and choose *Add Row*

You need the general authorization *Administration > Document Numbering*

You can create multiple numbering series for each document type, with a different numbering range. This gives the customer the ability to designate specific ranges of document numbers to individual users.

To define an additional series, first open the setup window by double-clicking the document row.

Next, right-mouse click on the Primary series row and select *Add Row* from the context menu.

To create and maintain document series, you need the general authorization *Administration > Document Numbering*.

Multiple Document Numbering Series (Cont.)

Document Numbering - Setup

Document	Default Series	First No.	Next No.	Last No.
A/R Invoices	Primary	1	1	

Series - A/R Invoices - Setup

#	Name	First No.	Next No.	Last No.	Prefix	Suffix	Remarks	Group	Period Ind.	Lock
1	Primary	901	901					1	Default	<input type="checkbox"/>

Series - AR Invoice - Setup

#	Name	First No.	Next No.	Last No.	Prefix	Suffix	Remarks	Group	Period Ind.	Cancellation	Lock
1	Primary	1	357	357				1	Default	<input type="checkbox"/>	<input type="checkbox"/>
2	New	358	358		2013-			1	Default	<input type="checkbox"/>	<input type="checkbox"/>

- Enter the starting number for the new series
- Document numbers should not overlap between series
- If you lock series, no documents can be created with numbers in the series

Enter the starting number for the series. SAP Business One populates the *Next No.* field automatically.

Document numbers should not overlap between series, therefore you must enter the *Last No.* field. The new series should start with the next consecutive number after the last number in the previous series, to ensure there are no gaps in the document numbers.

You can optionally enter a prefix or suffix for the new series, which does not appear in the document, but will be printed.

If you lock a series, no further documents can be created with the numbers in that series. To continue operations, ensure that another series is set as the default.

Note: Certain country regulations permit document numbering series that contain more than one document type. All of these documents are part of the same numbering series. A checkbox is available in the *Company Details* screen to permit this. This setting cannot be changed after it has been selected.

Period Indicators and Numbering Series

Administration > Setup > Financials > Period Indicators

#	Name	First No.	Next No.	Last No.	Prefix	Suffix	Remarks	Group	Period Ind.
1	Primary	901	901	2900				1	Default
2	Series 2	2901	2901					2	Default

■ Can link numbering series with fiscal year using *Period Indicator*

■ If you use a different period indicator, you can start document numbering at 1 for each fiscal year

■ Only document numbers for a series with same period indicator as current posting period can be posted

You can link a document numbering series with the posting periods for a specific fiscal year using a *Period Indicator*.

You can use the default period indicator that applies to all posting periods, including new ones that will be created in the future, or you can create additional period indicators by choosing *Administration > Setup Financials > Period Indicators*, or by selecting *Define New* from the numbering series row.

If you use a different period indicator for each new posting period, you can start document numbering at 1 for each new fiscal year.

Furthermore, if you link a numbering series to a specific fiscal year using the period indicator, you can restrict the posting of documents for the series to the fiscal year. Only document numbers for a series with the same period indicator as the current posting period can be posted.

If you create a new Period Indicator and want to use this for the existing posting periods, you must do this before any document postings.

Menu Names for Documents

Document	Default Series	First No.	Next No.	Last No.	Change Menu Names
Business Partners - Customer	Manual				
Business Partners - Vendor	Manual				
Items	Manual				
A/R Invoices	Primary	1	1		
A/R Credit Memos	Primary	1	1		
Deliveries	Primary	1	1		
Returns	Primary	1	1		
Sales Orders	Primary	1	1		Customer Orders
A/P Invoices	Primary	1	1		
A/P Credit Memos	Primary	1	1		
Goods Receipt PO	Primary	1	1		
Goods Return	Primary	1	1		
Purchase Orders	Primary	1	1		

- Change document name that appears in main menu, for example:

Sales Orders



Customer Orders

You can also change the name of a document in the main menu. To specify a new menu name, enter it in the row for the Primary series.

You can change document names even if documents have already been entered in the system. The new name appears in the SAP Business One *Main Menu* and in the title bar of documents of this type.

Numbering Series for Master Data

Administration > System Initialization > Document Numbering

Document	Default Series	First No.	Next No.	Last No.	Change Menu Names
Business Partners - Customer	Manual				
Business Partners - Vendor	Manual				
Items	Manual				
A/R Invoices	Primary	1	1		
A/R Credit Memos	Primary	1	1		
Deliveries	Primary	1	1		
Returns	Primary	1	1		
Sales Orders	Primary	1	1		Customer Orders
A/P Invoices	Primary	1	1		
A/P Credit Memos	Primary	1	1		
Goods Receipt PO	Primary	1	1		
Goods Return	Primary	1	1		
Purchase Orders	Primary	1	1		

- You can define numbering series for customer, vendor and item master data codes
- Double-click the row for the Manual series to add a new row

As well as setting up a numbering series for documents, you can set up a numbering scheme for business partner and item master data codes.

The first three rows in the document numbering window show the series for customer, vendor and item master data.

Note: The *Manual* series of master data is grayed out and cannot be edited or deleted. A user can still select the Manual series and enter the number manually, if they have authorization.

Numbering Series for Master Data (Cont.)

Administration > System Initialization > Document Numbering

The screenshot shows two SAP windows. The top window is 'Document Numbering - Setup' with a table of series. The bottom window is 'Series - Business Partners - Customer - Setup' with a table of series and a 'Business Partner Master Data' dialog box.

Document	Default Series	First No.	Next No.	Last No.	Change Menu Names
Business Partners - Customer	Manual				
Business Partners - Vendor	Manual				
Items	Manual				
A/R Invoices	Primary	1	1		

#	Name	First No.	Next No.	Last No.	Prefix	Suffix	Remarks	Group	No. of Digits	Lock
1	Manual									<input type="checkbox"/>
2	Customer	20001	20003					1	5	<input type="checkbox"/>

Business Partner Master Data

Code: Customer 20003 Customer
 Name: Customer
 Foreign Name: Manual
 Group: Customers
 Currency: British Pound
 Federal Tax ID:
 General Contact Persons Addresses Payment

Display Series Linked to Selected Period(s) Indicator: All Periods
 Display Confirmation Message when Adding Business Partner for Non-Manual Series

- Enter first number to be allocated as the code for new master data record
- Prefix or suffix, if entered, will be added to code
- Must specify the number of digits for the code
- Can set series as default and assign to group for authorizations

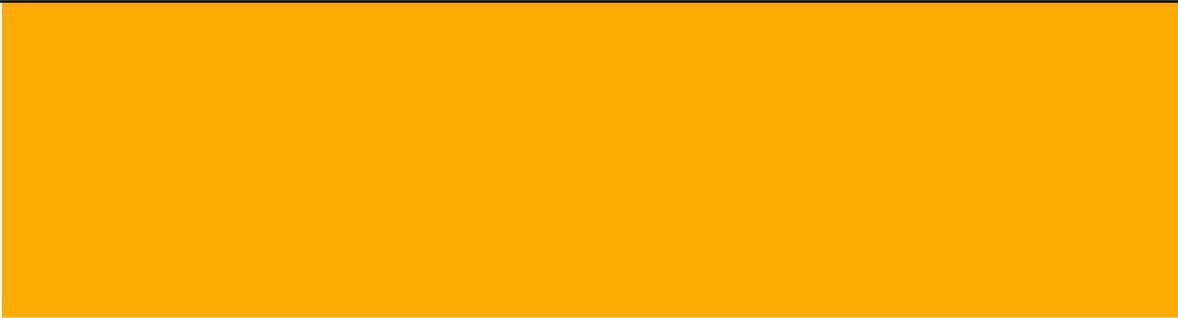
To define a new series, enter the first number to be allocated by the system as the code for new customer, vendor, or item master data records. When the user creates a new master data record, the system will assign this number to the master data and will increment the next number by 1.

You can enter a suffix and/or a prefix which will be added to the business partner or item code. For example, if you define a prefix as "C-", the customer code will be allocated as C-20001. For numbering series of master data, prefixes and suffixes help avoid overlaps with other series.

You must specify the number of digits contained in the number. For example, if the first number is 1, and the number of digits is 5, the number will be allocated in the master data as 00001.

You can set the new numbering series as default for users, and also assign the series to a Group, in the same way as for document numbering series.

You can define the last number of a series to restrict its numeric range and avoid overlaps with another series.



Agenda

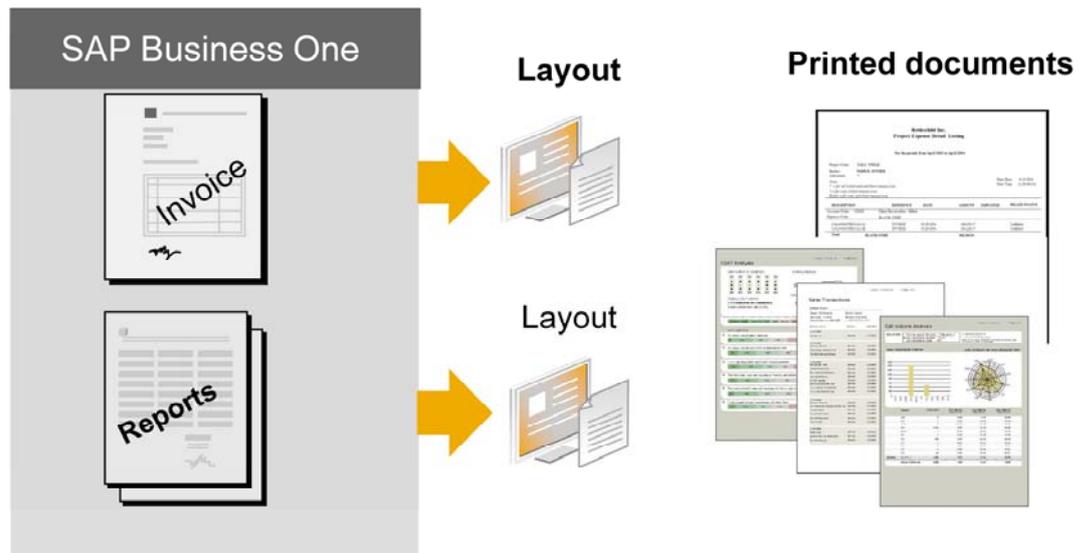
- Document Numbering
- **Document Printing**



In the next part of this topic, we will cover document printing.

Print Layouts

- Each marketing document or report requires a print layout
- This is a template for how the document will look in printed form



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Print layouts are templates that define how a document or report will look when it is printed.

SAP provides a set of predefined layouts you can use as templates to create client-specific printed documents. This is typically done for external facing documents, but you can also customize the layouts for internally used documents such as pick lists and bills of materials.

You can also create new layouts for customized reports that you develop.

Default Print Layout

- A document can have multiple print layouts
- To see available layouts, choose the *Layout Designer* icon



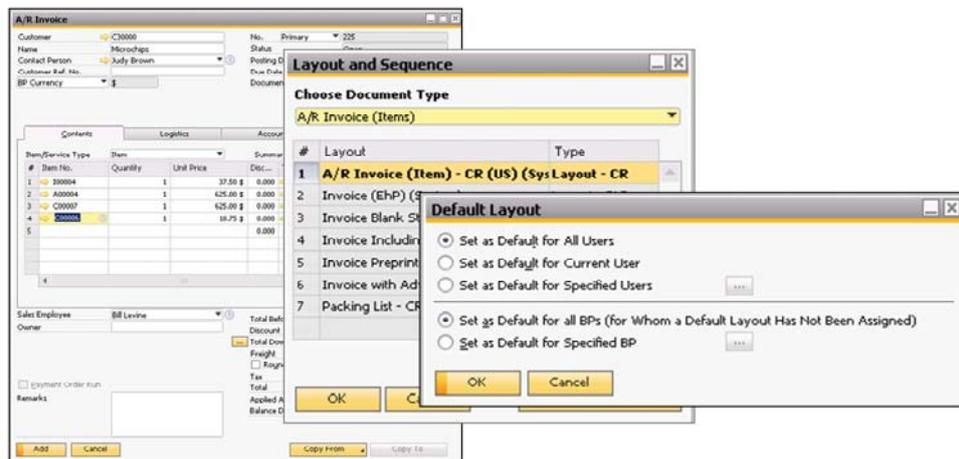
#	Layout	Type
1	A/R Invoice (Item) - CR (US) (Sys Layout - CR)	
2	Invoice (EHP) (System)	Layout - PLD
3	Invoice Blank Stock_USA (System)	Layout - PLD
4	Invoice Including Batch/SN (System)	Layout - PLD
5	Invoice Preprinted (System)	Layout - PLD
6	Invoice with Advice (EHP) (System)	Layout - PLD
7	Packing List - CR (US) (System)	Layout - CR

There can be multiple print layouts for a document. To see the available print layouts, open a document and choose the *Layout Designer* icon from the icon toolbar. The layouts available for the current document type are shown. The one in bold is the default template that will be used when the user prints the document. You should decide with the customer which templates will be required for each document. For example, an A/R invoice can be printed as a packing list as well as an invoice.

Note: If you print or preview a document before you add it to the system, the system automatically adds the *Draft* watermark to the printout.

Changing the Default Print Layout

- A default layout can be specified for all users, for the current user, for specified users, for business partners with no assigned layout, and for specified business partners



It is quite possible that users might need to use more than one print layout template for a document. A user might need to use an invoice layout for each of their customers' languages, or set a different invoice layout for certain groups of customers.

Authorized users can set a different layout to be used as default for different users or business partners. A new template can be set as default for:

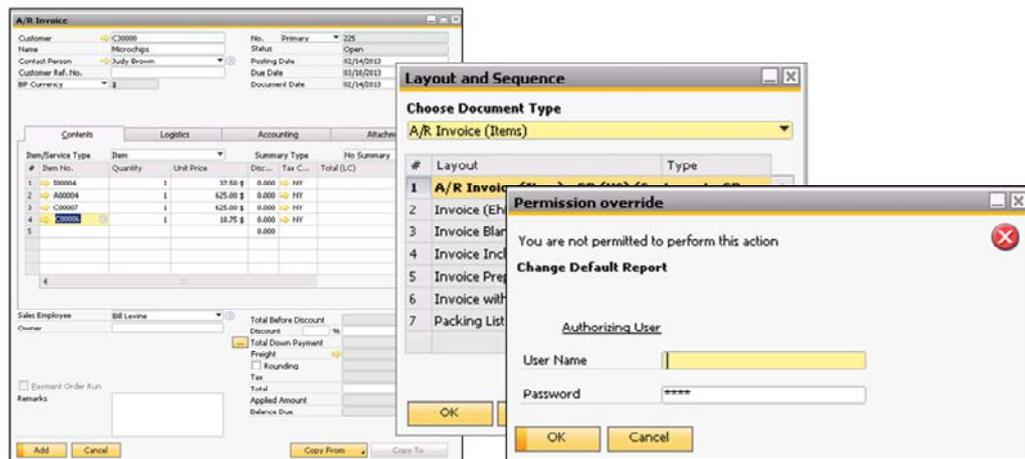
- All users
- The current user
- Specific users that you select from the list of users
- Documents for business partners for which a default template has not yet been assigned
- Documents for selected business partners – this allows you to select one or more business partners.

Note: To be authorized to change the default print layout currently defined for a certain document or report, the general authorization *General* → *Change Default Report* is required.

In SAP Business One you can also preview a document using a different print layout (not the default layout). This is useful when you are editing print layouts during the implementation. Choose *File* → *Preview Layouts...*

Changing the Default Print Layout (Cont.)

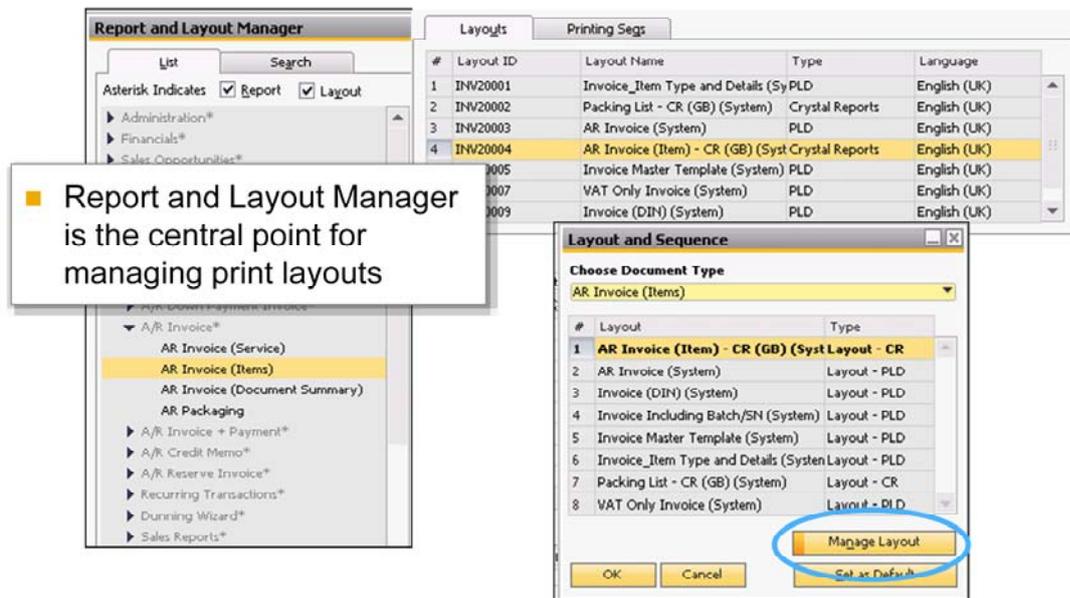
- An unauthorized user can change to a different print layout for their own use, if an authorized user gives permission



If during business processing an unauthorized user needs to change a default print layout, a prompt will display, allowing an authorized user to give permission for a one time change by entering their name and password. The user can only change the default layout for their own use, and not for other users.

Managing Print Layouts and Reports

Administration → Setup → General → Report and Layout Manager



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When you install SAP Business One, print layouts for documents and reports are loaded according to the localization.

You can view and manage these print layouts using the *Report and Layout Manager*. Choose *Administration → Setup → General → Report and Layout Manager*.

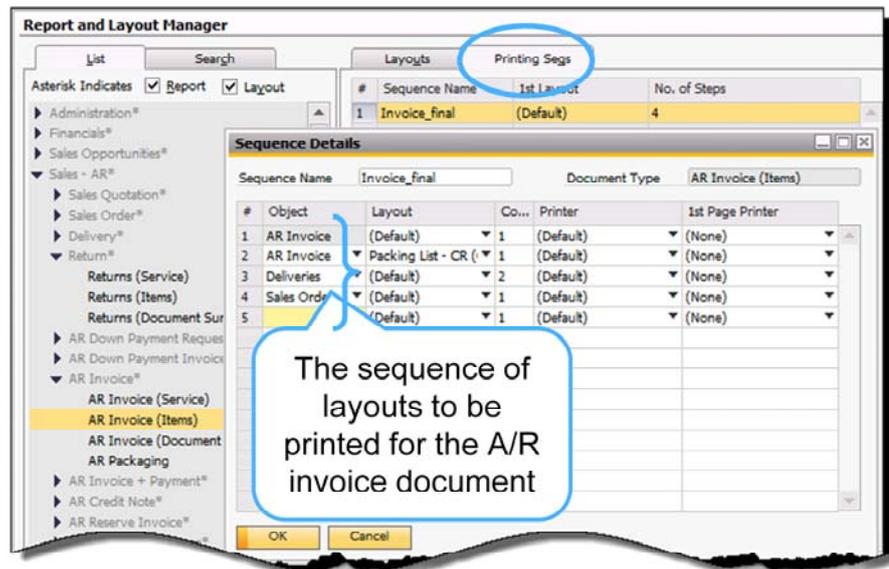
Authorized users can also access the *Report and Layout Manager* using an additional button – *Manage Layout*, that displays when they select the *Layout Designer* icon from the toolbar.

You can browse the list, or search for a named report or layout. For a selected print layout, you can set a default printer from the available list of printers, and the number of copies. For example, this could be a specific printer used for printing bank checks or sensitive reports.

Note: You cannot delete system SAP Business One reports and layouts that are provided with the core product.

Printing Sequence

- Use the *Printing Seqs* tab to define the document set to be printed for a print layout



Different companies have different printing needs and procedures. With the printing sequence you can customize how documents are printed to match these procedures.

In the Report and Layout Manager window, select a print layout, then choose the *Printing Seqs* tab.

The sample printing sequence shown here will print the first copy of the A/R invoice using the item print layout, followed by a packing list, followed by two copies of the delivery, followed by the original sales order.

You can select the print layout template for each document in the sequence. You can also select the printer for each document.

Editing Print Layouts

- Print layouts need to be customized to meet the customer's needs for external facing documents
- You can also translate print layouts to provide documents in the customer's native language
- To save time during an implementation, demonstrate the various print layouts available for a document, and identify a layout as the base for changes

The screenshot shows an invoice print layout with the following details:

OEC Computers
1901 Maymesboro Drive
Suite 200
New York, NY 10005
USA

Microchips
49th Street
Suite 100
New York, NY 10010
USA

Original INVOICE

Document Number	Document Date	Page
225	02/14/2013	1/2

Customer No. C30000 Federal Tax ID - Business Partner US26-487636

Your Reference

Your Contact: **Bill Levine**

Delivery Address:
Microchips
5th Ave
New York, NY 10005
USA

Description	Quantity	UoM	Price	Tax %	Total
HP 600 Series Inc Item Code: A00005	1		500.00	0.250	500.00

Currency: \$

Print layouts need to be customized during an implementation project, so they meet the customer's needs for external facing documents. You will need at minimum to insert the company's logo and address. You might need to translate the print layout to provide printed documents in a customer's native language.

These changes can take a considerable amount of time. During an implementation you should demonstrate the various print layouts to the customer. When you identify a layout that best fits the customer's needs, you can use that layout as the base for changes.

Editing Print Layouts (Cont.)

Report and Layout Manager

List Search

Asterisk Indicates Report Layout

Administration*
Financials*
Sales Opportunities*
Sales - A/R*
Sales Quotation*
Customer Orders*
Delivery*
Return*
A/R Down Payment Request*
A/R Down Payment Invoice*
A/R Invoice*
AR Invoice (Service)
AR Invoice (Items)
AR Invoice (Document Summary)
AR Packaging
A/R Invoice + Payment*
A/R Credit Memo*
A/R Reserve Invoice*
Recurring Transactions*
Dunning Wizard*
Sales Reports*
Purchasing - A/P*
Business Partners*

Layouts Printing Segs

#	Layout ID	Layout Name	Type	Language
1	INV20001	Invoice_Item Type and Details (Sy	PLD	English (UK)
2	INV20002	Packing List - CR (GB) (System)	Crystal Reports	English (UK)
3	INV20003	AR Invoice (System)	PLD	English (UK)
4	INV20004	AR Invoice (Item) - CR (GB) (Syst	Crystal Reports	English (UK)
5	INV20005	Invoice Master Template (System)	PLD	English (UK)
6	INV20007	VAT Only Invoice (System)	PLD	English (UK)

Default
Printer: None
Sales: 1
Language: GB
Language: English (UK)

Advanced Edit Delete

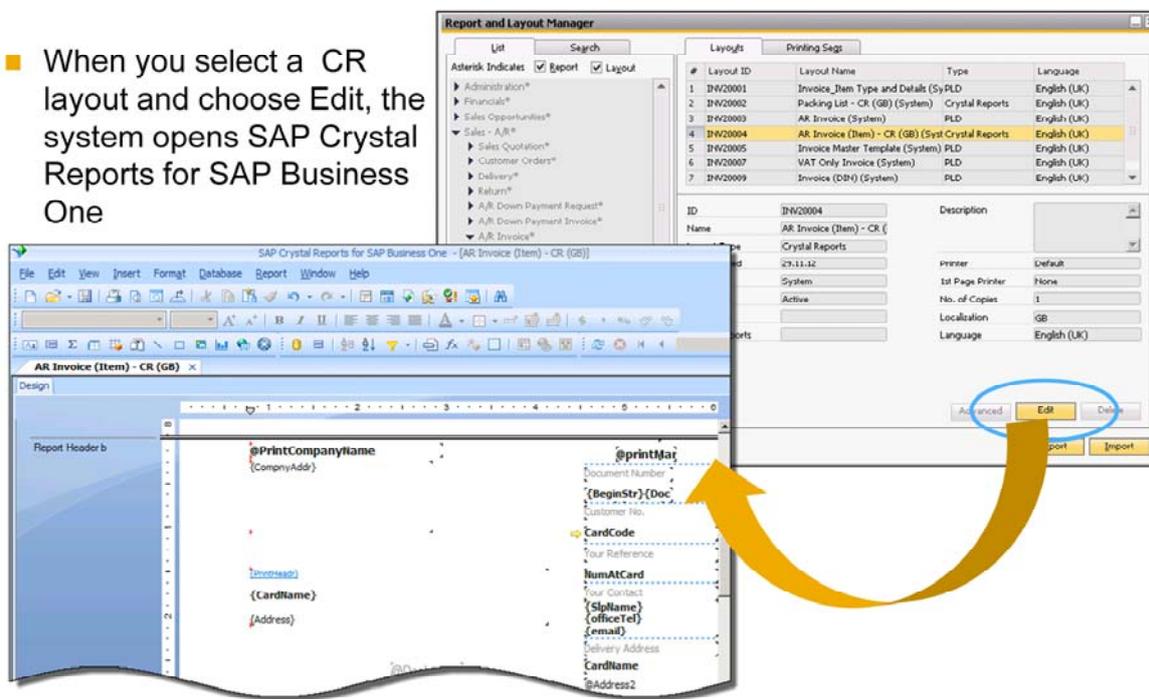
OK Cancel Refresh Export Import

- When you select a document, you can see all the available print layouts for the document
- Print layouts are provided in either Crystal Reports or Print Layout Designer format

When you select a document type you will see all the print layouts for that document type. Print layouts are provided in either Crystal Reports or Print Layout Designer (PLD) format. To edit a print layout, double-click the row for the layout, or select the row and choose the Edit button.

Editing Print Layouts (Cont.)

- When you select a CR layout and choose Edit, the system opens SAP Crystal Reports for SAP Business One



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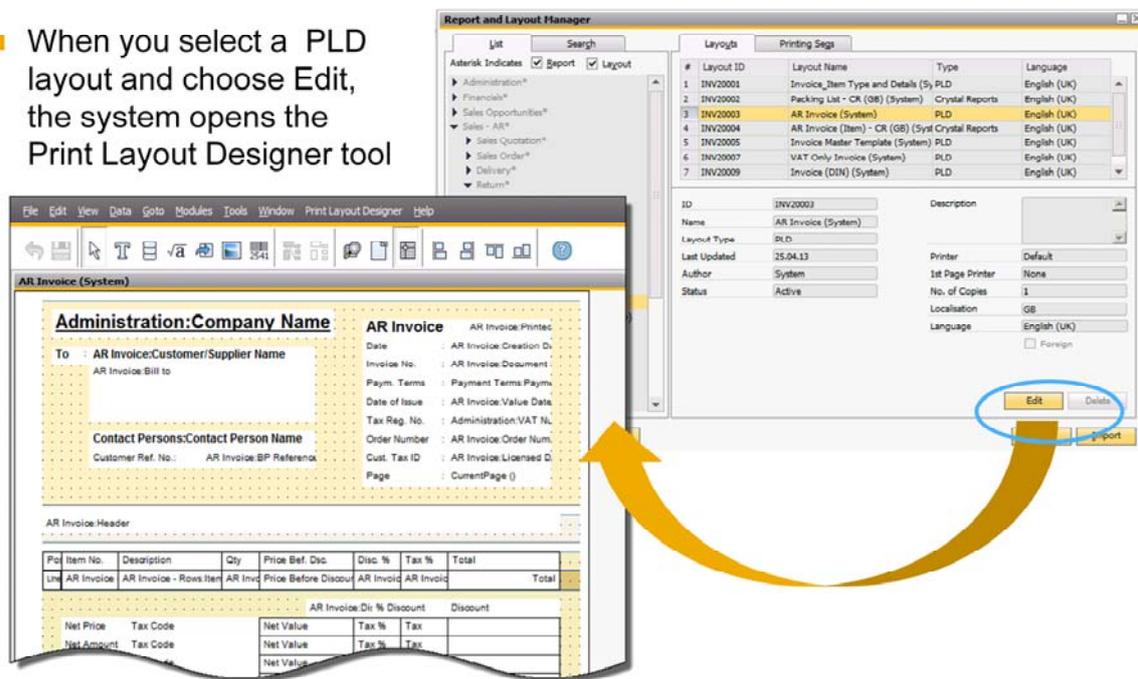
If the print layout is the Crystal Reports type, the system automatically opens SAP Crystal Reports for SAP Business One designer. This allows you to edit and save the layout.

Note: SAP Crystal Reports, version for the SAP Business One application is provided with the installation files for SAP Business One. It is recommended that you install SAP Crystal Reports before you install SAP Business One. If you do not, you may need to run a script to install the integration package. The integration script is provided in the install files. Once the integration package is installed, SAP Business One is shown as a data source in Crystal Reports and the SAP Business One tables match the application menu structure.

The detailed steps for editing a print layout are not covered in this topic. For more information on editing a print layout, see the how-to guide *How to Work with Crystal Reports in SAP Business One*.

Editing Print Layouts (Cont.)

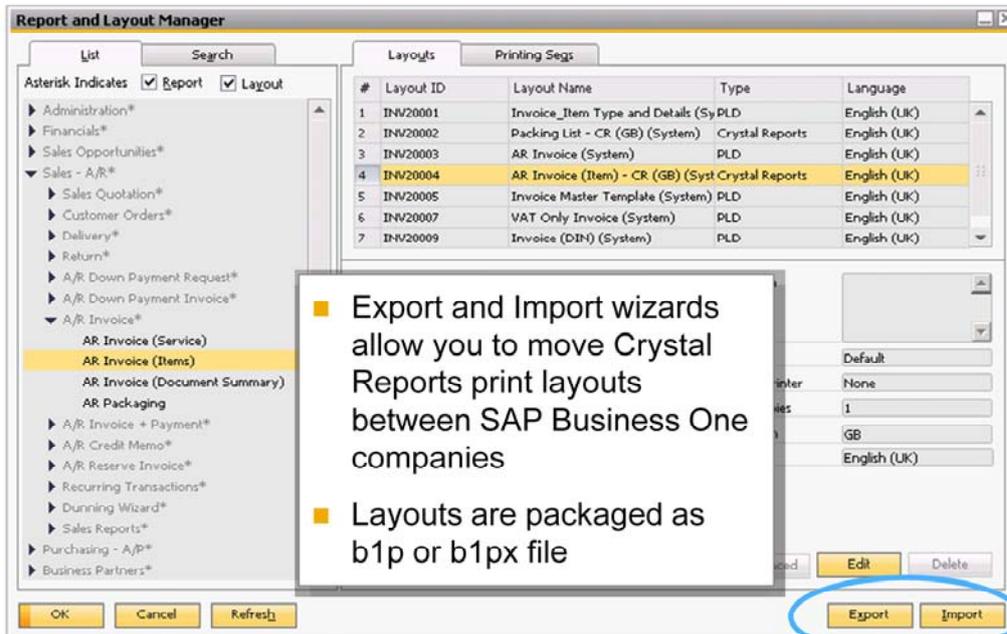
- When you select a PLD layout and choose Edit, the system opens the Print Layout Designer tool



If the print layout is the Print Layout Designer type, the built-in Print Layout Designer tool will automatically open, allowing you to edit and save the layout.

The detailed steps for editing a print layout are not covered in this topic. For more information on editing a print layout, see the how-to guide *How to Customize Printing Layouts with the Print Layout Designer*.

Import and Export



You can export Crystal Reports layouts that you have created to another SAP Business One system. This can save time during the course of a SAP Business One implementation, when you need to move templates from one company to another, or to apply a layout to different types of documents.

To export print layouts, choose Export. A wizard opens, allowing you to select the layouts for export. The selected layouts are exported as a package (*.b1p or *.b1px file type) and can only be imported into another SAP Business One system.

To import layouts, choose Import. The wizard expects to import from a packaged file previously create in SAP Business One.

Master Layouts

Report and Layout Import Wizard
Select Layouts for Import

- Select the checkbox to the left of each layout that you want to import. All existing language versions of the report or layout will be included.
- If the layout name already exists for the document type, a checkbox appears in the "Overwrite" column. To replace the existing layout, select the checkbox. To keep the existing layout, deselect the checkbox. You will be able to rename it later.
- To apply a layout to other document types, select the "Master Layout" checkbox.
- To complete the import, choose the "Finish" button.

Name	Overwrite	Master Layout	Date
▼ Sales - A/R			
▼ Sales Quotation			
▼ Sales Quotation (Service)			
<input checked="" type="checkbox"/> CR-AR-Sales-Quotation-US	<input type="checkbox"/>	<input type="checkbox"/>	
▼ Sales Quotation (Items)			
<input type="checkbox"/> CR-AR-Sales-Quotation-US	<input type="checkbox"/>	<input type="checkbox"/>	
▼ Sales Order			
▼ Sales Order			
<input checked="" type="checkbox"/> CR-AR-Sales-Order-US	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
▼ Order (Items)			
<input type="checkbox"/> CR-AR-Sales-Order-US	<input type="checkbox"/>	<input type="checkbox"/>	
▼ Delivery			
▼ Delivery Note (Service)			

Set Master Layout

- Select the checkboxes to the left of the document types to which you want to apply the master layout.
- If the layout name exists, a checkbox appears in the "Overwrite" column. To overwrite the existing layout, select the checkbox. If you do not select the checkbox, you are prompted to rename the imported layout when you choose the "OK" button.

Layout Name: CR-AR-Sales-Order-US

Document Type	Overwrite
<input type="checkbox"/> Returns (Document Summary)	
<input checked="" type="checkbox"/> Sales Order	
<input checked="" type="checkbox"/> Order (Items)	
<input checked="" type="checkbox"/> Order (Document Summary)	
<input checked="" type="checkbox"/> Order (Pick)	
<input checked="" type="checkbox"/> Sales Order - Assembly BOM Report	
<input checked="" type="checkbox"/> A/R Credit Memo	
<input checked="" type="checkbox"/> Credit Memo (Items)	
<input type="checkbox"/> Credit Memo (Document Summary)	
<input type="checkbox"/> A/P Credit Memo (Service)	
<input type="checkbox"/> A/P Credit Memo (Items)	
<input type="checkbox"/> A/P Credit Memo (Document Summary)	
<input type="checkbox"/> Goods Return (Service)	
<input type="checkbox"/> Goods Return (Items)	

OK

■ When you import print layouts, you can specify a layout as a master layout and apply the layout to other document types

When you import a package of Crystal Reports print layouts, you can specify the layout as a master layout for other document types. This enables you to make common changes, such as company logo, in one layout and use this layout for other documents with a similar structure. For example, a master layout that is created for a sales invoice can be applied to sales quotations or deliveries.

To define a layout as a master layout, run the Report and Layout Import Wizard by choosing the Import button:

- In the Report and Layout Selection window, select the *Master Layout* checkbox
- In the Set Master Layout window, select the other document types to which you want to assign this layout.
- Fine tune the duplicated layouts as needed. For example, you should update text fields that refer to the document type, and delete or add fields based on the specific document type.

Note: You can duplicate a PLD layout to create a new PLD layout. The utility is located under the menu *Administration > Utilities > Duplicate Layout Template*.

Print Preferences and Defaults

Administration > System Initialization > Print Preferences.

The screenshot shows the 'Print Preferences' dialog box with the 'General' tab selected. The 'Per Document' sub-tab is active. The following settings are visible:

- Max. Rows per Page: 99
- Print with Vertical Compression: 100
- Top Margin (cm):
- Bottom Margin (cm):
- Max. Rows per Page in Export: 10
- When Printing Layout Including SN, Print: Serial No.
- Print Text as Picture:
- Print on Letter Paper:
- Print SAP Business One Generation Message:
- Print Draft Watermark on Draft Documents:
- Generate PDF When Printing:
- Print Canceled or Cancellation Watermark on Applicable Documents:

A yellow box with the text 'OEC Computers' is overlaid on the bottom right of the dialog. At the bottom left, there is a 'Co. Logo' field with a small image icon.

Administration > Setup > General > User Defaults.

The screenshot shows the 'User Defaults' dialog box with the 'Defaults' tab selected. The 'Code' field is set to 'Default1' and the 'Description' field is set to 'User Default1'. The 'Document' dropdown is set to 'Sales Order'. The following settings are visible:

- PLD and CR Properties:
 - When Adding Document:
 - Export to MS-Word:
 - Print Document:
 - Copies (Incl. Original):
 - Copies for Manual Series:
- Permanent Remarks for Printing:
- PLD Only Properties:
 - Print Discount Data:
 - Print Mfr Catalog No. Instead of Item No.:
 - Print Amounts:

'Add' and 'Cancel' buttons are at the bottom.

You can define system wide print preferences for documents, as well as per document print preferences.

An image of the company's logo can be uploaded in the Print Preferences window. This will automatically appear in documents.

You can also define many print preferences as user defaults. The defaults can be assigned to the user's account. The user default will take precedence over the system wide preferences.

Key Points



Key points from this topic:

- You can set the initial document number for each document type, and create multiple ranges of document numbers for each document type.
- You can allocate different document numbering ranges to different users.
- You can set up a numbering scheme for customer, vendor, and item master data codes.
- SAP provides predefined print layouts for printing documents. A document may use one of several available print layouts, and you can set different default layouts to different users.
- During the implementation, you need to edit the print layouts to meet the customer's need for external facing documents. The Report and Layout Manager is the central point for managing print layouts.
- When you import CR print layouts, you can designate a master layout and apply it to multiple document types. You can duplicate a PLD print layout as a template for another document.

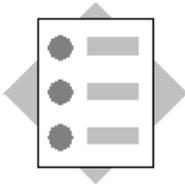
Here are some key points to take from this topic:

- You can set the initial document number for each document type and create multiple ranges of document numbers, for each document type.
- You can allocate different document numbering ranges to different users by granting the users the general authorization to the Group associated with the document numbering range.
- You can set up a numbering scheme for customer, vendor, and item master data codes.
- SAP provides a set of predefined print layouts for printing documents. A document may use one of several available print layouts, and you can set different default layouts to different users, depending on their needs.
- During the implementation, you need to edit the print layouts to meet the customer's need for external facing documents. The Report and Layout Manager is the central point for managing print layouts. You can export print layouts developed using Crystal Reports to another SAP Business One system.
- When you import Crystal Reports print layouts, you can designate a master layout and apply it to multiple document types. You can duplicate a layout of type print layout designer (PLD) as a template for another document.



Unit: Administration Tools

Topic: Software and Licensing



In this exercise, you will define the paths to the shared folders on the server, locate the hardware key for the server, and perform license administration tasks.

1. Set the paths to shared folders

Note: To perform this step, you need access to the shared folders on the SAP Business One server.

Choose *Administration* → *System Initialization* → *General Settings*.

Select the *Path* tab.

1.1. Attachments

If the path for the Attachments Folder is not set in your system, you can set it now. Navigate to the SAP Business One server directory that contains the ExclDocs, WordDocs and Attachments folders.

Select the Attachments folder in the server directory.

Choose **Update**.

Open an existing sales order and generate a PDF copy of the document.

The PDF file will be stored in the Attachments folder.

1.2. Pictures

If the path for the Pictures Folder is not set in your system, you can set it now. Choose the browse button and navigate to the SAP Business One shared directory that contains the Bitmaps folder.

Select the Bitmaps folder in the server directory.

Open an existing item master data record. Choose the **Remarks** tab and click the camera icon.

Select an image from the Bitmaps folder and choose Open.

The image will show in the item master data.

Choose **Update** to save the master data.

2. License Manager

2.1. Find the hardware key

To request a license key, you need the hardware key from the SAP Business One server.

Locate the hardware key from the *Help* menu in your SAP Business One application.

Where else can you find the hardware key?

- A. System Landscape Directory?
- B. License manager settings?
- C. The License Administration screen?

2.2. Assign a License to a user

Choose *Administration* → *License* → *License Administration*.

On the Allocation tab, if you have an available license type, select a user name and assign the license to the user.

Choose **Update**.

2.3. View the EULAs

Choose *Administration* → *License* → *End User License Agreement*.

You can see the signed EULAs on your system.

2.4 Stop the License Server

In the Service Manager, stop the license manager service.

Choose *Administration* → *Choose Company*.

Choose **Refresh**.

What are the implications of stopping the license server?

Remember to restart the license server again!

Note: You can also start and stop the license manager service from the Services window on your system.



Unit: Administration Tools

Topic: Software and Licensing

In this exercise, you will define the paths to the shared folders on the server, locate the hardware key for the server, and perform license administration tasks.

1. Set the paths to shared folders

Note: To perform this step, you need access to the shared folders on the SAP Business One server.

Choose *Administration* → *System Initialization* → *General Settings*.

Select the *Path* tab.

1.1. Attachments

If the path for the Attachments Folder is not set in your system, you can set it now. Choose the browse button and navigate to the SAP Business One shared directory that contains the ExclDocs, WordDocs and Attachments folders.

Select the Attachments folder in the server directory.

Choose **Update**.

Open an existing sales order and choose the PDF icon from the menu bar.

The system will generate a PDF copy of the document and store it in the Attachments folder.

1.2. Pictures

If the path for the Pictures Folder is not set in your system, you can set it now. Choose the browse button and navigate to the SAP Business One directory that contains the Bitmaps folder.

Select the Bitmaps folder in the server directory.

Choose **Update**.

Open an existing item master data record. Choose the **Remarks** tab and click the camera icon.

The system will open the Bitmaps folder. Select an image from the Bitmaps folder and choose Open.

The image will show in the item master data.

Choose **Update** to save the master data.

2. License Manager

2.1. Find the hardware key

To request a license key, you need the hardware key from the SAP Business One server.

From the top menu of SAP Business One, choose *Help > About SAP Business One*.

Where else can you find the hardware key?

- A. System Landscape Directory?
- B. License manager settings?
- C. The License Administration screen?

2.2. Assign a License to a user

Choose *Administration → License → License Administration*.

On the Allocation tab, if you have an available license type, select a user name and select the checkbox for a license type to assign the license to the user.

Choose **Update**.

2.3. View the EULAs

Choose *Administration → License → End User License Agreement*.

You can see the signed EULAs on your system.

2.4 Stop the License Server

In the Service Manager, stop the license server.

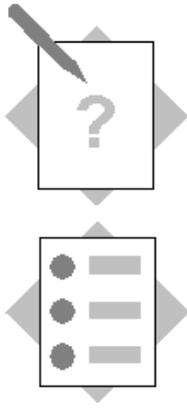
Choose *Administration → Choose Company*.

Choose **Refresh**.

What are the implications of stopping the license server?

Remember to restart the license Server again!

Note: You can also start and stop the licens manager service from the Services window on your system.



Unit: Administration Tools
Topic: Security

1. Change the database user account for a company

Note: To perform this step, you need access to the SAP Business One server.

Open the *System Landscape Directory* in a browser on the SAP Business One server machine.

Login to the System Landscape Directory.

Choose the *Servers and Companies* tab.

Select a company and generate a database user to replace the default user “sa”.

The new database user will be displayed for the selected company.

What is the implication of this change?

- Users will need to supply new database credentials when accessing a company
- Access to the database is more secure since the new database user does not have system admin rights
- When you backup the company database, you will need to provide the new user and password

2. Set the Password Policy in SAP Business One

Choose *Administration* → *Setup* → *General* → *Security* → *Password Administration*.

Change the security level:

Field	Values
<i>Security Level</i>	Select a different level, for example, High .
<i>Password Example</i>	Choose Generate

Choose *Update*.

What is the implication of this change?

3. Change a user's password

Choose *Administration* → *Setup* → *General* → *Users*.

Select a user account. If there are no users defined in your system, add a new user.

Set the user password according to the new policy.

4. View the access log

Choose *Tools* → *Access log*.

Review the access log for your system.

Double-click a row to see the details.

5. View the change history log

Choose *Administration* → *System Initialization* → *Authorizations* → *General Authorizations*.

In the General Authorizations window, select a user and make a change to one of the authorizations for the user.

With the authorizations window still active and the user selected, choose *Tools* → *Show History*.

Select the first row and choose *Show Differences*.

Double-click a row to see the original window.

Create a sales document and save it to the system.

Re-open the sales document and change the quantity on the row.

Choose **Update**.

Choose *Tools* → *Show History* to open the change log.

Select the first row and choose *Show Differences*.



Unit: Administration Tools
Topic: Security

1. Change the database user account for a company

Open a browser on the SAP Business One server machine and navigate to <https://localhost:30010/ControlCenter>.

Enter the site user password and login to the System Landscape Directory.

Choose the *Servers and Companies* tab.

Select a company and choose **Edit**.

In the pop-up window, select the option *Use Specified Database User*.

Choose OK.

A database user will be generated for the company, instead of the user 'sa'.

The new user will be displayed for the selected company.

What is the implication of this change?

- Users will need to supply new database credentials when accessing a company
- Access to the company database is more secure since the new database user does not have system admin rights
- When you backup the company database, you will need to provide the new user and password

2. Set the Password Policy

Choose *Administration* → *Setup* → *General* → *Security* → *Password Administration*.

Change the security level:

Field	Values
<i>Security Level</i>	Select a different level, for example, High
<i>Password Example</i>	Choose Generate

Choose *Update*.

What is the implication of this change?

3. Change a user's password

Choose *Administration* → *Setup* → *General* → *Users*.

Select a user account. If there are no users defined in your system, switch to **Add** mode and add a new user.

Choose the browse button next to the **Password** field and set the user password according to the new policy.

4. View the access log

Choose *Tools* → *Access log*.

Review the access log for your system.

Double-click a row to see the details.

5. View the change log

Choose *Administration* → *System Initialization* → *Authorizations* → *General Authorizations*.

In the General Authorizations window, select a user and make a change to one of the authorizations for the user.

Choose **Update**.

With the authorizations window still active and the user selected, choose *Tools* → *Show History*.

Select the first row and choose *Show Differences*.

Double-click a row to see the original window.

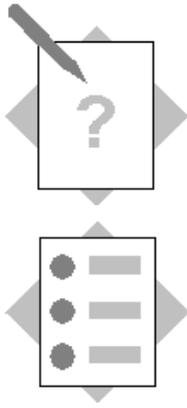
Create a sales document and save it to the system.

Re-open the sales document and change the quantity on the row.

Choose **Update**.

Choose *Tools* → *Show History* to open the change log.

Select the first row and choose *Show Differences*.



Unit: Administration Tools

Topic: User Accounts and Authorizations

1-1 Define Departments and User Accounts

1-1-1 Define Departments

Choose *Administration* → *Setup* → *General* → *Users*.

If there are departments in your system for Sales and Purchasing, you can skip this step. If the departments do not exist, create new departments:

Field	Values	Then Choose
<i>Department</i>	Sales	Update
<i>Department</i>	Purchasing	Update

Choose **OK**.

1-1-2 Define User Accounts

Choose *Administration* → *Setup* → *General* → *Users*

Add the following users.

Field Name	Values
<i>User Code</i>	Enter a login code
<i>User Name</i>	Your name
<i>Superuser</i>	✓
<i>Department</i>	General
<i>Password</i>	<p>Deselect the <i>Change Password at Next Logon</i> checkbox.</p> <p>Set a password in accordance with the password policy and confirm the password.</p> <p>Password _____</p> <p>Choose Update.</p>

Choose **Add**.

Field Name	Values
<i>User Code</i>	sarah
<i>User Name</i>	Sarah Miller
<i>Superuser</i>	
<i>Department</i>	Sales
<i>Password</i>	Deselect the <i>Change Password at Next Logon</i> checkbox. Enter a password in accordance with the password policy and confirm the password. Password _____ Choose Update.

Choose *Add*.

Field Name	Values
<i>User Code</i>	maggie
<i>User Name</i>	Maggie Martins
<i>Superuser</i>	
<i>Department</i>	Sales
<i>Password</i>	Deselect the <i>Change Password at Next Logon</i> checkbox. Enter a password in accordance with the password policy and confirm the password. Password _____ Choose Update.

Choose *Add*.

1-1-3 Login as a New User

Open another copy of the SAP Business One client, and login with the user code you assigned to your own user account

Enter the password as set in step 1-1-2.

Choose OK.

Open the **Administration** menu. If you try to open one of the sub-menus you will get an error “You cannot open the window with your current license”. Even though your account is a super user, you do not have a license to the functions.

Choose **File** → **Exit** to logout from the user account.

2-1 Define General Authorizations

Switch back to the SAP Business One session for the user **manager**.

Define general authorizations for the new users create in step 1-1.

Choose *Administration* → *System Initialization* → *Authorizations* → *General Authorizations*.

2-1-1 Define General Authorizations for Sarah (Sales Manager).

Choose the name **sarah** from the list on the left.

All authorizations are set as No Authorization for a user who is not a super user. Set the following authorizations for the user Sarah:

Subject	Authorization
<i>General</i>	Full Authorization
<i>Sales Opportunities</i>	Full Authorization
<i>Sales A/R</i>	Full Authorization
<i>Business Partners</i>	Full Authorization
<i>Banking</i>	Full Authorization
<i>Inventory</i>	Read Only
<i>Reports</i>	Full Authorization

Enter **20%** as the maximum discount for sales.

Choose *Update*.

Leave the authorizations window open.

2-1-2 Define General Authorizations for Maggie (Sales)

Copy the authorizations you made for the user **sarah**.

Select the name **sarah** and drag and drop the rectangle over the name **maggie**.

Choose *Copy* in the *System Message* window.

Maggie now has the same general authorizations as Sarah. However, Maggie should not have access to all of the functions. Change the authorizations for the user Maggie:

Subject	Authorization
<i>Sales Opportunities</i>	No Authorization
<i>Reports</i>	Read Only

Enter **10%** as the maximum discount for sales.

Choose *Update*.

3-1 Test General Authorizations

Note: You will need to first assign a **license** to the new user user before you login.

3-1-1 Assign a License to Sarah

Choose *Administration* → *License* → *License Administration*.

Select the user **sarah** and check the selection box to assign the license type.

Note: Assign a license to **sarah** if you have one available on your system. If you only have one Professional license, you will need to uncheck the license assignment checkbox for the user **manager**, and assign the Professional license to **sarah**.

3-1-2 Test the authorizations for Sarah (Sales manager)

Open another copy of the SAP Business One client, and login as the user **sarah**.

Choose *Purchasing A/P* and open a purchasing document.

You will get an authorization error as Sarah has no general authorization to the purchasing function, even though she has a valid license.

Note: An authorized use can permit Sarah to access the document one time, by providing a valid user and password.

Choose **Sales A/R**.

Open a sales order.

Sarah can open a sales order as she has general authorization to the **Sales A/R** function.

Logout as the user **sarah** from SAP Business One.

Note: if you assigned your Professional license to **sarah**, remember to assign it back to the user **manager**.

4-1 Define sales employees / buyers

Choose *Administration* → *Setup* → *General* → *Sales Employees/Buyers*.

Add the manager name (Jayson Butler) to the list of sales employees / buyers.

Choose **Update**.

Choose *Business Partners* → *Business Partner Master Data*.

Find an existing customer master data record.

Write down the business partner name or code _____.

Select the name Jayson Butler in the *Sales Employee* field.

Open a new sales order and select the business partner you just updated.

The name Jayson Butler will appear in the *Sales Employee* or *Buyer* field in the document.

5-1 Data ownership authorizations

Data ownership authorizations are based on the document owner. To set a document owner, you need to create employee master data and link it to a sales employee / buyer.

5-1-1 Define employee master data records

Choose *Human Resources* → *Employee Master Data*.

Create a new employee master data record for **Sarah Miller**.

Select the **Sales** department.

In the *User Code* field, select the user **sarah** from the list.

In the *Sales Employee* field, select **Define New**. This allows you to define Sarah as a sales employee / buyer. Enter the name Sarah Miller.

Add the employee master data record.

The system prompts you to add a user account. Choose **No** since the account already exists.

Add a second employee master data record for the user **manager** (Jayson Butler).

In the *User Code* field, select the user **manager** from the list.

In the *Manager* field, choose the name Sarah Miller.

Choose **Add**.

Choose **No** to the system message.

5-1-2 Check the document owner

Create a sales order for the business partner you used in step 4-1.

You should now see the name Jayson Butler as both the **Sales Employee** and the **Owner** of the sales order document.

Save the document.

Make a note of the document number as you will need to reference this document later.

5-1-3 Enable data ownership authorizations in the system

Choose *Administration* > *System Initialization* > *Authorizations* > *Data Ownership Exceptions*.

Select the *Enable Ownership Filtration* checkbox.

5-1-4 Set data ownership authorizations

Note: After you enable data ownership authorizations in the system, no user other than the document owner can view a document until you set the authorizations.

Choose *Administration > System Initialization > Authorizations > Data Ownership Authorizations*.

Grant authorization to documents owned by the user Jayson Butler.

Select the user **Sarah Miller** then select **Full** in the *Subordinate* column for the sales order document. This authorization means that Sarah Miller can view and update documents owned by her subordinates defined in the employee master data.

Open another copy of the SAP Business One client, and login as the user **Sarah Miller (sarah)**. **Note:** If no license has been assign to the user **sarah**, you need to assign one before you login.

As the user **sarah**, try to access the sales order created in step 5-1-2. **Note:** To access the sales order you can open a sales order document and browse through records, or you can switch to **Find** mode and enter the document number and choose Find.

You will be unable to find or view the document due to data ownership restrictions.



Unit: Administration Tools

Topic: User Accounts and Authorizations

1-1 Define Departments and User Accounts

1-1-1 Define Departments

If there are departments in your system for Sales and Purchasing, you can skip this step.

To add a new department, choose *Administration* → *Setup* → *General* → *Users*.

In the *Department* field, choose *Define New* from the dropdown list.

Enter the following departments:

Field	Values	Then Choose
<i>Department</i>	Sales	Update
<i>Department</i>	Purchasing	Update

Choose **OK**.

1-1-2 Define User Accounts

Choose *Administration* → *Setup* → *General* → *Users*

Add the following users.

Field Name	Values
<i>User Code</i>	Enter a login code
<i>User Name</i>	Your name
<i>Superuser</i>	✓
<i>Department</i>	General
<i>Password</i>	<p>Deselect the <i>Change Password at Next Logon</i> checkbox.</p> <p>Choose the browse button to the right of the Password field.</p> <p>Enter a password in accordance with the password policy and confirm the password.</p> <p>Password _____</p> <p>Choose Update.</p>

Choose **Add**.

Field Name	Values
<i>User Code</i>	sarah
<i>User Name</i>	Sarah Miller
<i>Superuser</i>	
<i>Department</i>	Sales
<i>Password</i>	<p>Deselect the <i>Change Password at Next Logon</i> checkbox.</p> <p>Choose the browse button to the right.</p> <p>Enter a password in accordance with the password policy and confirm the password.</p> <p>Password _____</p> <p>Choose Update.</p>

Choose *Add*.

Field Name	Values
<i>User Code</i>	maggie
<i>User Name</i>	Maggie Martins
<i>Superuser</i>	
<i>Department</i>	Sales
<i>Password</i>	<p>Deselect the <i>Change Password at Next Logon</i> checkbox.</p> <p>Choose the browse button to the right.</p> <p>Enter a password in accordance with the password policy and confirm the password.</p> <p>Password _____</p> <p>Choose Update.</p>

Choose *Add*.

1-1-3 Login as a New User.

Open another copy of the SAP Business One client, and login with the user code you assigned to your own user account

Enter the password as set in step 1-1-2.

Choose OK.

Open the **Administration** menu. If you try to open one of the sub-menus you will get an error “You cannot open the window with your current license”. Even though your account is a super user, you do not have a license to the functions.

Choose **File** → **Exit** to logout from the user account.

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Switch back to the session for the user **manager**.

Define general authorizations for the new users create in step 1-1.

Choose *Administration* → *System Initialization* → *Authorizations* → *General Authorizations*.

2-1-1 Define General Authorizations for Sarah (Sales Manager).

Choose the name **sarah** from the list on the left.

All authorizations are set as No Authorization for a user who is not a super user. Set the following authorizations for the user Sarah:

Subject	Authorization
<i>General</i>	Full Authorization
<i>Sales Opportunities</i>	Full Authorization
<i>Sales A/R</i>	Full Authorization
<i>Business Partners</i>	Full Authorization
<i>Banking</i>	Full Authorization
<i>Inventory</i>	Read Only
<i>Reports</i>	Full Authorization

Enter **20%** as the maximum discount for sales.

Choose *Update*.

Leave the authorizations window open.

2-1-2 Define General Authorizations for Maggie (Sales)

Copy the authorizations you made for the user **sarah**.

Select the name **sarah** and drag and drop the rectangle over the name **maggie**.

Choose *Copy* in the *System Message* window.

Maggie now has the same general authorizations as Sarah. However, Maggie should not have access to all of the functions.

Change the authorizations for the user Maggie:

Subject	Authorization
<i>Sales Opportunities</i>	No Authorization
<i>Reports</i>	Read Only

Enter **10%** as the maximum discount for sales.

Choose *Update*.

3-1 Test General Authorizations

Note: You will need to first assign a **license** to the new user before you login.

3-1-1 Assign a License to Sarah

Choose *Administration* → *License* → *License Administration*.

Select the user **sarah** and check the selection box to assign the license type.

Note: Assign a license to **sarah** if you have one available on your system. If you only have one Professional license, you will need to uncheck the license assignment checkbox for the user **manager**, and assign the Professional license to **sarah**.

3-1-2 Test the authorizations for Sarah (Sales manager)

Open another copy of the SAP Business One client, and login as the user **sarah**.

Choose *Purchasing A/P* and open a purchasing document.

You will get an authorization error as Sarah has no general authorization to the purchasing function, even though she has a valid license.

Note: An authorized use can permit Sarah to access the document one time, by providing a valid user and password.

Choose **Sales A/R**.

Open a sales order.

Sarah can open a sales order as she has general authorization to the **Sales A/R** function.

Logout as the user **sarah** from SAP Business One.

Note: if you assigned your Professional license to **sarah**, remember to assign it back to the user **manager**.

4-1 Define sales employees / buyers

Choose *Administration* → *Setup* → *General* → *Sales Employees/Buyers*.

Add the manager name (Jayson Butler) to the list of sales employees / buyers.

Choose **Update**, then **OK**.

Choose *Business Partners* → *Business Partner Master Data*.

Find an existing customer master data record.

Write down the business partner name or code _____.

Select the name Jayson Butler in the *Sales Employee* field.

Choose **Update**.

Open a new sales order and select the business partner you just updated.

The name Jayson Butler will appear in the *Sales Employee* or *Buyer* field in the document.

5-1 Data ownership authorizations

Data ownership authorizations are based on the document owner. To set a document owner, you need to create employee master data and link it to a sales employee / buyer.

5-1-1 Define employee master data records

Choose *Human Resources* → *Employee Master Data*.

Switch to *Add* mode.

Create a new employee master data record for **Sarah Miller**.

Select the **Sales** department.

In the *User Code* field, select the user **sarah** from the list.

In the *Sales Employee* field, select **Define New**. This allows you to define Sarah as a sales employee / buyer. Enter the name Sarah Miller, then choose **Update**, then OK.

Add the employee master data record.

The system prompts you to add a user account. Choose **No** since the account already exists.

Add a second employee master data record for the user **manager** (Jayson Butler).

In the *User Code* field, select the user **manager** from the list.

In the *Manager* field, choose the name Sarah Miller from the list of employees.

Choose **Add**.

Choose **No** to the system message.

5-1-2 Check the document owner

Create a sales order for the business partner you used in step 4-1.

You should now see the name Jayson Butler as both the **Sales Employee** and the **Owner** of the sales order document.

Save the document.

Make a note of the document number as you will need to reference this document later.

5-1-3 Enable data ownership authorizations in the system

Choose *Administration* > *System Initialization* > *Authorizations* > *Data Ownership Exceptions*.

Select the *Enable Ownership Filtration* checkbox.

Choose **Update**.

Choose OK.

5-1-4 Set data ownership authorizations

Note: After you enable data ownership authorizations in the system, no user other than the document owner can view a document until you set the authorizations.

Choose *Administration > System Initialization > Authorizations > Data Ownership Authorizations*.

Grant authorization to documents owned by the user Jayson Butler.

Select the user **Sarah Miller** then select **Full** in the *Subordinate* column for the sales order document. This authorization means that Sarah Miller can view and update documents owned by her subordinates defined in the employee master data.

Choose **Update**.

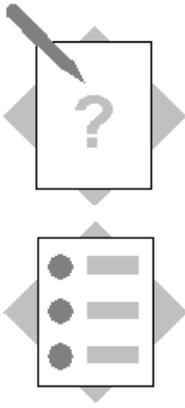
Choose OK.

Open another copy of the SAP Business One client, and login as the user **sarah**.

Note: If no license has been assign to the user **sarah**, you need to assign one before you login.

As the user **sarah**, try to access the sales order created in step 5-1-2. **Note:** To access the sales order you can open a sales order document and browse through records, or you can switch to **Find** mode and enter the document number and choose Find.

You will be unable to find or view the document due to data ownership restrictions.



Unit: Administration Tools

Topic: Document Numbering and Printing

In this exercise, you will create a new user account so that you can assign a new document numbering series.

1-1 Document Numbering

1-1-1 Create a new user account

Choose *Administration* → *Setup* → *General* → *Users* and create a new user account.

Field Name	Values
<i>User Code</i>	marc
<i>User Name</i>	Marc Seller
<i>Superuser</i>	
<i>Department</i>	Sales
<i>Password</i>	<p>Deselect the <i>Change Password at Next Logon</i> checkbox.</p> <p>Set a password in accordance with the password policy and confirm the password.</p> <p>Password _____</p> <p>Choose Update.</p>

Choose *Add*.

1-1-2 Define a New Document Numbering Series

A new sales employee, Marc Seller, needs a different numbering series for sales documents. You will implement this by creating a new document numbering series.

Choose *Administration* → *System Initialization* → *Document Numbering*.

Double-click the row for the *Sales Order* document to open the *Series – Setup* window.

Add a row for the new series:

Series - Setup	Values
<i>Name</i>	Series2
<i>First No.</i>	2000 Note: If you have a Primary series defined in your system, you must enter 1999 in the Last No. field for the Primary series so that there are no gaps.
<i>Prefix</i>	S2- Note: Prefix is optional.
<i>Group</i>	Choose 2 from the list.

Choose **Update** to add the new series. Leave the window open.

Select the row for **Series2** then choose the **Set as Default** button.

Set the new series as default for the user **Marc Seller**.

Choose OK.

Choose **Update**.

Choose OK.

Choose **Update**. **Note:** You must update both windows for the new series to take effect.

1-1-3 Set General Authorization to the new series

Note: All new user accounts have by default no authorization to any numbering series, unless the user is a super user. Therefore authorization must be granted to a document numbering series.

Choose *Administration* → *System Initialization* → *Authorizations* → *General Authorizations*.

Select the user **marc**.

Enter **Series** in the Find field.

Select *Full Authorization* for the **Series – Group No. 2**.

Note: Make sure that the user also has Full Authorization to the *Sales A/R* menu.

Choose **Update**.

1-1-4 Assign a license (temporary) to the new user

In order to test the new numbering series, you must assign a license to the user Marc Seller.

Choose *Administration* → *License* → *License Administration*.

Select the user **marc** and assign a license. If you only have one license, uncheck the license allocation for the user **manager**.

1-1-5 Test the new series

Open up a new copy of SAP Business One and login as **Marc Seller**.

Choose **Sales A/R**.

Create a sales order.

Select a customer and item.

You will see that the sales order document number is 2000 and the series is Series2.

Choose the Print Preview icon to preview the print layout. You will see that the prefix is visible in the layout in front of the document number.

Log out from this copy of SAP Business One.

Note: If you assigned your license to **marc**, remember to assign it back to the user **manager**.

2-1 Change a Document Menu Name

Choose *Administration* → *System Initialization* → *Document Numbering*.

Scroll to the right of the **Document Numbering – Setup** window.

Enter a new name for the Sales Order document in the *Change Menu Names* column.

Choose **Update**.

Create a sales order.

You will see the new name for the sales order in the menu and in the document title.

3-1 Master Data Numbering

Choose *Administration* → *System Initialization* → *Document Numbering*.

Add a new series for customer master data numbering:

Series - Setup	Values
<i>Name</i>	Series2
<i>First No.</i>	222222
<i>Prefix</i>	C- Note: Prefix is optional.
<i>No. of Digits</i>	6 Note: This field is mandatory.

Choose **Update**.

Select the row for the new series and choose the **Set as Default** button.

Select *Set as default for current user*.

Choose OK.

Choose **Update**.

Choose OK.

Choose **Update**.

Note: You must update both windows for the new series to take effect.

Choose *Business Partners* → *Business Partner Master Data*.

Create a new customer master data record.

You will see the code C-222222 inserted.

Save the new record.

The next customer code is incremented.

4-1 Print layouts

Open an existing sales order.

Select a different print layout from the list and set this layout as default for the current user.

Preview the new layout for the document.

Select another print layout and set as default.

Print preview the layout.



Unit: Administration Tools

Topic: Document Numbering and Printing

In this exercise, you will create a new user account so that you can assign a new document numbering series.

1-1 Document Numbering

1-1-1 Create a new user account

Choose *Administration* → *Setup* → *General* → *Users* and create a new user account.

Field Name	Values
<i>User Code</i>	marc
<i>User Name</i>	Marc Seller
<i>Superuser</i>	
<i>Department</i>	Sales
<i>Password</i>	<p>Deselect the <i>Change Password at Next Logon</i> checkbox.</p> <p>Set a password in accordance with the password policy and confirm the password.</p> <p>Password _____</p> <p>Choose Update.</p>

Choose *Add*.

1-1-2 Define a New Document Numbering Series

A new sales employee, Marc Seller, needs a different numbering series for sales documents. You will implement this by creating a new document numbering series.

Choose *Administration* → *System Initialization* → *Document Numbering*.

Double-click the row for the *Sales Order* document to open the *Series – Setup* window.

In the **Primary** series row, right-mouse click and choose **Add Row** from the context menu.

Enter the following information:

Series - Setup	Values
<i>Name</i>	Series2
<i>First No.</i>	2000 Note: If you have a Primary series defined in your system, you must enter 1999 in the Last No. field for the Primary series so that there are no gaps
<i>Prefix</i>	S2- Note: Prefix is optional.
<i>Group</i>	Choose 2 from the list.

Choose **Update** to add the new series. Leave the window open.

Select the row for **Series2** then choose the **Set as Default** button.

Set the new series as default for the user **Marc Seller**.

Choose OK.

Choose **Update**.

Choose OK.

Choose **Update**. **Note:** You must update both windows for the new series to take effect.

1-1-3 Set General Authorization to the new series

Note: All new user accounts have by default no authorizations, unless the user is a super user. Therefore authorization must be granted to a document numbering series.

Choose *Administration* → *System Initialization* → *Authorizations* → *General Authorizations*.

Select the user **marc**.

Enter **Series** in the Find field.

Select *Full Authorization* for the **Series – Group No. 2**.

Note: Make sure that the user also has Full Authorization to the *Sales A/R* menu.

Choose **Update**.

1-1-4 Assign a license (temporary) to the new user

In order to test the new numbering series, you must assign a license to the user Marc Seller.

Choose *Administration* → *License* → *License Administration*.

Select the user **marc** and assign a license. If you only have one license, uncheck the license allocation for the user **manager**.

1-1-5 Test the new series

Open up a new copy of the SAP Business One client and login as **Marc Seller**.

Choose **Sales A/R**.

Create a sales order.

Select a customer and item.

You will see that the sales order document number is 2000 and the series is Series2.

Choose the *Print Preview* icon to preview the print layout. You will see that the prefix is visible in the layout in front of the document number.

Log out from this copy of SAP Business One.

Note: If you assigned your license to **marc**, remember to assign it back to the user **manager**.

2-1 Change a Document Menu Name

Choose *Administration* → *System Initialization* → *Document Numbering*.

Scroll to the right of the **Document Numbering – Setup** window.

Enter a new name for the Sales Order document in the *Change Menu Names* column.

Choose **Update**.

Choose OK.

3-1 Master Data Numbering

Choose *Administration* → *System Initialization* → *Document Numbering*.

Double-click the row for **Business Partners – Customers**.

Right-mouse click the first row and choose **Add Row**.

Enter the following information:

Series - Setup	Values
<i>Name</i>	Series2
<i>First No.</i>	222222
<i>Group</i>	Choose 2 from the list.
<i>Prefix</i>	C- Note: Prefix is optional.
<i>No. of Digits</i>	6 Note: This field is mandatory.

Choose **Update**.

Select the row for the new series and choose the **Set as Default** button.

Select *Set as default for current user*.

Choose OK.

Choose **Update**.

Choose OK.

Choose **Update**.

Note: You must update both windows for the new series to take effect.

Choose *Business Partners* → *Business Partner Master Data*.

Switch to *Add* mode.

You will see the new master data record with the code C-222222 inserted.

Enter the customer name then choose **Add**.

The next customer code is incremented.

4-1 Print layouts

Open an existing sales order.

Choose the **Layout Designer** icon from the icon toolbar.

The default print layout is set as **bold**.

Select a different print layout from the list and choose the **Set as Default** button.

In the Default Layout window, choose *Set as Default for Current User*.

Choose OK.

Choose **Update**.

From the top menu choose the *Print Preview* icon to preview the new layout for the document.

Choose the **Layout Designer** icon again and select another print layout.

Set as default for the current user.

Print preview the layout.

Unit 3 - Contents

Customization Tools

- Queries
- User-Defined Fields and Tables
- User-Defined Values
- Alerts
- Approval Procedures

Customization Tools: Queries

SAP Business One
Release 9.0



Welcome to the topic on queries in SAP Business One.

Objectives



Objective:

- Create SQL queries using the SAP Business One query tools
- Restrict access to saved queries

In this topic, you will learn to create SQL queries using the SAP Business One query tools – Query Wizard and Query Generator. You will also see how to restrict access to saved queries.

Business Scenario



Queries give you the ability to quickly display data from SAP Business One company database tables. There are several uses for queries:

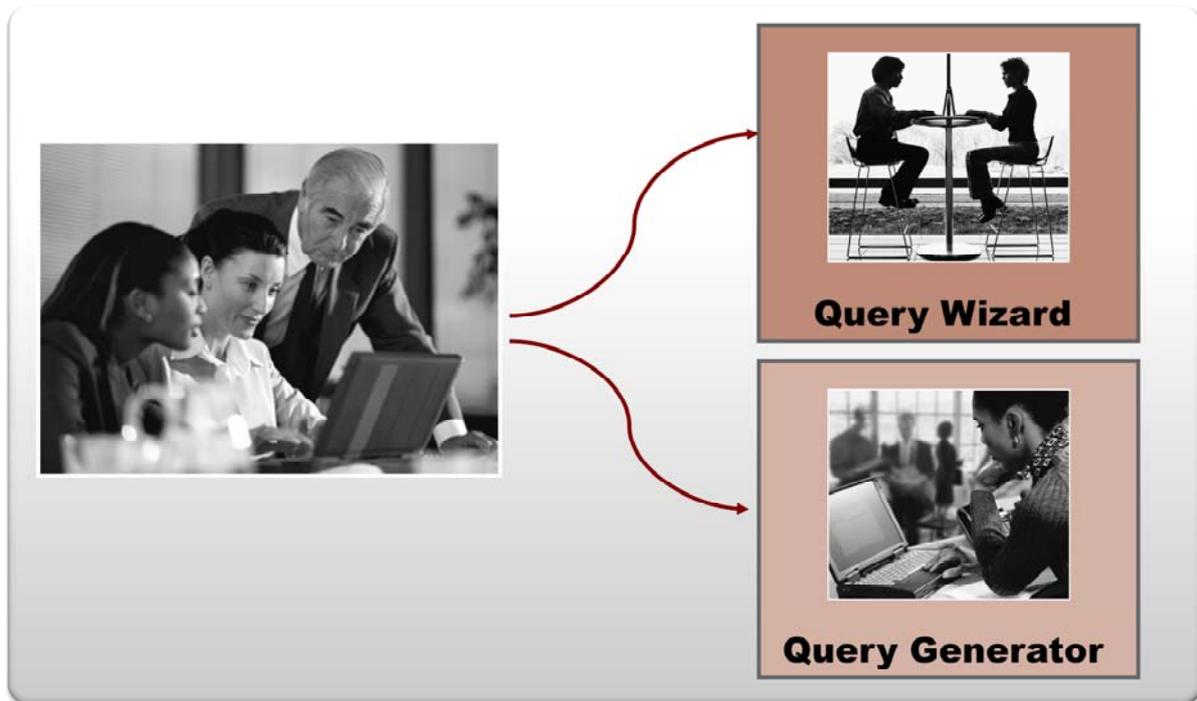
- With SAP Business One customizations: alerts, approval procedures, and user-defined values
- As a simple way of producing an ad hoc report
- As the first step in creating a custom report, you can quickly generate a sample to discuss with your customer
- To validate the contents of a table during data migration

Queries enable you to quickly display and format data from an SAP Business One company database. You can use queries in several ways, for example:

- with customization tools (alerts, approval procedures, and user-defined values added to existing fields or user-defined fields)
- to produce ad hoc reports for users
- to generate a sample report as an initial step when you create a custom report,
- to validate the contents of a table or field during data migration. You can quickly display all the imported fields for a table.

You should understand that the query tools are primarily designed to produce ad hoc reports and for use with customization tools. If you need to produce complex, fully formatted reports or print layouts, you should use Crystal Reports.

Tools for Creating Queries



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SAP Business One provides two different query tools that you can access from the SAP Business One client:

- Query Wizard
- Query Generator

Both tools assist you in creating queries using the structured query language (SQL). SQL is a standardized set of commands for accessing and formatting data in relational databases.

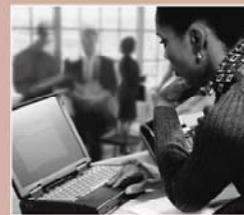
Although both tools produce the same results in the end, you should understand their differences.

Tools for Creating Queries

Tools > Queries > Query Wizard



Query Wizard



Query Generator

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The first tool, the Query Wizard, guides you step-by-step through the process of creating a query. You should use this tool if you do not have much experience with SQL commands and syntax. The system walks you through the process of creating a SQL query and generates the SQL statements in the background so you do not require precise SQL syntax knowledge. However, because this is done by a wizard it takes several steps to produce the query.

You should also find the Query Wizard easier to use if you do not have much familiarity with SAP Business One tables and how they are related to each other. When you select a table, the Query Wizard will show you all tables that are related to your chosen table, allowing you to select data from multiple tables.

Tools for Creating Queries

Tools > Queries > Query Generator



Query Wizard



Query Generator

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The second tool, the Query Generator, allows you to create the SQL in a single screen. If you have some basic SQL knowledge, you will find the Query Generator much faster than the Query Wizard.

The system displays the full SQL command and allows you to edit the SQL directly if necessary.

You can also enter an entire SQL statement directly into the Query Generator.

Like the Query Wizard, the Query Generator will automatically supply the inner join when you select more than one table for a query. Although it does not show you the list of tables related to your chosen table, fields that are keys to related tables are shown in **bold**. You can drag and drop the bolded field to the table selection column and the Query Generator will open the related table, allowing you to select fields from that table.

Objects and Table Names

- Many objects are represented by more than one table
- Example: the sales order uses table ORDR for the header and table RDR1 for the document rows

The screenshot shows the SAP Sales Order form. The top section, labeled 'Header', contains fields for Customer (C30000), Name (Microchips), Contact Person (Judy Brown), and various dates. The middle section, labeled 'Document rows', is a table with columns for Item No., Quantity, Unit Price, Disc..., Tax C..., and Total (L.C.). The bottom section, labeled 'Header', contains fields for Sales Employee (Bill Levine), Owner, and a summary table with fields like Total Before Discount, Discount, Freight, Tax, and Total.

Item/Service Type	Item	Quantity	Unit Price	Disc...	Tax C...	Total (L.C)
1	00005	5	18.75 \$	0.000	NY	93.75 \$
2	C00007	5	625.00 \$	0.000	NY	3,125.00 \$
3				0.000		

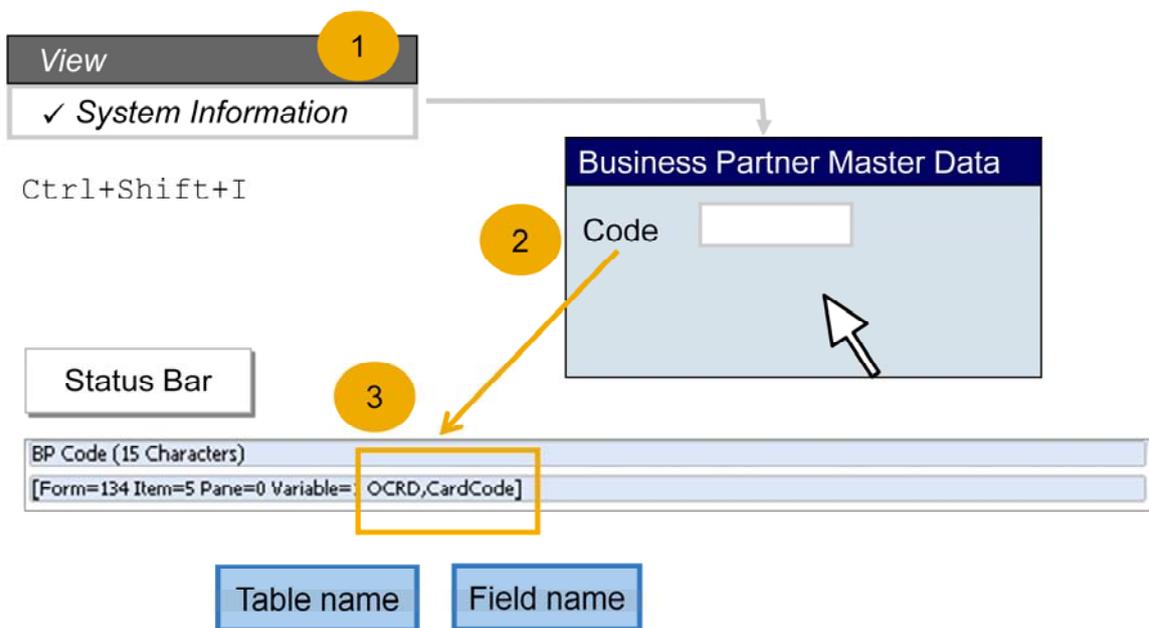
Total Before Discount	3,218.75 \$
Discount	%
Freight	
<input type="checkbox"/> Rounding	
Tax	265.56 \$
Total	3,484.31 \$

In order to run queries you need to know the names of the SAP Business One tables and fields.

In SAP Business One, many objects are represented by more than one database table. For example, the sales order document uses different tables for the header and document rows – the table ORDR stores the header data and the table RDR1 stores the document rows.

SAP Business One uses this convention for all marketing documents - the header table starts with “O” and the row table uses the last three letters of the header table name.

Information about Fields and Tables



You can use *System Information* to display the table and field names for a window that you are viewing in SAP Business One.

1. First you toggle on the functionality from the *View* menu. The short cut key is **Control plus Shift plus I**.

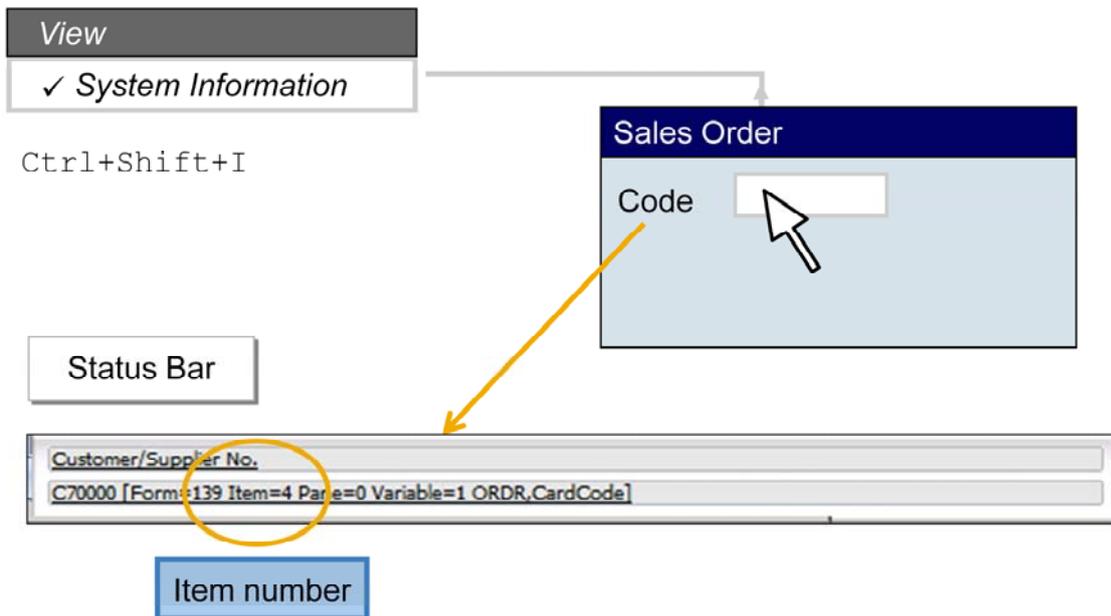
2. Next, open a document or window in SAP Business One. In our example here we have opened the Business Partner Master Data window.

3. Now, when you move your mouse over a field (for example the Code), the second line of the status bar at the bottom of the screen shows the name of the table (OCRD) and the field name from the table (CardCode).

You now have the table name and field name to enter in your SQL query.

Other information about the field is displayed, such as the maximum length of the field.

Information about Item and Column Numbers



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The system information also shows, in addition to the table and field name, the *item number* and *column number* for the field.

For example, in a sales order, the item number for the *CardCode* field is 4. The column number for the *CardCode* field is not displayed, since this is a header field and the column number for all header fields is 0.

If you open other marketing documents, you will see that the *CardCode* field is always 4. Although the table changes for each document type, the item number for a field is consistent.

Information about Item and Column Numbers (Cont.)

- Item and column number for field is same across similar document types

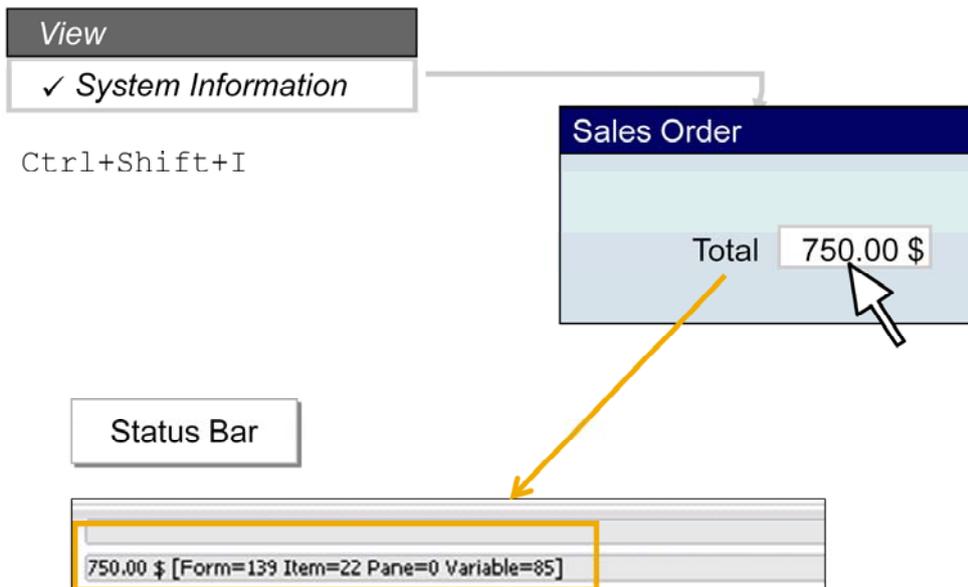
The screenshot illustrates the relationship between a field in a document row and its definition in the status bar. On the left, the 'View' pane shows 'System Information' with the keyboard shortcut 'Ctrl+Shift+I'. Below it is the 'Status Bar' containing the text: 'Item No. [Form=13: Item=38 Pane=1 Column=1 Row=1 Variable=11 RDR1,ItemCode]'. An orange box highlights the field definition text. On the right, a 'Sales Order row' is shown with a table structure. The first column is labeled 'Item' and has a mouse cursor pointing to its first cell. An orange arrow points from the 'Item' label in the row to the 'Item=38' part of the field definition in the status bar. Below the status bar, two blue boxes are labeled 'Item number' and 'Column number'.

When you refer to fields in the *row* area of a marketing document, the column number is displayed in addition to the item number. In the example here you can see that the *ItemCode* field in the sales order document has item number 38 and column number 1.

You will notice that the item and column number for a field is the same across similar document types, for example, the *ItemCode* has item number 38 and column number 1 in all sales and purchasing documents.

Why is this useful? You can use the item and column number instead of the table and field name in a query. This makes it possible to use the *same* query for multiple document types. Obviously, a query that used the table and field name would not work across multiple document types.

Information about Currency Fields



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You will find that the table and field name is not displayed for some fields, mostly totals and prices. One example is the document total field in marketing documents. In a document this field is concatenated with the currency symbol, whereas in the database the amount and currency are stored in different columns. Therefore this field does not exist in the database.

You can still run a query using these fields, you just need to look up the field name in the query tool. An easy way to do this is to create a document, then run a query on the table and select all fields.

Basic Elements of a Query

Select statement

- Select
- Conditions (Where) (optional)
- Sort (Order by) (optional)
- Group by (optional)

```
SELECT DocNum, CardCode,  
CardName, DocTotal  
FROM OPOR  
WHERE DocStatus = 'O' AND  
(DocDate > getdate() -7)  
ORDER BY DocDate
```

#	Document Number	Customer/Vendor Code	Customer/Vendor Name	Document Total
1	⇒ 292	⇒ V20000	Lasercom	3,464.00
2	⇒ 296	⇒ V70000	SMD Technologies	771.28
3	⇒ 293	⇒ V30000	Blockies Corporation	3,107.73
4	⇒ 294	⇒ V50000	Lumarx	1,289.72
5	⇒ 295	⇒ V23000	Anthony Smith	922.16

The SAP Business One query tools will help you assemble the various elements of the query, but you still need to have some knowledge of SQL syntax.

A query, or the underlying SQL statement, contains one or more of the basic elements listed on the slide:

- Selection of fields
- Conditions for selection (where clause)
- Sort order (order by clause)
- Grouping and summarizing (group by clause)

SQL also provides functions to perform calculations on data. In the sample query the getdate() function is used to return the current date and time.

The sample query shown in the top right part of the screen will show information for open purchase orders posted in the last 7 days.

The query selects data from the purchase order table. The name of this table is OPOR.

The results of the query, a simple snapshot from the database, is shown.

Note that SQL is not case sensitive, therefore the commands do not have to be upper case.

Query Details - Select

■ Select

- Table fields (*Select as* to adjust headings)
- Calculation fields (*optional*)

```
SELECT DocNum, CardCode,  
CardName, DocTotal as 'Total  
Amount'
```

```
FROM OPOR
```

```
WHERE DocStatus = 'O' AND  
(DocDate > getdate() -7)
```

```
ORDER BY DocDate
```

The **Select** statement is the only mandatory part of a query. The Select command is normally used to fetch and display table fields. In the example, we want to display the document number, business partner code, business partner name and total amount from the Purchase Order table OPOR.

When the query runs, headings for the report columns are taken from the database column names, but you can change these in SQL using the “as” keyword and entering the heading name in quotes. For example, to change the column heading for the DocTotal field, use Select DocTotal as ‘Total Amount’.

You can also specify calculation fields that display the result of an addition, subtraction, multiplication, or division of two fields.

If you need more than one table for a query, you normally need to create relationships between them. The Query Wizard and Query Generator tools make this easy for you by automatically creating joins. For example, if you select the purchase orders table (OPOR) and also select the business partners master data table (OCRD), the query tools will link these tables using the business partner code which is common to both tables.

Query Details - Conditions

■ Conditions (Where) (optional)

- Fixed conditions
- Calculations
- AND / OR operators
- Variables [%0] [%1] etc.

```
SELECT DocNum, CardCode,  
CardName, DocTotal
```

```
FROM OPOR
```

```
WHERE DocStatus = 'O' AND  
(DocDate > getdate() -7)
```

```
ORDER BY DocDate
```

The optional **Where** clause lets you select only records that meet specified criteria. For example, in our sample query, only purchase orders that are open (*DocStatus* 'O') will be displayed. To find out the possible values for a field such as *DocStatus*, the easiest way is to run a query on the table and select the field name. You will see the possible values that are stored in the database.

In the Where clause you can include:

- Fixed conditions as comparisons
- Calculations and functions
- AND and OR operators. In the example query, we only want to include purchase orders that were posted in the last 7 days; therefore we use the AND operator to add a second condition to match the posting date value to the current date – 7.
- Variables. Variables are specified as [%0], [%1], [%2], etc. When you include a variable, the user will be prompted to enter a value as a parameter when the query runs.

Query Details - Sort

- Sort (Order by) (optional)
 - ASC / DESC

```
SELECT DocNum, CardCode,  
CardName, DocTotal
```

```
FROM OPOR
```

```
WHERE DocStatus = 'O' AND  
(DocDate > getdate() -7)
```

```
ORDER BY DocDate
```

You can optionally sort the results by adding the **Order By** clause to the query. The results will be sorted by default in ascending sequence using the specified field. In this example the rows of results (purchase orders) will be sorted by posting date (*DocDate*).

You can sort by descending sequence by adding the keyword DESC

You can sort by multiple fields, and these fields can be either part of the select clause or other fields in any of the tables of the query.

Query Details - Group By

- Group by (optional)

- Fields
- Function

```
SELECT DocNum, CardCode,  
CardName, DocTotal
```

```
FROM OPOR
```

```
WHERE DocStatus = 'O' AND  
(DocDate > getdate() -7)
```

```
ORDER BY DocDate
```

```
SELECT Count(DocNum) as 'Total Number of  
POs', CardCode, CardName, Sum(DocTotal) as  
"Total Amount"
```

```
FROM OPOR
```

```
WHERE DocStatus = 'O'
```

```
GROUP BY CardCode, CardName
```

The optional **Group By** clause allows you to display the query results grouped or summarized by a specified field, for example, by business partner. In our example, the query has been rewritten to use the Group By element and is shown underneath the original query on the slide.

The grouped results are collected into sets using the Group By field or fields as the common value.

Group by is usually used in conjunction with a mathematical (aggregate) function, such as *Count* or *Sum*.

Query Details - Group By (Cont.)

```
SELECT Count(DocNum) as 'Total Number of POs',  
       CardCode, CardName, Sum(DocTotal) as 'Total Amount'  
  
FROM OPOR  
  
WHERE DocStatus = 'O'  
  
GROUP BY CardCode, CardName
```

#	Total Number of POs	Customer/Vendor Code	Customer/Vendor Name	Total Amount
1	2	V10000	Acme Associates	108,899.50
2	2	V23000	Anthony Smith	25,603.16
3	6	V30000	Blockies Corporation	20,179.97
4	1	V60000	CTI Computers	3,945.71
5	3	V1010	Far East Imports	45,508.63
6	3	V20000	Lasercom	10,983.26
7	2	V50000	Lumarx	23,137.28
8	2	V70000	SMD Technologies	18,876.09

When the query runs it will count the number of open Purchase Orders, then sum the total amount of each PO. The selected fields are displayed according to the Group by clause, therefore the results are consolidated by vendor, and the query shows *one* consolidated row for each vendor, with the count and the total amount of all open purchase orders for the vendor.

Notice that we need to supply the *column headings* for the fields that are counted and summed, since these fields are not in the database. We supply these headings in the Select statement, for example, `SUM(DocTotal)` as 'Total Amount'. The heading name must be encased in quotation marks.

You can group by more than one field. One word of caution though; the fields that you use in the Select statement must appear in either the Group By clause or the aggregate function.

Saving and Managing Queries

Query Categories



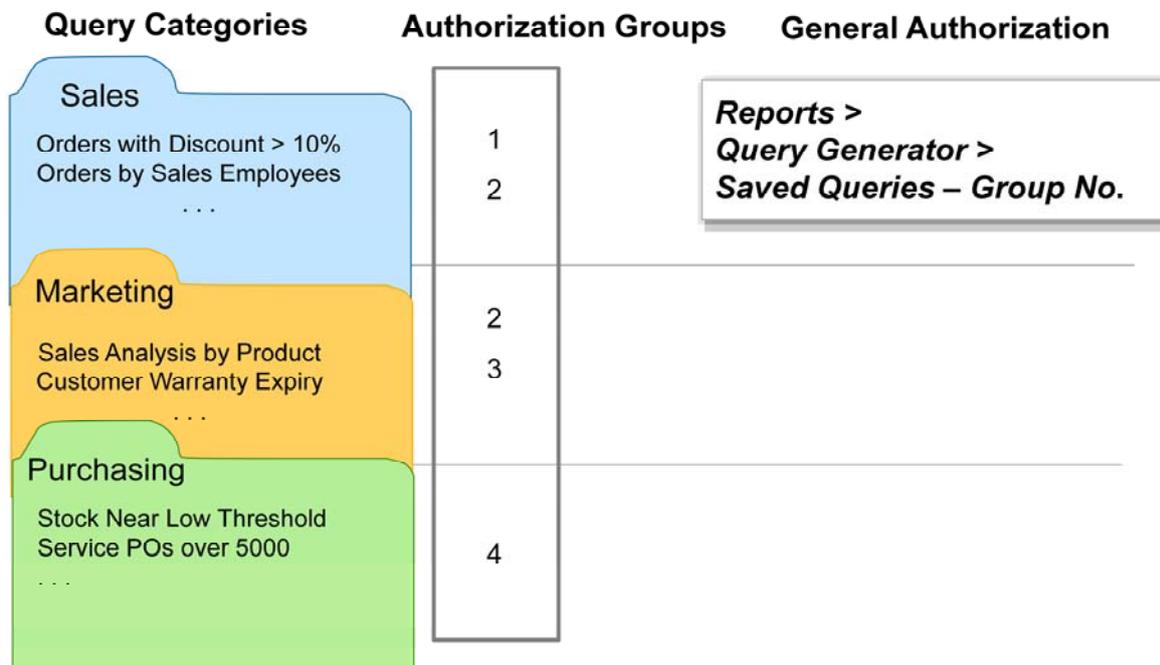
- To save a query, you must assign it to a category
- Categories organize related queries
- To run a saved query, choose **Tools > User Queries > Category > Query Name**

You can save a query for later use, or for other users to run. When you save a query you must assign it to a *category*. Categories are used to organize related queries.

The *General* category is provided in the system, but you can add your own categories too. In the example here we have categories for sales, marketing, and purchasing queries.

Queries that you save are located as *User Queries*. To run a saved user query, choose the *Tools* menu in SAP Business One, and then select the category and the query name.

Authorizations to Saved User Queries



When a new user is added to the system, the user does *not* have any authorization to run saved queries. Each user must be granted authorization to run a saved query. There are two parts to the authorization process:

1. When you create a new category, you select one or more report *authorization groups* for the category.
2. To authorize a user to run the reports in the category, you assign the user to the report authorization group. You can find this authorization in the general authorization hierarchy under *Reports > Query Generator > Saved Queries – Group No.*

There are 15 different report authorization groups, and you must select at least one authorization group, or you will not be able to save the category.

Authorizations to Saved User Queries (Cont.)

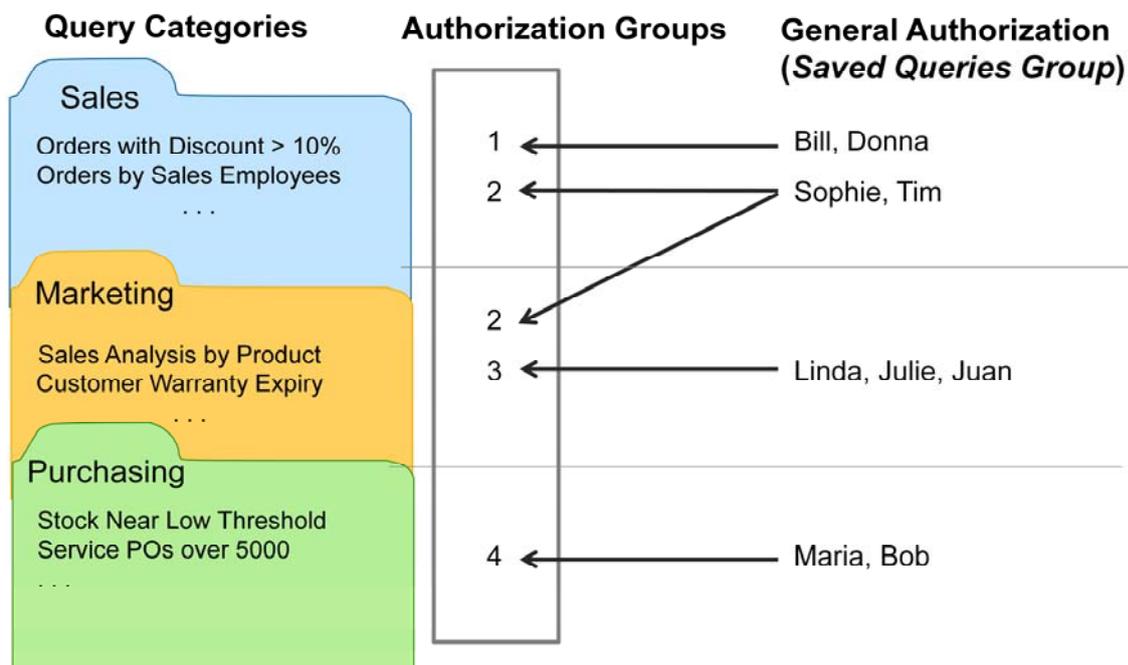
Query Categories	Authorization Groups	General Authorization
Sales Orders with Discount > 10% Orders by Sales Employees ...	1 2	Bill, Donna Sophie, Tim
Marketing Sales Analysis by Product Customer Warranty Expiry ...	2 3	Linda, Julie, Juan
Purchasing Stock Near Low Threshold Service POs over 5000 ...	4	Maria, Bob

Once a user is authorized to a report authorization group, they can then run *all* queries saved in any category with that authorization group.

Let us look at the example provided here....

Here you can see that authorization groups 1 and 2 are assigned to the category called *Sales*. Authorization groups 2 and 3 are assigned to the category called *Marketing*, and authorization group 4 to the category *Purchasing*.

Authorizations to Saved User Queries (Cont.)



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Users Bill and Donna are assigned to authorization group 1.

Users Sophie and Tim are assigned to authorization group 2.

So, Bill and Donna can run all queries saved in the Sales category through its association with authorization group 1. Sophie and Tim can run all queries saved in both the Sales and the Marketing categories through the association with authorization group 2.

If you want to make saved queries available to end users, you need to carefully plan the categories and the authorization groups to ensure that users get authorization only to the correct reports.

Note: You can assign full or read-only authorization to a user, as desired. You can also use general authorizations to define which users can create new queries, and which users can modify the existing SQL syntax in a saved query.

Key Points



Key points from this topic:

- SQL queries can be used in conjunction with SAP Business One customization tools, to produce ad hoc reports, as a first step to design a custom report, and to validate migrated data in tables
- *View* → *System Information* can help you to identify table and field names, or item and column numbers, for use in queries
- There are two tools to help you create SQL queries – the Query Wizard and the Query Generator
- You can save queries as user queries and organize them by category
- Users need authorization to run saved user queries. First select an authorization group for the category, then assign to the user the general authorization for the category's authorization group .

Here are some key points to take away from this session. Please take a minute to review these key points:

- SQL queries can be used with customization tools, to produce ad hoc reports, as the first step to design a more complicated report, and to validate migrated data by reporting the contents of tables.
- System information can help identify table and field names, or item and column numbers. Use the *View > System information* command to enable the system information display.
- Two tools exist to help you create SQL queries – the Query Wizard and the Query Generator. Try both tools to see which you prefer.
- You can save queries as user queries and organize them by category.
- Users need authorization to run saved user queries. First you select an authorization group for the category in which the query was saved, then assign to the user the general authorization for the category's authorization group.

Customization Tools: User-Defined Fields and Tables

SAP Business One
Release 9.0



Welcome to the topic on User-Defined Fields and User-Defined Tables.

Objectives



Objectives:

- Add fields and tables to objects in SAP Business One
- Add user-defined values to user-defined fields

On completion of this topic, you will be able to add your own fields and tables to objects in SAP Business One. You will also learn to add user-defined values to these user defined fields.

Business Scenario



- There is a need to track a status level for each customer – gold, silver, and bronze.
- The salesperson needs to record the customer's preferred delivery time when processing a sales order.

Solution: These requirements can be implemented with user-defined fields.



Additional fields are often added to master data and documents to implement a customer's business process. Here are two business requirements that can be implemented with user-defined fields.

- There is a need to track a status level for each customer – gold, silver, and bronze. You can add a user-defined field to the customer master data to hold and track the status value.
- Additionally, the salesperson needs to record the customer's preferred delivery time when processing a sales order. You can add a user-defined field to the sales order document, and record the delivery time in this field.



Agenda

- **User-Defined Fields**
- User-Defined Tables

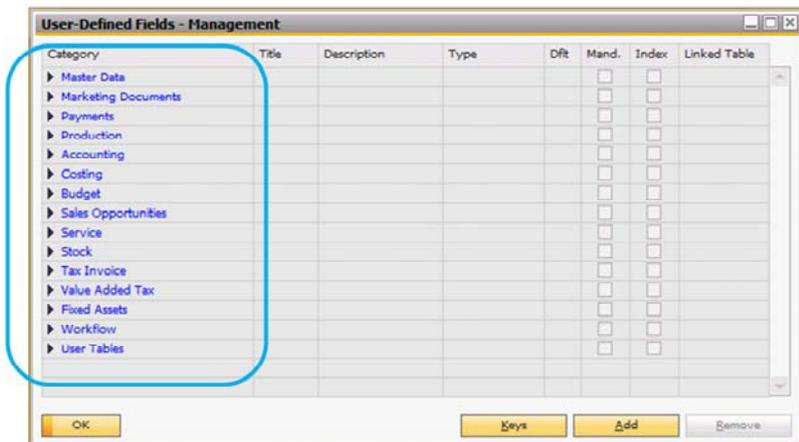


In the first part of this topic, we will cover user-defined fields.

User-Defined Fields

Tools → Customization Tools → User-Defined Fields – Management

- New fields can be added to most business objects, including master data and marketing documents
- General authorization required



You can add new fields to most business objects, including business partner and item master data, and marketing documents.

Only authorized users can add user-defined fields. The general authorization is located in the authorizations window by navigating to *Customization Tools > User-Defined Fields – Management*.

Row and Header Fields

- Fields can be added to both header (title) and rows of marketing documents
- New field is added to all logistics document types

Object (e.g., Sales Order)

General

New Field
New Field
New Field
New Field
New Field

Field is added to all logistics document types

Header (Title)

User-Defined Fields

#	Item No.	Quantity	Unit Price	Total	New Field
1					

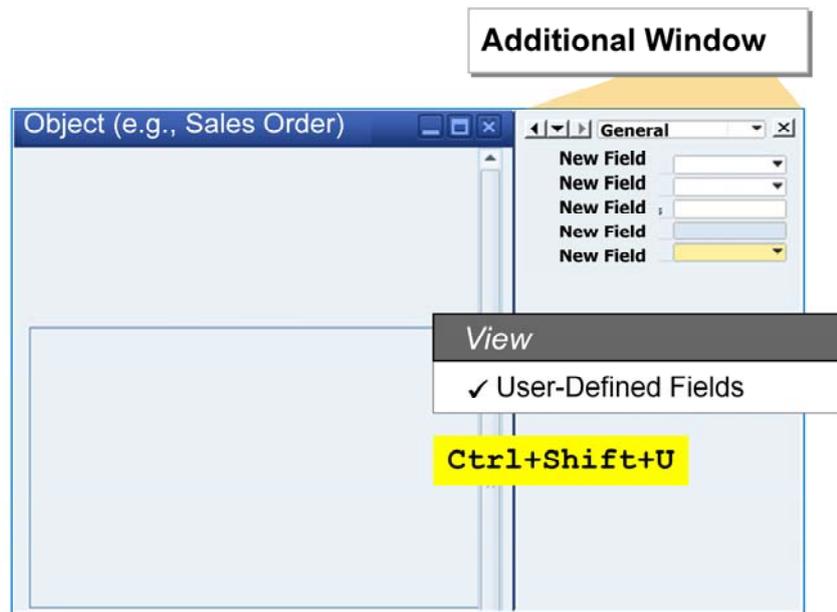
Row

User-defined fields are frequently added to marketing documents. You can add fields to both the header (title) and rows of marketing documents.

When you add a user-defined field to the marketing documents object, the new field is added to *all* logistics document types, including all sales and purchasing document types, and some inventory documents such as Goods Receipt and Goods Issue.

User-Defined Fields – Header Level

- UDFs added at the header level appear in a separate window
- To view this window, use the *View* menu or press **Ctrl+Shift+U**
- **Note:** UDFs added to the header of the marketing documents object are available in all marketing document types



When you add user-defined fields (UDFs) at the *header level*, the new fields appear in a *separate* window positioned by default to the right of the existing document window.

This window is not visible immediately. To open this window, choose *View > User-Defined Fields* from the top menu bar, or use the key sequence **Ctrl+Shift+U**. You can reposition this window to the left or bottom of the existing window.

If the fields are not required in a specific document type, you can keep the new window invisible.

User-Defined Fields – Row Level

- UDFs at the row level are visible and active by default
- Use standard form settings to make invisible or inactive



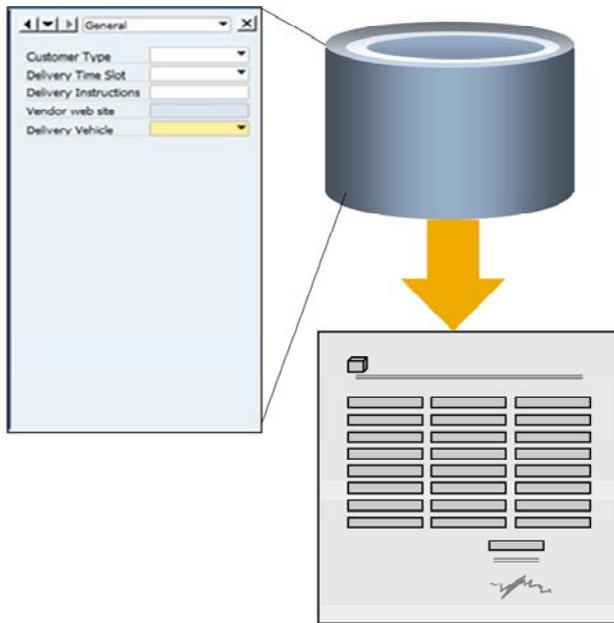
The screenshot shows a table with the following columns: #, BP No., Name, Debit, Credit, and New Field. The first row is highlighted with a yellow background. A text input field is positioned over the 'New Field' column of the first row, containing the text 'Row'.

#	BP No.	Name	Debit	Credit	New Field
1					Row

When you add a field at the *row* level, the system adds this field as an additional column in the row. The field is visible and active by default.

You can make the user-defined field invisible or inactive by using the standard form settings for the document row.

Properties of User-Defined Fields



- UDFs are added to the object's table and have prefix "U_"
- UDFs retained during upgrade, and can be copied to a new company
- New field is added to *all* document instances, including records already saved in the database
- UDFs function as normal fields and can be used in queries and reports
- Can import data into user-defined fields using Data Transfer Workbench.

User-defined fields are added to the respective database table for the object. They can be quickly identified in the table, since they have the prefix "U_".

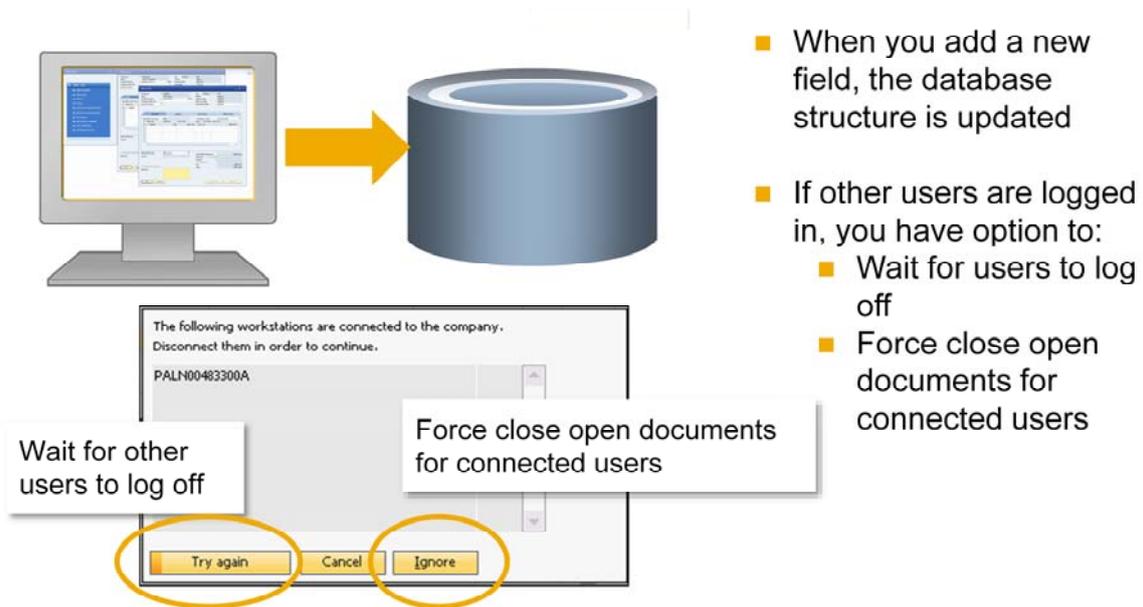
User-defined fields are retained during an upgrade to a new release. When you create a new company, you have the option to copy user-defined fields from the current company to the new company.

An important point about user-defined fields is that when you add a new field to an object, the new field is added to *all* instances of the object, including records already saved in the database.

UDFs function as normal fields and can therefore be used in queries and reports.

You can also import data into user-defined fields using the Data Transfer Workbench. In the DTW template, simply add these fields at the end of the spreadsheet. Enter the name of the field in the header row and enter the value as you would for a standard field.

Properties of User-Defined Fields (Cont.)



It is important to remember that, when you add a user-defined field, the database structure is updated. Therefore you should only add new fields when no other users are logged in.

If you try to add a new field, the system will warn you if there are logged in users. You have the option to:

- Try Again – you can notify the users close their work and wait until they have logged out of the system
- Ignore - the system will force close all open documents for all connected users

Type and Structure

Type	Structure	Maximum Length
Alphanumeric	▪ Regular	254
	▪ Address	
	▪ Telephone No.	
	▪ Text	
Numeric	-	2GB (header) / 255KB row
Date/Time	▪ Date	
	▪ Hour	
Units and Totals	▪ Rate	
	▪ Amount	
	▪ Price	
	▪ Quantity	
	▪ Percents	
	▪ Measure	
General	▪ Hyperlink	
	▪ Image	



You can select a *Type* and optionally a *Structure* for each user-defined field. The *Structure* is dependent on the *Type* and influences the format of the field.

Be aware that you cannot change the type and structure after you have added the field. If you mistakenly choose the wrong type or structure, you can remove the field, and start again.

Type and Structure

Type	Structure	Maximum Length
Alphanumeric	▪ Regular	254
	▪ Address	
	▪ Telephone No.	
	▪ Text	2GB (header) / 255KB row
Numeric	-	
Date/Time	▪ Date	
	▪ Hour	
Units and Totals	▪ Rate	
	▪ Amount	
	▪ Price	
	▪ Quantity	
	▪ Percents	
	▪ Measure	
General	▪ Hyperlink	
	▪ Image	

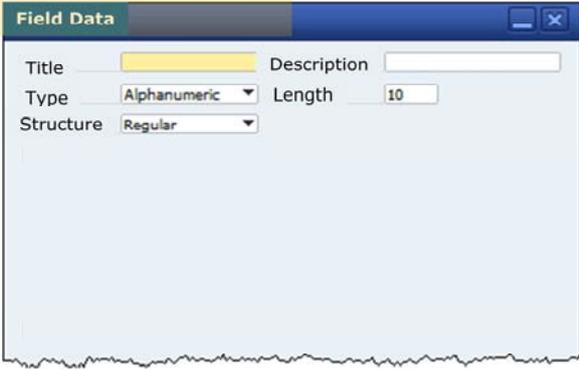
The screenshot shows a 'Field Data' dialog box with the following configuration:

- Title: [Empty text field]
- Description: [Empty text field]
- Type: Alphanumeric (dropdown menu)
- Length: 10 (text input field)
- Structure: Regular (dropdown menu)

Fields with Alphanumeric type can have one of the structures shown here. A Regular structure can hold up to a maximum of 254 characters. A Text structure can accommodate 2 GB of text in header fields and 255 KB of text in row fields.

Type and Structure

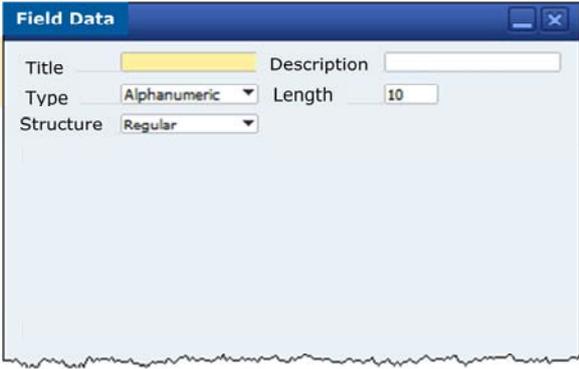
Type	Structure	Maximum Length
Alphanumeric	<ul style="list-style-type: none"> ▪ Regular ▪ Address ▪ Telephone No. ▪ Text 	254
Numeric	-	2GB (header) / 255KB row
Date/Time	<ul style="list-style-type: none"> ▪ Date ▪ Hour 	
Units and Totals	<ul style="list-style-type: none"> ▪ Rate ▪ Amount ▪ Price ▪ Quantity ▪ Percents ▪ Measure 	
General	<ul style="list-style-type: none"> ▪ Hyperlink ▪ Image 	



Fields with Numeric type can only hold integers, therefore there is no structure.

Type and Structure

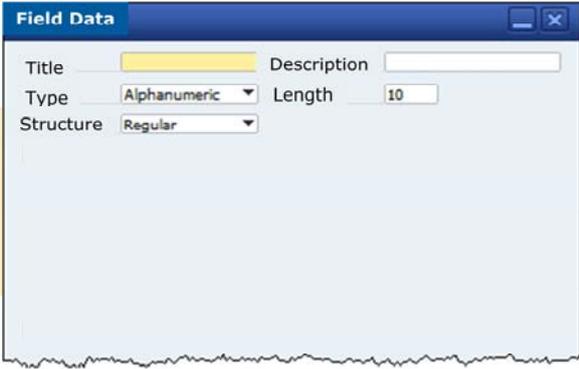
Type	Structure	Maximum Length
Alphanumeric	<ul style="list-style-type: none"> ▪ Regular ▪ Address ▪ Telephone No. ▪ Text 	254
Numeric	-	2GB (header) / 255KB row
Date/Time	<ul style="list-style-type: none"> ▪ Date ▪ Hour 	
Units and Totals	<ul style="list-style-type: none"> ▪ Rate ▪ Amount ▪ Price ▪ Quantity ▪ Percents ▪ Measure 	
General	<ul style="list-style-type: none"> ▪ Hyperlink ▪ Image 	



Fields selected with the Date/Time type can have Date or Hour as the structure. These fields behave in exactly the same way as other date and time fields in the system; for example, the calendar icon is available in a field with the date structure.

Type and Structure

Type	Structure	Maximum Length
Alphanumeric	▪ Regular	254
	▪ Address ▪ Telephone No. ▪ Text	2GB (header) / 255KB row
Numeric	-	
Date/Time	▪ Date ▪ Hour	
Units and Totals	▪ Rate ▪ Amount ▪ Price ▪ Quantity ▪ Percents ▪ Measure	
General	▪ Hyperlink ▪ Image	



To enter fractions as well as integer numbers in the new field, use the Units and Totals type and select one of the structures shown here.

Decimal places will display in the new field according to the initialization settings on the Display tab of the *General Settings*.

Type and Structure

Type	Structure	Maximum Length
Alphanumeric	▪ Regular	254
	▪ Address	
	▪ Telephone No.	
	▪ Text	
Numeric	-	2GB (header) / 255KB row
Date/Time	▪ Date	
	▪ Hour	
Units and Totals	▪ Rate	
	▪ Amount	
	▪ Price	
	▪ Quantity	
	▪ Percents	
	▪ Measure	
	General	

The screenshot shows a 'Field Data' dialog box with the following fields:

- Title: [Empty text box]
- Description: [Empty text box]
- Type: Alphanumeric (dropdown menu)
- Length: 10 (text input)
- Structure: Regular (dropdown menu)

Need to define path to Attachments or Pictures folder in *General Settings* (Path tab).

If you select the General type, the new field can hold links or graphics.

- Fields with the Link structure can link to a file or to a web address. You must first define the default path to the Attachments folder. This is done in the General Settings. This default path is opened when the user double-clicks the new field. The user can either select a file from the default folder, or enter a web address in place of the file name.
- Fields with the Image structure can accommodate pictures. You must first define the default path to the Pictures folder, in the General Settings. If this default path is not defined, an error will occur when the image field is used. When the user double-clicks the image field, the default folder opens, enabling them to select an image file. The user can then change to a different folder to locate the image.

The user can, at any time, change an image or web address by pressing the Ctrl key and double-clicking the image or web address.

Values for a User-Defined Field

- Option to define list of valid values
- User can select a value from list, but cannot update list

New field

1	-	Gold
2	-	Silver
3	-	Bronze

- Another option is to add user-defined values to the field. A query can populate the field with the result

Field Data

Title: Status Description: Customer Status

Type: Alphanumeric Length: 10

Structure: Regular

Set Valid Values for Field

#	Value	Description
1	1	Gold
2	2	Silver
3	3	Bronze

Set Default Value for Field

Mandatory Field

Add Cancel

You have the option of defining a list of values for the user-defined field.

In the example, you can see that three values have been supplied for the field – gold, silver, and bronze.

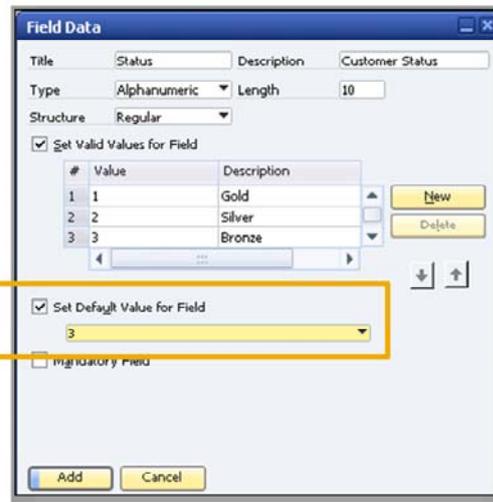
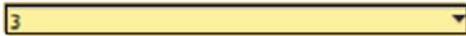
This list is available in the document as a dropdown list, allowing the user to select one of the values.

The user cannot update the values in the list. The list values can only be updated by the authorized user from the *User-Defined Fields – Management* window.

Note that you can also add a query as *user-defined values* to a user-defined field. The query can populate the field based on the result of the query. This functionality is covered in the next topic.

Default Field

- Default value can be set for any new field
- Value will appear in all new instances of the object



#	Value	Description
1	1	Gold
2	2	Silver
3	3	Bronze

You can optionally set a default value for any user-defined field.

In the example, we have selected Bronze (value 3) as the default from the list of valid values.

The default value set for a field will appear in all new instances of the object.

Mandatory Field

- If field is mandatory, user will not be able to add record without entering field value
- To set field as mandatory, you initially need to supply a default value



The screenshot shows the 'Field Data' dialog box in SAP. The 'Title' field is 'Delivertime' and the 'Description' is 'Delivery Time'. The 'Type' is set to 'Date/Time' and the 'Structure' is 'Hour'. The 'Set Valid Values for Field' checkbox is unchecked. The 'Set Default Value for Field' checkbox is checked, and the default value '08:00' is entered in the text box below it. The 'Mandatory Field' checkbox is also checked. The 'Add' and 'Cancel' buttons are at the bottom.

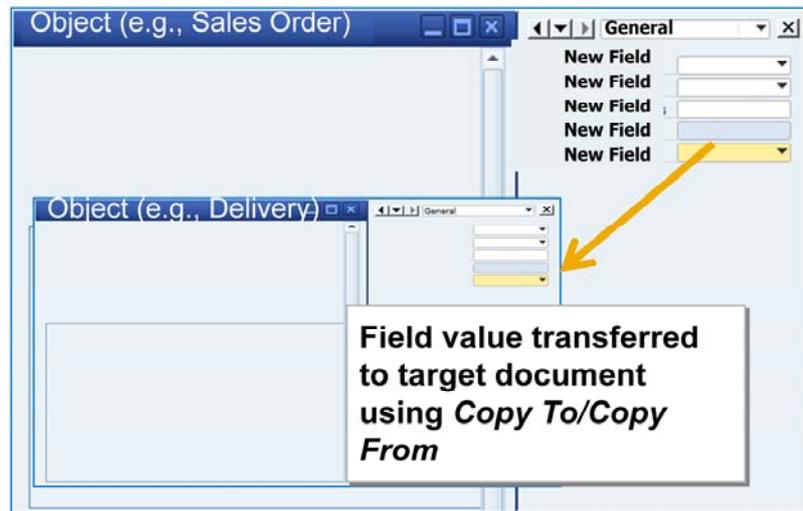
You can make the user-defined field mandatory. The user will not be able to add a new record without entering data into the mandatory field.

When you set a user-defined field as mandatory, you need to initially supply a default value, to maintain the integrity of the database. However, if you are working with release 8.82 and later, you can afterwards update the user-defined field and remove the default value.

If you set a user-defined field mandatory, and the field already has a default value, you can choose whether to insert the default value into all existing instances of the object, or whether to only insert the default value into new instances.

User-Defined Fields in Marketing Documents

- When using *Copy To/ Copy From* or the *Document Generation Wizard*, value entered in a user-defined field is transferred to target document

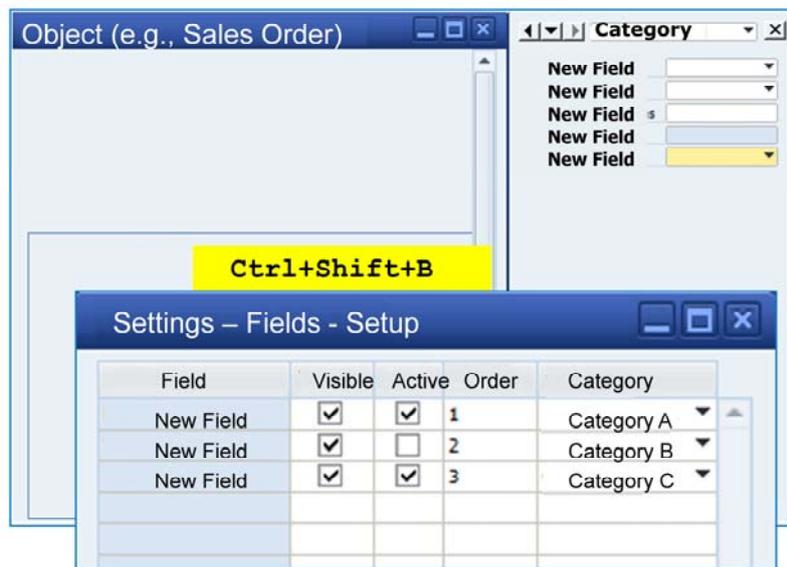


When using the *Copy To/ Copy From* function to generate a new document from a base document, the value of a user-defined field is transferred to the target document. This also applies to documents generated through the *Document Generation Wizard*.

If multiple base documents are copied to a target document, and the user-defined field has different values in these base documents, the field value is *not* copied.

Managing Multiple UDFs in a Document

- User-defined fields may not be relevant for every document type
- Users can manage the display of multiple UDFs using the settings window :
- To open the settings window:
 - **Ctrl+Shift+B**
 - *Tools* → *Customization Tools* → *Settings*

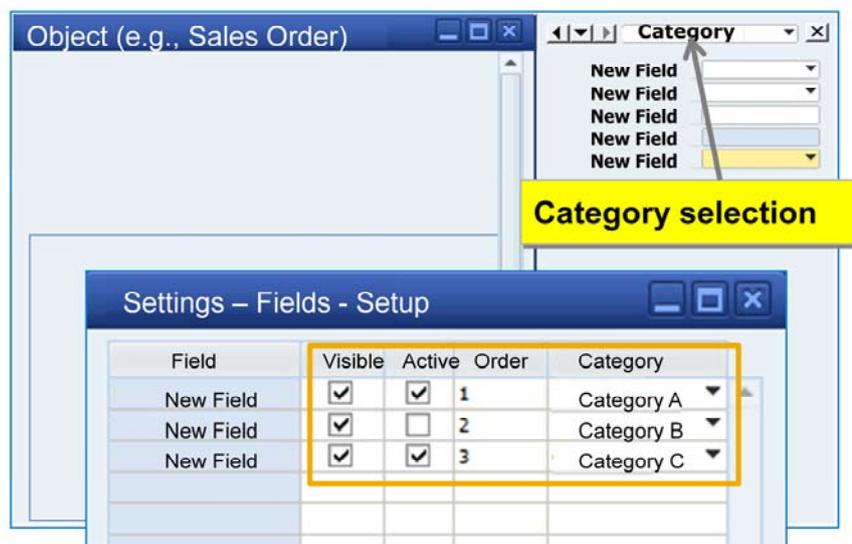


Sometimes user-defined fields may not be relevant for every document type; for example, a field in a sales order may not be relevant in a purchase order.

Users can manage the display of user-defined fields when they process documents using the settings window. The settings window is different to the standard form settings window, but works in a similar way. To open the settings window for user-defined fields, press **Ctrl+Shift+B**, or choose *Tools* > *Customization Tools* > *Settings*.

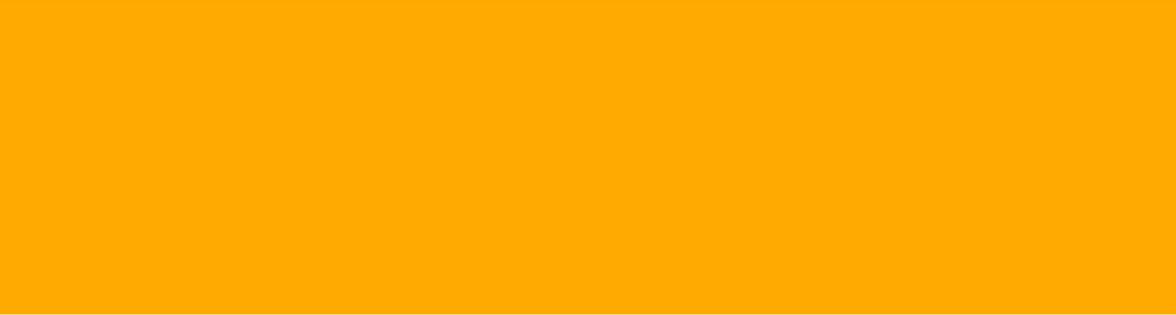
Managing Multiple UDFs in a Document

- Define categories to group related fields and display by category selection
- Make fields invisible or inactive for a document type
- Change the display order of UDFs in the window



Using the settings window, users can:

- Define new categories to group related fields and display them in a document type by selecting the category. The user can choose to display fields for a single category or can choose to display all categories.
- Make fields invisible or inactive for a document type. For example, you can make all the fields relevant for a sales order invisible in a purchase order document type.
- Change the display order of the fields by setting the numerical order. In this way, the most frequently used fields can be sorted to the top, for ease of use.



Agenda

- User-Defined Fields
- **User-Defined Tables**



In the last part of this topic, we will cover user-defined tables.

User-Defined Tables

Tools → **Customization Tools** → **User-Defined Tables - Setup**

- User-defined tables (UDTs) store additional, related sets of data
- User tables have the prefix @
- Information about new table is stored in OUTB table
- Option to copy UDTs when creating new company
- To set up table, enter name and description, and leave object type as No Object

Table Name	Description	Object Type
TRUCKS	Delivery Trucks	No Object ▼



In addition to user-defined fields, you can add new tables to the database. User-defined tables (UDTs) give you the ability to store additional, related sets of data.

The user-defined table becomes part of the company database. The system identifies user-defined tables by the '@' prefix so you can easily distinguish them from system tables. In our example, the table is called @TRUCKS.

Information about each new table is stored in the OUTB system table.

When you create a new company, you have the option to copy user-defined tables from the currently selected company to the new company.

To set up a user table, you enter a name and description. Here we have created a new table to hold information about a set of delivery vehicles that the company owns. We want to record details such as the vehicle registration number, model, and capacity. The object type is not relevant for user tables; it is only relevant when creating user-defined objects using the Software Development Kit. You should leave the selection as No Object, since you cannot change the object type after you have added the user table.

Entering Data in User-Defined Tables

Tools → **User-Defined Windows**

- Access table from the *Tools* menu bar
- Table initially created with two columns – code and name
- Code and name must be unique in each row
- Can import data to table using Data Transfer Workbench

Table Name	Description	Object Type
TRUCKS	Delivery Trucks	No Object ▼

The screenshot shows the SAP 'Tools' menu with 'User-Defined Windows' selected. A pop-up window titled 'Trucks' displays a table with the following data:

Code	Name
1	JK2398L
2	TU3374P
3	BA1928M

A blue bracket under the 'Code' column is labeled 'Primary key'.

You access a new user-defined table by selecting the table from the *Tools > User-Defined Windows* menu bar.

- The table is initially created with two columns, code and name.
- You can enter data in these two columns. These fields are used as the primary key, so must be unique for each row that you add to the table.

At this point, the user-defined table is not attached to any form or document; however, you can use the table in queries, and you can import data into the table using the Data Transfer Workbench.

Link User-Defined Table to User-Defined Field

Tools > Customization Tools > User-Defined Fields – Management

- To make table visible, link it to a user-defined field in a document or form using the *Set Linked Table* checkbox
- UDF must be Alphanumeric type

Note: You can link the same user-defined table to multiple user-defined fields.

The screenshot shows the 'Field Data' dialog box. The 'Set Linked Table' checkbox is checked, and a dropdown menu is open, showing 'TRUCKS' selected. Below it, a sub-menu shows 'TRUCKS - Delivery vehicles'. The 'Add' and 'Cancel' buttons are at the bottom of the dialog.

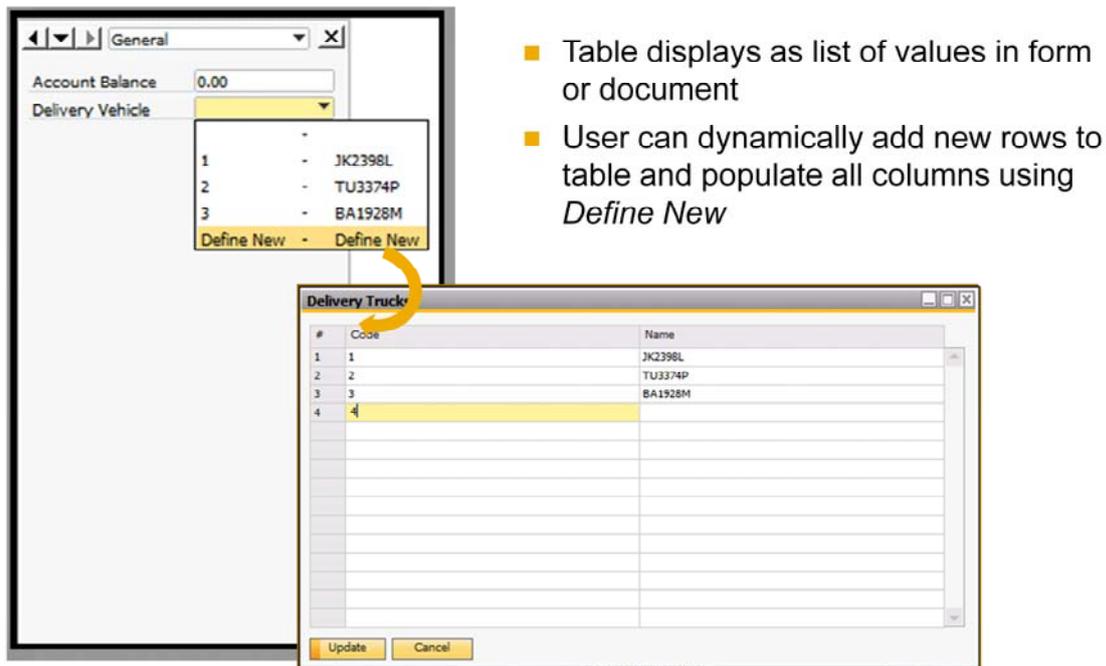
To make a user table directly visible to users in a form or document, you can link the table to a user-defined field in the document or form.

Note that user tables can only be linked to UDFs with the Alphanumeric type and Regular structure.

Choose *Tools > Customization Tools > User-Defined Fields – Management* and choose the *Set Linked Table* checkbox for the field. Then select the user-defined table.

You can link the *same* user-defined table to multiple user-defined fields in different objects, at both the header and the row level. For example, you could link the trucks table to a user-defined field in the pick list document in addition to the delivery document.

Link User-Defined Table to User-Defined Field (Cont.)



- Table displays as list of values in form or document
- User can dynamically add new rows to table and populate all columns using *Define New*

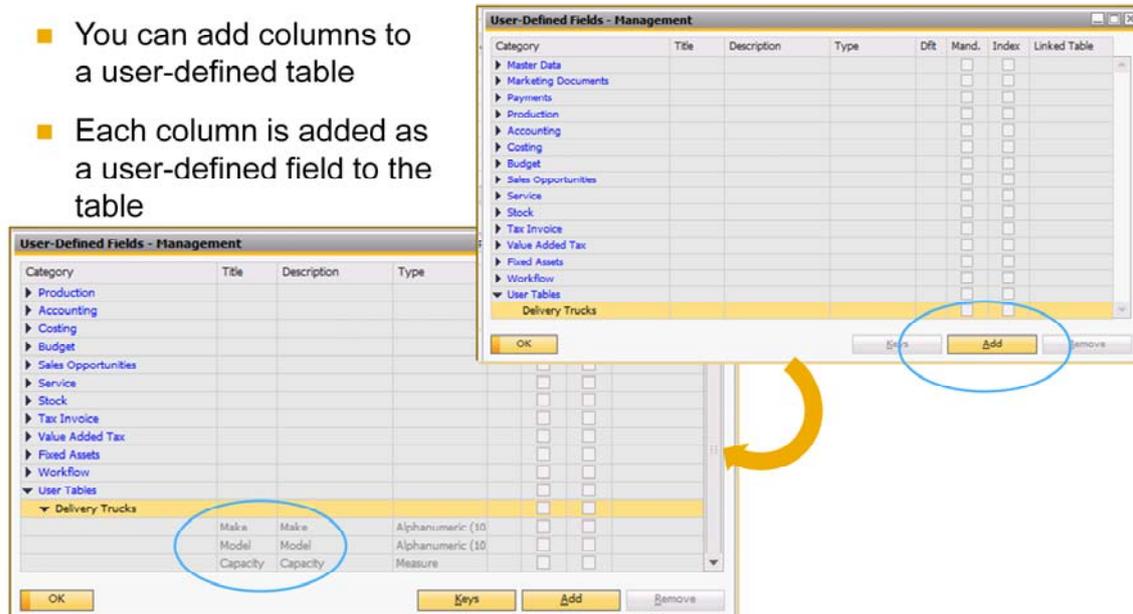
The table displays as a list of values in the form or document, where only the first two columns are visible.

The user has the ability to dynamically add new rows to the table using the “Define New” option. The user can view and populate all columns in the table.

Adding Columns to User-Defined Tables

Tools → **Customization Tools** → **User-Defined Fields – Management**

- You can add columns to a user-defined table
- Each column is added as a user-defined field to the table



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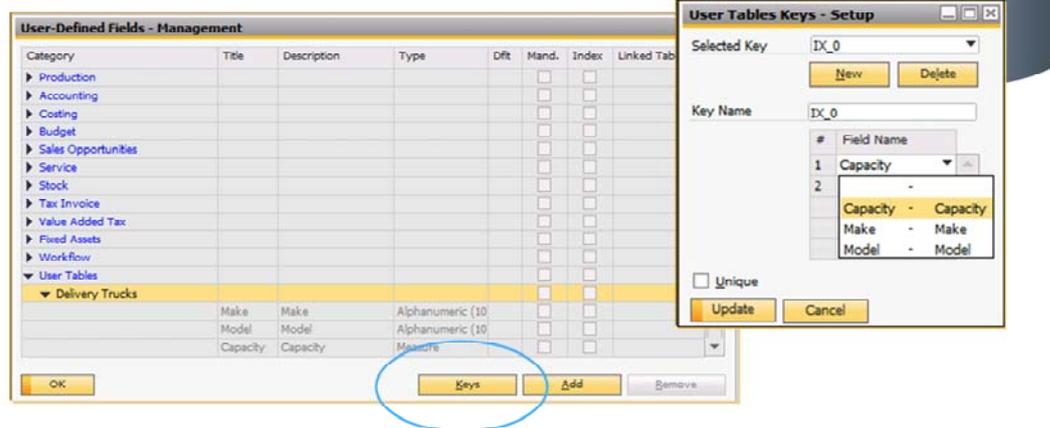
You can add columns to a user-defined table from the *User-Defined Fields – Management* window.

The extra columns are first added as a user-defined field. Select the table under the **User Tables** object and choose *Add*.

In the example, we have added three additional columns – Capacity, Make, and Model, to the Delivery Vehicles table.

Adding Keys

- Select any field or combination of fields as a key, to improve query performance
- Set key as unique to enforce unique constraint when new data is added



The default key for a user-defined table is the combination of the first two columns – column and name. In addition, you can select any field or combination of fields from the user table as a new key. This option allows the system to conduct a faster search using this field in queries.

You can optionally make the key unique. This enforces the unique constraint and prevents a new row being added with a field that has a duplicate value.

User-Defined Fields and Tables: Key Points



Key points from this topic:

- You can add user-defined fields to most objects, at the header and the row-level
- User-defined fields are added to the table for the selected object, and have prefix “U_”
- User-defined fields at the header level show in a separate window. Use the *View* menu to open this window. To manage multiple UDFs at the header level, use the settings window to set fields invisible or assign the fields to categories
- UDFs can have various types and structures. The choice of structure affects the maximum length of the field
- You can optionally add a list of valid values to a UDF, or set a default value, or make the UDF mandatory
- You can create user-defined tables to hold related sets of information
- User-defined tables can be identified with the prefix “@”
- To make a user table available in a document or form, link the table to a UDF in the document or form

Here are some points to take away regarding user-defined fields and tables:

- You can add user-defined fields to most objects, at either the header level or the row level.
- User-defined fields are added to the table for the selected object, and have prefix “U_”.
- User-defined fields added at the header level will show in a separate window to the side of the document. You can use the *View* menu to open this window.
- You can manage multiple user-defined fields at the header level using the settings window. This allows you to assign categories, set fields as invisible, and reorder the sequence.
- User-defined fields can have various types and structures, such as alphanumeric and regular. The choice of structure affects the maximum field length and the type of data you can enter in the field.
- You can optionally add a list of valid values to a UDF, or set a default value, or make the UDF mandatory
- You can create user-defined tables to the database. These tables can hold additional, related information. User-defined tables can be identified with the prefix “@”.
- To make a user table available in a document or form, link the table to a UDF in the document or form.

Customization Tools: User-Defined Values

SAP Business One
Release 9.0



Welcome to the topic on User-Defined Values.

Objectives



Objectives:

- Add user-defined values to fields to automate data entry in forms and documents:
 - Add a list of values as user-defined values
 - Use a query as user-defined values

On completion of this topic, you will be able to add user-defined values to form fields to automate data entry in forms and documents. You will learn how to add a list of values as user-defined values, and how to use a query as user-defined values.

Business Scenario



- The company wants to have the delivery date automatically calculated in sales orders, so that the salesperson does not have to manually enter the date. In the business process, the delivery date of the sales order is not significant since orders are dispatched immediately.
- The salesperson needs the ability to instantly view a customer's account balance when processing a new sales order over the phone.

Solution: These requirements can be implemented using user-defined values.

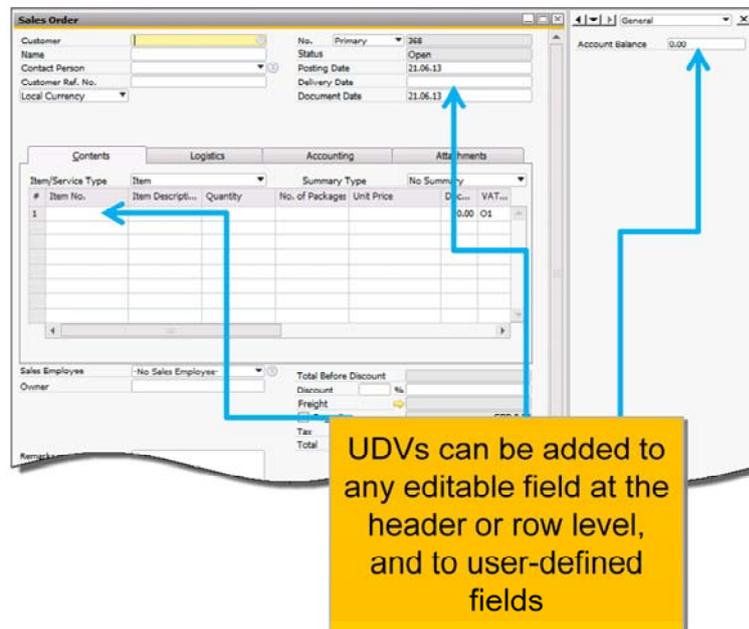


Here are two examples of requirements that can be met by adding user-defined values to form fields:

- In the first example, the company wants to have the delivery date, which is a mandatory field, automatically calculated in sales orders, so that the salesperson does not have to manually enter the date. In the business process the delivery date is not used, since sales orders are dispatched immediately for delivery.
- In the second example, the salesperson needs the ability to instantly view a customer's up-to-date account balance when processing a new sales order over the phone. With user-defined values, the salesperson does not have to manually drill-down to the master data.

User-Defined Values

- User-defined values (UDVs) can be added to any editable field in a document or form
- UDVs assist and automate data entry for users
- UDVs added at the row level apply to each row
- UDVs can be in the form of:
 - List of values
 - User query



You can add UDVs to any editable header field in documents and forms, to row level fields in documents and forms, and to user-defined fields added to objects such as documents and master data.

User-defined values can assist and automate data entry for users.

If added at the row level, user-defined values apply to each row.

User-defined values can be added to a field as:

- **List of values.** The user chooses from a list of predefined values for the field.
- **User query.** When the query runs, the query results are stored in the field. In the example, a query has been added to the delivery date field. The query will calculate a valid date for the delivery. Using a query is the most flexible option as the query can be set up to run manually or automatically:

Indicator for User-Defined Values

View → Pickers Display → User-Defined Values

- Magnifying glass icon indicates that user-defined values have been added to field
- Toggle on and off from *View → Pickers Display → User-Defined Values*

The screenshot shows the SAP Sales Order form. The 'Delivery Date' field in the header section has a magnifying glass icon next to it. In the 'General' document header section, the 'Source' field also has a magnifying glass icon. The table below shows the item details:

Item/Service Type		Item	Summary Type	No Summary		
#	Item No.	Item Descrip...	Quantity	No. of Packages	Unit Price	Disc... VAT...
1						0.00 01

A magnifying glass icon indicates that user-defined values have been added to the field.

Users can toggle the display of this icon on and off, using the menu *View > Pickers Display > User-Defined Values*.

In the example, we can see that user-defined values have been added to the Delivery Date field, and to a user-defined field in the document header.

Adding User-Defined Values

- To add user-defined values to a field, select the field in the document or form and:
 - Press **Alt+Shift+F2**, or
 - Choose **Tools > Customization Tools > User-Defined Values - Setup**
- General authorization required – “User-Defined Values – Setup”



To add user-defined values to a field, select the field in the document or form and press the key combination **Alt+Shift+F2**, or choose the menu path **Tools > Customization Tools > User-Defined Values - Setup**.

Only authorized users can add UDVs. The authorization is located in the *General Authorizations* window by navigating to *Customization Tools > User-Defined Values – Setup*.

Options for User-Defined Values

Setup options:

- Without search in user-defined values**
- Search in existing user-defined values
- Search in existing user-defined values according to saved query

Source	<input type="text"/>
--------	----------------------

In the setup window for user-defined values, you select one of three options.

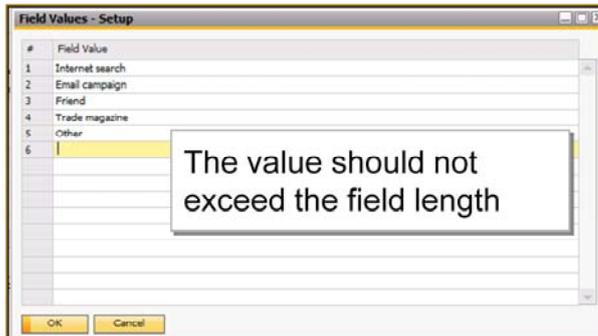
The first option, *Without search in user-defined values*, can be used to remove previously added user-defined values from the field.

There are no restrictions on removing user-defined values from a field. After you remove the user-defined values, documents saved in the system retain the values entered.

Options for User-Defined Values (Cont.)

Setup options:

- Without search in user-defined values
- Search in existing user-defined values**
- Search in existing user-defined values according to saved query



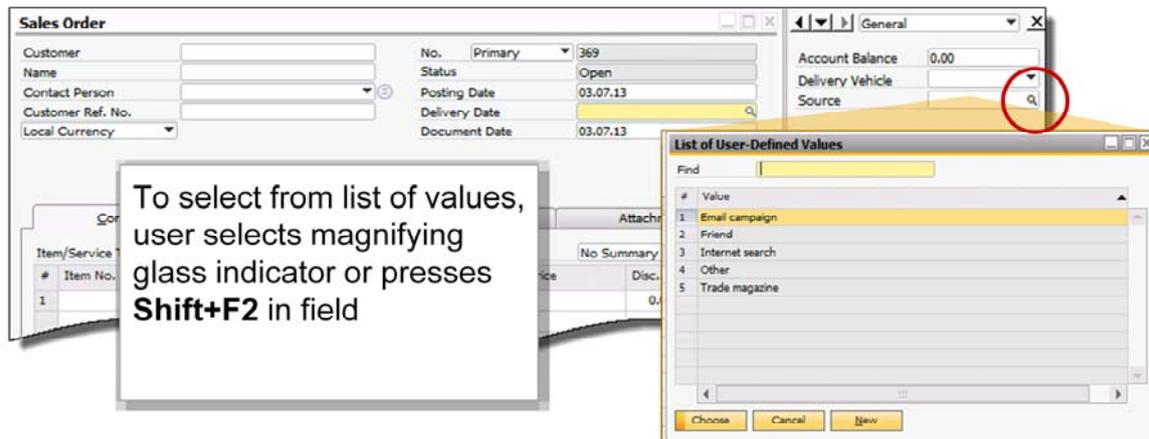
The second option, *Search in existing user-defined values*, allows you to define a list of values for the field.

When defining the values, make sure that the value does not exceed the field length as defined in the database.

Options for User-Defined Values (Cont.)

Setup options:

- Without search in user-defined values
- Search in existing user-defined values**
- Search in existing user-defined values according to saved query



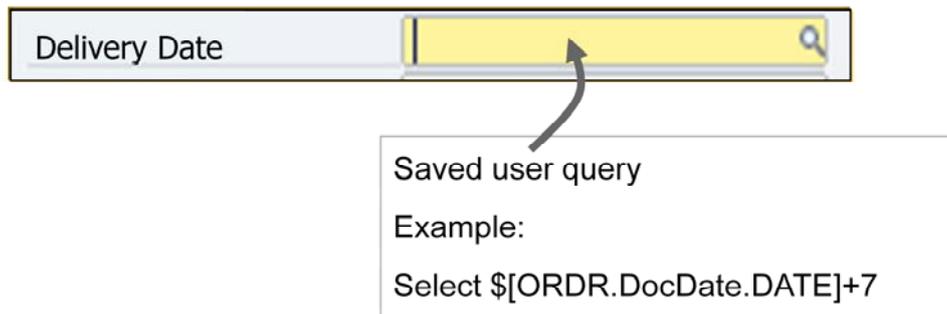
To select from the list of values, the user can select the magnifying glass indicator or press **Shift+F2** in the field.

The list of values can be maintained directly by the user, and the user can add new values to the list by choosing New. Note: this contrasts to a list of values added for a user-defined field using the *User-Defined Fields – Management* window. In this case, the user cannot add new values to the list and the list is maintained from the *User-Defined Fields – Management* window.

Options for User-Defined Values (Cont.)

Setup options:

- Without search in user-defined values
- Search in existing user-defined values
- Search in existing user-defined values according to saved query**



The last option, *Search in existing user-defined values according to saved query*, lets you attach a query to the field.

This option is very powerful, since the field is populated with the results of the query.

The query can set a value in the field, or store the results of a calculation in the field, or fetch another field value from the database to go in the field.

The query can prompt the user for a parameter, and use the parameter to calculate the results.

In the example shown here, you can use a query to calculate the delivery date based on the current date. The query adds 7 days to the current date and stores the result as the delivery date.

When you use a query, make sure the query result matches the field type in the document, and does not exceed the size of the field. For example, do not return an alphanumeric string result into a field that is defined as numeric.

Query Syntax – Active Window

- To reference a field in the active window, use special query syntax

```
SELECT T0.[Balance] FROM OCRD TO  
WHERE  
T0.[CardCode] = $[ORDR.CardCode]
```

Include \$ sign to refer to field in the active window

Active Window

Sales Order (ORDR)	
Code	<input type="text"/>
Acct Balance	<input type="text"/>

Business Partner Master Data (OCRD)	
Balance	<input type="text"/>

In many situations, the query needs to reference a field in the *active window*. In the example shown, you have added user-defined values to a field in the sales order. The query will fetch the customer's account balance from the master data record and show the balance in the sales order field. The sales order is the active window because the user is working on it.

The query matches the *CardCode* from the active window to the *CardCode* in the master data.

Whenever you refer to a field in the active window, you must include a \$ sign in front of the field name to reference the active window. Fields that are stored in the database, such as the balance field from the master data record, do not need the \$ sign.

Query Syntax – Active Window (Cont.)

Tools > Queries > User Queries

- To test a query that references the active window, keep the document as the active window and run the query from the *Tools* menu

Active Window

Sales Order (ORDR)

Code

Acct Balance

Business Partner Master Data (OCRD)

Balance

To test a query that references the active window, keep the document as the active window and run the query by choosing *Tools > Queries > User Queries* then select the category and query name from the menu.

Using Queries as UDVs

Setup options:

- Without search in user-defined values
- Search in existing user-defined values
- Search in existing user-defined values according to saved query**



Auto Refresh When Field Changes

- If auto refresh not selected, the query only runs when the user selects the magnifying glass icon or presses Shift+F2 in the field

When you select the option to use a query as user-defined values, you can decide if you want the query to automatically run without user involvement.

The *Auto Refresh When Field Changes* checkbox determines if the query runs automatically.

If you do not select this checkbox, the query is not automatic and only runs when the user clicks the magnifying glass or presses **Shift+F2** in the field.

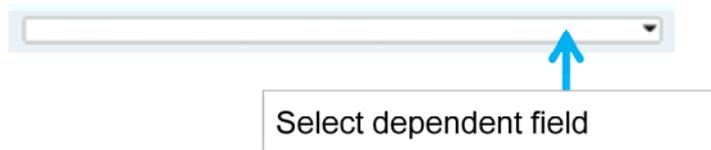
Auto Refresh

Setup options:

- Without search in user-defined values
- Search in existing user-defined values
- Search in existing user-defined values according to saved query**



Auto Refresh When Field Changes

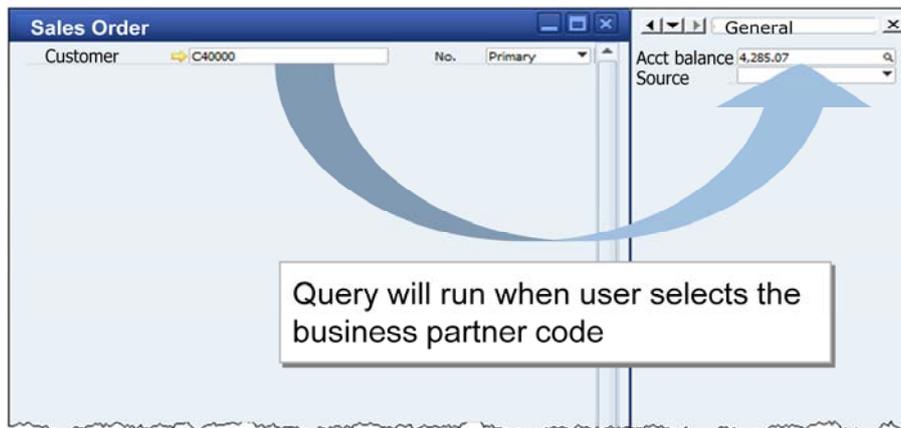


If you select the *Auto Refresh When Field Changes* checkbox, you are prompted to select a dependent field. The query runs automatically when the dependent field changes in value or the user enters a value in the dependent field.

Auto Refresh - Example

Auto Refresh When Field Changes

Customer / Vendor Code



Here is an example to illustrate how the auto refresh function works.

A query is added to a field in the sales order using user-defined values. The *Customer/Vendor Code* is selected as the dependent field. When the user selects the business partner code in a sales order, this action triggers the query to run.

This is typically the first action when a user processes a new marketing document. Therefore it is a common practice to use the *Customer/Vendor Code* as a dependent field to trigger the query to run.

Auto Refresh – Selecting Dependent Fields



Auto Refresh When Field Changes

Customer / Vendor Code



Dependent field

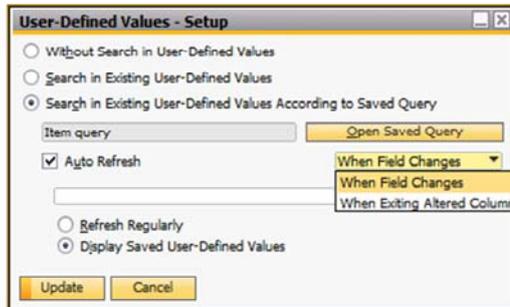
- For a query added to a header field, you can only select another header field as a dependent field

There are two rules for selecting dependent fields.

For a query added to a header field in a document, you can only select another *header* field as the dependent field. This includes all fields in the document that are not in the row table.

Auto Refresh – Selecting Dependent Fields (Cont.)

- For a query added to a row-level field, you can select *either* a header field or a row-level field as a dependent field



- *When Field Changes*: allows you to select a header field as the dependent field
- *When Exiting Altered Column* : allows you to select another row-level field as the dependent field

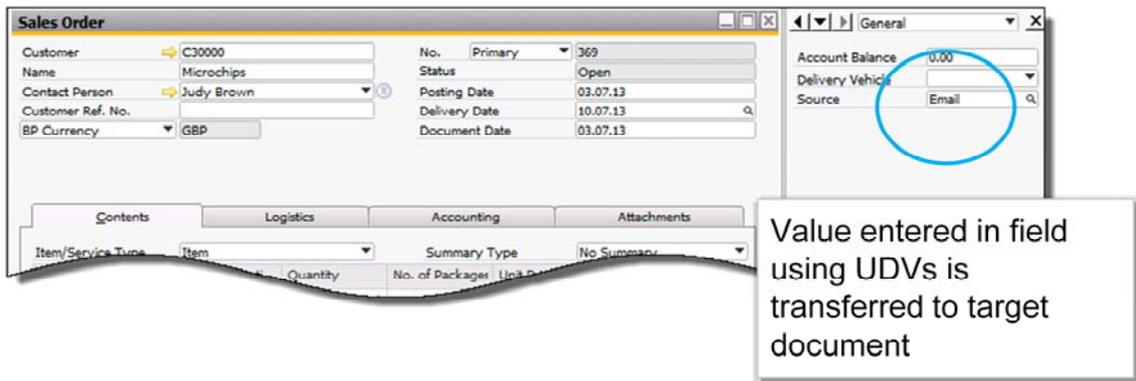
For a query added to a row-level field, you can select *either* a header or a row-level field as the dependent field.

To select a header field as the dependent field, select *When Field Changes* from the dropdown list.

To select another row-level field as the dependent field, select *When Exiting Altered Column* from the dropdown list.

Marketing Documents and UDVs

- User-defined values are not inherited by other document types, therefore you need to add them to each document type as required
- The *value* entered into a field with user-defined values is transferred to target document using Copy To/Copy From



Note that, when you add user-defined values to a specific marketing document type, such as a sales order, other similar document types such as deliveries and invoices are unaffected. In other words, user-defined values behave differently to user-defined fields and are not inherited by other document types. Therefore you need to add user-defined values to each specific document type as required. However, the value entered in a field with user-defined values is transferred to a target document using the Copy To/ Copy From function.

Auto Refresh – Refresh Frequency



Auto Refresh When Field Changes

Customer / Vendor Code



Refresh Regularly



Display Saved User-Defined Values (default)

■ **Display Saved User-Defined Values (default)** – query runs once then retains the result in the field

When you choose *Auto Refresh When Field Changes*, two further options appear. These options determine if the query runs only once, or if the query runs whenever the dependent field changes.

The default option is *Display Saved User-Defined Values* and is recommended since it maintains the initial result of the query. The query runs once when the dependent field changes, and will not run again even if the dependent field changes.

An example is a query added to the Delivery Date in a document. The query calculates a delivery date based on the system date. You only want the query to run once. If the query ran multiple times, the delivery date might be incorrectly updated.

Auto Refresh – Refresh Frequency



Auto Refresh When Field Changes

Customer / Vendor Code



Refresh Regularly



Display Saved User-Defined Values (default)

- **Display Saved User-Defined Values (default)** – query runs once then retains the result in the field
- **Refresh Regularly** – query runs each time the dependent field changes or is selected in a document

If you choose *Refresh Regularly*, the query will run each time the dependent field changes or is selected in a document.

You should use this option with caution since it can result in the field value changing when not expected.

The query will run when you browse through records, or drill-down to open a document that contains a query. When the query runs, the document status will change to Update mode, and you must save the changes if you want to record the new query results.

An example of using *Refresh Regularly* is a query that shows the up-to-date account balance of a business partner. You want the query to run whenever you browse or open the document so you can always see the latest balance. However, you will still be prompted to update the document if you want to save the query results.

User-Defined Values: Key Points



Key points from this topic:

- User-defined values automate data entry
- You can add UDVs to editable header and row-level fields, and to any user-defined field. To add UDVs, select the field, then press **Alt+Shift+F2**
- Magnifying glass indicator shows if UDVs exist for a field
- User-defined values can be a list of values or a user query
- User can open list of values by selecting the indicator or pressing Shift+F2 in the field
- To set a query to run automatically, use auto refresh and select a dependent field. Then select either:
 - *Refresh Regularly* – query will run each time the dependent field changes or is selected
 - *Display Saved User-Defined Values* – query runs once then retains the result in the field
- Queries should be written to reference the active window

Here are some points to take away regarding user-defined values. Please take a minute to review these key points:

- User-defined values (UDVs) automate data entry for users.
- You can add UDVs to editable header and row level fields, and to any user-defined field. To add UDVs, select the field, then press **Alt+Shift+F2**.
- A magnifying glass indicator shows if user-defined values exist for a field. You can enable this from the *View > Pickers Display* menu.
- User-defined values can be set up as a list of values, or, more commonly, as a user query.
- If a list of values is used, the user opens the list by selecting the magnifying glass indicator or pressing **Shift+F2** in the field.
- If a query is used, the results of the query are saved in the target field. To set the query to run automatically with no user involvement, use the the auto refresh option and select a dependent field. Two further options are available for running the query:
 - If you select *Refresh Regularly*, the query will run each time the dependent field changes or is selected, or when browsing records. This could lead to inconsistent results, depending on the query, or could cause a performance degradation when browsing through records.
 - If you select *Display Saved User-Defined Values*, the query will run once and retain the result in the field. This option is recommended since it maintains the initial value of the field, but the choice of this option depends on the business need and the query.
- Queries should be written to reference the active window, where needed.

Customization Tools: Alerts

SAP Business One
Release 9.0



Welcome to the Alerts topic.

Topic Objective



Objective:

- Set up and run the two types of alerts in SAP Business One:
 - Pre-defined alerts
 - User-defined alerts

In this topic, we cover the alert mechanism provided in the SAP Business One application.

You will learn how to set up and run the two types of alerts – pre-defined alerts and user-defined alerts.

Alerts: Business Scenario



- The purchasing manager wants to be notified automatically as soon as an inventory item falls below the minimum stock quantity. On receiving the notification, the manager can decide whether to reorder stock.

Solution: Use a predefined alert.



Let us look at a business example for an alert. In the example shown here, the purchasing manager wants to be notified automatically as soon as an inventory item falls below a the minimum stock quantity. On receiving the notification, the manager can decide whether to reorder stock.

This example is a fairly simple requirement and can easily be set up using a predefined alert in the system.

SAP Business One can also support more complex requirements with the addition of queries.

Alerts Management



Administration > Alerts Management

- Alerts inform users when a specific business event or condition occurs
- Can also be used to create work lists for a user
- To receive alert, user must have a user account



- The alert mechanism in SAP Business One informs one or more users when a certain event or condition occurs. It is important to realize that alerts do not prevent the event from occurring. The alert notifies you after the event has happened.
- A creative use of alerts is as a task list or work order for a person. For example, you can create a list of new A/P invoices and send the list using an alert to the AP manager on a daily or weekly basis for final review.
- To receive an alert, a user must have a user account in SAP Business One.

Alerts Management



Administration > Alerts Management

Predefined Alerts

User-defined Alerts



There are two ways to set up an alert.

You can use one of the predefined alerts supplied with SAP Business One, or, you can create your own alert based on a query.

Predefined Alerts

- Predefined alerts cover common alert situations, including:
 - Deviation from % of Gross Profit
 - Deviation from Commitment Limit
 - Deviation from Credit Limit
 - Deviation from Discount (in %)
 - Deviation from Budget
 - Minimum Stock Deviation
 - MRP Recommendations Due

- Choose *Administration > Alerts Management*, then type * in the *Name* field, and choose *Find*



- The simplest way to use the alert mechanism is to use one of the predefined alerts. These cover common business situations where alerts are typically used.
- To see the list of predefined alerts, choose *Administration > Alerts Management*, then type * in the *Name* field, and choose *Find*.

Predefined Alerts

- Predefined alerts cover common alert situations, including:
 - **Deviation from % of Gross Profit**
 - **Deviation from Commitment Limit**
 - **Deviation from Credit Limit**
 - **Deviation from Discount (in %)**
 - Deviation from Budget
 - Minimum Stock Deviation
 - MRP Recommendations Due



The deviation from gross profit, deviation from commitment and credit limits, and discount alerts can be applied to sales documents.

Predefined Alerts

- Predefined alerts cover common alert situations, including:
 - Deviation from % of Gross Profit
 - Deviation from Commitment Limit
 - Deviation from Credit Limit
 - Deviation from Discount (in %)
 - **Deviation from Budget**
 - Minimum Stock Deviation
 - MRP Recommendations Due



The predefined alert for budget deviation can be applied to purchasing documents, payments, and journal entries. This alert is independent of the budget warning set in the *General Settings*.

Predefined Alerts

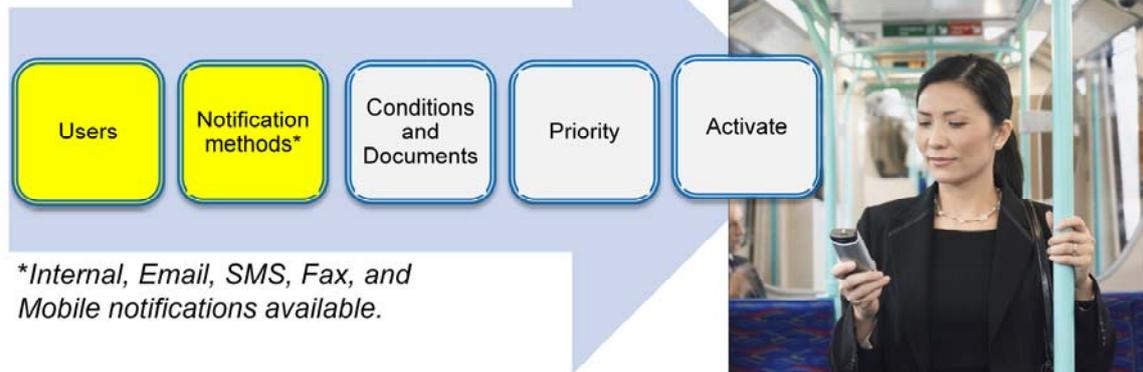
- Predefined alerts cover common alert situations, including:
 - Deviation from % of Gross Profit
 - Deviation from Commitment Limit
 - Deviation from Credit Limit
 - Deviation from Discount (in %)
 - Deviation from Budget
 - **Minimum Stock Deviation**
 - **MRP Recommendations Due**



- The minimum stock deviation alert applies when a release document is added that takes the stock level below the minimum defined in the item master data. This alert is not issued if inventory blocking is enabled in the Document Settings.
- The MRP alert provides a reminder when an MRP recommendation is due for release within a selectable time frame.

Setting up Predefined Alerts

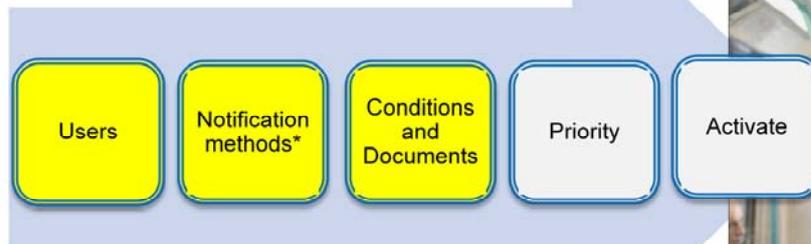
- Select users and preferred notification methods



- To use a predefined alert, select the names of the users you want to receive the notification, then select one or more preferred mechanisms for notifying each user.
- Internal alerts appear in the *Messages/Alerts* popup window in the SAP Business One client, and you can also view these alerts from the cockpit.
- The email, SMS and fax mechanisms require the integration of these services with SAP Business One.
- The mobile smart phone mechanism requires the SAP Business One integration component.
- The email addresses and phone numbers must be set up in the user account.

Setting up Predefined Alerts

- Set conditions and select document types
- Alert will trigger immediately after document is added



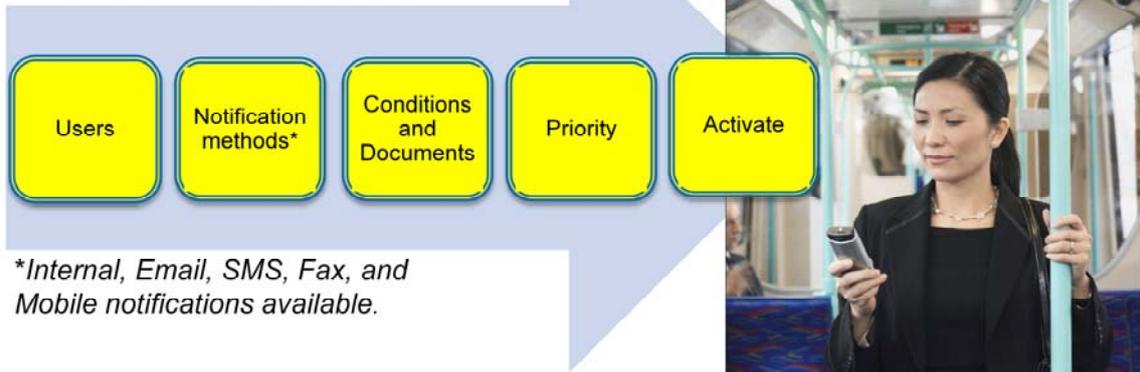
**Internal, Email, SMS, Fax, and Mobile notifications available.*



- For the predefined alerts, with the exception of minimum stock deviation, you can limit or expand the scope of the alert by setting conditions and selecting which document types will be checked for the alert situation.
- The alert will trigger immediately after the document is added to the system.

Setting up Predefined Alerts

- Assign priority and activate the alert
- Can deactivate alert at any time



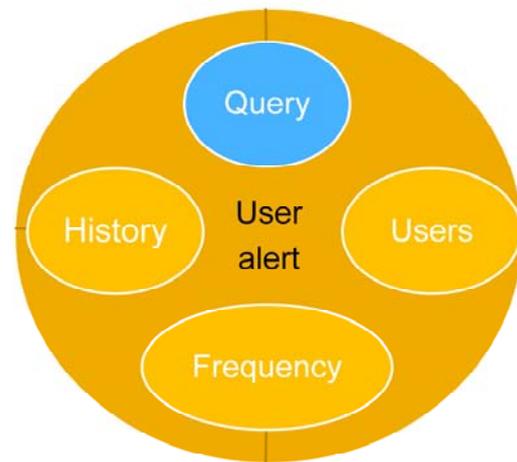
**Internal, Email, SMS, Fax, and Mobile notifications available.*

- You can assign a priority to an alert. When the message is received in the recipient's messages/alerts window or Microsoft Outlook window, high priority messages are flagged in red.
- Finally, you must activate the alert for it to take effect, using the checkbox. You can also use this checkbox to deactivate an alert at any time.

User-defined Alerts

Administration > Alerts Management

- Add own alerts based on saved user query
- To add a new alert, switch to *Add* mode and select saved user query
- Query specifies business conditions to trigger alert

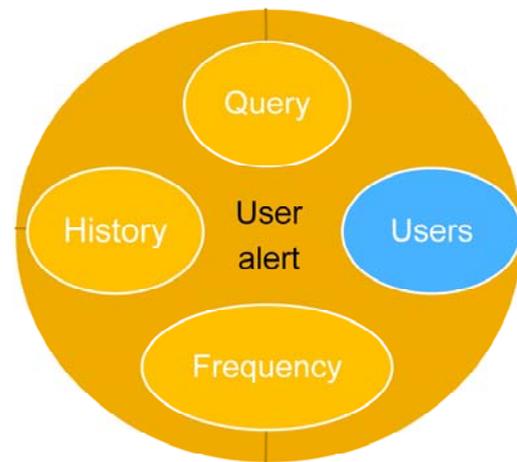


- You can add your own alerts based on a saved user query. To create a new alert, switch to *Add* mode and select the saved user query.
- The query specifies the business conditions to trigger the alert. This enables alerts to be set for multiple conditions or for unique conditions specific to a business.
- For example, if you want to alert the budget manager whenever someone creates a purchase order with a total value above 5000, then your query will select purchase orders from the database with a value over 5000.

User-defined Alerts

Administration > Alerts Management

- Select users, notification mechanisms and priority, in the same way as for a predefined alert

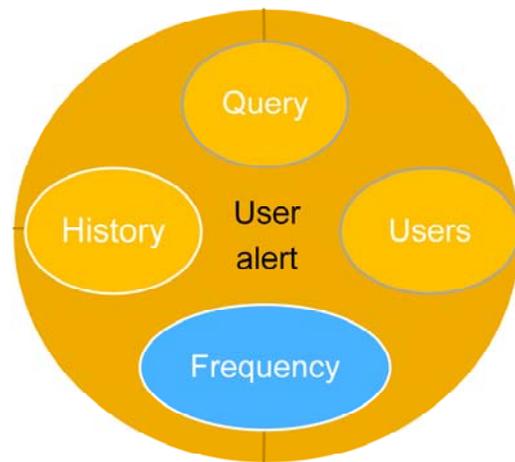


- Then select the users and the notification mechanisms, as well as the notification priority, in the same way as for predefined alerts.

User-defined Alerts

Administration > Alerts Management

- User-defined alert triggered when query runs and if conditions in query met
- Set frequency for running query (minutes, hours, days, weeks or months)
- If query conditions are not met, a notification is not sent



- Unlike a predefined alert, a user-defined alert is *not triggered* when a document is added to the system. A user-defined alert is triggered when the query runs and if the conditions in the query are met.
- Therefore you need to set the frequency for running the query (in minutes, hours, days, weeks or months). If you leave the frequency field empty, the alert is sent only once.
- When the query runs, an alert notification will be sent to the users if the query conditions are met. If the query conditions are not met, a notification is not sent.

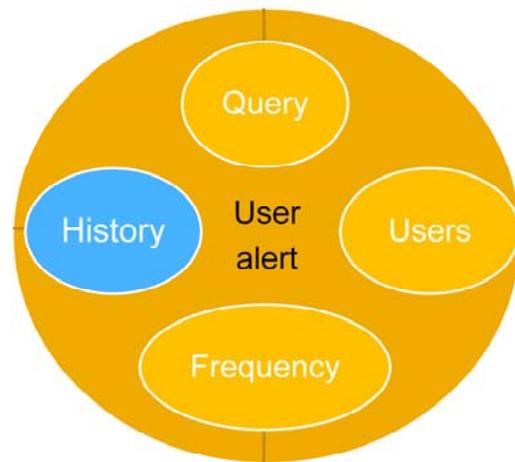
User-defined Alerts

Administration > Alerts Management

- Internal alerts display query results in *Messages/Alerts Overview* window

Save History checkbox:

- If checked, new alert added to *Messages / Overview* window each time query runs
- If not checked, new alert overwrites previous alert and shows in bold



- Internal alerts display in the user's *Messages / Alerts Overview* window. If a query is used for the alert, the query results will show in this window.
- If you select the *Save History* checkbox, a new alert message is added to the alerts window each time the alert is triggered when the query runs. This can quickly fill up the alerts window if the same alert happens frequently.
- If you do not check *Save History* checkbox, each new alert will overwrite the previous one in the *Messages / Alerts Overview* window . The alert will change to bold to inform the user that a new alert has occurred.

Writing Queries for User-defined Alerts

Consider frequency for running query and what results are sent in alert

Query	Frequency	Results
<pre>SELECT T0.[DocNum], T0.[CardCode], T0.[CardName] FROM OPOR T0 WHERE T0.[DocTotal] > 5000 and T0.[DocDate] = (CONVERT (date, GETDATE()))</pre>	Once a day at 23:59 hours	List of Purchase Orders > 5000 posted on the current day

If frequency set to once a day, query should limit results to documents added on that day

- When you develop queries for alerts, you need to consider the frequency for running the query, and what results should be sent in the alert to the user.
- In the example shown here, the alert is used to produce a work list for the following day based on new purchase orders entered the previous day. The query will report a list of purchase orders with total value over 5000 that have been posted during the current business day.
- If the frequency is set to once a day, then the query should limit the results to documents added on that day. Here the document posting date is compared to the current date obtained using the getdate() function.

Key Points



Key points from this topic:

- Alerts notify users when an event occurs
- There are two types of alerts:
 - Predefined alerts
 - User-defined alerts based on queries
- Predefined alerts trigger when a document is added that meets the specified conditions
- User-defined alerts trigger only when the query runs and produces results
- User-defined alerts also provide a way to create routine task lists for users

Here are some key points to take away from this session.

Please take a minute to review these key points:

- Alerts send notifications to users when certain events have occurred in the system. Remember that alerts only notify you after the event has occurred, and do not prevent documents being added to the system.
- Several predefined events are supplied that you can easily use, or you can add user-defined alerts based on user queries.
- Predefined alerts trigger when a document is added that meets the conditions specified in the alert.
- User-defined alerts trigger when the query runs, and then only if the query produces results. The query runs at the specified time interval, and the result of the query is sent as the alert to the users.
- User-defined alerts can be used to notify users of complex or unique business situations. You can also use user-defined alerts to create routine task lists for users.

Customization Tools: Approval Procedures

SAP Business One
Release 9.0



Welcome to the topic on approval procedures in SAP Business One.

Objectives



Objective:

- Describe the business process flow when an approval procedure is used
- Set up an approval process in SAP Business One

After completing this topic, you will be able describe the business process flow when an approval procedure is used, and set up a new approval process in SAP Business One.

Business Scenario



- In order to control spiraling expense claims, the company now requires all expenses over a certain limit to be approved by the accounting department.
- **Solution:** Use an approval procedure. If the value of the expense document exceeds the limit, the approval procedure will block the document until it is approved.

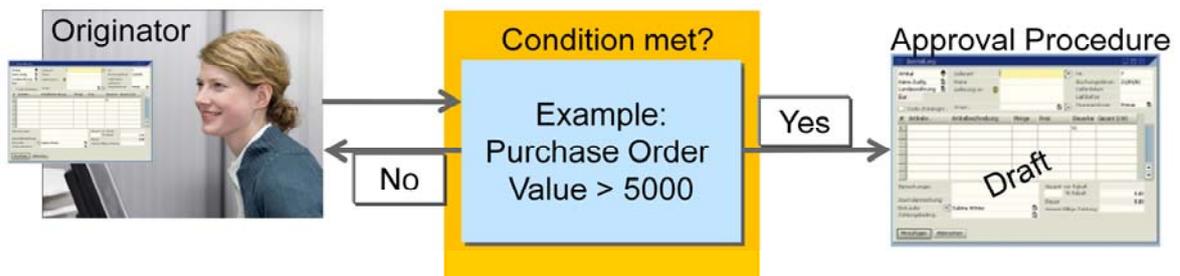


In the business scenario shown here, there is a requirement to approve expenses over a certain limit. These expenses should be approved by the accounting department.

You can use an approval procedure whenever the work procedure requires an approval *before* a user can generate certain documents, for example, purchase orders.

If the value of the expense document exceeds the limit, the approval procedure will block the document until it is approved.

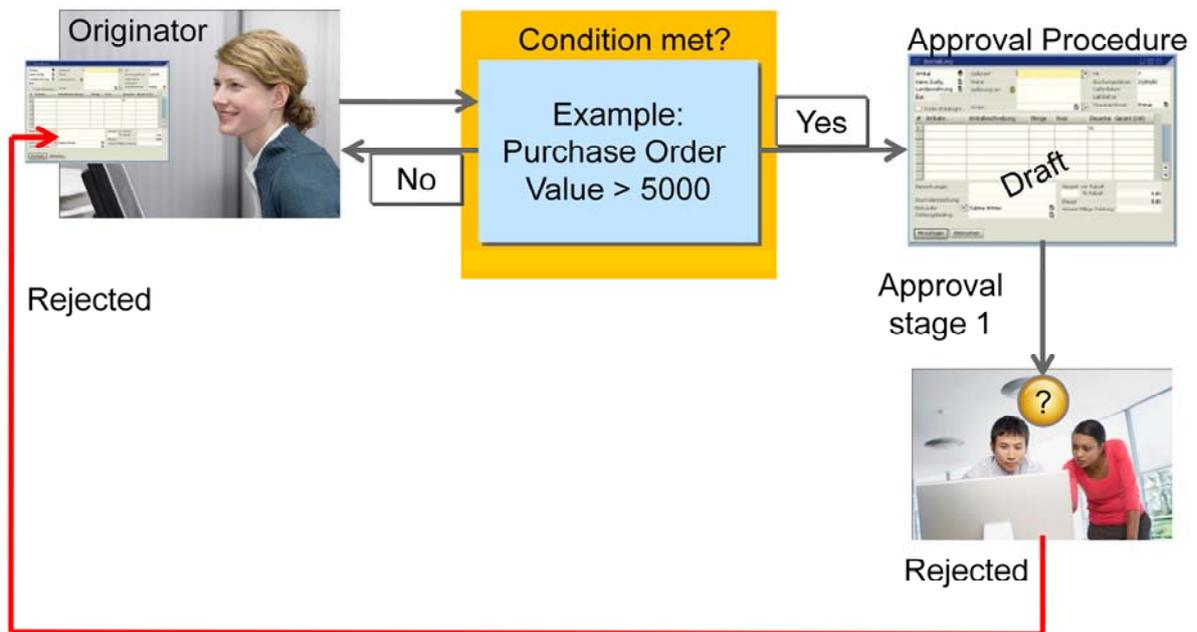
Approval Procedure in SAP Business One



Let us look at the workflow for an approval procedure:

- The person who creates the document is the originator.
- When the originator adds a document to the system, the system checks if there are any approval conditions.
- If the document meets the condition for an approval, the originator is notified that the document requires approval.
- The system saves the document as a draft, allowing the user to continue working on other documents.

Approval Procedure in SAP Business One



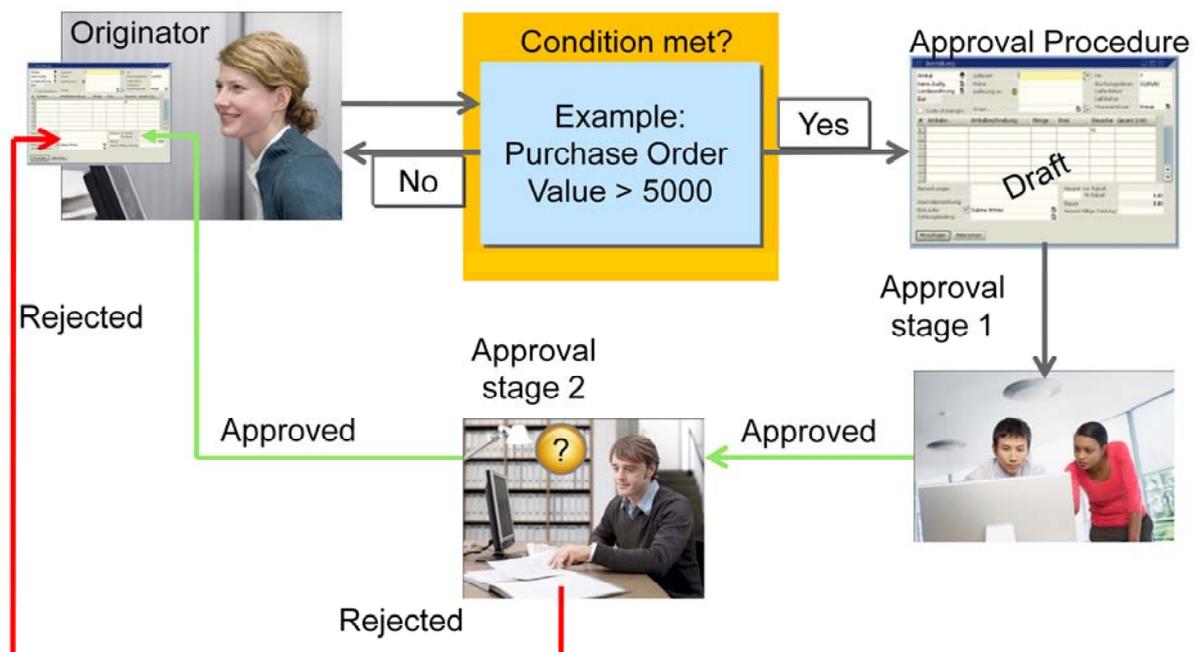
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The approval process is launched:

- Immediately an internal request is sent to the first approval stage. This request appears in the *Messages/Alerts Overview* window and the approver can view the document. If the mobile application is integrated, approvals can be done from a mobile phone.
- If the approver rejects the document, an internal message goes back to the originator with a link to the rejected document.
- The originator can generate an amended document, and if the approval condition is no longer met, the document can be added to the system. If the approval condition is still met, another approval procedure will start.

Approval Procedure in SAP Business One



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If the document is approved at the first approval stage, the approval process continues:

- An approval request is sent to the next approval stage (if applicable).
- If the document is *approved* at the final approval stage, an internal message goes back to the originator with a link to the draft document. The originator can now add the document.

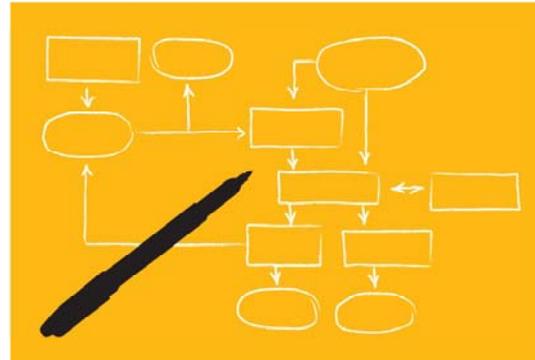
This is an example of a fairly straightforward approval procedure. In real life, approval procedures can be more complex, requiring multiple conditions to be checked, and more layers of approval.

Setup

Administration > System Initialization > General Settings.

To define an approval procedure:

1. Activate approval procedures in the General Settings (BP tab)
2. Define one or more Approval Stages
3. Create an Approval Template



To set up an approval procedure, you need to:

1. Activate the approval process in the system. To do this, choose *Administration > System Initialization > General Settings*. Choose the *BP* tab and select the *Activate Approval Procedures* checkbox.
2. Define one or more approval stages.
3. Create an approval template.

Setup – Approval Stages

Approval Stages - Setup

Stage Name: Purchasing Manager

Stage Description: Final Approvers for Purchase Orders

No. of Approvals Required: 1

No. of Rejections Required: 1

#	Authorizer	Department
1	Fred Buyer	Purchase
2		

Buttons: Add, Cancel

A blue circle with the number '2' is overlaid on the table.

- Each stage is a list of approvers at one approval level
- All approvers must first be defined as users in SAP Business One

Approval Stages - Setup

Stage Name: Purchasing

Stage Description: Approval of Purchase Orders

No. of Approvals Required: 1

No. of Rejections Required: 1

#	Authorizer	Department
1	Merlina Francis	Purchase
2	James Chan	Purchase
3		

Buttons: Add, Cancel

A blue circle with the number '1' is overlaid on the table.

You can define more than one authorizer for a stage, and set the minimum number of required approvals before the process moves to the next level

An approval stage is a list of users who can approve the document at the *same* approval level.

All approvers must first be defined as users in SAP Business One.

In our scenario, we have two purchasing users who can approve a purchasing document before it goes for final approval to the purchasing manager, but we only need an approval from one of them.

Therefore two authorizing users have been defined for the first stage, but only one approval is required to allow the process to move on to the next stage. Either user can approve it. This allows the approval process to move on in case of holidays and staff absences.

At the second (and final stage) we have defined one approver – the purchasing manager who is the final approver. Note that this can be a bottleneck if the purchasing manager is absent, therefore ideally you would include another user at this stage.

Setup – Approval Templates

- Approval template models the business requirements to implement an approval process
- Combines four elements:
 - Originators of the documents
 - Names of approvers for each stage
 - Documents subject to approval
 - Conditions for approval



An approval template models the business requirements to implement an approval process. The approval template combines four elements that define the process: originators of the documents, the names of the approvers at each stage, the documents subject to approval, and the document conditions that require and approval. Therefore you must define the approval stages first before you can include them in the approval template.

You can define an approval template that relates to a specific document type, or you can define a template that can apply to multiple document types with similar conditions for approval.

Approval Templates - Originators

Originators Tab:

- In the template, specify the users who create documents that need approval
- Only users specified here are subject to approval process
- User cannot modify template if selected as an originator in the template

	User	Department
1	Alex Torras	General
2	Bob Shone	Production
3	Carlos Andres	Logistic
4	Mary Heske	Logistic
5	Jim Boswick	Sales
6		

On the *Originators* tab, select the users who create the documents that need approval. All originators must be first defined as users in SAP Business One.

Only users specified here are subject to an approval process.

The system prevents a user from modifying a template if they are selected as an originator in the template.

Approval Templates - Documents

Documents Tab:

- Select the document types for approval
- Sales and purchasing document types can be selected in one template; however, the approvers need to be identical
- If you need different approvers, use separate templates
- Cannot mix marketing documents with inventory or payment document types in same template

The screenshot shows the 'Approval Templates - Setup' dialog box with the 'Documents' tab selected. The 'Name' field is 'Purchase Orders' and the 'Active' checkbox is checked. The 'Description' is 'Approvals for Purchase Orders'. The 'Documents' section is divided into 'Sales - A/R' and 'Purchasing - A/P'. The 'Purchasing - A/P' section is highlighted with a blue box, showing 'Purchase Order' selected with a checkmark, and 'Purchase Quotation', 'Goods Receipt PO', 'Goods Returns', 'A/P Down Payment', 'A/P Invoice', and 'A/P Credit Memo' unselected. Other sections like 'Internal Requisition' and 'Purchase Request' are also unselected.

In the *Documents* tab, you select the document types for approval. The approval process will apply to every document type that is selected here.

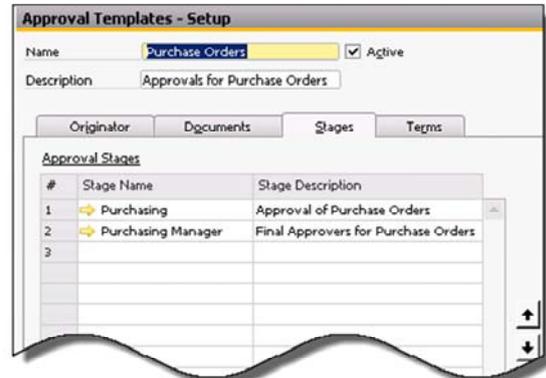
Both sales and purchasing document types can be selected in one template; however, when you add stages to the template the named approvers will be identical for all the documents. Therefore if you need different approvers for sales and purchasing documents, use separate approval templates so you can include different approvers in each template.

The system will not allow you to select sales and purchasing document types with inventory or payment document types in the same template. You will need to create additional templates for these document types.

Approval Templates - Stages

Stages Tab:

- Include the predefined approval stages
- The sequence of the stages in the template is the order for a multi-level approval process



In the *Stages* tab, you include one or more of the predefined stages in the template.

The sequence that the stages are listed in the template becomes the order for a multi-level approval process.

You can rearrange the sequence using the up and down arrows.

Approval Templates - Terms

Terms:

- Always (no terms)
- Predefined terms (vary according to selected document types)
- User queries

Approval Templates - Setup

Name: Purchase Orders Active
Description: Approvals for Purchase Orders

Originator Documents Stages **Terms**

Launch Approval Procedure:
 Always
 When the Following Applies

choose	Term	Ratio	Value
<input type="checkbox"/>	Deviation from Commitment	Undefined Type	
<input type="checkbox"/>	Gross Profit %	Undefined Type	
<input type="checkbox"/>	Discount %	Undefined Type	
<input type="checkbox"/>	Deviation from Budget	Undefined Type	
<input checked="" type="checkbox"/>	Total Document	Greater Than	5,000,000 \$

Terms Based on User Queries

#	Query Name	Ratio	Value
1			

Greater Than
Greater or Equal
Less Than
Less or Equal
Equal
Does not Equal
In Range
Not in Range

In the *Terms* tab, you set the conditions for the approval. You have three options:

- You can choose to apply no terms or conditions to the selected document types. The selected document types will *always* be subject to approval.
- You can choose a predefined term. The predefined terms available in the template depend on the document types selected, but they cover common situations, such as a quantity or a total that exceeds a stated amount. In this example, we have specified the condition that the document total must be over 5000.
- You can choose to add your own conditions using a user query. This allows you to model more complex approval processes.

Using Predefined Terms

- Select an operator (greater than, less than, equal, etc.) and enter value
- Select range (In range, Not in range) and enter range from low to high, separate by hyphen

	Predefined Term	Ratio	Value
<input checked="" type="checkbox"/>	Total	Greater than	5000
<input checked="" type="checkbox"/>	Quantity	In range	5-200

- Multiple conditions evaluated using “or” logic
- Approval process will apply if just one of the predefined terms is met.

When using a predefined term, you can select an operator such as “greater than” or “equal”, and enter a value for comparison.

You can also select “In range” or “Not in range” as the ratio, and enter two values for the range, from low to high, separated by a hyphen.

Note that an approval procedure will apply if just *one* of the predefined terms is met. In the example shown here, that means if the total amount of the document is greater than 5000, *or* the quantity is between 5 and 200.

Using Queries

Terms:

- Can use queries in approval procedure terms instead of predefined terms
- Predefined terms can be combined with a query – evaluated using OR logic
- Use a query if all multiple conditions must be met (AND operator)

Approval Templates - Setup

Name: Sales Orders Active
Description: Sales Order Approvals

Originator Documents Stages Terms

Launch Approval Procedure:

Always
 When the Following Applies

ix	Term	Ratio	Value
<input type="checkbox"/>	Deviation from Credit Limit	Undefined Type	
<input type="checkbox"/>	Deviation from Commitment	Undefined Type	
<input checked="" type="checkbox"/>	Gross Profit %	Less Than	35,000
<input checked="" type="checkbox"/>	Discount %	Greater Than	10,000
<input type="checkbox"/>	Deviation from Budget	Undefined Type	

Terms Based on User Queries

#	Query Name
1	Balance > 10000
2	

You can use queries as the terms for an approval procedure. This allows you to develop customized approval scenarios.

You can use a query instead of the predefined terms, or you can combine predefined terms with a query.

Be aware that the approval process will start if just one of the conditions is met. In other words, the conditions are evaluated using OR logic.

If you need multiple conditions to be met, use a query instead of predefined terms and write the query conditions linked with the AND operator.

Queries for Approval Procedures

- Query must use SELECT DISTINCT 'True'
- Example: Approval for sales orders when customer account balance is > 10000 AND order document total > 2500

```
SELECT distinct 'TRUE'  
FROM ORDR T0 INNER JOIN OCRD T1  
ON T0.[CardCode] = T1.[CardCode]  
WHERE  
T1.CardCode = ${ORDR.CardCode} and  
T1.Balance > 10000 and  
cast(${ORDR.DocTotal} as numeric) > 2500
```

The diagram illustrates two SAP data entry screens. The top screen, titled 'Sales Order (ORDR)', has a dark blue header and contains two input fields: 'Code' and 'Total'. A mouse cursor is pointing at the 'Total' field. The bottom screen, titled 'Business Partner Master Data (OCRD)', has a blue header and contains one input field: 'Balance'.

When you use a query in an approval procedure, the query must use the SELECT DISTINCT 'TRUE' clause, so that the result is a TRUE statement if the conditions of the query are met. A TRUE statement will trigger an approval procedure; a FALSE statement will not.

An example is shown above, where two conditions must be met for an approval - the customer account balance is over 10,000 and the order total is higher than 2500. The query will select from the sales order table ORDR and the business partner master data OCRD.

Queries for the Active Window

- Query must reference document in active window
- To refer to a field in the active window, you must include a \$ sign in front of the field



```
SELECT distinct 'TRUE'  
FROM ORDR T0 INNER JOIN OCRD T1  
ON T0.[CardCode] = T1.[CardCode]  
WHERE  
T1.CardCode = [$[ORDR.CardCode] and  
T1.Balance > 10000 and  
cast([$[ORDR.DocTotal] as numeric) > 2500
```

This query only works for sales orders (table ORDR)

When you write a query for an approval procedure, you will need to reference the current document in the *active* window. The active window is the one the originator is working in. This is in contrast to standard queries where you select information from the database.

To refer to a field in the active window, you must include a \$ sign in front of the field.

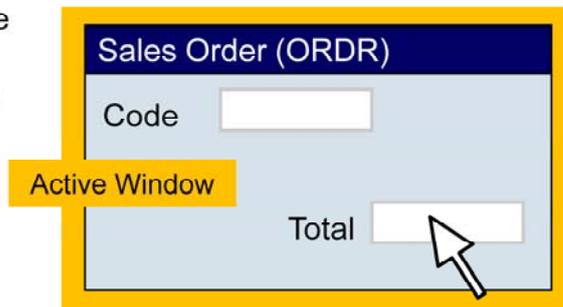
In the query shown here, a \$ sign is used with the CardCode and DocTotal fields in the active sales document.

The \$ sign is not needed for fields that are stored in the database, such as the balance field from the master data record.

Note that you can only use this query for sales orders, since the table and field name used here are unique to the sales order table ORDR.

Queries for Multiple Document Types

- If multiple document types are selected in the approval template, the query must use the item number syntax:
[\$Item.Column.0]



```
SELECT distinct 'TRUE'  
FROM OCRD T0  
WHERE  
T0.CardCode = [$4.0.0] and  
T0.Balance > 10000 and  
[$29.0.number] > 2500
```

This query works for all sales and purchasing document types since it refers to a field using the item number

If you use a query in an approval template with multiple document types selected, you must write the query using the *item and column number* syntax. This syntax allows you to use the same query across multiple document types.

To find the item and column number for a field, choose *View > System Information* and move your mouse over the field in the active document.

The item number for a field is common across all document types that have the same structure, such as sales and purchasing documents. In these documents, the item and column numbers are the same, but the table names are different. In the example shown here, the item number for CardCode is 4 and the item number for DocTotal is 29.

To use the item number syntax, add a second \$ sign in front of the item number, within the brackets, to indicate that the item syntax is used. The column number is *always* 0 in approval procedure queries, since the query can only refer to fields in the header of a document.

The item number query syntax returns a string value. Therefore if you need the result in a different format, you need to specify the format in the last part of the syntax:

- If set to 0, the field is retrieved as a string. This is the default.
- If set to number, the field is retrieved as a number and can be used in calculations.
- If set to currency, only the currency symbol is retrieved from a field that contains both an amount and the currency symbol.
- If set to date, the field is retrieved as a date field for date calculations.

Testing a Query for Approval Procedures

Tools > Queries > User Queries > Category Name > Query

The screenshot shows the SAP Sales Order window. The 'Contents' tab is active, displaying a table with columns: #, Item No., Quantity, Unit Price, Disc., Tax C., and Total (LC). The table contains three rows of data. A blue circle highlights the 'Unit Price' column. A yellow callout box points to the 'Unit Price' column with the text: 'To test query, keep document in the active window and run the query from the Tools menu'. A query editor window is overlaid on the table, showing the following SQL query:

```
SELECT distinct 'TRUE'  
FROM ORDR T0 INNER JOIN OCRD T1 ON T0.[O  
WHERE  
T1.[CardCode] = N'C30000' and  
T1.[Balance] > 10000 and 3044 > 2500
```

The query editor also shows a result set with one row: # 1 TRUE.

To test the syntax of a query that refers to the active window, create a document that meets the conditions. Keep this document in the active window and run the query from the *Tools* menu. The query will return a true or false result.

Multiple Approvers in a Stage

Example: minimum number of approvers is 1



Result: document approved and can be added to system

When you specify multiple approvers at the same stage, they have equal authorization level.

You need to consider the effect of multiple approvers at the same stage.

In this example, the minimum required number of approvers is 1.

One of the approvers approves the document. Later on, another approver rejects the same document.

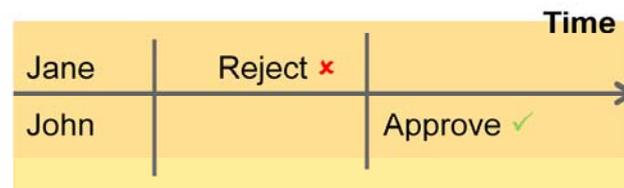
But this rejection has no effect if it happens *after* the first approval. Since only one approval is required, the document is approved and can be added to the system.

Multiple Approvers in a Stage (Cont.)

Example: minimum number of approvers is 1



Result: document approved and can be added to system



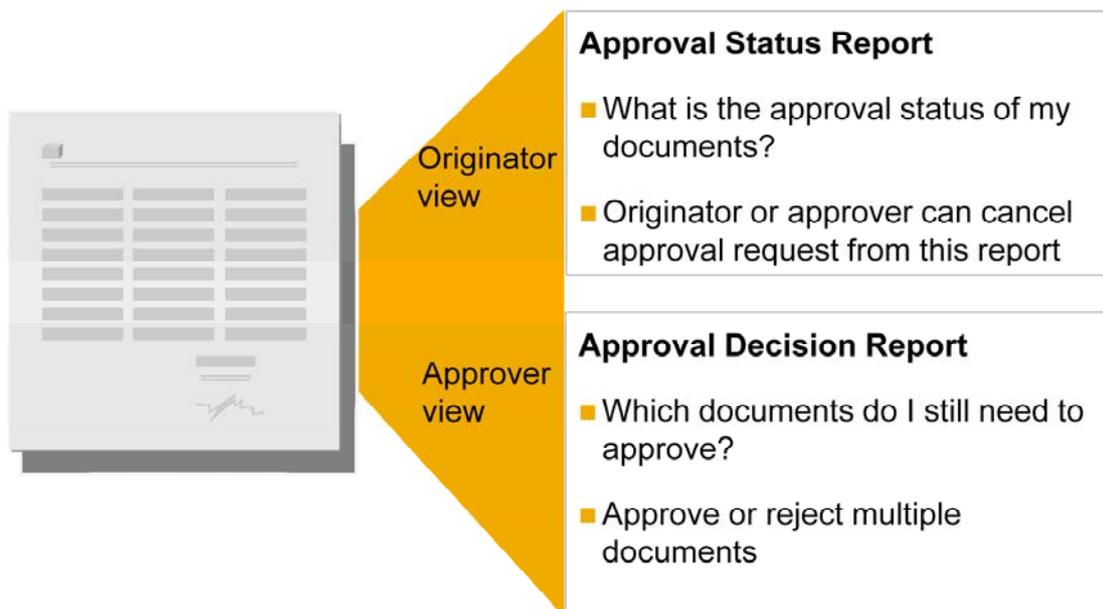
Result: document held pending until another approver responds

In the second scenario, one of the approvers rejects the document. The document is held as *pending* until the other approvers respond.

If all the approvers reject the document, the originator is alerted that the document has been rejected.

But if another approver approves the document, and the minimum number of required approvers is reached, then the document is approved and the originator can add the document to the system.

Approval Procedures: Reports



Imagine you are the originator of a document that needs approval; however you have not had a response back from the approvers. You can see the document's approval status using the *Approval Status Report*.

You, or the approver, can cancel the approval request for the document by selecting the row in the report, and choosing *Cancel* from the *Data* menu.

The status in the report can show one of the following values:

- Pending – The document is waiting for approval.
- Approved – The document is approved and converted from a draft to a regular document.
- Rejected – The document was not approved and remains a draft.
- Cancelled – An approval procedure was cancelled from the Approval Status Report. In this case, the draft document cannot be converted to a regular document. This status is also reflected in the document itself.

If you are an approver, you can use the *Approval Decision Report* to see all documents that require your approval.

Using this report you can directly approve or reject multiple documents at the same time.

Key Points



Key points from this topic:

- To set up an approval procedure, activate approval procedures, define approval stages and create approval templates
- To create a multi-level approval procedure, combine multiple predefined stages in the approval template.
- You can set conditions for an approval procedure:
 - Always
 - Predefined conditions
 - User query
- Queries used in approval procedures must return a true or false result
- To reference fields in the active window, include a \$ sign in query
- To use a query with multiple document types with the same structure, use the item number syntax and add an additional \$ sign

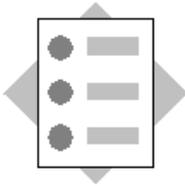
Here are some key points to take away from this course. Please take a minute to review these key points:

- To set up an approval procedure, you first activate approval procedures in the General Settings, then define approval stages and create approval templates.
- To create a multi-level approval procedure, combine multiple predefined stages in the approval template.
- You can set conditions for an approval procedure:
 - If you choose “always”, the procedure will start for every document type selected in the template.
 - You can select a predefined condition, or,
 - Add your own user query containing the conditions.
- When you use a query in an approval template, you must write the query to return a true or false result.
- If the query only needs to reference a specific document type, you can use the table and field name syntax. To reference fields in the active window, include a \$ sign in front of the square brackets.
- If the query needs to work with multiple document types with the same structure, use the item and column number syntax and include an additional \$ sign within the square brackets.



Unit: Customization Tools

Topic: Queries



Note: the solutions are shown for the **Query Generator** only. Try using the **Query Wizard** as well to see which tool you prefer.

1-1 Customer List

This report displays a list of customers and addresses from the **OCRD** Business Partners table.

Choose *Tools* → *Queries* → *Query Generator*.

Enter the table name **OCRD**.

Double-click to select the following fields from the **OCRD** table. **Tip:** To see the table fields listed alphabetically, double-click the column header *Name*.

- CardCode
- CardName
- Address
- City (Bill-to city)
- ZipCode
- CntctPrsn

Create the following condition in the *Where* clause:

T0.[CardType] = 'C'

Run the query.

Double-click the *BP Name* column in the header row to sort the customers alphabetically.

Save the query with the name *Direct Shipment* in a new category called Marketing.

Note: To run this saved query, choose *Tools* → *Queries* → *User Queries* → *Marketing* → *Direct Shipment*.

1-2 Invoice list

This report displays a list of customer invoices posted after a certain date that is entered as a parameter when the query is run. The report uses the OINV invoice table.

Open a blank A/R invoice and use system information to write down the field names for the report:

Name in Document	Database Field Name
<i>Document No.</i>	
<i>Customer</i>	
<i>Name</i>	
<i>Posting Date</i>	
<i>Total</i>	DocTotal

Note: The Total field does not display in system information. This is because this field holds the currency symbol as well as the amount. The database field name is **DocTotal**.

In the Query Generator window, choose the **X** button to clear out the previous table selection.

Enter the OINV table.

Select the fields from the OINV table that you identified using system information.

In the *Where* clause you will use the variable [%0] to prompt the user to enter a date when running the query:

- Select the **Document Date** field to go in the Where clause
- Choose the *Conditions* button
- Double-click the **Greater or Equal** condition to select it for the query
- Double-click the variable [%0] to select it for the query
- Add a filter for invoices that are open (that is, **DocStatus** = 'O')

The *Where* clause should read:

T0. [Docdate] >= [%0] and T0.[DocStatus] = 'O'

Run the query.

Enter a posting date when prompted.

To display the column total, choose CTRL and double-click the *Document Total* column heading.

Save this query with the name '**Invoice List**' in a new Category called **Sales**.

1-3 List of Open Sales Quotations

This query will use the following tables:

- Sales Quotation (OQUT)
- Sales Quotation rows (QUT1)
- Sales Employee table (OSLP)

Select the tables **OQUT**, **OSLP** and **QUT1** in the *Table* column.

Select **SlpCode**, **CardCode** ,and **CardName** from the OQUT table.

Select the **SlpName** field from the OSLP table.

Select **ItemCode**, **Dscription** and **LineTotal** from the QUT1 table.

Tip: Double-click the *Name* heading to sort the field names alphabetically.

Enter the following condition in the *Where* clause so that only open quotations are used:
Table OQUT, Field DocStatus, Condition equal, Field/Value 'O'

Click in the *Sort by* clause select the **SlpCode** field so that the results are displayed in sales employee order.

Run the query.

Save the query in the **Sales** category with the name '**Open quotations**'.

1-4 Optional exercise: List of Open Sales Quotations (Crystal Reports)

Repeat the previous query using **Crystal Reports**.

Note: You need to have installed SAP Crystal Reports for SAP Business One and the integration with SAP Business One.



Unit: Customization Tools

Topic: Queries

Note: the solutions are shown for the **Query Generator** only. Try using the **Query Wizard** as well to see which tool you prefer.

1-1 Customer List

This report displays a list of customers and addresses from the **OCRD Business Partners** table.

Choose **Tools** → **Queries** → **Query Generator**.

Type **OCRD** in the highlighted field at the top left of the window, then press **Tab**.

Double-click to select the following table fields. **Tip:** Double-click the column header *Name* to see the table fields listed alphabetically:

- CardCode
- CardName
- Address
- City (Bill-to city)
- ZipCode
- CntctPrsn

Create the following condition so that the system displays only customer master records:

Click in the *Where* area on the right.

Double-click to select the CardType field.

Type = 'C' to complete the *Where* clause.

The *Where* clause should now read: **T0.[CardType] = 'C'**

Choose *Execute*.

Double-click the *BP Name* column in the header row to sort the customers alphabetically.

Save the query so you can run it again:

In the **Query Preview** window, choose *Save*.

In the **Save Query** window, choose *Manage Categories*.

Enter **Marketing** in the *Category Name* field.

Choose *Select All*.

Choose *Add*.

Choose *OK*.

In the **Save Query** window, select the *Marketing* category.

Enter **Direct Shipment** in the *Query Name* field.

Choose *Save*.

Note: To run this saved query, choose **Tools** → **Queries** → **User Queries** → **Marketing** → **Direct Shipment**.

1-2 Invoice list

This report displays a list of customer invoices posted after a certain date that is entered as a parameter when the query is run. The report uses the OINV invoice table.

To find out the field names for the report, you can use system information:

- Open up a blank A/R invoice document and toggle on **View > System Information**.
- Hold your mouse over the following fields and write down the database field name that shows in the system information area:

Name in Document	Database Field Name
<i>Document No.</i>	
<i>Customer</i>	
<i>Name</i>	
<i>Posting Date</i>	
<i>Total</i>	DocTotal

Note: When you hold your mouse over the Total field, the field name does not display in system information. This is because this field holds the currency symbol as well as the amount. The database field name is **DocTotal**.

In the Query Generator window, choose the **X** button to clear out the previous table selection. If you closed the Query Generator window, choose **Tools → Queries → Query Generator**.

Type **OINV** in the *Table* field and press **Tab**.

Select the fields from the OINV table that you identified using system information.

In the *Where* clause you will use the variable [%0] to prompt the user to enter a date when running the query:

Click in the *Where* clause and create the conditions to filter the data:

Choose the *Conditions* button. A window will open to the right of the Query Generator window.

Select the **Document Date** field

In the Conditions window:

- Double-click the **Greater or Equal** condition to select it for the query
- Double-click the variable [%0] to select it for the query

Type 'and' after the selected variable in the *Where* clause.

Add a filter for invoices that are open (that is, **DocStatus = 'O'**)

The *Where* clause should read:

T0. [Docdate] >= [%0] and T0.[DocStatus] = 'O'

Choose **Execute**.

Enter the **Posting Date** in the Selection Criteria window and run the query.

The system displays the result.

To display the column total, choose CTRL and double-click the *Document Total* column heading.

Save this query with the name '**Invoice List**' in a new Category called **Sales**.

1-3 List of Open Sales Quotations

This query will use the following tables

- Sales Quotation (OQUT)
- Sales Quotation rows (QUT1)
- Sales Employee table (OSLP)

Choose *Tools* → *Queries* → *Query Generator*.

Tip: If the Query Generator window is open from the last query, you can enter a new query from here. Choose the **X** button to clear out the previous table selection.

Enter **OQUT** in the *Table* column and press **Tab**.

Enter **OSLP** in the *Table* column and press **Tab**.

Enter **QUT1** in the *Table* column and press **Tab**.

Select **SlpCode**, **CardCode**, and **CardName** from the OQUT table.

Select the **SlpName** field from the OSLP table.

Select **ItemCode**, **Dscription** and **LineTotal** from the QUT1 table.

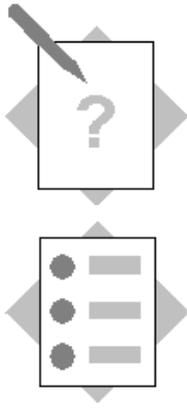
Tip: Double-click the *Name* heading to sort the field names alphabetically.

Enter the following condition in the *Where* clause so that only open quotations are used:
Table **OQUT**, *Field* **DocStatus**, *Condition* **equal**, *Field/Value* **'O'**

Click in the *Sort by* clause select the **SlpCode** field so that the results are displayed in sales employee order.

Run the query.

Save the query in the **Sales** category with the name **'Open quotations'**.



Unit: Customization Tools

Topic: User-Defined Fields and Tables

1-1 Add a user-defined field with a list of values

The customer wants to add a new field to record the status level of a customer – Bronze, Silver, Gold and Platinum.

Choose *Tools* → *Customization Tools* → *User-Defined Fields – Management*.

Add a user-defined field to the object *Master Data > Business Partner > Business Partner*.

Enter the following data:

Field Name or Data Type	Values
<i>Title</i>	Level
<i>Description</i>	Status Level
<i>Type</i>	Alphanumeric
<i>Structure</i>	Regular

Select *Set Valid Values for Field*.

Choose *New* and enter the following data:

Value	Description	Then Choose
B	Bronze	New
S	Silver	New
G	Gold	New
P	Platinum	New

Choose *Add*.

Choose *Yes* to the system message.

Open an existing customer master data record.

Open the side panel to show the user-defined fields.

Open the dropdown list to see the status levels in the new field.

Select a level and update the master data record.

Note: If you set a default value for the new field, the default value will appear in new master data records but not existing master data records.

1-2 Add a user-defined field to the document row level

The customer wants to add a new field to hold special instructions for picking an item in the warehouse.

1-2-1 Add a user-defined field

Add a user-defined field to the object *Inventory* > *Pick List - Rows*.

Enter the following data:

Field Name or Data Type	Values
<i>Title</i>	Instructions
<i>Description</i>	Special Instructions
<i>Type</i>	Alphanumeric
<i>Structure</i>	Text

Choose *Add*.

1-2-2 Test the user-defined field

Create a pick list: Choose *Inventory* → *Pick and Pack* → *Pick and Pack Manager*. Select relevant sales orders for picking.

Find the created pick list: Choose *Inventory* → *Pick and Pack* → *Pick List*.

Scroll to the right of the item row to see the new field.

You can enter freeform text in this field.

1-3 Add a user-defined field for a link

When you add a new sales opportunity, you want to store a link to the customer's web site.

Add a user-defined field called Link to the Title area of the *Sales Opportunities* object.

Select General as the Type.

Select Link as the Structure.

Choose *Add*.

Open a new sales opportunity. Choose *Sales Opportunities* → *Sales Opportunity*.

Select a business partner.

Open the side panel to display user-defined fields.

Double-click the Link field.

Provided that you have set the path to the *Attachments* folder in the *General Settings*, a window will open for you to select a file. Instead of selecting a file from the Attachments folder, type an address, such as www.sap.com, in the **File Name** field and choose Open. The url will be saved in the Link field.

Double-click in the Link field to open the web site from the sales opportunity.

1-4 Add a User-Defined Table

The company wants to record the source for each new customer. The list of sources is currently: Website, E-mail, Trade Publication, and Other. Sales staff should have the flexibility to add to this list when they process and order.

In this exercise, you will create a user-defined table to store the list of sources. You will then link this user-defined table to a user-defined field in the master data and in sales orders, so that end users can add new rows to the table to record additional sources.

1-4-1 Create a user-defined table

Choose *Tools* → *Customization Tools* → *User-Defined Tables – Setup*.

Create a table with the name **Source**.

1-4-2 Enter data in the user-defined table

Choose *Tools* → *User-Defined Windows* and select the table. **Note:** this menu option is not active until after you add the user-defined table.

Enter data for the table:

Code	Name
1	Website
2	E-mail
3	Trade
4	Publication

Note: You need to choose **Update** to enter each row in the table.

1-4-3 Link the table to user-defined fields

Choose *Tools* → *Customization Tools* → *User-Defined Fields – Management*.

Open *Master Data* → *Business Partner* → *Business Partner* and add a user-defined field called **Source** in the header area of the business partner master data. Leave the Type as Alphanumeric and the Structure as Regular. Do not set any valid values for this field.

Choose *Set Linked Table* and select the **Source** table.

Open the *Marketing Documents* category and add a user-defined field called **Source** to the Title area. Leave the Type as Alphanumeric and the Structure as Regular.

Choose *Set Linked Table* and select the **Source** table.

1-4-4 Access the user-defined table

Open a master data record.

Open the side panel to view user-defined fields.

Select the **Source** field.

You can select a value from the entries in the dropdown list or you can choose *Define New* to add a new row to the table.

Open a sales order.

You can see the same user-defined table in the **Source** field.

1-5 Add a user-defined table with additional columns

In this exercise, you will create a table to manage the company's fleet of delivery trucks.

1-5-1 Create a new user-defined table

Tools → *Customization Tools* → *User-Defined Tables – Setup*.

Create a table with the name **Trucks**.

1-5-2 Enter data in the user-defined table

Choose *Tools* → *User-Defined Windows* and select the table.

Enter data for the first two columns of the table. The Code field ensures a unique key.

Code	Name (Registration No.)
1	4236790
2	1569013
3	7895478

1-5-3 Add additional columns to the user-defined table

Add each column as a user-defined field. Choose *Tools* → *Customization Tools* → *User-Defined Fields – Management*.

Scroll to the bottom of the window and expand the *User Tables* category.

Select the row for the **Trucks** table and choose **Add**.

Enter the following data:

Field	Value
<i>Title</i>	Capacity
<i>Description</i>	Capacity
<i>Type</i>	Numeric
<i>Structure</i>	

Choose *Add*.

Field	Value
<i>Title</i>	Make
<i>Description</i>	Make
<i>Type</i>	Alphanumeric
<i>Structure</i>	Regular

Choose *Add*.

1-5-4 Enter data in the additional columns

Choose *Tools* → *User-Defined Windows* and select the **Trucks** table.

Adjust the width of the columns to make the new columns visible in the window.

Enter data into the new columns. For example:

Capacity	Make
500	Mercedes
750	Ford
350	Nissan

Note: To make the **Trucks** table visible in a document such as a delivery, add a user-defined field to the Marketing Documents object, and link the **Trucks** table to this field. You can also use the table in reports and queries.



Unit: Customization Tools

Topic: User-Defined Fields and Tables

1-1 Add a user-defined field with a list of values

The customer wants to add a new field to record the status level of a customer – Bronze, Silver, Gold and Platinum.

Choose *Tools* → *Customization Tools* → *User-Defined Fields – Management*.

Select *Master Data* > *Business Partner* > *Business Partner*.

Choose *Add*.

Enter the following data:

Field	Values
<i>Title</i>	Level
<i>Description</i>	Status Level
<i>Type</i>	Alphanumeric
<i>Structure</i>	Regular

Select *Set Valid Values for Field*

Choose *New* and enter the following data:

Value	Description	Then Choose
B	Bronze	New
S	Silver	New
G	Gold	New
P	Platinum	New

Choose *Add*.

Choose *Yes* to the system message.

Open an existing customer master data record.

To see the new user-defined field, choose *View* → *User-Defined Fields*.

Open the dropdown list to see the status levels.

Select a level and update the master data record.

Note: If you set a default value for the new field, the default value will appear in new master data records but not existing master data records.

1-2 Add a user-defined field to the document row level

The customer wants to add a new field to hold special instructions for picking an item in the warehouse.

1-2-1 Add a user-defined field

Choose *Tools* → *Customization Tools* → *User-Defined Fields – Management*.

Select *Inventory* → *Pick List - Rows*.

Choose *Add*.

Enter the following data:

Field	Values
<i>Title</i>	Instructions
<i>Description</i>	Special Instructions
<i>Type</i>	Alphanumeric
<i>Structure</i>	Text

Choose *Add*.

1-2-2 Test the user-defined field

Create a pick list: Choose *Inventory* → *Pick and Pack* → *Pick and Pack Manager*. Select relevant sales orders for picking.

Find the created pick list: Choose *Inventory* → *Pick and Pack* → *Pick List*.

Scroll to the right of the item row to see the new field.

You can enter freeform text in this field.

1-3 Add a user-defined field for a link

When you add a new sales opportunity, you want to store a link to the customer's web site.

Choose *Tools* → *Customization Tools* → *User-Defined Fields – Management*.

Select *Sales Opportunities* → *Title*

Enter the following data:

Field	Values
<i>Title</i>	Link
<i>Description</i>	Link
<i>Type</i>	General
<i>Structure</i>	Link

Choose *Add*.

Open a new sales opportunity. Choose *Sales Opportunities* → *Sales Opportunity*.

Select a business partner.

Open the side panel to display user-defined fields. Choose *View* → *User-Defined Fields*.

Double-click in the Link field.

Provided that you have set the path to the *Attachments* folder in the *General Settings*, a window will open for you to select a file. Instead of selecting a file from the Attachments folder, type an address, such as www.sap.com, in the **File Name** field and choose Open. The url will be saved in the Link field.

Double-click the Link field to open the web site from the sales opportunity.

1-4 Add a User-Defined Table

The company wants to record the source for each new customer. The list of sources is currently: Website, E-mail, Trade Publication, and Other. Sales staff should have the flexibility to add to this list when they process and order.

In this exercise, you will create a user-defined table to store the list of sources. You will then link this user-defined table to a user-defined field in the master data and in sales orders, so that end users can add new rows to the table to record additional sources.

1-4-1 Create a user-defined table

Choose *Tools* → *Customization Tools* → *User-Defined Tables – Setup*.

Create a table with the name **Source**.

Choose **Update**.

1-4-2 Enter data in the user-defined table

Choose *Tools* → *User-Defined Windows* and select the table. **Note:** this menu option is not active until after you add the user-defined table.

Enter data for the table:

Code	Name
1	Website
2	E-mail
3	Trade
4	Publication

Note: You need to choose **Update** to enter each row in the table.

Choose **OK**.

1-4-3 Link the table to user-defined fields

Choose *Tools* → *Customization Tools* → *User-Defined Fields – Management*.

Open *Master Data* → *Business Partner* → *Business Partner* and add a user-defined field called **Source** in the header area of the business partner master data. Leave the Type as Alphanumeric and the Structure as Regular. Do not set any valid values for this field.

Choose *Set Linked Table* and select the **Source** table.

Choose **Add**.

Open the *Marketing Documents* category and add a second user-defined field called **Source** to the Title area. Leave the Type as Alphanumeric and the Structure as Regular.

Choose *Set Linked Table* and select the **Source** table.

Choose **Add**.

1-4-4 Access the user-defined table

Open a master data record.

Open the side panel to view user-defined fields.

Select the **Source** field.

You can select a value from the entries in the dropdown list or you can choose *Define New* to add a new row to the table.

Open a sales order document.

Open the side panel to view user-defined fields.

You can access the Source table from the user-defined field in the panel.

1-5 Add a user-defined table with additional columns

In this exercise, you will create a table to manage the company's fleet of delivery trucks.

1-5-1 Create a new user-defined table

Tools → *Customization Tools* → *User-Defined Tables – Setup*.

Create a table with the name **Trucks**.

Choose **Update**.

1-5-2 Enter data in the user-defined table

Choose *Tools* → *User-Defined Windows* and select the table.

Enter data for the table. The Code field ensures a unique key.

Code	Name (Registration No.)
1	4236790
2	1569013
3	7895478

1-5-3 Add additional columns to the user-defined table

Add each column as a user-defined field. Choose *Tools → Customization Tools → User-Defined Fields – Management*.

Scroll to the bottom of the window and expand the *User Tables* category.

Select the row for the **Trucks** table and choose **Add**.

Enter the following data:

Field	Value
<i>Title</i>	Capacity
<i>Description</i>	Capacity
<i>Type</i>	Numeric
<i>Structure</i>	

Choose **Add**.

Field	Value
<i>Title</i>	Make
<i>Description</i>	Make
<i>Type</i>	Alphanumeric
<i>Structure</i>	Regular

Choose **Add**.

1-5-4 Enter data in the additional columns

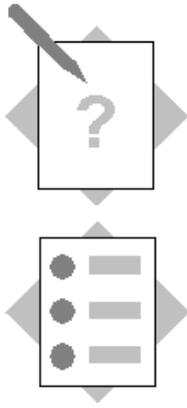
Choose *Tools → User-Defined Windows* and select the **Trucks** table.

Adjust the width of the columns to make the three new columns visible in the window.

Enter data into the new columns. For example:

Capacity	Make
500	Mercedes
750	Ford
350	Nissan

Note: To make the **Trucks** table visible in a document such as a delivery, add a user-defined field to the Marketing Documents object, and link the **Trucks** table to this field. You can also use the table in reports and queries.



Unit: Customization Tools

Topic: User-Defined Values

1-1 Add a fixed list of values to a field in a sales order

You want to record some details about an item in a sales order. You will add user-defined values to an existing field in the sales order row. When an item is selected for the order, the salesperson can select information from the list of values.

Open a sales order.

Using *Form Settings*, make the **Free Text** field visible and active on the row.

Select the Free Text field and add user-defined values.

Choose *Search in Existing User-Defined Values*.

Enter **Fragile**, **Heavy**, **Perishable**, and **Liquid-free** as the values.

Choose *Update* to save the user-defined values.

Tip: A magnifying glass should appear in the field to indicate that this field has user-defined values. If you do not see the magnifying glass, choose *View* → *Pickers Display* → *User-Defined Values*.

Select an item to go in the sales order, and choose a value from the list defined in the Free Text field.

1-2 Add a query as user-defined values to a field in a purchase order

When you create a purchase order, you want to show only the items that are supplied by the vendor you have selected in the vendor field.

You will create a query that displays only the items from the vendor you have selected. The query will select items from the items table **OITM** that have the same vendor set as the **Preferred Vendor** in the item master data.

Note: In the OITM table, the field *CardCode* is used to store the preferred vendor. The variable **\$4.0.0** is the item number of the selected vendor code.

1-2-1 Check if there is a preferred vendor in the item master data.

Choose *Inventory* → *Item Master Data*.

Locate an item for purchase.

Choose the *Purchasing* tab.

Choose the selection list icon in the *Preferred Vendor* field and select a vendor from the list. Do not choose the *Browse* button.

Save the item master data.

1-2-2 Create a database query.

If you know the SQL for your query, you can type the query directly into the *Query Generator* window. To do this:

Choose **X** to clear out the previous query, if necessary.

Choose *Execute* to open the *Query Preview* window.

In the *Query Preview* window, click the *Pencil* icon to activate *Edit* mode.

You can now type the complete query into the *Query Preview* window:

```
SELECT T0. ItemCode FROM OITM T0 WHERE T0.CardCode =  
$[$4.0.0]
```

Note: The \$ sign is used to reference the vendor code which is in the active window.

Enter the query name **Preferred Vendor** in the *Query Name* field.

Save the query in the *General* category.

1-2-3 Create a Purchase Order with user-defined values from a query

Choose *Purchasing A/P* → *Purchase Order*.

Choose the vendor that you selected earlier.

Position the cursor in the **Item No.** field.

Add User-Defined Values to the Item No. field.

Choose *Search in Existing User-Defined Values according to Saved Query*.

Select the query you saved earlier.

In the **Item No.** field, press *Shift+F2*.

The query will run and will show only items for the preferred vendor.

1-3 Add a query as user-defined values to calculate the delivery date in a sales order

When you create a sales order, you want the system to automatically set the **Delivery Date** to the value of the Posting Date + 7 days. The query will use the sales order table **ORDR**.

1-3-1 Create a database query.

Choose *Tools* → *Queries* → *Query Generator*.

Type a new query as:

```
SELECT $[ORDR.DocDate.DATE]+7
```

Choose *Save*.

Note: The syntax above only works for sales orders (table ORDR). To use the same query in another similar document, use the item number syntax:

```
SELECT $[$10.0.DATE]+7
```

Save the new query in the *General* category.

1-3-2 Add the query as user-defined values to a Sales Order

Choose *Sales – A/R* → *Sales Order*.

Add user-defined values to the *Delivery Date* field.

Choose *Search in Existing User-Defined Values according to Saved Query*.

Open the query you just saved.

Choose *Auto Refresh When Field Changes*.

Choose **Customer/Vendor Code** from the dropdown list.

Select *Display Saved User-Defined Values*.

Choose *Update*.

In the **Sales Order**, choose a customer.

The system will automatically insert a **Delivery Date** that is 7 days later than the **Posting Date**.

1-4 Add a query as user-defined values using refresh regularly

The company's sales staff needs to see the customer's existing balance when they are on the phone taking a new sales order. The balance will display in a user-defined field added to the sales order header.

1-4-1 Add a user-defined field

Add a user-defined field to the *Title* area of the *Marketing Documents* category.

Enter the following data:

Field Name or Data Type	Values
<i>Title</i>	Balance
<i>Description</i>	Acct Balance
<i>Type</i>	Units and Totals
<i>Structure</i>	Amount

1-4-2 Create a query to get the business partner balance from the database

Create the following query:

```
SELECT T0.[Balance] FROM OCRD T0 WHERE T0.[CardCode] =  
$[$4.0.0]
```

Save the query as **Account Balance** under any category.

Note: The item number for the business partner code in all marketing documents is 4.

Note: To test this query *before* you add it as user-defined values, follow these steps:

- i. Open a blank sales order.
- ii. Select a valid customer code.
- iii. With the sales order as the active window, run the query by choosing *Tools* → *Queries* → *User Queries* → *Category* → *Query name*
- iv. The query preview window will show the customer's balance.

1-4-3 Add the query as user-defined values to the user-defined field

Open a blank sales order.

Open the user-defined fields panel.

Add user-defined values to the new **Balance** field.

Choose *Search in Existing User-Defined Values according to Saved Query*.

Select the query you saved earlier.

Select *Auto Refresh When Field Changes*.

Select the **Customer/Vendor Code** field.

Choose *Refresh Regularly*.

Choose *Update*.

1-4-4 Test the user-defined field

In the open sales order, select a customer.

When you select the customer code the query will run and the account balance will appear in the new field.

Note: Although the new balance field will display in other types of marketing document, the user-defined values will not be added. You will need to add the query to each document type if required. Because the query will work across all document types, you can re-use the same query.

1-5 Add a query as user-defined values to set the discount % in a sales order

Light & Music wants to give 5% discount on sales orders, provided there are no overdue payments from the customer, and the customer has placed an order previously during the last 6 months.

1-5-1 Create a query

The query will set the discount in a sales order to 5% if the count of open, due invoices is 0 and if there is at least one open sales order for the customer.

```
If (Select count(DocNum) from OINV where CardCode =  
$[ORDR.CardCode] and DocStatus = 'O' and DocDueDate < getdate()) = 0
```

```
Begin
```

```
  If (Select count(DocNum) from ORDR where CardCode =  
  $[ORDR.CardCode] and DocDate > dateadd(month, -6, getdate()))>0
```

```
    Select 5
```

```
  else
```

```
    Select 0
```

```
End
```

```
else
```

```
  Select 0
```

Save the query.

1-5-2 Add user-defined values to the discount field

Add user-defined values to the discount field (**DiscPrcent**) in the header of the sales order document.

Select the query.

Select *Auto Refresh When Field Changes*.

Select the *Customer/Vendor Code* field..

Select *Display Saved User-Defined Values*.

Choose *Update*.

1-5-3 Test the query

Create a sales order for a customer.

Create a second sales order for the same customer. When you select the customer code, you will see the discount set to 5 % and automatically applied to the sales order.



Unit: Customization Tools

Topic: User-Defined Values

1-1 Add a fixed list of values to a field in a sales order

You want to record some details about an item in a sales order. You will add user-defined values to an existing field in the sales order row. When an item is selected for the order, the salesperson can select information from the list of values.

Choose *Sales – A/R*.

Choose *Sales Order*.

Choose the *Form Settings* icon from the toolbar.

Select Table Format.

Enter **Free Text** in the Find field.

Select the Visible and Active checkboxes for the field.

Choose OK.

The Free Text field should appear in the item row.

Select the Free Text field and add user-defined values by pressing **Alt+Shift+F2**.

The *User-Defined Values- Setup* dialog box appears.

Choose *Search in Existing User-Defined Values*.

Choose Browse (. . .)

Enter **Fragile**, **Heavy**, **Perishable**, and **Liquid-free** as the values.

Choose *Update* after you enter each value in the list.

Choose *OK*.

Choose *Update* to save the user-defined values.

Tip: A magnifying glass should appear in the field to indicate that this field has user-defined values. If you do not see the magnifying glass, open the **View** menu from the top bar and then choose *Pickers Display → User-Defined Values*.

Select an item to go in the sales order.

Select the magnifying glass icon in the Free Text field.

Choose a value from the list defined in the Free Text field.

.

1-2 Add a query as user-defined values to a field in a purchase order.

When you create a purchase order, you want to show only the items that are supplied by the vendor you have selected in the vendor field.

You will create a query that displays only the items from the vendor you have selected. The query will select items from the items table **OITM** that have the same vendor set as the **Preferred Vendor** in the item master data.

Note: In the OITM table, the field *CardCode* is used to store the preferred vendor. The variable **\$4.0.0** is the item number of the selected vendor code.

1-2-1 Check if there is a preferred vendor in the item master data.

Choose *Inventory* → *Item Master Data*.

Locate an item for purchase.

Choose the *Purchasing* tab.

Choose the selection list icon in the *Preferred Vendor* field and select a vendor from the list. Do not choose the *Browse* button.

Save the item master data.

1-2-2 Create a database query.

If you know the SQL for your query, you can type the query directly into the *Query Generator* window. To do this:

Choose **X** to clear out the previous query, if necessary.

Choose *Execute* to open the *Query Preview* window.

In the *Query Preview* window, click the *Pencil* icon to activate *Edit* mode.

You can now type the complete query into the *Query Preview* window:

```
SELECT T0.ItemCode FROM OITM T0 WHERE T0.CardCode =  
$[$4.0.0]
```

Note: The \$ sign is used to reference the vendor code which is in the active window.

Choose *Save*.

Enter the query name **Preferred Vendor** in the *Query Name* field.

Select the *General* category.

Choose *Save*.

1-2-3 Create a Purchase Order with user-defined values from a query

Choose *Purchasing A/P* → *Purchase Order*.

Choose the vendor that you selected earlier.

Position the cursor in the **Item No.** field.

Press **Alt+Shift+F2**.

The *User-Defined Values - Setup* dialog box appears.

Choose *Search in Existing User-Defined Values according to Saved Query*.

Choose *Open Saved Query*.

Expand the *General* category and select the query you saved earlier.

Choose **OK**.

Choose *Update*.

In the **Item No.** field, press **Shift+F2**.

The query will run and will show only items for the preferred vendor.

1-3 Add a query as user-defined values to calculate the delivery date in a sales order.

When you create a sales order, you want the system to automatically set the **Delivery Date** to the value of the Posting Date + 7 days. The query will use the sales order table **ORDR**.

1-3-1 Create a database query.

Choose *Tools* → *Queries* → *Query Generator*.

Choose *Execute*. Ignore the error message.

Type a new query as:

```
SELECT $[ORDR.DocDate.DATE]+7
```

Choose *Save*.

Note: The syntax above only works for sales orders (table ORDR). To use the same query in another similar document, use the item number syntax:

```
SELECT $[$10.0.DATE]+7
```

Save the new query in the *General* category.

1-3-2 Add the query as user-defined values to a Sales Order

Choose *Sales – A/R* → *Sales Order*.

Position the cursor in the *Delivery Date* field.

Press *Shift+Alt+F2*.

Choose *Search in Existing User-Defined Values according to Saved Query*.

Choose *Open Saved Query*.

Choose the query you just saved.

Choose *Auto Refresh When Field Changes*.

Choose **Customer/Vendor Code** from the dropdown list.

Select *Display Saved User-Defined Values*.

Choose *Update*.

In the **Sales Order**, choose a customer.

The system will automatically insert a **Delivery Date** that is 7 days later than the **Posting Date**.

1-4 Add a query as user-defined values using refresh regularly

The company's sales staff needs to see the customer's existing balance when they are on the phone taking a new sales order. The balance will display in a user-defined field added to the sales order header.

1-4-1 Add a user-defined field

Choose *Tools* → *Customization Tools* → *User-Defined Fields – Management*.

Open *Marketing Documents*.

Choose *Title*.

Choose *Add*.

Enter the following data:

Field Name or Data Type	Values
<i>Title</i>	Balance
<i>Description</i>	Acct Balance
<i>Type</i>	Units and Totals
<i>Structure</i>	Amount

Choose *Add*.

1-4-2 Create a query to fetch the business partner balance from the database

Using the Query Generator, create the following query:

```
SELECT T0.[Balance] FROM OCRD T0 WHERE T0.[CardCode] =  
$[$4.0.0]
```

Save the query as **Account Balance** under any category.

Note: The item number for the business partner code in all marketing documents is 4.

Note: To test this query *before* you add it as user-defined values, follow these steps:

- i. Open a blank sales order.
- ii. Select a valid customer code.
- iii. With the sales order as the active window, run the query by choosing *Tools* → *Queries* → *User Queries* → *Category* → *Query name*
- iv. The query preview window will show the customer's balance.

1-4-3 Add the query as user-defined values to the user-defined field

Open a blank sales order.

To open the window for user-defined fields, choose *View → User-Defined Fields*.

Add user-defined values to the new **Balance** field by pressing *Alt+Shift+F2*.

Choose *Search in Existing User-Defined Values according to Saved Query*.

Select the query you saved earlier.

Select *Auto Refresh When Field Changes*.

Select the **Customer/Vendor Code** field.

Choose *Refresh Regularly*.

Choose *Update*.

1-4-4 Test the user-defined field

In the open sales order, select a customer.

When you select the customer code the query will run and the account balance will appear in the new field.

Note: Although the new balance field will display in other types of marketing document, the user-defined values will not be added to the field. You will need to add the query to each document type if required. Because the query will work across all document types, you can re-use the same query.

1-5 Add a query as user-defined values to set the discount % in a sales order

Light & Music wants to give 5% discount on sales orders, provided there are no overdue payments from the customer, and the customer has placed an order previously during the last 6 months.

1-5-1 Create a query

The query will set the discount in a sales order to 5% if the count of open, due invoices is 0 and if there is at least one open sales order for the customer.

**If (Select count(DocNum) from OINV where CardCode =
\$[ORDR.CardCode] and DocStatus = 'O' and DocDueDate < getdate()) = 0**

Begin

**If (Select count(DocNum) from ORDR where CardCode =
\$[ORDR.CardCode] and DocDate > dateadd(month, -6, getdate()))>0**

Select 5

else

Select 0

End

else

Select 0

Save the query.

1-5-2 Add user-defined values to the discount field

Add user-defined values to the discount field in the header area of the sales order document.

Open a sales order document.

Position the cursor in the **Discount** field in the sales order header.

Press **Alt+Shift+F2**.

The *User-Defined Values - Setup* dialog box appears.

Choose *Search in Existing User-Defined Values according to Saved Query*.

Choose *Open Saved Query*.

Select the query.

Select *Auto Refresh When Field Changes*.

Select the **Customer/Vendor Code** field.

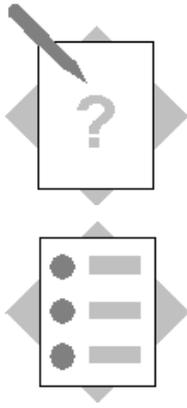
Select *Display Saved User-Defined Values*.

Choose *Update*.

1-5-3 Test the query

Create a sales order for a customer.

Create a second sales order for the same customer. When you select the customer code, you will see the discount set to 5 % and automatically applied to the sales order.



Unit: Customization Tools

Topic: Alerts Management

1-1 Set an Alert when the Gross Profit in a Sales document falls below 30%

The company owner wants to be notified when a sales order is issued with the gross profit falling below 30%. This uses one of the predefined alerts supplied with the system.

Select the predefined alert *Deviation from % of Gross Profit* alert. In the *Conditions* tab, type **30** as the Profit Percentage.

Apply to **Sales Orders** using the *Documents* tab.

Select the *Int.* checkbox for the user **manager**.

Select the *Active* checkbox.

Choose **Update**.

Create a sales order and change the **Unit Price** so that the *Gross Profit* falls below 30%. You can check the gross profit by opening the **Gross Profit** window from the sales order. Base the Gross Profit on the Item Cost.

Save the sales order.

The alerts window will open and display the alert. If the alert window does not open, choose **Window** → **Messages/Alert Overview**.

Note: Choose **Administration** → **General Settings** and select the *Services* tab. The *Update Messages* field value determines how often the application checks the window for updates

1-2 Set an Alert for Quotations with a Document Total Greater than 15000

A manager wants to review sales quotations issued for the day that exceed 15000. Since the process does not need to be blocked, this can be met using an alert based on a query. The query will be set to run once a day, and will show the eligible sales quotations for that day.

1-2-1 Create a Query for the Alert

Choose *Tools* → *Queries* → *Query Generator*.

Enter tables **OQUT** and **OSLP** in the *Table* column.

Select **DocNum**, **CardName**, and **DocTotal** from the **OQUT** table (T0).

Select **SlpName** from the **OSLP** table (T1).

Enter the following **Where** clause to display only quotations with a document total greater than 15000 issued on today's date:

```
T0.[DocTotal] > 15000 and T0.[DocDate] = (CONVERT (date,
GETDATE()))
```

Save the query with the name '**Quotations > 15000**' in a new category called **Alerts**.

1-2-2 Define the alert

Add a user-defined alert called **Quotations > 15000**.

Set the *Active* indicator.

Select the query '**Quotations > 15000**'.

Enter the frequency: For the purposes of this demo, set the frequency to every 2 minutes instead of every 1 day.

Set the *Int.* indicator for the user *manager*.

Choose *Add*.

1-2-3 Test the alert

Create a sales quotation for a document total greater than 15000. The posting date should be today's date.

You will be able to add the document.

Create a second sales quotation with a total greater than 15000 and with a posting date that is different from today's date.

You will receive an alert notification after 2 minutes. You should get an alert for the first quotation, but not for the second quotation.

Note: If you do not receive an alert in 2 minutes, set the *Update Messages* field value in the **Services** tab of the **General Settings** to 0.



Unit: Customization Tools

Topic: Alerts Management

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The company owner wants to be notified when a sales order is issued with the gross profit falling below 30%. This uses one of the preconfigured alerts supplied with the system.

Choose *Administration* → *Alerts Management*.

The window opens in *Find* mode. Type * in the *Name* field and choose **Find**.

Select the *Deviation from % of Gross Profit* alert. In the *Conditions* tab, type **30** as the Profit Percentage.

Apply to **Sales Orders** using the *Documents* tab.

Select the *Int.* checkbox for the user **manager**.

Select the *Active* checkbox.

Choose **Update**.

Create a sales order and change the **Unit Price** so that the *Gross Profit* falls below 30%. You can check the gross profit by opening the **Gross Profit** window from the sales order. Base the Gross Profit on the Item Cost.

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GETDATE()))
```

Save the query with the name '**Quotations > 15000**' in a new category called **Alerts**.

1-2-2 Define the alert

Choose *Administration* → *Alerts Management*.

Switch to *Add* mode.

Enter **Quotations > 15000** in the *Name* field.

Set the *Active* indicator.

Choose *Open Saved Query*.

Select the query '**Quotations > 15000**' in the **Alerts** category.

Choose *OK*.

Enter the frequency: For the purposes of this demo, set the frequency to every 2 minutes instead of every 1 day.

Set the *Int.* indicator for the user *manager*.

Choose *Add*.

1-2-3 Test the alert

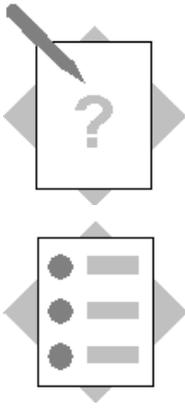
Create a sales quotation for a document total greater than 15000. The posting date should be today's date.

You will be able to add the document.

Create a second sales quotation with a total greater than 15000 and with a posting date that is different from today's date.

You will receive an alert notification after 2 minutes. You should get an alert for the first quotation, but not for the second quotation.

Note: If you do not receive an alert in 2 minutes, set the *Update Messages* field value in the **Services** tab of the **General Settings** to 0.



Unit: Customization Tools
Topic: Approval Procedures

1-1 Activate approval procedures in the system

Choose *Administration* → *System Initialization* → *General Settings*.

Enable the approval procedures functionality in the system.

1-2 Define an approval procedure using a predefined condition.

If the discount offered in a sales document is more than 25%, the system should block the document until it is approved by the accounting department.

1-2-1 Create an approval stage for manager approval.

Choose *Administration* → *Approval Procedures* → *Approval Stages*.

Field Name or Data Type	Values
<i>Stage Name</i>	Manager
<i>Stage Description</i>	Manager Approvers
<i>No. of Approvals Required</i>	1
<i>No. of Rejections Required</i>	1
<i>Authorizer 1</i>	Select the user “ manager ”
<i>Authorizer 2</i>	Select the Accounting department then choose a user from the list.

1-2-2 Create an approval template.

Choose *Administration* → *Approval Procedures* → *Approval Templates*.

Field Name or Data Type	Values
<i>Name</i>	Discount 25
<i>Description</i>	Discount over 25%
<i>Originator tab</i>	Select the Sales department from the dropdown list. Select <i>all</i> users in the Sales department. Note: To select all users at the same time, select the first row then hold the Shift key and select the last row. All rows will be selected.
<i>Documents tab</i>	Select all <i>Sales – A/R</i> documents.
<i>Stages tab</i>	Select the approval stage you defined earlier – Manager .

Choose the predefined term for *Discount %*.

Field Name or Data Type	Values
<i>Ratio</i>	Greater than
<i>Value</i>	25

Make sure that the **Active** checkbox is set in the approval template.

1-2-3 Test the approval process.

Login as one of the originators (sales users) and create any sales document. Set the **Discount** field as 26%.

Note: If you are unable to login as one of the sales users due to license availability, you can add the user **manager** to the approval template as an originator.

When you **Add** the document, the approval window will display. Enter a suitable message in the *Remarks* field for the approval.

Note: The sales document is now saved as a draft. You can view this document in the *Document Drafts* report.

1-2-4 Approve the document

An alert will appear in the approver's Messages/Alerts Overview window. Select the link to view the approval request. Approve the request. You can optionally enter remarks for the originator.

You can also approve the request in the Approval Decision Report. Choose *Administration* → *Approval Procedures* → *Approval Decision Report*.

1-2-5 Process the approved sales document

The approved sales document will display in the originator's Messages/Alerts Overview window. The document has the status **Draft [Approved]** and you can now **Add** it to the system.

The originator can also access the approved document from the *Approval Status Report*. Choose *Administration* → *Approval Procedures* → *Approval Status Report*.

1-3 Define an approval procedure based on a query.

All service type purchase orders over 25000 must be approved first by the purchasing manager and then by the company owner. You will create a new approval template. You can use the approval stage you created in step 1-2-1.

1-3-1 Create the query

Paste the following query into the Query Generator

Note: This query uses the item number syntax to work with multiple document types and the \$ syntax to reference the active window:

```
SELECT 'true' WHERE $[3.0.0] = 'S' AND $[29.0.number] > 25000
```

Save the query in any category.

To test the query, open a blank purchase order document, choose a vendor and select the *Service* type. Select an expense G/L account and set the total to more than 25000. Keep the purchase order in the active window and choose *Tools* → *Queries* → *User Queries* → *Category* and select the query name. The value 'true' should show in the results if the query conditions are met.

1-3-2 Create an approval template.

Choose *Administration* → *Approval Procedures* → *Approval Templates*.

Field Name or Data Type	Values
<i>Name</i>	Service PO
<i>Description</i>	Service PO
<i>Originator tab</i>	Select a user from the Purchasing department. You can also select the user "manager".
<i>Documents tab</i>	Select the <i>Purchase Order</i> checkbox.
<i>Stages tab</i>	Select the approval stage you created in step 1-2-1.

Add the query you just created on the *Terms* tab.

1-3-3 Test the approval process

Make sure you are logged in as an originator. Create a service PO with a total greater than 25000.

Enter a suitable message in the *Remarks* field for the approval.

1-3-4 Approve the purchase order

You can approve the purchase order from the Messages/Alerts Overview window or from the *Approval Decision* report.

1-3-4 Test the document rejection process

If you have time, create another purchase order that meets the approval criteria. This time, select *Not Approved* in the Approval Decision report. See what happens when the purchase order is rejected!



Unit: Customization Tools
Topic: Approval Procedures

1-1 Activate approval procedures in the system

Choose *Administration* → *System Initialization* → *General Settings*.

Choose the *BP* tab.

The checkbox *Activate Approval Procedures* should be selected. Select the checkbox to enable the approval procedures functionality in the system.

Choose *OK*.

1-2 Define an approval procedure using a predefined condition.

If the discount offered in a sales document is more than 25%, the system should block the document until it is approved by the accounting department.

1-2-1 Create an approval stage for manager approval.

Choose *Administration* → *Approval Procedures* → *Approval Stages*.

Field Name or Data Type	Values
<i>Stage Name</i>	Manager
<i>Stage Description</i>	Manager Approvers
<i>No. of Approvals Required</i>	1
<i>No. of Rejections Required</i>	1
<i>Authorizer 1</i>	Select the user “ manager ”
<i>Authorizer 2</i>	Select the Accounting department then choose a user from the list.

Choose *Add*.

1-2-2 Create an approval template.

Choose *Administration* → *Approval Procedures* → *Approval Templates*.

Field Name or Data Type	Values
<i>Name</i>	Discount 25
<i>Description</i>	Discount over 25%
<i>Originator tab</i>	Select the Sales department from the dropdown list. Select <i>all</i> users in the Sales department. Note: To select all users at the same time, select the first row then hold the Shift key and select the last row. All rows will be selected.
<i>Documents tab</i>	Select all <i>Sales – A/R</i> documents.
<i>Stages tab</i>	Select the approval stage you defined earlier – Manager .

Choose the *Terms* tab.

Select the *When The Following Applies*.

Choose the predefined term for *Discount %*.

Field Name or Data Type	Values
<i>Ratio</i>	Greater than
<i>Value</i>	25

Make sure that the **Active** checkbox is set in the approval template.

Choose *Add*.

1-2-3 Test the approval process.

Login as one of the originators (sales users) and create any sales document. Set the **Discount** field as 26%.

Note: If you are unable to login as one of the sales users due to license availability, you can add the user **manager** to the approval template as an originator.

When you **Add** the document, the approval window will display. Enter a suitable message in the *Remarks* field for the approval. Choose **OK**.

Note: The sales document is now saved as a draft. You can view this document in the *Document Drafts* report.

1-2-4 Approve the document

An alert will appear in the approver's Messages/Alerts Overview window. Select the link to view the approval request. Select *Approved* as the answer and choose **Update**. You can optionally enter remarks for the originator.

You can also view the approval request in the Approval Decision Report. Choose *Administration* → *Approval Procedures* → *Approval Decision Report*. Select *Approved* and choose **Update**.

1-2-5 Process the approved sales document

The approved sales document will display in the originator's Messages/Alerts Overview window. Select the link to the document. The document has the status **Draft [Approved]** and you can now **Add** it to the system.

The originator can also access the approved document from the *Approval Status Report*. Choose *Administration* → *Approval Procedures* → *Approval Status Report*.

1-3 Define an approval procedure based on a query.

All service type purchase orders over 25000 must be approved first by the purchasing manager and then by the company owner. You will create a new approval template. You can use the approval stage you created in step 1-2-1.

1-3-1 Create the query

Open the Query Generator and select **Execute** to open the Query Preview window. Select the Pencil icon to switch to Edit mode, and paste or create the following query:

Note: This query uses the \$ syntax to reference the active window and the item and column number to work with multiple marketing document types:

```
SELECT 'true' WHERE $[3.0.0] = 'S' AND $[29.0.number] > 25000
```

Save the query in any category.

To test the query, open a blank purchase order document, choose a vendor and select the *Service* type. Select an expense G/L account and set the total to more than 25000. Keep the purchase order in the active window and choose *Tools* → *Queries* → *User Queries* → *Category* and select the query name. The value 'true' should show in the results if the query conditions are met.

1-3-2 Create an approval template.

Choose *Administration* → *Approval Procedures* → *Approval Templates*.

Field Name or Data Type	Values
<i>Name</i>	Service PO
<i>Description</i>	Service PO
<i>Originator tab</i>	Select a user from the Purchasing department. You can also select the user “ manager ”.
<i>Documents tab</i>	Select the <i>Purchase Order</i> checkbox.
<i>Stages tab</i>	Select the approval stage you created in step 1-2-1 .

Choose the *Terms* tab.

Select the *When The Following Applies* radio button.

In the lower part of the window, double-click in the first row to open the **Query Manager**.

Choose the query you just created.

Choose *Add*.

1-3-3 Test the approval process

Make sure you are logged in as an originator. Create a service PO with a total greater than 25000.

Enter a suitable message in the *Remarks* field for the approval.

Choose OK.

1-3-4 Approve the purchase order

You can approve the purchase order from the Messages/Alerts Overview window or from the *Approval Decision* report.

1-3-4 Test the document rejection process

If you have time, create another purchase order that meets the approval criteria. This time, select *Not Approved* in the Approval Decision report. See what happens when the purchase order is rejected!

Unit 4 - Contents

Data Migration Tools

- Import from Excel
- Data Transfer Workbench:
 - Chart of Accounts
 - Business Partner Master Data
 - Item Master Data and Item Prices
- Opening Balances

Data Migration Tools: Import from Excel

SAP Business One
Release 9.0



Welcome to the topic on the Import from Excel utility.

Objectives



Objective:

- Import business partner master data, item master data, and price lists using the Import from Excel utility

In this topic, you will see how to import business partner master data, item master data, and price lists using the Import from Excel utility.

Business Scenario



- Each month your distributors send you a spreadsheet with new and updated customer master data. You want to import this data on a regular basis to provide warranty support.
- Solution: The *Import from Excel* utility provides a simple way to import data from a spreadsheet.

A	B	C	D	E	F	G

In the business scenario shown here, your distributors send you a spreadsheet with new and updated customer master data. You want to import this data on a regular basis to provide warranty support.

Many companies need to periodically import bulk master data, especially when dealing with distributors and other third parties. Often this data is in the form of a Microsoft Excel spreadsheet.

The Import from Excel utility provides a simple way to import data from a spreadsheet.

Import from Excel Utility

Administration > Data Import/Export > Data Import > Import from Excel



- Import and update:
 - Business partner master data
 - Item master data
 - Prices in a price list

Note: A similar utility is available to import fixed asset master data

You can use this utility to import and update business partner master data, item master data, and prices in a price list.

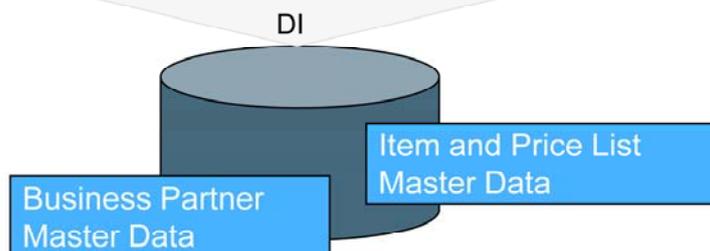
Since the utility imports data from Microsoft Excel, it gives you the opportunity to maintain and prepare the data in Excel before you import it.

Note: a similar utility is available to import fixed asset master data. To access this utility, you must have enabled fixed assets at the system level.

Import from Excel Utility - Objects

Administration > Data Import/Export > Data Import > Import from Excel

A	B	C	D	E	F	G



- Based on Data Interface (DI)
- Only limited set of fields can be imported for the objects
- Cannot import into user-defined fields

The Import from Excel utility is based on the Data Interface (DI); however, only a limited set of fields can be imported for each of the objects. Furthermore, you cannot import data into user-defined fields added to these objects.

Therefore, if the import utility does not meet your data import needs, you should use the Data Transfer Workbench instead.

Running the Utility

	A	B	C	D	E	F
1	00010C	New Apparel	28 Southwold St	London		023-554-9080
2	00020C	BC Designers	243 City Rd	London		020-309-6658
3	00030C	Popular Prints	172 Park Pond Road	Manchester		1272-408908
4	00040C	Brown Grocer	516 Devsbury Rd	York	S. Green	0113-2309812
5	00050C	Day Digital	1308 N. 21 St	North	M. Davis	801-876-1423
6	00110S	MW Electronics	1000 International Blvd	London	L. Chung	21-66-52-239
7	00120S	Pring Logistics	123 Park	London	D. Meyer	0141-2144459
8	00130S	Mobile Distributio	250	London	S. Redux	061-298-6548
9	00140S	Shelby Acoustix	Ku	London	G. Faust	0049-61-23-8
10	00150S	Lee Construction	355	Birmingham	Mrs J Smith	021-297-4553
11	00015C	Head to Toe	30 Winchester Rd	Bath	C. Baker	031-594-9080
12	00025C	Stellas Boutique	12B Highbury Rd	London	S. Johnson	020-709-9976
13	00045C	IKM Outfitters	21 Bury Rd	Manchester	D. Kirby	13298-762103

Tab delimited file 2

1. Create a spreadsheet with data for each field
2. Save as Tab delimited file, and close file
3. Select the object in the utility
4. Map the columns from the spreadsheet to the object fields
5. Run the import

Column	Field
A	BP Code
B	BP Name
C	Bill-to Street
D	Bill-to City
E	Contact Person
F	Telephone 1
G	
H	
I	
J	
K	
L	
M	

1. First create a spreadsheet with the data for each field.
2. Save the spreadsheet as a .txt (Tab delimited) file.
3. In the utility, select the object type for import – BP or Items. To import prices, choose the Items object type.
4. Next, map the columns from the spreadsheet by selecting object fields from a dropdown list in the utility. When you select a field, that field no longer shows in the dropdown list. This prevents a field being selected more than once.
5. Choose OK to run the import.

Be aware that there is no test or simulation run provided by the utility. Therefore you should run the import on a test system first and verify the imported data.

Field Names – Database Tables Reference

- *Database Tables Reference* can be accessed from SDK help center or from DTW help menu
- Shows default values for field as well as constraints on what can be entered for a field

Items
Table name: OITM

Field	Description	Type	Size	Related	Default Value
ItemCode	Item No.	nVarChar	20	-	
ItemName	Item Description	nVarChar	100	-	
FrgnName	Description in Foreign Lang.	nVarChar	100	-	
ItmsGrpCod	Item Group	In	6	OITB	100
CstGrpCode	Customs Group	In	6	OARG	-1
VatGourpSe	Sales Tax Definition	nVarChar	8	OVTG	
CodeBars	Bar Code	nVarChar	16	-	
VATLiable	Tax Definition	VarChar	1	-	Y
PrchseItem	Purchase Item [Yes/No]	VarChar	1	-	Y

To understand the field names in the utility, consult the *Database Tables Reference*, which is distributed with the SAP Business One software. If you have installed the SDK, you can find it in the SDK help center. If you have installed DTW, you can find it from the help menu of DTW.

In the slide, the OITM table is shown for the Items object.

As well as the names of the fields for the object, the Database Tables Reference shows the default values and any constraints.

Spreadsheet Data

- Data starts in row 1 – no headings allowed
- Enter fields in any column order
- Format cells as text
- No need to enter field if default value meets needs, e.g., currency or group
- Comply with field constraints such as length and required values

	A	B	C	D	E	F
1	00010C	New Apparel	28 Southwold St	London	G. Foster	023-554-9080
2	00020C	BC Designers	243 City Rd	London	J. Brown	020-309-6658
3	00030C	Popular Prints	172 Park Pond Road	Manchester	P. Patterson	1272-408908
4	00040C	Brown Grocer	516 Dewsbury Rd	York	S. Green	0113-2309812
5	00050C	Day Digital	1508 N. 21 St	New York	M. Davis	801-876-1423
6	00110S	MW Electronics	1000 International Blvd	Chicago	L. Chung	21-66-52-239
7	00120S	Pring Logistics	123 Paisley Rd	Glasgow	D. Meyer	0141-2144499
8	00130S	Mobile Distribution	250 Princess Ave	Edinburgh	S. Redux	061-298-6548
9	00140S	Shelby Acoustix	Kuchestrasse, 79	Berlin	G. Faust	0049-61-23-88
10	00150S	Lee Construction	335 Coventry Rd	Birmingham	Mrs J Smith	021-297-4553
11	00015C	Head to Toe	30 Winchester Rd	Bath	C. Baker	031-594-9080
12	00025C	Stellas Boutique	128 Highbury Rd	London	S. Johnson	020-709-9976
13	00035C	JKM Outfitters	21 Bury Rd	Manchester	D. Kirby	12998-762103



Save as Tab delimited type
and close file

There are some general rules for creating the spreadsheet.

- The spreadsheet should not contain a heading row, since the utility expects the data to start in the first row.
- You can enter the fields in any column order, since the mapping is done in the utility.
- Generally it is a good idea to format the spreadsheet cells as text type. This prevents Microsoft Excel from truncating a field value.
- There is no need to enter a field if the default value meets your needs, for example, the currency code, or the group code. The Database Tables Reference shows if there are default values for a field. Since your system may have additional default values in the setup for master data and items, for example, payment terms for business partners, you also need to be aware of these settings. The easiest way to see these default values is to create a master data record, using just the code. The default values will be inserted automatically into the new record.
- You should comply with any field constraints, such as the maximum length for a field, or the required values for a field.

Before you run the import utility, you must save the spreadsheet as a text (Tab delimited) file.

You must close the tab delimited file before you run the utility. Failure to close the file will result in an error.

Saved Fields Mappings

The screenshot shows the 'Import from Excel' dialog box. At the top, 'Data Type to Import' is set to 'BP'. Below this is a table with two columns: 'Column' and 'Field'. The table contains the following rows:

Column	Field
A	BP Code
B	BP Name
C	Group Code
D	BP Currency
E	Bill-to Street
F	Bill-to City
G	Bill-to Postcode
H	Telephone 1
I	Mobile Phone
J	Ship-to Street
K	Ship-to City
L	Ship-to Postcode
M	

Below the table, there is a checkbox labeled 'Update Existing Records' which is checked. At the bottom right, there are two buttons: 'Save As' and 'Clear'. The 'Save As' button is circled in blue. At the top right of the dialog, there is a button labeled 'Use Data Template' with a dropdown arrow, also circled in blue.

Option to save field mappings as a template for reuse

In the utility, you have an option to save the field mappings as a template for future use. The template is stored internally with a code and name that you provide.

Data – Business Partner Master Data

- Can import:
 - Fields into the business partner header and General tab
 - One billing and one shipping address in the Addresses tab
 - Name of contact, but not contact details in Contact Persons tab

Note:

BP Type is C, S or L

BP Currency is currency code

Group Code is name of group

Business Partner Master Data

Code	Manual	C-42000	Customer
Name	Mashina Corporation		
Foreign Name			
Group	Distributors		
Currency	British Pound		
Federal Tax ID	GB566678950		

General Contact Persons Addresses Payment

Import from Excel

Data Type to Import: BP

Column	Field
A	
B	
C	BP Code
D	BP Name
E	BP Currency
F	BP Type
G	Foreign Name
H	Group Code
I	Bill-to Street
J	Bill-to Block
K	Bill-to Building/Floor
L	Bill-to Address Type
M	Bill-to Street No.
	Bill-to City
	Bill-to Zip Code
	Bill-to County
	Bill-to State
	Bill-to Country

Update Existing
OK

- You can import many of the header fields in the business partner master data and data on the General tab.
- You can also import one billing and one shipping address into the Addresses tab. If you need more than one billing and one shipping address, use the Data Transfer Workbench to import the data instead.
- You can import the name of the default contact person; however, you cannot import detailed contact information in the Contact Persons tab.

In the spreadsheet, some fields need to be entered in accordance with the DI interface. For example:

- The BP Type field is C, S, or L. C denotes a customer, S denotes a vendor or supplier, and L denotes a lead. The default is customer, and if you leave this field empty the utility will create a customer record.
- The BP Currency is the currency code as specified in the Currencies table in SAP Business One. You only need to enter the currency if it differs from the local currency.
- The Group Code is actually the *name* of the group. If you do not enter a group name, the business partner is automatically assigned to the first group in the system. If you enter a group name that does not exist in the Groups table, a new group will be created automatically.

Data - Item Master Data

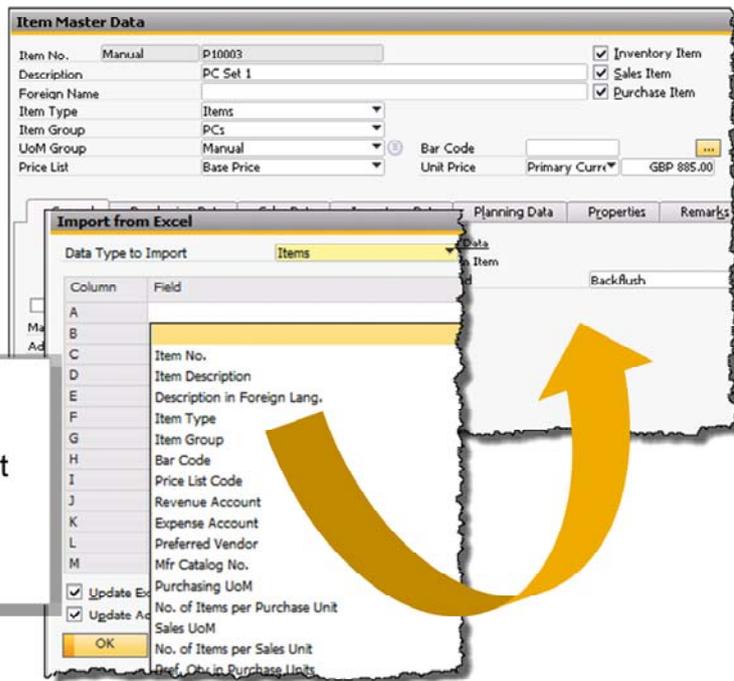
Can import:

- Fields in the header and the *General* tab
- Many fields on the *Purchasing, Sales, Inventory* and *Planning* tabs

Note:

Warehouse will default from General Settings or item default warehouse

Item Group is name of group



- You can import fields into the item master data header and the General tab.
- Additionally, you can import many fields on the Purchasing, Sales, Inventory and Planning tabs, including the price, valuation and planning method, the length, width, height, weight and volume, and units of measure.

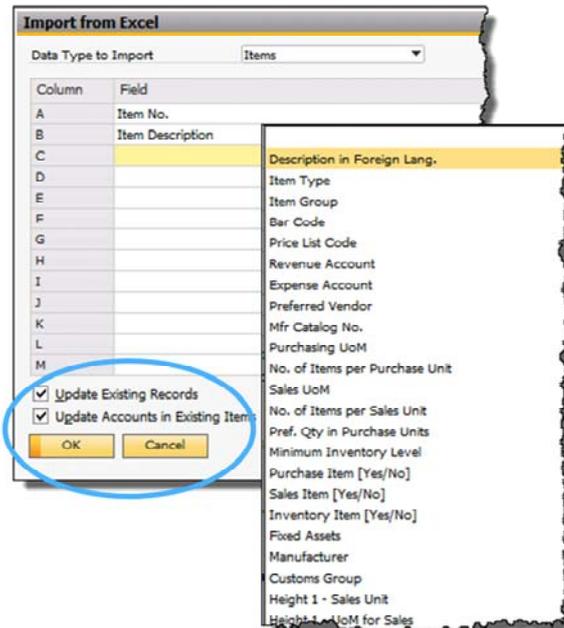
Note that the warehouse cannot be entered in the spreadsheet and will always default from the General Settings or from the item level default warehouse.

The Item Group is the *name* of the group, not the group code. If the group name does not exist, a group will be automatically created using the supplied name.

Many of the fields have special values required by the DI interface. Your best approach is to select the item table OITM in the *Database Tables Reference* for the field constraints. For example the *Set G/L Account by* field requires the values W, C, or L to indicate the level of the G/L account determination – warehouse, item group, or item level. If this field is not entered, the default setting from the system is used.

Data - Item Master Data (Cont.)

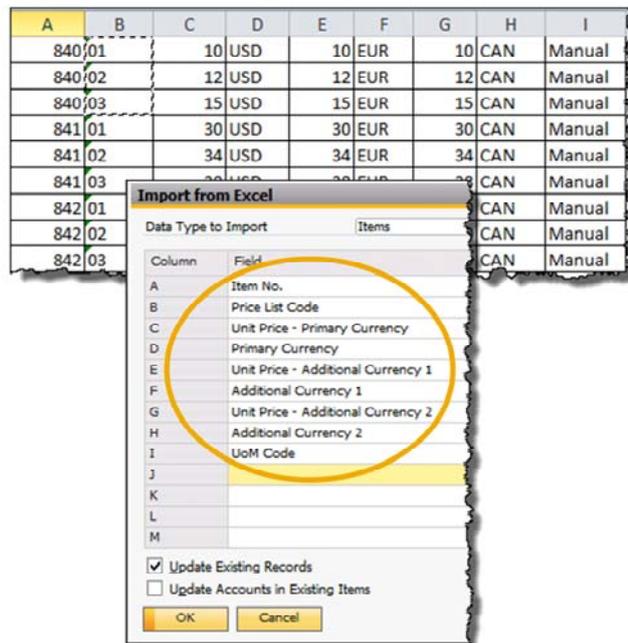
- Option to update expense and revenue accounts if G/L account determination set at the item level
- If customs group entered for item, customs groups must be defined in system before import
- To import the price for an item, you must enter in addition the price list code and currency



- The utility provides an option to update the expense and revenue G/L accounts for an existing item if G/L account determination is set at the item level.
- If you specify a customs group for the item, the customs group must be defined in the system before the import. If the customs group is not defined, you will be unable to import the data.
- If you import the price for an item, you must enter in addition the price list code and the currency in the spreadsheet.

Data - Price Lists

- You can import or update item prices in one or more price lists
- Price list must exist in the system before you import the prices
- When you select the Price List Code field, the required fields are automatically shown
- You can import the price in the primary currency as well as in up to two additional currencies, if needed



- The Import from Excel utility makes it easy to import or update item prices in one or more price lists.
- The price list must be created in the system before you can import the prices.
- To import item prices using the utility, you select the item code and price list code fields, and, when you select the price list code, the utility automatically shows the fields required for the object.
- You can import the price in the primary currency as well as in up to two additional currencies, if needed. The currencies must be set up in the currencies table.

When you import prices into an existing price list, select the *Update Existing Records* checkbox.

Key Points



Key points from this course:

- The Import from Excel utility is an easy way to import basic master data for business partners, items, and item prices in multiple lists.
- Not every field can be imported using the utility.
- Data is imported from a spreadsheet, which allows you to manipulate and transform external data using Microsoft Excel functions.
- Some fields require specific values. The *Database Tables Reference* can help you determine default values for fields, as well as field lengths and constraints on field values.
- Save the spreadsheet as a text (tab delimited) file, and close the file before running the import. The spreadsheet should not contain column headings. To prevent data truncation, format cells as text type.

Here are some key points to take away from this session. Please take a minute to review these key points:

- The import from Excel utility is an easy way to import basic master data for business partners, items, and item prices in multiple price lists.
- Not every field in the business partner or item master objects can be imported.
- The data is imported from a spreadsheet, allowing you to manipulate and transform external data using the standard Microsoft Excel functions.
- Some fields require specific values, for example, *Set G/L Account by* and *Valuation Method*. The Database Tables Reference can help you identify both the default values for fields, as well as field lengths and constraints on the data in a field. You can find the Database Tables Reference in the SDK help files or if you install DTW.
- Remember to save the spreadsheet as a text (tab delimited) file and close the file before running the import.
- Columns headings should also be removed as they will produce an error when you run the utility.
- To prevent data truncation in the spreadsheet, it is a good practice to format the cells as text type.

Data Migration Tools: DTW – Chart of Accounts

SAP Business One
Release 9.0



Welcome to the topic on importing a chart of accounts using the Data Transfer Workbench.

Objectives



Objective:

- Import a chart of accounts using the Data Transfer Workbench

In this topic, you will see how to import a chart of accounts using the Data Transfer Workbench.

Business Scenario



- Your customer has given you a spreadsheet with the list of accounts from the legacy system. You need to import these accounts into a new SAP Business One company.

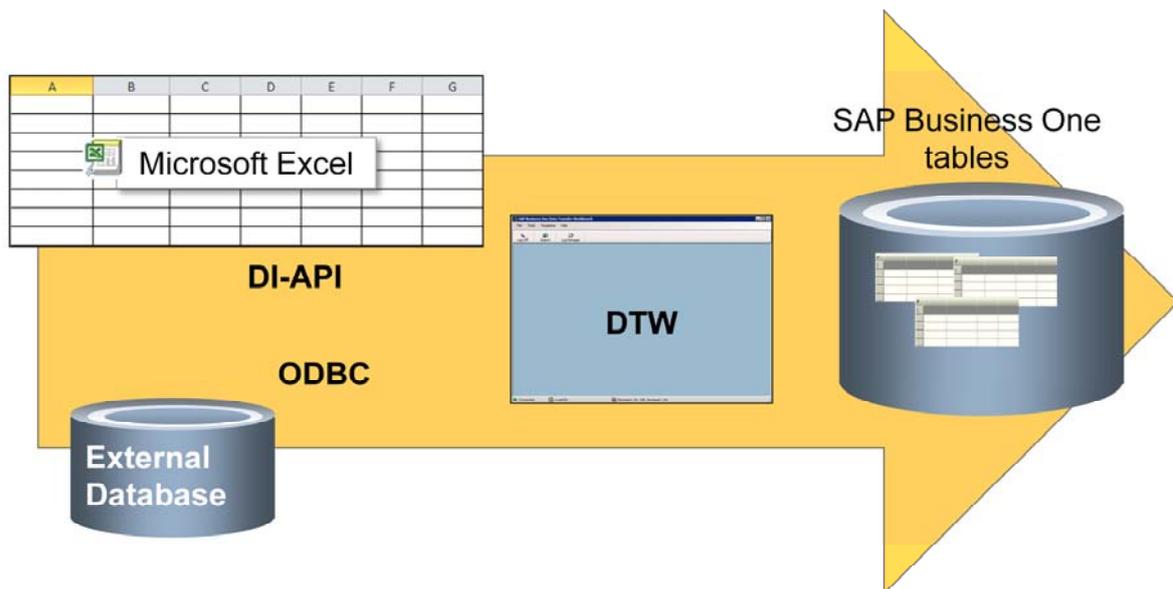
Solution: Use the Data Transfer Workbench to import a chart of accounts.

Account Number	Account Description	Account Number	Account Description
1001-01	Cash	3001-01	Capital
1002-01	Accounts Receivable	4001-01	Revenue
1003-01	Stock	4001-02	Revenue
1010-01	Equipment	5001-02	Rent
2000-01	Accounts Payable	5003-01	Salaries
2001-01	Loan		
...			

In this business scenario, your customer has given you a spreadsheet with the list of general ledger accounts from the legacy system.

You need to import these accounts into a new SAP Business One company. You can do this using the Data Transfer Workbench.

Data Transfer Workbench (DTW)



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Data Transfer Workbench (DTW) is a tool provided with SAP Business One to import data into SAP Business One objects from a Microsoft Excel spreadsheet. DTW uses the DI API to access the database.

DTW can also import data from external databases using an ODBC connection. In this topic, the focus is on importing data from a spreadsheet.

Templates

Data Transfer Workbench > Templates > Templates

Data Transfer Workbench > Templates > Samples

The screenshot displays two Microsoft Excel spreadsheets. The top spreadsheet, titled 'OACT - ChartOfAccounts', has columns for Code, Name, CashAccoi, BudgetAo, ActiveAcc, DataExpoi, FatherAcc, ExternalC, RateConv, TaxLiabi, TaxExemp, and Account. The bottom spreadsheet, titled 'CRD1 - BPAddresses', has columns for ParentKey, LineNum, AddressN, AddressTy, AddrType, Block, BuildingFl, City, Country, County, and Fed. A sidebar on the right lists various SAP Business One categories: Administration, Banking, Business Partners, Financials, Human Resources, Inventory, MRP, Others, Production, Purchasing, Sales, Sales Opportunities, Service, and User Defined Data.

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When you install DTW, a folder is created with Microsoft Excel templates for the objects that can be imported. There is also a folder that shows samples of the template data.

You need to use the templates provided.

The templates are organized to follow the SAP Business One menus. The template names start with the four character database table name, so, for instance, the chart of accounts template is called *OACT – ChartOfAccounts*.

Importing a Chart of Accounts

■ New chart of accounts

- Select option for user-defined chart of accounts when creating company
- User-defined chart of accounts contains only the top-level drawers



■ Existing chart of accounts

- Import additional accounts into existing chart of accounts



- Identify and plan:
 - Structure and account hierarchy
 - Account details

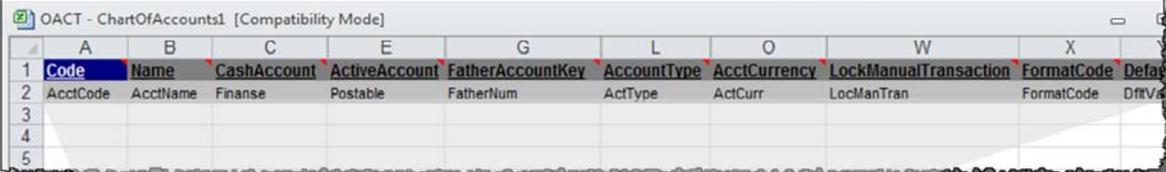
- You can use DTW to import a full chart of accounts into a new company. If you are importing a chart of accounts into a new company, you should select the option for a *User-Defined* chart of accounts when you create the company database. A user-defined chart of accounts just contains the top-level drawers.
- You can also import additional accounts for an existing chart of accounts.

Before you proceed with the import, you need to identify the structure for your chart of accounts, such as the account levels and hierarchy, and account details, such as the account type, account currency, and whether an account is confidential or is a control account.

DTW - Chart of Accounts Template

Data Transfer Workbench > Templates > Financials > Chart of Accounts

 OACT - ChartOfAccounts.xlt



	A	B	C	E	G	L	O	W	X	
1	Code	Name	CashAccount	ActiveAccount	FatherAccountKey	AccountType	AcctCurrency	LockManualTransaction	FormatCode	Default
2	AcctCode	AcctName	Finanse	Postable	FatherNum	ActType	ActCurr	LocManTran	FormatCode	DfltVal
3										
4										
5										

- **Row 1:** DI-API field names (fields exposed to DI API)
- **Row 2:** Database field names (can be identified using *System Information*)
- **Row 3:** Start entering data

The DTW template for importing a chart of accounts is found in the *Financials > Chart of Accounts* folder.

The first two rows in a DTW template are reserved and you should not remove these rows.

- Row 1 contains the DI API field names. You can only import fields that are exposed to the DI API.
- Row 2 contains the database field names that can be identified in SAP Business One using *System Information*.
- You start entering data in row 3.

Tooltips

OACT - ChartOfAccounts.xlt

1	A	B	C	E	G	L	O	W	X	
2	Code	Name	CashAccount	ActiveAccount	FatherAccountKey	AccountType	AcctCurrency	LockManualTransaction	FormatCode	Defa
3	AcctCode	AcctName	Finanse	Postable	FatherNum	ActType	ActCurr	IntManTran	FormatCode	DftVd
4										
5										

Tooltip 1 (for CashAccount):
Description: Cash Account [V/N]
Type: enum
Valid Values: tNO,tYES

Tooltip 2 (for AcctCurrency):
Description: Account Currency
Type: string
Field Length: 3

- Tooltip will open for each field in the template
 - For an enum type field, valid values are shown
 - For a string field, the maximum length is shown

To assist you, a tooltip will open when you move the mouse over the column headings in row 1.

If the field is an enum type, the valid values are shown. As an example, the valid values for the cash account field are tYES and tNO. To indicate an account is a cash account, you enter the value tYES in the field.

If the field is a string, the maximum length is shown in the tooltip. Here we can see the maximum length of the currency field is three.

Default Values for Table OACT

OACT - ChartOfAccounts.xlt

Code	Name	CashAcco	BudgetAcc	ActiveAcc	DataExp	FatherAccount	AccountType	LoadingTr	LoadingFa	AcctCurre	Revaluat	LockManu	FormatCode	Debit
600500	Expense Group	tNO		tNO		600000								
600510	Rent - Warehouse 1	tNO		tYES		600500 at_Expenses								
600520	Rent - Warehouse 2	tNO		tYES		600500 at_Expenses								

Account Properties	Default Value
Cash Account	N
Active Account	Y
Account Type (category)	Other
Lock Manual Transaction (control account)	N

Reference:
Help > Database Tables Reference

Many fields in SAP Business One have default values, for example, the account currency.

When preparing data for import, you do not need to enter the value if the default value meets your needs.

Default values are not shown in the tooltips; however, you can find the default values for a table in the *Database Tables Reference*. From within DTW choose *Help > Database Tables Reference*.

Some default values are shown here.

- An account will be imported as a non-cash account by default, therefore you need to indicate if the account is a monetary account.
- An account will be imported as an active account, therefore you need to indicate if it is a title account.
- The default account type is “other”, therefore you need to indicate sales or expenditure account types.
- And if the account is a control account, make sure you indicate this in the spreadsheet using the Lock Manual Transaction field.

Account Codes

OACT - ChartOfAccounts.xlt

Code	Name	CashAccou	BudgetAcc	ActiveAcc	DataEx	FatherAccount	AccountType	LoadingTy	LoadingFar	AcctCurre	Revaluation	LockManu	FormatCode	Defau
600500	Expense Group	tNO		tNO		600000								
600510	Rent - Warehouse 1	tNO		tYES		600500 at_Expenses								
600520	Rent - Warehouse 2	tNO		tYES		600500 at_Expenses								

- If you are importing a standard chart of accounts, enter account number in column A

In the DTW template, column A contains the account code.

If you are importing a standard chart of accounts, enter the account number here.

Account Codes (Cont.)

OACT - ChartOfAccounts.xlt

Code	Name	CashAccol	BudgetAcc	ActiveAcc	DataEx	FatherAccount	AccountType	LoadingTy	LoadingFar	AcctCurre	Revaluation	Lock	Manu	FormatCode	Def
600500	Expense Group	tNO		tNO		600000									
600510	Rent - Warehouse 1	tNO		tYES		600500	at_Expenses								
600520	Rent - Warehouse 2	tNO		tYES		600500	at_Expenses								

- If you are importing a standard chart of accounts, enter the account number in column A

If you are importing a segmented chart of accounts:

- If the account is a title account, enter account name in column A
- If the account is an active account, enter the account number in the *FormatCode* column, as a string with segments

If you are importing a segmented chart of accounts:

- If the account is a title account, enter the account *name* in column A.
- If the account is an active account, you can enter any value in column A, since the value in this column is ignored. Enter the actual account number in the *FormatCode* column. The *FormatCode* field is *only* entered for a segmented chart of accounts. Enter the full account number of the active account as a string, with the segments.

Note that, for a segmented chart of accounts, you must define the segment codes in the system before you import the accounts.

Father Key

OACT - ChartOfAccounts.xlt

1	Code	Name	CashAccou	BudgetAcc	ActiveAcc	DTW	FatherAccount	AccountType	LoadingTyp	LoadingFar	AcctCurre	Revaluation	LockManu	FormatCode	Defau
2	AcctCode	AcctName	Finanse	Budget	Postable	ExortCr	FatherNum	ActType	OverType	OverCode	ActCurr	RevalMatch	LockManTran	FormatCode	DffVal
3	600500	Expense Group	tNO		tNO		600000								
4	600510	Rent - Warehouse 1	tNO		tYES		600500 at_Expenses								
5	600520	Rent - Warehouse 2	tNO		tYES		600500 at_Expenses								
6															
7															
8															
9															

Father key determines the level in the hierarchy for an imported account:

- For each title or active account, enter the higher lever drawer or title account in the *FatherNum* column. New account will be inserted a level below this account.
- If father account is a drawer, enter the 15 digit number assigned by the system.

The father key field is important, since this determines the level in the hierarchy for an imported account.

You can import both title and active accounts using DTW.

For each title or active account, you need to reference the higher level drawer or title account in the account hierarchy in the *FatherNum* column. The new account will be inserted at a level below this account.

If the father account is a level one drawer, enter the 15 digit number assigned by the system. To find out the system-assigned number for a drawer, run a query on the OACT table. In the DTW template, make sure this cell is formatted as *text* so it can hold a 15 digit number.

Key Points



Key points from this course:

- The Data Transfer Workbench makes it possible to import a legacy chart of accounts for a new company. You first need to create a company with a user-defined chart of accounts.
- You can also use DTW to add accounts to an existing chart of accounts.
- Use the OACT template provided with the DTW.
- Be aware of default field values, and field lengths and constraints. Consult the *Database Tables Reference* in the DTW help files.
- For each account you import, you need to enter the higher-level drawer or title account as the father key. For segmented accounts, enter the active account number in the FormatCode column.
- Save the spreadsheet as a tab, comma, or semi-colon delimited file.
- Run a simulation first, or import the data into a test database so you can validate the results.

Here are some key points to take away from this course. Please take a minute to review these key points:

- The Data Transfer Workbench (DTW) makes it possible to import an entire chart of accounts from a legacy system. You first need to create a new company database with a user-defined chart of accounts.
- You can also use DTW to add accounts to an existing chart of accounts, including a chart of accounts based on the default localization template.
- Use the OACT template provided with the DTW.
- Be aware of default field values, and field lengths and constraints. Consult the *Database Tables Reference* to determine the default values for fields, as well as field lengths and constraints on the data in a field. You can find the Database Tables Reference in the help files for the Data Transfer Workbench application.
- For each account you import, you need to enter the higher-level drawer or title account in the chart of accounts hierarchy (the father key). For an account at level two, this will be the number assigned to the drawer. For a segmented chart of accounts, you need to enter the active account number in the *FormatCode* column.
- Remember to save the spreadsheet as a tab, comma, or semi-colon delimited file. These are the file formats that DTW supports.
- Run a simulation first in DTW, or import the data into a test database so you can validate the results.

Data Migration Tools: DTW – Business Partners

SAP Business One
Release 9.0



Welcome to the topic on importing business partner master data using the Data Transfer Workbench.

Objectives



Objective:

- Import business partner master data using the Data Transfer Workbench

In this course, you will see how to import business partner master data, using the Data Transfer Workbench.

Business Scenario



- You need to import business partner records from a legacy system into a new company.
- The records have been extracted into a spreadsheet.
- The master data includes additional fields that have been added as user-defined fields.

Solution: Use the Data Transfer Workbench to import data into business partner objects.

A	B	C	D	E	F	G

In this business scenario, you need to import business partner records from a legacy system into a new company database.

The records have been extracted into a spreadsheet.

The master data has some additional fields that have been added to the master data object as user-defined fields.

Using the Data Transfer Workbench, you can import data into business partner objects and user-defined fields.

DTW Templates - Business Partners

Templates > Business Partners > Business Partner Master Data

OCRD (parent)

— OCPR (contact persons)

— OCRB (bank accounts)

— CRD1 (addresses)

— CRD2 (payment
methods)

— OSPG (discount groups)

etc.



The business partner object as displayed on screen uses multiple tables. In the Data Transfer Workbench, multiple templates are provided for the import of data into the tables. Some of the tables are shown here, but you should check the template folder to see all available templates.

Each template is named for the table that it updates. The parent template updates the OCRD table, allowing you to import fields in the header and on the General and Payment Terms tabs of the object.

You can use the child templates to import data into other tables for the object, for example, the OCPR table for importing contact persons.

Parent Template

- Enter core information for business partner in template OCRD:

 **OCRD - BusinessPartners.xlt**

	A	B	C	D	E	F	G	H	I	J
1	CardCode	CardName	CardType	GroupCode	Address	ZipCode	MailAddress	MailZipCod	Phone1	Phone2
2	CardCode	CardName	CardType	GroupCode	Address	ZipCode	MailAddress	MailZipCod	Phone1	Phone2
3	C001	DL Logistics	cCustomer	102	123 Main St	123 456				
4	V001	Ab Supplie:	cSupplier	106	54 Warehouse Lane	ABD 123				
5										
6										

Field	Value
CardType	cCustomer (default) cSupplier
GroupCode	Code from OCRG table
Currency	Default is local currency
Payment Terms	Default from General Settings
Price List Number	Default is 1) price list associated with BP group, or 2) price list from payment terms

In the parent template OCRD you specify core information for the business partner, such as the code and name.

- The card type field identifies if the business partner is a customer, supplier, or lead. The default card type is for a customer, therefore you can leave this field empty if you are importing customer records.
- The group code assigns the business partner to a customer or vendor group. If you leave the group code blank in the template, the group will default to the first customer or vendor group in the system, for example 100 for customers or 101 for vendors/suppliers. If you enter a group code, use the code from the related table OCRG (the Customer or Vendor groups table).
- The business partner currency will default to the local currency. If you enter a currency, use the 3 digit international currency symbol as defined in the currencies table in the system.
- The payment terms will default in from the General Settings.
- If the business partner group has an associated price list, that price list will be the default. If there is no price list associated with the group, the price list will be taken from the default payment terms.

Child Template – Contact Persons

- To import contact information, use the child template OCPR
- Enter each contact on a separate row

	A	B	C	D	E	F	G	H	I	J
1	CardCode	CardName	CardType	GroupCode	Address	ZipCode	MailAddress	MailZipCod	Phone1	Phone2
2	CardCode	CardName	CardType	GroupCode	Address	ZipCode	MailAddress	MailZipCod	Phone1	Phone2
3	C001	DL Logistics	cCustomer	102	123 Main St	123 456				
4	V001	Ab Supplier	cSupplier	106	54 Warehouse Lane	ABD 123				
5										

	A	B	C	D	E	F	G	H	I	J
1	ParentKey	LineNum	CardCode	Name	Position	Address	Phone1	Phone2		
2	CardCode	LineNum	CardCode	Name	Position	Address	Tel1	Tel2		
3	C001			James Smith	CEO		123 446 7890			
4	C001			Mary Burton	Accountant		123 446 7891			
5	C001			Terry Adams	Buyer		123 446 7895			
6										

To import contact information on the Contact Persons tab of the master data, use the child template OCPR, and enter each contact on a separate row. You can import multiple contacts for a business partner.

The child template references the parent template row using the card code field.

Child Template – Addresses

	A	B	C	D	E	F
1	CardCode	CardName	CardType	GroupCode	Address	ZipCode
2	CardCode	CardName	CardType	GroupCode	Address	ZipCode
3	C001	DL Logistics	cCustomer	102	123 Main St	123 456
4	V001	Ab Supplier	cSupplier	106	54 Warehouse Lane	ABD 123
5						
6						

- You can enter one billing and shipping address in parent template OCRD
- To import multiple addresses, use CRD1 template

	A	B	C	D	E	F	G	H
1	ParentKey	LineNum	AddressName	Street	Block	ZipCode	City	County
2	CardCode	LineNum	Address	Street	Block	ZipCode	City	County
3	C001		Bill to	123 Commercial St		EC1 2PW	London	
4	C001		Ship to	24 Bridge St		M3 7FD	Leeds	
5	C001		Alt Ship to	123 Commercial St		EC1 2PW	London	
6								

You can specify one billing and a shipping address in the parent template OCRD. These addresses become the default addresses.

To import multiple addresses for a business partner, use the child template CRD1.

In the CRD1 template, enter each address on a separate row and use the *AddressName* field to label each address.

Updating Information

- Child templates allow you to update individual rows in existing master data records
- You identify row to be updated by entering *LineNum* field
- You do not need to include the parent OCRD template
- Choose “Update Existing Data”

	A	B	C	D	E	F	G	
1	ParentKey	LineNum	CardCode	Name	Position	Address	Phone1	Phone2
2	CardCode	LineNum	CardCode	Name	Position	Address	Tel1	Tel2
3	C001	0		James Smith	CEO		123 446 7890	
4	C001	3		Gail Winters	Bookkeeper		123 446 7897	
5	C001	4		Dan Mackay	IT Administrator		123 446 7899	
6								

You can use the child templates to update individual contacts or addresses in an existing master data record.

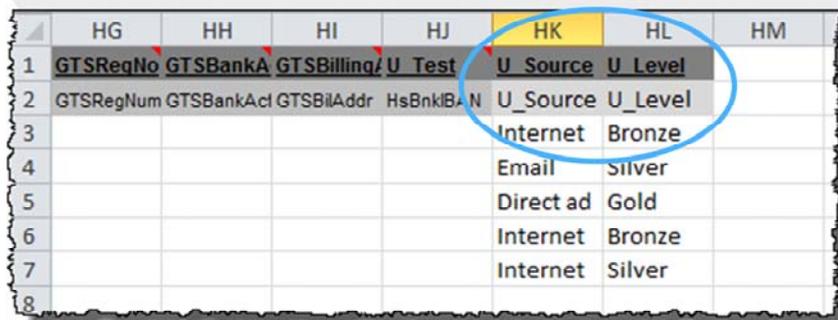
In the child template, you identify the contact or address to be updated by entering the *LineNum* field. The *LineNum* field is entered as an integer: 0 for the first row, 1 for the second row, and so on. Generally the rows match the order of the original import; however, you should verify the row for a contact or address by running a query on the OCPR or CRD1 table.

You can add a *new* contact or address row to an existing business partner record by setting the *LineNum* value appropriately so that it does not update an existing row.

You do not need to include the parent template OCRD when you update individual rows. Remember to choose the option to “Update Existing Data” in DTW.

Importing into User-Defined Fields

- To import data into user-defined fields, add the field names to the end of the template



The image shows a screenshot of a data import template table. The table has columns labeled HG, HH, HI, HJ, HK, HL, and HM. The first row contains the following data: 1, GTSRegNo, GTSBankA, GTSBilling/, U Test, U Source, U Level. The second row contains: 2, GTSRegNum, GTSBankAct, GTSBiAddr, HsBnkIBAN, U Source, U Level. The third row contains: 3, Internet, Bronze. The fourth row contains: 4, Email, Silver. The fifth row contains: 5, Direct ad, Gold. The sixth row contains: 6, Internet, Bronze. The seventh row contains: 7, Internet, Silver. The eighth row is empty. A blue circle highlights the columns HK and HL, and the data in the first three rows of these columns.

	HG	HH	HI	HJ	HK	HL	HM
1	GTSRegNo	GTSBankA	GTSBilling/	U Test	U Source	U Level	
2	GTSRegNum	GTSBankAct	GTSBiAddr	HsBnkIBAN	U Source	U Level	
3					Internet	Bronze	
4					Email	Silver	
5					Direct ad	Gold	
6					Internet	Bronze	
7					Internet	Silver	
8							

User-defined fields are often added to master data records to hold information specific to the company's business processes.

To import data into a user-defined field, simply add the name of the field to the end of the template, as shown here, and enter the data in the column.

You must use the DTW to import data into user-defined fields; you cannot import into user-defined fields using the Import from Excel utility.

Key Points



Key points from this course:

- Using DTW, you can import and update data in the business partners object.
- The business partner object uses several database tables, therefore multiple DTW templates are provided. The main template OCRD is required when importing a new business partner.
- Using the child templates, you can import multiple contact employees, addresses and business partner bank accounts for business partners.
- You can import child templates together with the parent, or separately. If you update separately, use the option “Update Existing Data”.
- You can import data into user-defined fields by adding the fields to the end of the template.
- To update information in a row, choose the option “Update Existing Data” and enter the *LineNum* field in the child template.

Here are some key points to take away from this course. Please take a minute to review these key points:

- Using the Data Transfer Workbench, you can import and update data in the business partners object.
- The business partner object uses several database tables, therefore multiple DTW templates are provided. The main template is OCRD and is required when importing a new business partner. In this template you can specify a billing and shipping address, as well as a default bank for the business partner.
- Using the child templates, you can import multiple contact employees, billing and shipping addresses, and bank account details for business partners. You can import these child templates together with the parent template, or you can import the child templates separately. If you import the child templates separately, choose the option to “Update Existing Data”, since the master data record already exists.
- You can also import data into user-defined fields that you have added to the business partners object, by adding the fields to the end of the template.
- To update the information in a row, such as a contact's phone number, choose the option to “Update Existing Data” and enter the *LineNum* field in the child template to identify the row.

Data Migration Tools: DTW – Item Master Data and Quantities

SAP Business One
Release 9.0



Welcome to the topic on importing item master data using the Data Transfer Workbench.

Objectives



Objective:

- Import:
 - Item master data and prices
 - Initial quantities using goods receipts documents

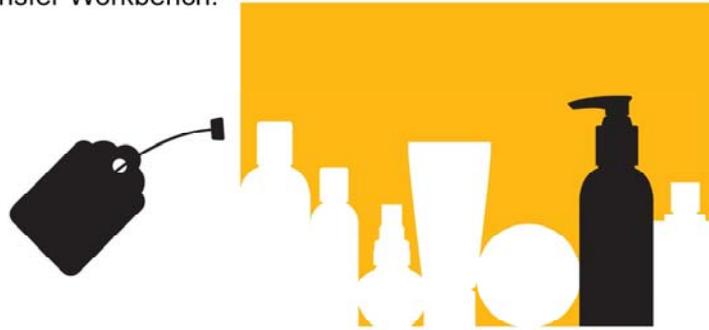
In this course, you will see how to import item master data including prices in price lists. You will also see how to import initial item quantities using goods receipts documents.

Business Scenario



- B&C Bubbles produces its own range of herbal cosmetics and lotions.
- You need to migrate the item master data and prices from the legacy system.
- Before go-live, the initial quantities and costs need to be entered as opening balances in the new system.
- Items are managed with batches.

Solution: The item data with pricing and batch information can be migrated using the Data Transfer Workbench.



In this business scenario, the customer is implementing SAP Business One and needs to migrate item master data and prices from the legacy system.

Before the customer goes live, you need to enter the initial quantities and costs as opening balances in the new system.

Many of the items are managed with batches.

Item master data, with pricing and batch (or serial) numbers, can be migrated using the Data Transfer Workbench. You can also import initial quantities for the items.

Agenda

1. **Item master data and prices**
2. Initial quantities for items



The first part of this topic covers the import of item master data.

DTW Templates – Item Master Data

Templates > Inventory > Item Master Data

OITM – Items (Parent)

— ITM1 – Items_Prices

— OITW – ItemWarehouseInfo

— ITM2 – ItemPreferredVendors

— ITW1 - ItemCycleCount



The main template for item master data imports fields into the OITM table. This includes the header and the General, Purchasing, Sales, Inventory and Planning Data tabs of the item master data object.

You can enter the inventory unit of measure in the OITM template, as well as the sales and purchasing units of measure.

The child templates for the object are the ITM1 – Items_Prices and the OITW – ItemWarehouseInfo tables. These tables hold the item's price in multiple price lists (table ITM1), and various information relating to the warehouse for the item (table OITW).

Other templates are provided in the DTW templates folder for maintaining a list of preferred vendors for the item (table ITM2). Note that the vendors in this list must have a business partner master data record.

You can also enter cycle count information for items using the ITW1 table template.

Parent Template

- Many of the item fields have default values from the system or from the configuration, for example, General Settings
- Other fields have specific valid values documented in the tooltip

OITM - Items.xlt

	A	B	C	D	E	F	G	H	I	J	K	AD	AM
1	ItemCode	ItemName	ForeignNar	ItemsGroup	CustomsG	SalesVA1	BarCode	VatLiabLe	Purchasell	SalesItem	InventoryIt	ManageBatcl	SalesUnit
2	ItemCode	ItemName	FrgrName	ItmsGrpCod	CstGrpCode	VatGourpS	CodeBars	VATLiabLe	PrchseItem	SellItem	InvntItem	ManBtchNum	SalUnitMsr
3	230001	Herbal bath lotion		105				tYES	tNO			tYES	
4	230002	Herbal shampoo		105				tYES	tNO			tYES	
5	230003	Herbal handcreme		105				tYES	tNO			tYES	
6													
7													

The main table OITM contains over one hundred fields. Many of the fields have default values from the system or according to the system configuration, for example, the G/L Method defaults in from the General Settings.

Other fields have specific valid values that must be entered in the spreadsheet. You can see the valid values by opening the tooltip for the field in the first row.

Database Tables Reference

Help > Database Tables Reference

- Consult *Database Tables Reference* to see default system values for table fields

Items
Table name: OITM

Field	Description	Type	Size	Related	Default Value
ItemCode	Item No.	nVarChar	20	-	
ItemName	Item Description	nVarChar	100	-	
FrgnName	Description in Foreign Lang.	nVarChar	100	-	
ItmsGrpCod	Item Group	Int	6	OITB	100
CstGrpCode	Customs Group	Int	6	OARG	-1
VatGourpSa	Sales Tax Definition	nVarChar	8	OVTG	
CodeBars	Bar Code	nVarChar	16	-	
VATLiable	Tax Definition	VarChar	1	-	Y
PrchseItem	Purchase Item [Yes/No]	VarChar	1	-	Y

To see which fields have system level defaults for a table, consult the *Database Tables Reference*, which is distributed with the SAP Business One software. You can open the Database Tables Reference from the Help menu in DTW. Navigate to the object and the table for the object.

If there is a default system value for a field, it will show here.

Child Templates

Templates > Inventory > Item Master Data

■ ITM1 – Items_Prices

The screenshot shows the ITM1 – Items_Prices template and the Item Master Data form. The template is a table with columns A through E. The Item Master Data form shows fields for Item No., Description, Foreign Name, Item Type, Item Group, UoM Group, Price List, and various pricing options.

	A	B	C	D	E
1	ParentKey	LineNum	PriceList	Price	Currency
2	ItemCode	LineNum	PriceList	Price	Currency
3	230001		1	32	GBP
4	230001		2	25	GBP
			3	20	GBP
			1	18	GBP
			2	15	GBP
			3	13	GBP
			1	25	GBP
			2	20	GBP
			3	17	GBP

Item Master Data

Item No.: Manual 230001
 Description: Herbal bath lotion
 Foreign Name:
 Item Type: Items
 Item Group: Items
 UoM Group: Manual
 Price List: Base Price
 Base Price:
 Discount Purchase Price
 Regular Purchase Price
 Distributor Sales Price
 Regular Sales Price
 Small Account Sales Price
 Last Purchase Price
 Last Evaluated Price
 Do Not Apply Discount Gr
 Manufacturer
 Additional Ident

Can import item's price into one or more price lists

To find price list number, run a query on table OPLN

Using the ITM1 template, you can import an item's price into one or more price lists.

You can import the prices with the item master data, or import the price lists in a separate run.

To import a price, enter the item code, price list number, price and optionally the currency.

The price list number can be found by running a query on the OPLN table.

Note: The price list template does not currently include the new price list fields for additional currencies.

Child Templates (Cont.)

Templates > Inventory > Item Master Data

■ ITM1 – Items_Prices

- To update a price in a price list, enter the pricelist as an integer in the *LineNum* column
- Leave the Price List column empty

1	A	B	C	D	E
2	ItemCode	LineNum	PriceList	Price	Currency
	230001	0		34	GBP
	230001	1		27	GBP
	230001	2		22	GBP
	230002	0		20	GBP
	230002	1		16	GBP
	230002	2		14	GBP
	230003	0		27	GBP
	230003	1		22	GBP
	230003	2		19	GBP

If you need to update prices in an existing price list, you need to enter the *LineNum* field in the ITM1 template. This is an integer version of the price list number, starting at zero.

In this case, you need to choose the option in DTW to update existing data, since you will be updating the item object.

If you update a price list that is based on another price list, the manual checkbox will be set and the price will not be updated if the base price subsequently changes.

Note that you can also import and update price lists using the *Import from Excel* utility in SAP Business One. You can find information on this utility in a companion course.

Child Templates (Cont.)

Templates > Inventory > Item Master Data

■ OITW - ItemWarehouseInfo

- If stock is managed by warehouse, you can enter the minimum and maximum levels for each warehouse, in the OITW template

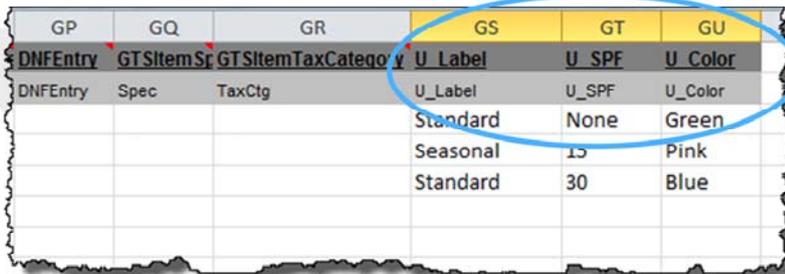
The screenshot shows the 'Item Master Data' window with the 'Inventory Data' tab selected. A checkbox labeled 'Manage Inventory by Warehouse' is checked. Below it is a table with the following data:

#	Warehouse	Min Inv.	Max Inv.
1	01 General Warehouse	6	
2	02 West Cost Warehouse	3	
3	03 Dropship Warehouse		
4	04 Consignment Warehouse		
5			

If item stock will be managed by warehouse, you can enter the minimum and maximum stock levels for each warehouse using the *OITW - ItemWarehouseInfo* template. The information entered in this template is also displayed on the Inventory Data tab in the item master data.

Importing into User-Defined Fields

- To import data into user-defined fields, add the field names to the end of the template

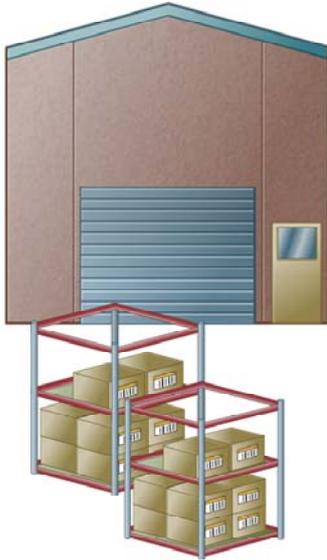


GP	GQ	GR	GS	GT	GU
DNFEntry	GTSItemSr	GTSItemTaxCategory	U_Label	U_SPF	U_Color
DNFEntry	Spec	TaxCtg	U_Label	U_SPF	U_Color
			Standard	None	Green
			Seasonal	15	Pink
			Standard	30	Blue

User-defined fields are often added to master data records to hold information specific to the company's business processes.

To import data into a user-defined field, simply add the name of the field to the end of the template, as shown here, and enter the data in the column.

Preparation



Before you import item master data, create the:

- Item groups
- Warehouses and bin locations
- Price lists
- Manufacturers
- Master data for preferred vendors

Before you import item master data, you need to create the item groups and warehouses in the system.

You can create item groups and warehouses manually, or use the DTW templates *OITB – ItemGroups* and *OWHS – Warehouses*. These templates are found under the *Administration > Setup > Inventory* folder.

Price lists must be created before you can import an item's price. You can create price lists manually in the system, or create new price lists using the DTW template *OPLN – PriceLists*.

Other item-related information, such as manufacturers, and the master data for preferred vendors, must be set up first so that you can reference them in the *OITM* template.

Agenda

1. Item master data and prices
- 2. Initial quantities for items**

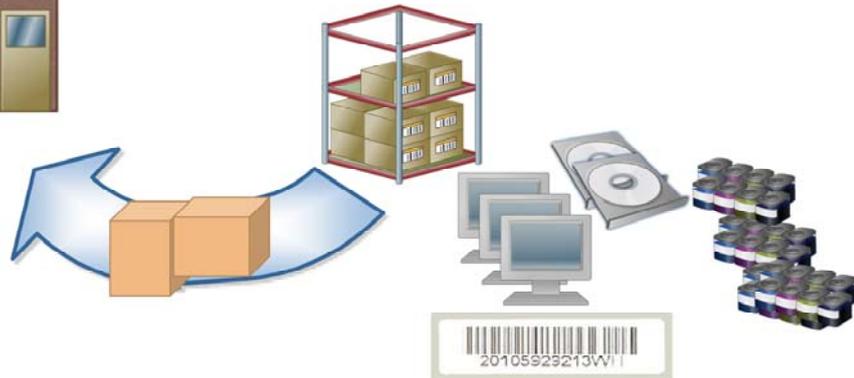


The second part of this topic covers the initial quantities for items.

Opening Quantities for Items



- Opening balances record physical in-stock quantities and item costs
- Batch and serial number information can be entered with the quantities



After the item master data has been imported during an implementation project, you need to enter opening balances before go-live.

Opening balances record the physical in-stock quantities and the item cost. The item cost is used for inventory valuation.

Batch and serial number information can be entered with the item quantities.

Opening Balances are covered in more detail in another topic.

Goods Receipt – Header

- Each row represents a goods receipt document

 OIGN – Documents.xlt

	A	B	C	D	E	F	K	M	N	
1	DocNum	DocType	HandWritten	Printed	DocDate	DocDueDate	DocCur	DocTotal	Reference1	Reference2
2	DocNum	DocType	Handwritten	Printed	DocDate	DocDueDate	DocCur	DocTotal	Ref1	Ref2
3	1		tNO		20130327	20130327			Opening Balance	
4	2		tNO		20130327	20130327			Opening Balance	
5										
6										

In the OIGN template, enter the header information for the goods receipt document.

Each row represents a goods receipt document.

If you want the system to allocate document numbers, you can enter any number as the *DocNum* in column A.

If you want to enter manual document numbers, set the value of the *HandWritten* field in column C to tYES and enter the manual document number as the *DocNum*.

It is a good practice to enter reference information so you can identify the documents and journal entries as opening balances.

Note that document dates must be entered using the format YYYYMMDD.

Goods Receipt – Document Rows

OIGN – Documents.xlt

	A	B	C	D	E	F	K	M	N	
1	DocNum	DocType	HandWritten	Printed	DocDate	DocDueDate	DocCur	DocTotal	Reference1	Reference2
2	DocNum	DocType	Handwritten	Printed	DocDate	DocDueDate	DocCur	DocTotal	Ref1	Ref2
3	1		tNO		20130327	20130327			Opening Balance	
4	2		tNO		20130327	20130327			Opening Balance	
5										
6										

IGN1 – Document_Lines.xlt

	A	B	C	E	G	I	N
1	ParentKey	LineNum	ItemCode	Quantity	Price	Currency	WarehouseCode
2	DocNum	LineNum	ItemCode	Quantity	Price	Currency	WhsCode
3		1	230001	48	14		01
4		1	230002	120	12		01
5		1	230003	76	15		01
6		2	230001	92	14		02
7		2	230002	128	12		02
8		2	230003	65	15		02
9							
10							

Each row linked to parent template by column A

Use the IGN1 template to import the document rows for the goods receipt.

Each row in the IGN1 template is linked back to the respective parent row using the *ParentKey* field in column A.

Each row contains the quantities for an item in a warehouse.

The *Price* field is used to calculate inventory value. In a perpetual inventory system, you need to carefully consider the value entered here:

- For moving average price, whenever you receive items, the item cost will be recalculated using the moving average calculation. Therefore you need to make sure the price matches the average cost price in the legacy system.
- For FIFO pricing, you should import multiple documents with different quantities at different cost prices, to represent the FIFO layers in the legacy system.
- For standard cost items, the item cost can be entered with the master data in the OITM template.

Importing Serial Numbers

Templates > Inventory > Inventory Transactions > Goods Receipts

IGN1 – Document_Lines.xlt

1	ParentKey	LineNum	ItemCode	ItemDescr	Quantity	ShipDate	Price
2	DocNum	LineNum	ItemCode	Dscription	Quantity	ShipDate	Price
3	1	1	999-010		2		90
4	1	1	999-020		3		120
5	1	1	999-030		6		15

- Enter each serial number on separate row in SRNT template
- Each serial number is linked back to the document row using the *DocLineNum* column

SRNT – SerialNumbers.xlt

1	ParentKey	LineNum	ManufacturerSerial	InternalSerialNumber	SystemSerialNumber	BaseLineNumber
2	DocNum	LineNum	MnfSerial	DistNumber	SysNumber	DocLineNum
3	1	1	112-35010		1304201201	0
4	1	1	112-35020		1304201202	0
5	1	1	122-20025		1344201251	1
6	1	1	122-20026		1344201252	1
7	1	1	122-20027		1344201253	1

To import serial numbers, use the SRNT template. This is found in the same template folder as the goods receipt template.

Because the serial number is unique to an item, you enter each serial number on a separate row in the SRNT template.

Each serial number is linked back to a row in the document lines template IGN1, using the *DocLineNum* field.

In the example shown, the first row in the goods receipt document has a quantity of two items. The two serial numbers are entered in the SRNT template with a base line number of zero to indicate the first row in the document.

The *ParentKey* field links back to the header document.

Importing Batch Numbers

Templates > Inventory > Inventory Transactions > Goods Receipts

IGN1 – Document_Lines.xlt

	A	B	C	E	G	I	N
1	ParentKey	LineNum	ItemCode	Quantity	Price	Currency	WarehouseCode
2	DocNum	LineNum	ItemCode	Quantity	Price	Currency	WhsCode
3		1	230001	48	14		01
4		1	230002	120	12		01
5		1	230003	76	15		01
6		2	230001	92	14		02
7		2	230002	128	12		02
8		2	230003	65	15		02

- BTNT template uses the *DocLineNum* to link batch information to a row in the document

BTNT – BatchNumbers.xlt

	A	B	C	F	G	K	L
1	ParentKey	LineNum	BatchNum	ExpiryDate	Manufacturing	Quantity	BaseLineNumber
2	DocNum	LineNum	DistNumber	ExpDate	MnfDate	Quantity	DocLineNum
3		1	1201	20141231	20121212	24	0
4		1	1223	20151231	20130228	24	0
5		1	1209	20160909	20121128	60	1
6		1	1249	21061231	20130116	60	1
7		1	1256	20141231	20130123	76	2
8		2	1260	20151231	20130224	92	3
9		2	1261	20160909	20130307	128	4
			1262	21060909	20130307	65	4

To import batch numbers, use the BTNT template. This is found in the same template folder as the goods receipt template.

Enter the quantity for each batch on a separate row. Use the *DocLineNum* field to link the batch to a row in the document.

In this example, the first two rows in the BTNT template belong to the first row in the document. This row has a quantity of 48 items. In the BTNT template, this quantity is split into two batches, with 24 items in each batch.

Key Points



Key points from this course:

- You can import item master data and item prices using the Data Transfer Workbench.
- Item groups, warehouses, and price lists must be created before you import the items.
- The main template for item master data is OITM. There are related tables for price lists, preferred vendors, and warehouse item information.
- To import data into user-defined fields, add the fields and their values to the end of the template.
- You can import opening balances for item quantities and item costs using the DTW Goods Receipt template.
- Templates are also provided to import serial numbers and batches for the items as they are received into stock.
- Use the *OITW – ItemWarehouseInfo* template to import warehouse information for the item if inventory is managed by warehouse.

Here are some key points to take away from this course. Please take a minute to review these key points:

- You can import item master data and item prices using the Data Transfer Workbench.
- Item groups, warehouses, and price lists must be created before you can import the items.
- The main template for item master data is OITM. There are related tables for price lists, preferred vendors, and warehouse item information.
- To import data into user-defined fields, add the fields and their values to the end of the template.
- As you prepare for go-live, you can import as opening balances the initial quantities and item costs for items using the DTW Goods Receipt template.
- Templates are also provided to import serial numbers and batches for the items as they are received into stock.
- Use the *OITW – ItemWarehouseInfo* template to import warehouse information, such as minimum and maximum stock levels, for an item if inventory is managed by warehouse.

Data Migration Tools: Opening Balances

SAP Business One
Release 9.0



Welcome to the topic on Opening Balances.

Objectives



Objectives:

- Enter beginning balances for business partners, inventory, and G/L accounts in SAP Business One

In this topic, you will learn the various options for entering beginning balances for business partners, inventory, and G/L accounts. You will also learn how to enter the item quantities held in stock, with the costs.

Business Scenario



- The customer will go live in two days. Once the legacy system is closed down, you need to balance the accounts from the legacy system with the account balances in SAP Business One
- To accomplish this, you need to enter the balances for G/L accounts and business partners, and enter item quantities and costs, so that the financial reports match

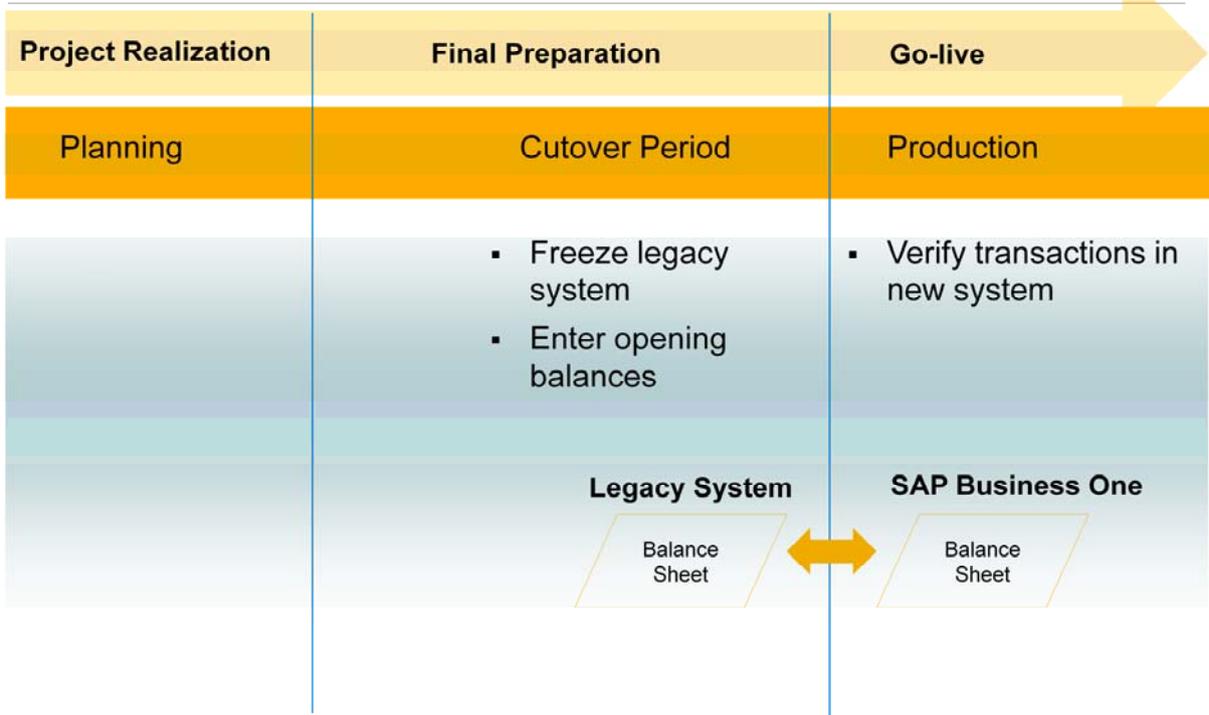


Balance
Sheet

Profit and
Loss
Statement

Just before go-live, you have a short timeframe where you must enter the G/L account balances from the legacy system, including the balances for business partner accounts. You also need to enter the item quantities and costs. At the end of this effort, the financial reports in the new SAP Business One system match the legacy reports.

Cutover



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The period immediately before go-live is called cutover. This period can be as short as a few hours, or can last a few days, such as over a weekend.

However, you should conduct the planning for the cutover much earlier on in the implementation project, in phase 3 - Project Realization.

There are many things to consider. Will there be a period of running the SAP Business One system in parallel to the legacy system? Can the go-live take place at the start of a fiscal year? Can open transactions in the legacy systems be closed before the cutover?

During the cutover period, the final opening balances are entered in the new SAP Business One system.

At go-live, financial information in the SAP Business One system must match the legacy system balance sheet accounts.

Data Migration Order for Opening Balances

1. Master Data

2. Item Quantities and Costs (after stock count)

3. Open Transactions that do not impact inventory*:

- Sales and Purchase Orders
- A/R and A/P Invoices**
- Payments
- Production orders

Reference: Data Migration Guide

4. Final Opening Balances:

- Business Partner Balances***
- G/L Account Balances
- Bank Transactions



The cutover period is a critical period and there are many elements to consider. Each customer will have slightly different requirements; but in general you should follow a recommended order for entering the opening balances.

In this topic, we cover the procedure for opening balances at a high level. For a step-by-step guide to opening balances, refer to the *Data Migration Guide* from the AIP methodology.

Data Migration Order for Opening Balances

1. Master Data

2. Item Quantities and Costs (after stock count)

3. Open Transactions that do not impact inventory*:

- Sales and Purchase Orders
- A/R and A/P Invoices**
- Payments (not based on invoice)
- Production orders

Reference: Data Migration Guide

4. Final Opening Balances:

- Business Partner Balances***
- G/L Account Balances
- Bank Transactions



First, you need to complete the migration of master data. Master data is usually migrated in the Project Realization phase of the implementation project; however, there may be a need to migrate new master data created in the legacy system after the main migration ends.

Data Migration Order for Opening Balances

1. Master Data

2. Item Quantities and Costs (after stock count)

3. Open Transactions that do not impact inventory*:

- Sales and Purchase Orders
- A/R and A/P Invoices**
- Payments (not based on invoice)
- Production orders

Reference: Data Migration Guide

4. Final Opening Balances:

- Business Partner Balances***
- G/L Account Balances
- Bank Transactions



The customer should freeze operations on the legacy system, and perform a stock count, so that item quantities and costs can be entered into SAP Business One.

If the system uses perpetual inventory, the inventory G/L account will be updated.

Data Migration Order for Opening Balances

1. Master Data

2. Item Quantities and Costs (after stock count)

3. Open Transactions that do not impact inventory*:

- Sales and Purchase Orders
- A/R and A/P Invoices**
- Payments (not based on invoice)
- Production orders

Reference: Data Migration Guide

4. Final Opening Balances:

- Business Partner Balances***
- G/L Account Balances
- Bank Transactions



Open transactions from the legacy system should be imported next.

Open sales quotations, sales orders not linked to deliveries, purchase quotations, and purchase orders not linked to goods receipts, do not affect accounting or inventory levels, so can be imported as well as production orders.

***Note:** SAP recommends that open documents that affect inventory, such as deliveries, are not migrated. Instead the customer should try to invoice or close these documents on the legacy system. If it is not possible, the customer should retain these documents and process them on the legacy system until they are closed.

In the frozen legacy system, business partner accounts should be reconciled so that only open invoice balances and prepayments that are not based on an invoice need to be transferred. Where possible, the customer should pay outstanding vendor balances, and enter payments received from customers, to minimize the number of business partner balances.

****Note:** SAP recommends that A/R and A/P invoices are imported as *service type* invoices. If an item type invoice is migrated, and there are no preceding documents, the invoice will assume the role of the delivery or goods receipt and will impact inventory quantity levels. If perpetual inventory is in use, there will also be an automatic posting to the inventory account.

Data Migration Order for Opening Balances (Cont.)

1. Master Data

2. Item Quantities and Costs (after stock count)

3. Open Transactions that do not impact inventory*:

- Sales and Purchase Orders
- A/R and A/P Invoices**
- Payments (not based on invoice)
- Production orders

Reference: Data Migration Guide

4. Final Opening Balances:

- Business Partner Balances***
- G/L Account Balances
- Bank Transactions



Lastly, enter the final opening balances for business partners, G/L accounts and bank transactions.

*****Note:** If all open A/R and A/P documents have been imported in step 3, the final balances for business partners should already be correct and should not be duplicated.

The customer should attempt to reconcile bank accounts before these accounts are transferred. If the account can be fully reconciled, you can transfer the balance. If there are unreconciled transactions in the account, you need to post these transactions individually in SAP Business One.

A trial balance report should be produced from the legacy system so that G/L account balances can be entered into SAP Business One.

If the go-live takes place during the fiscal year, the P&L account balances are also entered from the legacy system.

Migrating Business Partner Balances

- Recommended methods for importing business partner account balances from the legacy system

Data Transfer Workbench

- Import original A/R and A/P invoices as service type invoices to avoid impact on inventory

Opening Balance transaction in SAP Business One

- Enter balance for multiple business partners using single screen

Note: If there are multiple transactions in the business partner account, decide with the customer whether to import the balance total as one flat amount, or as individual transactions

Two methods are recommended for importing business partner account balances.

- One option is to import the original A/R and A/P invoices for each business partner using the Data Transfer Workbench. SAP recommends using the *service type* document so there is no impact on inventory quantities or accounts.
- The second option is to use the *Business Partners Opening Balance* transaction in the SAP Business One application. You can enter the balance for multiple business partners in one screen.

If there are multiple transactions in a business partner account, you need to decide with the customer whether to import the balance total as one flat amount, or whether to import each individual transaction for the business partner account.

Business Partner Balances

- You need to advise the customer on the implications of the different methods
- Make sure posting periods are defined for posting to original dates

DTW

- Document as source for original invoice - can be matched to payment
- Can import down payments and payments on account using DTW templates or as opening balances
- Use original dates from legacy invoice to maintain correct aging
- Journal entry posted (origin IN)
- Keep original document numbers

Opening Balance Transaction

- No document as source, but journal entry can be matched to payment
- Can enter balances for down payments and payments on account
- Enter each transaction balance separately with original due date to maintain correct aging
- Journal entry posted (origin OB)

Note: The linked A/R and A/P control accounts are updated simultaneously

You should understand the implications of each method so you can advise the customer.

- If you import the account balances as service type invoices, as a result you have a *document* as a source for the original invoice, that can be matched when a payment is received. You should import the original posting dates from the legacy system to maintain correct aging. Any down payments and payments on account posted to the business partner account can be imported using DTW templates, or entered as opening balances as described below. You can keep the original document numbers from the legacy invoices.
- If you use the Business Partners Opening Balance transaction, a *journal entry* is posted to the business partner account. The journal entry has the origin code OB so it can be identified as an opening balance transaction. There is no document as a source, but when processing a payment, the user can match the payment to the journal entry in the account. It is easier if you enter each transaction for a business partner separately rather than in one consolidated amount. Additionally, you can enter the legacy due date for each transaction, to maintain correct aging. You can also enter balances for down payments and prepayments that were posted to the business partner account.

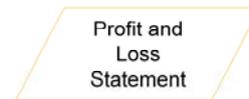
Regardless of the method used, you should make sure that you have defined posting periods in SAP Business One so that postings can be made with the original dates from the legacy system. You should make sure these periods are not locked.

Effect of Migrating Business Partner Balances

- In the balance sheet, the linked A/R and A/P control accounts are updated simultaneously, therefore these accounts should match to the legacy system
- To avoid updating the revenues and expenses accounts in the profit and loss section, use an opening balances account as the offsetting account



Balance
Sheet



Profit and
Loss
Statement

After you have imported or entered the business partner transactions, the linked A/R and A/P control accounts are updated simultaneously, so these account values should match to the legacy system. If there are discrepancies, you need to investigate and make any corrections in SAP Business One using manual journal entries.

As a result of importing invoices, the revenues and expenses accounts will be updated in the Profit and Loss section. These accounts will not be updated if you use the opening balances transaction.

DTW Templates for Business Partner Balances

- Data Transfer Workbench - Import open A/R and A/P invoices as service type

Templates > Sales > AR Invoice
 OINV – Documents
 INV1 – Document_Lines

Templates > Purchasing > AP Invoice
 OPCH – Documents
 PCH1 – Document_Lines

	A	B	C	D	E	F	G	M	N
1	DocNum	DocType	HandWritten	Printed	DocDate	DocDueDate	CardCode	DocTotal	Reference1
2	DocNum	DocType	Handwritten	Printed	DocDate	DocDueDate	CardCode	DocTotal	Ref1
3	456	dDocument_Service	tYES	psYES	20130301	20130401	C001	2500.00	Opening balance
4	457	dDocument_Service	tYES	psYES	20130302	20130402	C025	1460.50	Opening balance
5	458	dDocument_Service	tYES	psYES	20130315	20130415	C042	3780.59	Opening balance

Service Type

Manual document numbering

If you decide to import the invoices using DTW, you can find the DTW templates in the Sales or Purchasing folders:

- OINV – Documents
- INV1 – Document_Lines
- OPCH – Documents
- PCH1 – Document_Lines

You can import the original legacy document number, if desired, by using manual document numbering.

Opening Balances Transaction

Administration → **System Initialization** → **Opening Balances** → **Business Partners Opening Balance**

Business Partners Opening Balance

Opening Balance Account: 355000 Opening Balance Offset

Date: 01.01.13 Ref. 1: Ref. 2: Remarks: Business Partners Opening Balance

Due Date	Code	Name	Balance (LC)	OB (LC)	Balance (FC)	OB (FC)	Balance (SC)
29.03.13	457001	DG Industries		GBP 3,750.65			
26.04.13	457025	AB Logistics		GBP 7,432.99			
16.04.13	652001	HW Supplies		GBP 2,205.50			
02.04.13	652080	JK Electronics		GBP 3,908.45			

Buttons: Add, Cancel

Note: If *Display Credit Balance with Negative Sign* checkbox is enabled, enter a minus sign for credit balances.

If you decide to use the opening balances transaction in SAP Business One, choose **Administration** → **System Initialization** → **Opening Balances** → **Business Partners Opening Balance**.

In the opening balances screen, you should select an opening balances account as the offsetting account for the journal entry. This avoids a posting to the revenue or expenses account.

To support aging in the new system, you should specify the relevant due date for the balance. This might necessitate entering multiple balances for a business partner, with a different due date.

You can also use the opening balances transaction for recording any open business partner balances outside of the open invoices total (for example prepayments).

Note: If the *Display Credit Balance with Negative Sign* checkbox is enabled, enter a minus sign for credit balances.

Item Quantities and Costs



- Need to consider the physical quantity and the item cost
- If perpetual inventory in use, item cost depends on valuation method:
 - Standard cost
 - Moving average
 - FIFO



Item quantities and costs must be entered before open transactions that release inventory can be imported. There are two things to consider: the physical in stock quantity for the item, and the item cost.

The client should conduct a physical inventory or stock count before the item quantities are transferred.

The item cost is used for calculation of inventory valuation if perpetual inventory is used:

- For moving average price, the item cost for an item will be recalculated each time a receipt document is imported, therefore you need to match the item cost closely to the legacy system.
- For FIFO pricing, you can enter the item cost multiple times with different quantities at different cost prices, to represent the FIFO layers in the legacy system.
- For standard price, you can enter the standard prices in the item master data. Use the item's last purchase price from the legacy system.

After you have entered the item costs you should reconcile the value with the legacy system. You may have to create manual journal entries to correct any differences, especially if moving average is the management method.

Migrating Item Quantities and Costs

- Recommended methods for importing item quantities and costs from the legacy system
- All methods support batch and serial number information

Inventory Opening Balance transaction in SAP Business One

- Enter quantity and cost from single screen.

Data Transfer Workbench (goods receipts without PO template)

- Enter quantity and cost from template spreadsheet.

Manual document (using goods receipts without PO document)

- Easiest option if low number of items.

There are several methods recommended for importing item quantities and costs, including:

- The inventory opening balances transaction in SAP Business One. This allows you to enter the quantity and the item cost for each item, from a single screen.
- Data Transfer Workbench using the inventory goods receipt template *OIGN – Documents*. The import of a goods receipt using DTW is covered in a companion topic.
- If there is a low number of items, you can enter them manually using a *Goods Receipt* document.

You can enter batch or serial numbers for the items using any of the methods.

Note: If perpetual inventory is in use, the inventory account is updated in value.

Opening Balance Transaction

Inventory > Inventory Transactions > Inventory Opening Balance

- The inventory opening balance transaction allows you to enter quantity and unit price
- You can select the price source as a price list, if desired

#	Item No.	Item Description	Whse	Bin Location	In Warehouse	Opening Balance	Unit Price	Total	Account...
1	843	Laptop Case	01			21	GBP 8.00	GBP 168.00	360000
2	844	Fan	01			100	GBP 2.50	GBP 250.00	360000
3	845	USB Port	01			44	GBP 12.00	GBP 528.00	360000
4	Z00001	Tablet PC 64GB Black	01			15	GBP 56.00	GBP 840.00	360000
5	847	Flash Memory Device	01			200	GBP 48.00	GBP 9,600.00	360000
								GBP 11,386.00	

- If you decide to use the Inventory Opening Balance transaction, you enter the item quantity at opening, and the unit price. You can select the price source as the item cost or as a price list. This gives you an opportunity to take the unit prices from a predefined price list.
- If you are working with perpetual inventory, the opening balances transaction posts a journal entry. The journal entry has origin code OB. The journal entry debits the inventory account defined in the G/L account determination, and credits an offsetting account that you specify. SAP recommends you create an opening balances G/L account and use this as the offsetting account to ensure there is no effect on other general ledger accounts. The offsetting account can be selected on each item row.
- If perpetual inventory is used, make sure you enter the item cost appropriately, according to the valuation method for the item. If moving average valuation is used, a recommendation is to create a price list with the latest moving average price for each item from the legacy system. In the opening balance transaction, select this price list as the source for the item cost.

Opening Balance Transaction (Cont.)

Inventory > Inventory Transactions > Inventory Opening Balance

- If item is managed by batch or serial number, right-mouse click item row to enter applicable batch or serial information

#	Item No.	Item Description	Whse	Bin Location	In Warehouse	Opening Balance	Unit Price	Total	Account...
1	843	Laptop Case	01			21	GBP 8.00	GBP 168.00	360000
2	844	Fan	01			100	GBP 2.50	GBP 250.00	360000
3	845	USB Port	01			44	GBP 12.00	GBP 528.00	360000
4	Z00001	Tablet PC 64GB Black	01			15	GBP 56.00	GBP 840.00	360000
5	847	Flash Memory D				200	GBP 48.00	GBP 9,600.00	360000
6									
								GBP 11,366.00	

If the item is set to be managed with batch or serial numbers, you can right-mouse click the item row and select serial or batch from the context menu to enter the applicable serial numbers or batch information.

G/L Account Balances

Account Name	Debit	Credit
Assets:		
Cash	5.000	
Inventory	500	
Receivables	1.500	
Liabilities:		
Loans		2.000
Employees		1.500
Payables		700
Equity:		
Equity		200
Revenues		5.100
Cost of Sales	1.500	
Expenses	1.000	
Total:	9.500	9.500

- If go-live is at start of fiscal year, only balance sheet accounts are transferred
- If go-live is during fiscal year, balances must also be transferred from P&L
- Conduct Period End closing

The remaining final opening balances for the general ledger accounts need to be recorded last, just before the cutover.

- If the go-live occurs at the start of a fiscal year, you can enter the G/L account balances from the trial balance report from the legacy system.
- If the go-live occurs during the fiscal year, you need to transfer the P&L balances in addition. If you need to transfer P&L balances, the client should run the P&L report for each period since the start of the financial year. This will allow you to enter the balances for each period. When entering P&L balances, you need to subtract the value of the expense and revenues accounts if you imported A/R and A/P invoices.
- Conduct the *Period-End Closing* process in the current go live period, in order to transfer the P&L balances. To run the Period-End Closing utility, choose *Administration > Utilities > Period-End Closing*.

Migrating G/L Account Balances

- Recommended options for importing G/L account balances from the legacy system
- Do not enter balance twice for A/R and A/P control accounts, or for inventory accounts

Journal Entry

- Enter multiple accounts. Origin is manual journal entry

G/L Accounts Opening Balance transaction

- Enter G/L account values from single screen. Origin is Opening Balance (OB)

SAP recommends the following options for importing the final G/L account balances from the legacy trial balance report:

- Manual journal entry. You can enter multiple accounts in one journal entry. Use the opening balance account as the offsetting account. You should enter reference fields to indicate the journal entry is an opening balance.
- The G/L Accounts Opening Balance transaction in SAP Business One. You can enter the balance for each G/L account in a single screen. A journal entry is posted by the transaction with the origin code OB, so this can be easily tracked and reported as an opening balance.

Make sure you do not enter a balance twice, for example the A/R and A/P control account balances, or the inventory account balance if perpetual inventory is in use.

Opening Balances Transaction

Administration → System Initialization → Opening Balances → G/L Accounts Opening Balance

- Separate journal entry posted for each G/L account, with same posting date is same
- To spread balances over a fiscal year, post balances for each period

Date	Ref. 1	Ref. 2	Remarks	Due Date	Code	Name	Balance (LC)	OB (LC)	Balance (FC)	OB (FC)	Balance (...)
01.01.13			G/L Accounts Opening Balance								
01.01.13			Uncalled Share Capit		100010						
01.01.13			Capitalised Formation		101000						
01.01.13			Capitalised Business E		101010			GBP 120,000.00			
01.01.13			Accumulated Deprec		101500						
01.01.13			Patents and Royalties		102010			GBP 101,000.00			
01.01.13			Licences		102020						
01.01.13			Accumulated Deprec		102510						
01.01.13			Accumulated Deprec		102520						
01.01.13			Goodwill		103000			GBP 5,500.00			
01.01.13			Amortisation - Goodw		103500						
01.01.13			Freehold Land		110000			GBP 45,000.00			

If *Display Credit Balance with Negative Sign* checkbox is enabled, enter a minus sign for credit balances.

The opening balances transaction in SAP Business One allows you to enter the final balance for each G/L account from a single screen. Select an opening balance account as the offsetting account.

Although a separate journal entry is posted for each account, the posting date is the same. Therefore you need to decide whether to enter the balances spread over a fiscal year, for example, you can divide the balances by posting period, and post for each period with the posting date set to the end of the month.

When entering opening balances, you must enter the minus sign for credit balances if the *Display Credit Balance with Negative Sign* checkbox is set in *Administration → System Initialization → Company Details*.

Bank Transactions

- Reconcile cash and bank accounts before entering the balances
- Enter unreconciled transactions separately

Fully reconciled accounts

- Enter balances using opening balances transaction in SAP Business One

Open bank transactions (not reconciled)

- Import each transaction as a journal entry using DTW



Reconciliation



SAP recommends that you separate cleared (reconciled) and open (unreconciled) cash and bank transactions. This will make it easier to reconcile these accounts later in SAP Business One:

- You can enter fully reconciled transactions using the *G/L Accounts Opening Balance* transaction. Alternatively, you can import the transactions as journal entries using the Data Transfer Workbench. In both cases, the offsetting account should be the opening balance account.
- Open transactions contain un-cleared checks, bank transfers and other transactions that have been recorded in the books but not yet reconciled with the bank statement. You can import these transactions using the Data Transfer Workbench as individual journal entries or as one large journal entry with multiple rows. In both cases, record one line per open transaction. This will make it easier to reconcile these transactions later. The offsetting account should be the opening balance account.

If Bank Statement Processing (BSP) is to be implemented, when creating the first bank statement for the bank account the field 'Starting Balance' can be set manually. Thereafter, for all subsequent bank statements, the starting balance field must be equal to the ending balance of the previous bank statement.

Reconciliation Reports

Legacy System	SAP Business One
■ Inventory quantities and values	■ Inventory Audit Report
■ Business partner balances	■ Aging Reports
■ G/L Account balances	■ Balance Sheet / Profit & Loss
■ Open orders	■ Open Items List

Regardless of how you perform the migration of open items and balances, you need to reconcile the accounts between SAP Business One and the legacy system. Print and retain a hard copy of all reconciliation reports from SAP Business One and the legacy system to prove the migration correctness:

- To reconcile inventory quantities and values, run the *Stock Audit Report*. Match the item quantities in SAP Business One with the quantities in the legacy system. Make sure the stock account balances in SAP Business One match the stock account balances in the legacy system.
- To reconcile business partner balances, run the *Customer Receivables* and *Vendor Liabilities Aging* reports with a posting date range until the start of the current fiscal year. You must ensure that the business partner opening balances migrated to SAP Business One align with the legacy system.
- To reconcile G/L account balances, run the *Balance Sheet* as per the first day of the current fiscal year. You must ensure that the G/L opening balances migrated to SAP Business One align with the legacy system.
- If you migrated other open items such as sales orders and purchase orders, you need to match the total balance migrated to SAP Business One with the legacy system. Run the *Open Items List* report in SAP Business One and compare the total with the total balance of the corresponding item in the legacy system.

Key Points



Key points from this topic:

- The goal of entering opening balances is to match the financial reports of the legacy system and the SAP Business One system.
- There are multiple ways to enter opening balances. You must plan carefully with the customer.
- SAP recommends that you migrate legacy master data and transactions in a certain order:
 1. Master data
 2. Item quantities and costs
 3. Open transactions
 4. Final opening balances for business partners, items, G/L accounts and bank transactions
- During cutover, the legacy system is frozen and stock is counted. Open transactions should be closed if possible. Business partner and bank accounts should be reconciled before opening balances are entered.
- For a structured approach to entering opening balances, refer to the Data Migration Guide.

Here are some key points to take away from this topic.

- The goal of entering opening balances is to match the balance sheet and the Profit & Loss reports of the legacy system and the SAP Business One system.
- There are multiple ways to enter opening balances. You must plan the process carefully with the customer.
- SAP recommends that you migrate legacy master data and transactions in a certain order:
 1. Master data, such as the chart of accounts, business partners, items and price lists
 2. Item quantities and costs, based on an inventory stock take
 3. Open transactions such as sales and purchase orders, A/R and A/P invoices, production orders, bills of materials, etc.
 4. Final opening balances for business partners, items, G/L accounts and lastly, bank transactions
- During the cutover period, the legacy system is frozen and stock is counted. In the legacy system, the client should close as many open existing transactions as possible, and business partner accounts should be reconciled so that only open invoice balances and prepayments that are not based on an invoice need to be transferred. Item quantities and costs must be entered before open transactions that release inventory can be imported.
- For more details on a structured approach to entering opening balances, refer to the *Data Migration Guide* from the AIP methodology.



Unit: Data Migration Tools

Topic: Import from Excel utility



In this exercise, you will import new items and price lists using the Import from Excel utility.

1. Items

1.1. Prepare a data spreadsheet

Create a Microsoft Excel spreadsheet with a row for each of the three items in the table below. Enter the item information in columns A to I of the spreadsheet. Where a special value is required, it is indicated in parenthesis().

Note: Do not enter the headings in the spreadsheet.

		Row 1	Row 2	Row 3
A	Item No.	MS33	MS55	MS00
B	Item Description	Multi-Screen 3x3	Multi-Screen 5x5	Monitor
C	Item Group	Screens Note: This group will be automatically created during the import	Screens	Items
D	Mfr Catalogue No.			8882222
E	Manufacturer			Samson
F	Set G/L account by	Item Group (C)	Item Group (C)	Warehouse (W)
G	Valuation Method	Standard Cost (S)	Standard Cost (S)	Moving Average (A)
H	Procurement method	Make (M)	Make (M)	Buy (B)
I	Serial number management	Y	Y	N

Save the spreadsheet as a Text (**Tab delimited**) file (*.txt).

Important: Close the text file. The import utility will fail if the spreadsheet file is open.

1.2. Run the Import from Excel utility

Choose *Administration* → *Data Import/Export* → *Import Data* → *Import from Excel*.

Select *Items*.

Map each column in the spreadsheet by selecting a field from the dropdown list.

Note: When you map a field, the field no longer displays in the dropdown list.

Column	Field
A	Item No.
B	Item Description
C	Item Group Note: This is the name of the group.
D	Mfr Catalogue No.
E	Manufacturer
F	Set G/L Account by
G	Valuation Method
H	Procurement Method
I	Serial No. Management

After you have mapped all the fields, you can optionally choose the **Save As** button to save the mapping as a template for a future import.

Choose **OK**.

Locate the saved text file and choose **Open**.

The import now runs. A message at the bottom of the screen indicates the success of the import.

1.3. Verify the imported items

Choose *Inventory* → *Item Master Data* and open the newly imported items. Check the master data to see which fields were entered using default values from the system.

2. Price Lists

2.1. Import item prices into multiple price lists

The new items are to be priced in the primary currency and in one additional currency in the price lists. The item prices are as follows:

Item	Base Sales Price	Purchase Price
<i>Multi-Screen 3x3</i>	9000 (Primary Currency) 10000 (Additional Currency 1)	Not applicable
<i>Multi-Screen 5x5</i>	18000 (Primary Currency) 20000 (Additional Currency 1)	Not applicable
<i>Monitor</i>	500 (Primary Currency) 600 (Additional Currency 1)	250 (Primary Currency)

2.2. Prepare a data spreadsheet

Create a spreadsheet with three rows, one for each item:

Column	Field
A	Item No.
B	Price list number. In your system, identify the number of the base sales price list, for example, price list 1. To see the price list numbers in your system, run a query on the OPLN table.
C	Price in Primary Currency. Enter the price without the currency symbol.
D	Primary Currency. Enter the 3 digit currency code from the Currencies table.
E	Unit Price – Additional Currency 1
F	Additional Currency 1
G	Unit Price – Additional Currency 2
H	Additional Currency 2
I	UoM Group Manual. This is the default code for the UoM Group.

Save the spreadsheet as a Text (Tab delimited) file (*.txt).

Important: Close the text file.

2.3. Run the Import from Excel Utility

In the *Import from Excel* window, choose the **Clear** button to remove the selections you made for the item import.

In column A, select the **Item No.** field from the dropdown list.

In column B, select the **Price List Code**. When you make this selection, the system will automatically display the remaining fields required to import a price list, including the UoM code.

Note: The order of these fields cannot be changed. If you are importing the item prices with the item master data, you need to keep the reserved price list columns empty.

Make sure the fields match to the order of the spreadsheet columns.

Select the **Update Existing Records** checkbox, so that you can update the item records.

Choose **OK**.

Locate the saved text file and choose **Open**.

The import now runs. A message at the bottom of the screen indicates the status of the import.

2.4. Verify the price lists

Verify the imported price lists. Choose *Inventory* → *Price Lists* → *Prices Lists*.

Double-click the base price list to see the list of item prices, and locate the new item prices.



Unit: Data Migration Tools

Topic: Import from Excel utility

In this exercise, you will import new items and price lists using the Import from Excel utility.

1. Items

1.1. Prepare a data spreadsheet

Create a Microsoft Excel spreadsheet with a row for each of the three items in the table below. Enter the item information in columns A to I of the spreadsheet. Where a special value is required, it is indicated in parenthesis().

Note: Do not enter the headings in the spreadsheet.

		Row 1	Row 2	Row 3
A	Item No.	MS33	MS55	MS00
B	Item Description	Multi-Screen 3x3	Multi-Screen 5x5	Monitor
C	Item Group	Screens Note: This group will be automatically created during the import	Screens	Items
D	Mfr Catalogue No.			8882222
E	Manufacturer			Samson
F	Set G/L account by	Item Group (C)	Item Group (C)	Warehouse (W)
G	Valuation Method	Standard Cost (S)	Standard Cost (S)	Moving Average (A)
H	Procurement method	Make (M)	Make (M)	Buy (B)
I	Serial number management	Y	Y	N

Save the spreadsheet as a Text (**Tab delimited**) file (*.txt).

Important: Close the text file. The import utility will fail if the spreadsheet file is open.

1.2. Run the Import from Excel utility

Choose *Administration* → *Data Import/Export* → *Import Data* → *Import from Excel*.

Select *Items* as the data type for the import.

Map each column in the spreadsheet by selecting a field from the dropdown list.

Note: When you map a field, the field no longer displays in the dropdown list.

Column	Field
A	Item No.
B	Item Description
C	Item Group Note: This is the name of the group.
D	Mfr Catalogue No.
E	Manufacturer
F	Set G/L Account by
G	Valuation Method
H	Procurement Method
I	Serial No. Management

After you have mapped all the fields, you can optionally choose the **Save As** button to save the mapping as a template for a future import.

Choose **OK**.

Locate the saved text file and choose **Open**.

The import now runs. A message at the bottom of the screen indicates the success of the import.

1.3. Verify the imported items

Choose *Inventory* → *Item Master Data* and open the newly imported items. Check the master data to see which fields were entered using default values from the system.

2. Price Lists

2.1. Import item prices into multiple price lists

The new items are to be priced in the primary currency and in one additional currency in the price lists. The item prices are as follows:

Item	Base Sales Price	Purchase Price
<i>Multi-Screen 3x3</i>	9000 (Primary Currency) 10000 (Additional Currency 1)	Not applicable
<i>Multi-Screen 5x5</i>	18000 (Primary Currency) 20000 (Additional Currency 1)	Not applicable
<i>Monitor</i>	500 (Primary Currency) 600 (Additional Currency 1)	250 (Primary Currency)

2.2. Prepare a data spreadsheet

Create a spreadsheet with the item prices:

Column	Field
A	Item No.
B	Price list number. In your system, identify the number of the base sales price list, for example, price list 1. To see the price list numbers in your system, run a query on the OPLN table.
C	Price in Primary Currency. Enter the price without the currency symbol.
D	Primary Currency. Enter the 3 digit currency code from the Currencies table.
E	Unit Price – Additional Currency 1
F	Additional Currency 1
G	Unit Price – Additional Currency 2
H	Additional Currency 2
I	UoM Group Manual. This is the default code for the UoM Group.

Save the spreadsheet as a Text (**Tab delimited**) file (*.txt).

Important: Close the text file.

2.3. Run the Import from Excel Utility

In the *Import from Excel* window, choose the **Clear** button to remove the selections you made for the item import.

In column A, select the **Item No.** field from the dropdown list.

In column B, select the **Price List Code**. When you make this selection, the system will automatically display the remaining fields required to import a price list, including the UoM code.

Note: The order of these fields cannot be changed. If you are importing the item prices with the item master data, you need to keep the reserved price list columns empty.

Make sure the fields match to the order of the spreadsheet columns.

Select the **Update Existing Records** checkbox, so that you can update the item records.

Choose **OK**.

Locate the saved text file and choose **Open**.

The import now runs. A message at the bottom of the screen indicates the status of the import.

2.4. Verify the price lists

Verify the imported price lists. Choose *Inventory* → *Price Lists* → *Prices Lists*.

Double-click the base price list to see the list of item prices, and locate the new item **prices**.



Unit: Data Migration Tools

Topic: DTW – Chart of Accounts



In this exercise, you will import some new accounts to various drawers in the chart of accounts. You will import title accounts and active accounts under the title account.

1. Import accounts using DTW

Instructions are shown for importing accounts into a standard chart of accounts and into a segmented chart of accounts.

Here are the accounts to be imported to each drawer:

Drawer	Description	Note:
<i>Assets</i>	Internet Accounts	Title account
	National Bank 1	Active account – use your local currency
	National Bank 2	Active account – use a foreign currency
<i>Expenses/Operating Costs</i>	Warehouse Costs	Title account
	Rent – Warehouse 01	Active account
	Rent – Warehouse 02	Active account

1.1 Prepare the DTW spreadsheet

From the DTW templates folder, choose *Financials* → *Chart of Accounts* and open the *OACT - ChartOfAccounts.xlt* template.

In the template, enter a row for each new title or account:

Column Field	Description
<i>AcctCode</i>	Enter an account code for the new account or title. Check the chart of accounts in your system to view similar account numbers or title names.
<i>AcctName</i>	The name of the account or title
<i>CashAccount</i>	Set to tYES only for active bank accounts (monetary accounts). Note: the default is tNO.
<i>ActiveAccount</i>	Set to tNO only for the title accounts. Note: the default is tYES.
<i>FatherAccountKey</i>	Enter the account name or number of the higher level account, for example: <ul style="list-style-type: none"> • To add a title account at Level 4, use a Level 3 title account in the chart of accounts. • To add an active account at Level 5, enter the name of the title account added in this exercise
<i>AccountType</i>	Enter the correct category for active accounts: At_Revenues At_Expenses At_Other
<i>AcctCurrency</i>	Enter the currency code for active accounts, if different from the local currency. Note: To check the currency codes in your system, choose <i>Administration</i> → <i>Setup</i> → <i>Financial</i> → <i>Currencies</i> .
<i>FormatCode</i> (<i>Segmented chart of accounts only</i>)	If you are working with a segmented chart of accounts, enter the actual account number for new active accounts. Note: Make sure that the account number follows the format defined in the Account Segmentation setup. Do not include account separator symbols in the account code.

Save the template as a **comma or semi-colon delimited file** (.csv).

2.1 Import the new accounts

Launch the Data Transfer Workbench (DTW) from the Implementation Center or from your desktop.

In DTW, choose **Import** → **Master Data** → **Add New Data**

Make sure the correct file type is selected.

Choose **Financials** → **Chart of Accounts**.

Choose the **Browse** button to locate the saved csv file.

Run a simulation to check for any errors in your template.

If the simulation is successful, import the data.

3.1 Check the new accounts in the chart of accounts

In SAP Business One, choose **Financials** → **Chart of Accounts**.

Check the new title and active accounts in the Assets drawer and the Expenses/Operating Costs drawer.

4.1 Troubleshooting errors

If you encounter an error, always check the log.

In the DTW wizard, you can visually check the source and target data:

- The Source tab shows the data from the spreadsheet in a tabular format
- The Target tab shows the data in a row format



Unit: Data Migration Tools

Topic: DTW – Chart of Accounts

In this exercise, you will import some new accounts to various drawers in the chart of accounts. You will import title accounts and active accounts under the title account.

1. Import accounts using DTW

Instructions are shown for importing accounts into a standard chart of accounts and into a segmented chart of accounts.

Here are the accounts to be imported to each drawer:

Drawer	Description	Note:
<i>Assets</i>	Internet Accounts	Title account
	National Bank 1	Active account – use your local currency
	National Bank 2	Active account – use a foreign currency
<i>Expenses/Operating Costs</i>	Warehouse Costs	Title account
	Rent – Warehouse 01	Active account
	Rent – Warehouse 02	Active account

1-1 Prepare the DTW spreadsheet

From the DTW templates folder, choose *Financials* → *Chart of Accounts* and open the *OACT - ChartOfAccounts.xlt* template.

In the template, enter a row for each new title or account:

Column Field	Description
<i>AcctCode</i>	Enter an account code for the new account or title. Check the chart of accounts in your system to view similar account numbers or title names.
<i>AcctName</i>	The name of the account or title
<i>CashAccount</i>	Set to tYES only for active bank accounts (monetary accounts). Note: the default is tNO.
<i>ActiveAccount</i>	Set to tNO only for the title accounts. Note: the default is tYES.
<i>FatherAccountKey</i>	Enter the account name or number of the higher level account, for example: <ul style="list-style-type: none"> • To add a title account at Level 4, use a Level 3 title account in the chart of accounts. • To add an active account at Level 5, enter the name of the title account added in this exercise
<i>AccountType</i>	Enter the correct category for active accounts: At_Revenues At_Expenses At_Other
<i>AcctCurrency</i>	Enter the currency code for active accounts, if different from the local currency. Note: To check the currency codes in your system, choose <i>Administration</i> → <i>Setup</i> → <i>Financial</i> → <i>Currencies</i> .
<i>FormatCode</i> (Segmented chart of accounts only)	If you are working with a segmented chart of accounts, enter the actual account number for new active accounts. Note: Make sure that the account number follows the format defined in the Account Segmentation setup. Do not include account separator symbols in the account code.

Save the template as a **comma or semi-colon delimited file** (.csv).

1-2 Import the new accounts

Launch the Data Transfer Workbench (DTW) from the Implementation Center or from your desktop.

Login and select a company database.

In DTW, choose **Import** → **Master Data** → **Add New Data**

In the DTW wizard, choose the **Financials** → **Chart of Accounts** object.

Make sure the *File Type* is selected as comma delimited or semi-colon delimited.

Choose the *Browse* button to locate the .csv file.

Run a simulation to check for any errors in your template.

If the simulation is successful, import the data.

1-3 Check the new accounts in the chart of accounts

In SAP Business One, choose **Financials** → **Chart of Accounts**.

Check the new title and active accounts in the Assets drawer and the Expenses/Operating Costs drawer.

1-4 Troubleshooting errors

If you encounter an error, always check the log.

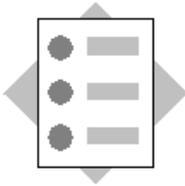
In the DTW wizard, you can visually check the source and target data:

- The Source tab shows the data from the spreadsheet in a tabular format
- The Target tab shows the data in a row format



Unit: Data Migration Tools

Topic: DTW – Business Partners



In this exercise you will import master data for business partners, using the Data Transfer Workbench. You will also import data into user-defined fields added to the business partners object.

Note: You can import business partner master data using the Import from Excel utility; however, not every field can be imported using the Import from Excel utility, and you cannot import into user-defined fields.

1. Setup requirements for the master data

1.1. Create business partner groups

Note: You need to create the business partner groups before you import the master data.

Choose *Administration* → *Setup* → *Business Partners* → *Customer Groups*.

Add two new customer groups:

- Stadiums
- Hotels

Run a query on the **OCRG** table to see the group codes in your system. You will need to import these codes with the master data.

Make a note of the group codes:

Suppliers	
Stadiums	
Hotels	

1.2. Add user defined fields to the business partners object

Choose *Tools* → *Customization Tools* → *User-Defined Fields – Management*.

Select *Master Data* > *Business Partner* > *Business Partner*.

Enter the following data:

Field Name or Data Type	Values
<i>Title</i>	Stmt
<i>Description</i>	Statement Required?
<i>Type</i>	Alphanumeric
<i>Structure</i>	Regular
	You will import a value into the new field; however, you can optionally set a list of values now: None, Monthly, Quarterly, Every 6 months, Annually

Add a second UDF.

Enter the following data:

Field Name or Data Type	Values
<i>Title</i>	Format
<i>Description</i>	Statement Format
<i>Type</i>	Alphanumeric
<i>Structure</i>	Regular
	You can optionally set a list of values: Email, Fax, Mail

2. Prepare the DTW spreadsheets

From the DTW templates folder, choose ***Business Partners*** → ***Business Partner Master Data***.

You will use more than one template to import the data:

- OCRD – BusinessPartners for the header
- OCPR – ContactEmployees for the contact information

The business partners to be imported are:

	Sound Systems Ltd.	Global Electronics Corp	London Coliseum	MAX Hotel Group
<i>BP Group</i>	Suppliers	Suppliers	Stadiums and Exhibitions	Hotels
<i>Type</i>	Supplier	Supplier	Customer	Customer
<i>Currency</i>	Local currency	Foreign currency	Local currency	Foreign currency
<i>Contact name</i>	Terry Adams	Robert Chang	1. Mary Burton 2. Simon Howell	3. Mr James Smith 4. Ms Jean Green
<i>Contact phone number</i>	0207 600400	1 415 634 0002	012 345 6792	1860 345 6791
<i>Bill-to address</i>	123 Commercial St, Southend ES1 2AB Essex England	Building 1 900 Mission Rd San Francisco CA 94110 USA	6 Upmarket St W1 200, London UK	46 Broad St Dublin Ireland
<i>Ship-to address</i>	123 Commercial St, Southend ES1 2AB Essex	Building 2 900 Mission Rd San Francisco CA 94110	1 Park Plaza W1 200, London	2 EastGate Dublin Ireland
<i>Payment Method</i>	Bank Transfer	Bank Transfer	Bank Transfer	Bank Transfer
<i>Statement Required?</i>	Monthly	None	None	Quarterly
<i>Statement Format</i>	Email	Fax	Mail	Email

2.1. Prepare the header template

Open *OCRD - BusinessPartners.xlt*.

Enter each business partner on a separate row in the template:

Field	Description
<i>CardCode</i>	Enter a valid code
<i>CardName</i>	The business partner name
<i>CardType</i>	<i>cCustomer, cSupplier, or Clid</i> (customer, vendor, lead) Note: the default is customer
<i>GroupCode</i>	From the OCRG table
<i>Address</i>	The bill-to street
<i>City</i>	The bill-to city or town
<i>County</i>	The bill-to county
<i>Zipcode</i>	The bill-to postcode
<i>MailAddress</i>	The ship-to street
<i>MailCity</i>	The ship-to city or town
<i>MailCounty</i>	The ship-to county
<i>MailZipCode</i>	The ship-to postcode
<i>Phone1</i>	Main telephone
<i>FederalTaxID</i>	The tax id, if applicable for your localization
<i>PriceListNum</i>	Price list for business partner
<i>Currency</i>	From the currencies table OCRN. Note: the default is the local currency.
<i>DefaultAccount</i>	The bank account number for the business partner
<i>DefaultBankCode</i>	The bank code for the business partner.
<i>Website</i>	The web site for the business partner
<i>U_Stmnt</i>	At the end of the template, add a column for the user-defined field. Enter the field name U_Stmnt on the first row, then enter the required value from the table in step 2.
<i>U_Format</i>	At the end of the template, add a column for the user-defined field. Enter the field name U_Format on the first row, then enter the required value from the table in step 2
	Enter any other fields required for your localization.

Save the template as a .csv file.

2.2.Prepare the contact information spreadsheet

Open *OCPR – ContactEmployees.xlt*.

Enter a row for each contact name. If there are multiple contacts for a business partner, enter each one on a separate row, using the same ParentKey:

Field	Description
<i>ParentKey</i>	<i>CardCode</i> of the relevant parent template
<i>LineNum</i>	Leave this column empty. Note: When updating contact information you must enter the <i>LineNum</i> as 0, 1, 2, etc.
<i>Name</i>	The first and last name of the contact.
<i>Phone 1</i>	Phone number of contact.
<i>Title</i>	Title (if any)
<i>E-Mail</i>	E-mail address
	Enter any other fields required for your localization.

Save the file as .csv type.

3 Master data import

In the Data Transfer Workbench, choose **Import** → **Master Data** → **Add New Data**.

In DTW, Choose **Business Partners** → **Business Partner Master Data**.

Link the *OCRD – BusinessPartners.csv* file to the parent node.

Link the *OCPR – ContactEmployees.csv* file to the *ContactEmployees* node.

Choose **Run Simulation**.

If any error messages are shown, check the log file.

Tip: if you cannot resolve an error, try importing just the header file. If that is successful in the simulation, add the other files one by one.

After you have corrected your files, choose the **Back** button to re-run the import simulation.

If the simulation is successful, go to the next step and choose **Import**.

When all the records have been successfully imported, open the business partner master data to verify the imported records in SAP Business One.



Unit: Data Migration Tools

Topic: DTW – Business Partners

In this exercise you will import master data for business partners, using the Data Transfer Workbench. You will also import data into user-defined fields added to the business partners object.

Note: You can import business partner master data using the Import from Excel utility; however, not every field can be imported using the Import from Excel utility, and you cannot import into user-defined fields.

1. Setup requirements for the master data

1.1. Create business partner groups

Note: You need to create the business partner groups before you import the master data.

Choose *Administration* → *Setup* → *Business Partners* → *Customer Groups*.

Add two new customer groups:

- Stadiums
- Hotels

Run a query on the **OCRG** table to see the group codes in your system. You will need to import these codes with the master data.

Make a note of the group codes:

Suppliers	
Stadiums	
Hotels	

1.2. Add user defined fields to the business partners object

Choose *Tools* → *Customization Tools* → *User-Defined Fields – Management*.

Select *Master Data* > *Business Partner* > *Business Partner*.

Choose *Add*.

Enter the following data:

Field Name or Data Type	Values
<i>Title</i>	Stmt
<i>Description</i>	Statement Required?
<i>Type</i>	Alphanumeric
<i>Structure</i>	Regular
	You will import a value into the new field; however, you can optionally set a list of values now: None, Monthly, Quarterly, Every 6 months, Annually

Choose **Update**.

Add a second UDF.

Enter the following data:

Field Name or Data Type	Values
<i>Title</i>	Format
<i>Description</i>	Statement Format
<i>Type</i>	Alphanumeric
<i>Structure</i>	Regular
	You can optionally set a list of values: Email, Fax, Mail

Choose **Update**.

2. Prepare the DTW spreadsheets

From the DTW templates folder, choose ***Business Partners*** → ***Business Partner Master Data***.

You will use more than one template to import the data:

- OCRD – BusinessPartners for the header
- OCPR – ContactEmployees for the contact information

The business partners to be imported are:

	Sound Systems Ltd.	Global Electronics Corp	London Coliseum	MAX Hotel Group
<i>BP Group</i>	Suppliers	Suppliers	Stadiums and Exhibitions	Hotels
<i>Type</i>	Supplier	Supplier	Customer	Customer
<i>Currency</i>	Local currency	Foreign currency	Local currency	Foreign currency
<i>Contact name</i>	Terry Adams	Robert Chang	1. Mary Burton 2. Simon Howell	3. Mr James Smith 4. Ms Jean Green
<i>Contact phone number</i>	0207 600400	1 415 634 0002	012 345 6792	1860 345 6791
<i>Bill-to address</i>	123 Commercial St, Southend ES1 2AB Essex England	Building 1 900 Mission Rd San Francisco CA 94110 USA	6 Upmarket St W1 200, London UK	46 Broad St Dublin Ireland
<i>Ship-to address</i>	123 Commercial St, Southend ES1 2AB Essex	Building 2 900 Mission Rd San Francisco CA 94110	1 Park Plaza W1 200, London	2 EastGate Dublin Ireland
<i>Payment Method</i>	Bank Transfer	Bank Transfer	Bank Transfer	Bank Transfer
<i>Statement Required?</i>	Monthly	None	None	Quarterly
<i>Statement Format</i>	Email	Fax	Mail	Email

2.1.Prepare the header template

Open *OCRD - BusinessPartners.xlt*.

Enter each business partner on a separate row in the template:

Field	Description
<i>CardCode</i>	Enter a valid code
<i>CardName</i>	The business partner name
<i>CardType</i>	<i>cCustomer, cSupplier, or Clid</i> (customer, vendor, lead) Note: the default is customer
<i>GroupCode</i>	From the OCRG table
<i>Address</i>	The bill-to street
<i>City</i>	The bill-to city or town
<i>County</i>	The bill-to county
<i>Zipcode</i>	The bill-to postcode
<i>MailAddress</i>	The ship-to street
<i>MailCity</i>	The ship-to city or town
<i>MailCounty</i>	The ship-to county
<i>MailZipCode</i>	The ship-to postcode
<i>Phone1</i>	Main telephone
<i>FederalTaxID</i>	The tax id, if applicable for your localization
<i>PriceListNum</i>	Price list for business partner
<i>Currency</i>	From the currencies table OCRN. Note: the default is the local currency.
<i>DefaultAccount</i>	The bank account number for the business partner
<i>DefaultBankCode</i>	The bank code for the business partner.
<i>Website</i>	The web site for the business partner
<i>U_Stmnt</i>	At the end of the template, add a column for the user-defined field. Enter the field name U_Stmnt on the first row, then enter the required value from the table in step 2.
<i>U_Format</i>	At the end of the template, add a column for the user-defined field. Enter the field name U_Format on the first row, then enter the required value from the table in step 2
	Enter any other fields required for your localization.

Save the template as a .csv file.

2.2. Contact Details

Open *OCPR – ContactEmployees.xlt*.

Enter a row for each contact name. If there are multiple contacts for a business partner, enter each one on a separate row row, using the same ParentKey:

Field	Description
<i>ParentKey</i>	<i>CardCode</i> of the relevant parent template
<i>LineNum</i>	Leave this column empty. Note: When updating contact information you must enter the <i>LineNum</i> as 0, 1, 2, etc.
<i>Name</i>	The first and last name of the contact.
<i>Phone 1</i>	Phone number of contact.
<i>Title</i>	Title (if any)
<i>E-Mail</i>	E-mail address
	Enter any other fields required for your localization.

Save the file as .csv type.

3. Master data import

Launch the Data Transfer Workbench (DTW) from the Implementation Center or from your desktop.

Login and select a company database.

In DTW, choose **Import** → **Master Data** → **Add New Data**.

Choose **Business Partners** → **Business Partner Master Data**.

Link the *OCRD – BusinessPartners.csv* file to the parent node.

Link the *OCPR – ContactEmployees.csv* file to the *ContactEmployees* node.

Choose **Run Simulation**.

If any error messages are shown, check the log file.

Tip: if you cannot resolve an error, try importing just the header file. If that is successful in the simulation, add the other files one by one.

After you have corrected your files, choose the **Back** button to re-run the import simulation.

If the simulation is successful, go to the next step and choose **Import**.

When all the records have been successfully imported, open the business partner master data to verify the imported records in SAP Business One.



Unit: Data Migration Tools

Topic: DTW – Item Master Data



In this exercise you will import master data for items, using the Data Transfer Workbench. **Note:** You can also import item master data using the Import from Excel utility; however, not every field can be imported using the Import from Excel utility, including user-defined fields.

1. Create item groups

Note: You need to first create the item groups for the new items.

Choose *Administration* → *Setup* → *Inventory* → *Item Groups*.

Add the new groups:

- Item Group Name: **Lights**
- Item Group Name: **Light bulbs**

Choose *Add*.

Run a query on the **OITB** table to see the new group codes in your system. You will need to import these codes with the master data.

Make a note of the new group codes:

Lights	
Light bulbs	

2. DTW spreadsheets

From the DTW templates folder, choose *Inventory* → *Item Master Data*.

2.1. Main template

Open *OITM - Items.xlt*.

The items to be imported are all purchased items, available for sale. All items are managed using batch number management.

Enter a row for each item:

	Laser Light	Flood Light	Light Bulb - Laser	Light Bulb - Flood
<i>ItemCode</i>	LL05	FL05	LBL1	LBF1
<i>ItemName</i>	Laser Light	Flood Light	Light Bulb - Laser	Light Bulb - Flood
<i>Manufacturer</i>	Global Light Corp	Global Light Corp		
<i>ItemsGroupCode</i>	Code for the group Lights	Code for the group Lights	Code for the group Light bulbs	Code for the group Light bulbs
<i>GLMethod</i>	glm_ItemClass	glm_ItemClass	glm_ItemClass	glm_ItemClass
<i>CostAccountingMethod</i>	bis_MovingAverage	bis_MovingAverage	bis_MovingAverage	bis_MovingAverage
<i>ManageBatchNumbers</i>	tYES	tYES	tYES	tYES
<i>Base price</i>	50	100	5	10
<i>Enter any other fields as required for your localization.</i>				

Save the template as a .csv file.

2.2. Item Prices

Open *ITM1 - Items_Prices.xlt*.

Enter required fields for the item prices:

	Laser Light	Flood Light	Light Bulb - Laser	Light Bulb - Flood
<i>ParentKey</i>	LL05	FL05	LBL1	LBF1
<i>LineNum</i>	Leave empty	Leave empty	Leave empty	Leave empty
<i>PriceList</i>	Base price list number	Base price list number	Base price list number	Base price list number
<i>Price</i>	50	100	5	10
<i>Currency</i>	Local currency	Local currency	Local currency	Local currency

Note: You can optionally enter an item's price in multiple price lists. To do this, create a separate row in the spreadsheet.

Save the template as a .csv file.

3. Import data

3.1. Run import

In DTW, choose *Import* → *Master Data* → *Add New Data*.

Choose *Inventory* > *Item Master Data*.

Link the .csv files you just created for items and prices to the **Items** object and the **Items_Prices** object.

Choose **Run Simulation**.

3.2. Check for errors

If any error messages are shown, check the log file.

After you have corrected your files, choose the **Back** button to re-run the import simulation.

If the simulation is successful, go to the next step and choose **Import**.

When all the records have been successfully imported, open the item master data records for the new items. Check the pricing.

4. Optional exercise

Enter item quantities for the previous items using the Goods Receipts template.

From the DTW templates folder, choose **Inventory** → **Inventory Transactions** → **Goods Receipt**.

Open **OIGN- Documents.xlt**.

Import a Goods Receipt document:

Field	Description
<i>DocNum</i>	1
<i>DocDate</i>	Posting date - yyyyymmdd
<i>DocDueDate</i>	Due date - yyyyymmdd

Save the template as a .csv file.

Open **IGNI- Document_Lines.xlt**.

Enter the rows in the Goods Receipt document:

Field	Row 1	Row 2	Row 3	Row 4
<i>ParentKey</i>	1	1	1	1
<i>LineNum</i>	Leave blank			
<i>ItemCode</i>	LL05	FL05	LBL1	LBF1
<i>Quantity</i>	12	30	500	500
<i>Price</i>	25	50	2	5
<i>Warehouse</i>	1	1	1	1
<i>AccountCode</i>	You can specify an inventory account for the journal posting. If you leave this blank, the default inventory account will be used.			

Save the template as a .csv file.

In DTW, choose **Import** → **Transactional Data** → **Add New Data**.

Choose **Inventory** > **Inventory Transactions** > **Goods Receipt**.

Link the .csv files you just created to the **Documents** and the **Document_Lines** objects.

Import the data.

Check the journal entry posted by the imported Goods Receipt.

Check the item quantities in the item master data.



Unit: Data Migration Tools

Topic: DTW – Item Master Data

In this exercise you will import master data for items, using the Data Transfer Workbench.

Note: You can also import item master data using the Import from Excel utility; however, not every field can be imported using the Import from Excel utility, for example, user-defined fields.

1. Create item groups

Note: You need to first create the item groups for the new items.

Choose *Administration* → *Setup* → *Inventory* → *Item Groups*.

Add the new groups:

- Item Group Name: **Lights**
- Item Group Name: **Lightbulbs**

Choose *Add*.

Run a query on the **OITB** table to see the new group codes in your system. You will need to import these codes with the master data.

Make a note of the new group codes:

Lights	
Light bulbs	

2. DTW spreadsheets

From the DTW templates folder, choose *Inventory* → *Item Master Data*.

2.1. Main template

Open *OITM - Items.xlt*.

The items to be imported are all purchased items, available for sale. All items are managed using batch number management.

Enter a row for each item:

	Laser Light	Flood Light	Light Bulb - Laser	Light Bulb - Flood
<i>ItemCode</i>	LL05	FL05	LBL1	LBF1
<i>ItemName</i>	Laser Light	Flood Light	Light Bulb - Laser	Light Bulb - Flood
<i>Manufacturer</i>	Global Light Corp	Global Light Corp		
<i>ItemsGroupCode</i>	Code for the group Lights	Code for the group Lights	Code for the group Light bulbs	Code for the group Light bulbs
<i>GLMethod</i>	glm_ItemClass	glm_ItemClass	glm_ItemClass	glm_ItemClass
<i>CostAccountingMethod</i>	bis_MovingAverage	bis_MovingAverage	bis_MovingAverage	bis_MovingAverage
<i>ManageBatchNumbers</i>	tYES	tYES	tYES	tYES
<i>Base price</i>	50	100	5	10
<i>Enter any other fields as required for your localization.</i>				

Save the template as a .csv file.

2.2. Item Prices

Open *ITM1 - Items_Prices.xlt*.

Enter required fields for the item prices:

	Laser Light	Flood Light	Light Bulb - Laser	Light Bulb - Flood
<i>ParentKey</i>	LL05	FL05	LBL1	LBF1
<i>LineNum</i>	Leave empty	Leave empty	Leave empty	Leave empty
<i>PriceList</i>	Base price list number	Base price list number	Base price list number	Base price list number
<i>Price</i>	50	100	5	10
<i>Currency</i>	Local currency	Local currency	Local currency	Local currency

Note: You can optionally enter an item's price in multiple price lists. To do this, create a separate row in the spreadsheet.

Save the template as a .csv file.

3. Import the data

3.1. Run import

In DTW, choose *Import* → *Master Data* → *Add New Data*.

Choose *Inventory* > *Item Master Data*.

Link the .csv files you just created for items and prices to the **Items** object and the **Items_Prices** object.

Choose **Run Simulation**.

3.2. Check for errors

If any error messages are shown, check the log file.

After you have corrected your files, choose the **Back** button to re-run the simulation.

If the simulation is successful, go to the next step and choose **Import**.

When all the records have been successfully imported, open the item master data records for the new items. Check the pricing.

4. Optional exercise

Enter item quantities for the previous items using the Goods Receipts template.

From the DTW templates folder, choose ***Inventory*** → ***Inventory Transactions*** → ***Goods Receipt***.

Open ***OIGN- Documents.xlt***.

Import a Goods Receipt document:

Field	Description
<i>DocNum</i>	1
<i>DocDate</i>	Posting date - yyyyymmdd
<i>DocDueDate</i>	Due date - yyyyymmdd

Save the template as a .csv file.

Open ***IGN1- Document_Lines.xlt***.

Enter the rows in the Goods Receipt document:

Field	Row 1	Row 2	Row 3	Row 4
<i>ParentKey</i>	1	1	1	1
<i>LineNum</i>	Leave blank			
<i>ItemCode</i>	LL05	FL05	LBL1	LBF1
<i>Quantity</i>	12	30	500	500
<i>Price</i>	25	50	2	5
<i>Warehouse</i>	1	1	1	1
<i>AccountCode</i>	You can specify an inventory account for the journal posting. If you leave this blank, the default inventory account will be used.			

Save the template as a .csv file.

In DTW, choose ***Import*** → ***Transactional Data*** → ***Add New Data***.

Choose ***Inventory*** > ***Inventory Transactions*** > ***Goods Receipt***.

Link the .csv files you just created to the ***Documents*** and the ***Document_Lines*** objects.

Import the data.

Open a Goods Receipt document by choosing ***Inventory*** → ***Inventory Transactions*** → ***Goods Receipt***.

Browse to the last record.

Choose the link arrow in the Goods Receipt document to open the posted journal entry.

Check the accounts in the journal entry.

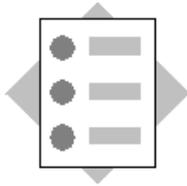
Choose ***Inventory*** → ***Item Master Data***.

Open one of the items and check the item quantities in the item master data.



Unit: Data Migration Tools

Topic: Opening Balances



Note: the assumption for this exercise is that the client is starting with the SAP Business One system at the start of a new fiscal year. Therefore, P&L balances do not need to be carried forward.

The Balance Sheet from the client's legacy system shows the following:

Balance Sheet	
Date: today	
Assets:	
National Bank	200,000
Petty cash	5,000
Inventory	60,000
Office buildings (warehouse)	350,000
Office and warehouse equipment	150,000
A/R	79,000
VAT receivable	4,000
Total assets:	<u>848,000</u>
Liabilities:	
A/P	35,000
VAT payable	8,000
Bank loan	150,000
Total liabilities:	193,000
Equity / Capital and Reserves:	
Retained earnings	155,000
Share capital	500,000
Total equity:	<u>655,000</u>
Total Liabilities & Equity:	<u>848,000</u>

1. Create an Opening Balance Offset Account

Add a new G/L account called **Opening Balance Offset** to the Equity / Capital and Reserves drawer of the chart of accounts.

In the G/L account determination, set this account as the default Opening Balance Account in the **General** tab.

2. Business Partner Opening Balances

Note: This exercise assumes that the following business partners have been created in the database in the DTW – Business Partners exercise. If the business partners do not exist, you should create them first.

Choose *Administration* → *System Initialization* → *Opening Balances* → *Business Partners Opening Balance*.

Make sure the opening balances account is selected from the G/L account determination.

Select the 1st day of the current month as the posting date.

Enter reference information in the **Ref.1** field.

Enter the balances for the business partners:

Due Date	Business Partner	Balance
One week ago	London Coliseum	64,000
One week ago	MAX Hotel Group	15,000
Two weeks ago	Sound Systems Ltd.	-25,000
Two weeks ago	Global Electronics Corp	-10,000

Note: To enter a credit balance, you must use the minus ‘-’ sign.

Open one of the journal entries posted by the opening balance transaction.

Open the business partner master data for one of the business partners. Run the aging report to check that the due date is correct.

Open the chart of accounts and write down the balance of the opening balances account _____.

3. Item Quantities and Opening Balances

Note: This exercise assumes that the following items have been created in the database in the DTW – Item Master Data exercise. If the items do not exist, you should create them first.

Choose *Inventory* → *Inventory Transactions* → *Inventory Opening Balance*.

Select the 1st day of the current month as the posting date and enter a reference for the journal entry that will be posted.

Enter the opening balance quantity and item cost for the items. Select the opening balance offset account on each row.

Item	Opening Balance	Unit Price	Account Code
Laser Light	200	50	Select the opening balance account.
Flood Light	200	100	Select the opening balance account
Light Bulb - Laser	1000	5	Select the opening balance account
Light Bulb - Flood	2500	10	Select the opening balance account

For each row, right-mouse click and select **Serial and Batch Selection** from the context menu.

Enter a batch number and the quantity.

Choose **Update** then OK to save the batch information.

Choose **Add**.

Check the journal entries posted by the transaction. The posting has debited the inventory account defined in the G/L account determination.

Write down the account number for the inventory account _____.

Open the item master data for one of the items. Select the *Inventory Data* tab and verify the **In Stock** quantity.

Open the chart of accounts and write down the balance of the opening balances account _____.

4. G/L Account Opening Balances

Choose *Administration* → *System Initialization* → *Opening Balances* → *G/L Accounts Opening Balance*.

Make sure the opening balances account is selected from the G/L account determination.

Enter a reference for the journal entry.

Select the 1st day of the current month as the posting date.

Enter balances from the provided Balance Sheet:

- Avoid entering duplicate values for the inventory account. Postings were made to this account when you entered the item opening balances.
- Avoid entering duplicate values for the A/R and A/P accounts.

Note: To enter a credit balance, you must use the minus ‘-‘ sign.

5. Check the Opening Balance Account

If you entered the balances correctly, the **Opening Balance Offset** account should have a zero balance.

If the account is not zero, investigate the account history. Did you enter credit balances correctly?

6. Optional exercise

Enter a payment for one of the business partners.

Choose *Banking* → *Incoming Payments* → *Incoming Payments*.

Select one of the customers for which you entered an opening balance in step 2.

Select the Opening Balance journal entry and make the payment!



Unit: Data Migration Tools

Topic: Opening Balances

Note: the assumption for this exercise is that the client is starting with the SAP Business One system at the start of a new fiscal year. Therefore, P&L balances do not need to be carried forward.

The Balance Sheet from the client's legacy system shows the following:

Balance Sheet	
Date: today	
Assets:	
National Bank	200,000
Petty cash	5,000
Inventory	60,000
Office buildings (warehouse)	350,000
Office and warehouse equipment	150,000
A/R	79,000
VAT receivable	4,000
Total assets:	<u>848,000</u>
Liabilities:	
A/P	35,000
VAT payable	8,000
Bank loan	150,000
Total liabilities:	193,000
Equity / Capital and Reserves:	
Retained earnings	155,000
Share capital	500,000
Total equity:	<u>655,000</u>
Total Liabilities & Equity:	<u>848,000</u>

1. Create an Opening Balance Offset Account

Choose *Financials* → *Chart of Accounts*.

Add a new G/L account called **Opening Balance Offset** to the Equity / Capital and Reserves drawer of the chart of accounts.

Choose *Administration* → *Setup* → *Financials* → *GL Account Determination* → *GL Account Determination*.

In the G/L account determination, set this account as the default Opening Balance Account in the **General** tab.

Choose **Update**.

2. Business Partner Opening Balances

Note: This exercise assumes that the following business partners have been created in the database in the DTW – Business Partners exercise. If the business partners do not exist, you should create them first.

Choose *Administration* → *System Initialization* → *Opening Balances* → *Business Partners Opening Balance*.

Choose **OK**.

Make sure the opening balances account is selected from the G/L account determination.

Select the 1st day of the current month as the posting date.

Enter reference information in the **Ref.1** field.

Enter the balances for the business partners:

Due Date	Business Partner	Balance
One week ago	London Coliseum	64,000
One week ago	MAX Hotel Group	15,000
Two weeks ago	Sound Systems Ltd.	-25,000
Two weeks ago	Global Electronics Corp	-10,000

Note: To enter a credit balance, you must use the minus ‘-‘ sign.

Choose **Add**.

Open one of the journal entries posted by the opening balance transaction.

Open the business partner master data for one of the business partners. Drill-down to the Account Balance. Run the aging report to check that the due date is correct.

Open the chart of accounts and write down the balance of the opening balances account

_____.

3. Item Quantities and Opening Balances

Note: This exercise assumes that the following items have been created in the database in the DTW – Item Master Data exercise. If the items do not exist, you should create them first.

Choose *Inventory* → *Inventory Transactions* → *Inventory Opening Balance*.

Select the 1st day of the current month as the posting date and enter a reference for the journal entry that will be posted.

Enter the opening balance quantity and item cost for the items. Select the opening balance offset account on the row.

Item	Opening Balance	Unit Price	Account Code
Laser Light	200	50	Select the opening balance account.
Flood Light	200	100	Select the opening balance account
Light Bulb - Laser	1000	5	Select the opening balance account
Light Bulb - Flood	2500	10	Select the opening balance account

Add batch information for each item row. For each row, right-mouse click and select **Serial and Batch Selection** from the context menu.

Enter a batch number and the quantity.

Choose *Update* then OK to save the batch information.

Choose *Add*.

Check the journal entries posted by the transaction. The posting has debited the inventory account defined in the G/L account determination.

Write down the account number for the inventory account _____.

Open the item master data for one of the items. Select the *Inventory Data* tab and verify the **In Stock** quantity.

Open the chart of accounts and write down the balance of the opening balances account _____.

4. G/L Account Opening Balances

Choose *Administration* → *System Initialization* → *Opening Balances* → *G/L Accounts Opening Balance*.

Choose **OK**.

Make sure the opening balances account is selected from the G/L account determination.

Enter a reference for the journal entry.

Select the 1st day of the current month as the posting date.

Enter balances from the provided Balance Sheet:

- Avoid entering duplicate values for the inventory account. Postings were made to this account when you entered the item opening balances.
- Avoid entering duplicate values for the A/R and A/P accounts.

Note: To enter a credit balance, you must use the minus ‘-‘ sign.

5. Check the Opening Balance Account

If you entered the balances correctly, the **Opening Balance Offset** account should have a zero balance.

If the account is not zero, investigate the account history. Did you enter credit balances correctly?

6. Optional exercise

Enter a payment for one of the business partners.

Choose *Banking* → *Incoming Payments* → *Incoming Payments*.

Select one of the customers for which you entered an opening balance in step 2.

Select the Opening Balance journal entry and make the payment!

Unit 5 - Contents

Support Processes

- **Support Processes**
- **Support Tools**
- **Remote Support Platform**

Support Processes

SAP Business One
Release 9.0



This topic focuses on how to prepare a customer for support, and how to use the SAP support processes to solve your customer's problems.

Objectives



Objectives:

- Explain the partner support responsibilities
- Use the SAP search and logging tools
- Follow the required process for reproducing, researching and submitting a support message
- Describe the advantages of Remote Support Platform for supporting a customer

On completion of this topic, you will be able to:

- Explain the partner support responsibilities
- Use the SAP search and logging tools
- Follow the required process for reproducing, researching and submitting a support message to SAP support
- Describe the advantages of Remote Support Platform for supporting a customer

Business Scenario



Partner companies are required to set up a support organization with an experienced, fully staffed support desk. Additionally, multiple test environments should be established so that customer's problems can be replicated using the localizations and versions in use at the customer sites.

Support consultants need to know:

- The correct processes for working with SAP support
- How to use SAP's support tools to diagnose and manage customer problems

Partner companies are required to set up a support organization with an experienced, fully staffed support desk. When setting up a support department to support your customers, you need to make sure that the support consultant follows the SAP standard support processes.

In addition to knowledge of the SAP Business One application, a support consultant needs to know how to use the tools provided by SAP to diagnose and manage customer problems.



Agenda

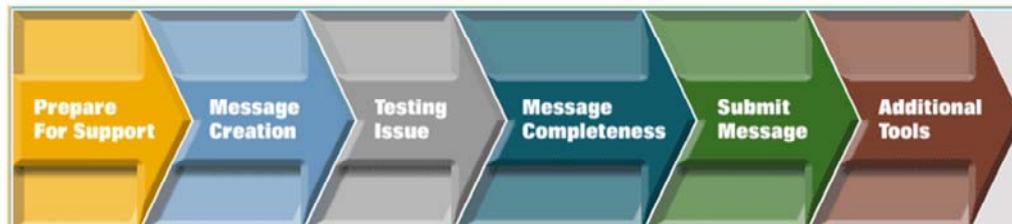
- **Setting up Support**
- Support Tools
- Support Messages
- Remote Support Platform for SAP Business One (RSP)



In the first part of this topic, we will cover setting up support.

SAP Business One Support Cycle Navigator

- The SAP Business One *Support Cycle Navigator* is available on the PartnerEdge portal and provides the overall process and guidelines for a partner to establish a support department and work with SAP support.

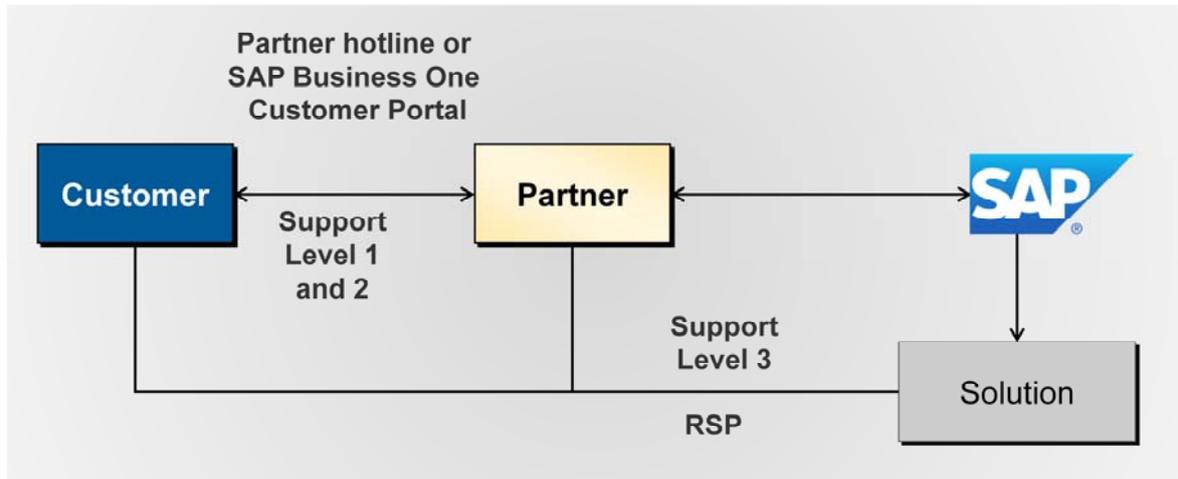


The SAP Business One Support Cycle Navigator is available on the PartnerEdge portal and provides the overall process and guidelines for a partner to establish a support department and work with SAP support.

After the customer has gone live, and when critical post go-live issues are resolved, you need to transition the customer to support mode. Follow these steps:

- Review and agree support procedures with the customer. The responsibilities for the production system may have been defined in a Service Level Agreement. In addition, you as the partner may agree to perform additional duties such as database administration, if requested by the customer.
- Install and activate Remote Support Platform (RSP) to monitor and maintain the system status. Run the System Status Report which gets transmitted to SAP support. Remote Support Platform is covered later in this topic.
- Hand over the customer to your own (partner) support department. Provide your support hotline number and support hours to the customer.
- Provide an S-User number to the customer. Make sure the customer can use the customer portal and can create support messages.

Customer Maintenance and Support Levels



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Support at level 1 and 2 is provided by the partner, and SAP only gets involved at level 3* when there is a software defect with the SAP Business One application.

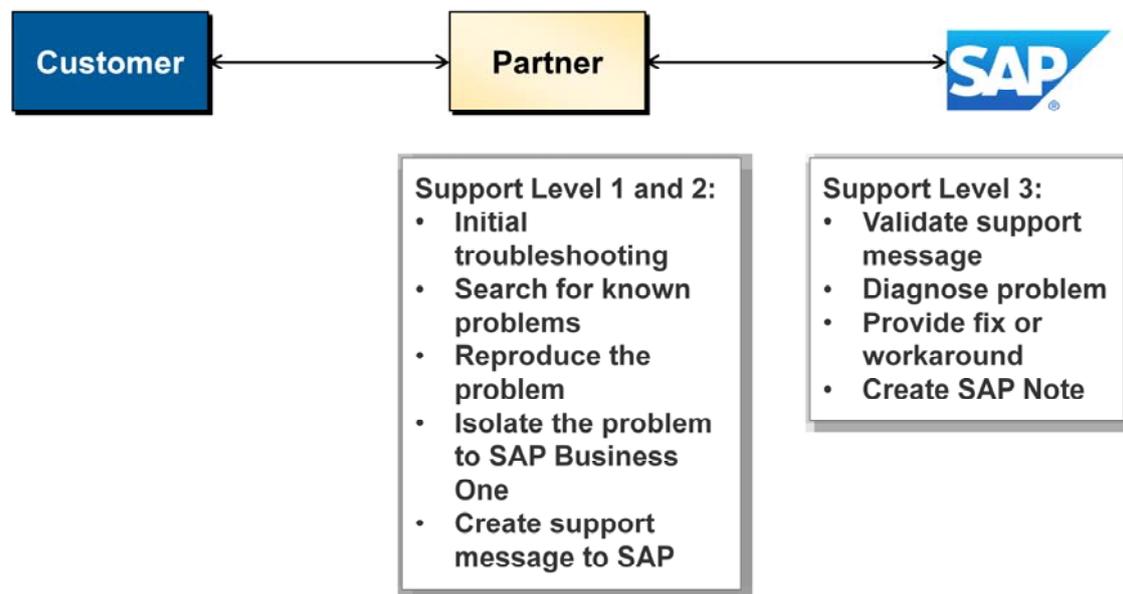
Customers purchase maintenance from the partner, and not from SAP. A portion of the maintenance that customers pay goes to you as a partner for level 1 and 2 support. The customer must be current on maintenance in order to receive Level 3 support from SAP.

Customers who pay maintenance also receive upgrades to new releases, patches, legal enhancements from SAP, and proactive monitoring from SAP using the Remote Support Platform. Therefore as a partner you should ensure your customer is on maintenance. If a customer's maintenance contract has lapsed, the customer will be redirected to the license portal) instead of the Customer Portal when they try to log in. Furthermore, as a partner you will be unable to create a support ticket for customers who are out of maintenance.

Note: Always check the latest maintenance policy published on the PartnerEdge portal.

*Some large enterprise customers receive support from the SAP LE Competence Center.

Support Levels



It is essential that you have a clear understanding of the support levels:

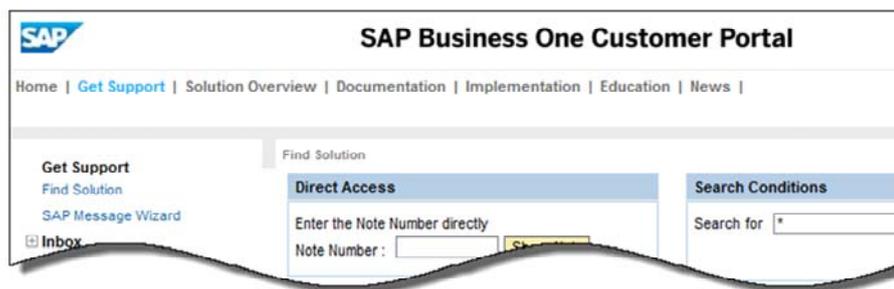
- **Level 1 and 2:** When the customer reports a problem to you, you are required to perform initial troubleshooting. This includes searching existing information sources, including SAP notes, to determine if there is an available solution. If you cannot find a documented solution, you should reproduce the problem on your own system, using the demo database and the latest patch level. If possible, provide a workaround to the customer. Only if you are sure the problem is in SAP Business One, and is reproducible, should you create a message to SAP. You need to provide as much information as possible, including screen shots, and events leading up to the problem.
- **Level 3:** SAP is only responsible for supporting problems that are directly caused by the SAP Business One software. SAP will validate the accuracy and completeness of the message, analyze, and reproduce the incident, and if necessary, with your help will access the customer system or request the customer database to diagnose the problem. SAP will provide a fix or workaround to get the customer working again. SAP will document the problem and solution as an SAP Note to assist other partners.

S-User

You must provide the customer with an s-user account and password

Using the s-user, the customer can:

- Login to SAP Business One customer portal
- Create support messages to partner
- Research problems using Support Desk



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You need to provide your customer with the s-user account and password. This enables them to login to the SAP Business One customer portal, where they can create support messages to you, as an alternative to using your support hotline.

Customers can create support messages from either the SAP Business One application using the menu *Help* → *Support Desk*, or from the support area on the customer portal. Customers can additionally research problems including searching the SAP Notes database to solve problems on their own.

Note: If the customer creates a support message, it will be automatically forwarded to you for Level 1 and 2 support. It does not go to SAP. If the customer reports the problem directly to you by phone, you will create the support message if you require Level 3 support from SAP.

Contacting SAP Support

- Message Wizard (preferred)
- SAP Support hotline
- SAP Business One Duty Manager



There are several ways for a partner to contact SAP Business One Product Support:

- **Message Wizard:** To report a problem to SAP for level 3 support, use the message wizard. This is the preferred way of contacting support.
- **SAP support hotline:** Use the hotline to contact SAP Support in case you need to follow up on a previously-submitted support message, or in case you are working at the customer site and there is no Internet access. The hotline number is published in the portal on the contacts page per country. Hotlines are open from 9 am to 6 pm local time.
- **SAP Business One Duty Manager:** The Duty Manager can be contacted only in very exceptional cases, in which the core business processes of your customer's system are affected outside the working hours.

When communicating with SAP support, English is the preferred language, and a local language is provided only where available.



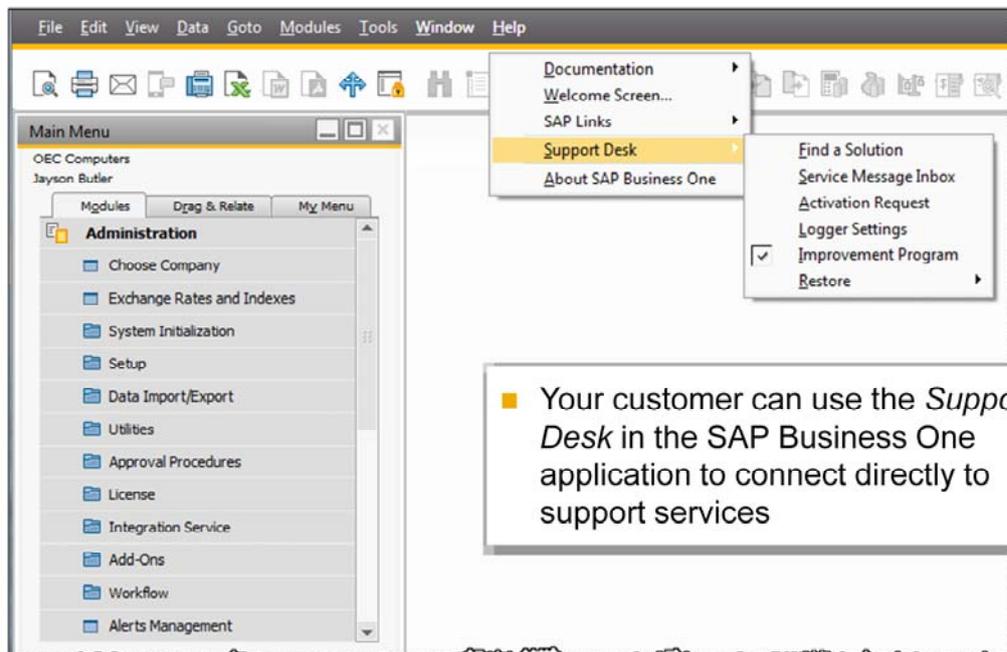
Agenda

- Setting up Support
- **Support Tools**
- Support Messages
- Remote Support Platform for SAP Business One (RSP)



In the next part of this topic, we will cover support tools.

Support Desk



If a problem occurs with SAP Business One, your customer can use the Support Desk function in the SAP Business One application to connect directly to the support services.

The customer can perform the following actions:

- Search the support databases for known solutions to a problem they are encountering
- Access the customer portal to create a support message to the partner
- Track the status of existing support messages

To use the SAP Support Desk the customer needs:

- A valid maintenance contract with SAP
- A valid S-User
- An Internet connection

Partner Support Dashboard

- The Partner Support Dashboard is the partner's main interface for supporting customers

The Partner Support Dashboard is the partner's main interface for supporting customers and is accessed from the Support area of the PartnerEdge portal. Here you can see a summary of your open support messages, and you can create new support messages from here using the SAP Message Wizard. You can also view messages for the partner organization, and messages submitted to SAP.

Customers can track messages in the customer portal. Additionally the customer can be notified by email when you send them a new message.

Cross Search

- Cross search allows you to search several SAP Business One repositories simultaneously

SAP xSearch for Business One
THE SAP SUPPORT KNOWLEDGE BASE SEARCH

SAP Note

You recently searched for

- sales process in SAP Business One
- training
- Gross Profit Calculation in SAP Business One

Search for

Hide advanced search options

Method Pattern Results per page

Repositories:

- Support Content
- SAP Notes
- Portal Documents
- SAP Help Documentation
- Product Documentation
- AddOn Documentation
- Community Content
- SDN Forum
- SDN Blog
- SDN Wiki

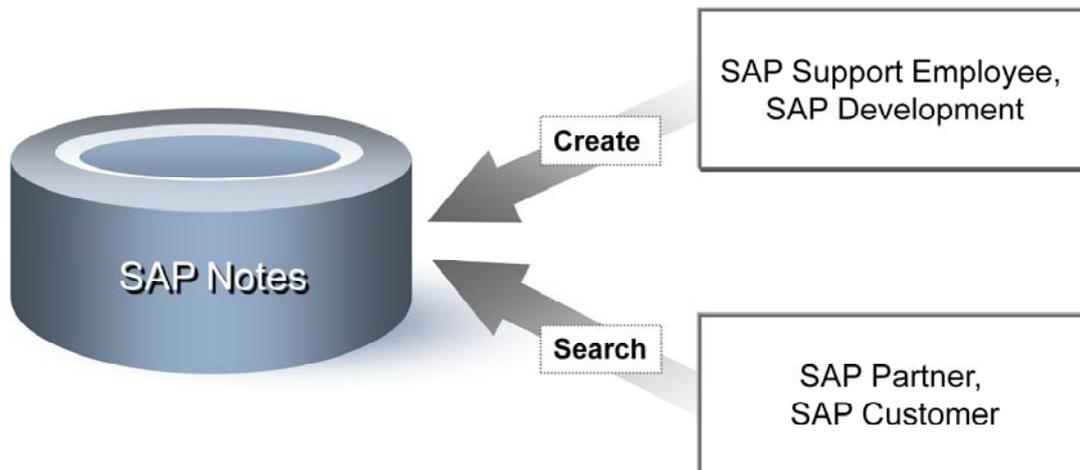
Before creating a support message to SAP, you should search to see if this is a known problem, with a solution.

The cross search is the main tool for research, and allows you to search several SAP Business One repositories simultaneously, making your search process faster. The cross search searches in:

- Support Content
- SAP Notes
- Portal pages
- Help and product documentation, including add-on documentation
- Community content. Note: SAP assumes no responsibility and offers no guarantee for the information or content in the community content.

SAP Notes

- SAP publishes notes for known problems



SAP Notes are solutions for known problems. Whenever a new problem occurs and is subsequently solved by SAP, SAP creates an SAP Note describing the problem and the solution.

You can search by keywords, by application area, by software release, or any combination of these.

A selection of SAP notes is published as SAP Hot News and you can subscribe to receive them on your partner portal homepage or in a personalized newsletter. SAP Hot News are very high priority SAP customer notes. These notes tell you how to resolve or avoid problems that can cause the SAP system to shut down or lose data.

Logging and Tracing

Help > Support Desk > Logger Settings.

- You can log and trace events at two levels:
 - Business information level
 - System information level

Logging levels:

- Off
- Errors Only
- Errors, Warnings and Information
- Errors and Warnings

The screenshot shows the 'Logger Settings' dialog box. The 'Business Information Level' is highlighted with a blue box and set to 'Errors Only'. The 'System Information Level' is set to 'Custom'. Other settings include Log File Max Size (5 MB), Log Folder Max Size (50 MB), Log Files Location (Log File Location), Store Logs in Database for (7 Days), Clear Logs From Database for (For This Machine), Archive Audit Logs, and Usage Statistics (checked for both Entire SAP Business One Landscape and Current Company). A note on the right states: 'Note that activating the logger will reduce client performance'.

SAP Business One supports logging and tracing of events at the business information level and the system information level during application execution. Only SAP channel partners, SAP Business One super users, and SAP Business One authorized regular users can access the *Logger Settings* window.

During support processing, you may be asked by SAP support to enable this logging.

The business information level logs information about business flow and business objects. The logs contain all events that are triggered by the actions of users in SAP Business One. This information is displayed to users in the System Messages Log at the bottom of the client screen.

The system information level logs all internal technical messages. These messages contain technical information about the following:

- Internal errors (for example, ODBC error codes, memory errors), warnings, and information messages
- Comments from developers
- Performance logging

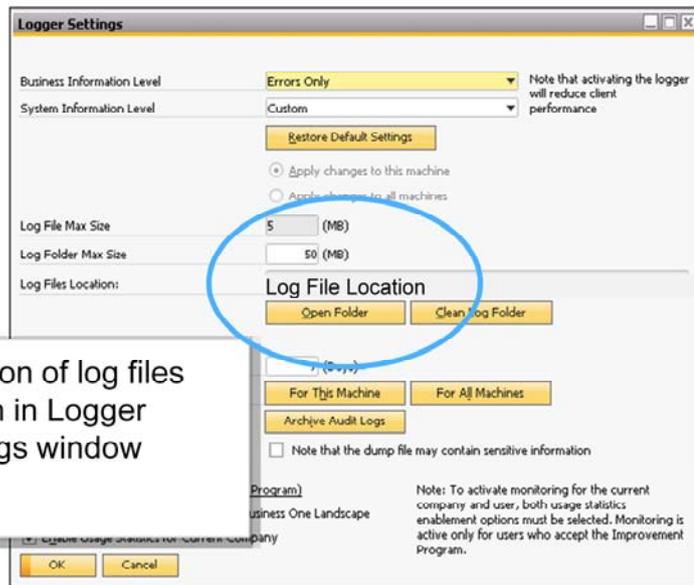
You can select the severity levels at both the Business Information level and the System Information level.

Viewing Log Files

■ Log files are text files that show:

- The event
- The time the event happened
- The exact source code line the event refers to
- The event's message content

■ Location of log files shown in Logger Settings window



The log files provide a source of information that is useful when dealing with incident reports and searching for solutions.

SAP Business One creates a new log file on every startup. The log files are text files containing:

- The event
- The time the event happened
- The exact source code line the event refers to
- The event's message content

The log files have a unique, predefined name that contains a date, a time stamp, and the Process ID (PID) of the SAP Business One application that created the file. Tracing and logging information, all types of event levels, and severity levels are stored together in one log file.

The log file size is restricted to 5 MB. After the file exceeds the maximum size, SAP Business One creates a new file. The number of log files that can be stored in a logging directory depends on the configuration of the folder size.

For more information, refer to the how-to guide *How to Work with Logging and Tracing in SAP Business One*.



Agenda

- Setting up Support
- Support Tools
- **Support Messages**
- Remote Support Platform for SAP Business One (RSP)



In the next part of this topic, we will cover the creation of support messages to SAP support.

SAP Support Process

	✓
■ Search for a known solution for the problem	
■ Reproduce the problem	
■ Isolate the problem to SAP Business One	
■ Discuss business impact with customer and assign priority	
■ Provide correct information in the support message to SAP	

When the customer reports an error to you, you must follow SAP's support processes:

- Search all available SAP resources to see if known solutions to the customer problem have been clearly documented by SAP. If the issue is known and is resolved in a patch, it is your responsibility to upgrade the customer.
- Reproduce the problem at your own site using a copy of the customer database. If you can reproduce the problem, test it again using the latest patch and release level.
- Even if you can reproduce the problem, it might be caused by something in the client environment that is outside of SAP Business One. Therefore you need to determine if the problem is caused by SAP Business One. You may need to check log files in SAP Business One.
- If you can reproduce the problem at the latest patch and release level, and have isolated it to SAP Business One, then create a support message to SAP. You should discuss the business impact with the customer so you can assign the appropriate priority.
- Provide enough detail for SAP to process the problem. Include a clear description of the problem, with the exact error message, screenshots, and the steps you have taken at level 1 and 2. You should create messages in English.

Message Wizard

- Launch Message Wizard from Partner Support Dashboard



- Choose customer
- Choose system
- Prepare solution
- Find solution
- Create message

From the Partner Support Dashboard, you can launch the SAP Message Wizard. The wizard guides you through the process:

- Choose the customer from your list of customers. SAP expects the partner to open a message using the correct customer ID.
- Choose the system (if the customer has multiple systems)

SAP Note 722980 contains some guidelines for creating a support message.

Message Wizard - Prepare Solution Step

Enter a description of the problem and select the applicable component

The screenshot displays the 'Message Wizard - Prepare Solution Step' interface. On the left, there is a form with the following sections:

- Message for:** SupportCenter Busone
- System:** B01 - test (Development system)
- Problem Description:**
 - Description:
 - Component:
 - Results Per Page: 30
- Search Options:**
 - Back

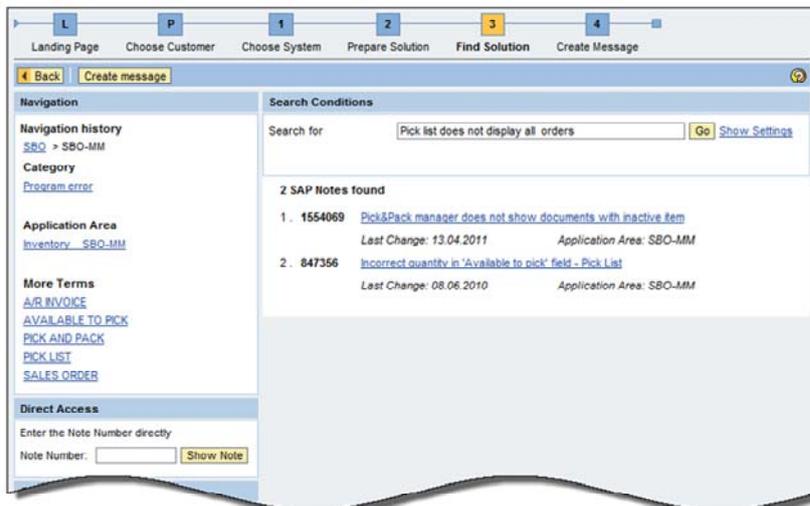
On the right, a panel titled 'SAP Business One Components' is shown. It contains a list of components with expandable arrows:

- ▼ SBO - SAP Business One
 - ▶ SBO-ADD - SAP Business One Add-Ons
 - ▶ SBO-ADM - Administration
 - ▶ SBO-BC - System
 - ▶ SBO-BK - Banking
 - ▶ SBO-BP - Business Partners
 - ▶ SBO-CRO - Cross Topics
 - ▶ SBO-DTW - Data Transfer Workbench
 - ▶ SBO-FIN - Financials
 - ▶ SBO-GEN - General Functions
 - ▶ SBO-HR - Human Resources
 - ▶ SBO-ICO - intercompany integration solution for SAP Business One
 - ▶ SBO-IMCE - In-memory computing for SAP Business One
 - ▶ SBO-INT - SAP Business One integration
 - ▶ SBO-LOC - Localization
 - ▶ SBO-MM - Inventory
 - ▶ SBO-MRP - Material Requirements Planning
 - ▶ SBO-MV - Microvertical

A yellow arrow points from the 'Component' field in the form to the 'SBO-INT - SAP Business One integration' component in the list.

Prepare the solution by entering a brief description of the problem and selecting the applicable component so that the message can be routed quickly to the right support group in SAP.

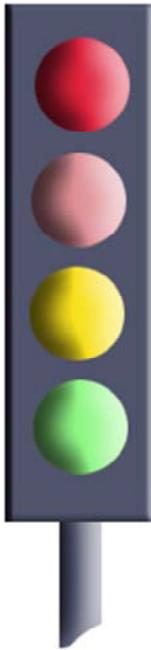
Message Wizard - Find Solution Step



- Wizard displays all known issues that match problem description

The wizard will automatically display all known issues that match the problem description you entered. This allows you to thoroughly research possible solutions. You can also use the cross-search, or search SAP Notes from this step in the wizard.

Message Wizard - Message Priorities



- You must select priority
- Priority reflects impact on customer's business operations:
 - Very high?
 - High?
 - Medium?
 - Low?

When you create a support message to SAP, you must select a priority. The priority reflects the impact that the problem has on the customer's business operations:

- Very High - You should *only* assign the *Very High* priority if the problem is business-critical, has serious consequences for business operations, and requires an immediate solution. **Note:** You must provide a phone number so that SAP support can contact you. This is generally caused by the following circumstances:
 - Absolute loss of a system
 - Malfunctions of core SAP system functions in the production system
- High - You should assign the *High* priority if critical business transactions are affected and urgent tasks cannot be executed. There is some disruption to the customer's business but the whole business is not stopped.
- Medium - You should assign the *Medium* priority if non-critical business operations are affected. This includes a function that is temporarily unavailable or does not work properly. Work can continue.
- Low – You should assign the *Low* priority if the problem has little influence on business operations and does not hinder daily operations. This includes a function that is temporarily unavailable or does not work properly, which is not required for the daily business process.

Tip: SAP Note 795206 contains a full definition of the priorities, and instructions for proceeding with a very high message priority.

Message Priorities (Cont.)

The open quantity in the sales order row is not reflected in the committed quantity after the order is saved.

High or Very High?

The SAP Business One client crashed and produced a dump file when the user tried to print invoices, but the system is otherwise functioning normally.

High or Medium?

- Volume: How many documents or transactions are affected?
- Frequency: How often is the error occurring?
- Is there an event happening or about to happen that might affect the frequency?
- Value: What is the cost/value of the transactions/documents affected?
- Workaround: Is there one?

In the first scenario, there is a possibility that the database is corrupt. In this case the priority would be set as Very High; otherwise the priority should be set as High.

In the second scenario, even though the system is working normally, the printing of invoices is a key task. If no invoices can be printed by all users, the priority should be set as High. If some users can print invoices, the priority should be set as Medium.

When assessing the priority of a message, a partner can also consider the following factors to help evaluate the business impact to the customer:

- Volume: How many documents or transactions are affected?
- Frequency: How often is the error occurring?
- Is there any event happening or about to happen that might affect the frequency, such as end-of-year processing or financial audits?
- Value: What is the cost/value of the transactions/documents affected?
- Workaround: Is there one?

Message Wizard - Issue Description

The screenshot shows the 'Issue description' form in the SAP Message Wizard. The form is titled 'Issue description' and includes a warning: 'Please make sure all fields marked with * are filled prior to sending the message to SAP.' The form is divided into several sections:

- Contact / additional information:** Includes a radio button for 'Partner / Customer Contact', a checkbox for 'English handling an option? (If you state "Yes" here, it will facilitate the processing of your message)', and input fields for 'Name' and 'E-mail address'.
- Language:** A dropdown menu set to 'English'.
- Scenario *:** A large text area for describing the scenario.
- Actual Result *:** A large text area for describing the actual result.
- Expected Result *:** A large text area for describing the expected result.
- Relation to information sources:** Includes a text input field for 'List keywords you used to search for documentation resources: *' and a text input field for 'SAP Note number & comment for SAP Note'.
- Attachments:** A section with a 'Description' input field, a 'Browse...' button, and an 'Upload' button.

At the bottom of the form, there are three buttons: 'Back', 'Send to SAP', and 'Save as draft'.

- Provide the scenario, result, and expected result
- Include attachments
- Save as draft or submit to SAP

In the final step you need to supply information on the scenario that caused the problem, the actual and expected result, and the research you have done so far.

You can include attachments in this step of the wizard.

At any time you can save the message as a draft and work on it later, or submit to SAP support.



Agenda

- Setting up Support
- Support Tools
- Support Messages
- **Remote Support Platform for SAP Business One (RSP)**



In the final part of this topic, we will cover the Remote Support Platform.

Remote Support Platform for SAP Business One



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30

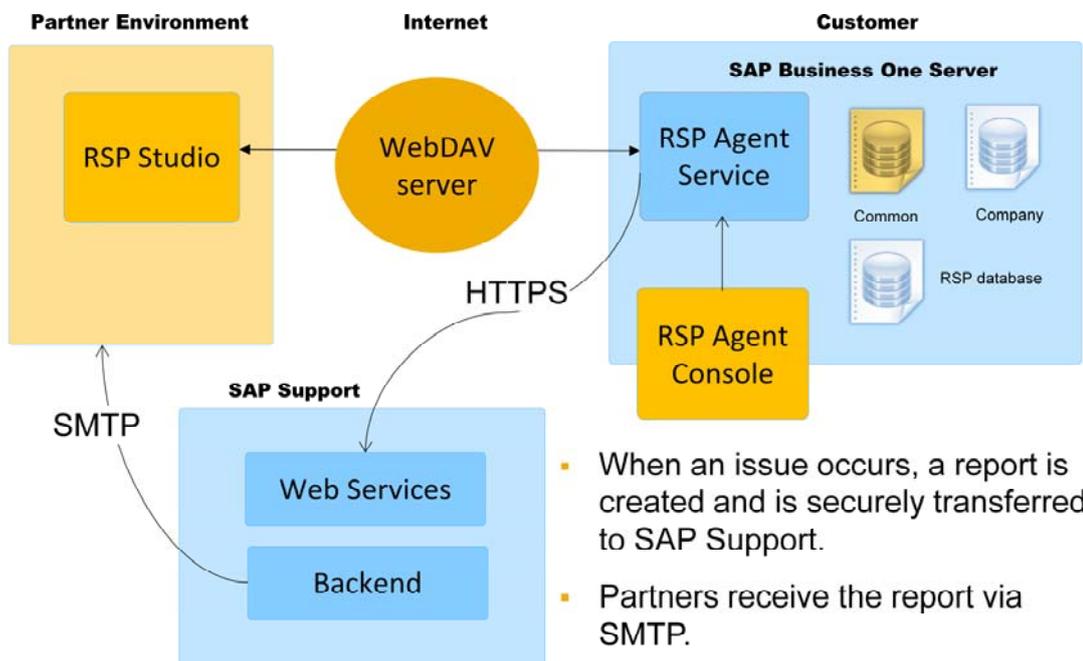
It is an obligation to install and activate Remote Support Platform (RSP) for customer installations as outlined in the Maintenance Contract for SAP Business One.

Remote Support Platform (RSP) is the primary platform for monitoring your customer's systems. RSP is provided with the software installation files. RSP can be automatically installed with the SAP Business One Server, or can be installed independently.

RSP monitors the health of the SAP Business One applications, the databases, and the underlying hardware such as disk and memory. It also enables SAP to proactively diagnose system bottlenecks and prevent system issues.

Note: RSP is updated independently of SAP Business One releases.

RSP Landscape



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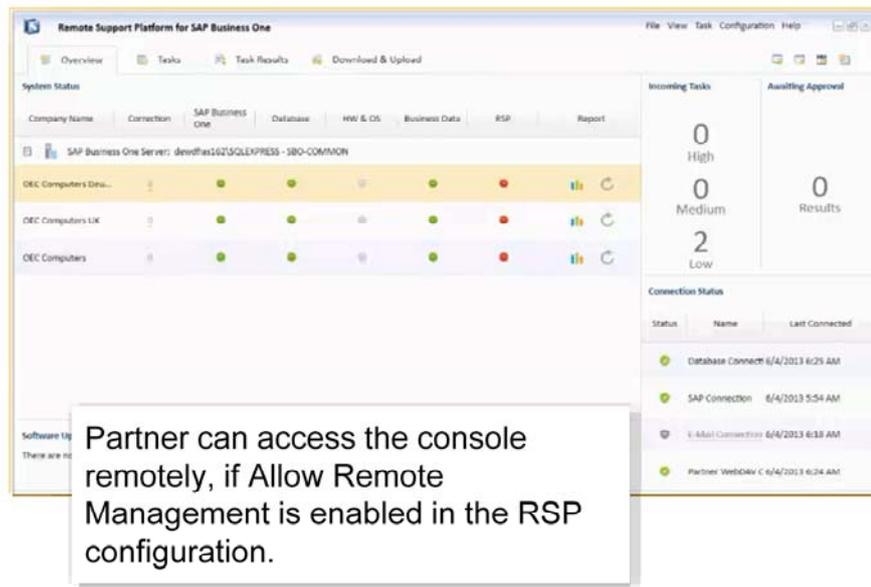
31

Remote support platform is installed on the customer's SAP Business One server. It uses its own database, and does not affect any company databases. RSP provides a secure connection between the customer and SAP for end-to-end support. The components of RSP include:

- *RSP agent service.* The server side of the remote support platform for SAP Business One is installed on the SAP Business One server. The agent service downloads tasks from and uploads task results to the SAP backend of the remote support platform. The agent service also requires that the customer provide an SMTP server for email delivery of reports.
- *RSP agent console.* The client side of the remote support platform for SAP Business One is either installed on the same computer as the agent service, or can connect to the agent service from a different computer on the same network. The customer can administer RSP from this dashboard console.
- *SAP backend.* Management software installed at SAP that is used to manage the remote support platform for SAP Business One support tasks. The SAP backend is exposed as Web services, and the agent service communicates with the SAP backend via HTTPS-based Web services calls. The customer's server must have an internet connection.
- *RSP studio* for SAP Business One. The studio is a development and management tool for SAP partners. With this tool, partners can develop tasks, deliver self-developed tasks to customers, and manage self-delivered tasks for different customer installations.

Agent Console

- On site interface for monitoring a customer system
- Can see system status indicators, run tasks, send task results to SAP
- Can download software updates and upload databases to SAP support



The agent console provides an on site interface for the customer to monitor their system.

The console displays the system status indicators for each database.

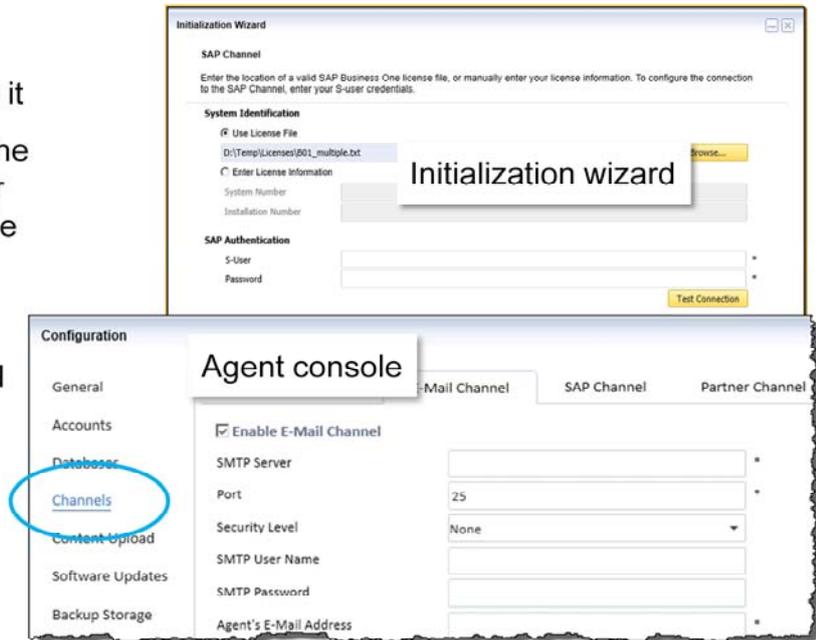
Once the connection is set up, SAP will send tasks to the RSP agent.

From the console you can access and run these tasks, and send the results to SAP. You can also download software updates, and upload databases to SAP support.

As a partner you can access the tasks in the customer's console remotely. If you enable *Allow Remote Management* in the agent consoles for your customers, you can monitor multiple customers using a web-based interface called remote console. A link to the remote console is provided on the SAP Partneredge portal. You need an s-user to access the web-based interface.

Configuring RSP

- After installing RSP, you need to configure it
- Can configure using the initialization wizard, or from the agent console screen
- Channels:
 - Directory channel
 - E-mail channel
 - SAP channel
 - Partner channel



After installation, you need to configure RSP by running the initialization wizard. The wizard opens up automatically after you install RSP. After you successfully configure the settings, in the final step, you can generate and automatically send a system status report to SAP, which registers the installation of the remote support platform. You can also configure RSP from the agent console screen by choosing *Configuration* from the menu.

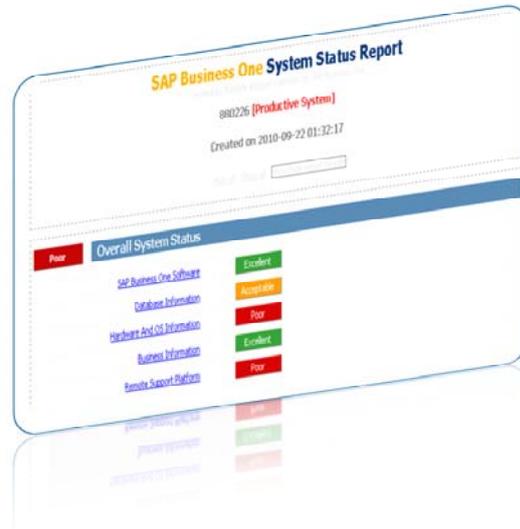
The four main configuration areas are:

- *Directory channel*. This is optional. If you enable it, provide a file path for the storage of task results. A path to a folder for content upload. You can specify a window of time for the upload as well as a maximum upload rate to conserve network bandwidth.
- *E-mail channel*. The e-mail channel optional and is used to send notifications to the customer when certain events occur. To configure it, provide the customer SMTP server settings and email address. If you do not want the remote support platform to send out e-mail notifications, do not enable the e-mail channel.
- *SAP channel*. You must configure the SAP channel. Provide the license information and the s-user and password for authentication. The agent service cannot connect to the SAP backend without these credentials. From here you can select the option to allow the partner to remotely manage the system using the remote console.
- *Partner channel*. The partner channel is optional, but if you enable and configure it, the RSP agent service can retrieve tasks created by the partner and send task results back to the partner's WebDAV server.

Other menus are available from the agent console Configuration menu to configure and schedule database backups using RSP.

RSP Tasks

- RSP uses tasks to monitor and manage a system
- Agent service connects to SAP to download new and updated tasks
- Customer always has option to approve or reject a task
- System status report task is visible immediately after RSP installation. This report must be run, to register RSP with SAP support



RSP uses *tasks* to monitor and manage a system. At scheduled times, the agent service automatically connects to SAP to download new and updated tasks. From the agent console you can view and run tasks from SAP. The customer always has the option to approve or reject a task and can elect to run tasks automatically, based on a schedule, or manually.

The task for the system status report is built-in and visible immediately after RSP is installed. It checks available disk space, backup statistics, and data load of the customer's installation. The customer is informed of the results. The system status report must be run at this point, since it registers RSP with SAP support.

This report should be run on a regular basis, and identifies critical issues before they become a problem. And since SAP has this information, it can result in faster support from SAP.

RSP Tasks (cont.)

Tasks to streamline support and maintenance

- Automatic maintenance of system data
- Ongoing diagnosis of issues and self-healing wizard
- Software updates and patches
- Database backup

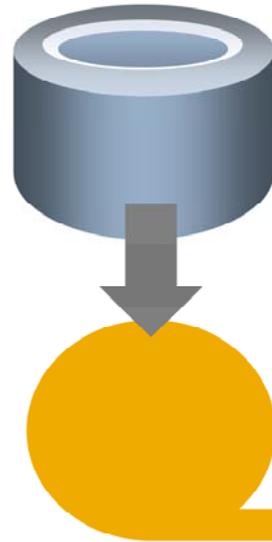


Other tasks are provided to streamline support and maintenance and include:

- System data describes the technical information on a customer's installation and must be kept up-to-date by the partner. RSP eliminates the need to manually update this data by automatically sending the installation data to SAP.
- Ongoing diagnosis of issues is provided without manual intervention. For known problems, SAP transmits a report with a resolution to the issue. The support partner can, with the customer agreement, run a self-healing wizard task and apply a fix to the customer's system.
- Customers and partners receive proactive notifications on new software updates and can either set RSP to automatically download recommended updates, or choose to manually manage the updates. There is an option to specify a bandwidth speed and time of day to avoid connectivity lags during business hours. Note: RSP is itself maintained using silent installations and upgrades, eliminating additional configuration or maintenance efforts from the customer.
- Using RSP, partners or customers can establish a backup schedule to automatically backup company databases, including attachments, according to the schedule.

Backup Options

- Microsoft SQL Server backup
- Remote Support Platform (RSP)



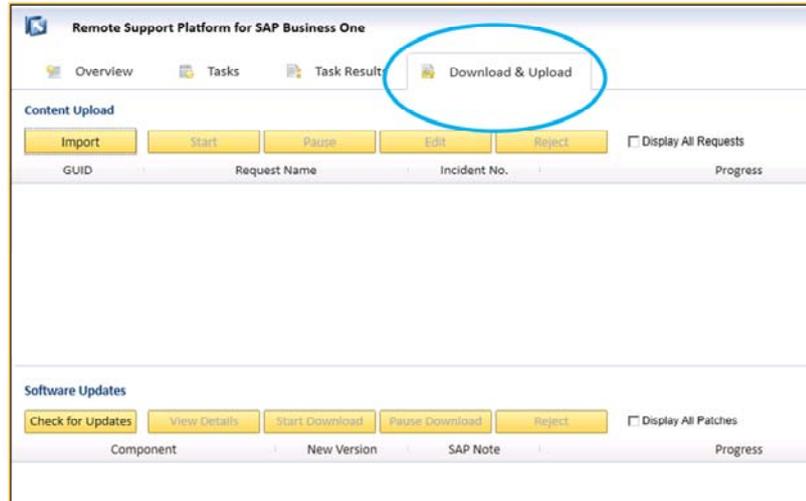
Company databases can be backed using either the Microsoft SQL Server backup function, or using the Remote Support Platform (RSP).

- The Microsoft SQL Server Management Studio backup supports backup to both disk and tape. It does not backup the files in the shared server folders, therefore you must back these up separately.
- The Remote Support Platform provides built-in backup services. You need to enable RSP backups first, from the agent console. You can schedule daily, weekly, and monthly backups and perform differential and full database backups. The RSP backup service also includes the shared server folders.

Note that the SBO-Backup service from older releases of SAP Business One has been superseded by functionality in Remote Support Platform (RSP).

Uploading a Database

- In response to a request from SAP support, you do this from the *Download & Upload* tab in the agent console



During the process of level 3 support, a partner may receive a request for the customer database from SAP. The support partner can easily upload the database using RSP. The database is automatically compressed for upload.

If you receive a task requesting you to upload a company database to SAP Support, you can do this using the *Content Upload Wizard* available on the *Download & Upload* tab of the agent console.

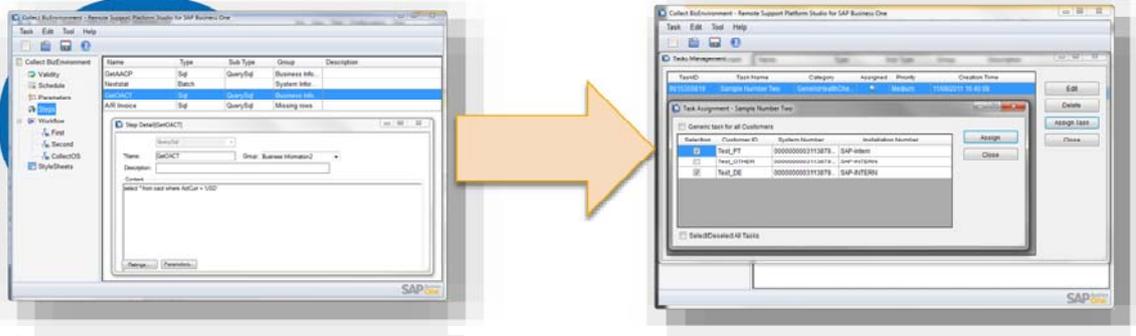
This replaces the FTP service used in prior releases of SAP Business One.

Remote Support Studio for Partners

Partner Channel and the Studio

Define Tasks

Manage Tasks



Partner Tasks

- Assign Tasks to one or many customers
- Assign customized solutions to selected customers
- Request large file transfers

The *Remote Support Platform (RSP) Studio for SAP Business One* enables partner companies to create their own tasks for customers. Partners can download tasks to customers and upload task results. An example might be a task to monitor an installed add-on.

The Studio provides a development environment for creating simple and advanced tasks:

- Simple SQL tasks allow the partner to run perform basic database operations
- Simple PowerShell tasks allow the partner to perform remote administrative tasks on customers' Microsoft Windows operating systems. These tasks are created using Microsoft Windows PowerShell scripting. Templates are provided to quickly create these tasks based on common scenarios.
- Advanced tasks enable the partner to perform remote administration on the customer's system, or to request a customer database upload.

Note: For more information, refer to the how-to guide *Working with the Remote Support Platform Studio for SAP Business One* .

Summary: Support Tools and Resources

- Support Cycle Navigator
- SAP Notes
- SAP Business One Cross Search
- Expert Empowerment Sessions (PSA)
- Documentation Resource Center
- SAP Community Network (SCN)
- Landing Pages for RSP and AIP
- SAP Business One Online Help
- Partner Support Dashboard
- Software Download Center



Write down the quick links for access to the resources on the portal:

Key Points



Key points from this topic:

- The SAP Business One Support Cycle Navigator is a guide to setting up a support department.
- You are responsible for level 1 and 2 customer support, and SAP is only responsible for level 3 support.
- You are required to follow SAP's support processes. You must isolate the problem to SAP Business One before creating a support message. You must search for known solutions to a problem.
- When you create a support message, the priority reflects the impact that the problem has on the customer's operations.
- It is an obligation to install and use Remote Support Platform for customer installations.
- Remote Support Platform enables proactive support for customers. Ongoing diagnosis of issues is provided without manual intervention.
- RSP automatically updates the customer's system data.

Here are some key points to take away from this session:

- The SAP Business One Support Cycle Navigator is a guide that you can follow to set up a support department. You can find the information on the PartnerEdge Portal.
- Customers must pay for maintenance in order to receive support. Support level 1 and 2 is provided by the partner, and SAP only gets involved at level 3 when there is a software defect in SAP Business One. If the customer creates a support message, it will be automatically forwarded to you for support. It does not go to SAP.
- You are required to follow SAP's support processes. You must isolate the problem to SAP Business One before you create a support message. The Partner Support Dashboard is the partner's main interface for supporting customers and is accessed from the Support area of the PartnerEdge portal. You can use SAP search tools from here to search for known solutions for a problem.
- When you create a support message to SAP, you must select a priority. The priority reflects the impact that the problem has on the customer's business operations.
- It is an obligation to install and use Remote Support Platform (RSP) for customer installations as outlined in the Maintenance Contract for SAP Business One.
- Remote Support Platform enables proactive support for customers and performs ongoing diagnosis of issues without manual intervention.
- RSP automatically updates the customer's system data, thereby eliminating the need to manually update this data.

Case Study

SAP Business One
Release 9.0



In the case study, you will put together a prototype solution for Light & Music.

Business Scenario



You have been assigned to implement SAP Business One at a company called Light & Music.

Light & Music has provided a list of requirements and questions. You need to determine how you will configure SAP Business One to address these requirements. You will be asked to demo the requirements in the system, and answer the questions, at a meeting with the company tomorrow.

Instructions for Teams

The instructor will group you into teams.

1. Appoint one member of the team as the project manager
2. From the case study, identify:
 - 5 requirements from the master data section
 - 5 requirements from the accounting section
 - 5 requirements from the logistics section
 - 1 requirement that needs an add-on
3. Map your requirements to SAP Business One
4. Create a high-level project plan for the implementation to show the project phases and milestones. Use the narrowed project plan template from the Implementation Center as a base.
5. Configure your SAP Business One system to meet the requirements from step 3).
6. Demo your solution to the class and answer Light & Music's questions!



Your instructor will notify you of how much time you have to work on the case study. After you have finished the case study, you will have a fixed time slot to demo your solution, usually 30 minutes for each team.

The project manager in the team should introduce the team, show the project plan, and outline the requirements you have identified as a team.

The other team members are implementation consultants, and should be prepared to demo the solution meet the requirements.

System Specifications for
Creating a Prototype Using
SAP Business One
to Depict the Business Processes at
Light & Music Ltd.

Light & Music Ltd.

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1. Introduction

Light & Music Ltd. needs an integrated Enterprise Resource Planning (ERP) system to support its business processes and advance its plans for expansion. A comparison of various products revealed that SAP Business One provides the best solution to meet the company's requirements and its plans for expansion. Therefore, Light & Music Ltd. has purchased a license for SAP Business One and now wishes to install the product in the company.

The managing director and company owner, Michael Smith, has decided to hire you to implement SAP Business One. However, before beginning the implementation, Mr. Smith wants to see how you intend to depict some of their special business processes using SAP Business One. This is the system specifications document that outlines those requirements.

Your task is to implement the business processes defined in the system specifications in SAP Business One and to present an implementation plan and your prototype to Mr. Smith tomorrow.

2. Company Background

Light & Music Ltd. is a legally independent company that specializes in selling and installing professional media presentation systems for exhibitions and events. They also offer consultancy services in planning audio-visual communication systems for new concert stadiums and concert halls.

The company was founded 1990 in London but they have expanded with additional offices to make their services available nationwide. The head office, which also includes their administration, is in London but they also have offices in Cardiff, Wales and Glasgow, Scotland.

Michael Smith sees the introduction of an ERP system as his own personal duty and wants to be able to control the efficiency of his business processes at any time. In addition, he also wants to have full security over user access to the system.

3. Implementation Methodology

The SAP Business One Accelerated Implementation Program (AIP) provides a comprehensive implementation methodology for SAP Business One partners with detailed information on how to successfully complete and manage the implementation of SAP Business One.

The project plan that you will present to Light & Music will be based on the tasks and phases in the AIP. You should also state which of the tools and templates you will find useful to manage the project.

The stakeholders at Light & Music want to monitor the progress of the SAP Business One implementation and the tasks assigned to members of the implementation project team. Project documentation must be stored in a central, shared location so that all business process owners can access it.

4. Master Data

4.1. Items

Light & Music Ltd. stocks a total of 500 items. They can be grouped in the following way:

- **Screens.** Screens are LCD and LED displays. They are sold as multi-screens, which are huge presentation screens made up from several 40-inch LCD displays. Light & Music Ltd. produces these multi-screens themselves and they are offered in the standard sizes 3x3, 4x4, and 5x5. They always keep a few multi-screens in stock since these are very popular and Light & Music Ltd. is the only supplier in the UK. Each multi-screen consists of the required number of 40-inch LCD displays together with a PC that splits the picture into the screen segments. Larger multi-screens can be built to order for a customer.
- **Projectors.** This group includes video projectors, slide projectors, and overhead projectors.
- **Lights.** Laser lights, flood lights and spotlights are sold individually to customers.
- **Light bulbs.** Replacement bulbs are sold for the lighting equipment. Light & Music buys bulbs in bulk, usually in containers of 50 boxes. Each box contains 10 bulbs. Bulbs can be sold as individual replacements, or may also be sold in boxes or containers.
- **Computers.** This group includes PCs, laptops, and presentation terminals.
- **Sound systems.** This group includes wireless and cable microphones, amplifiers and pre-amplifiers of different power, and two way speakers or three way speakers with different power levels.
- **Accessories.** This group includes all types of accessories, such as cables, microphone stands, traverses, interfaces, and so on. These are not sold directly but are included with other products as needed.
- **Sets.** Presentation sets, sound sets, and stage sets sell or rent more cheaply than the single components combined:
 - A presentation set consists of a laptop, a projector, and a projector screen.
 - A sound set consists of a microphone, speakers, and amplifiers.
 - A stage set consists of everything needed for a stage presentation. This includes a complete stage plus an adequate presentation and sound set.

Only create those item groups and items in your prototype that are required in the business processes described in this specification document. However, you should be able to present a path for transferring data from the customer's previous system.

4.2. Vendors

Light & Music Ltd. has a total of 46 vendors. Light & Music Ltd has an agreement with some of them to receive special prices and payment terms. These vendors are called contractors and Light & Music Ltd. usually buys most of its material from them. All the other vendors are called suppliers. For your prototype, it is sufficient if you create four vendors.

- **Contractors:**

Sound Systems Ltd.
Media Equipment Corp

- **Suppliers:**

Global Electronics Corp
Spotlights Ltd.

Sound Systems Ltd. supplies microphones, amplifiers, and speakers, while Media Equipment Corp supplies screens, computers, and players.

Global Electronics Corp supplies Light & Music Ltd. with accessories. Spotlights Ltd supplies lights and light bulbs.

Light & Music Ltd. is trying to get a master agreement with Spotlights Ltd. from whom they buy stages and lights, but they are still in negotiations. Please show how they can store the progress of their negotiations in the system.

Show how Light & Music Ltd. can store their vendor agreements in the system. These vendor agreements are in the form of Word documents.

All vendors offer a 3% discount if payment is made within the first week and 2% discount in the second week. Full payment is expected within 30 days.

4.3. Customers

Light & Music Ltd. has 152 regular customers in four countries. To enable better analysis of these customers and their usage habits, they have categorized them in four groups:

- Hotels
- Stadiums
- Companies
- Architects

For your prototype, it is sufficient to create the following customers:

- **Hotels:**
MAX Hotel Group, London, UK
- **Stadiums:**
London Coliseum, London

- **Companies:**
English Oil Corp, 23 Business Street, Bath
- **Architects:**
Christopher Wren Jr., Church Street, Glasgow

Purchases made by occasional customers are processed under the generic account *K999*.

Light & Music Ltd. offers a 2% discount to stadiums and architects when paid within the first 14 days. Full payment must be received within 30 days. Hotels are required to pay within one week. Occasional customers must pay immediately.

Existing customers get 5% discount provided there are no overdue payments and they placed an order previously during the last 6 months. However, Michael Smith wants to be informed if the gross profit on a sales order falls below 30%.

For orders over 25,000, customers must pay a deposit of 15%.

Light & Music wants to offer promotional discounts for a limited time on some products, such as sound systems and computers. Please show how this can be supported.

For equipment rental, the customer must pay a deposit by credit card or other advanced payment. Credit card deposits require authorization of funds.

International customers need to be billed in their own currency, and Michael would like you to show how these customers can receive correspondence automatically in the correct language.

In order to maintain good customer relations, Light & Music Ltd. sends a birthday present to the managing directors of their 18 major customers. Please show how SAP Business One can automatically remind them a week before the birthday.

4.4. Employees

The company has 30 employees. For the prototype, it is sufficient if you create the following employees:

- Michael Smith - CEO
- Claire Thomas – Chief Accountant
- Richard Long – Warehouse Manager
- Sarah Miller – Sales Manager (responsible for sales and rental revenues)
- Edward Petty – Purchasing Manager
- John Edison – Production Manager
- Clark Spencer – Service Manager
- Mark Myers - Technician

5. Accounting

Light & Music Ltd. uses the standard UK chart of accounts. They do not need account segmentation. Mr. Smith would like you to demonstrate how to create and delete additional accounts.

The company's fiscal year corresponds to the calendar year and they create the annual financial statement once a year. They need twelve posting periods for their internal controlling.

One goal of the implementation of SAP Business One is so Light & Music Ltd. can report on the revenues and expenses of its different business areas. These areas are sales, rentals, installations, and consulting.

Light & Music Ltd. runs its accounts at National Bank in London. Please rename the relevant accounts in the standard chart of accounts accordingly.

Light & Music Ltd. pays its expenses via bank transfer. Customers pay by check or credit card. For the prototype you should show a fast and efficient method for creating outgoing payments and show how incoming payments are handled.

The accounting department requests that you use the following accounts. Please create them if they are not available in the standard chart of accounts.

Control Accounts

140000	Domestic Receivables
140030	Foreign Receivables
203000	Domestic Payables
203030	Foreign Payables

Tax Accounts

207000	VAT Payable (output tax)
143030	VAT Receivable (input tax)

Banking Accounts

161000	National Bank
161016	Checks received
140100	Master Card Settlement
140110	Visa Settlement
140120	American Express Settlement
161012	Bank transfer
160000	Petty Cash
700010	Cash Discount received
450005	Cash Discount granted
650010	Bank charges paid

655040	Rounding Account for currency differences
700020	Realized Exchange Rate Differences Gain
650040	Realized Exchange Rate Differences Loss

Stock Postings

130000	Raw Materials
131000	Work in Progress
132000	Finished Products
500500	Stock Difference Gains
500510	Stock Difference Losses

Sales Postings

400000	Domestic Revenues Account
410000	Foreign Revenues Account
500005	Raw Materials – COGS
500025	Finished Good – COGS
132008	Returned Goods

Purchasing Postings

500520	Expense Account for Consumables
208040	Allocation Costs (GRNI)
500200	Price Difference Account

Other accounts

615100	Stock Insurances
510000	Wages and salaries
144080	Advance Payments
340000	Retained Earning Account
399999	Opening Balances

Currently all stock is posted only to one of three stock accounts: raw materials, work in progress, and finished goods. With the implementation of SAP Business One, they would like each item group to have its own stock account.

When there are special events, Light & Music Ltd. wants to know how much they earned with it, even if they were working for different customers during that event. This is especially true when it is a big event such as a trade fair with products and services. Please show how this can be realized with SAP Business One.

Light & Music Ltd. has insured its stock against damage by fire and water. The annual cost for insurance is £12,000 (12000 British Pounds). In January Light & Music Ltd. posts the entire

sum to an Advance Payment account immediately after posting the invoice. This account is then gradually cleared throughout the year as an insurance payment of £1,000 is posted every month to the stock insurance account. Mr. Smith would like you to demonstrate how this can be handled as easily as possible.

Monitoring their liquidity is very important to Light & Music Ltd. Recurring postings need to be automatically included in the cash flow forecast. Future investments should also be included when they are already known. For example, Mr. Smith is planning to purchase three new company cars next month for £50,000. These will be paid for in five monthly installments of £10,000 each. He would like you to show how this can be done in the SAP Business One system.

Light & Music has invested heavily in specialized equipment for building the multi-screen products and would like to depreciate these costs. They also own 2 large articulated trucks for delivery of multi-screens to large events.

6. Logistical Business Processes

6.1. Warehouse Management

Each office (London, Cardiff, and Glasgow) has its own warehouse where it stores rental items and sales items. Rental and sales items are kept separated because Light & Music Ltd. only sells new items.

The warehouse in London consists of two areas. Each area has five rows and each row consists of three shelves. The bottom shelves within a row of an area are used to store the larger items groups such as Screens, Sound Systems, Projectors and Computers. These bottom shelves need to be marked clearly as to which item belongs there. The middle and top shelves store the smaller items. Because Light & Music Ltd. often employs temporary workers for picking, they would like to be able to show and print the storage location of the item on the pick list.

Light & Music Ltd. conducts their inventory valuation once a year. With SAP Business One, they expect to have a permanent overview of their current stock level. All purchased goods should be valued with the moving average price per item and warehouse. The multi screens should be valued with a standard price of:

- £10000 for a 3x3 multi screen
- £18000 for a 4x4 multi screen
- £28000 for a 5x5 multi screen

Light & Music Ltd. has an extensive sales and rental catalog covering their range of products. They would like to store the catalog pictures in the corresponding item master records so that they can use them in printed quotations.

For the prototype, show how SAP Business One can meet all of Light & Music's warehousing needs.

6.2. Purchasing

Light & Music Ltd. purchases most of their items from their contractors. When entering an order, they would like the system to suggest only the items that are supplied by the contractor already entered.

Once an order is placed, the system needs to show that the stock is ordered. When the stock is delivered to the warehouse, the items are receipted into the warehouse. This document should not affect the supplier balance, but only update the stock quantity on-hand. Only once the supplier has invoiced Light and Music Ltd., should the supplier account balance be affected.

They have all their suppliers' price lists available. In general, prices are valid for one calendar year and the suppliers send Light & Music Ltd. new price lists regularly. The contractors send the price lists as Excel sheets. Mr. Smith is wondering if there is a way to import these Excel sheets into the system. If there is, can you please demonstrate this to him.

In order to compare supplier prices, Light & Music Ltd. wants to be able to display all price lists in a table, so if this is possible, please also demonstrate this.

Light & Music Ltd. has a special agreement with Media Equipment Corp for the 40-inch LCD displays for the multi screens. When they buy 50 pieces, they get a discount of 10%. When they buy 100 pieces, they get a discount of 15%.

Please configure and demonstrate the entire purchasing process in an SAP Business One scenario while taking into account these basic conditions.

6.3. Sales

Light & Music Ltd. sells items from all item groups and they want to optimize their sales. In order to ensure punctual delivery, they wish to implement an automatic availability check. If an item is not in stock, they want to be able to offer him similar items. Please show how this can be accomplished.

The normal credit limit for all of their customers is £20,000. If this limit is exceeded by up to £1000, the employee entering the order should receive a warning so that he or she can inform the customer about it. If the deviation from the credit limit is more than £1000, the system should block the order. Only Michael Smith can approve such a sales order.

An important feature for Light & Music Ltd is to allow sales employees to display the gross profit per item when they are processing sales documents. They calculate the gross profit percentage as profit divided by the costs of the item.

Some concert venues might require additional lights or speakers that were not planned for. This means that Light & Music Ltd. will deliver lights and speakers to the customer's warehouse. The customer informs Light & Music Ltd. whenever they use an item from the warehouse. Then the customer receives an invoice for these items. The items stored in the warehouse at the customer still belong to Light & Music Ltd. and therefore must appear with the correct amount in the stock list.

Accessories are drop shipped directly from the supplier to the customer. Light & Music Ltd. only accepts the purchase order and forwards it to the vendor. The supplier invoices the

delivery to Light & Music Ltd. and they invoice the items to their customers. This process should run automatically as much as possible.

Once the order has been placed, the stock will be picked from the warehouse and packed ready for delivery. Mr. Smith would like you to depict the entire sales process in an SAP Business One scenario including the picking and packing functionality. For packing, Light & Music Ltd. works with two package types; one for items up to and including 100 kg and the other for items that are than 100 kg. For every delivery Light & Music Ltd. charges a freight fee of £5.

In addition, Light & Music Ltd. consults with architects and engineers planning communication systems for complex building projects. They would like you to show how these consulting services can be invoiced.

Some scenarios exist where the customer's delivery might be earlier than expected resulting in some items being returned temporarily to Light & Music Ltd. The customer would like to keep these items available for the next delivery by referencing the original order that was placed.

Michael Smith and Richard Long have a question regarding stock returns from customers that might have been based on deliveries in their previous legacy system. When the stock is returned into SAP Business One, could they indicate what the cost of the item should be before posting the return?

6.4. Production / MRP

Multi-screens are produced in their London premises. From here they are shipped to the customers. They would like you to demonstrate their production order recommendations through MRP. They want to see the system process for producing some of the standard multi screens as well as how SAP Business One would handle the production of a special extra large multi screen (7x7) ordered by a customer.

6.5. Rental

Light & Music Ltd. rents out items from all item groups. Rental customers receive a printed rental agreement that should contain a note informing them that the items must be brought back in an undamaged state and if there is any damage, the customer will have to pay for repairs.

The estimated return date should be saved in the system. When the item is returned, an invoice is created for the rental based on the amount of time it was out. At this point, all open transactions need to be closed and the item should be available once again.

If an item is already rented, Light & Music Ltd. wants to be able to run a report to show its expected return date. In order to optimize their rental offers, Light & Music Ltd. would like to have an assessment of the rental time and rental frequency of their rental items.

Mr. Smith would like you to demonstrate how the SAP Business One system can address their rental requirements.

6.6. Service

Light & Music Ltd. includes a two year warranty with every item they sell. The items have a serial number that is comprised of the item code, the year, and a sequential number. The standard service is limited to working days from 08:00 to 17:00 and does not include holidays. If necessary, a technician travels to the customer to fix the problem within 5 business days. Labor and travel are free of charge, as are any parts required to make the repair.

Of course, Light & Music Ltd. also wants to submit a warranty claim to the vendor if a product is defective. Therefore, when Light & Music Ltd. receives items equipped with serial numbers by the manufacturer, these serial numbers must be entered.

7. Conclusion

Provide an implementation plan and a prototype demonstrating how SAP Business One can meet all of the needs of Light & Music Ltd. Use the Accelerated Implementation Program (AIP) to help you put this together. You will present this to Mr. Smith and the key stakeholders at Light & Music Ltd (otherwise known as your instructor and classmates).

Good Luck!