User Interface

Styleguide

SAP Business ByDesign

Version: 2012

Home

SAP Business ByDesign UI Styleguide Version 2012

Info

Find a print version here: PDF Version 2012

This updated version (January 2012) contains new pages and updated content. For changes compared to the Styleguide 2011 published in May 2011 see Styleguide Changes.
This Styleguide bases on ByD Feature Pack 3.5.

Main Chapters

Fundamentals and Background

Introduces the ByD basic UI concepts like patterns, floorplans, and navigation as well as cross-topics. This chapter is not needed for your daily design work.

Floorplans and Patterns

Guides you through the right usage of floorplans and patterns (pages indicated with "F-" are floorplans).

Interaction Models

Provides all necessary information for designing dialogs and flows for certain types of interaction, including how to create and change objects, how to save, print, and find them. You will find information on how to navigate between windows. Additionally you get introduced to "Business Configuration" which enables customers to adapt ByD to their business processes and needs.

Specific Topics

Explains on a detailed level the right usage of controls, where to place functions into the toolbar, where to position elements, how to translate texts, etc.

FAQ

When will a new version of the Styleguide be published?	In sync with ByD releases
How do I see what has changed since the last publication?	See the excel sheet: Styleguide Changes
How do I print the Styleguide?	PDF Version 2012
How do I search?	On top left you can enter a search string or browse the index.
How can I suggest corrections?	Send an email to Roger Bartel

How To Use This Styleguide

The links in the left side navigation panel launch pages where you will find all information for the respective topic. Each page is structured into sections presenting an introduction, consistency guidelines, and best-practices. Start reading the first five pages in Fundamentals and Background.

Technical Information

Further technical infomation is shown in red boxes when needed. Red boxes state a workaround or reduction.

Example:

> **Guidelines for UI Development**
> The list menu which contains functions such as *Select All* is not available in FP3.5.

Picture Legend, Abbreviations, Typography

The Picture Legend page shows an example floorplan to explain the the elements used in floorplan and pattern pictures.
The Abbreviations page lists acronyms and abbreviations.
Italics font (*Example text*) is used for words or characters quoted from the screen. These include, for example, field labels, screen titles, button labels.
Upper case (STRL+S, ENTER) is used for keys on the keyboard.

Disclaimer

The Styleguide is a living document. This does not mean that the rules and design patterns described in the guideline will keep changing. Goal is to keep the guidelines and the applications UI as stable as possible. The guidelines team will continuously monitor requirements and eventually perform changes or additions.

Screenshots from the system are indicated as such. In some cases they are not 100% Styleguide compliant. Please refer always to the consistency rules.

SAP Business ByDesign Studio does not cover all UI functions described in this Styleguide.

The Styleguide is for internal use only. It is provided without any warranty of any kind, either express or implied.

About

Contact: Roger Bartel

Tag Cloud

import, export, excel, bydesign, ux, ui, analytics, floorplan, pattern-based, design, trademark, uiguidelines, favourite, styleguide, home, content, welcome, howto, guideline, topics, models, chapters, picker, date, options, select, technical-userid, names, status, dynamic, form, name-field, master-detail, multiple-addresses, pattern, generic, international, format, address, addresses, organizations, interaction, feature, suggest, tag, enterprise, tags, cloud, search, alignment, length, value, forms, fields, melting, gestures, ipad, styleguides, guidelines, phone7, blackberry, iphone, mobile, partner, favorite, navigation, shelf, favorites, flags, infoarea, infobar, tabbed, views, task, shortcuts, paradigms, cuibb, filter, quick, report, shell, common, pull, push, support, user

Copyright

SAP AG

Dietmar-Hopp-Allee 16
69190 Walldorf
Germany
T +49/18 05/34 34 34
F +49/18 05/34 34 20
www.sap.com

© 2012 SAP AG. All rights reserved.

Disclaimer

Some components of this product are based on Java™. Any code change in these components may cause unpredictable and severe malfunctions and is therefore expressively prohibited, as is any decompilation of these components.
Any Java™ Source Code delivered with this product is only to be used by SAP's Support Services and may not be modified or altered in any way.

Documentation in the SAP Corporate Portal

You can find this documentation at the following Internet address: https://portal.wdf.sap.corp/go/uiguidelines

Top

More Information

Home
Registered Trademarks of Non-SAP Products

Fundamentals and Background

Fundamentals and Background

Summary

This chapter describes to the ByD "Design Principles", the basic "Design Concepts" and all background knowledge needed to understand the overall **SAP Business ByDesign UI concepts**.
This chapter does **not** provide guidelines for your daily design of mock-ups.

Introduction Goal and Structure

Page Content

Goal

The **SAP Business ByDesign User Interface Styleguide** describes the User Interface for SAP Business ByDesign. It consists of a set of rules and principles for the layout and navigation behavior of all used User Interface components. It guides **User Experience Designers, User Experience Advocats** and **Solution Managers** through developing mock-ups and **UI Developers** configuring the application screens.

Mock-up development tools like *UI Designer* or *Visio Stencils for ByD* implement the ByD Styleguide.

Target Groups of ByD UI Styleguide

- User Experience Designers to know the detailed UI concepts and design rules for designing ByD screens
- Solution Managers to understand the overall UI concepts
- User Experience Advocats and UI Developers to understand UI concepts relevant for the UI implementation
- Knowledge Managers and Information Developers to understand documentation relevant parts of the UI concept

Top

Structure

The ByD UI Styleguide consists of the following main chapters:

- *Fundamentals and Background* provides information to understand the whole ByD UI concept. It is not needed for your daily work.
- *Floorplans and Patterns* explains the pattern-based concepts.
- *Interaction Models* focuses on dynamic behaviour and interaction.
- *Specific Topics* concentrates on detailed design questions more or less at the control level.

Top

Design Principles

Page Content

Design Principles

With these user interface guidelines we provide a competitive user experience at consumer grade level. To achieve this, the guidelines are surrounded by supporting tools like the UI Designer to achieve a fast and easy configuration of the User Interface (fully supporting the interaction paradigm as described in this styleguide). Extensive adaptation and personalization features for partners, key users and users allow to adjust the User Interface according to the needs of the customer, and a consistent and intuitive navigation concept provides a coherent user experience.

The ByD User Interface concept is characterized by a dedicated interaction paradigm. Selected design principles guide the definition and usage of reusable building blocks.
Reusable building blocks are based on specific and generic UI patterns and UI floorplans that have been created based on fundamental usability concepts.

Major Interaction Concepts

These guidelines have been created based on leading design principles. These principles are targeted to serve our customers and end users. Any decision taken in the process of defining these guidelines was validated against these principles.

- Simplified user interface for intuitive usage
- Supportive task flows by pushing tasks and action data to the user (alerting, delegating)
- Progressive Disclosure to allow faster task completion
- Easy to adapt user interface to comply with personal and company specific needs
- Consistent user interface across application areas by usage of predefined building blocks
- Seamless integration with regards to business processes, documents, and technical implementation

Simplified User Interface

- Simplified form layout: Two columns, reduced number of fields per group, reduced number of groups, adjusted field length, personalizable fields and section groups (which means that the user can hide fields and section groups and show them again)
- Simplified tables: Reduced number of visible columns in tables, easy filtering and sorting capabilities, personalizable columns (hiding of columns)
- Simplified function selection: Context related toolbars display only functions which are applicable
- Simple but flexible navigation by just clicking links or buttons
- Minimized number of key clicks to complete a business process
- Reduced memory load by allowing to select tasks and objects from lists
- Full keyboard usage support
- Integrated primary help texts and extensive help capabilities

Supportive Task Flow

- Users begin their experiences either at the **Control Center (CC,** called *Home* in the UI) or at the **Work Center (WoC)**.
- Since the system recognizes the user according to their role, daily work can be presented without any need for searching.
- Pattern-based UIs are tailored to the users' needs in the following ways:
    - From the Control Center users can immediately start from the **Work Inbox**.
    - From the Work Center users get specific information on tasks and objects of an application area.
- Quick and easy tasks can be performed with a **one click action** (for example approvals of leave requests).
- More involved actions can open a **Quick Activity Floorplan** (QAF).
- More complex or data intensive actions can open an **Object Instance Floorplan** (OIF).
- For actions requiring serial guidance, a **Guided Activity Floorplan** (GAF) can open.
- Data analysis with integrated simplified analytics within a **Information Consumer Pattern** (ICP) is available.
- For sophisticated data analysis, the capability of drill-down from an aggregated, simplified report view (ICP) to the full **Analysis Pattern** (AP) with all the dice-and-slice features is available.

Progressive Disclosure

According to Jakob Nielsen (2006), **Progressive Disclosure** is defined as: "Progressive disclosure defers advanced or rarely used features to a secondary screen... Progressive disclosure thus improves three of usability's five components: learnability, efficiency of use, and error rate."
The overall navigation concept supports the principles of progressive disclosure by allowing the users to complete a task most often on the first screen (WoC) or the second screen (QAF, Fact Sheet) already. Only for data intensive entry tasks a third screen (Object Instance) is needed.

Benefits for our Users

- Intuitive usage, almost no training needed
- Reduction of errors
- Increased productivity
- Increased joy of use

Top

More Information

Pattern-Based Design
Navigation Paradigm

Pattern-Based Design

Page Content

Guidelines for UI Development
Starting from FP4.5 the default screen resolution will change from 1024x768 pixel to 1280x1024 pixel.

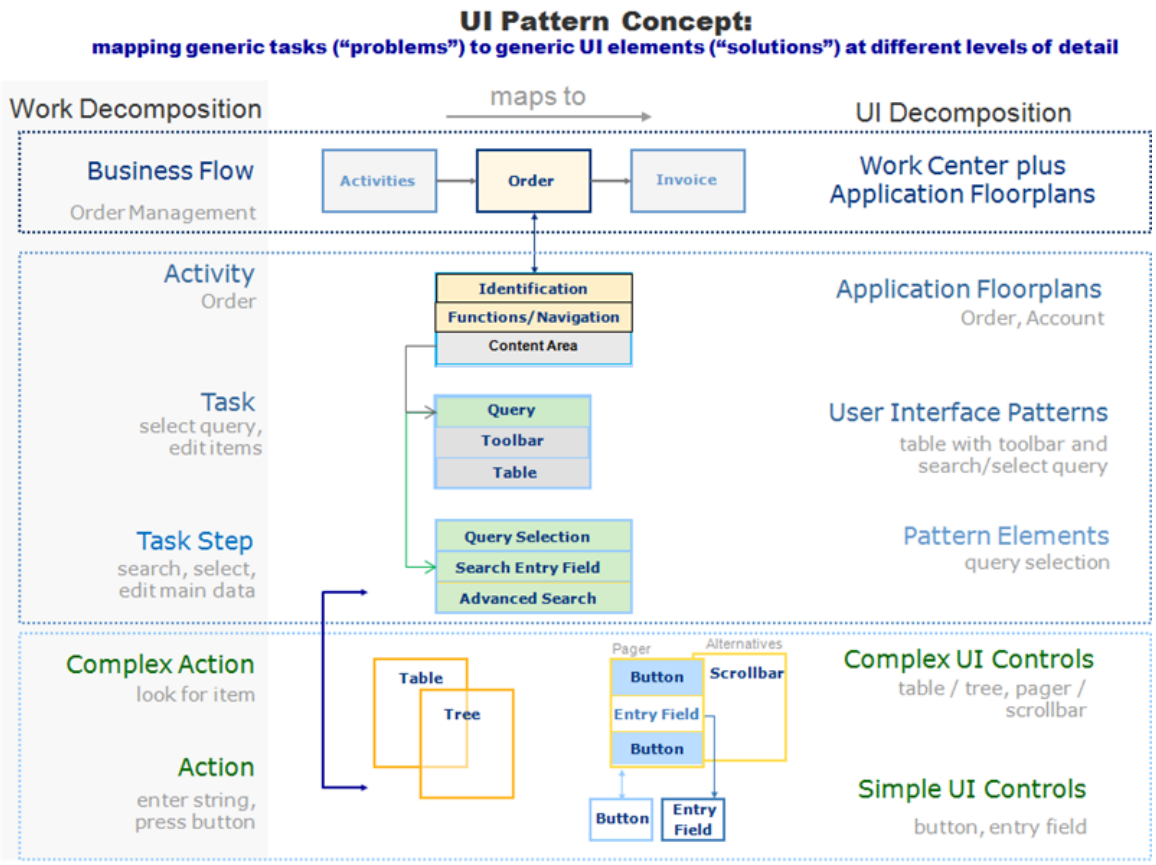
Background

The usage of UI design patterns for the construction of a graphical user interface is not a new idea. Since Christopher Alexander (1977) described recurring patterns in architectural operations, this type of patterns has been transferred to the world of computing as well.

SAP started developing its own model of UI design patterns in 2001.
In this approach the user as an information worker is placed in the center of all activities. Data entry work is reduced to a minimum and the main goal is to allow for control and supervision of the process flow.

The generic UI pattern model developed by Arend, Eberleh, Willumeit (2003) is twofold (see picture, model adapted to ByD):

- On the left side you find the **Work Decomposition** hierarchy (independent of a concrete UI paradigm).
- The right side shows the **UI Decomposition** hierarchy of implemented UI patterns.
- Generic task-based concepts of the left side are mapped to according UI patterns on the right side.



The advantages of pattern-based UI design are:

- Consistent look and feel by predefined pattern components
- Efficient application development by configuring the UI instead of individually programming it

- Improved quality of the product by using evaluated components
- Ability to change the UI centrally once for all business processes

References

Patterns in Architecture:
"A pattern is a collection of elements and their relationships which can be repetitively reached or used in analysis, design, development and use (of cooperative systems)."

Alexander C. (1977) "A Pattern Language: Towns, Buildings, Construction"; Oxford University Press, New York

Patterns in UI Design:
"Interface design patterns are solutions to frequently-occurring problems and situation in the design of interfaces."

Borchers J. (2001). "A Pattern Approach to Interaction Design"; Willey Series in Software Design Patterns, Wiley

Patterns at SAP:

Waloszek, G. & Eberleh, E. (2003). Introduction to User Interface Patterns at SAP. http://www.sapdesignguild.org/community/design/patterns_sap.asp

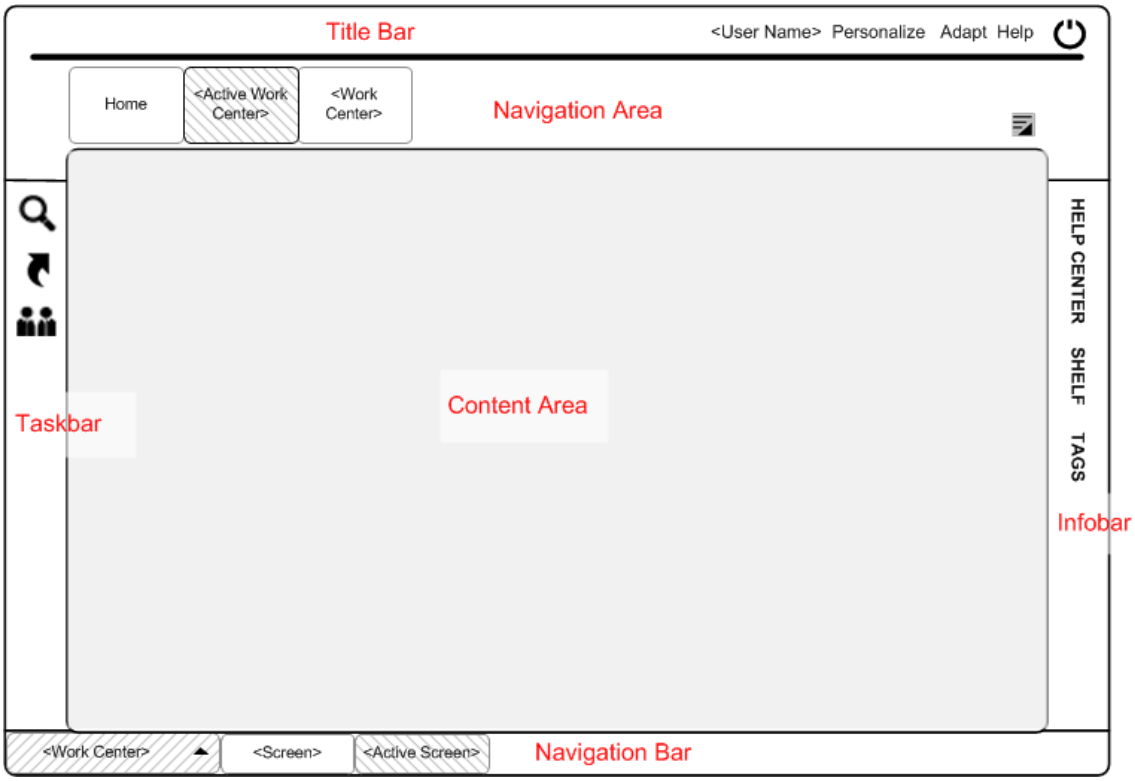
Arend, U. (2004). User Interface Patterns • Components for User Interfaces. http://www.sapdesignguild.org/editions/edition8/patterns.asp

Arend, U. & Peters, C. (2008). User Interface Konstrukte und Key Innovations in SAP Business ByDesign. ~In Brau, H., Diefenbach, S. et al.: Usability Professionals 2008. Stuttgart.~

Top

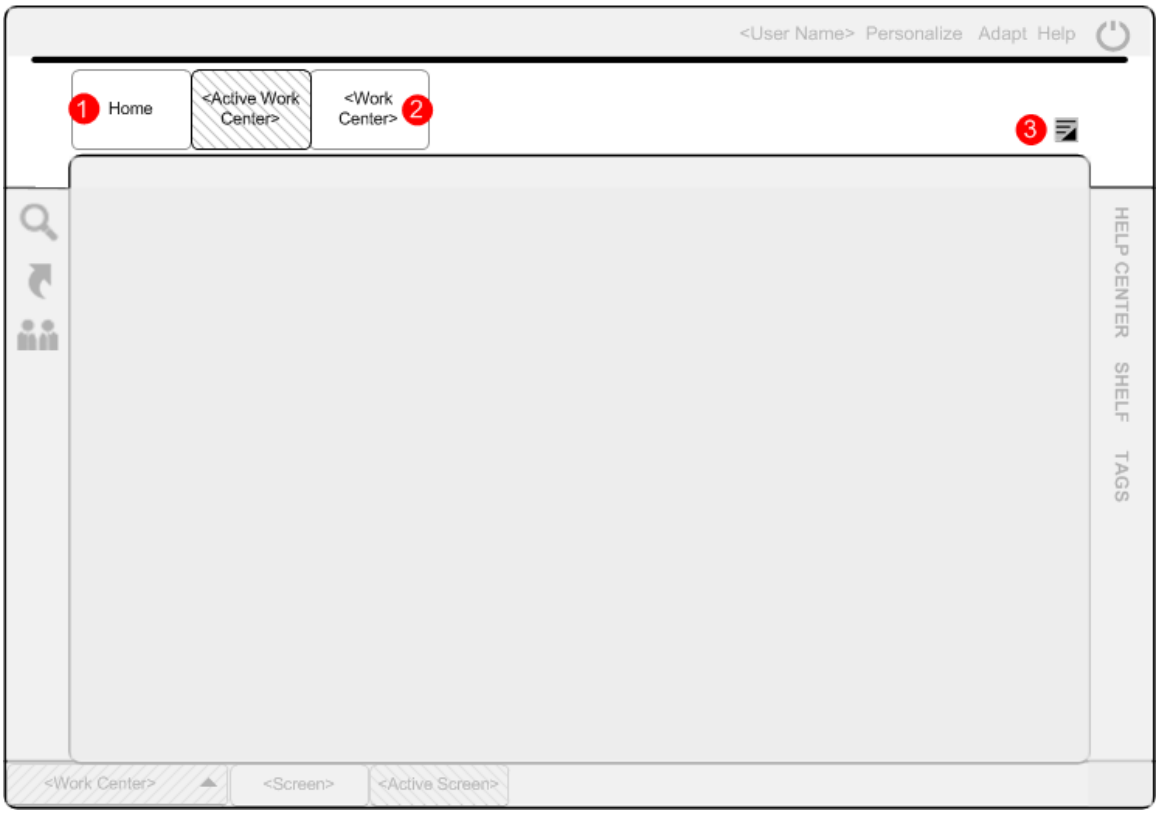
Shell

The shell of ByDesign is a structured container for floorplans and patterns. The shell frames the ByD content area and allows for example to access Work Center views, Shortcuts, Common Tasks, and the Help Center.



Navigation Area

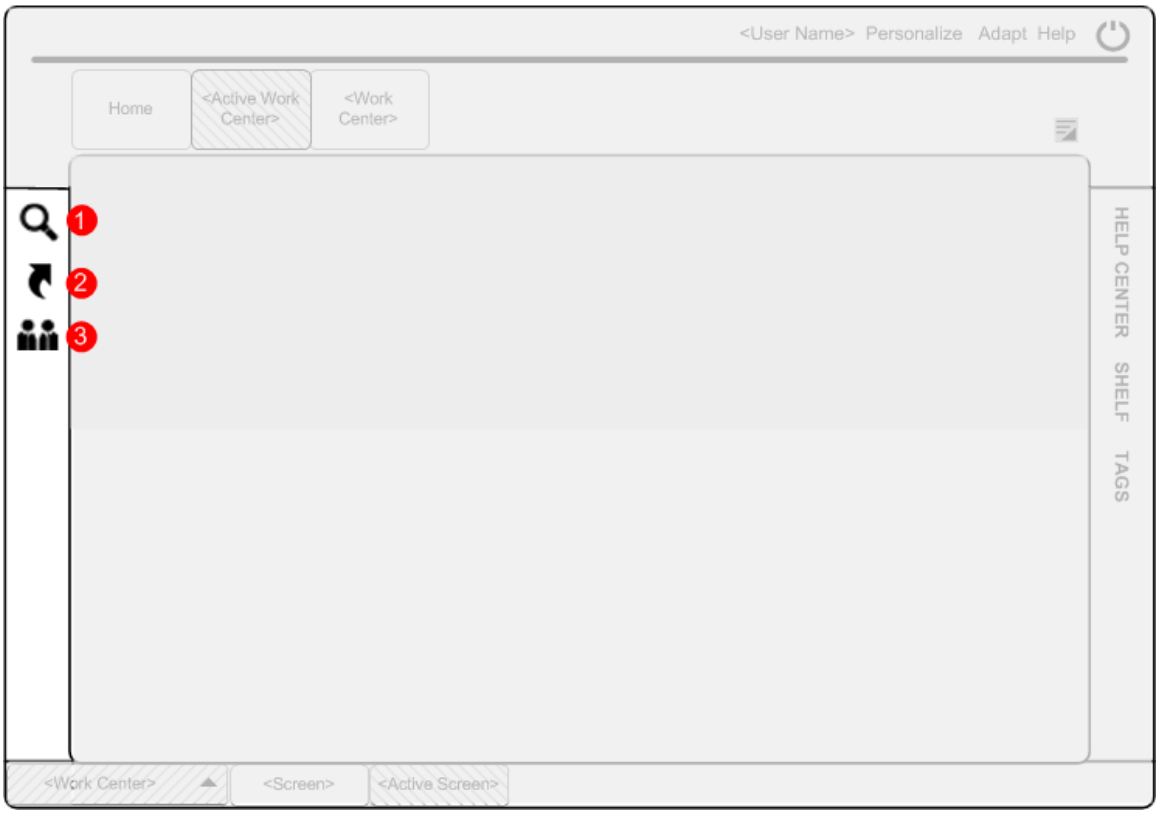
The Navigation Area provides navigation to all Work Center views and Work Center sub-views.



1. ***Home***: Navigates to the Control Center Home for the general overview such as tasks, inbox entries and news across all Work Centers.
2. **Work Centers**: Navigates to Work Center views, their sub-views and Common Tasks. See Navigation in the Shell for detailed information.
3. **Work Center Menu:** Navigates to Work Center views and sub-views.

Taskbar

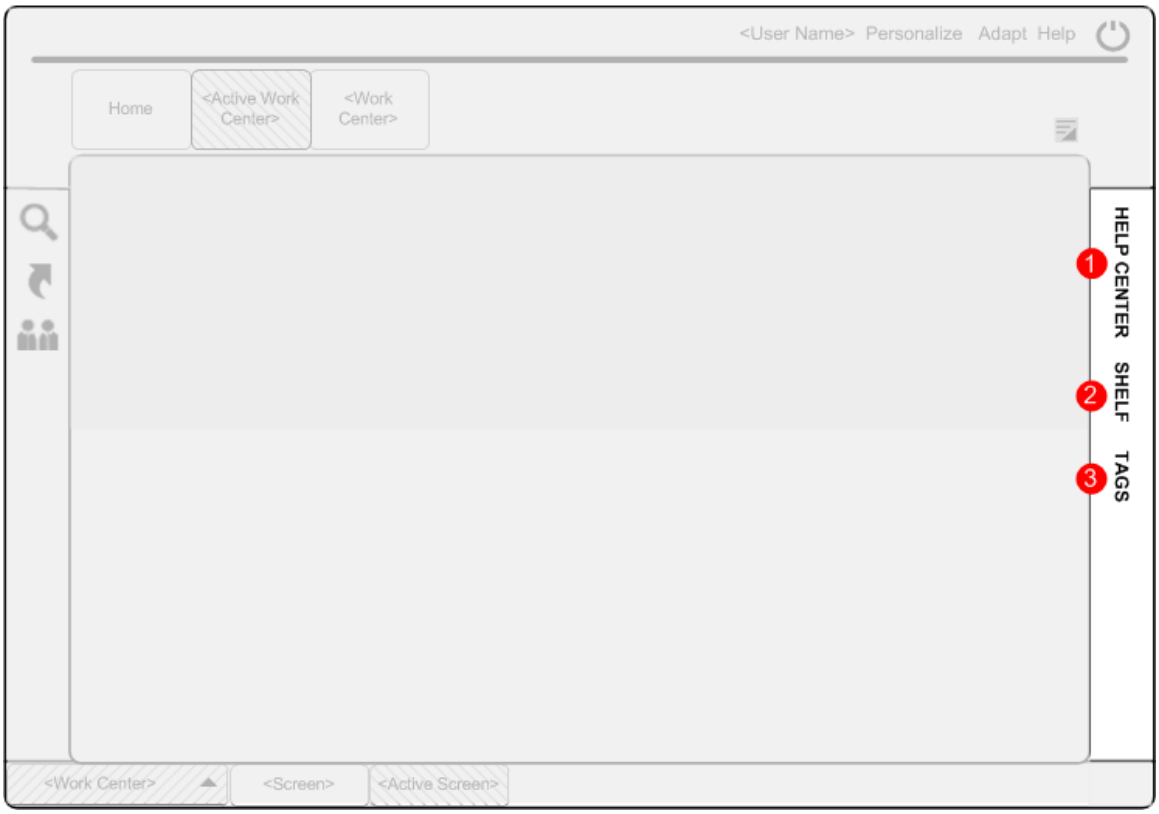
The Taskbar lets the user navigate to Shortcuts, the Enterprise Search and the Collaboration Window.



1. **Enterprise Search**: Opens the entry field of the Enterprise Search.
2. **Shortcuts**: Opens a list of user-selected shortcuts accross work centers.
3. **Collaboration Window**: Opens the Collaboration Window.

Infobar

The Infobar is located at the right side of the screen and provides additional information such as Help Center, Shelf and Tags.

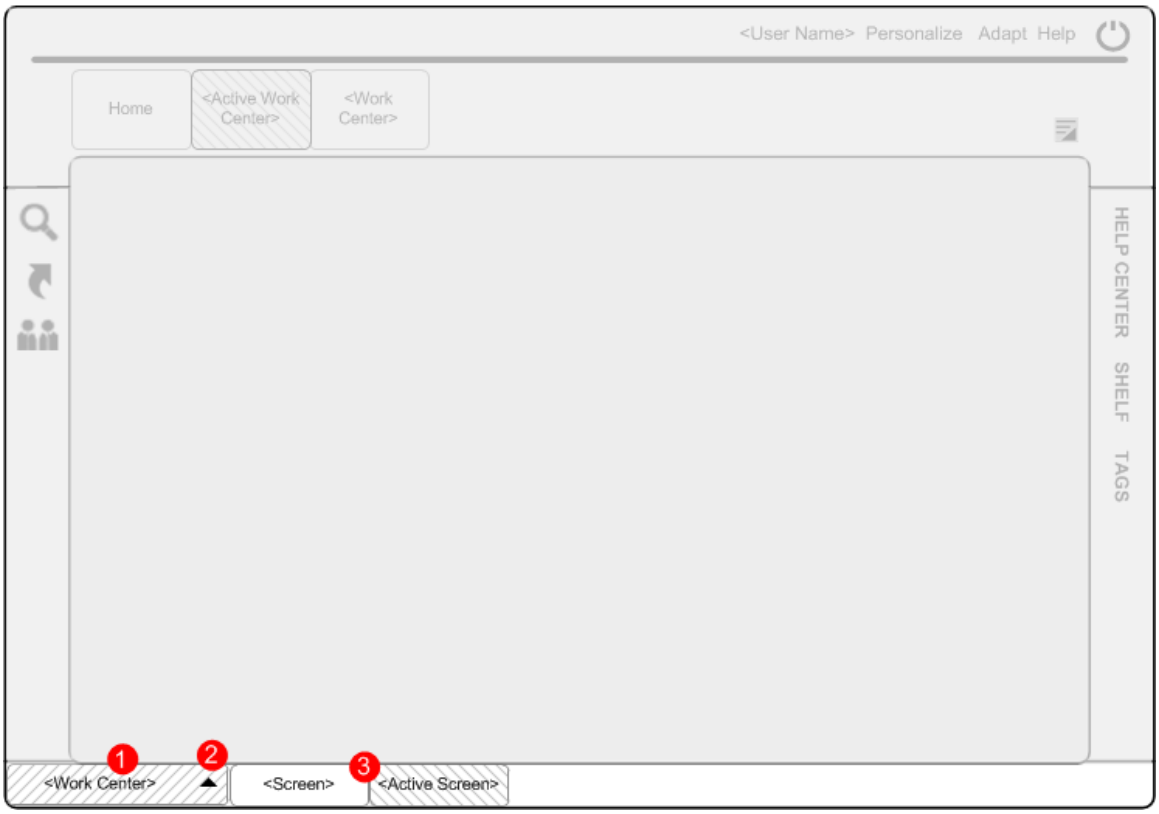


1. ***Help Center*** : Opens the Info Area with the Help Center for the current Work Center view.
2. ***Shelf*** : Opens the Info Area with favorites and flags.
3. ***Tags*** : Opens the Info Area where the user can view and edit tags for the current view.

Navigation Bar

The Navigation Bar is located at the lower part of the screen. The current Work Center and all screens are displayed as tabs in the Navigation bar.

NOTE: The Navigation Bar is only visible when the user enables tabbed navigation.



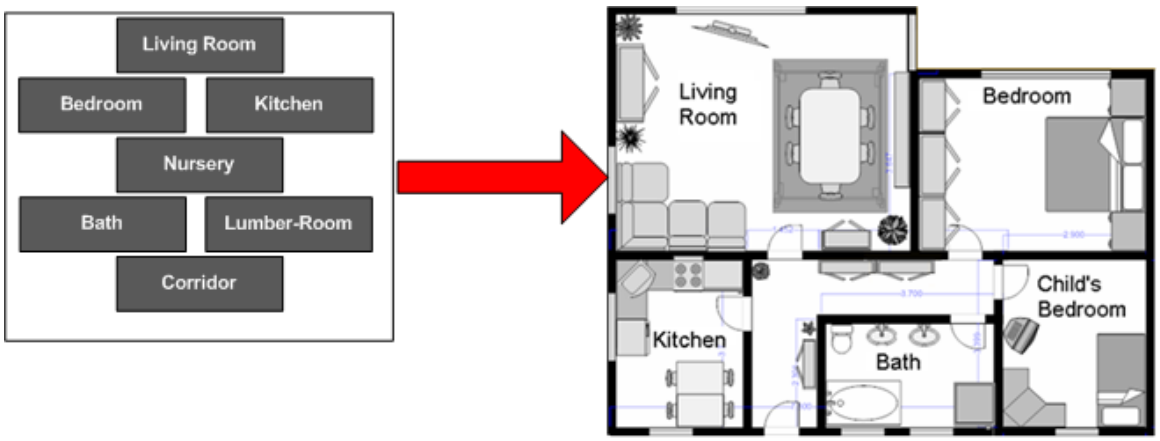
1. **Active Work Center**: Navigates to the current view of the active Work Center.
2. **Start Menu**: Shows all Work Center views and common tasks and allows searching for views and tasks.
3. **Screen**: Navigates to a screen such as a purchase order.

Top

Floorplan: Definition

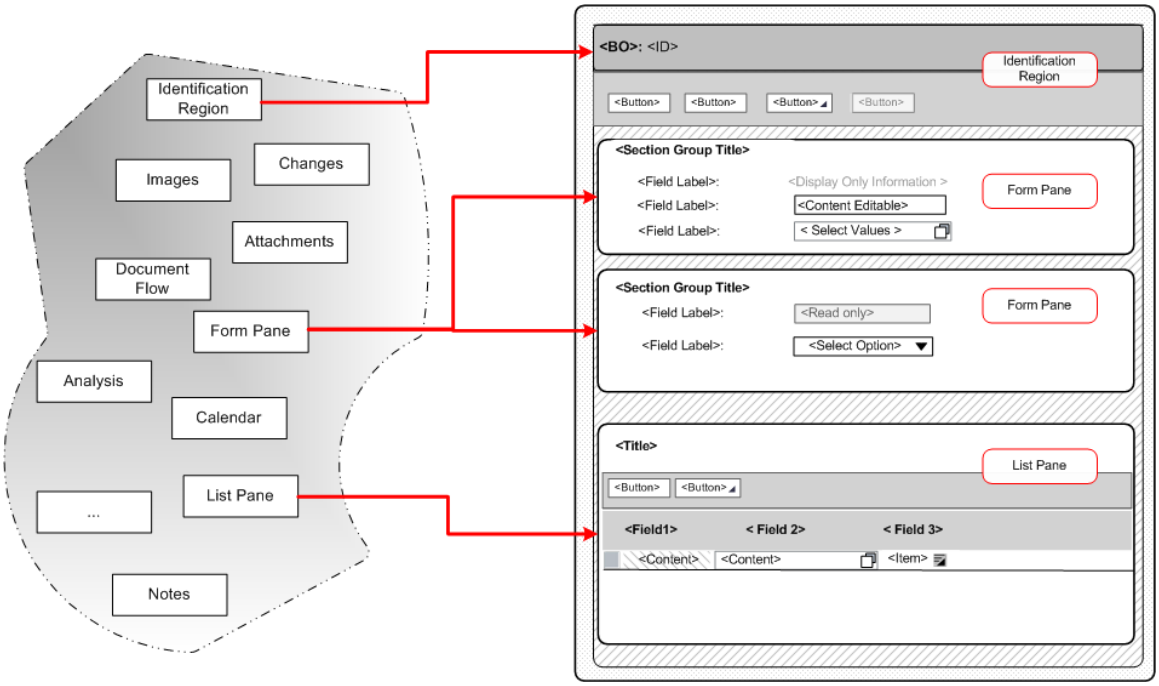
Example: Architecture

A UI floorplan corresponds to the ground plan of a building. It is composed of UI patterns which correspond to the rooms of a ground plan. Some of the patterns define the floorplan type (called **Constituting UI Patterns***)* like for example a corridor with its doors to rooms, other patterns fill the Content Area (called **Content Area Patterns**) like a sleeping room or kitchen depending on the purpose. Patterns are arranged spatially within a window (according to one floor of a building).



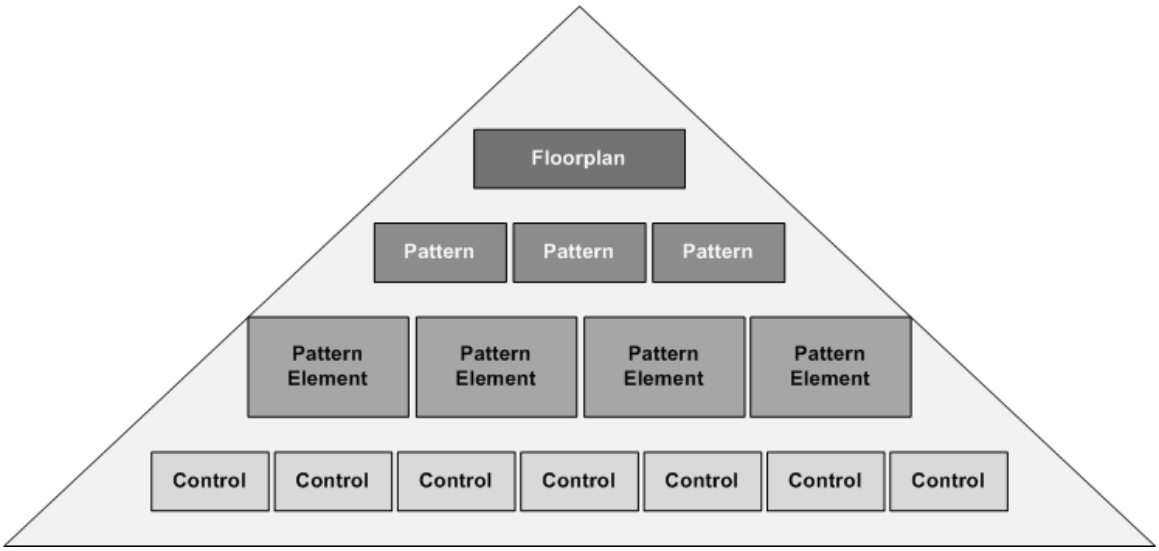
Example: User Interface ByDesign

The following picture shows the composition of a Quick Activity floorplan. The constituting UI patterns are the Identication Region and the the Contextual Navigation. The content area patterns are Form Panes and a List Pane.



Implementation of a Floorplan - Hierarchy of UI Patterns

UI Patterns are implemented as software pieces. Patterns consist of Pattern Elements. Pattern Elements contain common controls of a graphical user interface. The reason behind is to reuse patterns and pattern elements in different floorplans.

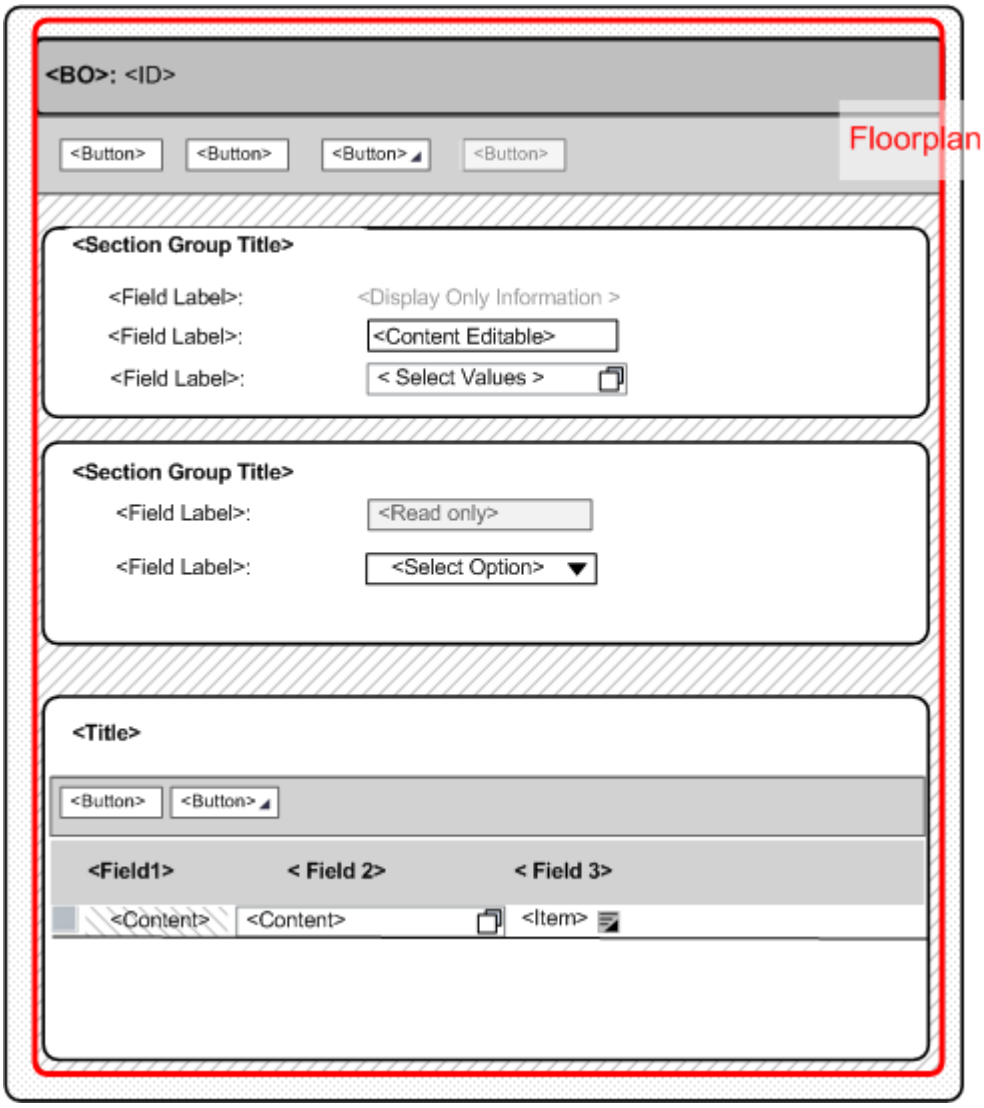


Top

Floorplan: Composition

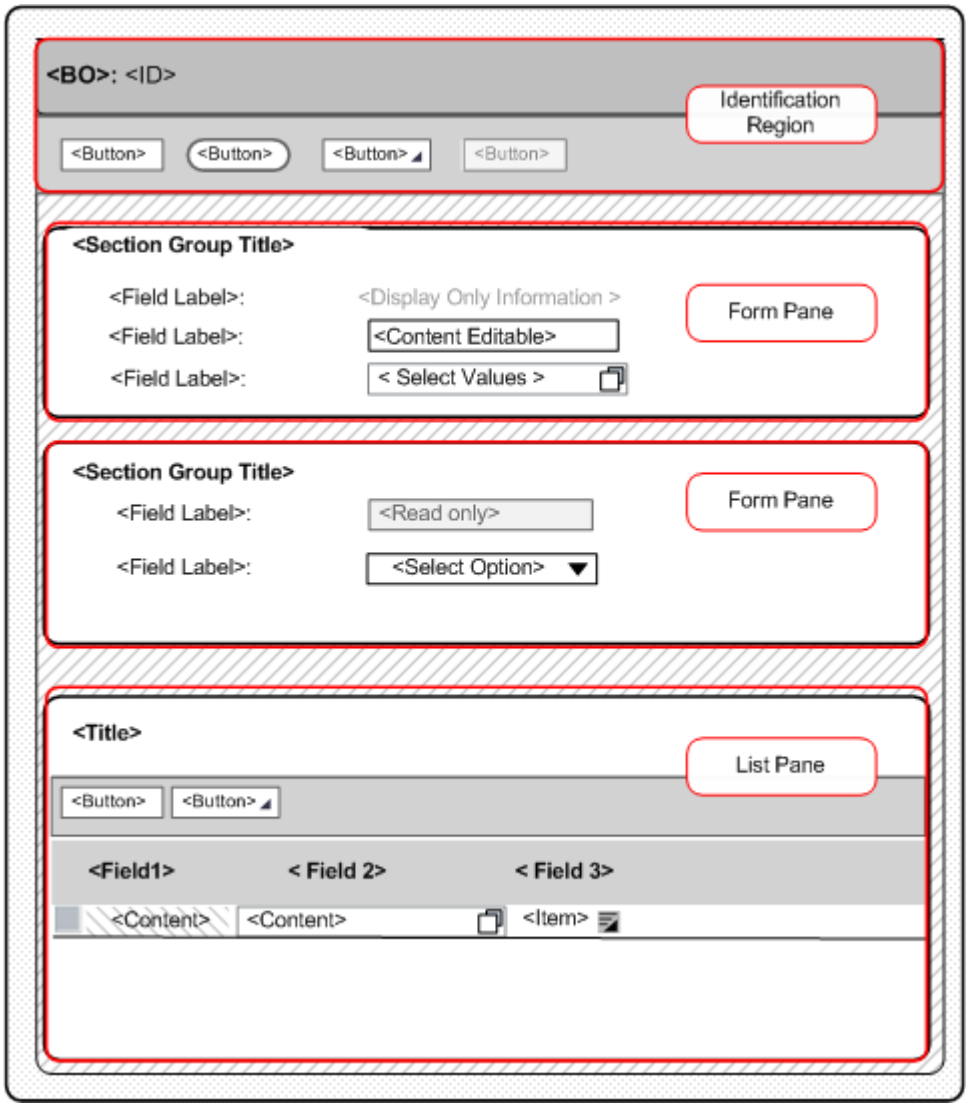
We chose the Quick Activity floorplan as an example for explaining the composition principles.

Example: Quick Activity Floorplan



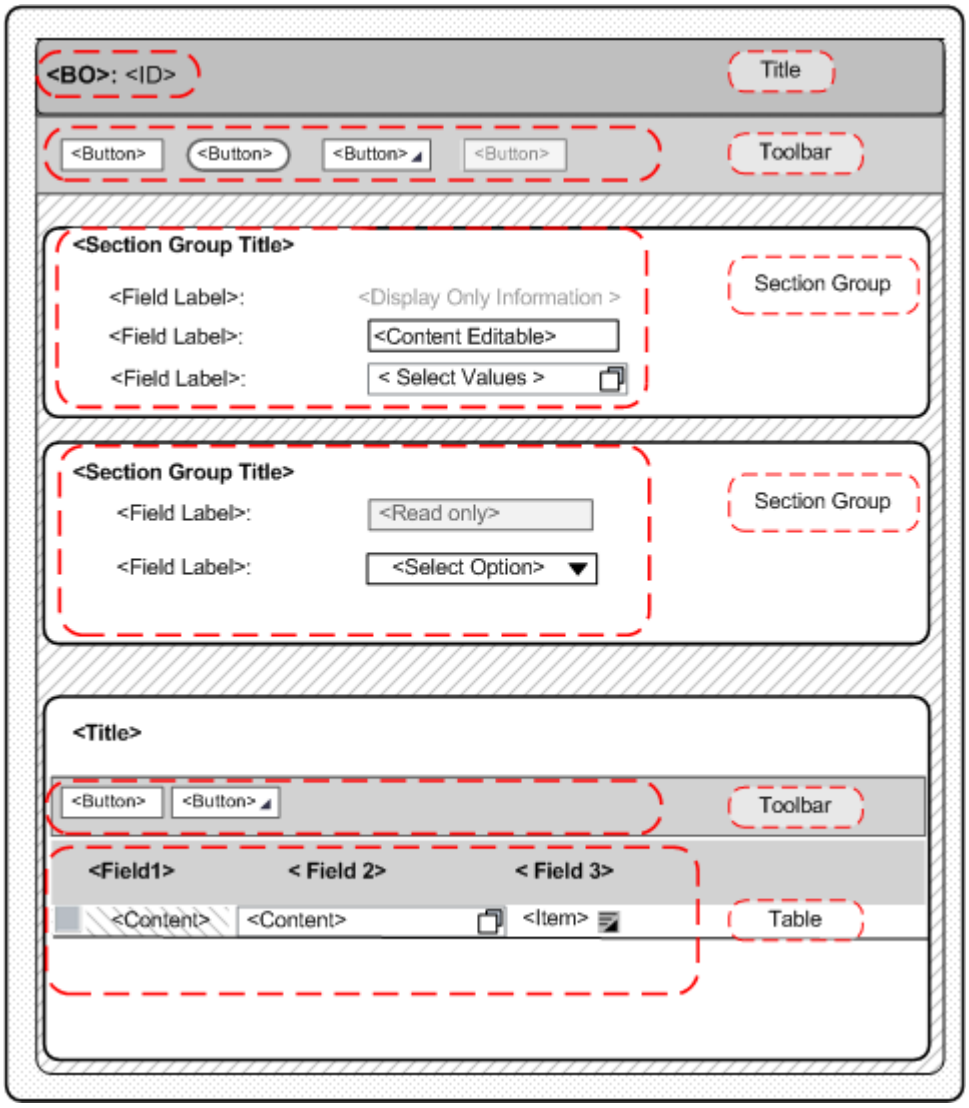
Patterns

The floorplan consists of the patterns List Pane, Identification Region, Form Pane.



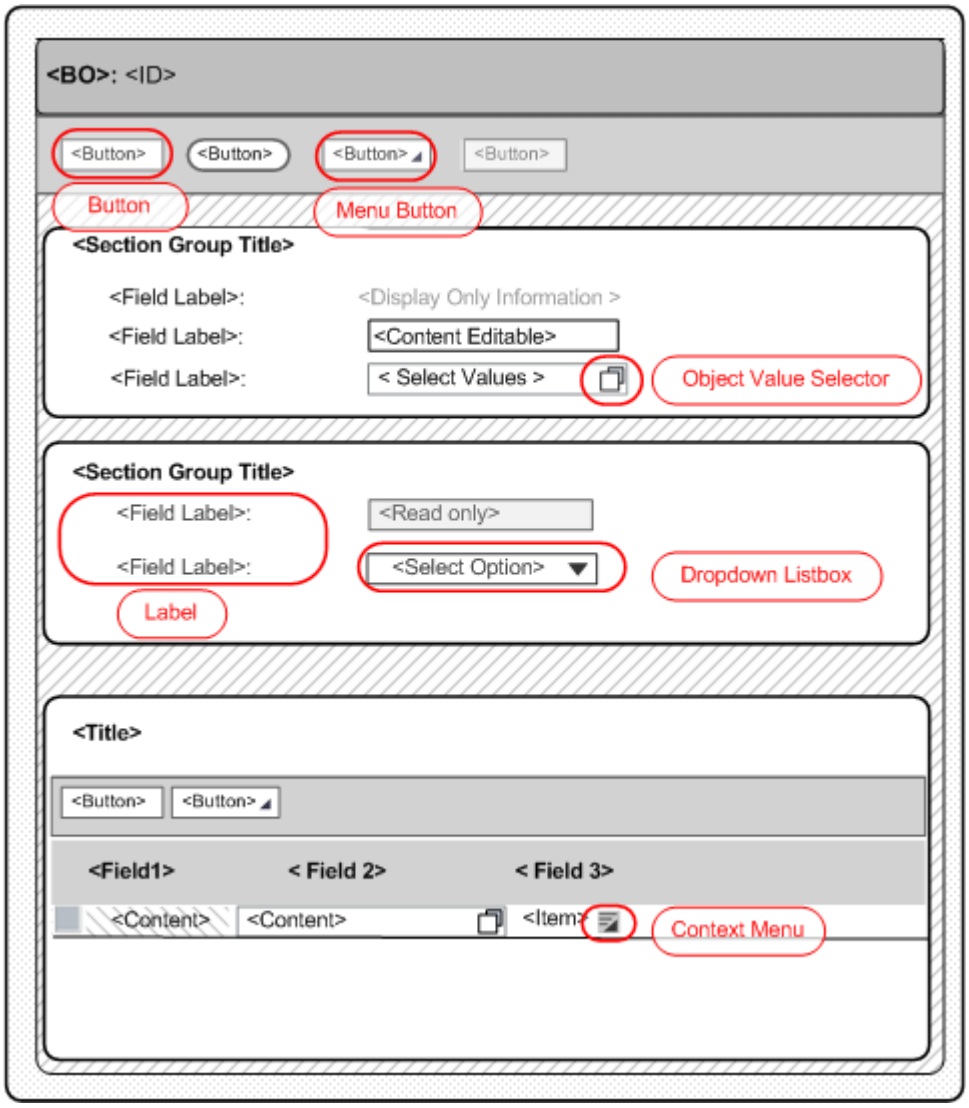
Pattern Elements

Inside the patterns are pattern elements which serve certain tasks of the user such as selecting functions and reading data. Pattern elements are for example a table, a section group or a toolbar.



Controls

Pattern elements are composed in a defined way of UI controls such as fields, buttons, and labels.



Top

Floorplans: Constituting Patterns and Content Area Patterns

Floorplans are composed of patterns in a well-defined way. We distinguish between:

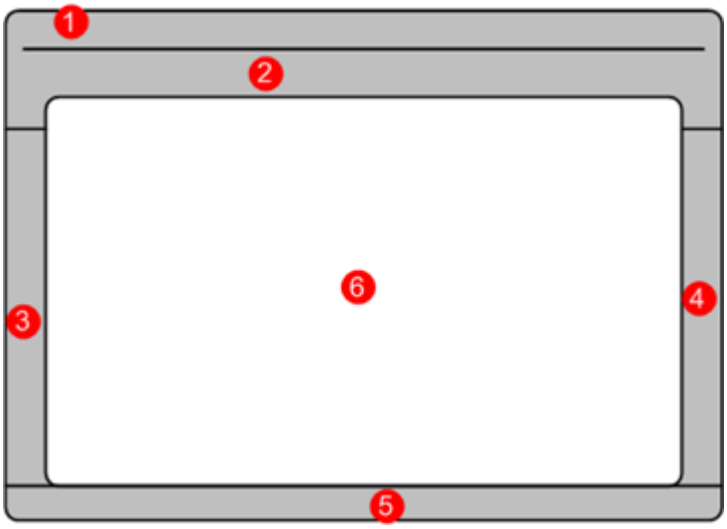
- **Constituting patterns**: The pattern is called "region", is mandatory, is provided per floorplan type at a fixed position, and can not be changed. Examples are Identification Region, Message Region.
- **Content area patterns**: The pattern is placed into the content area. Examples are List Pane, Form Pane, Browse & Collect, Notes, Attachments.

For detailed information on floorplan composition see Composition of Floorplans.

Patterns of Control Center (Home) and Work Center Floorplans

1. **Title Bar**: Contains services like user information, personalization and help.
2. **Navigation Area**: Provides navigation to Work Center views, their sub-views and common tasks.
3. **Taskbar**: Provides quick access to Shortcuts, Collaboration Window, Enterprise Search.
4. **Infobar**: Provides access to Help Center, Shelf with flags and favorites and Tags.
5. **Navigation Bar:** The user can switch to an object by opening the specific tab. The navigation bar is only shown when tabbed navigation is enabled.
6. **Content area patterns**

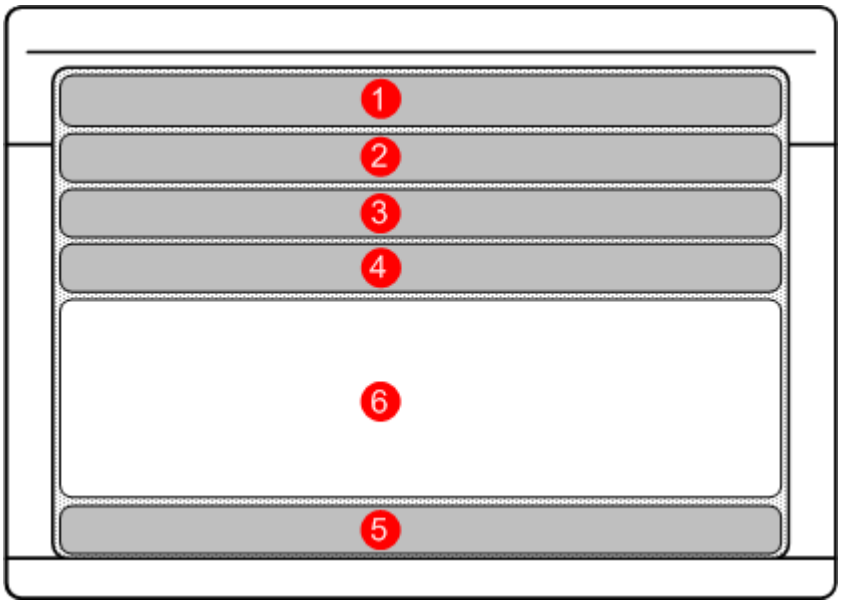
NOTE: The grey patterns are the constituting patterns.



Patterns of Object Instances (OIF), Guided Activities (GAF), and Quick Activity Floorplans (QAF)

1. **Identification Region (IDR)**: Contains the floorplan title and defining elements, see Identification Region.
   The IDR has the following areas:
   - The **basic area** includes the essential window identification, the floorplan title, and - if multi-window navigation is selected - the window title.
   - The **extended area** includes the context identification for the floorplan, identifying header information that is valid for the entire floorplan and exposed in a display-only presentation.
2. **Task Region:** Is only shown when tasks are associated.
3. For GAF only, a **Roadmap Region:** Displays a sequence of steps graphically with labels.
4. **Context Navigation Region (CNR)**: Contains a toolbar and for OIF additional tabs.
   The CNR is a horizontal region that provides contextual navigation and actions based on the business object (BO) type.
5. **Message Region:** Is only shown when messages such as error or success messages are raised, see System Messages.
6. **Content area patterns**

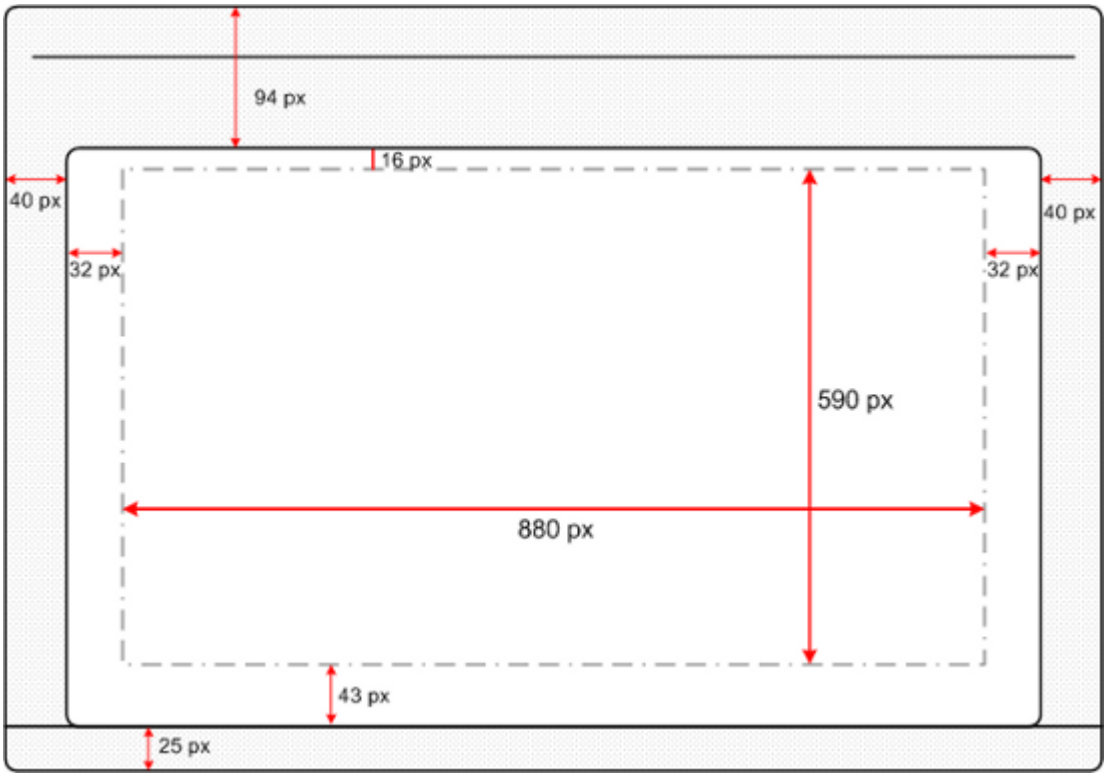
NOTE: The grey patterns are the constituting patterns.



Top

Floorplan: Screen Size

We assume a physical **screen size** of **1024 x 768 pixel (px)** for designing our screens.



For Work Centers:

Assuming that the actual screen width is 1024 px, the available content area is approximately 944 px in width (Work Center OWL).
Assuming that the actual screen height is 768 px, the available content area height is about 650 px (Work Center).

For application screens:

The horizontal borders left and right have a widtht of 32 px each. Assuming a screen width of 1024 px the remaining horizontal space is 880 px.
For vertical size, the upper border costs 16 px, the lower border 43 px which leaves a remaining horizontal space of 590 px.

The size of the content area is flexible and adopts to the screen resolution and to browser's full screen mode.

To avoid horizontal scrolling these sizes imply to have a two column layout only for forms, and to limit the number of displayed columns for tables.
Vertical scrolling for longer content areas is acceptable.

NOTE: Until end of FP4.0 the screen resolution for ByD screens will remain 1024x768 px. From FP4.5 on the default screen resolution will be 1280x1024 px.

Top

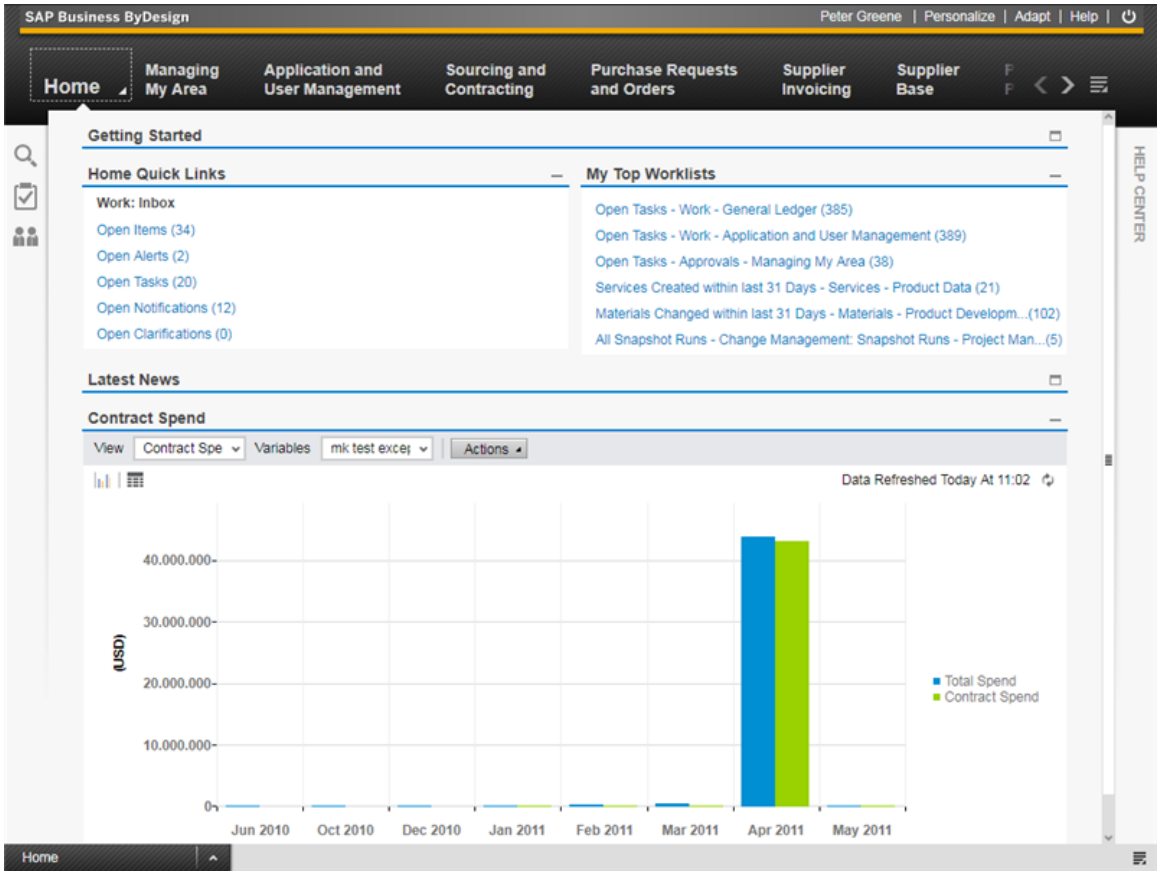
Floorplan: Types

Control Center - Home

The Control Center (CC) (*Home*):

- Gives the user central access to their working content through alerts, business object (BO) notifications, news, self-service information and applications, and reports. Key business information driven by analytical and operational triggers supports each user's goals and tasks across applications and work domains.
- Contains the following views: *Overview*, *Work*, *News*, *Self-Services*, and *Reports*.
- The user has the ability to personalize *Home*.

For more information see Control Center Home.

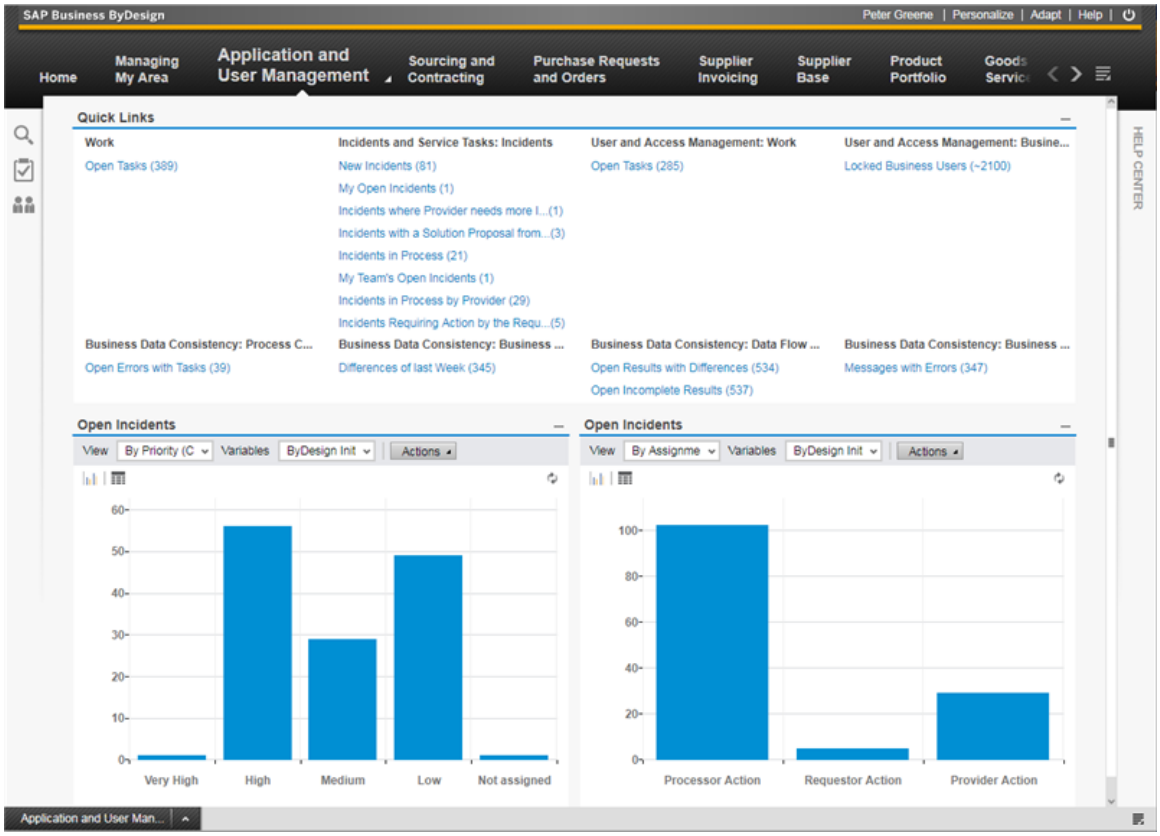


Work Center

Work Centers (WoC) have the following characteristics:

- *Overview* is the first view within a Work Center. It offers quick links to the according Work Center views and shows analytic information.
- Work Center specific views appear between the *Overview* and the *Reports* view. They typically display a list of business objects (BOs) such as purchase orders or opportunities.
- *Reports* is the last view within a work center.

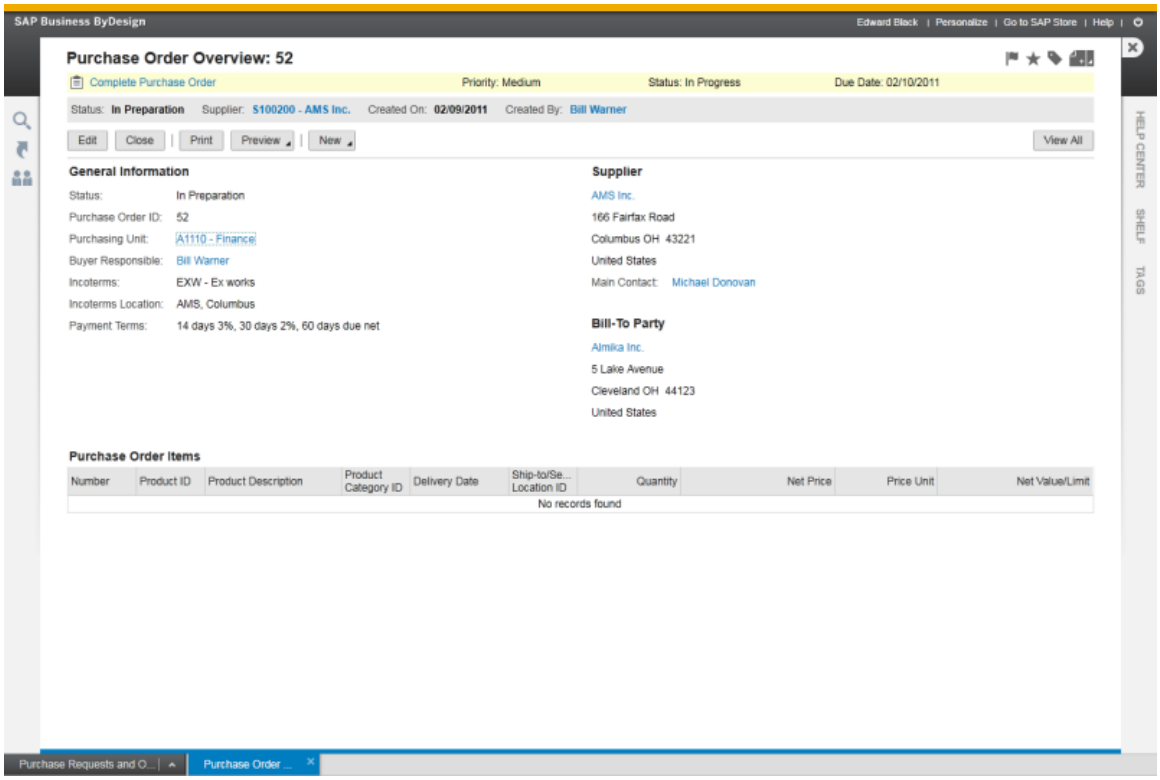
For more information see Work Center.



Fact Sheet

The Fact Sheet (FS) provides a display-only overview of a business object (such as an employee, a purchase order, or a supplier).

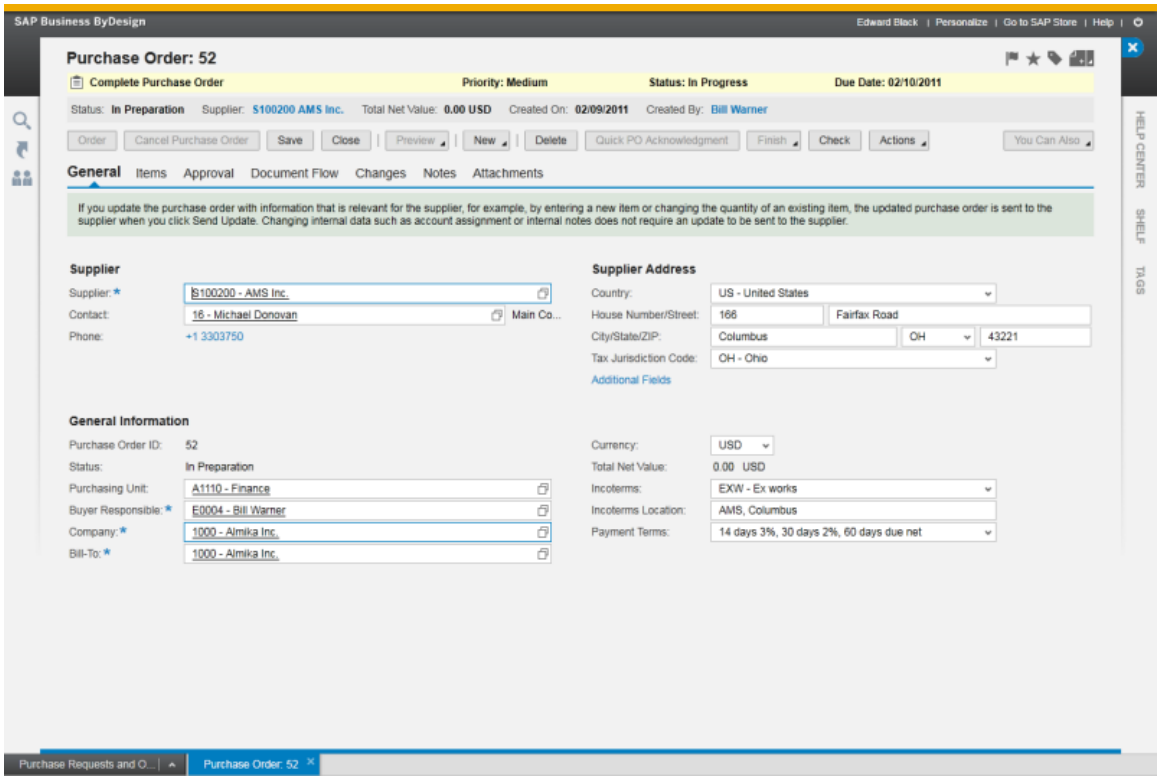
For more information see Fact Sheet.



Object Instance Floorplan

The Object Instance Floorplan (OIF) allows users to create, view, and edit a business object. Typically, the OIF shows multiple tabs, whose content is determined by a defined business object type and the distinctive tasks a user has to perform with those.

For more information see Object Instance.



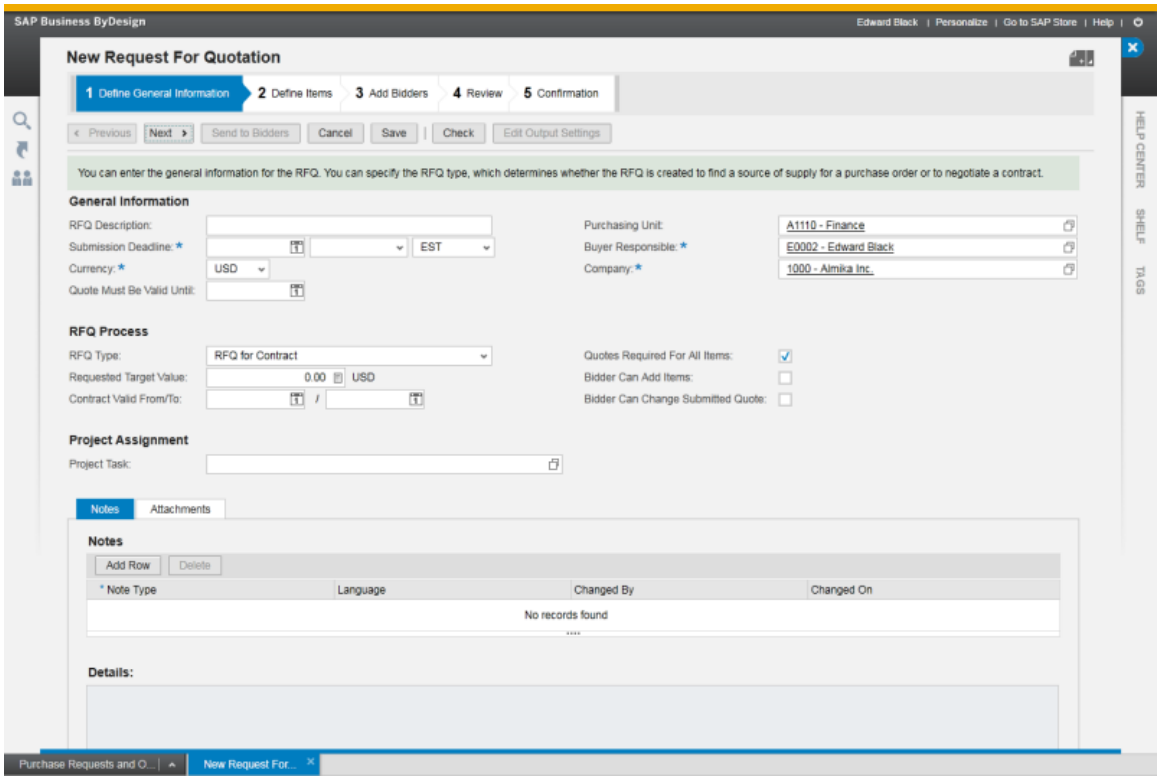
Guided Activity Floorplan

The Guided Activity Floorplan (GAF) is a floorplan for an activity that can be divided in a logical sequence of steps. It consists of a series of screens that guide the user through an activity to achieve a specific goal. A roadmap provides a visual representation of the whole activity.

The last step in the sequence is mandatory and called *Confirmation*. It is launched after the user saved the data and contains a confirmation mesage.

The step before the *Confirmation* step can be a *Review* step. In the *Review* Step the most important data is displayed such that the user can check if data has been entered correctly.

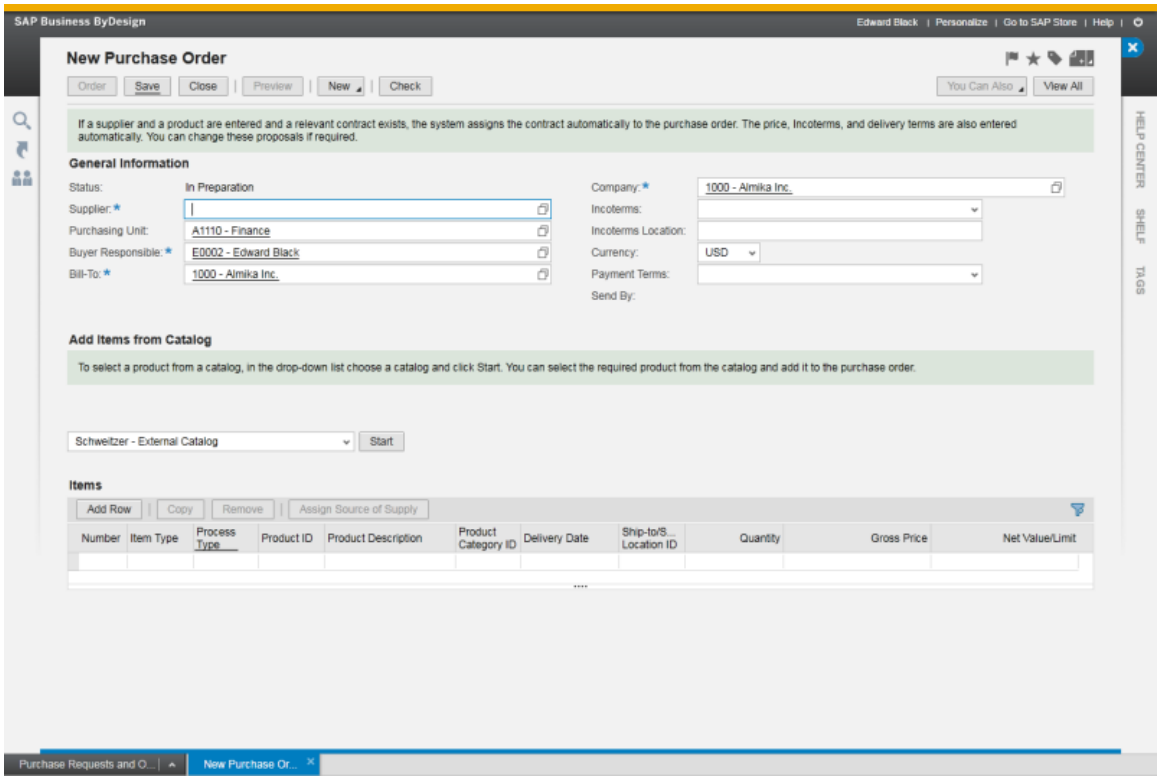
For more information see Guided Activity.



Quick Activity Floorplan (QAF)

The Quick Activity Floorplan (QAF) allows the user to quickly perform a specific task. This can be self-contained or a short sub-task within the context of a larger task (for example a quick create). Therefore, a QAF is a simple task-specific alternative to a business object's OIF.

For more information see Quick Activity.

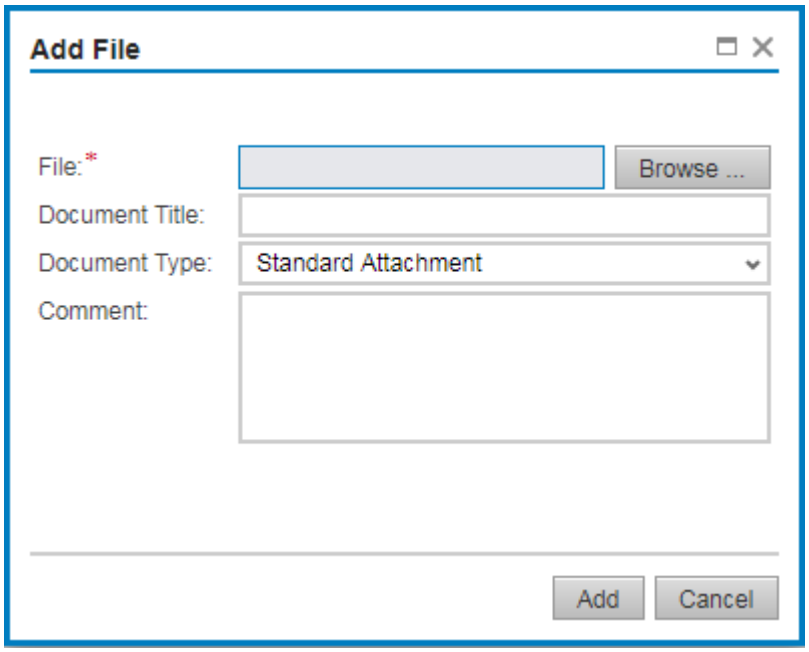


Modal Dialog Floorplan

Modal Dialogs (MD) are small movable and resizable windows that help the user to perform a task in the Control Center, WoCs, GAFs, OIFs or QAFs. A dialog must be associated with the calling window.
A dialog provides the following functions:

- Displays GAF, OIF, or QAF data overflow using a layout consisting of fields and their values (like the layout of a properties dialog)
- Displays an Object Value Selector (OVS) which helps the user selecting a value, see Object Value Selector
- Lets the user edit attributes/properties belonging to an object

For more information see Modal Dialog.



Top

More Information

Control Center Home
Functions & Menus
Guided Activity
Modal Dialog
Object Instance
Quick Activity
Work Center

Navigation Paradigm

Page Content

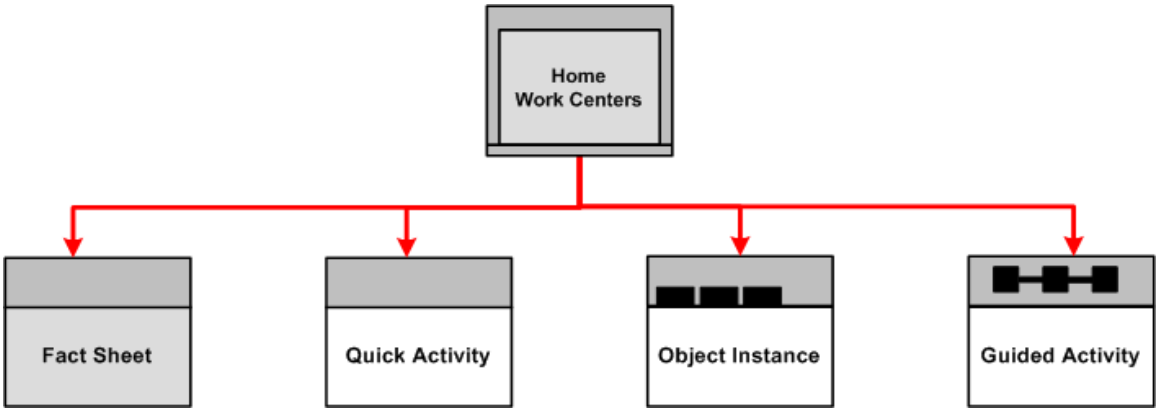
Basic Navigation Concept

People work in multiple, parallel activity threads. Consequently, the navigation model is based on opening a new work space for each activity to allow rapid switching between parallel work activities. Depending on the user's preferred working style, a work space is

- either opened in a new window (multi-window navigation paradigm)
- or in a new tab (single-window navigation paradigm)

For how to select the preferred navigation paradigm, see Additional Personalization/Adaptation Features.

All work activities are started either from the Control Center (CC) or from Work Centers (WoC). The CC or the WoC are always available and function as a central reference point. From a CC or a WoC, application floorplans such as Fact Sheets (FS), Guided Activity Floorplans (GAFs), Object Instance Floorplans (OIFs), and Quick Activity Floorplans (QAFs) are opened in separate windows/tabs. In general, the navigation is either inplace or opens a new window/tab. When the same BO is affected by the navigation the content is replaced within the current window/tab. In all other cases a new window/tab is opened.



Floorplan Navigation: Read-only or Editable

When it is assumed that the user is viewing data for reference or information only, floorplans should be read-only when opened. When the user needs to edit a business object or a task, floorplans should be editable when opened. In both cases, the floorplan is opened in a new window/tab.

From Fact Sheet to Editable Floorplan

When the user opens a Fact Sheet which is in display-only mode a navigation to an editable floorplan can be provided. This navigation is in place.

From Read-Only OIF or QAF to Editable OIF or QAF

When the user opens an OIF or QAF floorplan in read-only mode a navigation to an editable version of this floorplan can be provided. This navigation is inplace.

Top

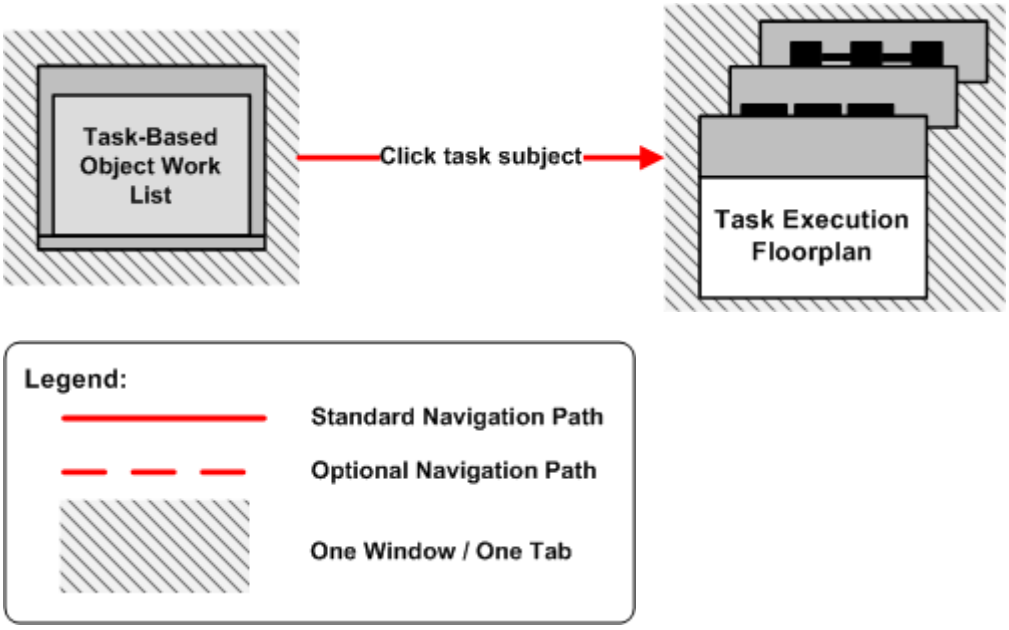
Navigation Concept: Standard Link Paths

The following **standard navigation paths** are executed when clicking a link on a task or business object:

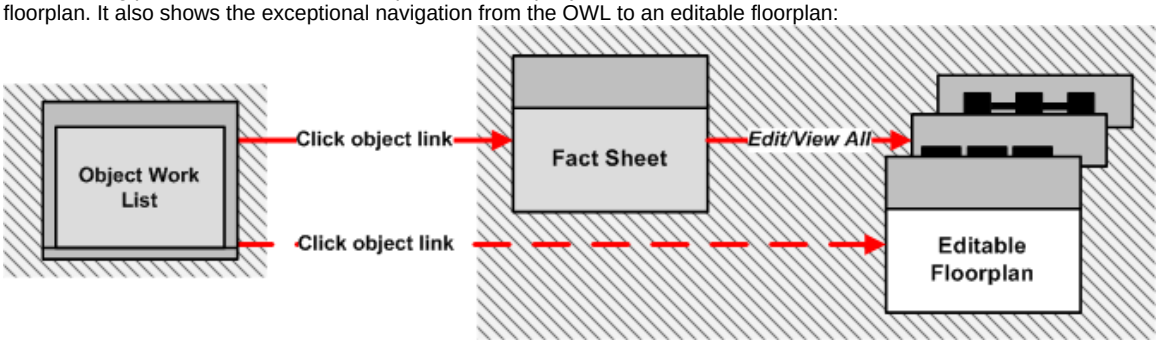
- From a task-based OWL (TOWL) to a task-excution floorplan (if the user clicks the task subject link) .
  NOTE: The task-execution floorplan contains the task region which allows navigation to the task details.
- From a query-based OWL (containing a list of business objects) to a Fact Sheet (if the user clicks the link on the object).
- From the content area of a floorplan (QAF, GAF, OIF) to the Fact Sheet of a related object (if the user clicks the link on the object).

The following **exceptional navigation paths** can be used instead of standard navigation paths 2. and 3.: If there is clear evidence that the user has to edit an object directly, the editable floorplan is launched instead of the Fact Sheet. If no Fact Sheet is available, the read-only floorplan is launched from the OWL.

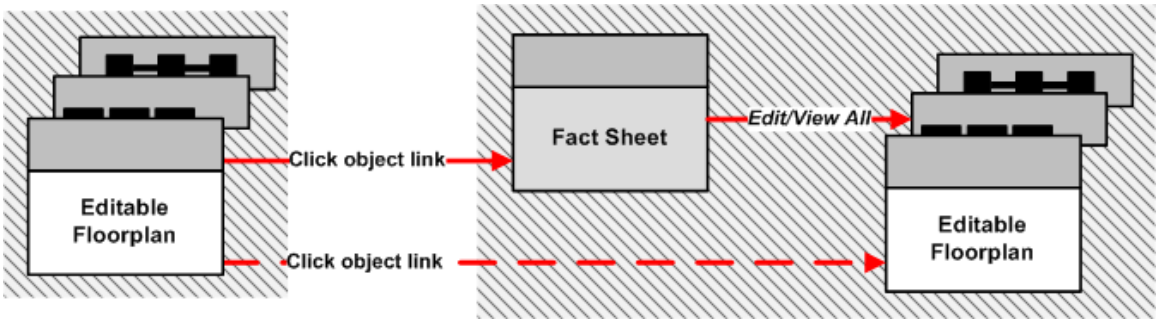
The following picture shows the standard path from a TOWL to a task execution floorplan:



The following picture shows the standard path from a a query-based OWL to a Fact Sheet and from the Fact Sheet to the editable floorplan. It also shows the exceptional navigation from the OWL to an editable floorplan:



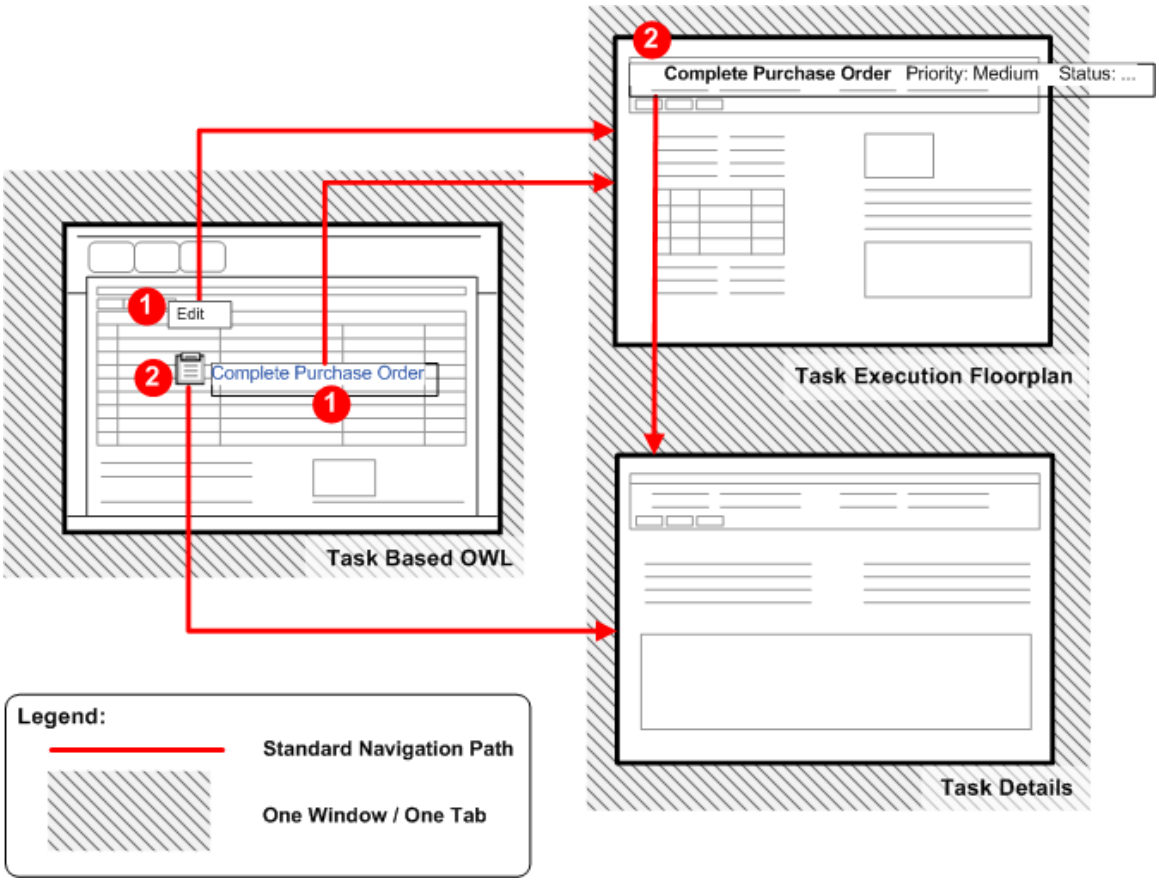
The following picture shows the standard path from an editable floorplan to a Fact Sheet and from the Fact Sheet to the editable floorplan. It also shows the exceptional navigation from the editable floorplan to another editable floorplan:



Top

Navigation: Push Principle (TOWL)

Tasks are displayed in task-based OWLs (TOWLs). As the user does not need to search for tasks but they are pushed to them we speak of the navigation push principle.

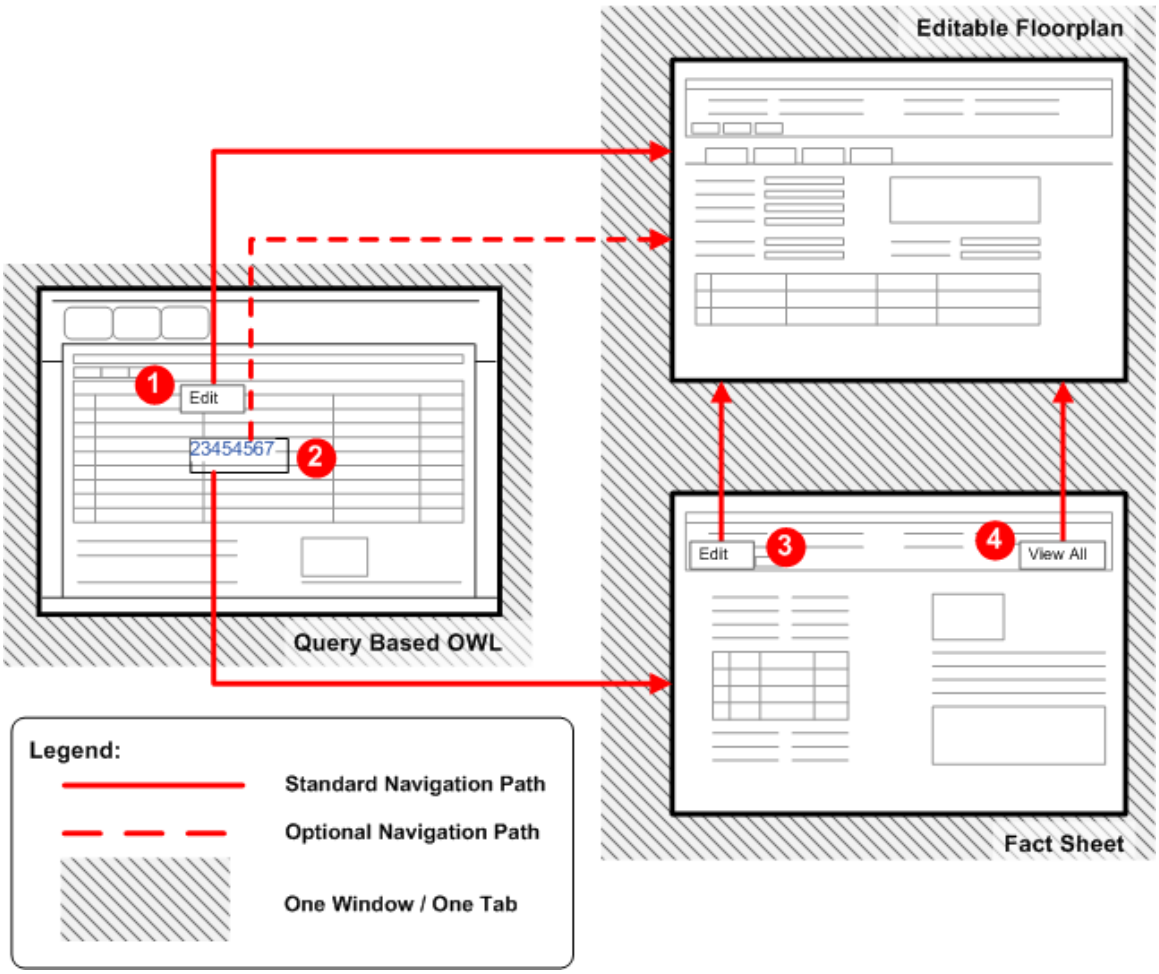


1. The user can either click *Edit* or the task subject link to launch the task-execution floorplan. The task-execution plan provides all information necessary to solve the task. It is displayed in a new window/tab.
2. The user can click the task icon either from the TOWL or from the task-execution plan the user can click the task icon. It opens the task details screen in a new window/tab and shows information like task progress, notes, and attachments.

Top

Navigation: Pull Principle (OWL)

The query-based OWL contains all business objects. The user can search, filter, and sort these lists to find the business object they need to work on. As the user needs to actively pull for the object, we speak of the navigation pull principle.



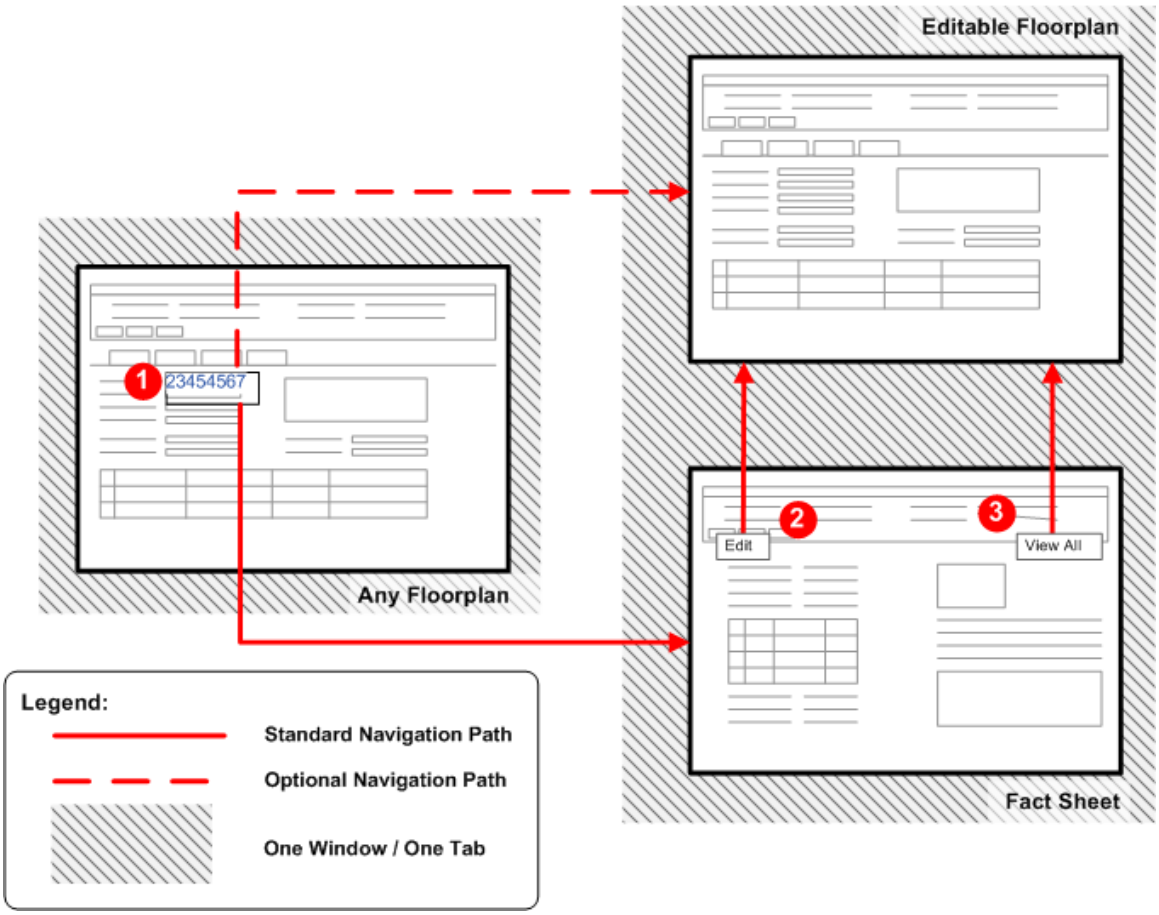
1. The user can click *Edit* to launch the editable floorplan of the business object. The floorplan is opened in a new window/tab.
2. The user can click the object's ID to launch the display-only Fact Sheet of the business object. The Fact Sheet is opened in a new window/tab.
3. On the Fact Sheet the user can click *Edit* to open an editable floorplan. This can either be a QAF or an OIF. The editable floorplan is opened inplace.
4. *View All* opens the complete business object (OIF).

NOTE: From an editable floorplan the user can navigate to the Fact Sheet of the object being edited by clicking *Open Overview* in the *You Can Also* menu.

Top

Navigation: Pull Principle (OIF, QAF, GAF, Fact Sheet)

From an Object Instance, Quick Activity, Guided Activity or Fact Sheet the user can pull information of related business objects.

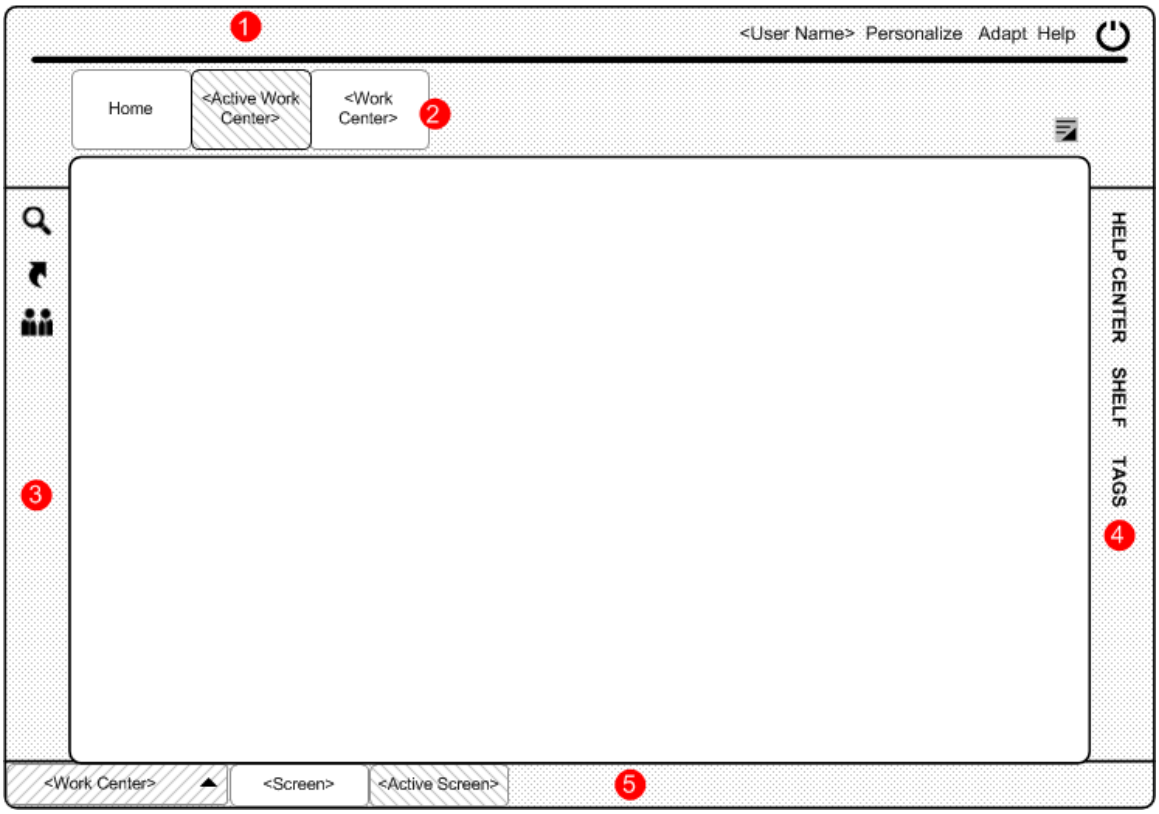


1. The user can click the link of a related object.
    - The standard navigation is to its Fact Sheet. The Fact Sheet is opened in a new window/tab.
    - In rare cases it may be required to navigate to the editable floorplan. The editable floorplan is opened in a new window/tab.
2. On the Fact Sheet of the related object the user can click *Edit* to open an editable floorplan. This can either be a QAF or an OIF. The editable floorplan is opened inplace.
3. *View All* opens the complete business object (OIF).

Top

Navigation in the Shell

There are several possibilities to navigate in the ByDesign shell.



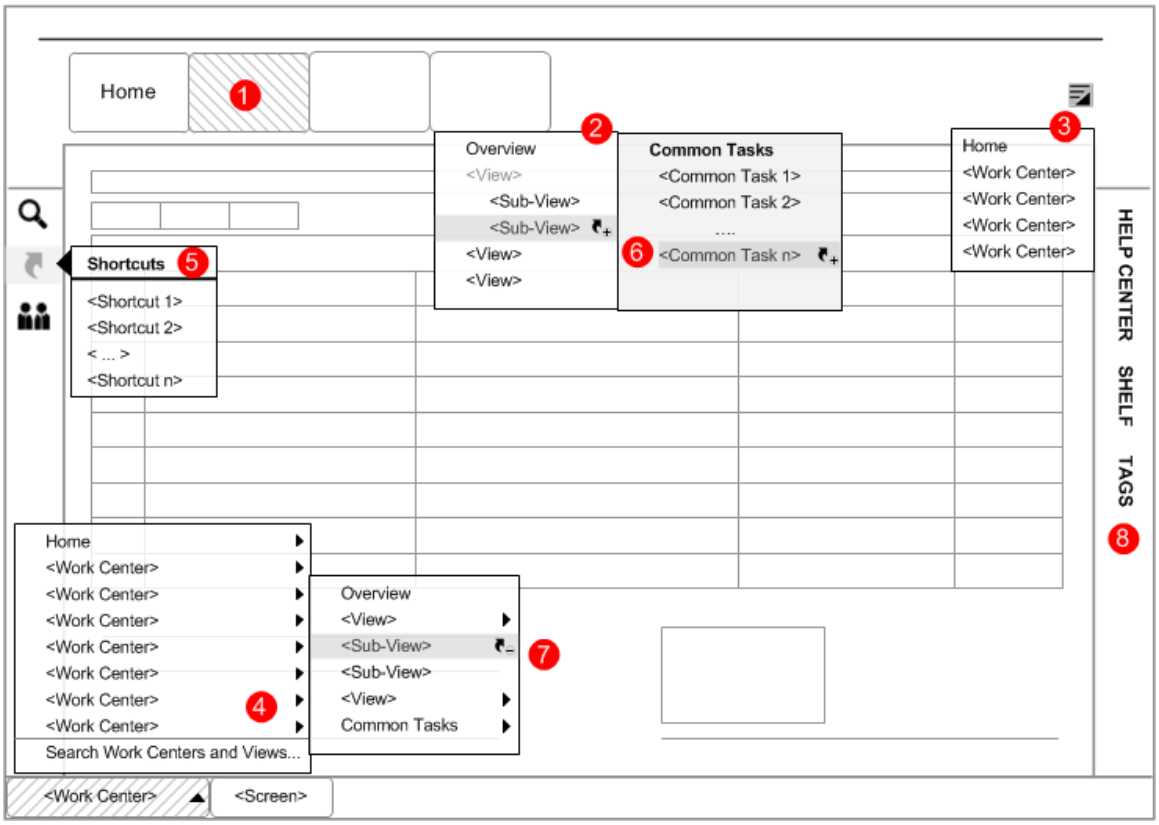
1. **Title Bar:** Allows navigation to personalization, SAP Store and logoff and shows user information.
2. **Navigation Area:** Contains *Home* and allows access to Work Center views, their sub-views and Common Tasks.
3. **Taskbar:** Allows navigation to Shortcuts, the Collaboration Window and the Enterprise Search.
4. **Infobar:** Opens the Info Area which contains the *Help Center* or the *Shelf* with flags and favorites or *Tags*.
5. **Navigation Bar:** Allows navigation between screens.

Top

Access to Work Center Views, Common Tasks and Shortcuts

There are the following possibilities to navigate to Work Center views, their sub-views, common tasks and shortcuts:

Access to Work Center Views



1. Click on a Work Center in the Navigation Area. The last Work Center view the user visited is shown.
2. Hover a Work Center in the Navigation Area. The list of views opens. The assigned common tasks are listed in the right column.
3. Click on the icon in the right corner of the Navigation Area. The list of Work Centers opens.
4. Click on the menu of the leftmost tab in the Navigation Bar. The list of Work Centers opens.
    - Clicking a Work Center name opens the last visited Work Center.
    - Hovering a Work Center name opens the list of sub-views of the chosen Work Center. The last visited view is highlighted by default.
    - Clicking on Search for *Work Centers and Views* opens an input field where the user can type in a Work Center or view name.
5. Click on the *Shortcut* icon in the Taskbar. The list of *Shortcuts* opens.
6. Hovering a sub-view or a common task which is not already a shortcut, the user can add the sub-view or common task to the *Shortcuts* menu.
7. Hovering a sub-view or a common task which is already a shortcut, the user can remove the sub-view or common task from the *Shortcuts* menu.
8. Click on an entry in the Infobar opens the Info Area. For more information see Help, Sticky Notes, Tags, Shelf.
    - *Help Center* opens the context-sensitive help and learning content.
    - *Shelf* opens the flags and the favorites.
    - *Tags* opens the tags.

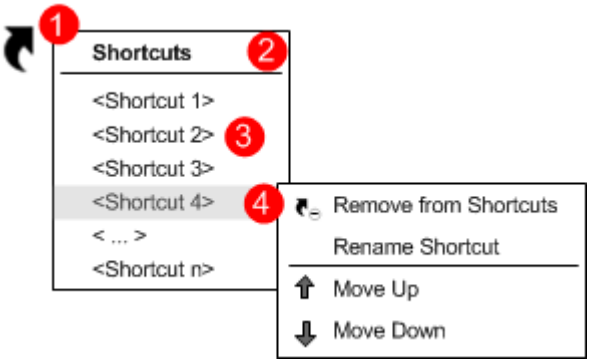
Access to Common Tasks

Common tasks are accessed via hovering a Work Center in the Navigation Area and the Navigation Bar.
The title is *Common Tasks*. For more information about common task entries see Common Tasks Menu.

Top

Access to Shortcuts

Shortcuts allow users to quickly access their often used Work Center views and common tasks. The selection can contain shortcuts of different Work Centers. It is possible to add, rename or remove shortcuts.



1. Click the *Shortcut* icon in the Taskbar to access the shortcuts.
2. The title is *Shortcuts*
3. Shortcut entries.
4. Right-click on a highlighted shortcut shows the context menu.
   The user can rename, remove and change the shortcuts position in the menu.

Top

Navigation via Links and Buttons

The main difference between navigation via hyperlinks and navigation via buttons is that links usually open floorplans to show object information (and thus focus on the object) whereas buttons open floorplans to work on objects or carry out an action immediately (and this focus on the function).

- **Hyperlinks** can be placed in table cells, forms, identification regions (IDR), and preview sections. Hyperlinks themselves convey already information to the user, like the ID of an object or the telephone number. Clicking a hyperlink opens a new floorplan window which shows additional information. This floorplan is usually read-only but can also be editable. Usually, hyperlinks within content patterns provide a direct navigation path to related information.
  NOTE: A special variant of hyperlinks is the You Can Also_ menu. Although they are visually represented as links they also focus on the function by providing direct access to floorplans which allow working on objects.
- **Buttons** like *Save*, *Edit, New* or *Print* are usually placed into a toolbar. Buttons like *New* can also be placed behind a field within a form and thus provide an alternative navigation path: The user does not need to navigate to the according Work Center where the objects are usually created.

Top

Tabbed Navigation and Multi Window Navigation

SAP Business ByDesign follows the principle that every activity is either started from *Home* or a Work Center. All activities are either opened in a new window or in a new tab depending on the user's personalized settings.

Multi Window Navigation

The Control Center or Work Center is the anchor window. All activities started from this window are opened in new windows from where you can start other activities in new windows.

Tabbed Navigation

Since internet browsers introduced tabbed navigation SAP Business ByDesign offers this feature as well. The anchor tab is the Work Center or Control Center on the left side. All activities are opened in new tabs shown in the lower part of the ByDesign screen.

Top

More Information

Action Navigation
Edit Navigation
Fact Sheet
Guided Activity
Help, Sticky Notes, Tags, Shelf
Object Instance
Object Worklist
Quick Activity

Keyboard Navigation

Page Content

Guidelines for UI Development
Accelerator keys are not available with FP3.5.

Keyboard Navigation: Definition

Keyboard Navigation allows the user to perform actions via keys or key combinations and navigate between UI elements via the TAB key instead of using a mouse.

Top

Tab Chain

Element navigation moves the focus sequentially from one UI element to the next along a predefined route. This route is called **tab order** or **tab chain** because pressing the TAB key moves the focus forward in the chain. Pressing SHIFT + TAB moves the focus back along the tab chain to the previous UI element.

The tab order is circular: If the focus is on the last UI element of the screen pressing TAB moves the focus to the first element. If the focus is on the first UI element pressing SHIFT + TAB moves the focus to the last element.

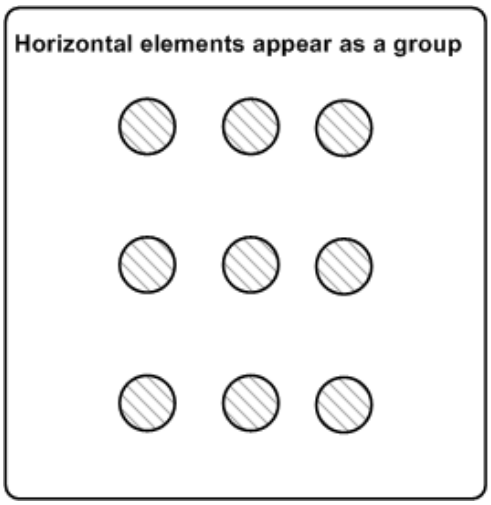
NOTE: The tab chain is always defined for a whole screen. If the tab order is specified for parts of the screen only, for example a list pane, and the focus is on the last UI element, pressing TAB moves the focus to the first element of the next part of the screen.

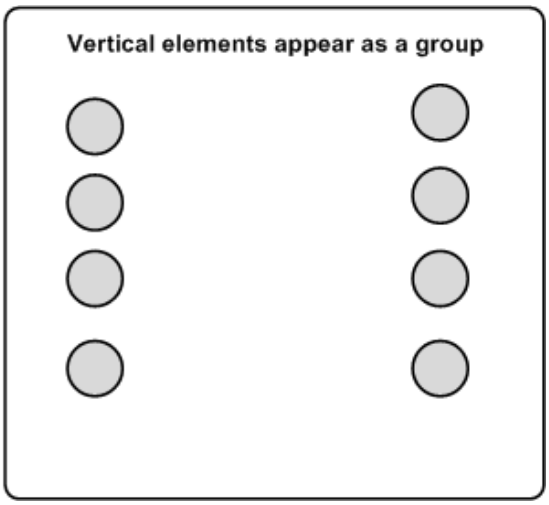
Top

Concept and Background

The keyboard navigation is designed among other according to the principles and rules of Gestalt-Psychology. The rule of proximity indicates that visual elements located in proximity of each other are perceived as belonging together. This principle in page design creates a more harmonious appearance with increased readability and ability to scan pages more quickly.

The picture shows a simple example of the rule of proximity:





The tab chain follows vertical inside section groups, in a newspaper layout. This provides a high accessibilty: A consistent tabbing order is important for easy use by customers who have to rely on the keyboard or other entry mechanisms due to a physical handicap and it a clear advantage for power users who tend to use quicker keyboard commands.
Keeping related items close together in section groups enables users to take in information quicker.

In SAP Business ByDesign the navigation is in a vertical order, as indicated in the figure on the right hand side. The tab chain moves

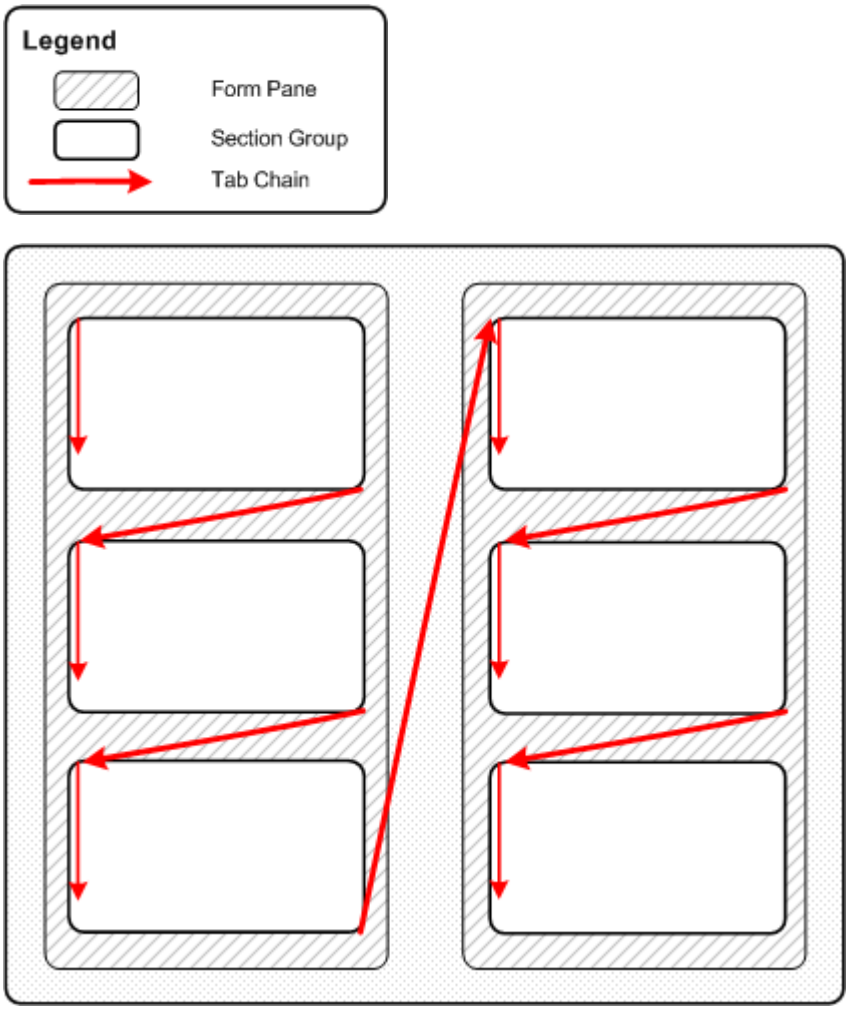
vertically downwards in the left column. After the last element the cursor jumps to the top of the right column. You can find more details in newspaper layout.

Top

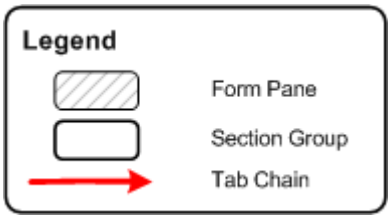
Newspaper Layout

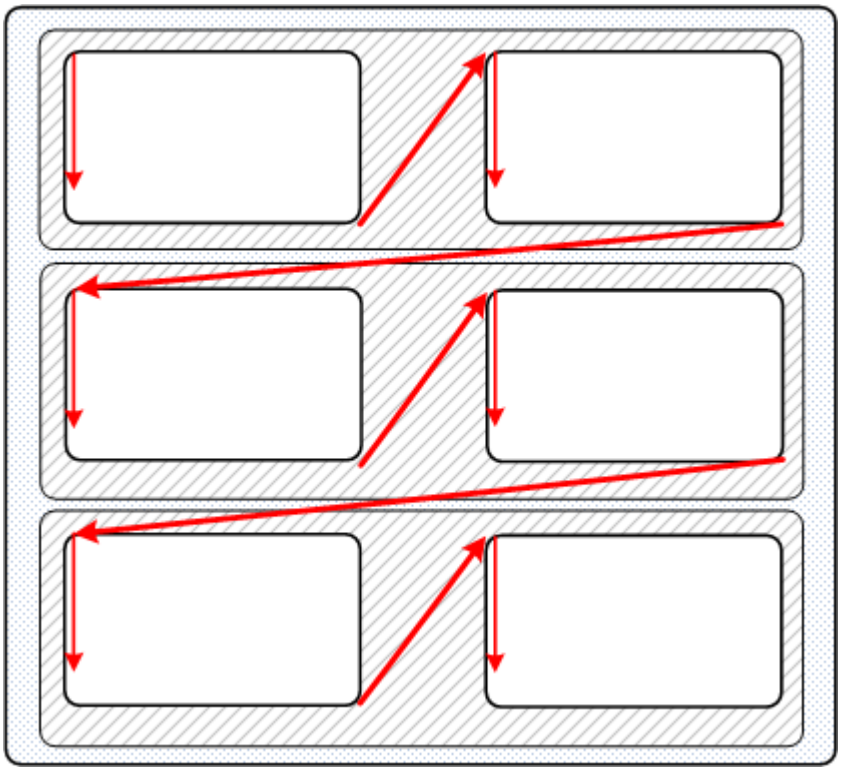
Recommended Format
This format is recommended for most forms as they usually consist of several section groups only.
Follow these rules to achieve a "Newspaper" layout:

- Use two form panes (shaded in the graphic to the right) each spreading one column vertically, see Form Pane.
- Arrange section groups (marked white in the graphic to the right) vertically within each form pane.
- Within each section group arrange fields in one column only.



Alternative Format for large Forms with many Section Groups
This format can be used when it is required to have different independent parts each consisting of several section groups on a screen. The section groups (marked white in the graphic on the right) are arranged in forms spreading two columns (shaded in the graphic on the right). The tab moves through all section groups within one form first and from form to form second.

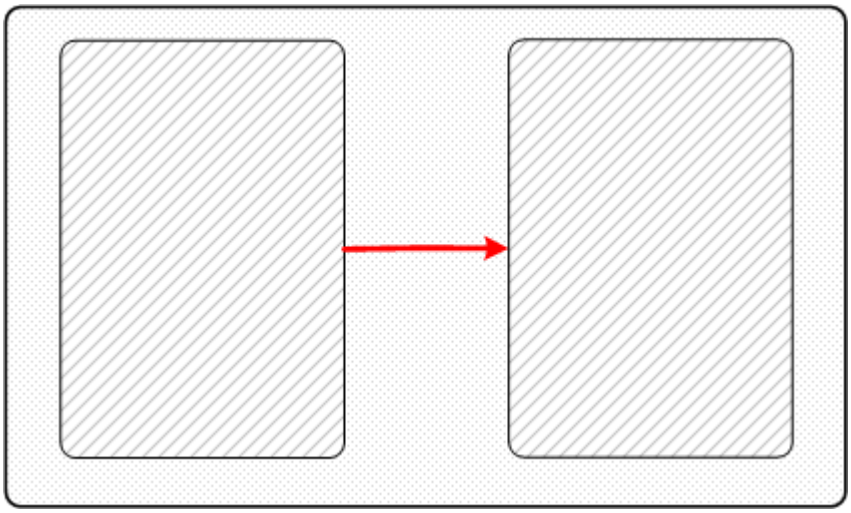


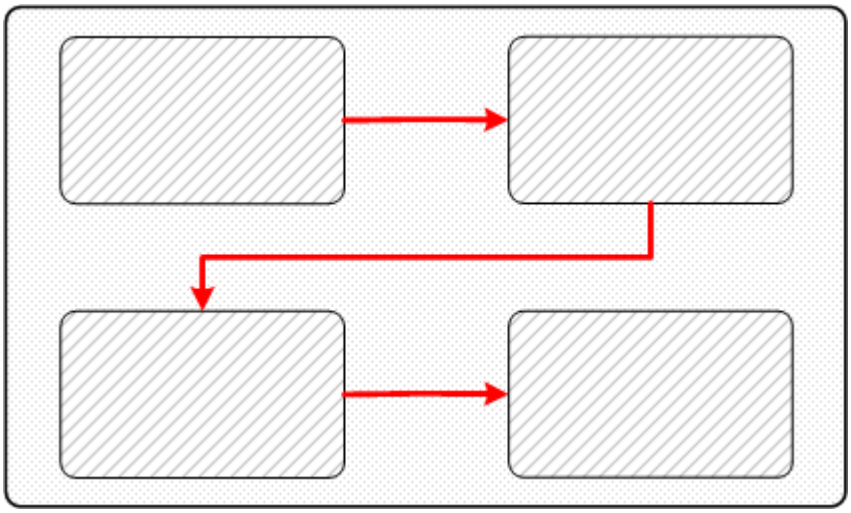


Top

Jumps between Form Panes

Between form panes the tab navigation works as follows:

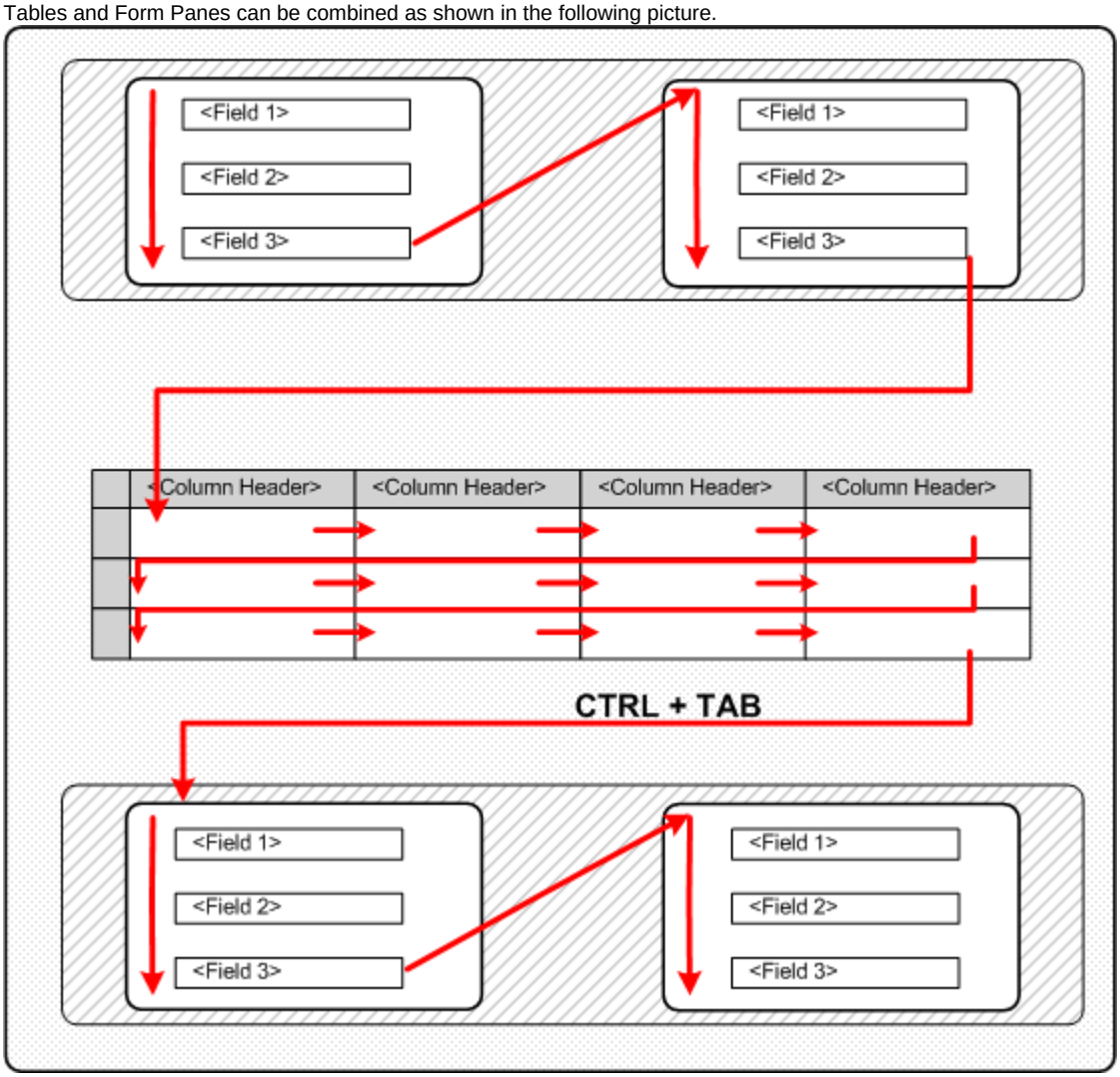




Top

Special Cases

Tables and Form Panes can be combined as shown in the following picture.



NOTE: You can leave the table and switch to the subsequent form pane using CTRL+TAB

Top

Accelerator Keys and Hot Keys

Accelerator Keys

Accelerator keys (also called access keys or shortcut keys) are keys that enable the user to navigate directly to certain areas or fields instead of tabbing through every element in the tab chain.

Each accelerator key has the following characteristics:

- A label is assigned to buttons, labels, and tabs.
- The label shows one character underlined and indicates the accelerator key.
- In order to navigate press the ALT key first and second the accelerator key.
- Pressing the accelerator key does only change the focus. If you navigate to a button, no action is carried out.
- If a UI element is disabled its accelerator key is also disabled.
- Accelerator keys only work inside the current window/UI layer. For example, accelerator keys for a context menu work only while the menu is open.
- Accelerator keys are independent of the SHIFT key. For example pressing ALT + D has the same effect as ALT + SHIFT + D.
- Number keys (0 to 9) are allowed as accelerator keys.
- Pressing the accelerator key while the ALT key is pressed immediately changes the focus.

Duplicate Accelerator Keys

Duplicate accelerator keys are allowed. If the same accelerator key is assigned to different UI elements, pressing the key cycles the focus from one element to the next using the order of the tab chain.

Hot Keys

The following hot keys are provided for ByD. The Microsoft Internet Explorer requires some special Hot Keys, mentioned in the third column:

Function	Hot Key	Hot Key for MS Internet Explorer
Save and Close	CTRL + W	CTRL + ALT + W
Save	CTRL + S	CTRL + ALT + S
Close	CTRL + Q	Not available
Refresh	CTRL + R	CTRL + ALT + R
Basic / Advanced Find	CTRL + G	CTRL + ALT + G
Filter	CTRL + H	CTRL + ALT + H
Add row	CTRL + INSERT	Not available
Delete row	CTRL + DELETE	Not available
Expand (Hierarchy)	CTRL + +	CTRL + ALT + +
Collapse (Hierarchy)	CTRL + -	CTRL + ALT + -
View All	SHIFT + CTRL + A	Not available
Log Off	SHIFT + CTRL + Q	Not available
Open navigation menu (bottom left)	WIN + S	WIN + S

More Information

Navigation Paradigm
Tooltips for Generic Functions
Secondary Help "Keyboard Navigation"

Top

Analytics

Page Content

Definition: Analytics

Analytics provides the necessary infrastructure for the analysis of an enterprise. In addition, a set of predefined reports from all business areas is available that cover the most important reporting needs. The reports allow an easy adoption to personal preferences.

In ByD the following patterns are available:

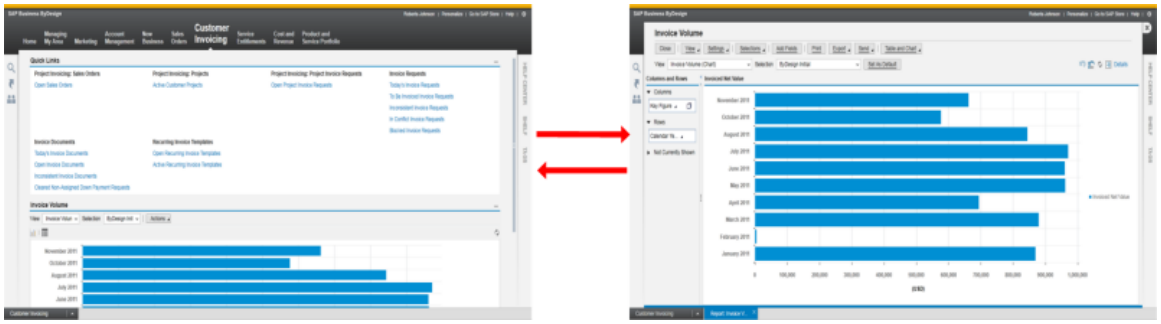
- **Information Consumer Pattern** (ICP)
  ICPs visualize data in a compact way as a chart or a table and are embedded in Work Center views as well as in other floorplans, see Information Consumer Pattern.
- **Analysis Pattern** (AP)
  APs visualize data in an extended way as a chart or a table and cover a complete screen, see Analysis Pattern.
- **Quick Filter** (QF)
  QFs visualize data in an enhanced way as a chart or a table and cover a complete screen, see Quick Filter.

Besides ICPs, QFs and APs the following UIs are available for viewing and editing reports:

- Excel reports (see Excel Styles for the allowed colors and fonts)
- Formatted reports

Top

Interaction between Information Consumer and Analysis Pattern



The navigation is as follows:

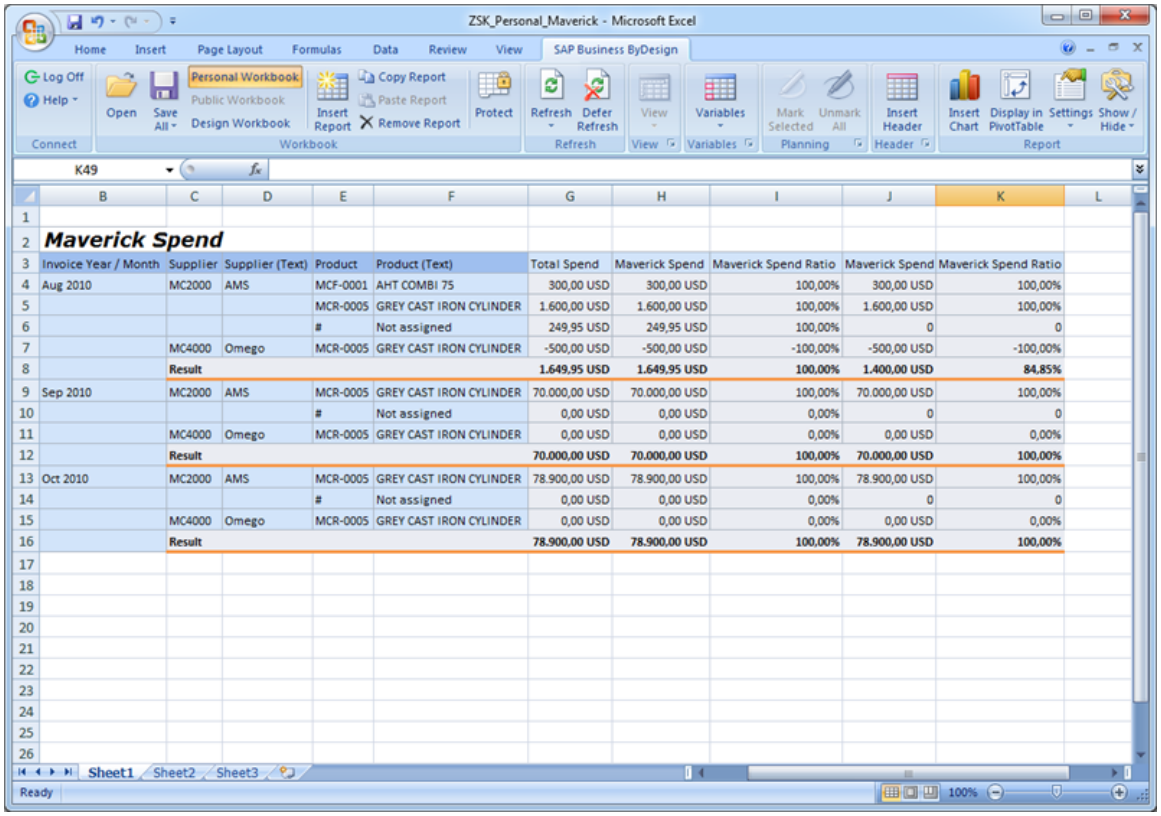
- The user can navigate from an ICP to the AP or QF via *Actions --> View Details* and dive into the advanced analysis. The specific AP or QF opens in a new window or a new tab depending on the user's settings.
- The user can create a new user-defined view and/or variables.
- After saving, the new view and/or variables appear in *Show* dropdown listbox of the ICP:
  - The view is only available for this ICP
  - It is only available for the user who created the view.
  - The view can only be deleted by the user who created it.

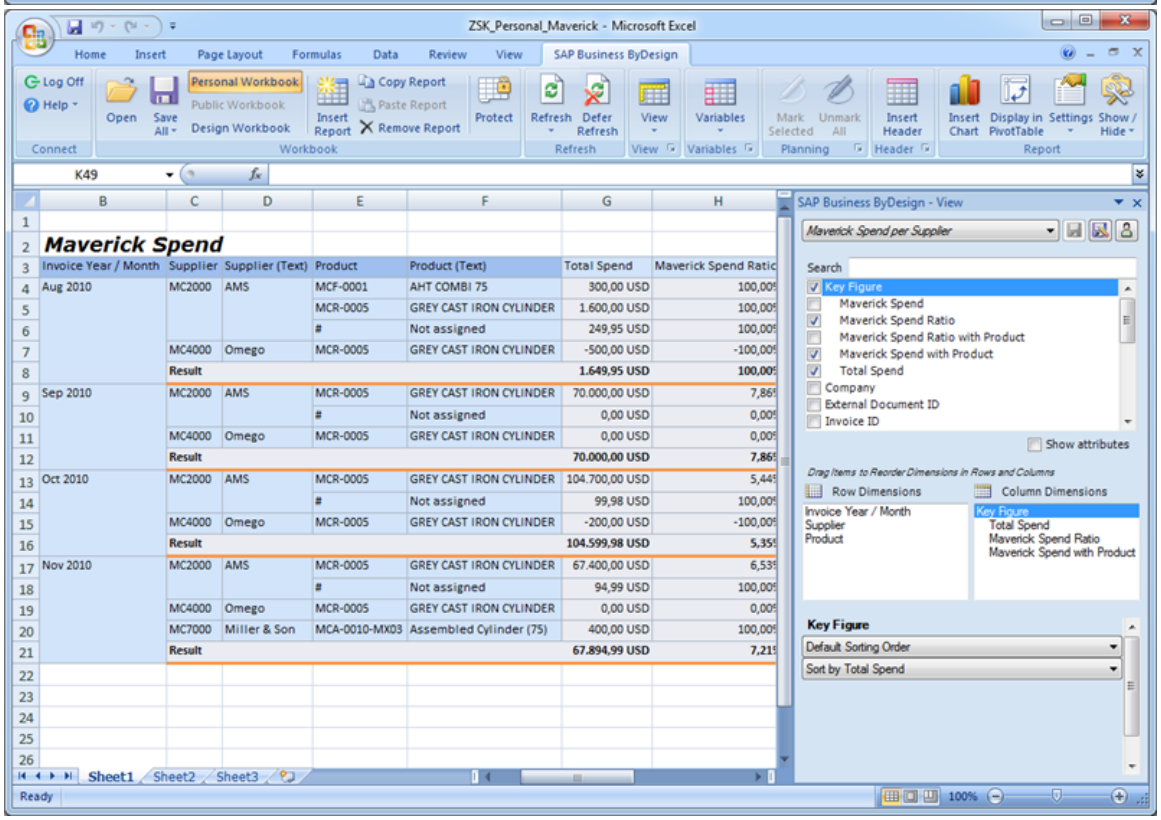
Top

Excel Reports

Excel reports can be created and saved via the ByD Excel Add-In. The user has the option to open a report as a browser-based report (using the Analysis Pattern) or as an Excel report in the *Reports* view. In Excel all standard Excel functions can be used.

Additionally, the users can create their personal Excel workbooks and make them available in the *Reports* view of *Home*, see Reports.





Top

Formatted Reports

Formatted reports are displayed like crystal reports. Only the key user can create formatted reports.

Cost Center - Plan/Actual - Print Layout

Last Data Update : 12/31/2008 11:23:06AM

MC10000 AKRON Heating Technologies Inc.
US Chart of Accounts
DEC 2008

USD	Actual NOV 2008	Actual DEC 2008	Actual YTD	Plan YTD	Diff. (abs.) YTD	Diff. (%)	Remaining Budget	Plan 2008	Actual 2007
Total Costs	**0**	**0**	**125**	**1,122,446**	**-1,122,321**	**-100**	**1,122,321**	**1,122,446**	**0**
Net Profit/Loss	**0**	**0**	**125**	**1,122,446**	**-1,122,321**	**-100**	**1,122,321**	**1,122,446**	**0**
Profit/Loss After Taxes (From Ordinary Activities)	0	0	125	1,122,446	-1,122,321	-100	1,122,321	1,122,446	0
Profit/Loss Before Tax	0	0	125	1,122,446	-1,122,321	-100	1,122,321	1,122,446	0
Operating Profit/Loss	0	0	125	1,122,446	-1,122,321	-100	1,122,321	1,122,446	0
Other Operating Expenses	0	0	125	240,300	-240,175	-100	240,175	240,300	0
500300 Travel Expense	0	0	0	60,000	-60,000	-100	60,000	60,000	0
500600 Meals and Entertainment Expense Deductib	0	0	0	12,000	-12,000	-100	12,000	12,000	0
511000 Insurance Expense	0	0	100	0	100	0	0	0	0
517000 Telephone & Telecommunication Expense	0	0	0	30,000	-30,000	-100	30,000	30,000	0
517200 Office Supplies	0	0	0	12,000	-12,000	-100	12,000	12,000	0
517300 Training Expense	0	0	0	60,000	-60,000	-100	60,000	60,000	0
517900 Other Expense	0	0	25	0	25	0	0	0	0
518000 Service Expenses (External)	0	0	0	60,000	-60,000	-100	60,000	60,000	0
518100 Service Expense (Internal)	0	0	0	6,300	-6,300	-100	6,300	6,300	0
Staff Costs	0	0	0	810,146	-810,146	-100	810,146	810,146	0
510000 Salaries Expense, Officers	0	0	0	780,066	-780,066	-100	780,066	780,066	0
510100 Wages Expense	0	0	0	20	-20	-100	20	20	0
510200 Employee Benefit Expense, Health Insuran	0	0	0	30	-30	-100	30	30	0
510300 Employee Benefit Expense, Pension Plans	0	0	0	30	-30	-100	30	30	0

Page 1 of 2

Top

More Information

Analysis Pattern
Information Consumer Pattern
Quick Filter

Business Task Management

Page Content

Definition: Business Task Management

Business Task Management (**BTM**) is the ByD infrastructure used to address tasks to end users. It enables users to receive, manage, and complete tasks in an easy and timely way by configuring tasks with a built-in timeframe and escalation mechanism.
BTM ensures flexible workload distribution. Tasks created by the system are assigned to the appropriate users or organizational units and displayed in their worklists. BTM prioritizes tasks within a worklist, giving users clear guidance on their daily work on which task should be completed first.
BTM is collaborative, providing users with the ability to follow up on tasks in collaboration with other users. This is achieved by providing users with the option to ask another colleague for clarification on a task or business object, or to forward the task to another user if necessary.

Top

Worklists

The following worklists are available:

- **Task-based OWLs** (TOWL) within Work Center views
  Contains all open tasks within the respective business context of the work center view, see Consistency Rules: TOWL Placement .
- **Inbox** within the Control Center
  Contains all alerts, notifications, and clarification requests as well as tasks which are not assigned to TOWLs, see Work: Inbox and Delegated Tasks.
- **Delegated Tasks** within the Control Center
  Allows tracking of all manually created and forwarded tasks.
- **Approvals task list** in the *Managing My Area* work center
  Contains all approval tasks a manager is responsible for such as approve leave requests, see Approvals View.
- **Application and User Management** Work Center
  Contains monitoring tools for the key user such as all tasks monitor, unassigned items monitor, automated tasks with errors.

From the worklists the users can carry out tasks, set them to complete, forward, change the priority of, and put back a task. They can also create new tasks, notifications, alerts, and clarification requests.

Top

Task-Execution Floorplans and Task Region

Task-Execution Floorplan

Users deal with their tasks on task-execution floorplans. The floorplan is either designed especially for this task or is the general floorplan of the respective business object. A task-execution floorplan is usually launched from a worklist by clicking the task subject and is always editable.

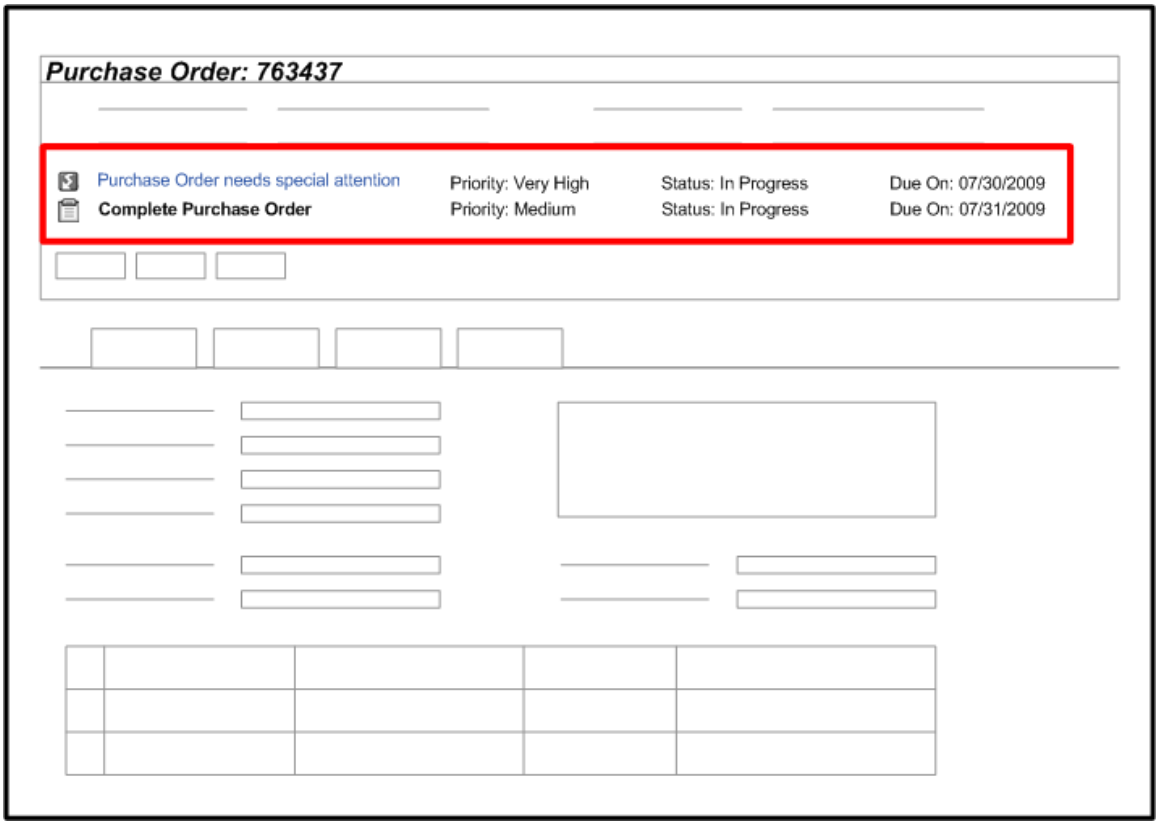
Task Region

Whenever a task is assigned to a business object its floorplan shows the Task Region. The Task Region is a constituting UI pattern in activity floorplans, see Floorplans: Constituting Patterns and Content Area Patterns.

From the Task Region the user can:

- Navigate to the task details floorplan that allows access to the generic BTM actions.
- Switch between task-execution floorplans if more than one task needs to be carried out for a business object.

Example



Top

Generic BTM Actions and Floorplans

The following actions are available for manual task creation:

Action	Description
New Alert	Opens a QAF. The user can create an alert for another user. These are tasks with the highest priority pointing to an exceptional situation requiring immediate action.
New Clarification Request	Opens a QAF. The user can ask another user for further information on a task or a business object. The recipient of the clarification request can reply.
New Notification	Opens a QAF. The user can create a notification for another user. These are informative items that typically require no action.
New Task	Opens a QAF. The user can create a task for another user.

The user can carry out the following generic actions on tasks:

Action	Description
Acknowledge	Only for notifications. Indicates that the notification is read.
Add / Show Attachments	Opens a QAF. The user can create attachments from scratch (*Add*) or add and display attachments (*Show*).
Add / Show Notes	Opens a QAF. The user can create notes from scratch (*Add*) or add and display notes (*Show*).
Cancel	Optional, depends on the design of the task type. Sets the task status to *Canceled*.
Change Priority	Opens a modal dialog. The user can change the priority between *low* and *very high.*
Complete	Sets the task status to *Completed*.
Forward	Opens a QAF. The user can handover the task to another user.
Open Details	Opens a QAF that displays processor, priority, status, progress, notes and attachments.

Top

Collaboration Window

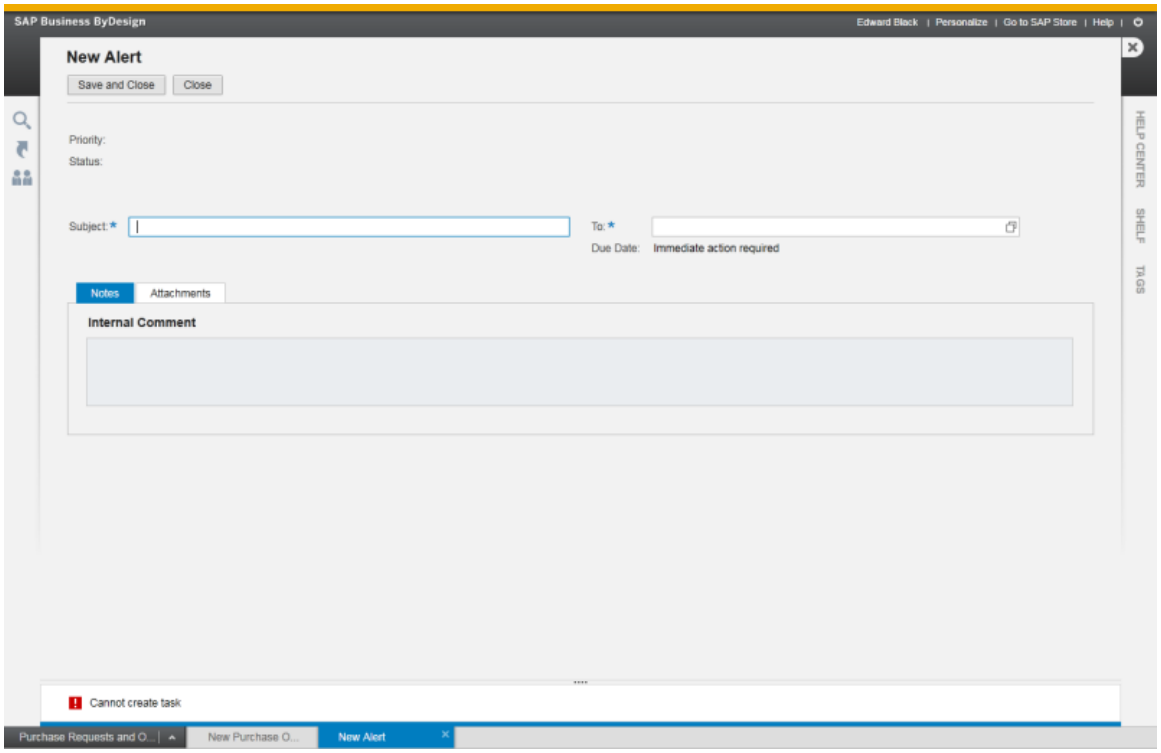
Alerts are delivered from the application to the users' desktop, even when they are working outside of the application environment. This means that the user receives a pop-up from which the corresponding task execution floorplan can be launched. If the user misses a pop-up they can find their missed tasks in the collaboration window.

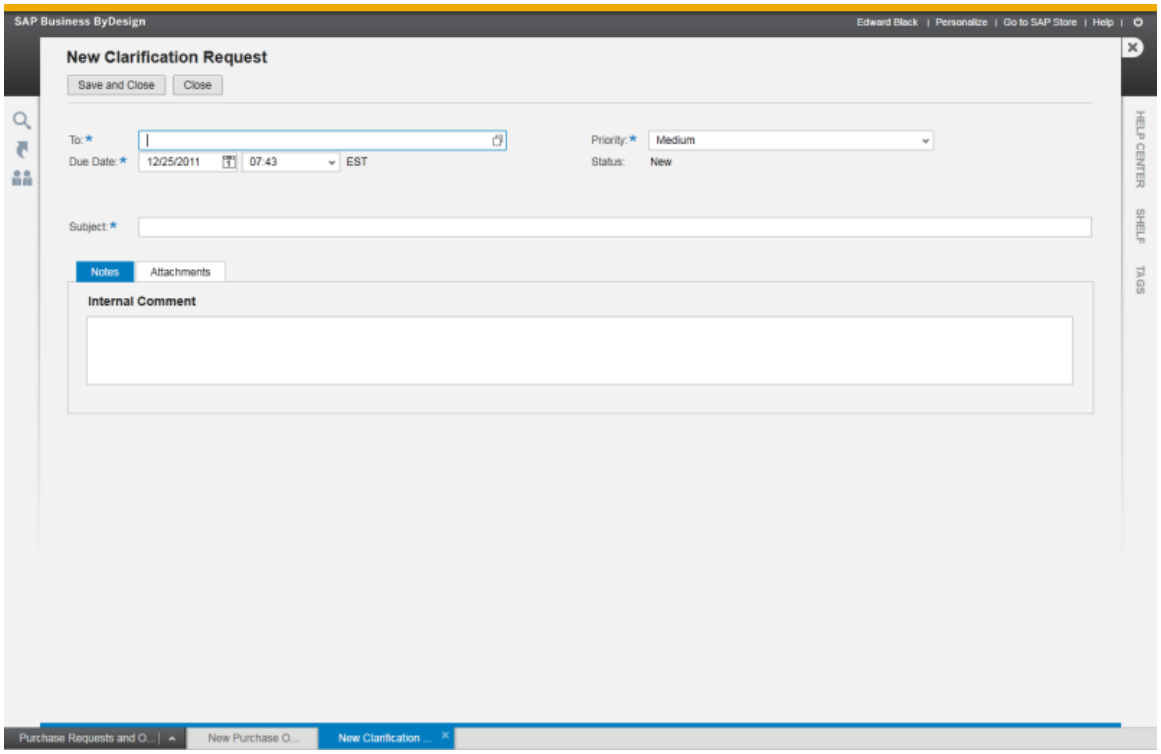
Top

Examples

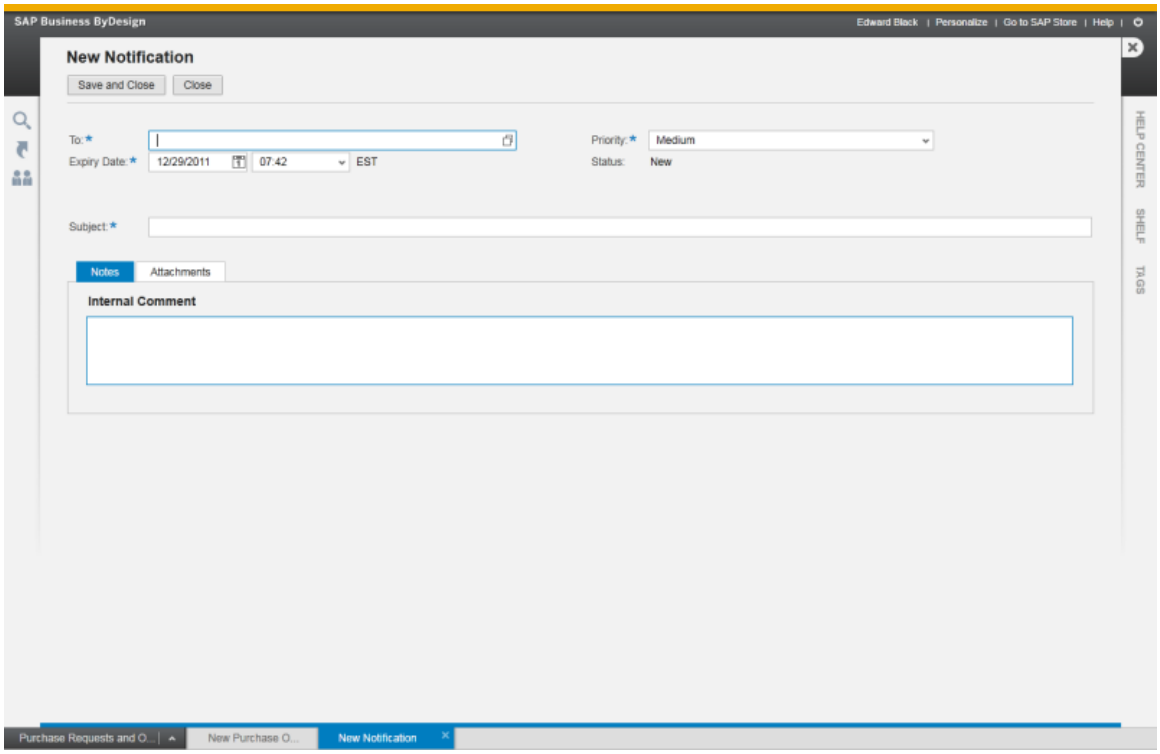
The following screenshots are taken from an FP3.5 ByD system:

New Alert

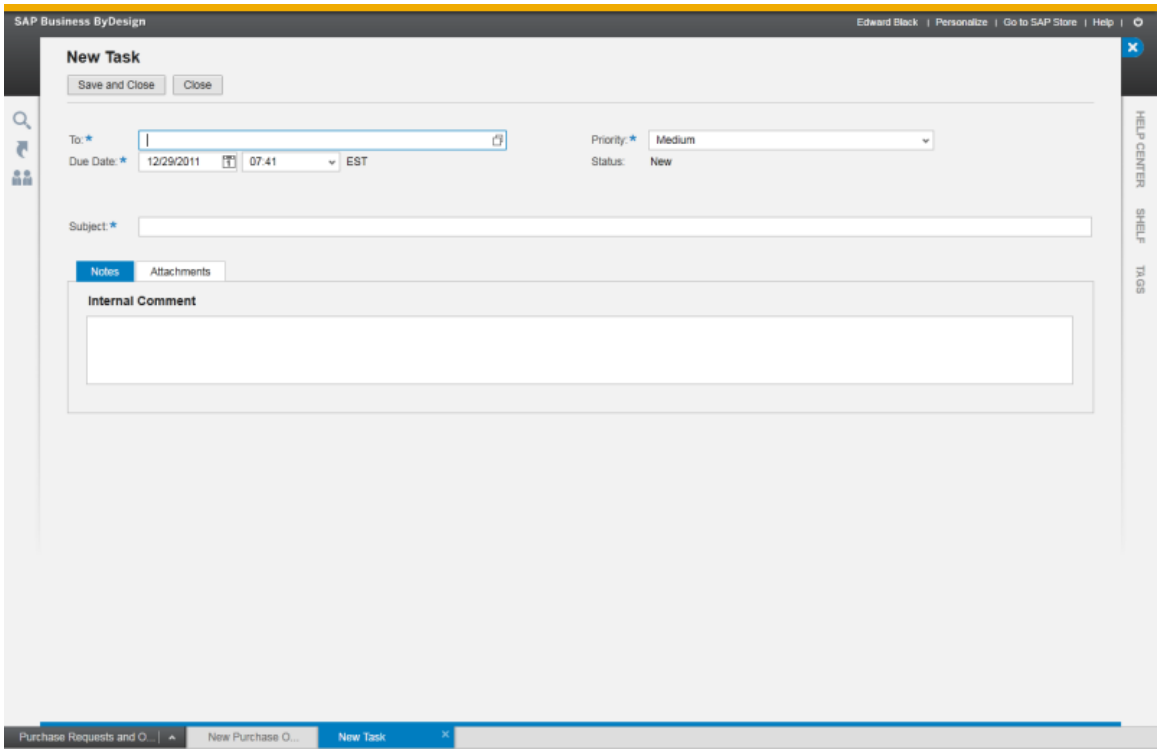




New Notification



New Task



Top

More Information

Action Navigation
Approvals View
Collaboration Window
Consistency Rules: TOWL Placement
Functions & Menus
Navigation Paradigm

Collaboration Window

Page Content

Definition: Collaboration Window

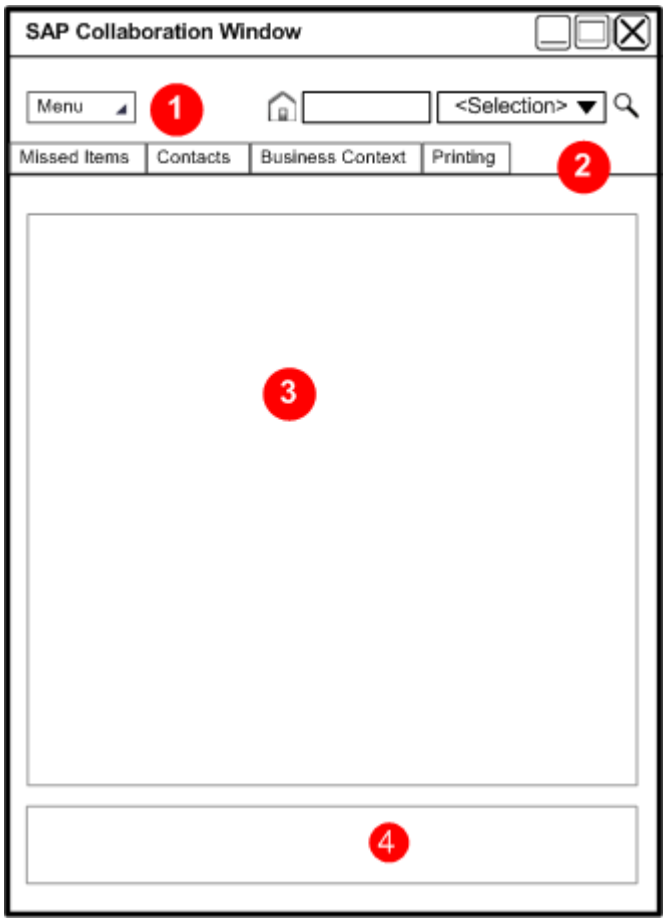
The **Collaboration Window** (**CW**) is a desktop tool that allows you to instantly contact business partners such as customers, suppliers, and colleagues, through a variety of communication channels, including telephony, and e-mail.

For interactions such as incoming telephone calls, the collaboration window provides contextual information and business-relevant navigation.

BTM alerts are delivered from the application to the users' desktop, even when they are working outside of the application environment. This means that the user receives a pop-up from which the corresponding task execution floorplan can be launched.

Top

Layout



The CW consists of the following elements:

1. Action Bar:
    - *Menu^*: Provides basic settings for the CW and shows general information.
    - *Home icon*: Navigates to the *Home* screen, see Control Center Home
    - *Input fields and icon for Enterprise Search*: Opens the Enterprise Search and shows the results on the Enterprise Search page but not in the CW.
2. Tab Bar:
    - *Missed Items:*

Lists all BTM alerts to which the user did not respond, this means that the user did not execute any action on the incoming BTM pop-up. It also includes the missed and rejected calls. The latest missed items are displayed first.

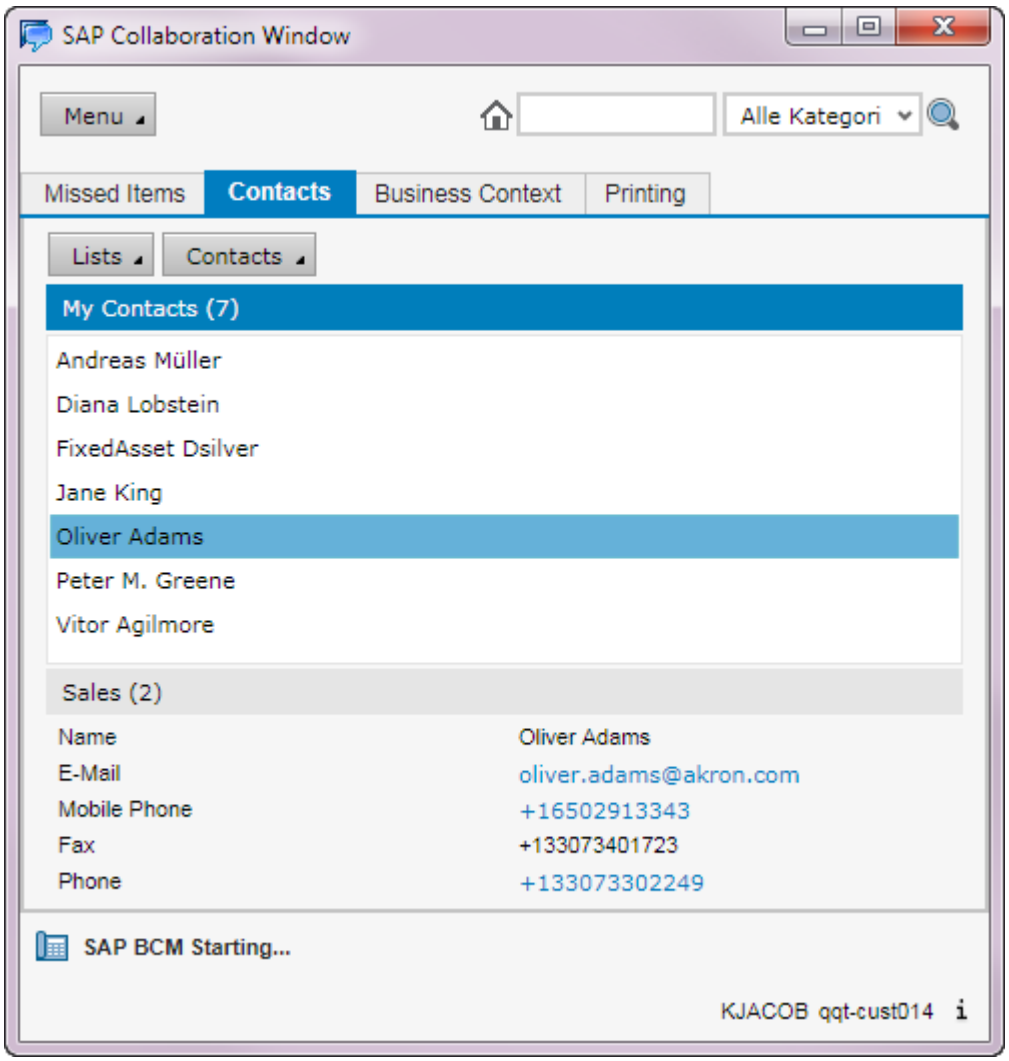
- *Contacts:*
  Contacts are internal (colleagues) or external (suppliers, customers) business partners. On the *Contacts* page the users can:
  - Manage their contacts, for example add and remove contacts or create contact lists
  - Collaborate with their contacts, for example send e-mails and meeting requests, give them a call or share applications
- *Business Context:*
  Is used to show contextual information of a business partner and to carry out actions with regards to that business partner. If the user accepts an incoming call, the calling business partner is automatically shown on this page.
- *Printing*: Lets the user monitor the print documents from the ByDesign system for which he is responsible. The user can view his print jobs and the associated messages. See Backend Printing.

3. Content Area
4. Telephony Area which is only shown if the telephony application is integrated. With the telephony integration the users can, for example, initiate, hang-up, hold, transfer or resume calls.

Top

Example

The following screenshot is taken from an FP3.5 ByD system:



Top

More Information

Backend Printing
Control Center Home
Enterprise Search

Control Center Home

Page Content

Definition: Control Center

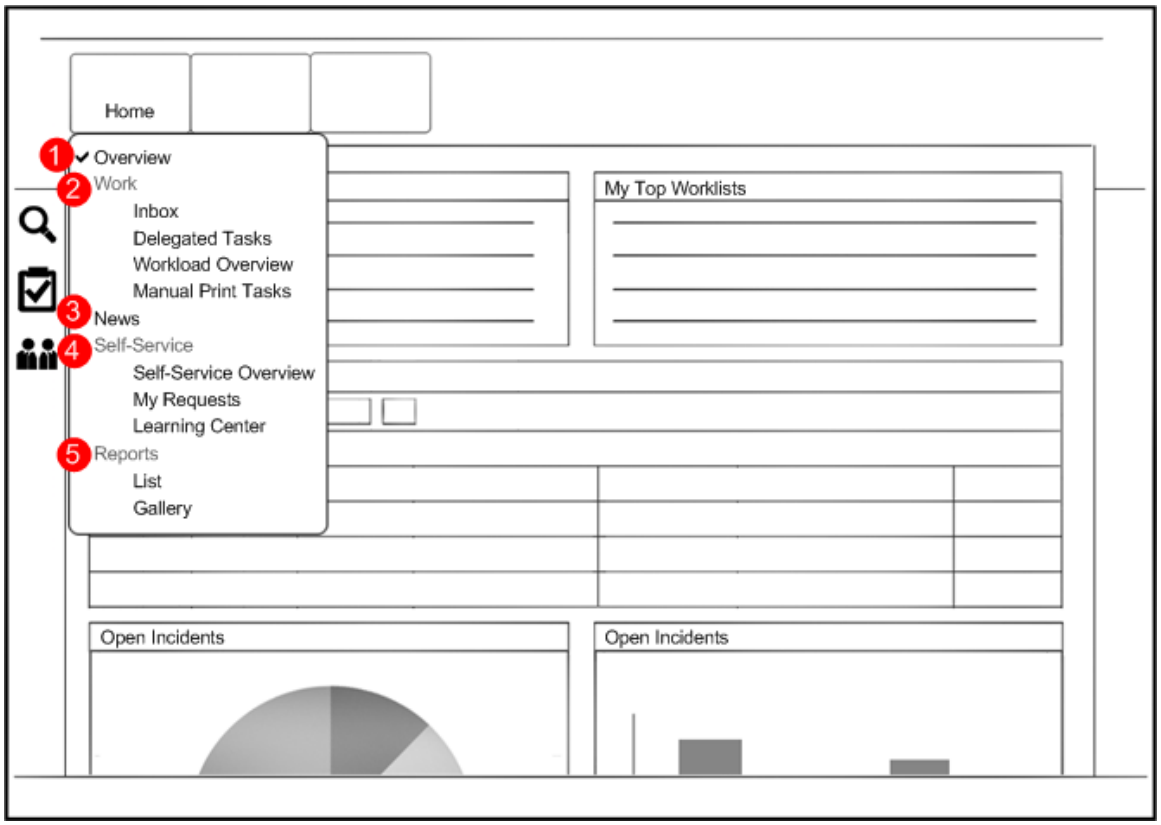
The **Control Center** (**CC**), called *Home* on the UI, consists of a set of views that organizes the user's activities across work centers and beyond roles. The Control Center aggregates, summarizes, and provides all information the users need for their daily work, including:

- Tasks, alerts, notifications, clarifications
- Company news and RSS (Really Simple Syndication) feeds. The user can subscribe to feeds. The ByD news reader checks the user's subscribed feeds regularly for updates and provides a user interface to monitor and read the feeds.
- Self-Services like create a leave request
- Reports
- Common Tasks

The user can personalize several views as well as Quick Links, News, and Information Consumer Patterns (ICPs). When personalizing *Home*, the user can select from the list of all common tasks of all Work Centers he or she is assigned to, the ones that should be accessible from *Home*.

Top

Control Center Views



The following views and sub-views are available:

1. ***Overview***: Provides an overview of the user's work
2. ***Work***:
    - *Inbox*: Displays Business Task Management (BTM) items which are not delivered to the Work Center's task-based Object Work Lists (TOWL).
    - *Delegated Tasks*: Allows to track the tasks assigned to the user as well as the tasks the user forwarded to other users.
    - *Workload Overview*: Provides a snapshot of the user's current workload and monitors the status of work assigned to the user across all Work Centers and the Control Center. When the user enters this page all information is updated. The

overview offers quick links to Work Center OWLs the user is assigned to.
    - *Manual Print Tasks*: Contains all documents the user needs to print manually.
3. ***News***: Displays news coming from internal and external RSS feeds. The users can personalize *Latest News* in the *Overview*. Key users can push news to users of different WoCs via the news authoring view (available in the *Application & User Management* WoC). The content is shown in a hierarchical structure and can include the following:
    - News from SAP (SAP Hosting news, news feed from SAP about products, ByD system news and services concerning ByD)
    - News relevant to Work Centers (added by key users, both internal company news and news from external RSS feeds)
    - News from external RSS feeds (added by end users)
4. ***Self-Service***:
    - *Self-Service Overview*: Provides central access to all Employee Self-Services (ESS), including submission of a leave request or updating personal information. The content is shown in a service map. For more information see Service Map .
    - *My Requests*: Summarizes user requests such as leave requests, expense reports, incidents or shopping carts.
    - *Learning Center*: Shows all learning modules that are available for the Work Centers the user is assigned to.
5. ***Reports*** :
    - *List*: Provides central access to all reports from all WoC assigned to the user. The reports in the Control Center differ from the reports in the Work Centers in one way: On the Control Center an additional function is available, *Excel Workbook*^ that allows the user to create the report as an excel workbook using a Microsoft Excel add-in. For more information see Consistency Rules: Reports View.
    - *Gallery*: Alternative visualization of the reports list

NOTE
The display in the *Workload Overview* is limited:

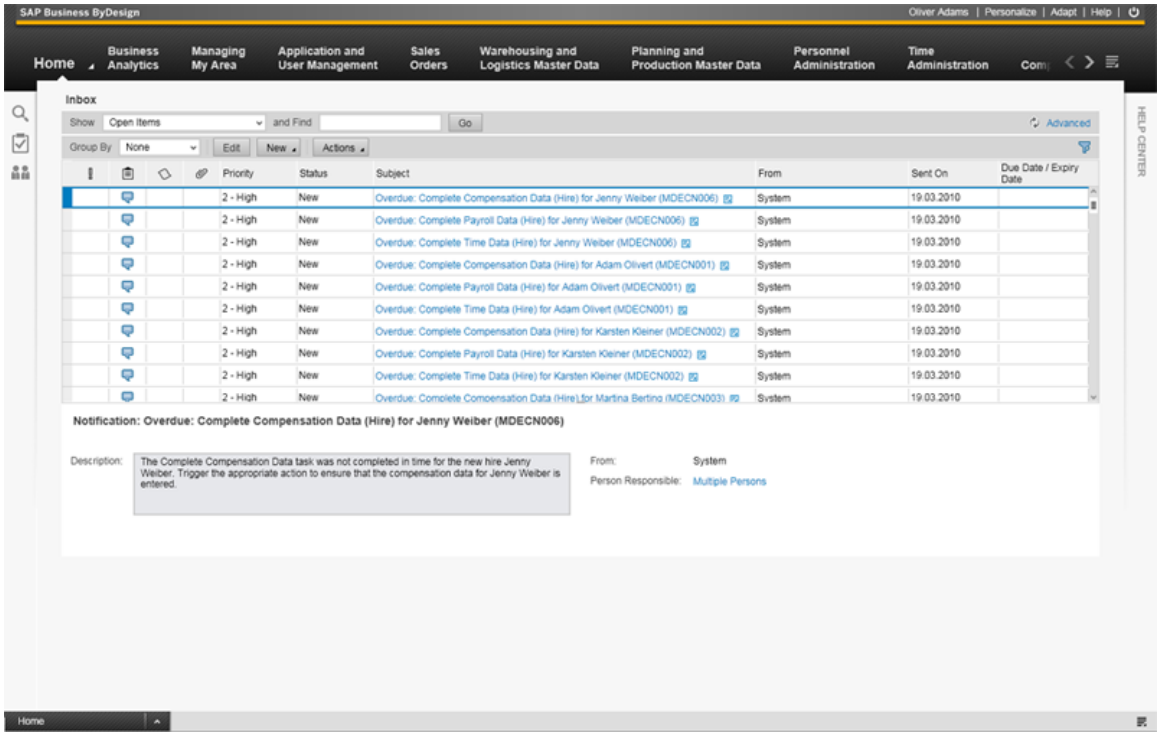
- Maximum number of Work Centers s to be displayed is 3.
- Maximum number of Object Worklists (OWLs) per Work Center is 4.
- Number of queries per OWL is unlimited.

Top

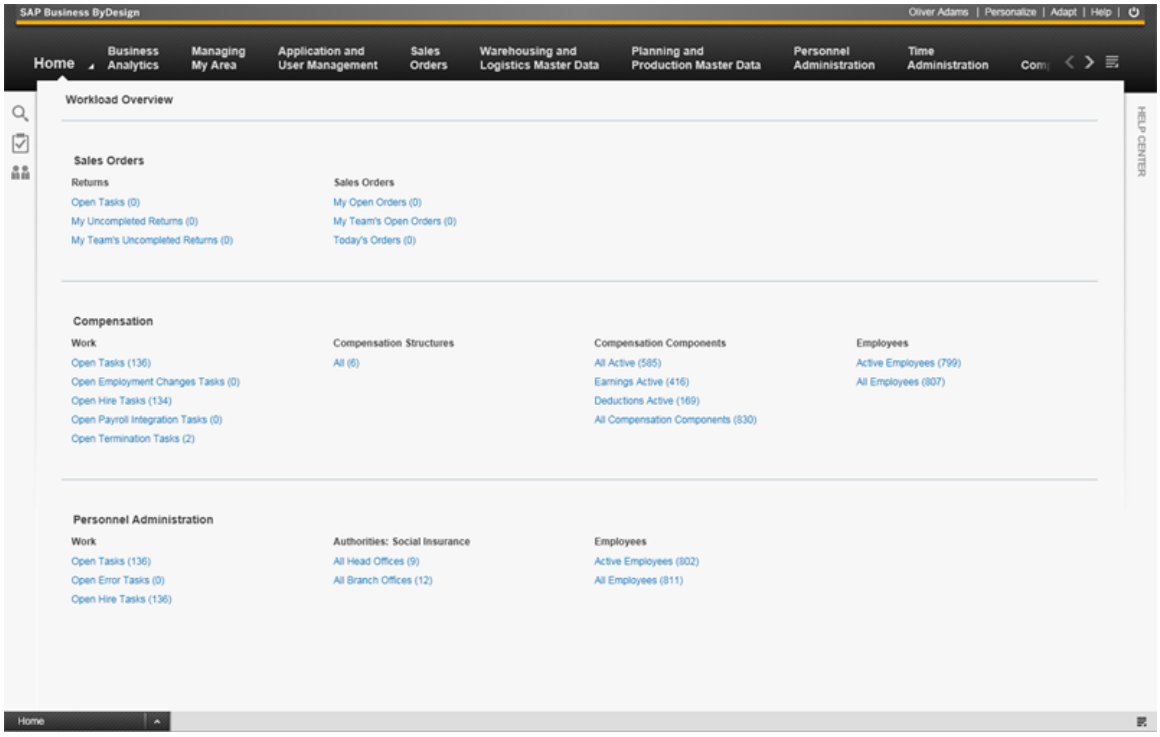
Examples

The following screenshots are taken from an FP3.5 ByD system:
Overview:

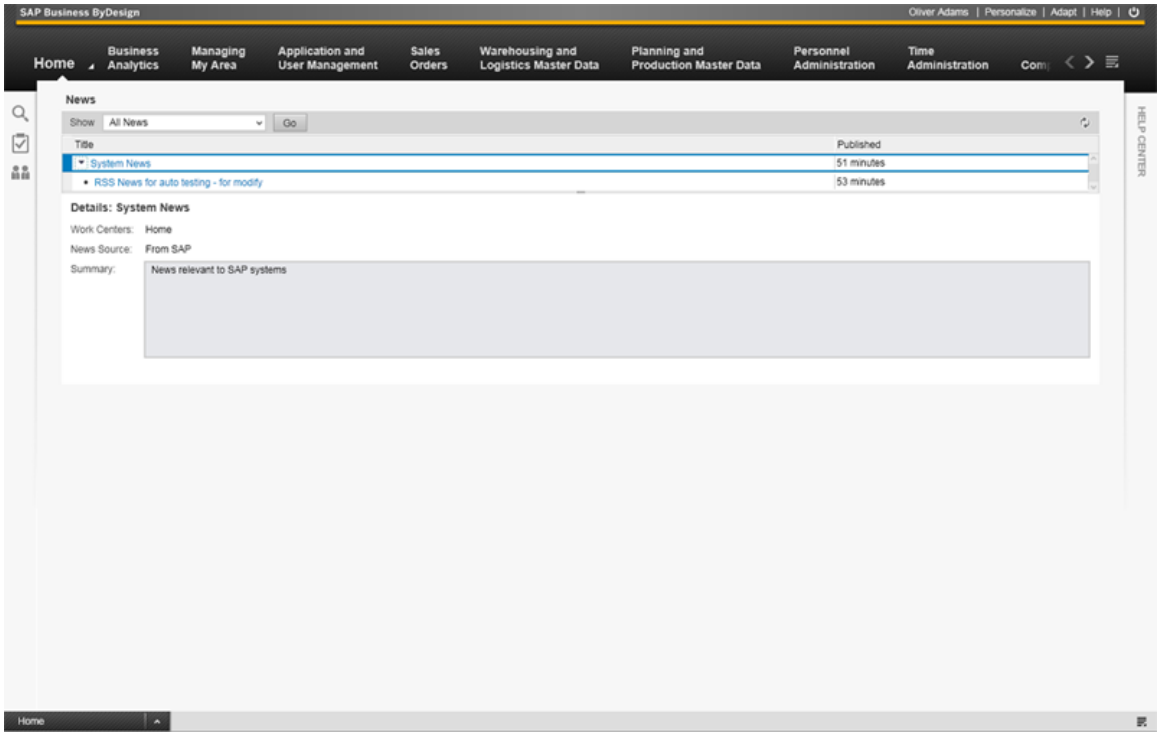
Inbox:



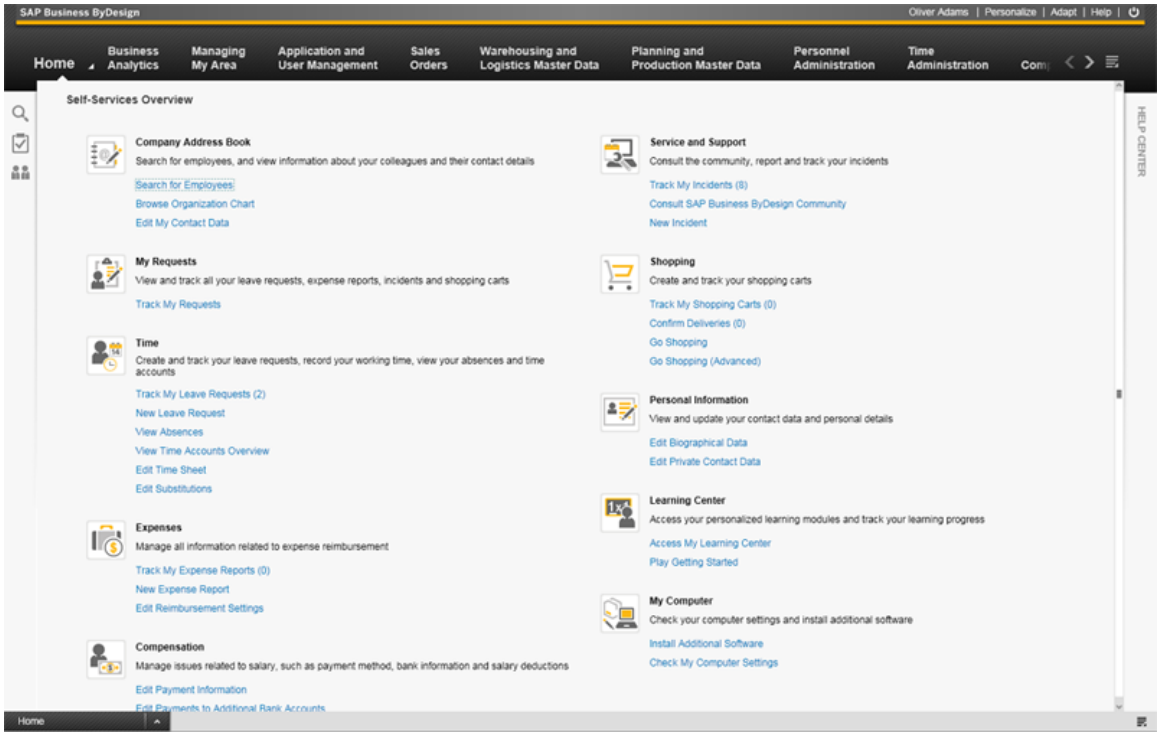
Workload Overview:



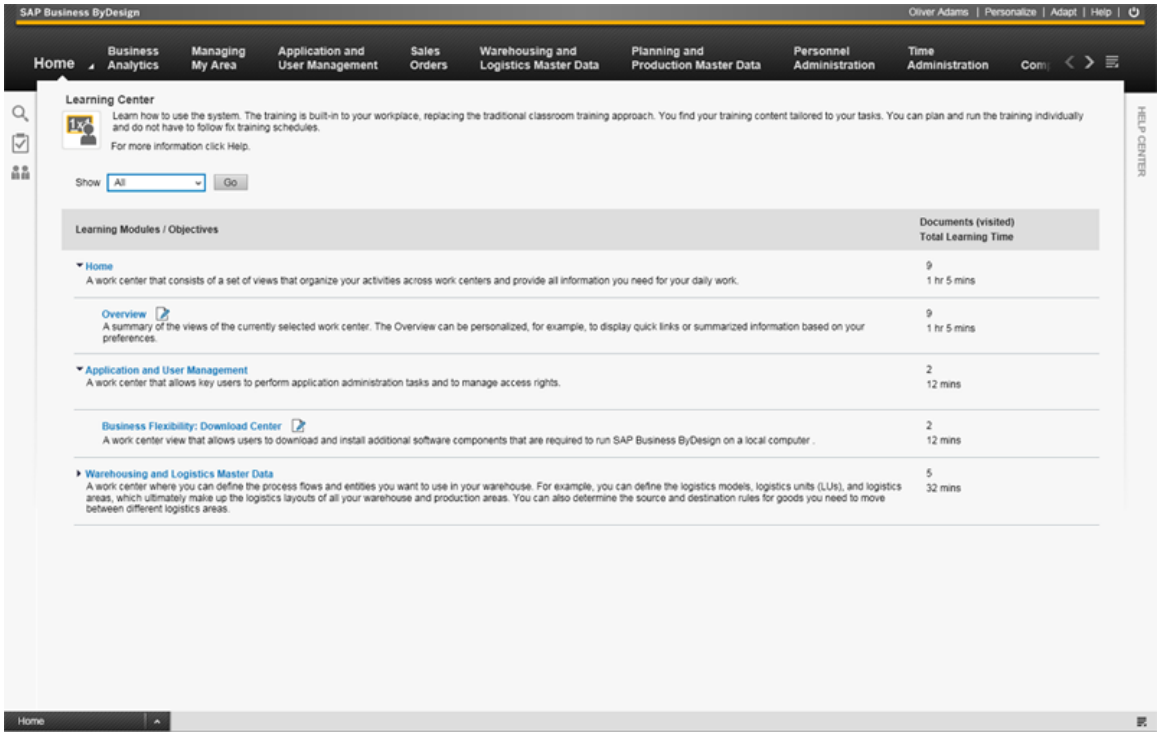
News:



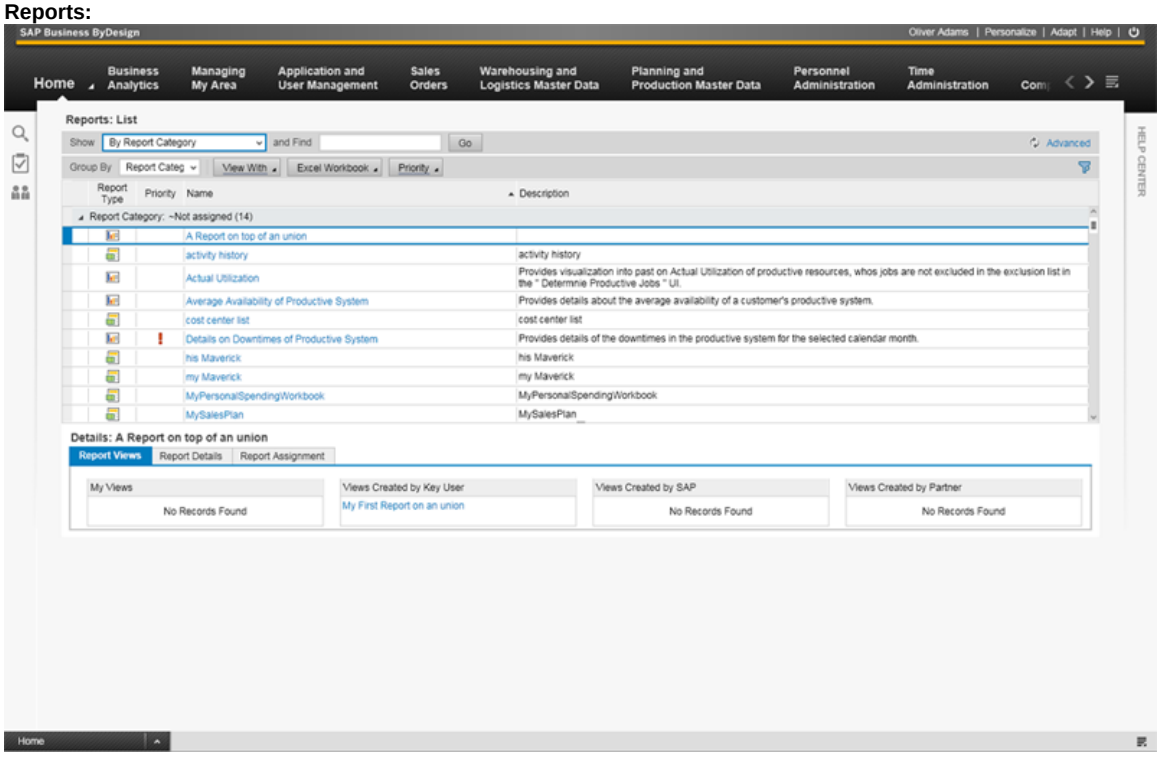
Self-Service Overview:



Learning Center:



Reports:



Top

More Information

Analytics
Business Task Management
Collaboration Window
Enterprise Search
Personalization and Adaptation
Service Map

Document Center

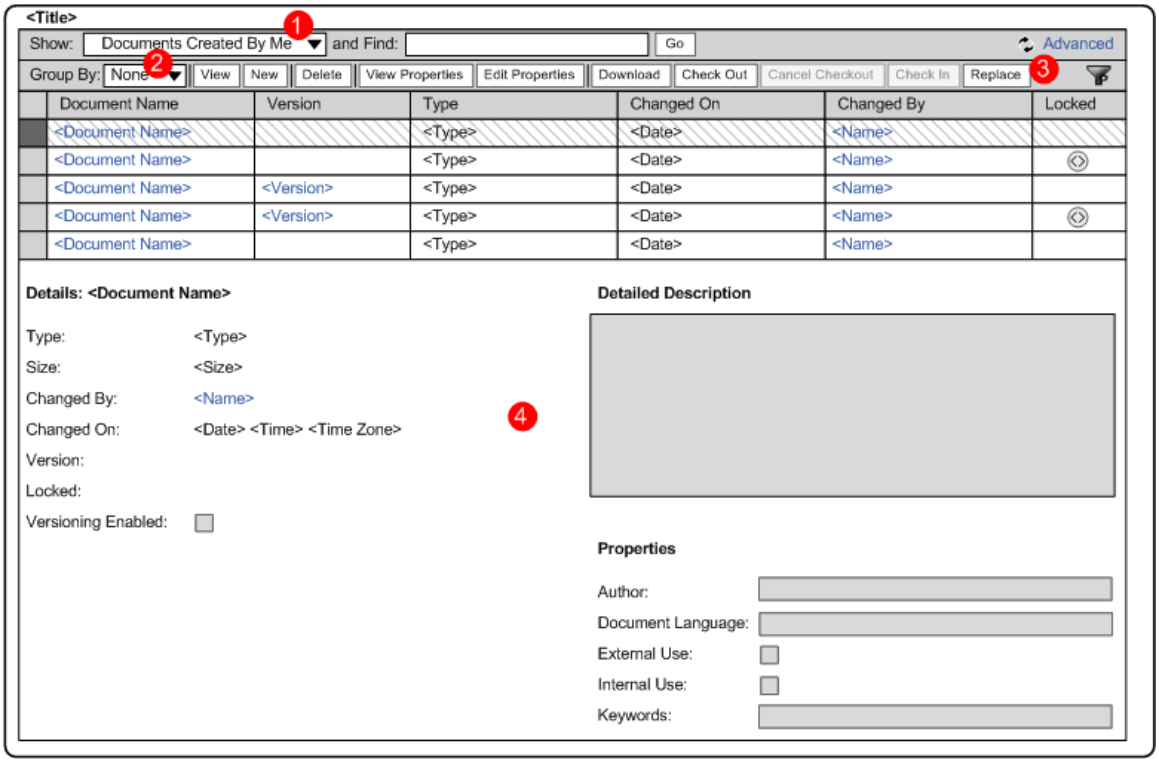
Page Content

Definition: Document Center

The **Document Center** (**DC**) is a dedicated Work Center view for the storage of business related documents. It allows users to easily retrieve files, or upload and maintain documents. It is basically used to store unstructured content. In contrast to attachments, files uploaded within the document center are not assigned to any business object. The document center does not support any folders.

Top

Consistency Rules



1. ***Show***: Contains the following entries in the given order:
   - *Documents Created By Me*
   - *Documents Changed By Me*
   - *Documents Recently Changed By Me*
   - *Documents Checked Out By Me*
   - *Recently Changed Documents*
   - *New Documents*
   - *All Documents*
2. ***Group By***: Contains the following entries in the given order:
   - *None*
   - *Document Name*
   - *Type*
   - *Changed By*
   - *Locked*
3. **Buttons:**
   - *View:* Opens the document in a new window, using the application the document has been created, for example Word or Excel
   - *New:* Opens a Modal Dialog which allows the user to enter the document's properties and to upload the document
   - *Delete:* Deletes the document from the database
   - *View Properties:* Opens a Modal Dialog showing the document's properties
   - *Edit Properties:* Opens a Modal Dialog for editing the document's properties

- *Download:* Downloads the document
- *Check Out:* Opens the document in the application the document has been created. The user can edit the document.
- *Cancel Checkout:* Allows the user to cancel editing the document.
- *Check In:* After checking out and editing the document, the user can check it in.
- *Replace:* Replaces an existing document

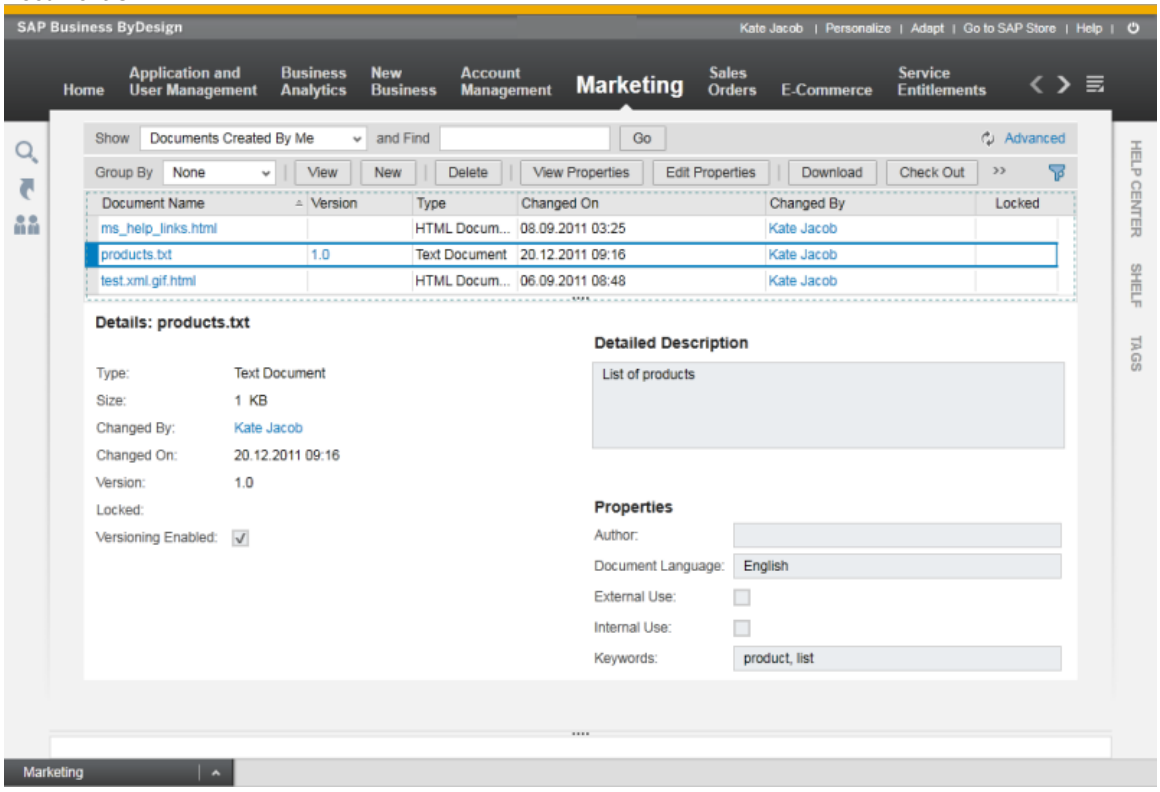
4. **Details:** Use the section groups and labels as shown in the picture.

Top

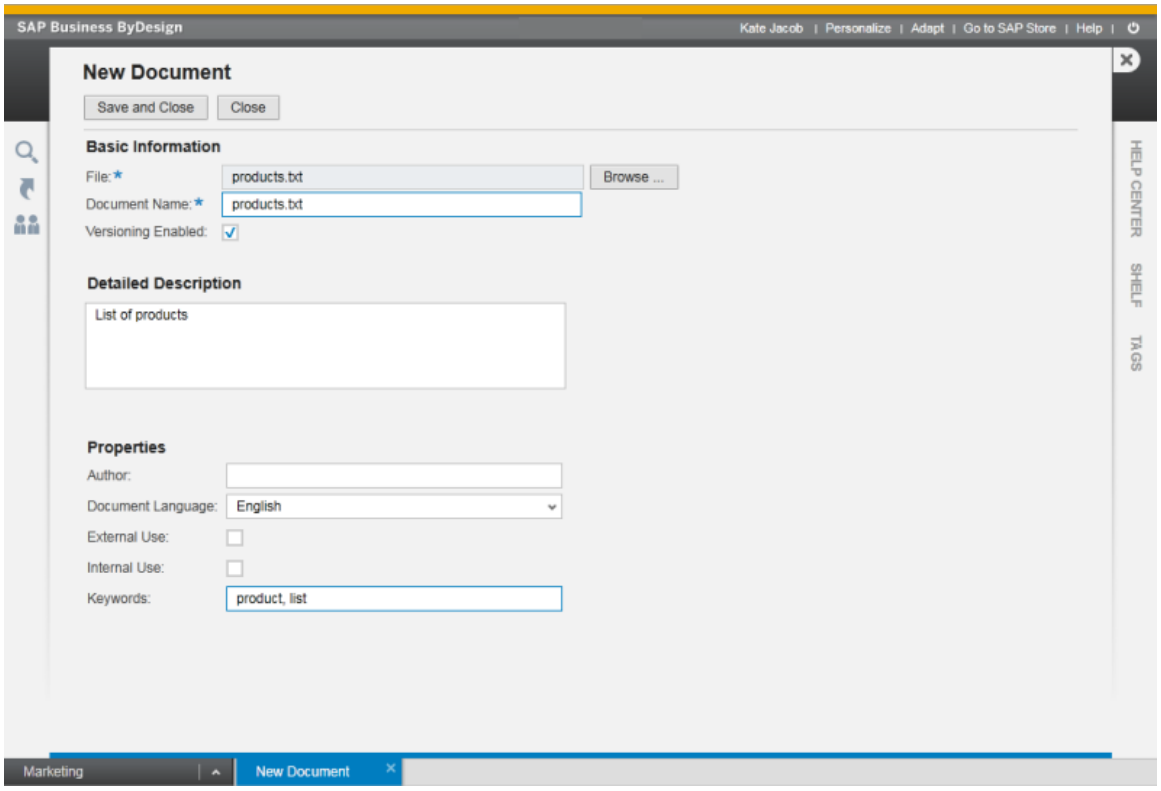
Examples

The following screenshots are taken from a ByD FP3.5 system.

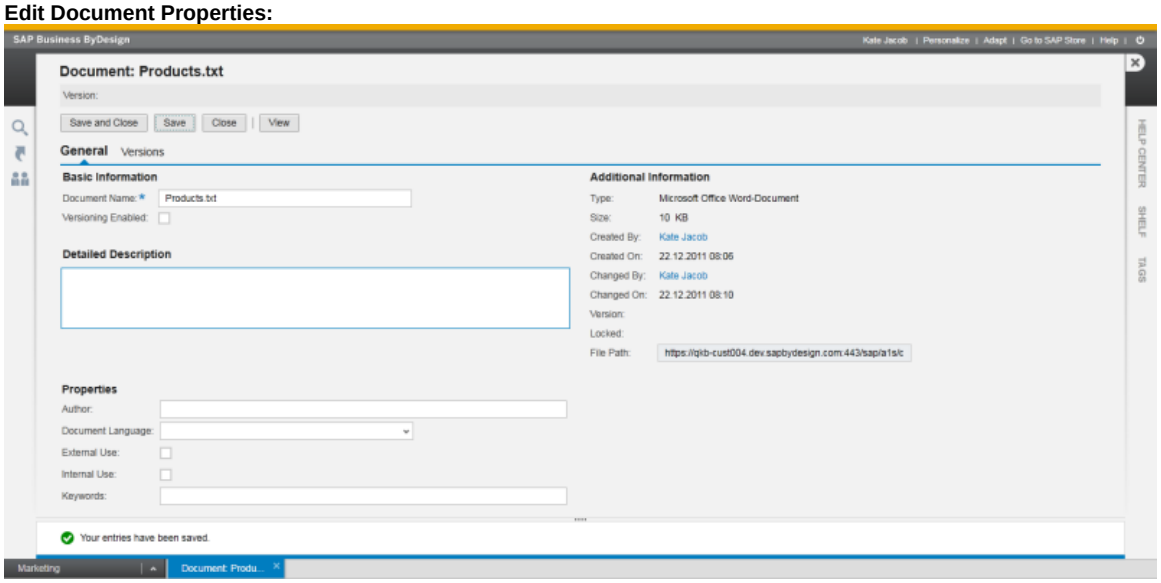
Document OIF:



Create Document:



Edit Document Properties:



Top

More Information

Attachments
Notes

Enterprise Search

Page Content

Definition: Enterprise Search

Enterprise Search (ES) lets the user find and navigate to the following categories:

- Files: MIME-type files (documents, spreadsheets, presentations, PDF files)
- People: Employees, business partners such as customers and suppliers, other people
  - A link on a person's name opens the address book
  - A link on a business partner's name opens a Fact Sheet
  - In a Human Capital Management (HCM) or line management context, a link on an employee's name opens the employee Fact Sheet
- Reports: Analysis Patterns (analytical reports, formatted reports, list reports)
- Business Objects: Enterprise Services Infrastructure (ESI) BOs (contracts, sales orders, opportunities, etc.)
- External Web Services: Search information in external web sites

Enterprise Search is an alternative method of navigating to information besides the primary method of navigating to information via Control Center and Work Centers.

Top

Searching ByD Categories and the Web

1. The user can enter a search string in the *Search* field. Before starting the search it is possible to select the category for the search. In the categories below the horizontal line the user is enabled to search in sites of the internet.
   The user can search in the following ByD categories:
   - *All Categories*
   - *Analytics*
   - *Address Book*
   - *Business Data* such as business objects (e.g.sales orders)
   - Tags: Tagged business objects can be found when the users enters the following in the *Search* field:
     #T(<tag>) such as *#T(BestCustomer)*.
     The Enterprise Search shows all business objects tagged with this tag for example *BestCustomer*.
2. The magnifier icon starts the search in the selected category and opens the results screen which inherits the search string and the chosen category.

The *Search* screen is displayed in basic mode. *Advanced* in the upper right hand corner of the screen opens detailed search options.

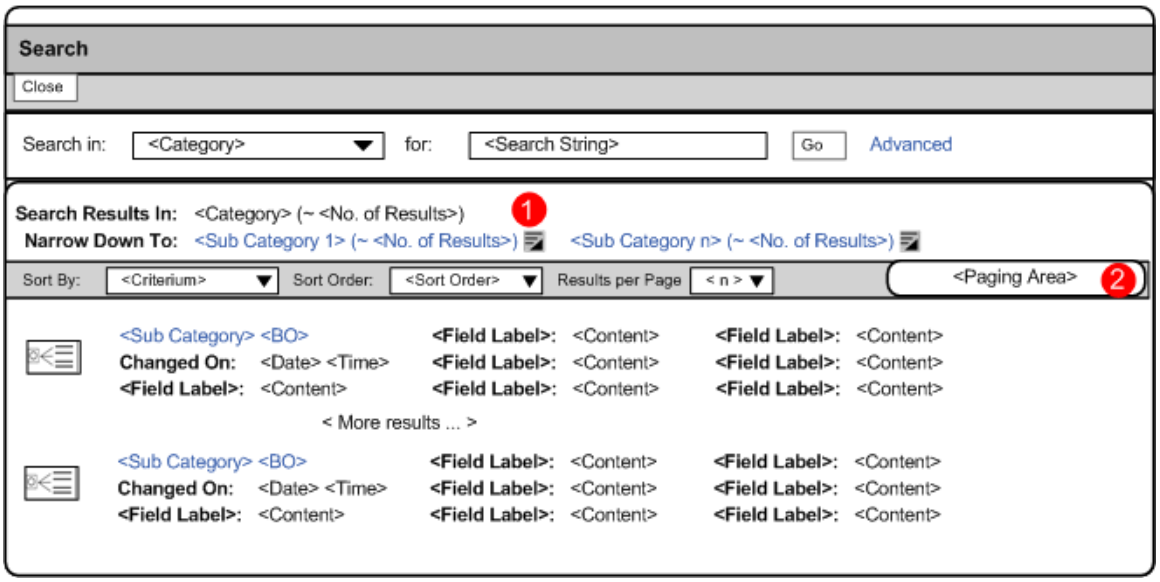
Top

Search Result

The result screens for ByD category search and external web search are different.

Enterprise Search Result for ByD Categories

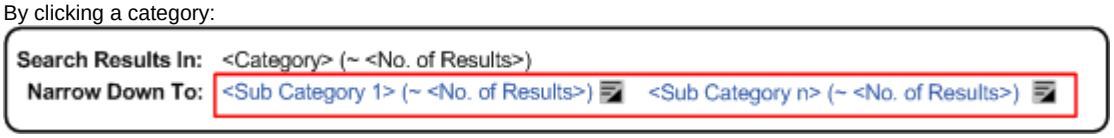
Example:



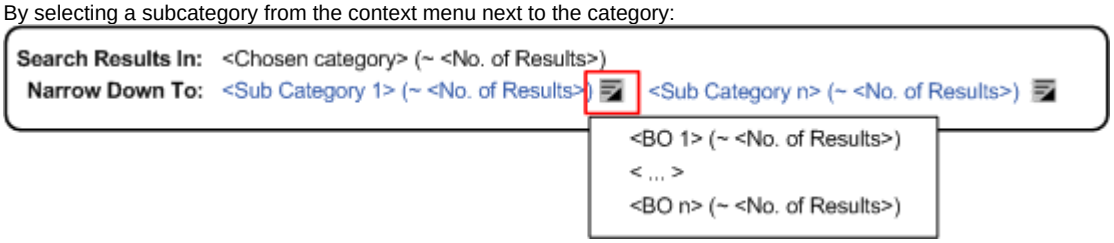
On the result screen for ByD categories the user can narrow down the results and define how the results are shown (via *Sort By*, *Sort Order*, and *Results Per Page*).

1. The narrow down area allows to modify the search result.

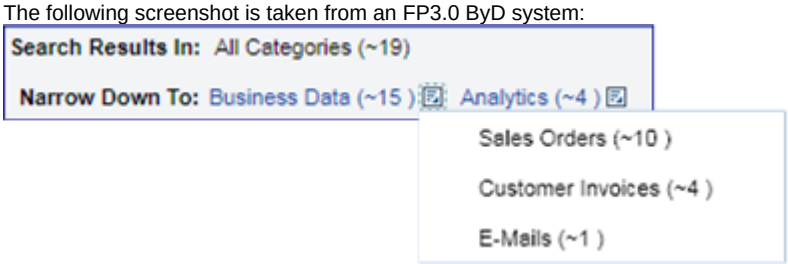
   - By clicking a category:

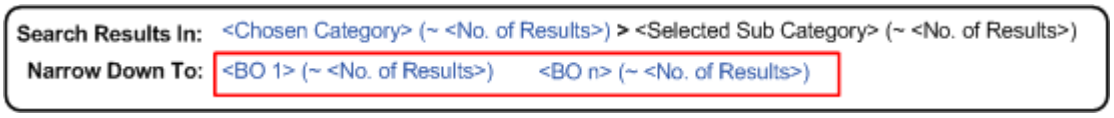
   - By selecting a subcategory from the context menu next to the category:

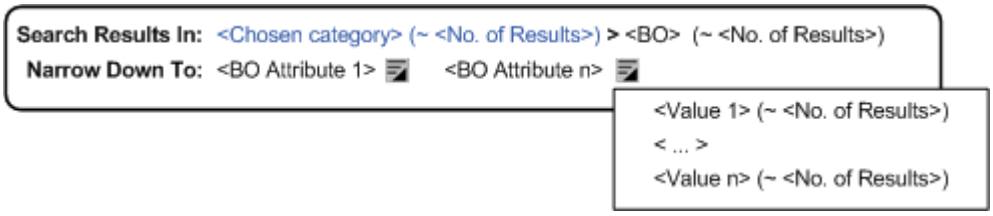
     Example:
     The following screenshot is taken from an FP3.0 ByD system:

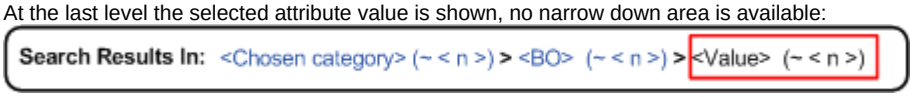
   - At business object level no context menu is available, the user can only navigate via the link to all business objects of the selected type.
     A breadcrumb shows the narrow down path. The user can navigate to upper categories by clicking the respective link in the breadcrumb.

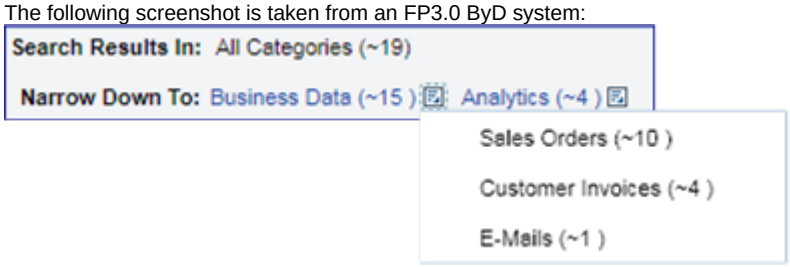
   - When navigating to the business objects their attributes are shown as text only. The context menu shows all values of the attribute:



At the last level the selected attribute value is shown, no narrow down area is available:

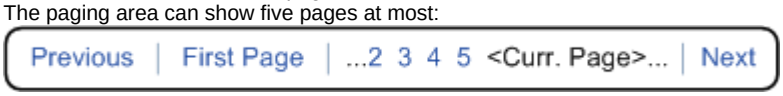


Example:
The following screenshot is taken from an FP3.0 ByD system:



2. The paging area allows to navigate between the search result pages. *Previous, First Page* and *Next* change between text and link depending on the context. For example, if the user displays the first page, *Previous* and *First* are texts.

- "..." indicates that more result pages are available
- The paging area can show five pages at most:



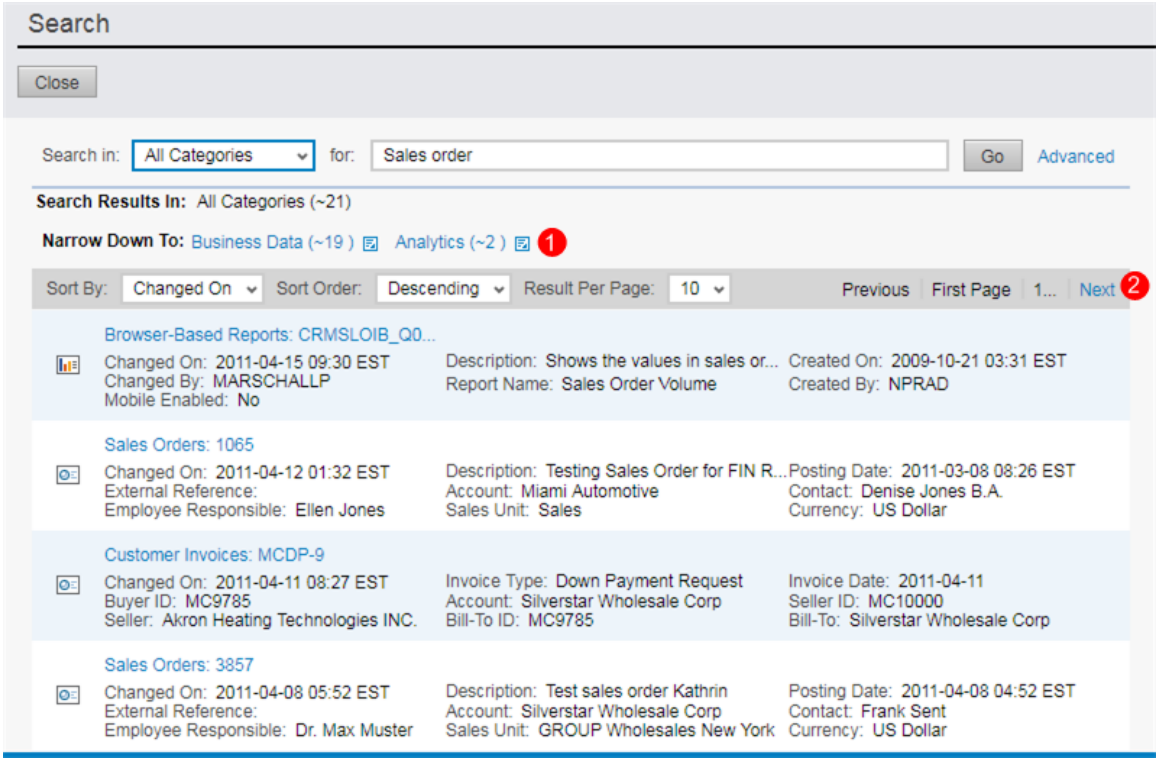
NOTE: If the search result does not fit on the screen, a scrollbar will be available. It scrolls the the whole window and not in the result area which avoids having two scrollbars.

Top

Examples

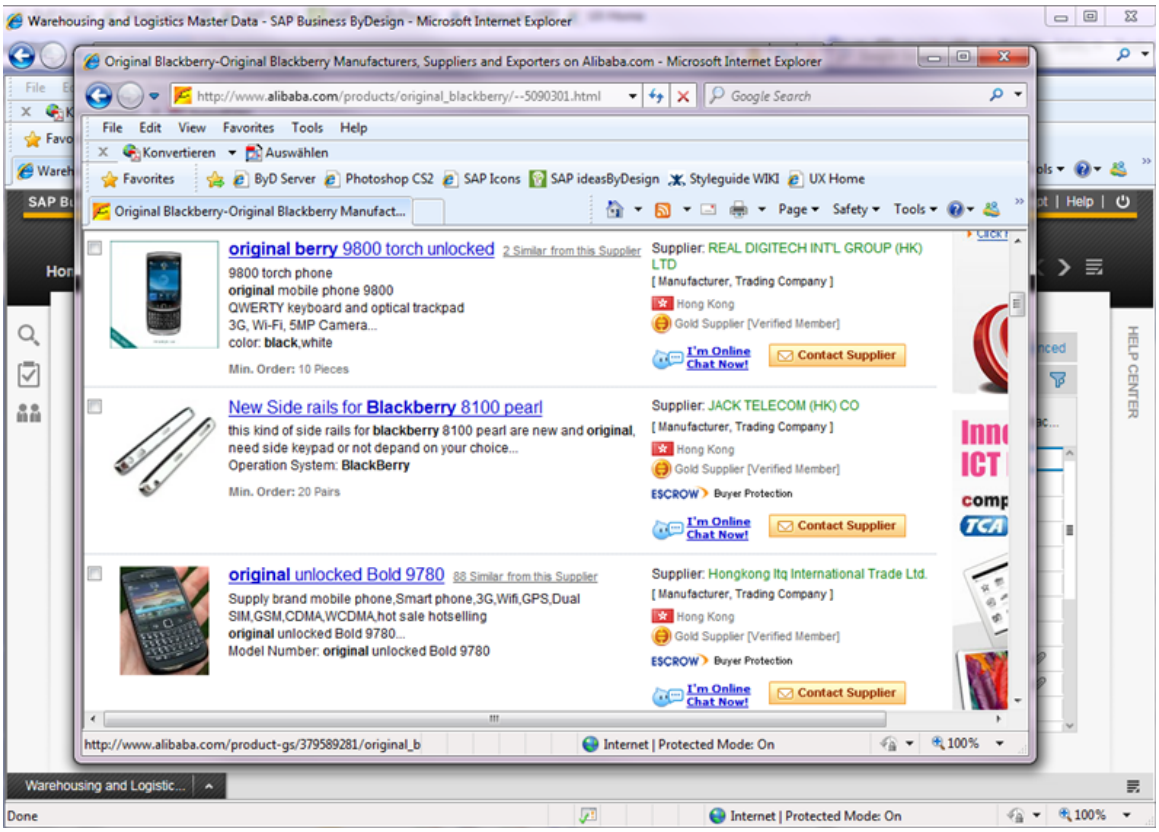
Internal Enterprise Search Result

The following screenshot is taken from an FP3.0 ByD system:



Enterprise Search Result for external Websites

When searching external websites they are shown in a new browser window:



Top

More Information

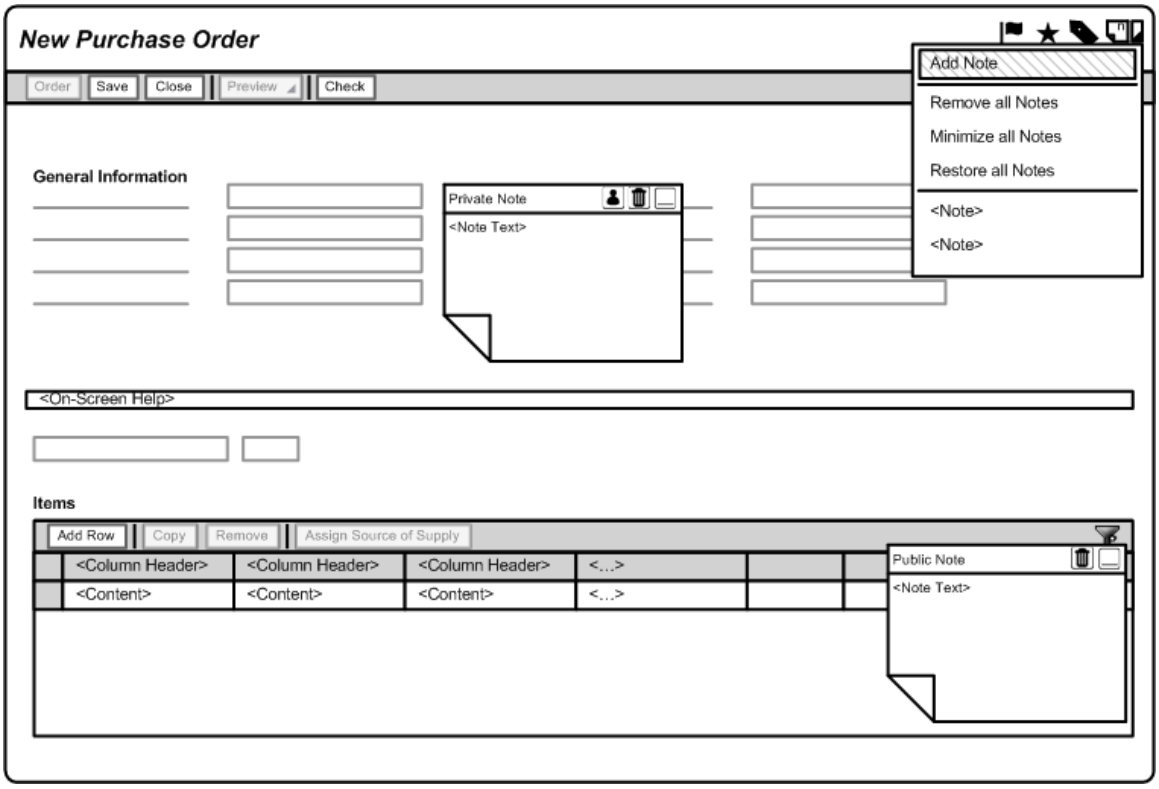
Find Form

Help, Sticky Notes, Tags, Shelf

Page Content

Sticky Notes

Sticky Notes allow the user to add own notes and comments to a business object (BO) which uses the sticky notes architecture. Sticky notes can either be private or public.

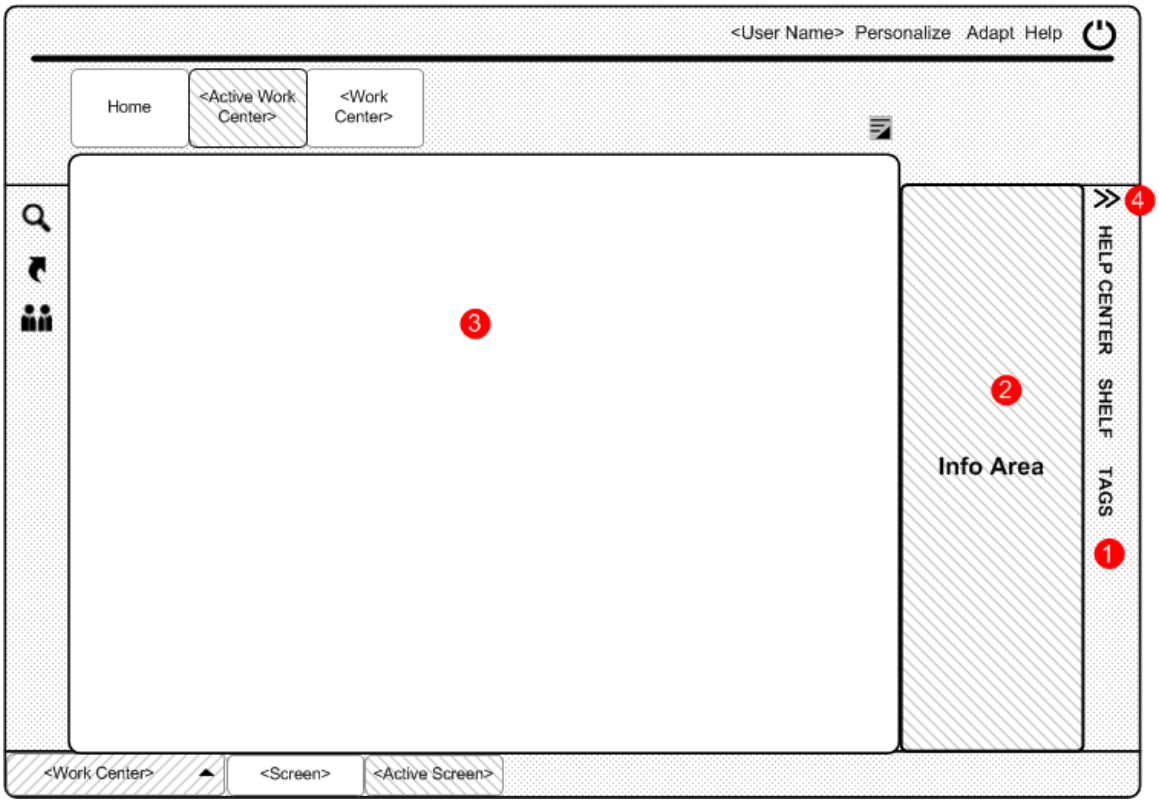


Top

Info Area: Help, Shelf and Tags

Help Center, **Tags** and the **Shelf** with **Flags** and **Favorites** are elements of the info area, which can be opened from the Infobar.

NOTE: The Shelf with Flags and Favorites and the Tags are only enabled on Business Objects using the sticky notes architecture.

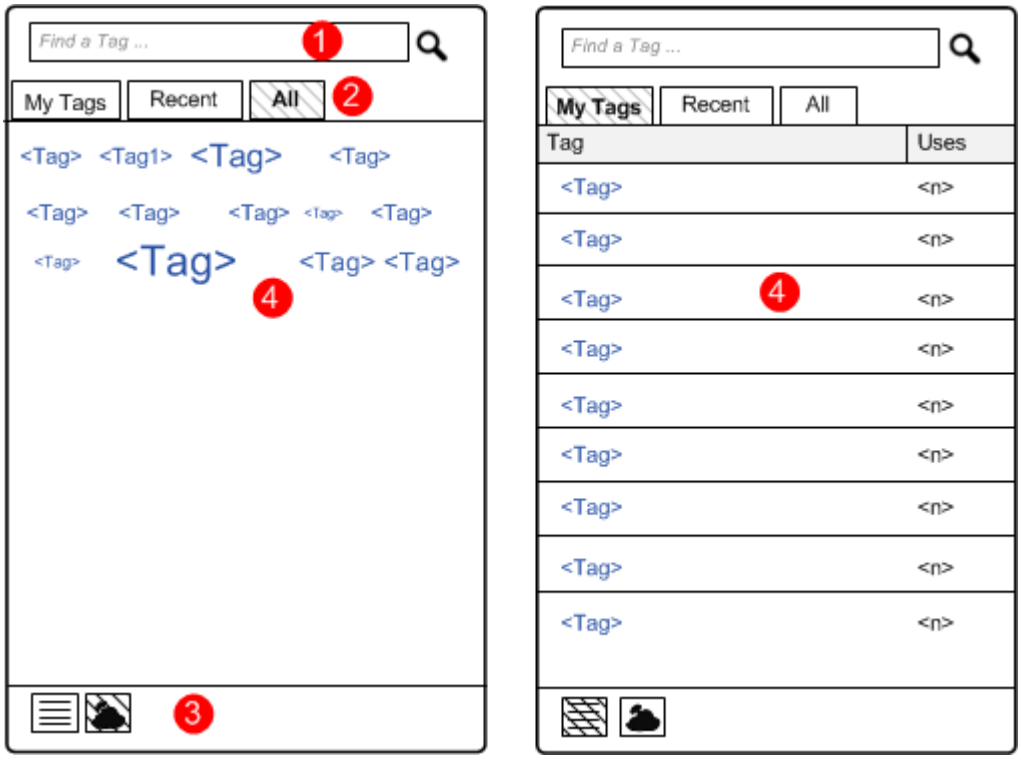


1. **Infobar**: A click on an item of the Infobar (such as Help Center, Shelf or Tags) opens the item in the info area.
2. **Info Area**: The info area opens from the right hand side of the screen between Infobar and content area. The info area is context-independent from the active Work Center.
3. **Content Area**: When opening the info area, the content area is dynamically resized to make room for the info area. The user can adjust the right border of the content area which directly affects the width of the info area.
4. **Close Icon**: Closes the info area and restores the size of the content area.

Top

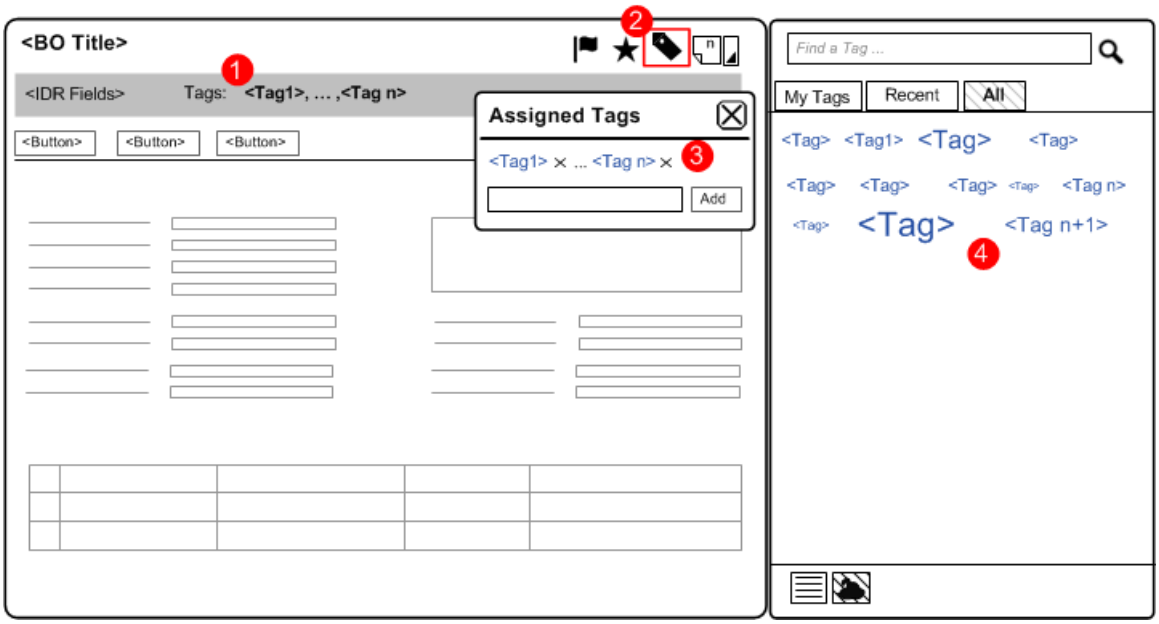
Tags

Tags are keywords that allow the user to categorize and search for business objects. Tags can be viewed in the info area as a list and as a cloud view. A click on a tag opens the Enterprise Search which finds the business objects this tag is assigned to.



1. **Search Field**: The user can enter a search string (without spaces) to search for existing tags. The search shows all tags containing the entered text.
2. **Tabs**: The tabs organize the tags for the user.
   - *My Tags*: Shows tags the user entered.
   - *Recent*: Shows tags that were recently used to tag business objects. In the table view this list is sorted chronologically so that the tags that were used most recently appear at the top of the list.
   - *All*: Shows all tags in the ByDesign system.
3. **Toolbar**: Lets the user switch between table view and cloud view.
4. **Content Area**: Depending on the user's selection in the toolbar the tags are shown in a tag cloud or in a table. Each tag in both views has a link to the result list of the Enterprise Search. The table in the table view has two columns:
   - *Tag*: Shows the tag name.
   - *Uses*: Shows the number of business objects tagged with this tag.

Assigning Tags to Business Objects



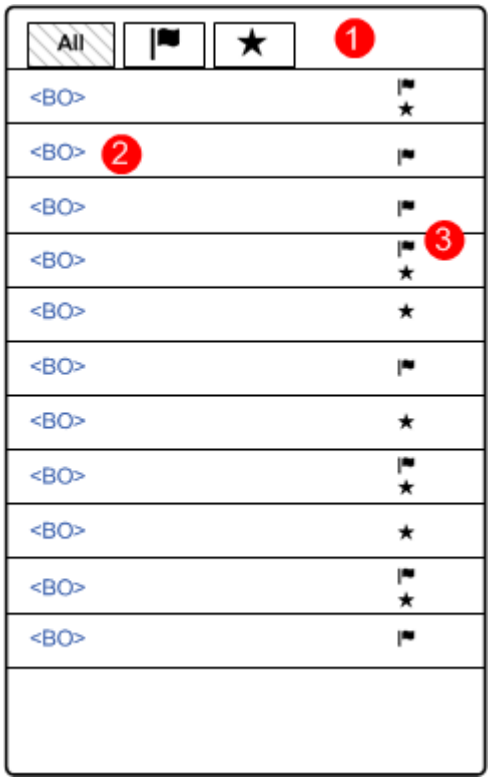
1. **Identification Region (IDR)**: Tags assigned to the Business Object are visible in the IDR.

2. **Tag Icon**: A highlighted tag icon indicates that tags are assigned to the Business Object – a grey tag icon means that no tag is assigned. A click on the tags icon opens the *Assigned Tags* dialog.
3. **Assigned Tags Dialog**: The user can assign tags to the BO or remove assigned tags from the Business Object. The already assigned tags are displayed underneath the title bar. To assign a tag to the BO the user types in a keyword in the input field where the suggest feature offers a list of existing tags. Clicking the *Add* button assigns the new tag.
4. **Info Area**: Once a tag is created it appears in the info area in the tag cloud or tag table.

Top

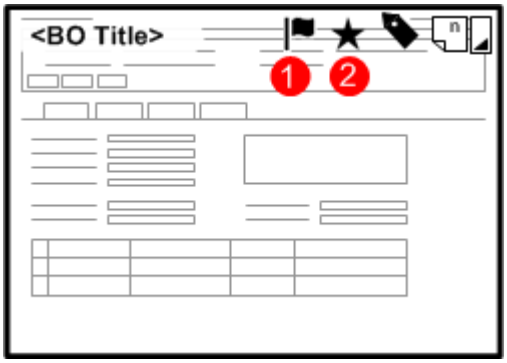
Shelf with Flags and Favorites

The **Shelf** is opened from the infobar and contains flags and favorites the user set for business objects (BO). Flags mark BOs for a later reference, favorites mark BOs used frequently.



1. **Tabs**: The tabs show either flags or favorites or both.
   - *All*: Shows all business objects marked with a flag or a favorite.
   - *Flags*: Shows all business objects set with a flag.
   - *Favorites*: Shows all business objects set as favorite.
2. **Business Objects Column**: Shows the BO type as a link. Clicking on a BO name opens the business object.
3. **Flag / Favorite Column**: A small flag indicates that the BO is flagged. A small star indicates that the BO is set as a favorite. If a BO is flagged and set as favorite both icons are shown in the *All* tab.

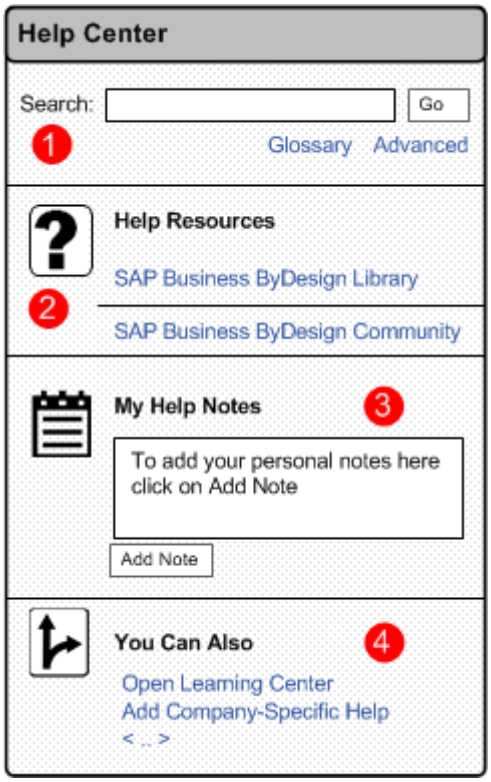
Flagging and Setting BOs to Favorites



1. Clicking the *Flag* icon flags the business object and a second click removes the flag.
2. Clicking the *Favorite* icon sets the BO as a favorite and a second click removes the BO from the favorites.

Top

Help Center



The **Help Center (HC)** is an area that can be called up from within any application to display context-sensitive help and learning content. It provides the user with the following information:

- Help Resources
- My Help Notes
- Links to contact support, to open the Learning Center and others

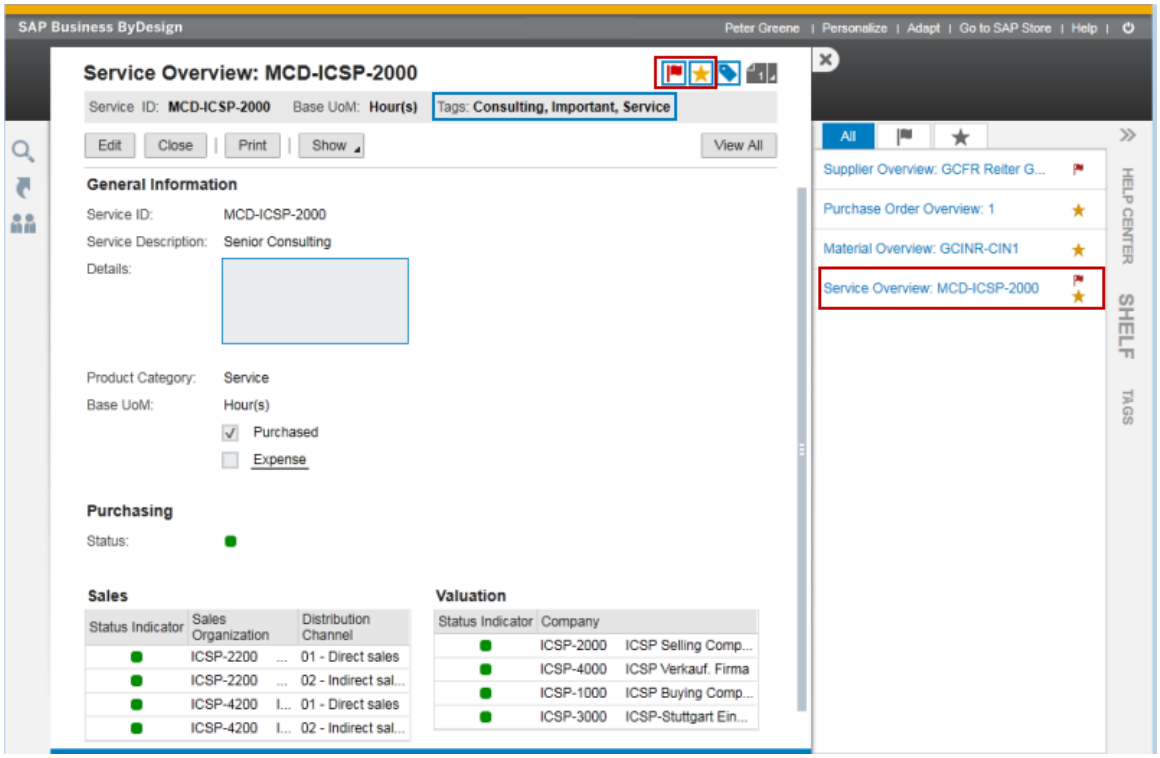
The Help Center consists of the following areas:

1. *Search* area:
    - Goggle-like search: Enables the user to search for documentation and learning content. The search result is displayed in the HC area.
    - Advanced search: Offers boolean operators to create more accurate search results.
    - Glossary search: Enables the user to search in the glossary.
2. *Help Resources*: Offers links to documentation provided by SAP and the customer. Key users can also access the ByD community on the Business Center.
3. *My Help Notes*: Allows the user to manage their personal notes such as create, edit, and delete notes. Notes are context-sensitive and only visible to the user who created them.
4. *You Can Also*: Offers links such as contact support or open learning center.

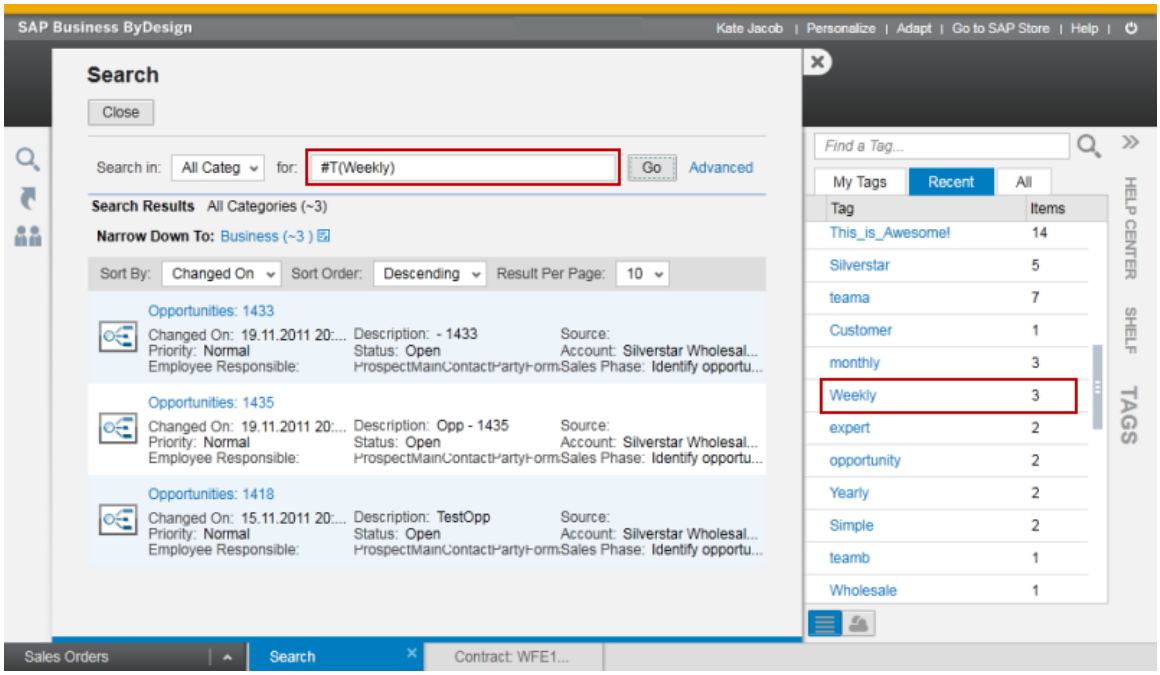
Top

Examples

Flags and Favorites
The following screenshot is taken from an FP3.5 ByD System.



Tags
The following screenshot is taken from an FP3.5 ByD System.



More Information

Accelerator Keys and Hot Keys
Navigation in the Shell
Personalization and Adaptation
Primary Help
Shell
Value Help

Office Integration

Page Content

Guidelines for UI Development
With FP3.5 it is not possible to export data into Adobe PDF®.
It is also not possible to remove the *Export* menu if only one entry is available.

Definition: Office Integration

Office Integration enables users to work in their known office environment, for example Microsoft Office®. They can download table content into Microsoft Excel® or Adobe PDF®. The content is either downloaded for viewing or for editing. The user can also create new content in Microsoft Excel and upload it into ByD. Users can also exchange information between Microsoft Outlook and the ByD system, for example synchronizing emails, appointments, and tasks.

Top

Export to Office Applications

Table content, usually Object Worklists (OWLs), can be exported to Microsoft Excel or Adobe PDF. All table columns including the hidden ones are exported. It is a precondition that export templates are defined in the Work Center *Application and User Management*. The following types of export templates exist:

- **Export only**: The user can view the table data and apply the native functions of the Office application, for example print. If the user changes any data in the office applications the data can **not** be saved in ByD.
- **Export, change data, and save** (not possible for Adobe PDF): The user can change the data in Microsoft Excel and save the changes in ByD.

Export Button in OWLs

- Use the *Export* menu button with the mandatory entry *To Microsoft Excel*. If one template is available the windows standard download screen appears. If more than one template is defined, a dialog window is launched and the user can select the respective template.
- If the *Export* menu button contains only one entry, the menu is removed, see Menu Buttons.
- Place the *Export* button after the *New* button or - if available - after the *Preview* button, see also Consistency Rules: OWL.

Export, Change, Refresh, and Save

Data are exported into Microsoft Excel using a template for the export. In Excel the data can be viewed or modified. The modified information can be imported into ByDesign.

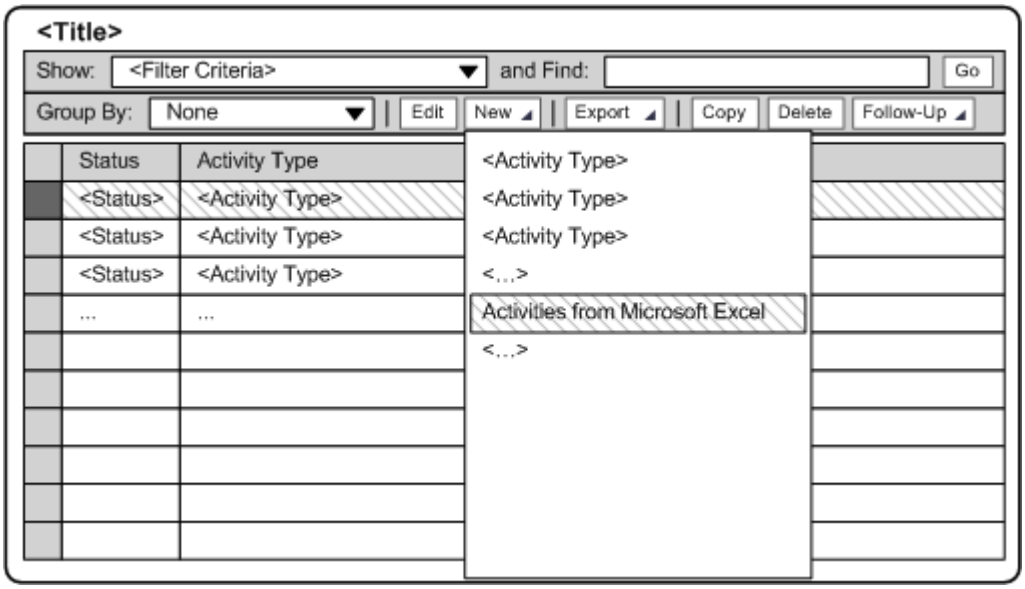
The export template contains an add-in with ByD functions such as:

- *Save Data to*: Saves data in ByD
- *Refresh*: Gets the latest data from ByD. The current data in the Excel sheet is overwritten with the latest ByD data.

Top

Import from Office Applications

For importing new data into ByD import templates need to be defined in the Work Center *Application and User Management*. The applications decide whether import templates are provided.



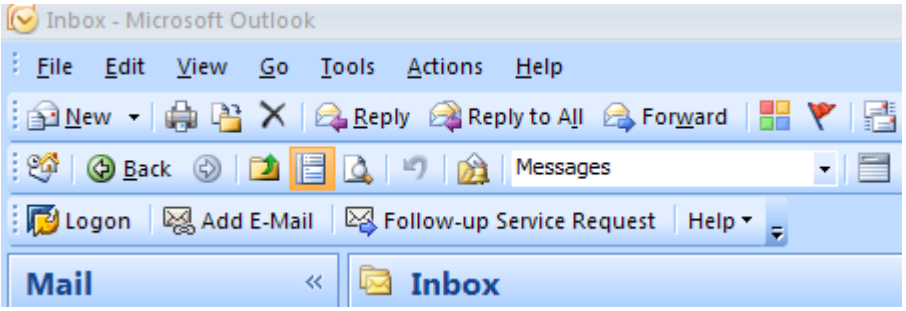
- Put the import function under the *New* menu button.
- Name it *<Business Object> from Microsoft Excel*, for example *Activities from Microsoft Excel*.

Top

Microsoft Outlook Integration

As an example, the ByD Customer Relationship Management (CRM) uses Microsoft Outlook integration to synchronize e-mails, appointments and tasks and to download relevant account and customer information to Outlook. Additionally, the users can create follow-up service requests directly in Microsoft Outlook out of incoming emails. They can also associate e-mails, tasks and appointments with ByD campaigns or opportunities.

The add-in toolbar for the CRM use case looks as follows:



The user can, for example:

- *Add E-Mails*: Synchronizes the selected e-mails with ByD
- *Follow-Up Service Request*: Creates a sevice request for the selected e-mails

Top

More Information

Object Worklist

Personalization and Adaptation

Page Content

Definition: Personalization/Adaptation

Personalization is the adjustment of software by the end user to meet the user's specific working style. Users can, for example, personalize which content is shown on the *Home* page, adjust the sequence of their Work Centers, and show and hide fields in forms and tables.

Adaptation is the adjustment of software by the key user to meet the company's specific working style. It also includes adding new fields to a screen and its related screens as well as creating mashups. Adjustments can be published to all users.

Top

Personalize/Adapt via Side Panel

Virtually all personalization/adaptation is carried out in the side panel. The side panel can be opened on the right side of each screen and allows to personalize/adapt the screen's elements such as ICPs, forms, fields, quick links, tables, mashups.

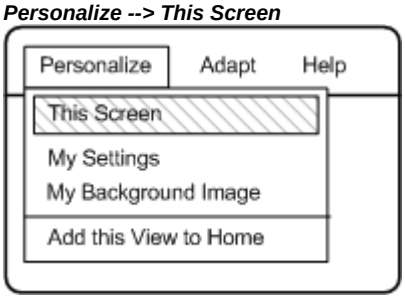
The adaptation mode is only visible for key users and extends the personalization functions with adding new fields and mashups.

Accessing the Side Panel

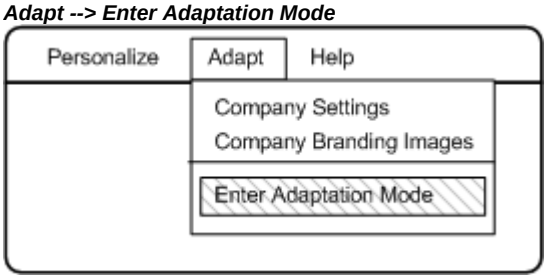
The user can access the side panel:

- For personalization via *Personalize --> This Screen*
- For adaptation via *Adapt --> Enter Adaptation Mode*

Personalize --> This Screen



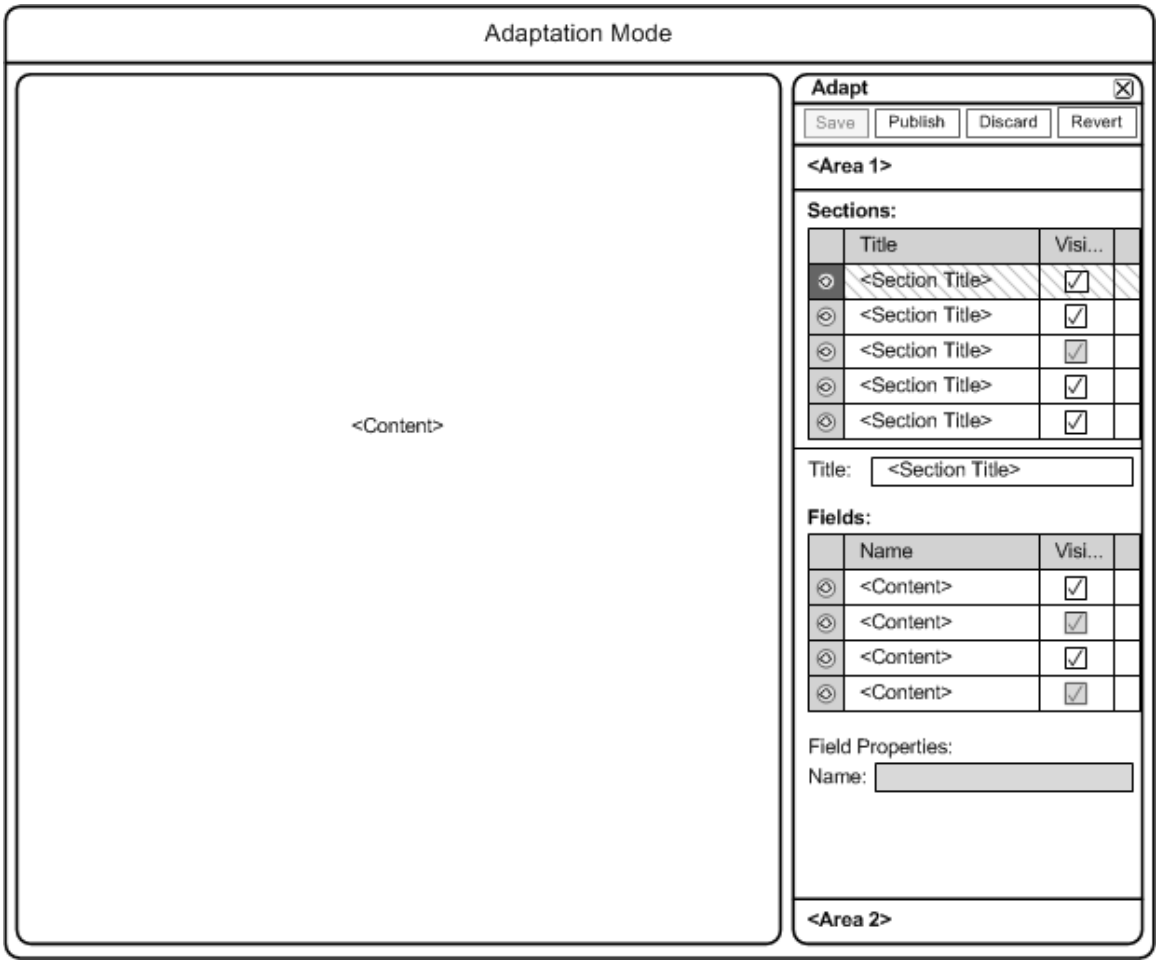
Adapt --> Enter Adaptation Mode



Showing the Side Panel

The side panel shows all elements that can be personalized/adapted for the selected page. When showing the side panel, the visualization of the content area changes.

The following example shows the side panel for adapting a screen. The user can select which section groups are shown, change the title of the section groups, select the fields which are shown in a section group, etc.



Top

Additional Personalization / Adaptation Features

The following personalization features are available (they are not carried out in the side panel):

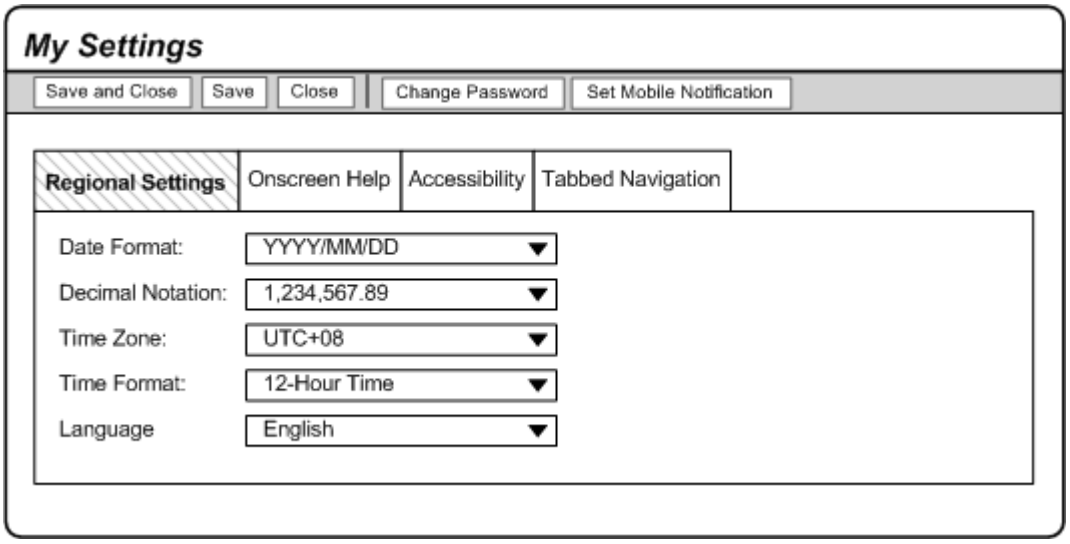
- My Settings
- Sticky Notes
- Changing the image shown in the navigation area, the taskbar and the infobar (via *Personalize --> My Background image*)
- Changing the Work Center sequence via drag and drop. *Home* can not be moved. It is always on the left.

The key user can carry out additional functions such as changing the *Getting Started* image or adapt the shell to the company's branding.

My Settings

Users can define their settings via *Personalize --> My Settings.* These settings include for example:

- *Regional Settings*: Allows to define date and time format, time zone, decimal notation, language
- *Onscreen Help*: Allows to select whether help on screens, country-specific help and learning content should be displayed
- *Accessibility*: Allows to switch on accessiblity mode
- *Tabbed Navigation*: Allows to define whether new screens are opened in a tab on the bottom or in a new window



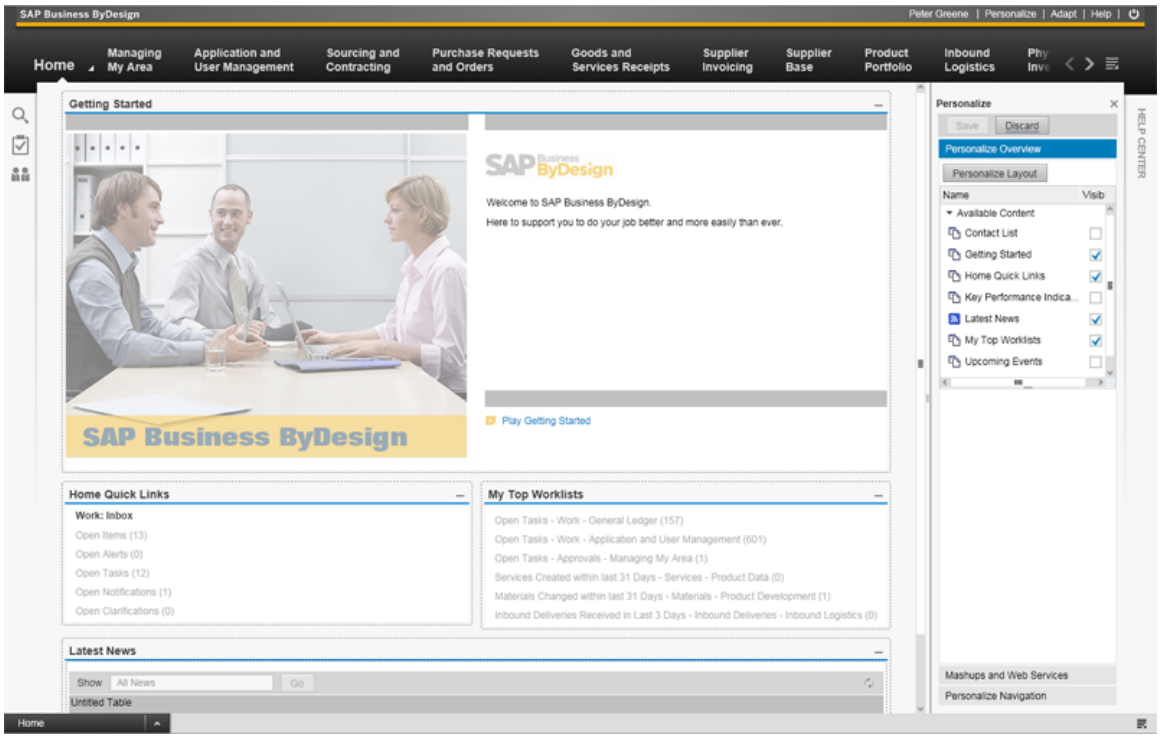
Examples (Side Panel)

Find examples for:

- Personalize Home
- Personalize Work Center Overview
- Personalize Forms
- Personalize Tables
- Personalize ICPs
- Personalize Quick Links
- Personalize Mashups
- Personalize Calculations

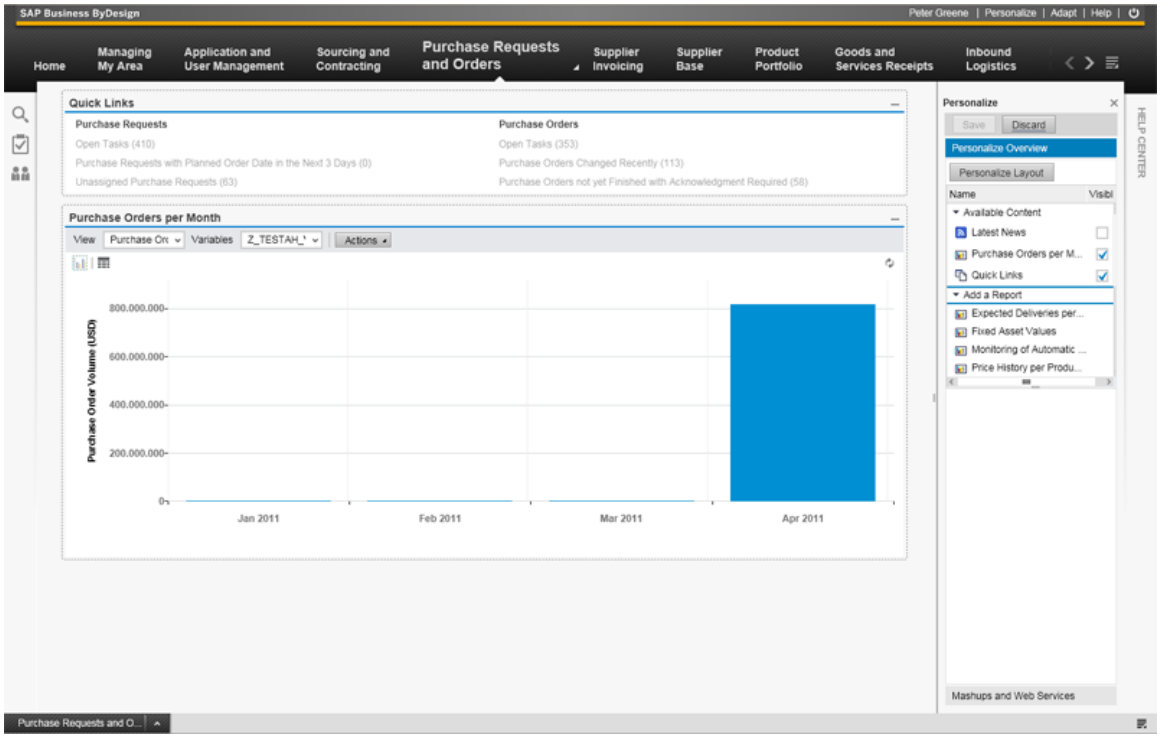
Personalize Home

The user can define, for example, which content should be shown, add reports and mashups and define the layout.



Personalize Work Center Overview

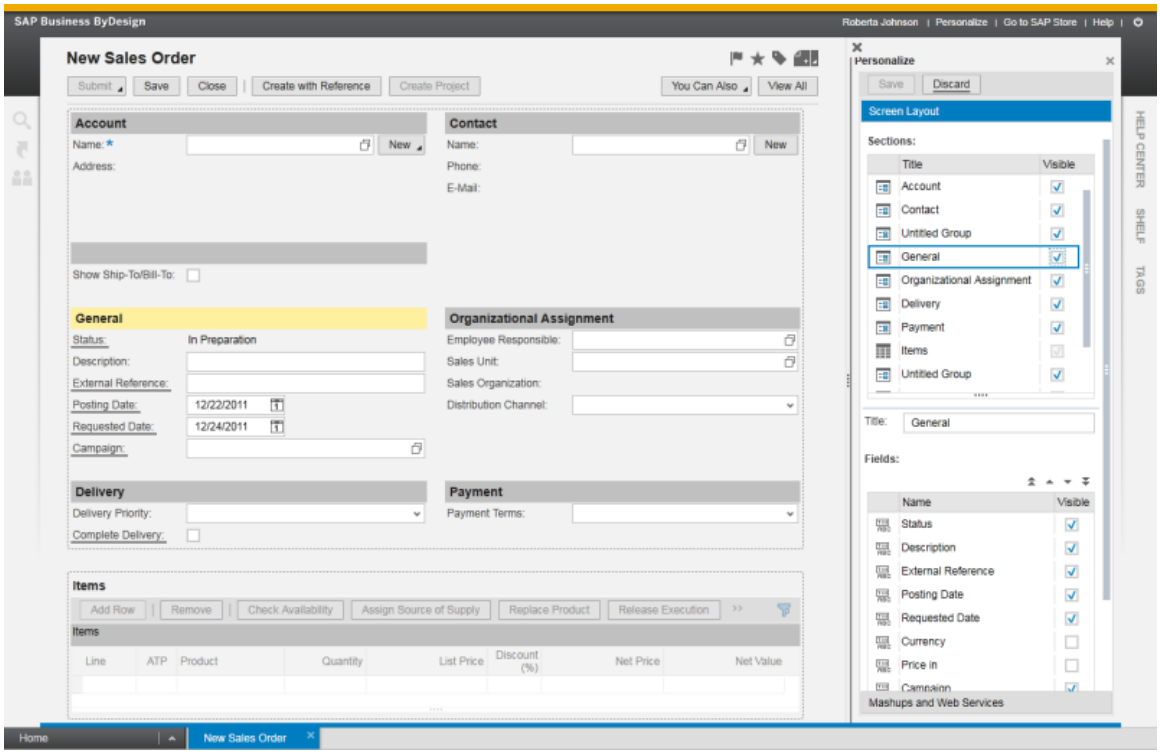
The user can define, for example, which content should be shown, add reports and mashups and define the layout.



Personalize Forms

The user can define, for example:

- Which section groups are visible
- The title of the section group
- Which fields of a section group are visible
- The label for a field

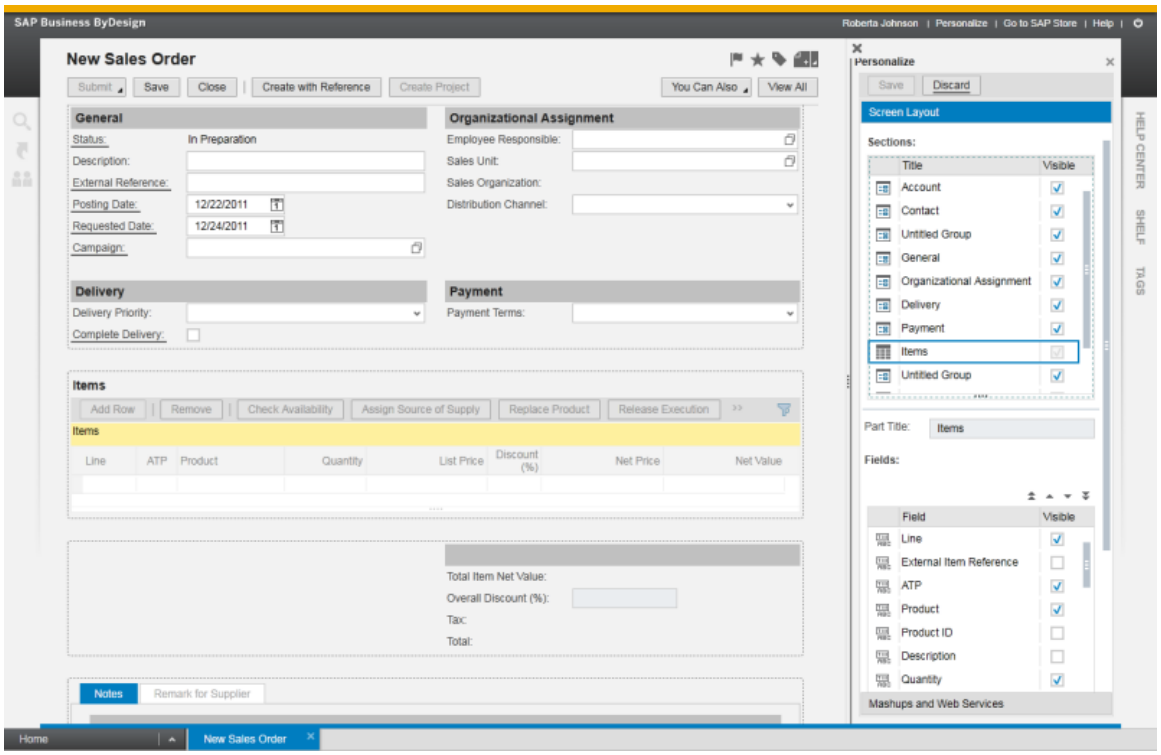


Personalize Tables

The user can define, for example,

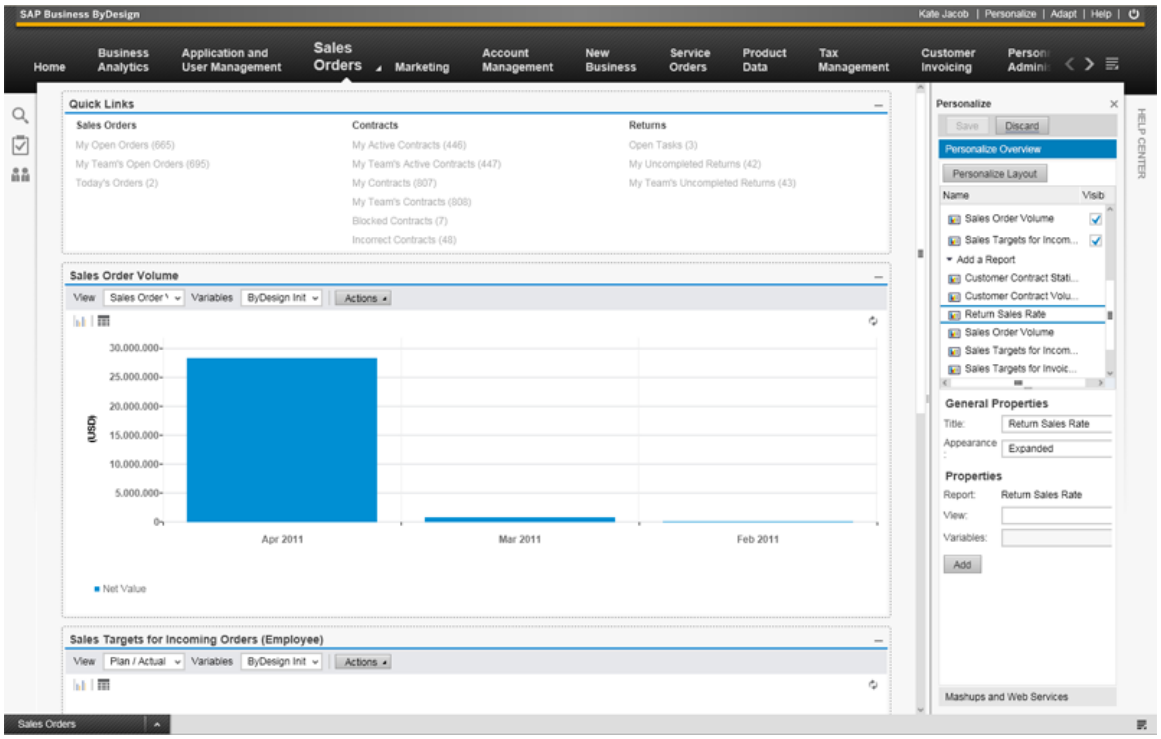
- Which fields should be shown and which should be hidden
- Number of displayed rows and columns, the table design, and the grid lines

- Calculation fields and the calculation parameter
- Which columns should be sorted and the sort direction.



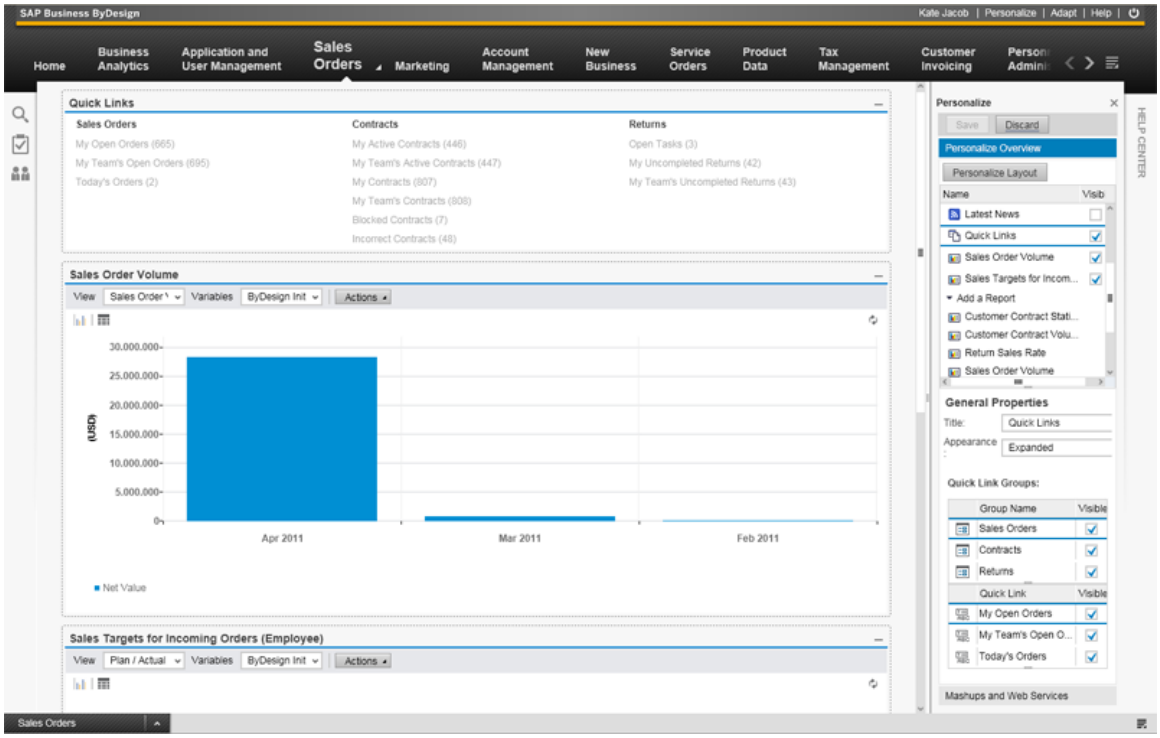
Personalize ICPs

The user can define which ICPs are shown and how they are arranged (one or two-column layout).



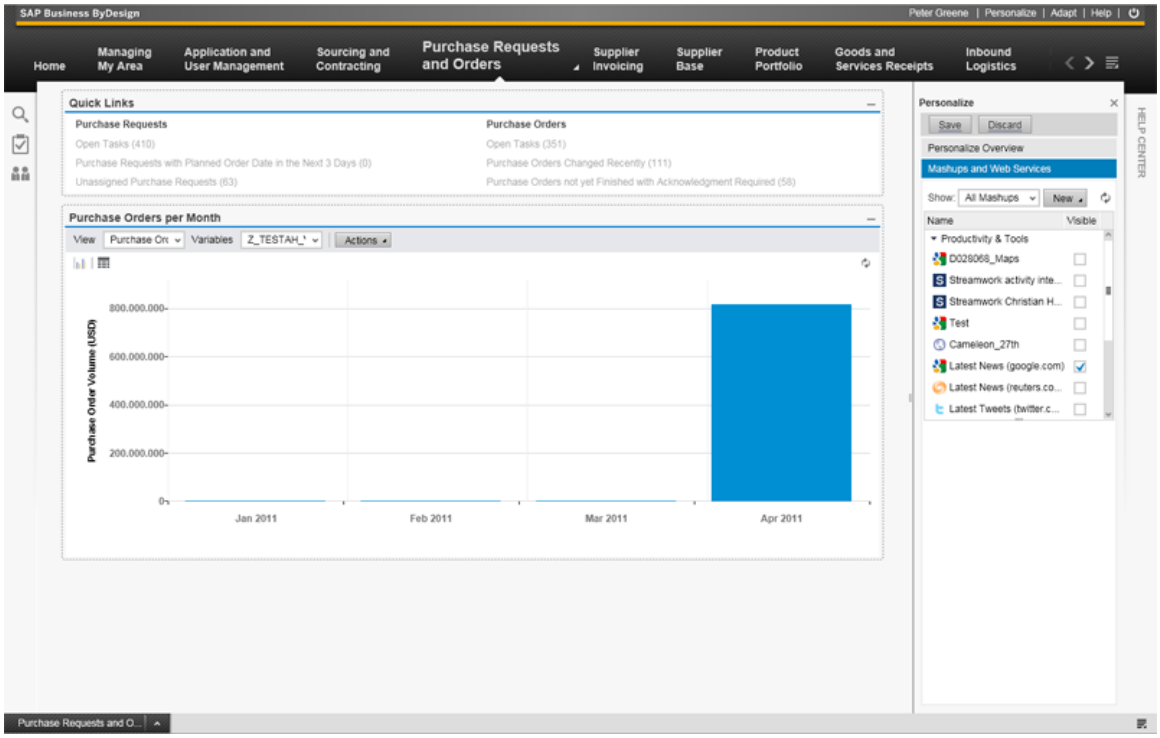
Personalize Quick Links

The user can change the title *Quick Links* and define which groups and links are shown.



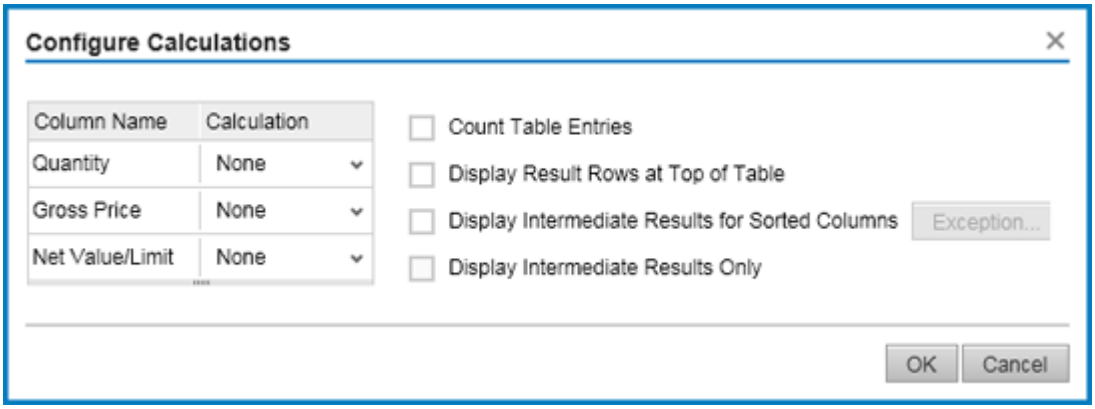
Personalize Mashups

The user can select mashups from the side panel. The mashups are added by the key user via adaptation.



Personalize Calculations

It is possible to display calculations in table views such as OWL and TOWL. The user can choose which kind of calculation should be done (for example sum or average). The following screenshot is taken from an FP3.0 ByD system:



Top

More Information

Common Tasks
Object Worklist
Sticky Notes
Work Center

Floorplans and Patterns

Floorplans and Patterns

Summary

In this chapter you find detailed guidelines for your mockup development and all the information you need to learn about the right usage of floorplans and patterns. The pages starting with "F -" describe the floorplans.

F - Fact Sheet

Page Content

Definition: Fact Sheet

A **Fact Sheet** (**FS**) is a one page overview of an object in a display-only presentation. It has the following attributes:

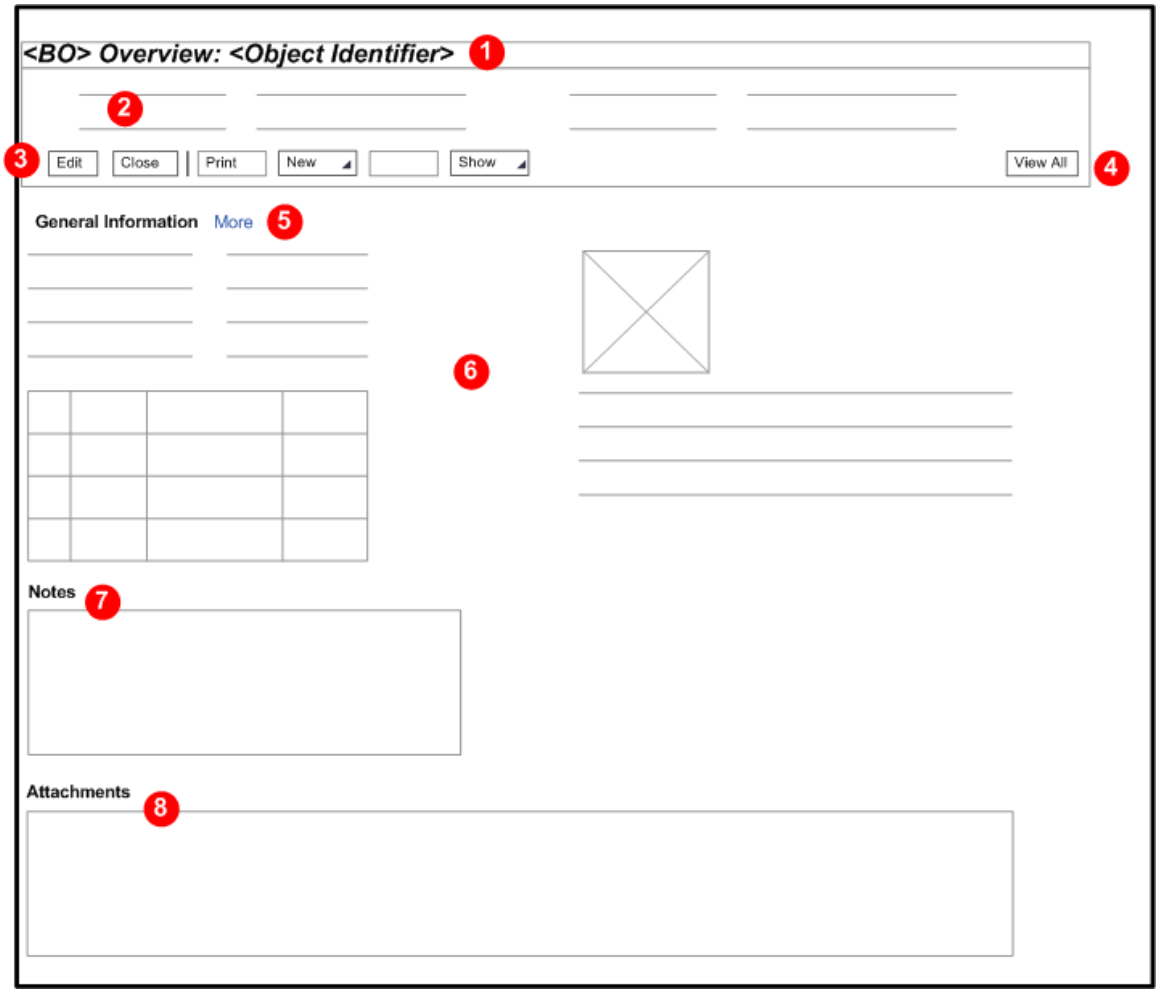
- Displays the most important properties of an object
- Comprises of one flat page without tabs and master-detail relationship but can have different views reachable via a *Show* menu button
- Contains additional links for navigating to related objects

Usually, a Fact Sheet contains the following elements in a display-only representation:

- Forms
- Lists
- ICPs
- Images

Top

Consistency Rules



1. **Title**: Choose the following syntax: *<BO Type> Overview: <Object Identifier>*.

Example: *Purchase Order Overview: 456343#** See Usage in Titles on how to to display the object identifier in titles.
    - See Floorplan Titles (Fact Sheet, QAF, OIF, GAF) for additional guidelines for the title syntax (such as hierarchies or versions).
2. **IDR**: Use an IDR. The fields and their order should match the ones used in the associated OIF or QAF, see Identification Region.
3. **Buttons**:
    - *Edit:* Opens an editable screen. If QAF and OIF are available for the object, *Edit* opens the QAF (*View All* opens the OIF). If only an OIF is available for the object, *Edit* opens the OIF.
    - *Close:* Is mandatory and closes the Fact Sheet.
    - *Print:* Is mandatory and prints the information disaplayed on the screen. You can additionally use *Preview* for form-based printing. The order is *Print*, *Preview*.
    - *New^*: Is mandatory for Business Task Management (BTM), see *New* and *Actions* Buttons for BTM.
    - *Show^*: If you need to display different views in the Fact Sheet, do not use tabs. Use a *Show* menu button to switch between the different views. As the Fact Sheet should be kept simple the *Show* menu button is not recommended.
    - For more infomation see Button Placement in Toolbars.
4. ***View All***: Opens an editable OIF if the user is authorized to change the object. If the user is not authorized the read-only OIF is launched.
   If no OIF is available for the object but only a QAF, do **not** show *View All*.
5. ***More***: Use a *More* link next to the section group title as an option to navigate to a specific OIF view of the according BO.
6. **Tables**: Show tables in Fact Sheets in display-only mode. Display as many rows as needed, but no more than 50.
   You can use a toolbar, a *Show* dropdown list, and the basic/advanced search. A Master-Detail relationship is not allowed.
7. **Notes:** Put the notes above the attachments.
8. **Attachments**: Put the attachments below the notes. Use the icon display version of the Small Attachment Pane.

NOTE: For business objects that are sent to business partners (like purchase order, sales order), put the *Latest Sent Business Document* pane below the notes and attachments.

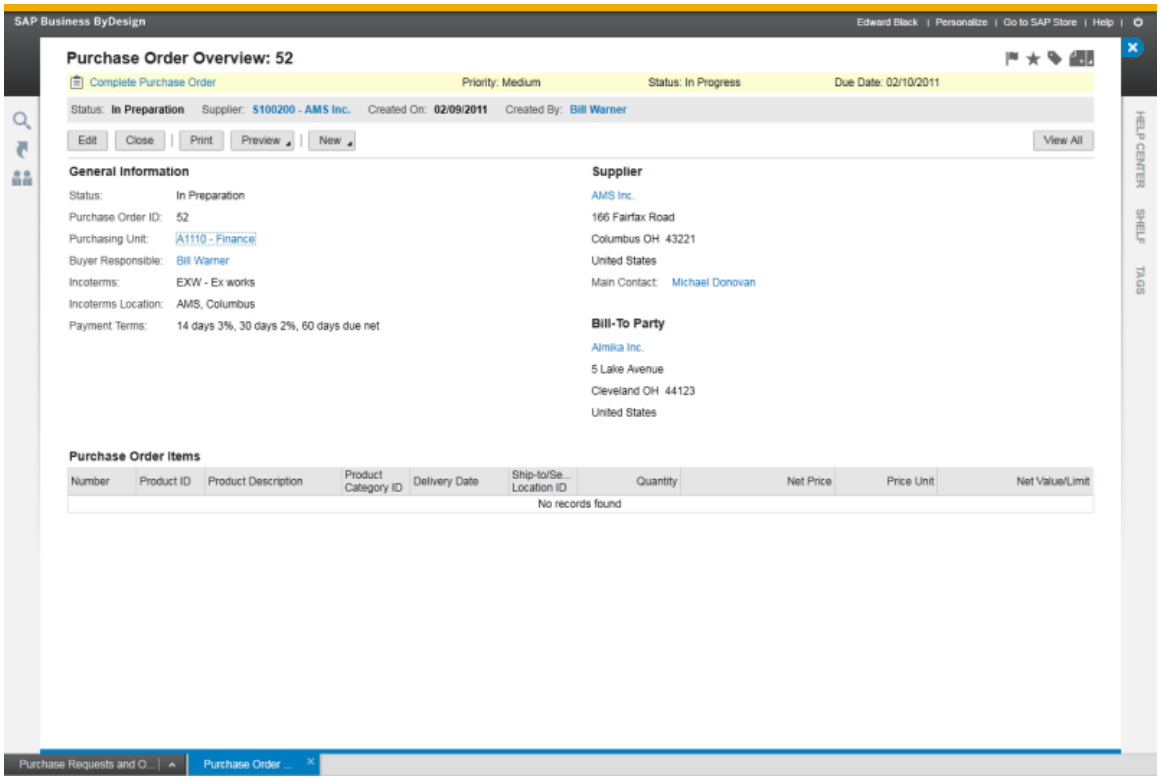
Keep in mind the following rules for the content area:

- Use a two-column layout.
- Place the basic data section on the top. This section contains the data of the business object.
- Place the advanced data below the basic data. This section contains additional data of the business object and also data from related business objects.
- Display reports in ICP layout.

Top

Examples

The following screenshot is taken from an FP3.5 ByD system:



Top

More Information

Form Pane
Image
Information Consumer Pattern
List Pane
Newspaper Layout
Adobe PDF Forms

F - Guided Activity

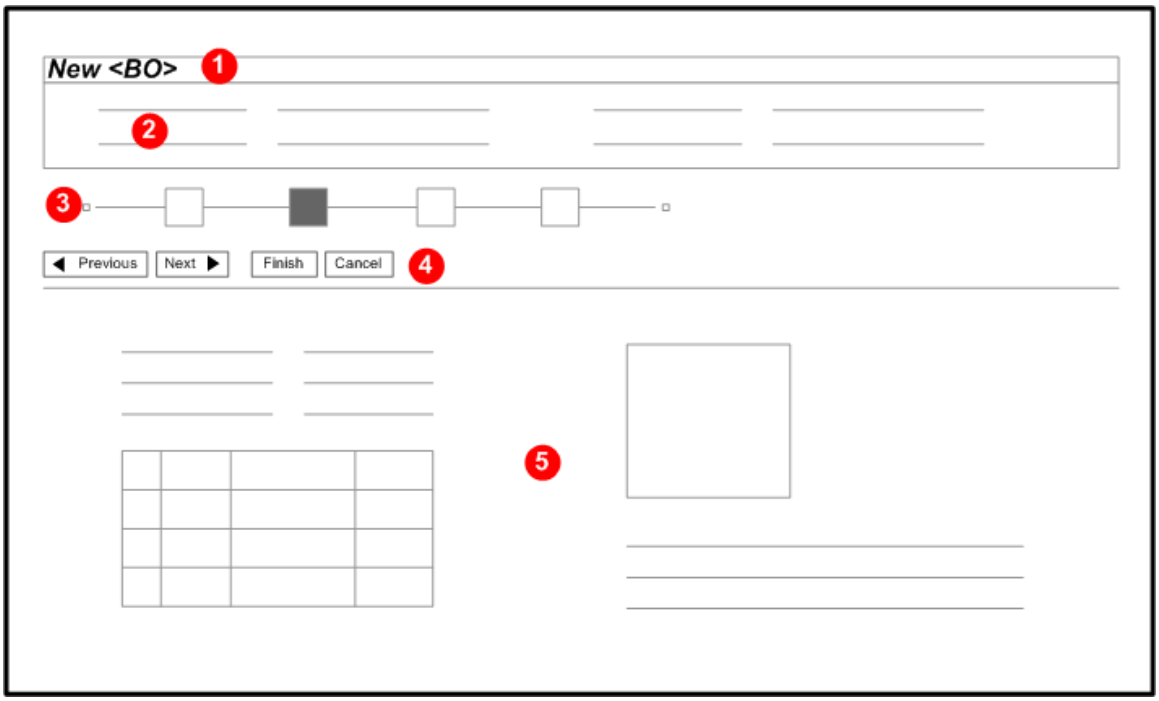
Page Content

Definition: Guided Activity

The **Guided Activity Floorplan** (**GAF**) is a floorplan for an activity that can be divided in a logical sequence of steps. It consists of a series of screens that guide the user through an activity to achieve a specific goal. A roadmap provides a visual representation of the whole activity. The GAF can be used to create a business object regardless which floorplan is used to review and edit this business object later. The last step in the sequence is mandatory and called *Confirmation*. It appears **after** the user saved the data and displays a confirmation mesage. The optional step before the confirmation is called *Review*. In a review step the most important data is displayed to be checked by the user.

Top

Consistency Rules: Editable Steps



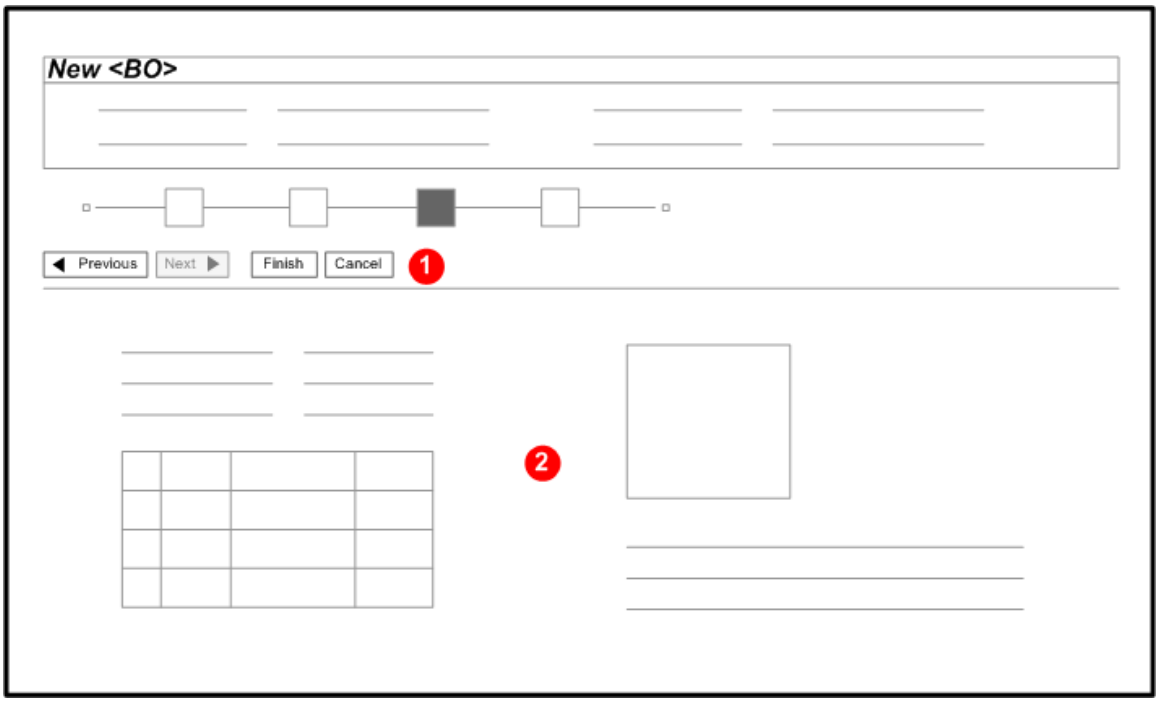
1. **Title**: Choose one of the following title syntax:
   - *New <BO Type>* for creation, for example *New Request for Quotation*
   - *<Action> <BO Type>: <BO Identifier>* for other actions (BO Identifier is optional), for example *Edit User and Access Data*
   - See Usage in Titles on how to disply the object identifier in titles.
   - See Floorplan Titles (Fact Sheet, QAF, OIF, GAF) for additional guidelines for the title syntax (such as hierarchies or versions).
2. **IDR:** The IDR is optional. If you use an IDR, show the labels on each step. Display the content step by step when the data has been entered.
3. **Steps:**
   - Number: Avoid using more than 9 steps.
   - Labels: Use *Review* (optional) and *Confirmation* (mandatory). Name the steps accurately. Use verb plus noun such as *Define Bidders*.
4. **Toolbar Buttons**: Use the following mandatory toolbar buttons: *Previous*, *Next*, *Finish* or *<F-Action>*, and *Cancel*. The *Finish* or *<F-Action>* button should be active from that step on when the user entered all mandatory data, at the latest on the *Review* step. For guidelines concerning toolbar buttons see Button Placement in Toolbars.
5. **Content area**:
   - Use a two-column layout for GAFs. Avoid three column layouts and broad tables.

- Use a flat content structure. Do not use tabs, better think of putting the information on different steps.

NOTE: Do not use both, *Save* and *Finish*, in GAFs. If you want to allow the user to save data before finishing, use *Save Draft* and make sure that the status of the business object is *Draft.*

Top

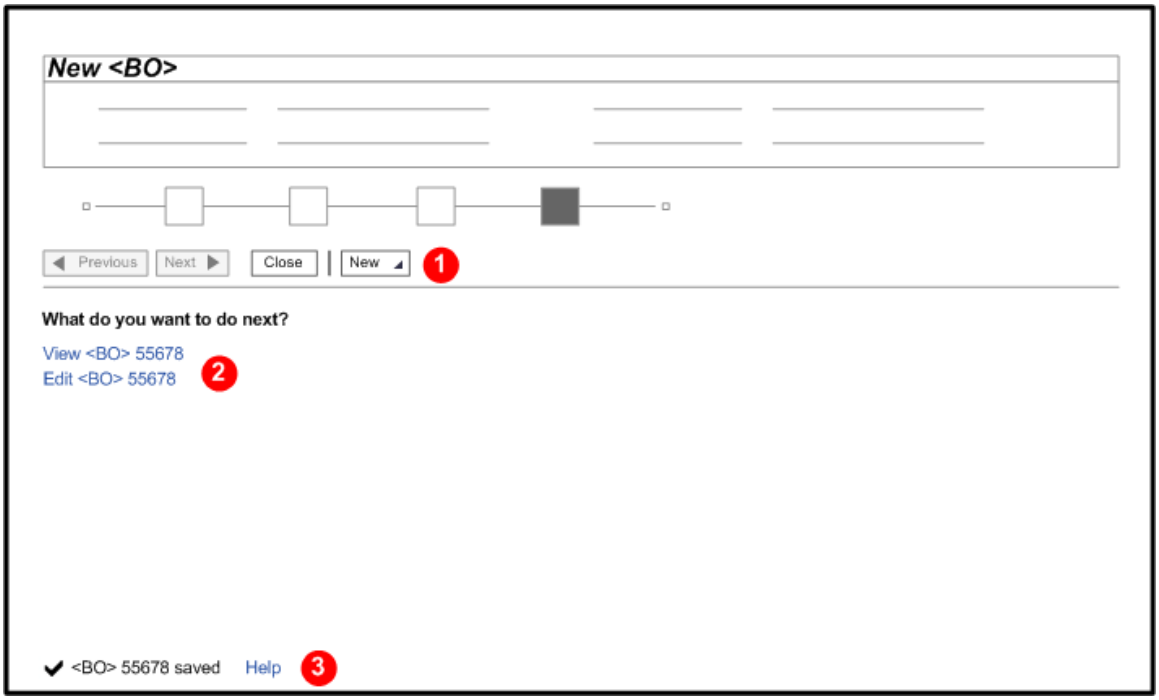
Consistency Rules: Review Step (Optional)



1. **Toolbar Buttons**: Use the following mandatory toolbar buttons: *Previous*, *Next* (disabled), *Finish* and *Cancel*. *Preview* can be added when needed.
   For guidelines concerning toolbar buttons see Button Placement in Toolbars.
2. **Review Content**: Summarize the information which is really important for the task and/or has been entered by the user. The content area is in display-only mode.

Top

Consistency Rules: Confirmation Step (Mandatory)



1. **Toolbar Buttons**: Use the following mandatory toolbar buttons: *Previous*, *Next* (both disabled) and *Close.* The *New*^ button is mandatory for Business Task Management (BTM), see *New* and *Actions* Buttons for BTM.
   For guidelines concerning toolbar buttons see Button Placement in Toolbars.
2. **Continue Work**: Offer meaningful links which enable the user to continue work.
3. **Success Message**: Display a success message in the message area.

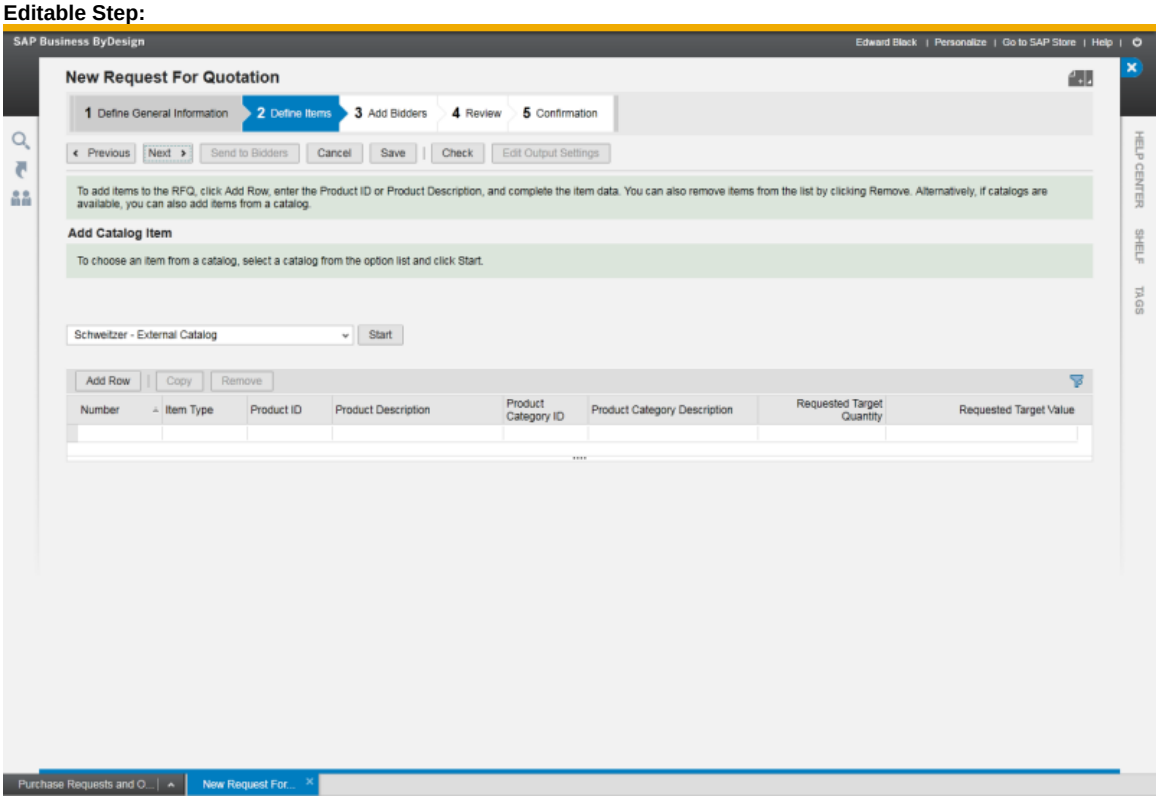
NOTE: It is possible to display additional information in the content area. For example, if a user requests products via the Self-Service *Go Shopping*, all requested materials can be displayed on the *Confirmation* step.

Top

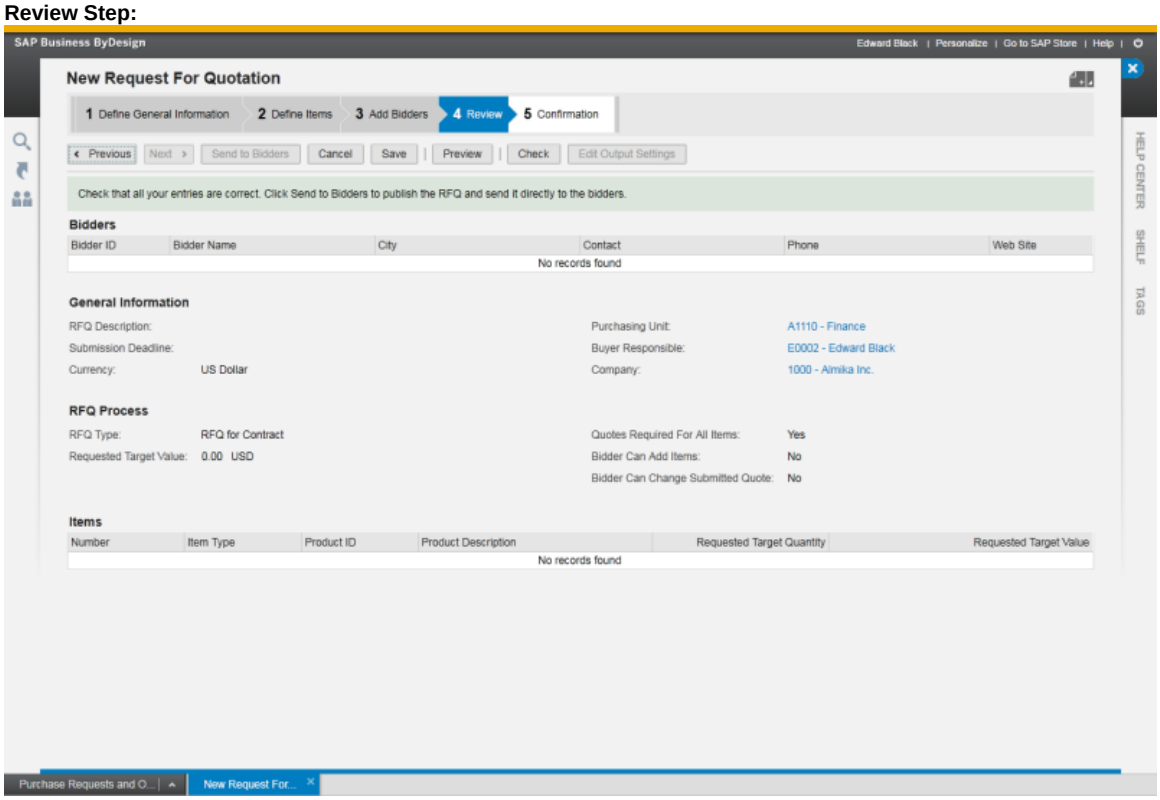
Examples

The following screenshots are taken from an FP3.5 ByD system:

Editable Step:



Review Step:



Top

More Information

Avoid Redundancy between Group Titles and Labels
Master-Detail
Form Pane
Labels of GAF Steps
List Pane
Newspaper Layout

F - Modal Dialog

Page Content

Definition: Modal Dialog

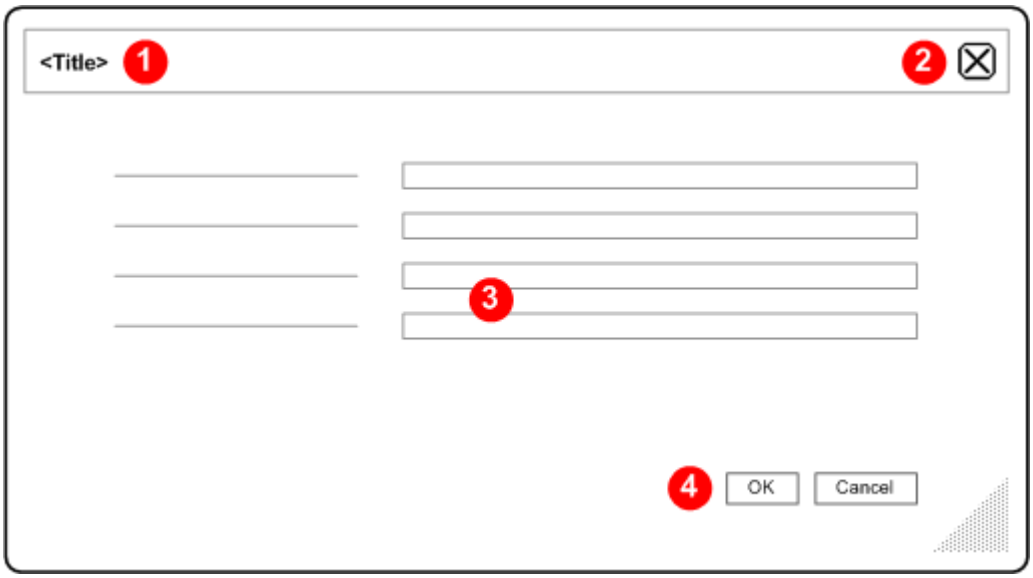
Modal Dialogs (MD) are small movable and resizable windows that help the user perform a task out of an application context. They will be triggered out of a calling application and have to be completed before the user can continue to work in the calling application. Save is usually carried out in the calling application and not in the Modal Dialog.

A Modal Dialog contains:

- A content area for all patterns
- A toolbar with actions

Top

Consistency Rules



1. **Title of a Modal Dialog**
   The window title is the only identifiying floorplan component used in a dialog and must, therefore, be self-explanatory. The title reflects the dialog's action or purpose, with contextual information included as needed. In general, the dialog title should match with the label of the button that called up the dialog.
   Example: Button label *Enter Dunning Block* - dialog title *Enter Dunning Block*.
   If several objects are affected such as mass change, the title of the dialog might read *Change Start Date (12 items selected)*.
2. **Dialog Window Patterns**
   Close X: Same as *OK* button. It is mapped on the ESC key.
3. **Content Area**
   Use the standard patterns as in other floorplans like Form Panes with groups of fields, radiobuttons, checkboxes, links, and tables, or a Browse and Collect pattern. Do **not** use tabs. Use either a single column layout (recommended) or when absolutely needed a two column layout.
   Action buttons that do not relate to the whole content area must be placed next to the UI element.
4. **Buttons**
   - In **editable** modal dialogs which allow to perform an action, label the finalizing action *OK*. You can also rename *OK* to a label that reflects the task, such as *Unmatch*. The finalizing action is mapped on the ENTER key. If needed you can use more than one action.
     The application can implement a *Cancel* function which cancels the action and resets the data. If available, place the *Cancel* button at the end.
     If the finalizing action is *Delete* or any severe action the *Cancel* function will be mapped on the ENTER key.
   - In **display-only** modal dialogs use a *Close* button only. The button is mapped on the ENTER key.

- See Button Placement in Toolbars

Top

When to Use a Modal Dialog

- When additional input from the user is needed for continuing with a task (such as referring to another object, see Create Business Objects With Reference (*Follow-Up*, *Copy*))
- When a decision is needed from the user for continuing with a task (such as confirmation dialogs, see Confirmation Dialog)
- To complete a form with additional values (such as rarely used fields of an address, see Addresses of Organizations and Persons)
- To display additional data for information

Use Modal Dialogs sparingly. If a task requires multiple dialogs consider using a GAF or a QAF instead.
Read-only dialogs should also be used sparingly.

Modal Dialog with Two-Column Layout

Use when:

- To display and edit a complex object(s) that cannot fit into a master detail relationship
- To display and edit properties that cannot be displayed in a single list

NOTE: If the content gets too complex use other floorplans, such as an OIF, a GAF, or a QAF.

Browse and Collect Dialog

Use a Browse and Collect dialog:

- To allow the user to navigate to and select multiple object instances
- To allow the user to apply complex filtering criteria to a selection

Top

Modal Dialog Window Size

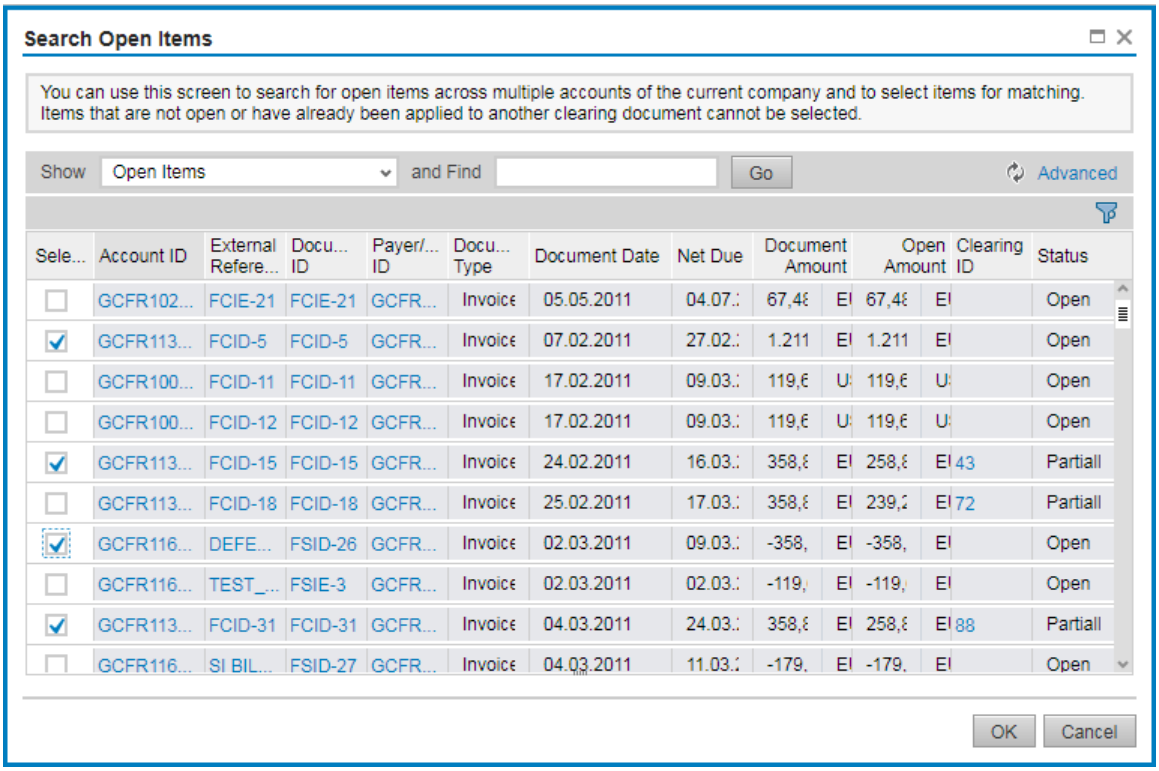
Generally, Modal Dialogs should be **as large as necessary and as small as possible**. The Modal Dialog may contain up to two columns. Height and width should be less than the parent window.

Top

Examples

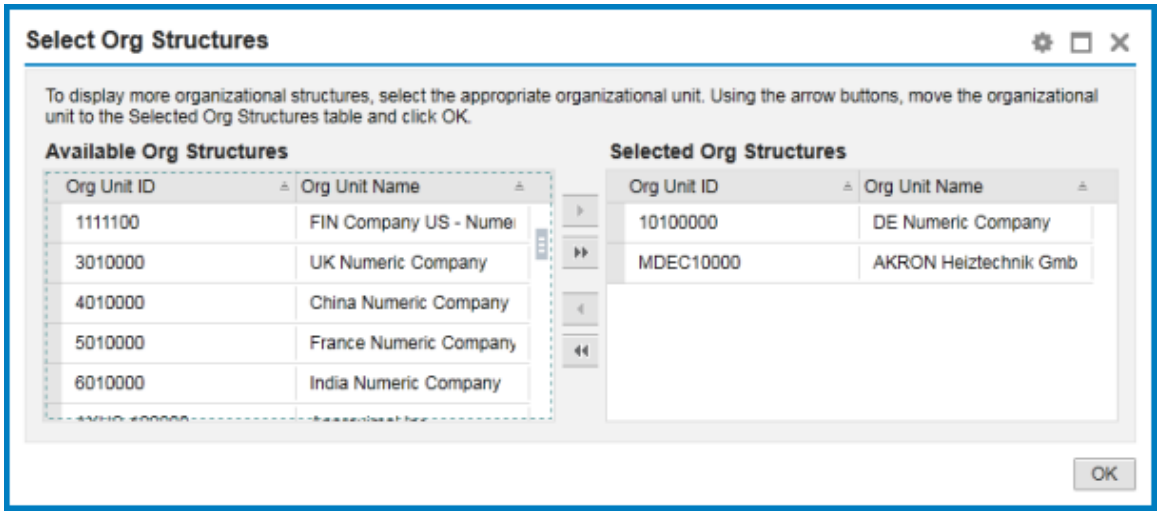
The following screenshots are taken from an FP3.5 ByD system.

Example: Read-only Modal Dialog used to select data.

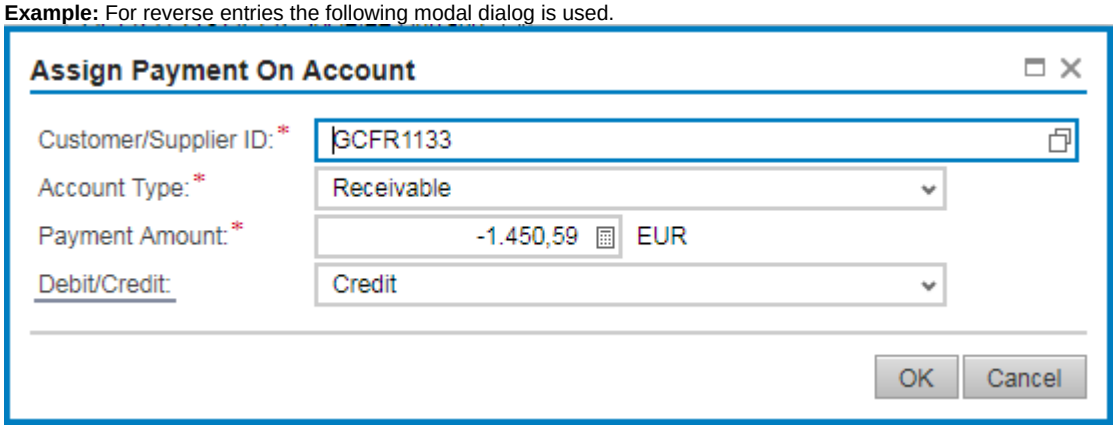


Example: Modal Dialog to select an object. The dialog closes by selection.

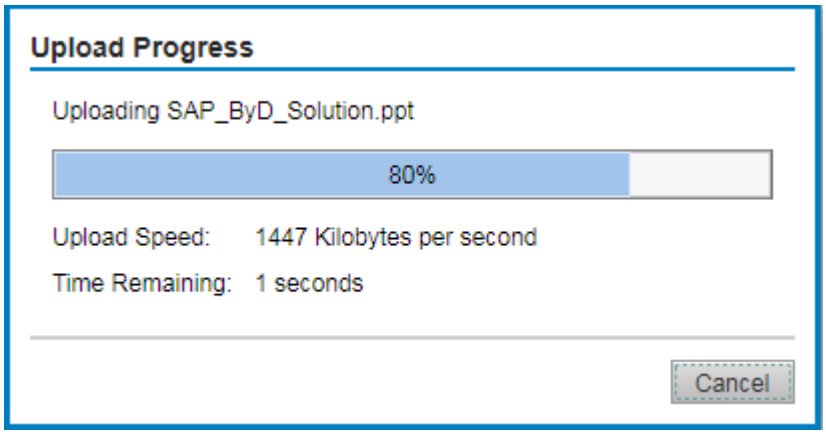
Example: Browse and Collect within a Modal Dialog



Example: For reverse entries the following modal dialog is used.



Example: A progress indicator within a Modal Dialog. The dialog can only be cancelled by the user. Thus, it only contains Cancel. It disappears automatically when the progress reaches 100%.



Top

More Information

Confirmation Dialog
Object Value Selector

F - Object Instance

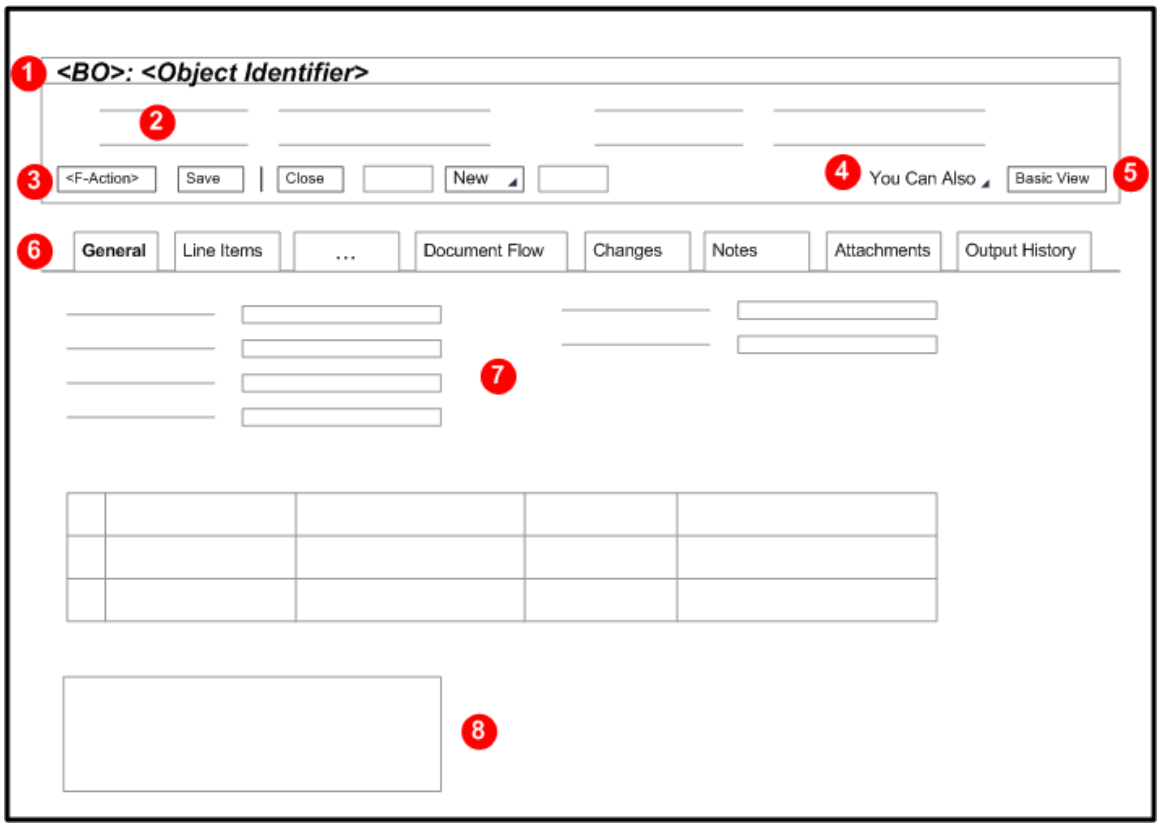
Page Content

Definition: Object Instance Floorplan

The **Object Instance Floorplan** (**OIF**) allows users to create, delete, view, and edit attributes and associations of a business object (an employee, a purchase order, or a supplier's record, for example). The OIF shows multiple view tabs whose content is determined by a defined business object type and the distinctive tasks a user has to perform with those. For more complex business objects the multiple view tabs can have one additional level of sub-tabs.

Top

Consistency Rules



1. **Title**: Choose the following title format *<BO Type>: <Object Identifier>*
   Examples: *Service Agent: Peter Bond*, *Purchase Order: 234325#** See Usage in Titles on how to to display the object identifier in titles.
   - See Floorplan Titles (Fact Sheet, QAF, OIF, GAF) for additional guidelines for the title syntax (such as hierarchies or versions).
2. **IDR**: Put identifying data to the IDR. Place status information on the left, see Identification Region.
3. **Toolbar Buttons**:
   - Usually, use *Save* and *Close* as the first two buttons when creating or editing an object. If necessary, you can additionally offer an <F-Action>.
   - If you act on an already existing object, put the *New*^ button into the toolbar (for Business Task Management (BTM), see *New* and *Actions* Buttons for BTM.
   - In display-only OIFs, the first button is *Close*. <F-Action> and *Save* are not used.
   - See Button Placement in Toolbars.
4. **YCA Menu**: If a Fact Sheet is available for the BO, you must display the YCA menu to navigate from the OIF to the Fact Sheet, see You Can Also (YCA) Menu.

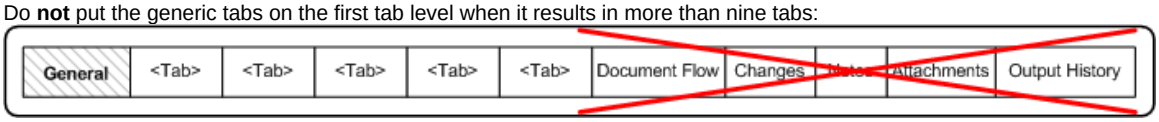
5. ***Basic View***: If a Quick Activity is available for the BO, use *Basic View* to navigate to the Quick Activity.
6. **Tabs**: Use nouns for tab titles. Call the first tab *General*, followed by *Line Items* (optional) and further application specific tabs. Display then optionally the generic tabs *Document Flow*, *Changes*, *Notes*, *Attachments*, and *Output History*. Do not use *Overview* for the first tab.
   It is recommended to use not more than nine tabs. You can use sub-tabs in case of too many tabs.
   NOTE: If no tab data is available, the tab is disabled. If all sub-tabs do not contain any data, the tab node is disabled.
7. **Content:**
   - Always use group headers to group fields. Avoid repeating the tab title.
   - For forms, use a two-column layout with single-column section groups. The content area can also contain a List Pane or a Master-Detail pattern.
8. **Notes**: Optionally, put an additional text field to the bottom of the OIF. Use a group header to label the text field.

Top

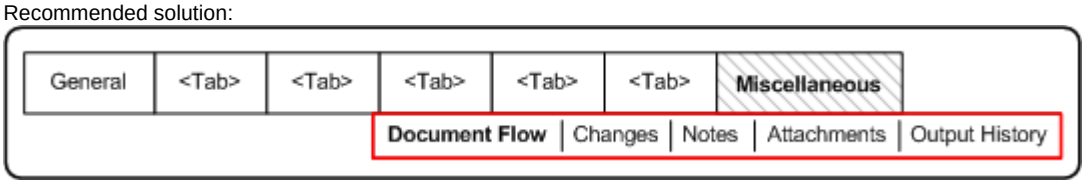
Reducing Generic Tabs in OIFs

In order to reduce the number of tabs in an OIF you can put the generic ones as sub-tabs below a tab called *Miscellaneous*.
The generic tabs in an OIF are: *Document Flow*, *Changes*, *Notes*, *Attachments*, *Output History.* Label the sub-tabs accordingly.

Do **not** put the generic tabs on the first tab level when it results in more than nine tabs:



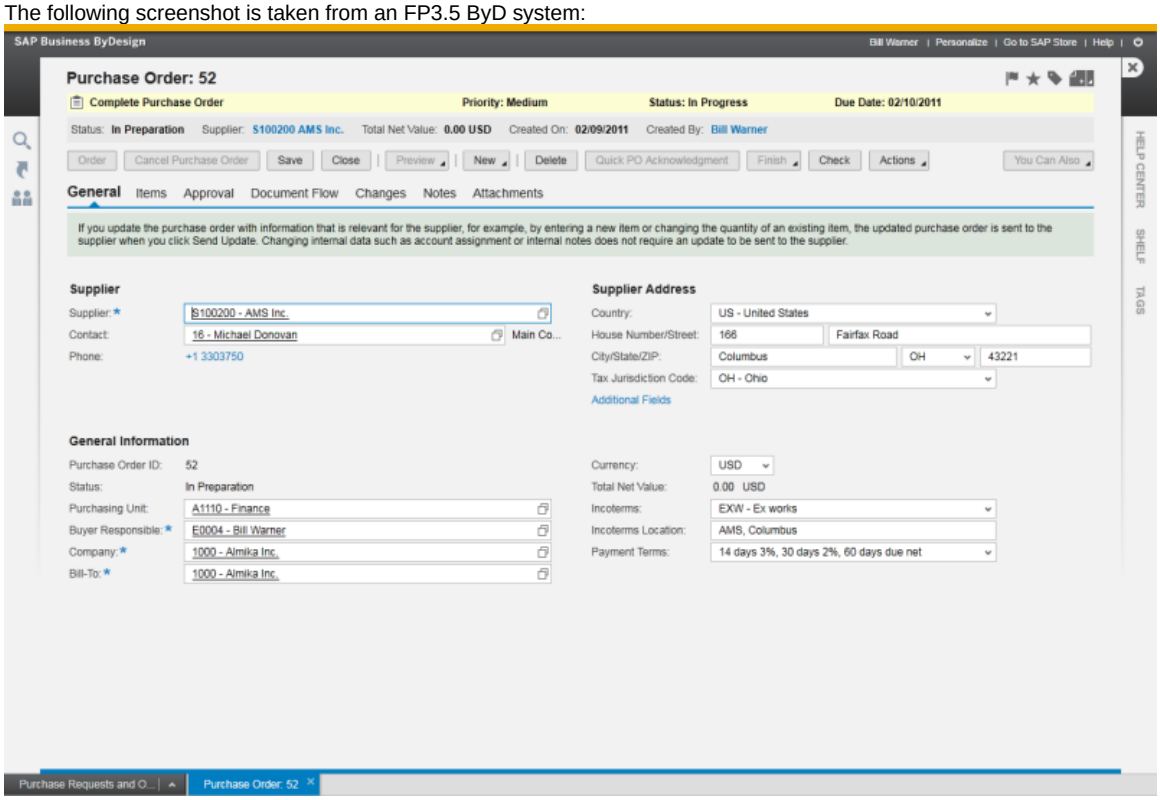
Recommended solution:



Top

Examples

The following screenshot is taken from an FP3.5 ByD system:



Top

More Information

Avoid Redundancy between Group Title and Labels
Form Pane
Tab Chain
List Pane

F - Quick Activity

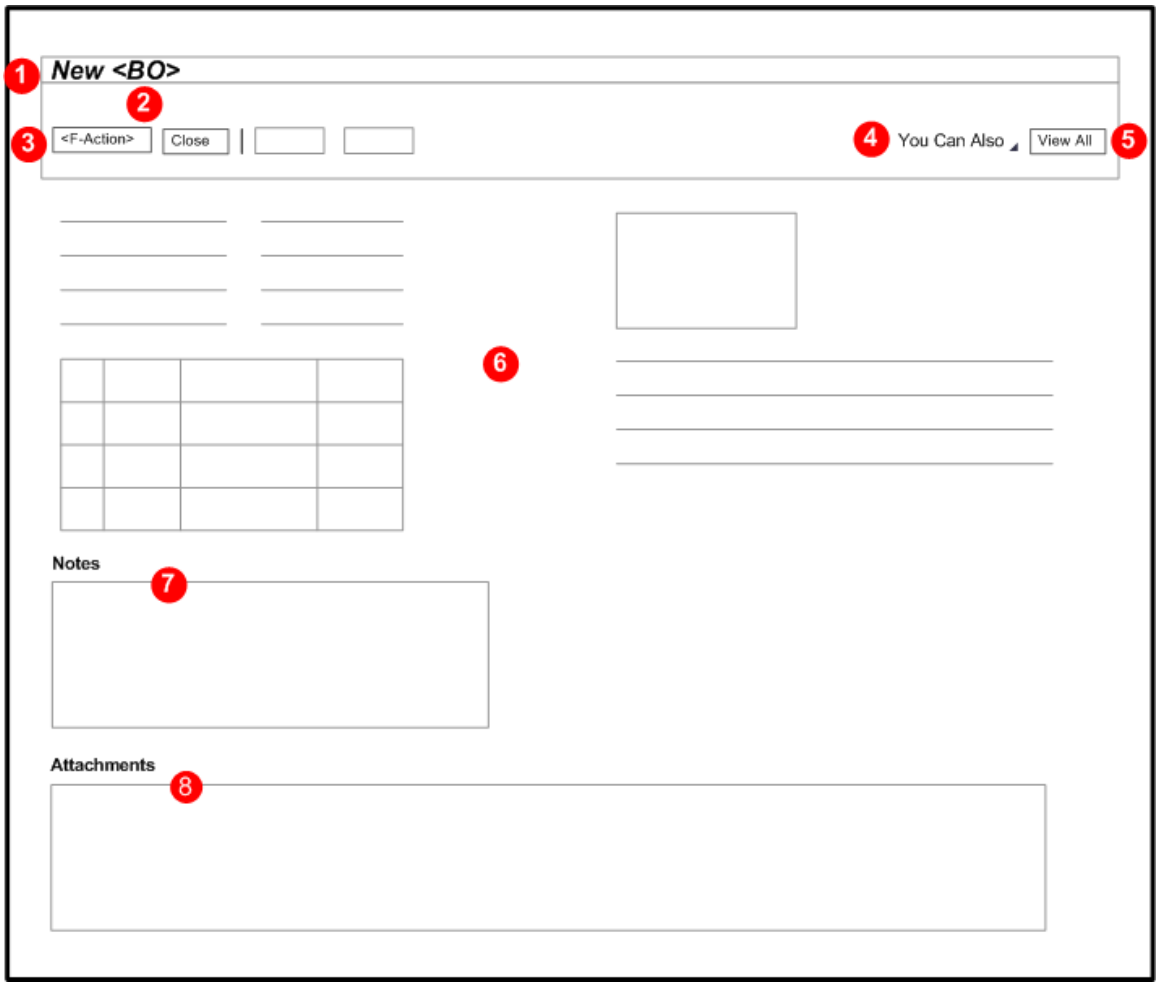
Page Content

Definition: Quick Activity

The **Quick Activity Floorplan** (**QAF**) allows the user to quickly perform a specific task. This can be self-contained or a short sub-task within the context of a larger task (for example, a quick create of a bidder within the creation of a request for quotation). Therefore, a QAF is a simple task-specific alternative to a business object's OIF.

Top

Consistency Rules: New



1. **Title**: Choose the following title syntax: *New <BO Type>*
   Example: *New Purchase Order*
2. **IDR**: Do not use an IDR in create mode. The data is entered by the user and therefore already visible.
3. **Toolbar Buttons**: Use the following mandatory toolbar buttons: *Save and Close* or *<F-Action>* and *Close*.
   NOTE: If besides the *<F-Action>* an additional *Save* button is available, the *New^* button is also mandatory (for Business Task Management (BTM)), see *New* and *Actions* Buttons for BTM.
   See Button Placement in Toolbars.
4. **YCA Menu**: The YCA menu is optional, see You Can Also (YCA) Menu.

5. ***View All***: If an OIF is available display the *View All* button at the end. It opens the OIF in edit mode. The navigation is inplace.
6. **Content Area**: Use a two-column layout.
7. **Notes**: Put an additional text field to the bottom if needed.
8. **Attachments**: Put the attachments below the notes if needed.

Top

Consistency Rules: Edit

Only title and IDR rules differ from the *New* rules:

1. **Title**: Choose the following title syntax: *<BO Type>: <BO Identifier>*.
   Example: *Purchase Order: 343463*
   - See Usage in Titles on how to to display the object identifier in titles.
   - See Floorplan Titles (Fact Sheet, QAF, OIF, GAF) for additional guidelines for the title syntax (such as hierarchies or versions).
2. **IDR**: Put status information to the left.
   For more guidelines see Identification Region.
3. ***New^* Button**: If you act on an already existing object, put the *New^* button into the toolbar (for Business Task Management (BTM)), see *New* and *Actions* Buttons for BTM.

Top

Consistency Rules: Action

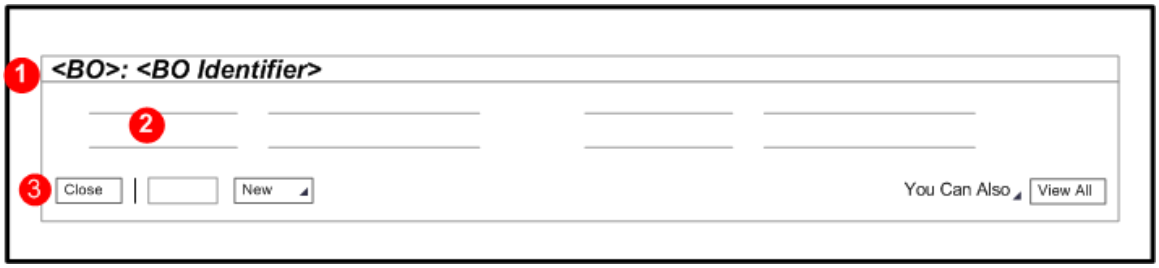
Only title and IDR rules differ from the *New* rules:

1. **Title**: Choose the following title syntax: *<Action> <BO Type>: <BO Identifier>* .
   Examples: *Negotiate Contract: 454565, Enter Time Data*
   - See Usage in Titles on how to to display the object identifier in titles.
   - See Floorplan Titles (Fact Sheet, QAF, OIF, GAF) for additional guidelines for the title syntax (such as hierarchies or versions).
2. **IDR**: Put status information to the left.
   For more guidelines see Identification Region.
3. ***New^* Button**: If you act on an already existing object, put the *New^* button into the toolbar (for Business Task Management (BTM)), see *New* and *Actions* Buttons for BTM.

Top

Consistency Rules: Display

For display-only QAFs no <F-Action> or *Save and Close* is necessary:



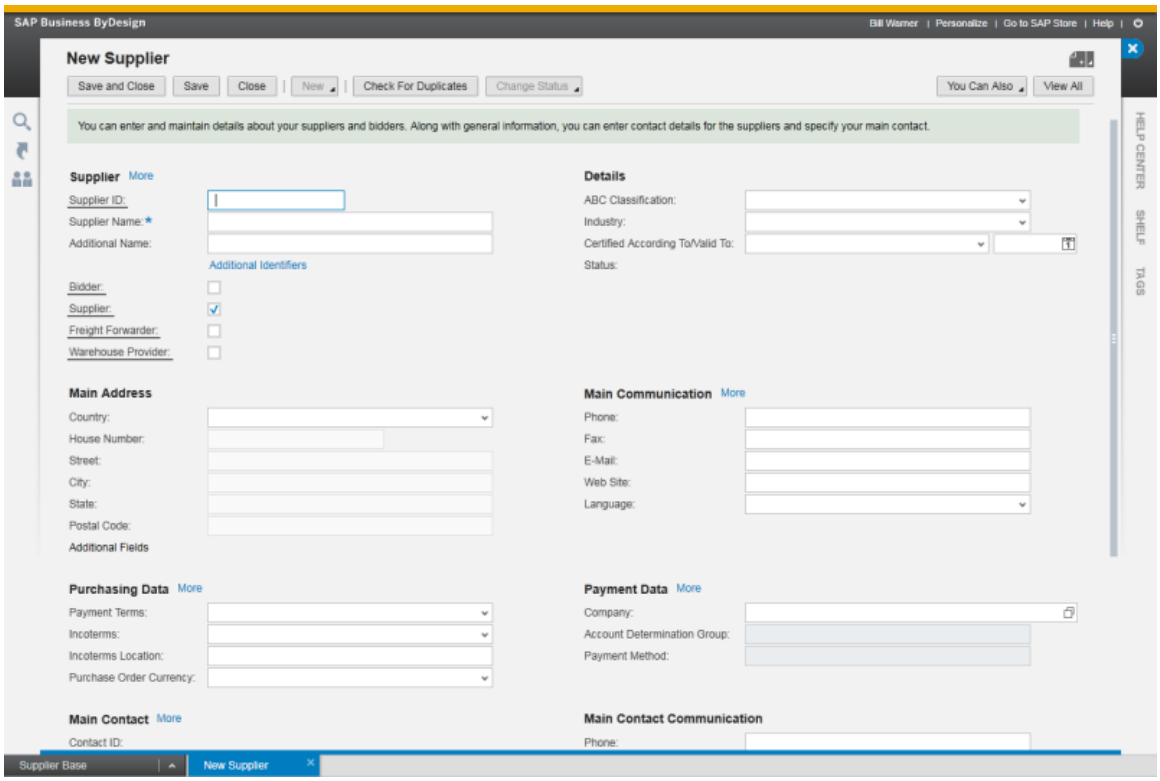
1. **Title**: Choose the following title format: <BO Type>: <BO Identifier>_.
   - See Usage in Titles on how to to display the object identifier in titles.
   - See Floorplan Titles (Fact Sheet, QAF, OIF, GAF) for additional guidelines for the title syntax (such as hierarchies or versions).
2. **IDR**: Put status information to the left.
   For more guidelines see Identification Region.
3. **Buttons**: Do not use any <F-Action> or *Save and Close* function. If you act on an already existing object, put the *New^* button into the toolbar (for Business Task Management (BTM)), see *New* and *Actions* Buttons for BTM.

Top

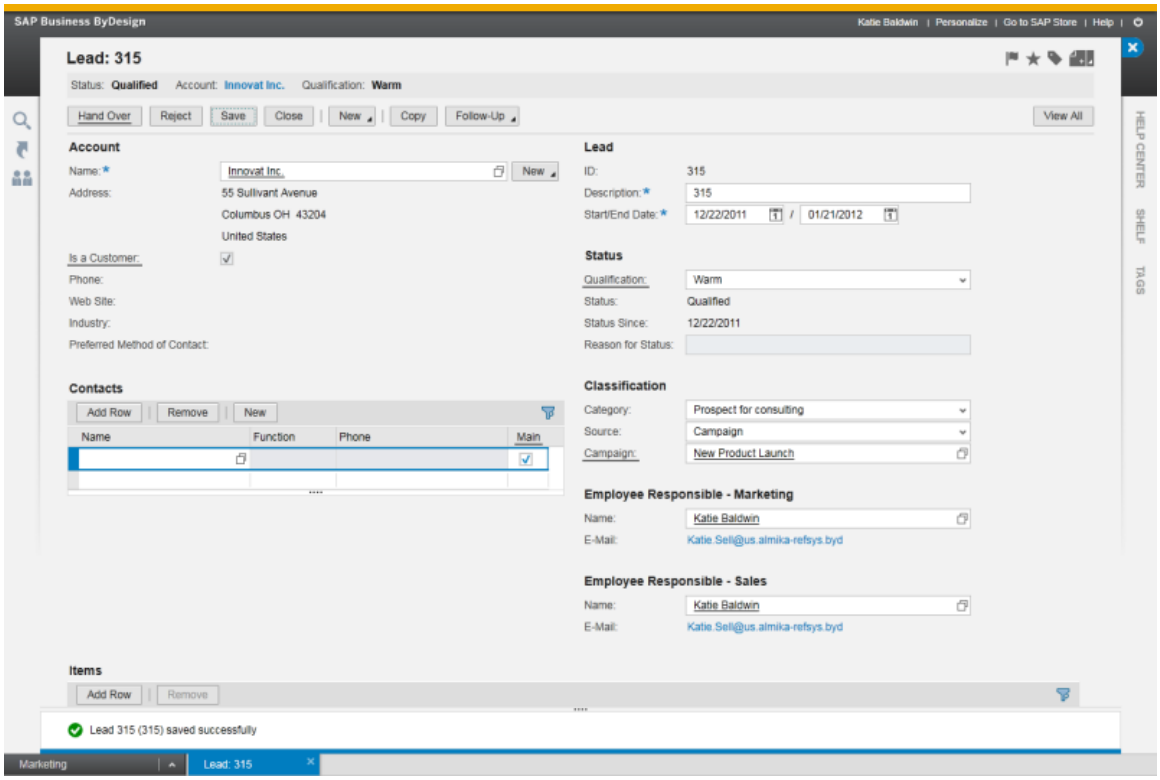
Examples

The following screenshots are taken from an FP3.5 ByD system.

New Supplier:



Edit Lead:



Top

More Information

Avoid Redundancy between Group Title and Labels
Form Pane
Tab Chain
Tables
You Can Also (YCA) Menu

F - Work Center

Page Content

Definition: Work Center

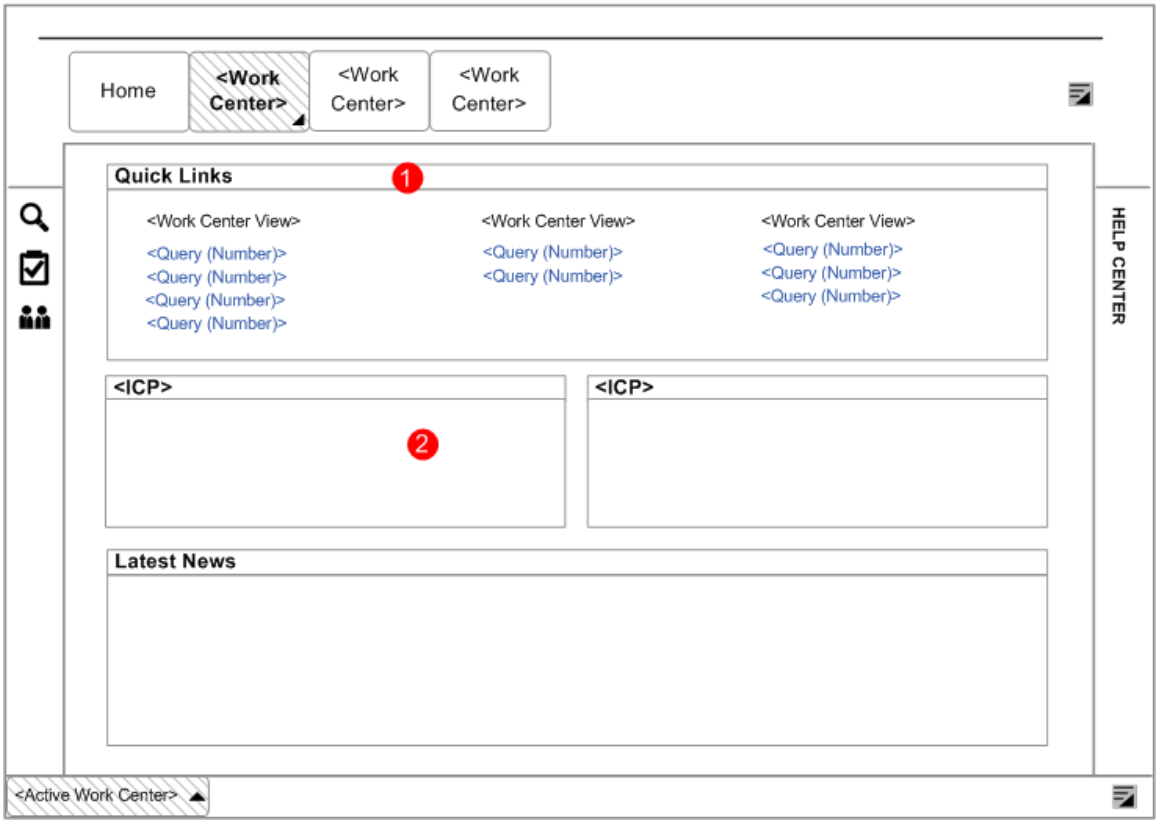
Work Centers (**WoC**), together with the Control Center (CC), form the primary work area. WoCs are represented as tabs in the upper navigation bar (located after the *Home* tab). Work Centers support task-specific activities (for example organizing employee benefits, managing purchase orders, planning and budgeting). A WoC grants the user access permissions to transactions and analytics. Each WoC has multiple views accessed via the Navigation Bar on the button or via the the clicking the WoC in the Navigation Area and selecting the respective view. The WoC views are:

- *Overview*
- WoC specific views: A variable number of views needed to support the user tasks
- *Reports*

Top

Consistency Rules: Overview

The ***Overview*** is the **first view** within a WoC. It displays a list of Quick Links which navigate to the most important Object Worklists (OWL) and Task-Based OWLs (TOWL) of the WoC views and usually Information Consumer Patterns (ICP) with analytic information. The *Overview* is optional but highly recommended to allow a quick access to the OWLs and to get a first glance on the most important analytics data.



Order of Content (Before Personalization):
The Quick Links are shown on top, followed by the ICPs. The *Latest News* are shown on the bottom.

1. **Quick Links**:
   - Label the tray *Quick Links*.
   - You can offer any query from any view or subview within a WoC as a Quick Link.

- Group the Quick Links. A group corresponds to a WoC view.
  - Label the group *<Work Center View>.* Example: You offer Quick Links for the WoC view *Purchase Orders*. Label the group also *Purchase Orders*.
  - Do not offer more than four groups per row.
  - We recommend a maximum of nine quick links per group.
- Each Quick Link corresponds to a query in the WoC view.
  - Label the Quick Link *<Query Name>.* Example: The query is labeled *Purchase Orders Changed Recently*. Label the Quick Link also *Purchase Orders Changed Recently.*
  - The number of the business objects is shown next to the query. Example: *My Won Leads (4)* telling the user that four leads have been won.
- **NOTES:**
  - By default the Quick Link tray spans 100% of the content area. The user can resize the tray if less links are available (into half mode) through personalization, see Personalization Examples (Side Panel). All Quick Links added to a group are visible in the tray. This means the tray height is automatically adjusted.
  - The group title wraps if space is not sufficient.
  - The Quick Link names are truncated if space is not sufficient. Truncation applies only to the name and not the number.

2. **ICP**: The user can personalize which ICPs should be shown as well as how they are arranged on the screen (full width, half width), see Personalization Examples (Side Panel).
   For more guidelines concerning ICPs see Information Consumer Pattern.

Top

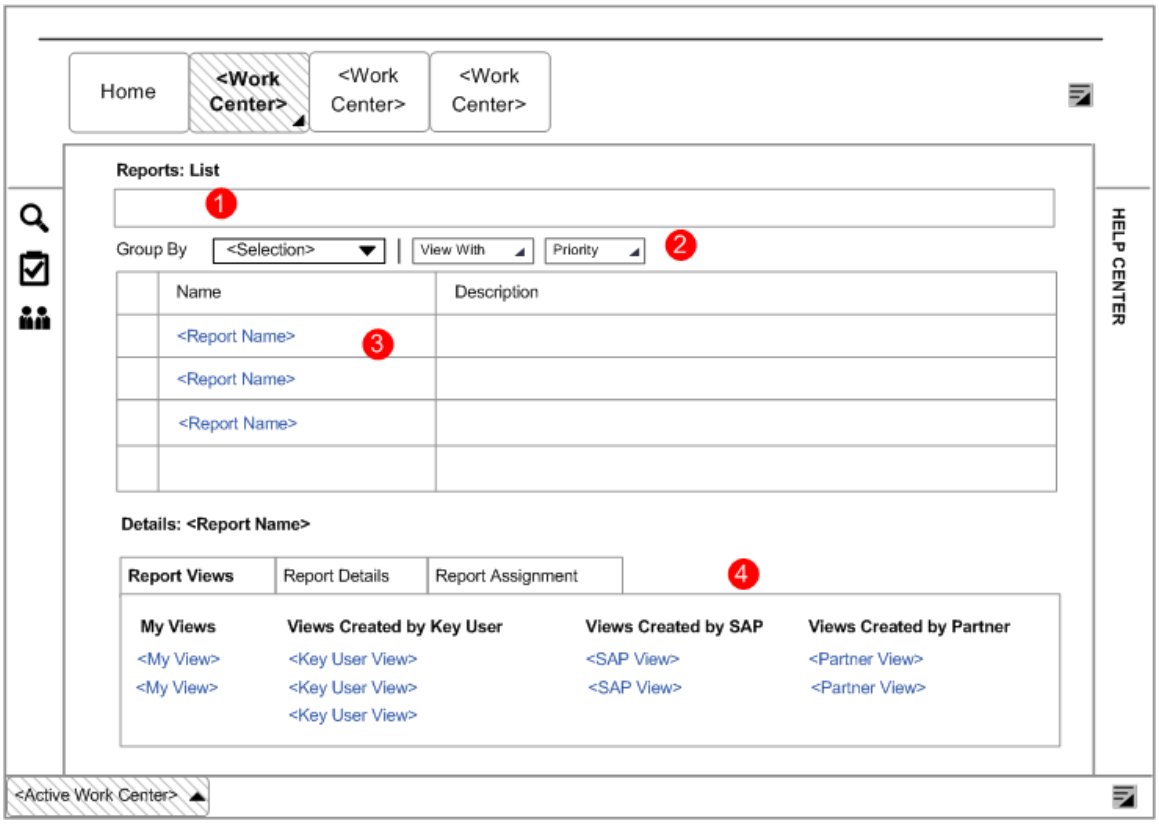
Consistency Rules: Views

WoC specific views appear between the *Overview* and the *Reports* view in the CNP. They typically feature a list of business objects (BOs) such as purchase orders displayed in an OWL. When a WoC view is clicked the content area is updated with the respective OWL. In rare cases the content area consists of a Gantt chart or a calendar or ICPs.

Top

Consistency Rules: Reports View

The *Reports* view is the last view within a WoC. It displays a list of reports relevant for the complete WoC. The *Reports* view is mandatory as customers can create their own reports.



1. Use the *Show* filter and the basic and advanced search as in all other OWLs. For the entries in the *Show* dropdown listbox see Consistency Rules: OWL Queries.
2. Show the report specific buttons such as *View* as shown on the picture.
3. List all reports.
4. Show the detail tabs as displayed on the picture:
   - *Report Views*: Contains the views defined by the end user, the key user, and SAP

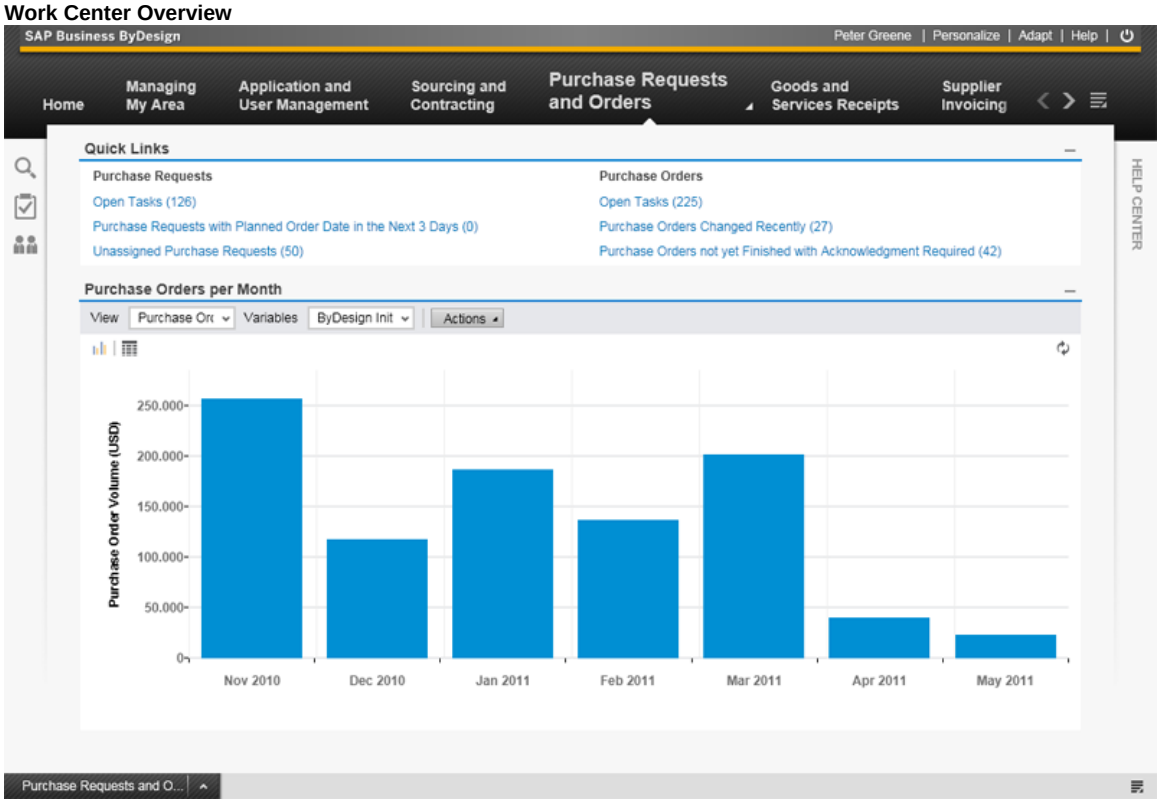
- *Report Details*: Shows, for example when was the report created and by whom, to which report categories it belongs
- *Report Assignment*: Shows which WoC and WoC views the report is assigned to

Top

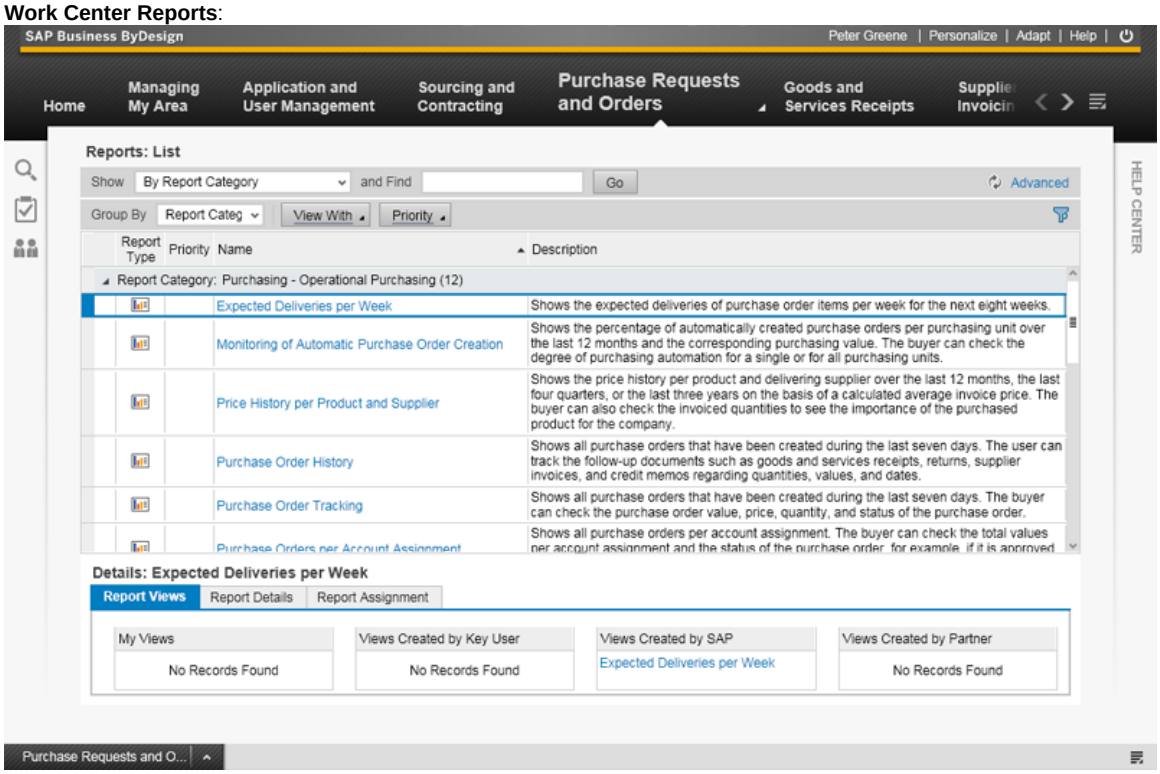
Examples

The following screenshots are taken from an FP3.5 ByD system.

Work Center Overview



Work Center Reports:



Top

More Information

Analytics
Calendar
Functions & Menus
Gantt Chart
Information Consumer Pattern
Object Worklist

Addresses

Page Content

Definition: Addresses

Addresses is a generic pattern which ensures that international addresses of organizations and persons are displayed and printed correctly according to local postal and legal requirements.

Top

Consistency Rules: Addresses of Organizations and Persons

Note: This is a generic pattern and the designer can not change it.

The guidelines for the arrangement of address fields differ slightly between addresses of persons and addresses of organizations.

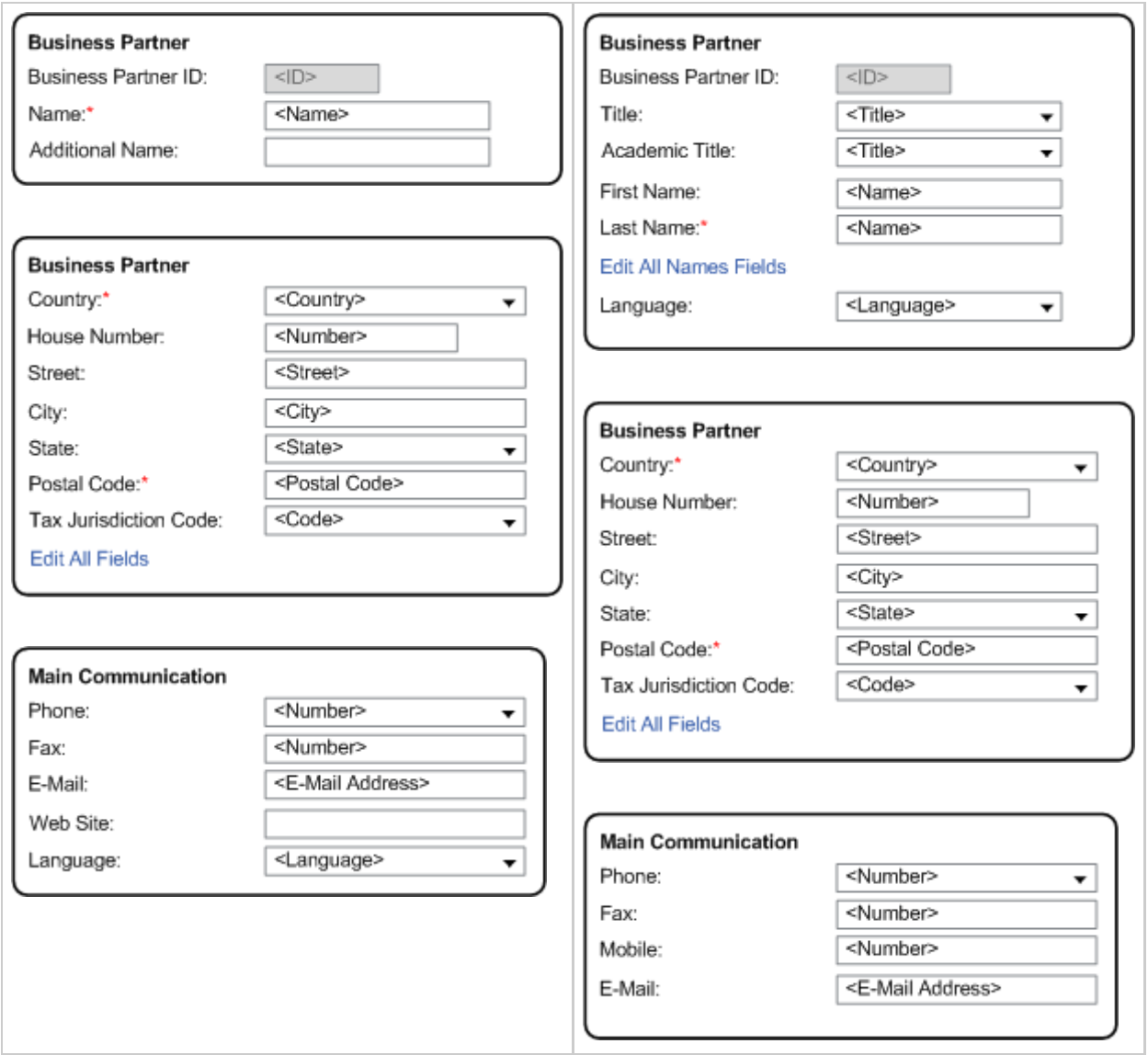
Address data can be differentiated as follows:

- Business partner information
- Postal address (for persons also workplace address)
- Communication data

Arrange the fields (if available) like shown in the pictures below. Use group headers that describe which type of address is shown, for example *In-House Address* or *Business Communication*.

Editable

Organization	Person

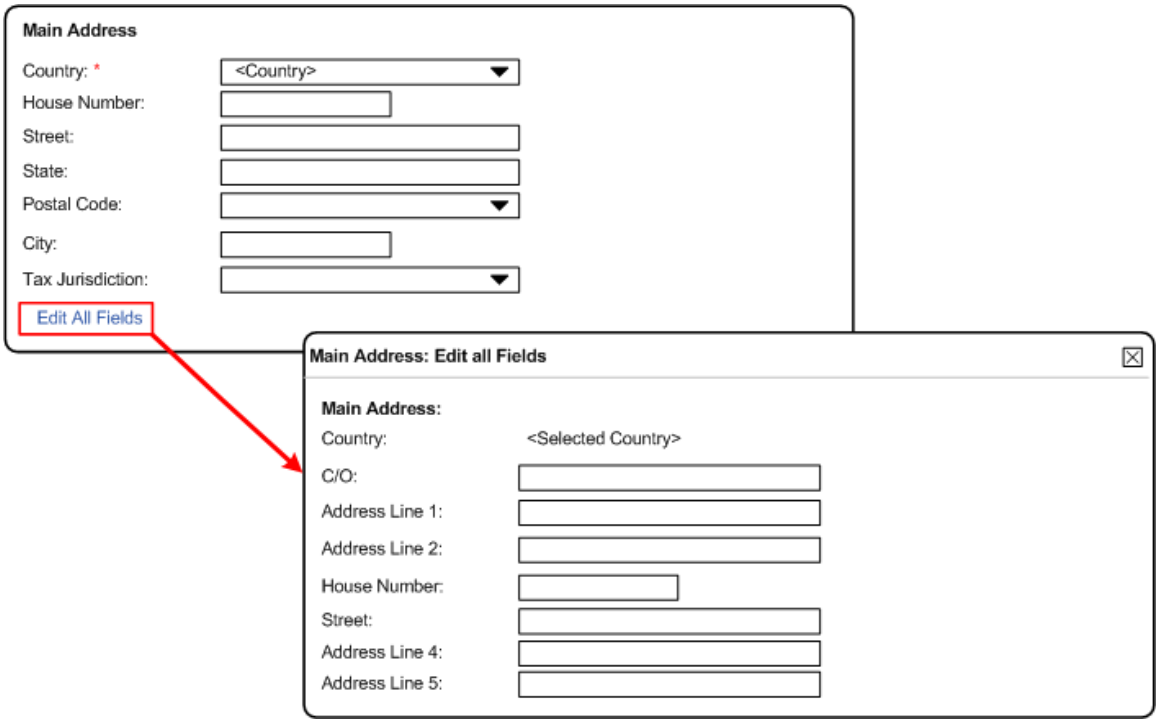


Top

Edit All Fields and Edit All Name Fields

Edit All Fields

The following picture shows the navigation from *Edit All Fields* link to the Modal Dialog:



Use a modal dialog to show all address fields, see Modal Dialog. Label the link *Edit All Fields* and the title of the modal dialog window *Main Address: Edit All Fields*.

Edit All Name Fields

The Modal Dialog for editing all name fields contains the following fields in the given order:
Title, Academic Title, First Name, Middle Name, Last Name, Name of Birth, Nickname, Country for Name Format

The title of the Modal Dialog is: *Business Partner Name: Edit All Fields*

Display-Only

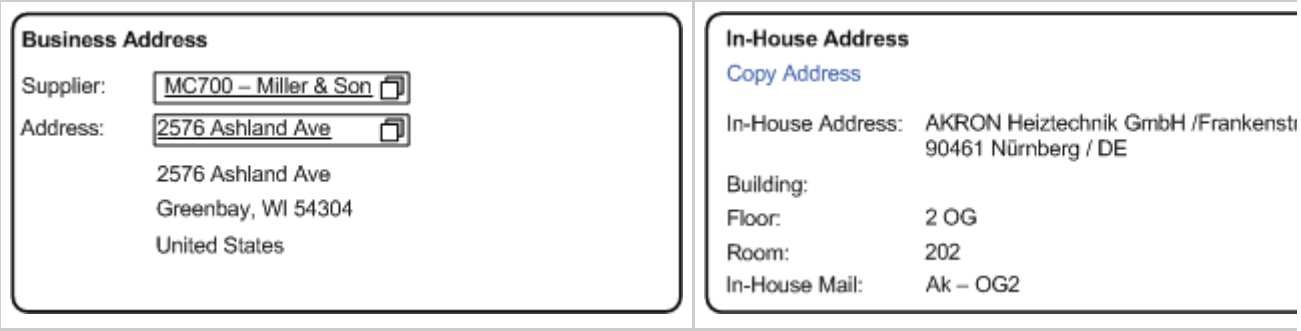
In display-only mode show the business partner name together with the postal address in one group without field labels. The display of communication data such as phone and fax is optional. If displayed, the communication data has to be shown with field labels.

Organization	Person
Supplier Main Address Miller & Son 2576 Ashland Ave Greenbay, WI 54304 United States Phone: <Number> Fax: <Number> E-Mail: <E-Mail Address> Web Site: <Web Address>	**Main Business Address** Frank Sent 145 Wolf Rd Albany NY 12205 United States Phone: <Number> Fax: <Number> E-Mail: <E-Mail Address> Web Site: <Web Address>

Selecting Multiple Addresses

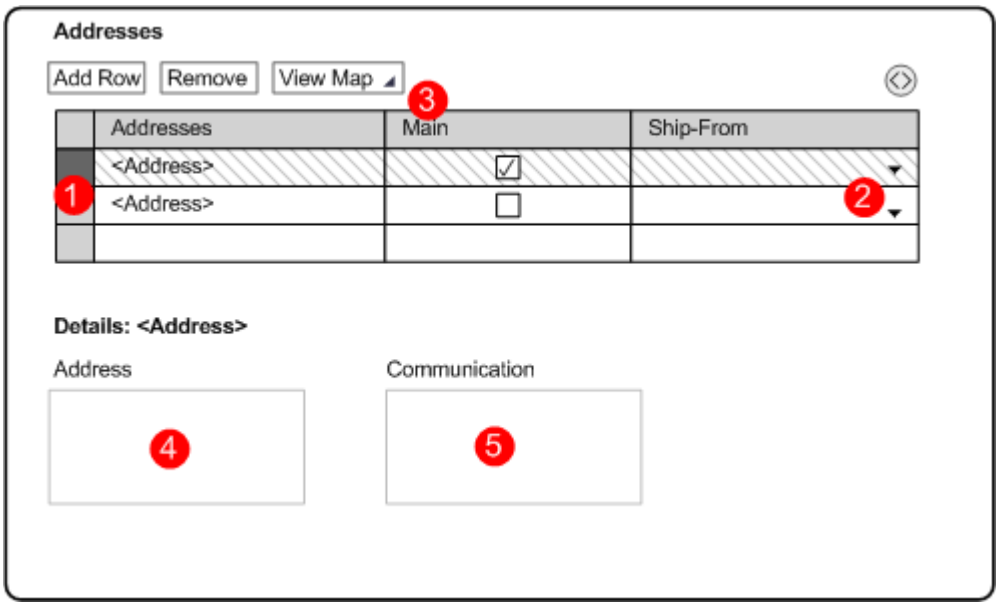
You can select another organizational address via the *Address* OVS and another person's address via the *Copy Address* link.

Organization	Person



Top

Consistency Rules: Editing Multiple Addresses



1. Use a Master-Detail for adding and editing multiple addresses, see Master-Detail.
2. Use a dropdown listbox for choosing the address usage.
3. Use the *View Map^* button to offer web services such as opening a map service that shows the location of the business partner.
4. For the content of the *Address* section group see *Addresses of Organizations and Persons - Editable* above.
5. For the content of the *Communication* section group see *Addresses of Organizations and Persons - Editable* above.

Top

More Information

Forms & Fields

Analysis Pattern

Page Content

Definition: Analysis Pattern

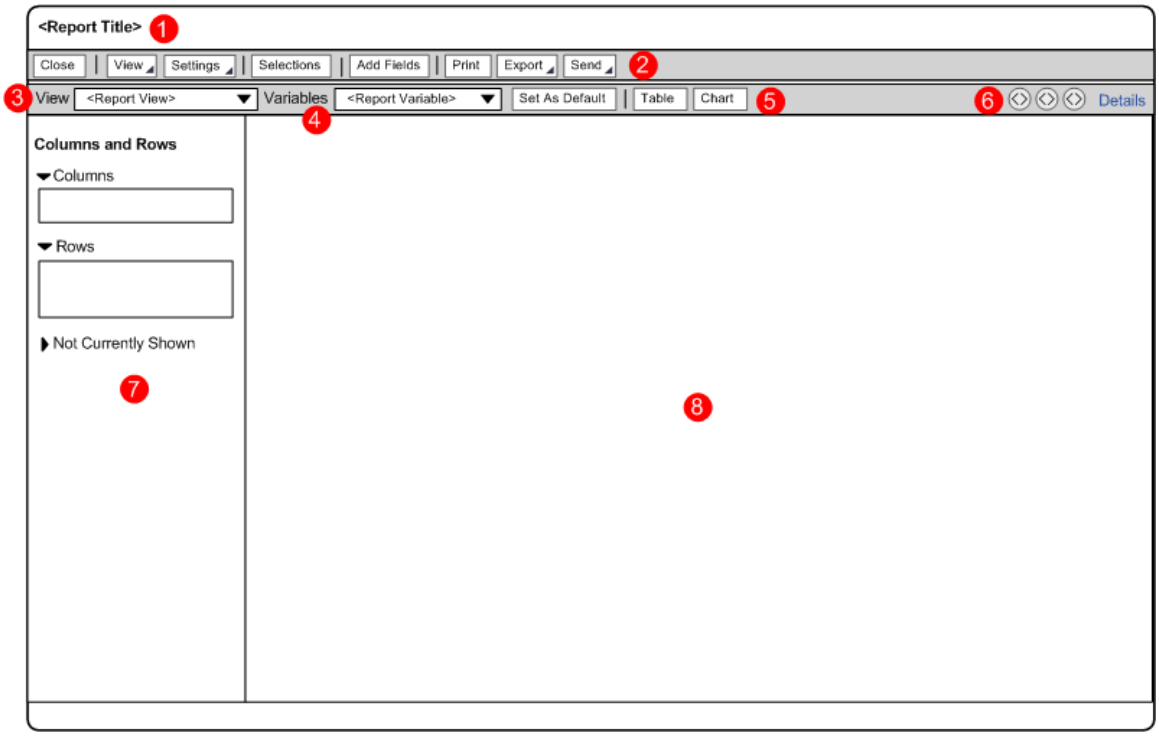
The **Analysis Pattern** (**AP**) visualizes data in detail as a chart or table. APs can be launched from ICPs and the Work Center View *Reports*. AP is an alternative view of analytical data to the Quick Filter.

Compared to ICPs, APs enhance relevant functions which are needed for analytical reporting:

- Interactivity in navigation pane via drag and drop
- Quick filter on characteristics in navigation pane
- Separation between layout which is defined in the navigation pane and data selection which is defined via variables.

Top

Consistency Rules



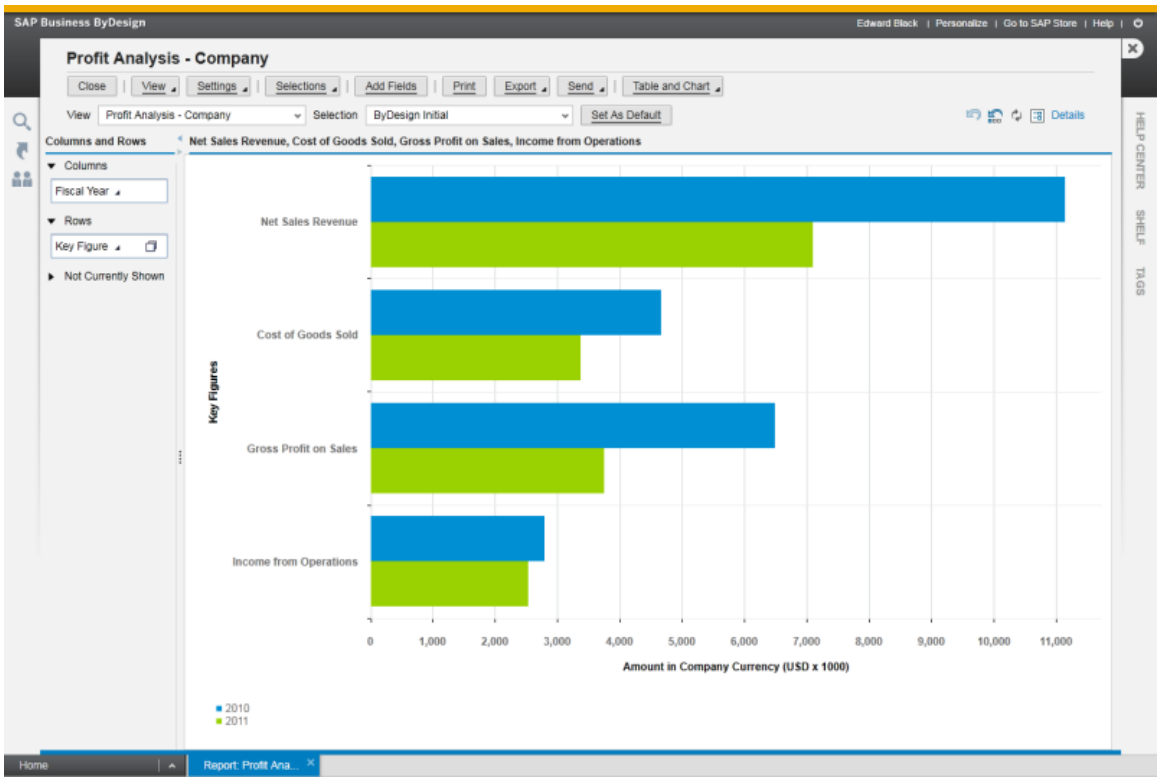
1. Title of report
2. **Buttons**:
   - Close: Closes the Analysis tab or window
   - *View*^:
     - Save: Allows to save the view
     - Save as: Allows to save the view with a new name
     - Manage: Allows to delete views created by the user
   - *Settings*: Allows to define details for characteristics and key figures. Example: The user can define that the characteristic "Supplier" is shown with ID and name or with name only
   - *Selections*: Allows editing and managing variables and defining the start options (such as show selection area and start report, hide selection area and start report, show selection area and do not run report). Variables contain the values used for starting the report.
   - *Add Fields*: Allows adding fields and variables to the report
   - *Print*: Allows printing
   - *Export*^: Exports the report to Excel
   - *Send*^: Allows sending the report via e-mail as an online link with current data
3. ***View***: The dropdown listbox enables switching between the views of the report.

4. ***Variables***: The dropdown listbox is only displayed if the user has defined variables.
5. **Buttons**:
    - *Set as Default*: Allows to set view and variable as default
    - *Table*: Switches to table view
    - *Chart*: Switches to chart view
6. Icons for undoing the last action and the last saved status, respectively and showing header information, such as values used in variants and filters. *Details* shows technical information such as report UD, data source, system.
7. The navigation pane allows the definition of the report layout.
8. Content area

Top

Examples

The following screenshot is taken from an FP3.5 ByD system.



Top

More Information

Analytics
Information Consumer Pattern
Quick Filter

Attachments

Page Content

Definition: Attachment

An **attachment** is a file associated with a business object (BO). Attachments have additional properties such as system related ones, for example, created on or created by, and can be classified with a document type, such as a white paper or specification.
An attachment is transported throughout business processes whenever its BO is used in follow-up processes. Attachments can be uploaded, deleted, opened or downloaded, for example.

Top

When to Use which Attachment Type

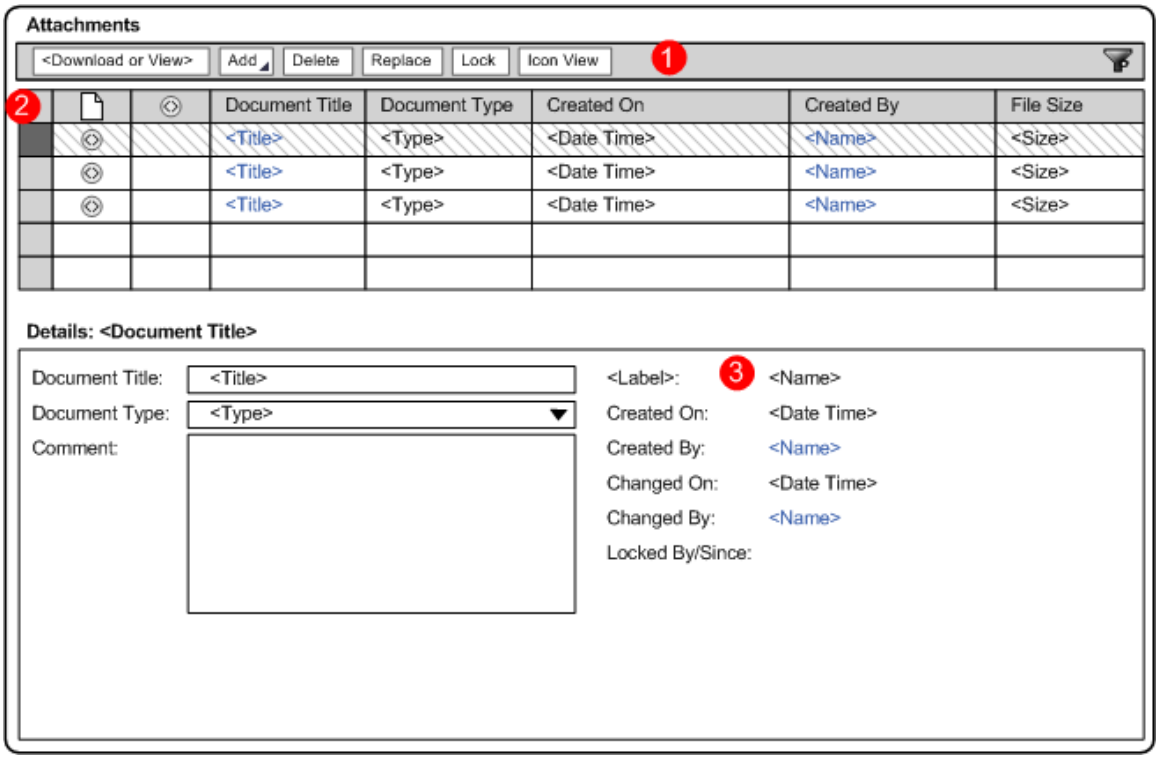
Attachment Type	When to Use
Standard Attachment Pane	• In a separate OIF sub view or in a GAF or QAF where Master-Detail is appropriate • When one or more files or links should be attached either to the BO or to separate items
Aggregated Attachment Pane	• In the OIF *Attachments* tab. Do not use it in QAF and GAF. • When all attachments of a BO, that means on header and item level, should be displayed
Small Attachment Pane	• Usually within the details area of a Master-Detail relationship, for example in a tab • When one or more files or links either to the BO or to separate items should be attached • In display mode in Fact Sheets

Top

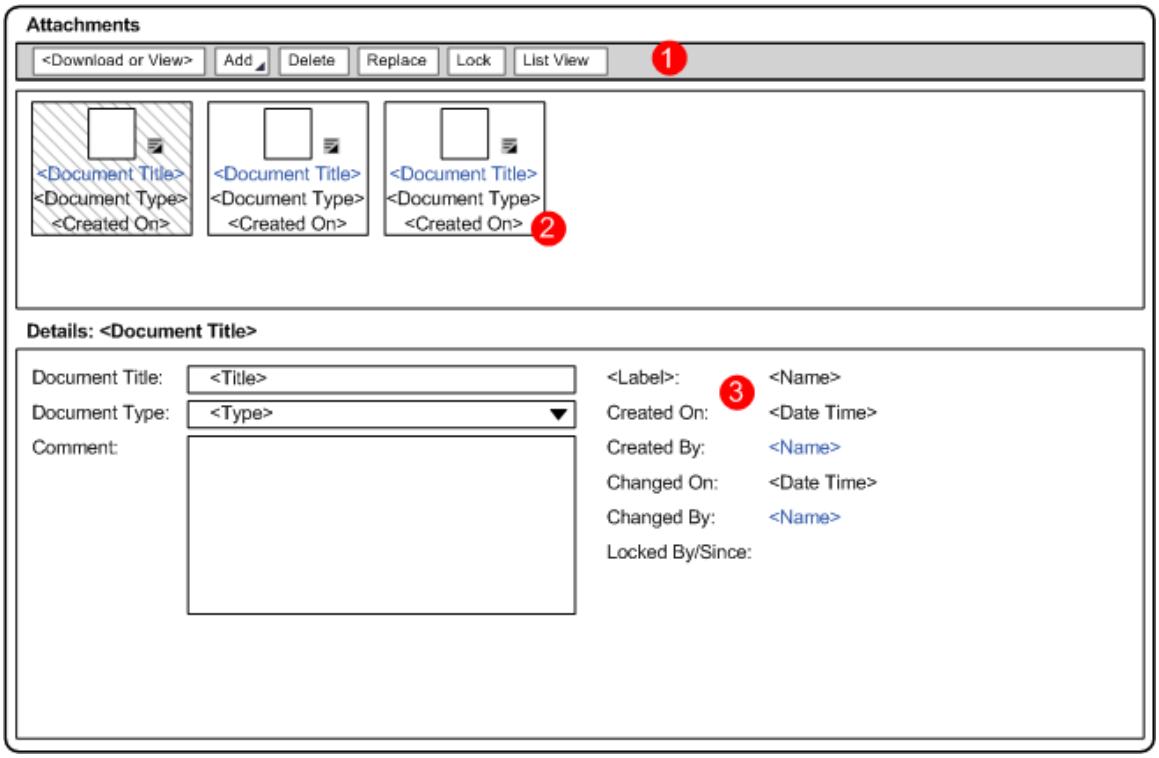
Standard Attachment Pane

The Standard Attachment Pane is a Master-Detail component. It either contains attachments on header level or on item level.
It has two views: A *List View* (standard) and an *Icon View*. The user can switch between these two views.
The Standard Attachment Pane is available in an editable and read-only version.

The following picture shows the **list view**:



The following picture shows the **icon view**:



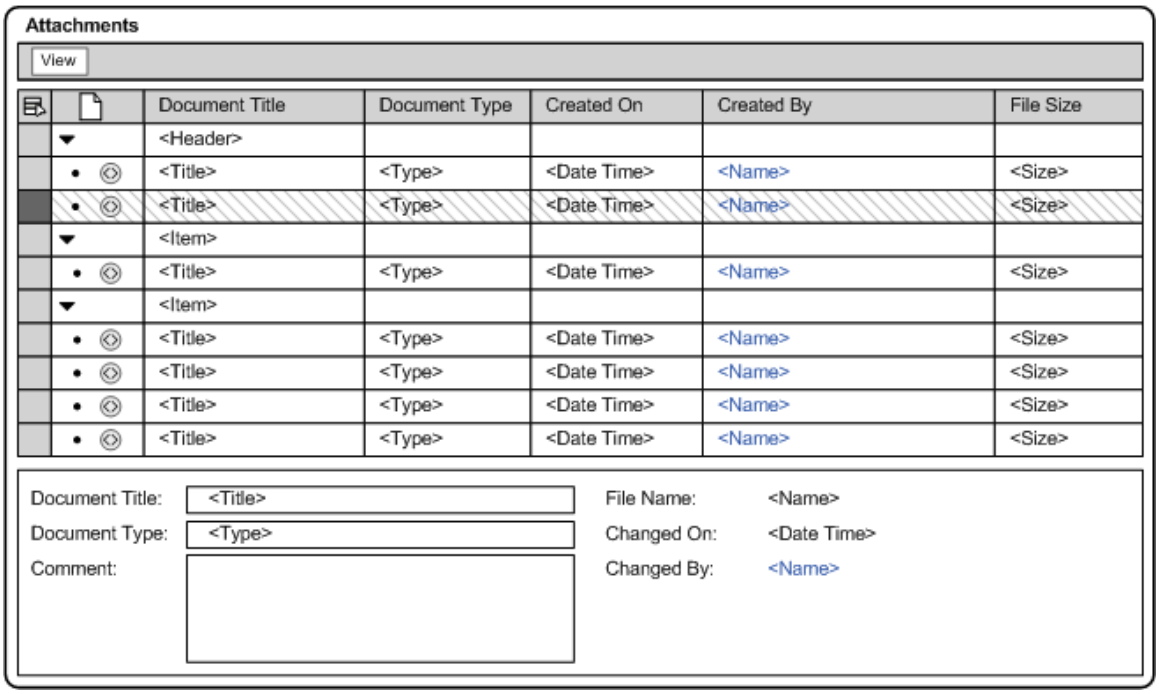
1. Buttons: Use the buttons as shown in the picture.
2. Table or Icon View: Use the table structure and show the icon information as shown in the picture.
3. Details: Use the fields shown in the picture.

Top

Aggregated Attachment Pane

The Aggregated Attachment Pane shows all attachments on BO level as well as on item level. In contrast to the Standard Attachment Pane **it is not possible to add new attachments**. The user can only open or download the attachments.
The Aggregated Attachment Pane is available in a read-only and display-only version.

The following picture shows the aggregated attachments:

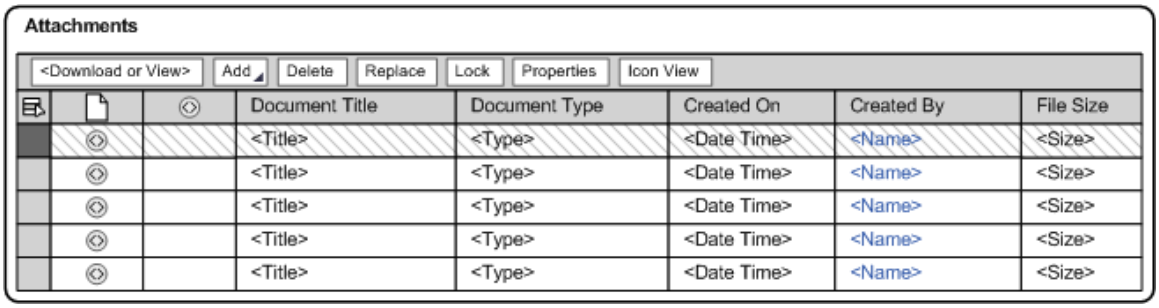


Top

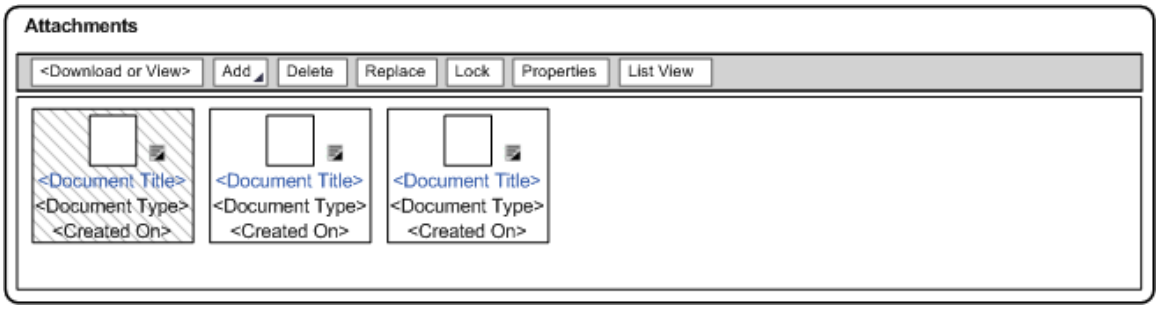
Small Attachment Pane

The Small Attachment Pane has no details area. It is available in an editable, read-only, and display-only version.

The following picture shows the **list view**:



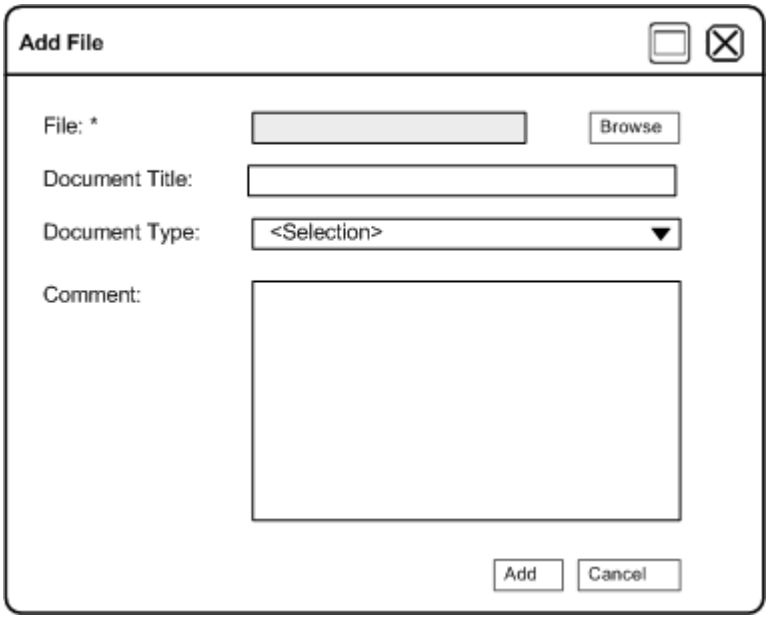
The following picture shows the **icon view**:



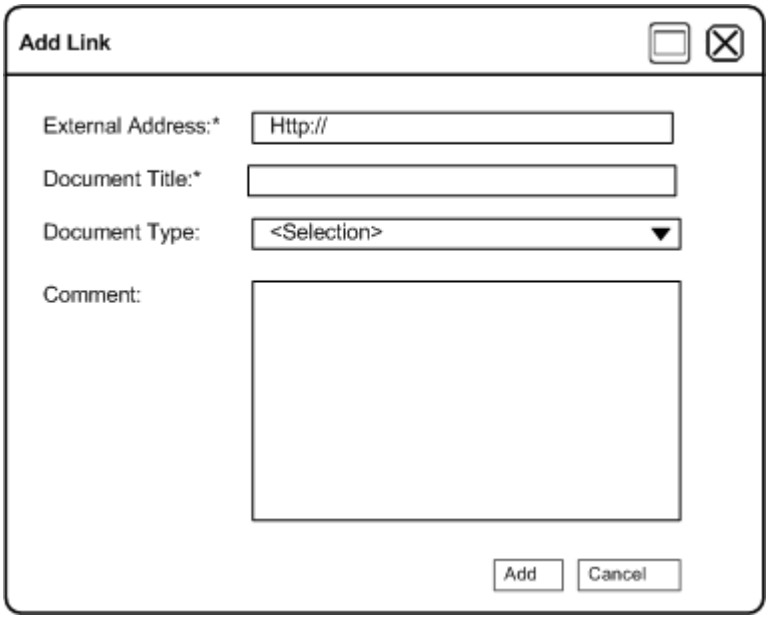
Top

Modal Dialogs for Adding / Replacing Attachments

The following picture shows the modal dialog for **adding** an attachment:



The following picture shows the modal dialog for **adding** an attachment as a **link**:



The following picture shows the modal dialog for **replacing** an attachment:

Top

More Information

Modal Dialog

Notes

Browse & Collect

Page Content

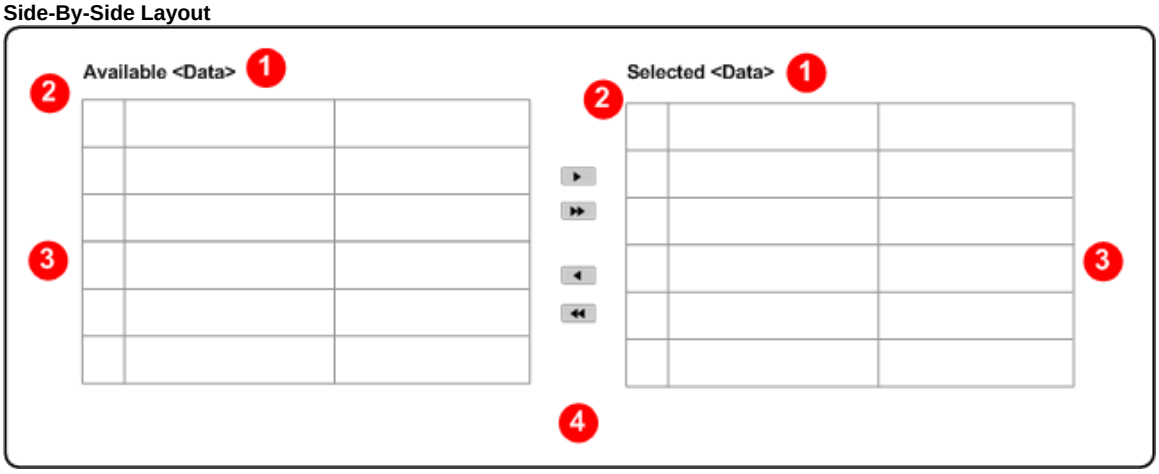
Definition: Browse and Collect Pane

Browse and Collect (**BCP**) is a UI pattern which allows the user to browse a list of items, select items from this list, and collect them in another list by either moving or copying them. The list that holds the collected items allows the user to reorder or modify these items to the extent possible in a List Pane and through the properties of the business object.
The BCP can be used in the Guided Activity Floorplan (GAF), Object Instance Floorplan (OIF), Quick Activity Floorplan (QAF) and in a Modal Dialog.

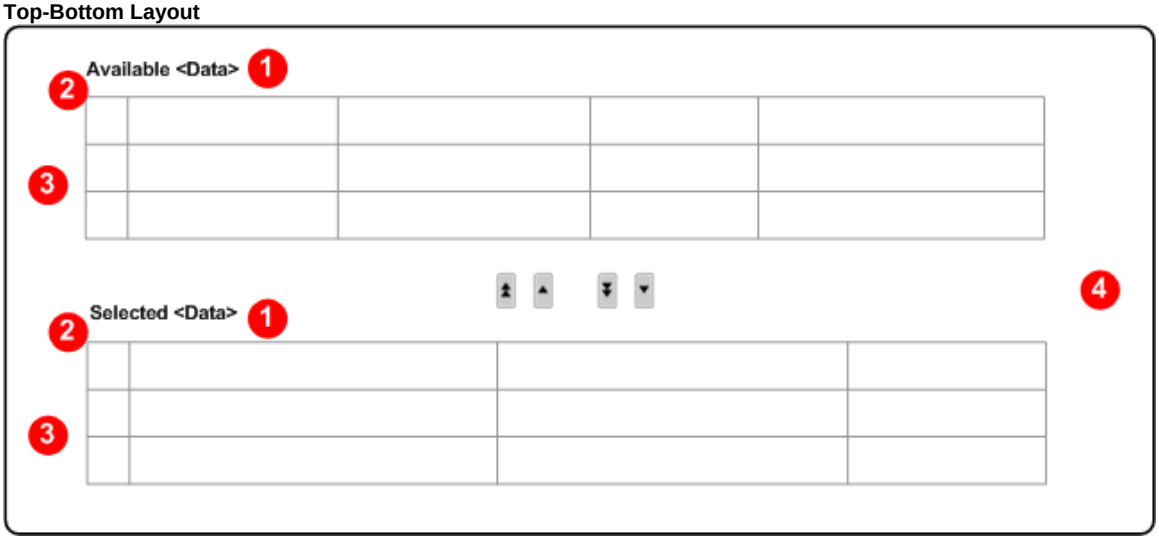
Top

Consistency Rules

Side-By-Side Layout



Top-Bottom Layout



1. **Title:** Use the following list titles
   - *Available <Data>* such as *Available Suppliers* for the selection list.
   - *Selected <Data>* such as *Selected Suppliers* for the list that contains the selected data
2. **Find Form:** You can use a find form within the lists, see Advanced List Pane.
3. **List Height:** Use the vertical space available on the screen.
4. **Layout:** Use one of the following layouts. The two lists have the same height and appear symmetrical, even if one is empty. They do not need to have the same columns.

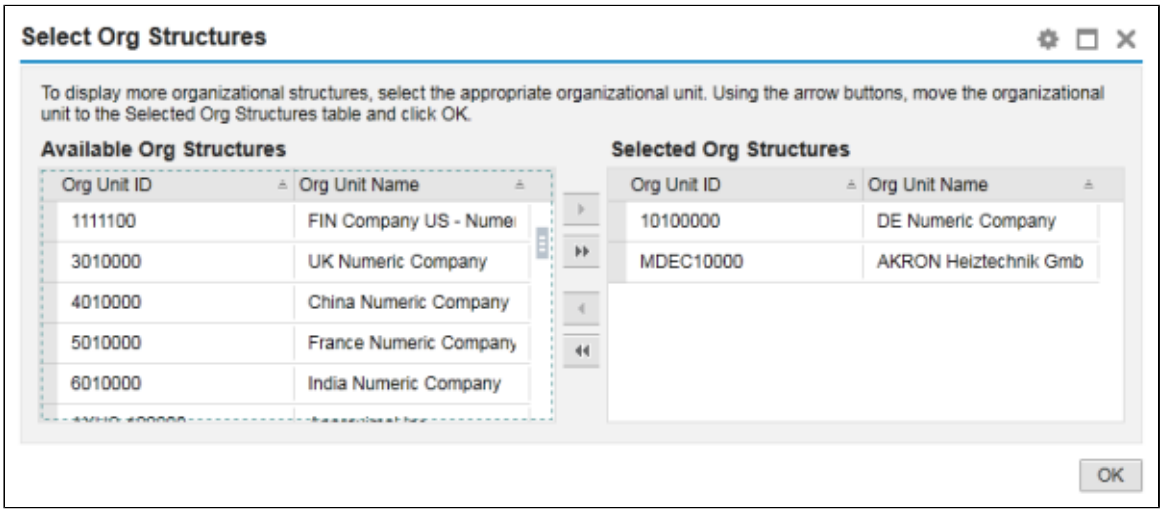
- Side-by-side layout (horizontal BCP) is a 3 column by 1 row matrix layout where the shuttle control resides in the second column.
- Top-bottom layout (vertical BCP) uses a 1 column by 3 rows matrix layout. The lists are displayed one below the other.

NOTE: In Modal Dialogs use always the side-by-side layout. If a list has one column, use the title row without a column header.

Top

Examples

The following screenshot is taken from an FP3.5 ByD system:



Top

More Information

List Pane
Tables

Calendar

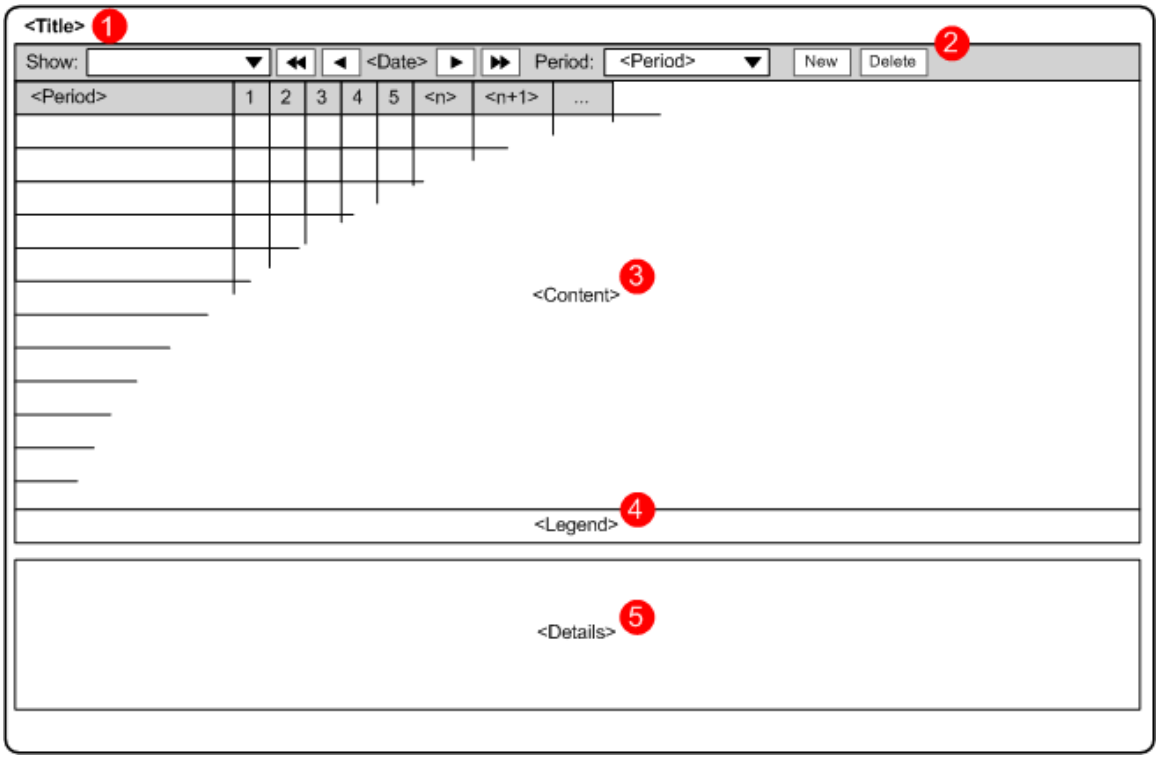
Page Content

Definition: Calendar

The **Calendar Pane** is a UI Pattern used for creating, editing, viewing, and monitoring schedules, recorded employee times, time account entries (for example, overtime and vacation), and appointments. Appointments deriving from the back-end can also be displayed. However, it is not meant to replace the users' personal calendar. The Calendar Pane can be embedded in application floorplans and used in Work Center (WoC) views. Editing is only possible in application floorplans but not in WoC views.

Top

Consistency Rules



1. **Title:** Display a title on top (not needed when the calendar appears directly below a tab). When possible refer to the object of the calendar (for example *System Maintenance Schedule*) or else name it *Calendar*.
2. **Toolbar:** It includes controls that allow the user to act on calendar body content:
   - *Show* dropdown listbox (for example in the *Year* view) allows the user to select and display all or a subset of entry types (see Year view).
   - *Period* dropdown listbox displays *Day, Week, Month, Year, Pay Period*, and other views.
   - Calendar paginator allows navigation to the previous or next time period for the current view.
   - Action buttons, such as a *New* button to clear the Details area and create a new entry.
   - *Delete* button deletes a selected calendar entry.
3. **Calendar Body:** Keep visual indicators (holidays, period separators, semantic colors, etc.) to the minimum required to convey the context of use.
   Different options can be turned shown or hidden: Row selection column, week number column, holidays, alternating cell color, weekends, vertical scroll, and separators (pay period, fiscal time or none). Row headers may contain BO categories or calendar timeframes. They may be hyperlinked or not depending on the other views provided.
4. **Legend**: Below the body of the calendar a legend can be added.
5. **Details**: The details area appears below the Calendar body and below the legend, if present. You can use tabs.

Top

Colors

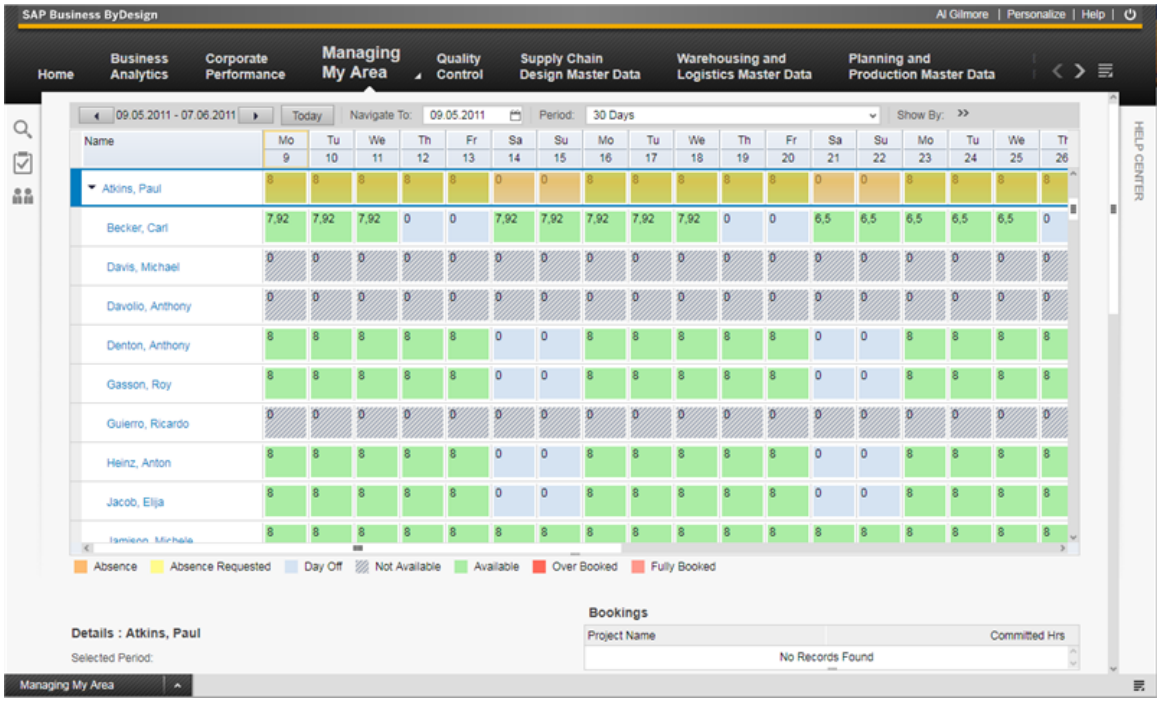
The following colors are allowed in calendars:

Semantic Code for Calendar	Color Hex	Color RGB	Color
TODAY	2 pixel Border FCDC82	252; 220; 130	
SELECTED1	BBDDDD	187; 221; 221	
SELECTED2	F6F387	246; 243; 135	
SELECTED3	C3DDAE	195; 221; 174	
SELECTED4	F66767	246;103;103	
SELECTED5	FE8913	254; 137; 19	
CALENDAR_METAL	DCDCDC	220; 220; 220	
CALENDAR_PEACH	F8E5C8	248; 229; 200	
CALENDAR_BLUE	D0E1EB	208; 225; 235	
CALENDAR_ROSE	E8DAE1	232; 218; 225	
CALENDAR_PURPLE	E9DBF0	233; 219; 240	
CALENDAR_AQUA	C5EAEE	197; 234; 238	
CALENDAR_TEAL	CCE3E3	204; 227; 227	
CALENDAR_YELLOW	EFEFB0	239; 239; 176	
CALENDAR_BROWN	E5E0C1	229; 224; 193	
CALENDAR_DEFAULT	E6E9DC	230; 233; 220	
CALENDAR_GREEN	D6ECAE	214; 236; 174	

Top

Examples

The following screenshot is taken from an FP3.5 ByD system:



Top

More Information

Object Instance

Changes

Page Content

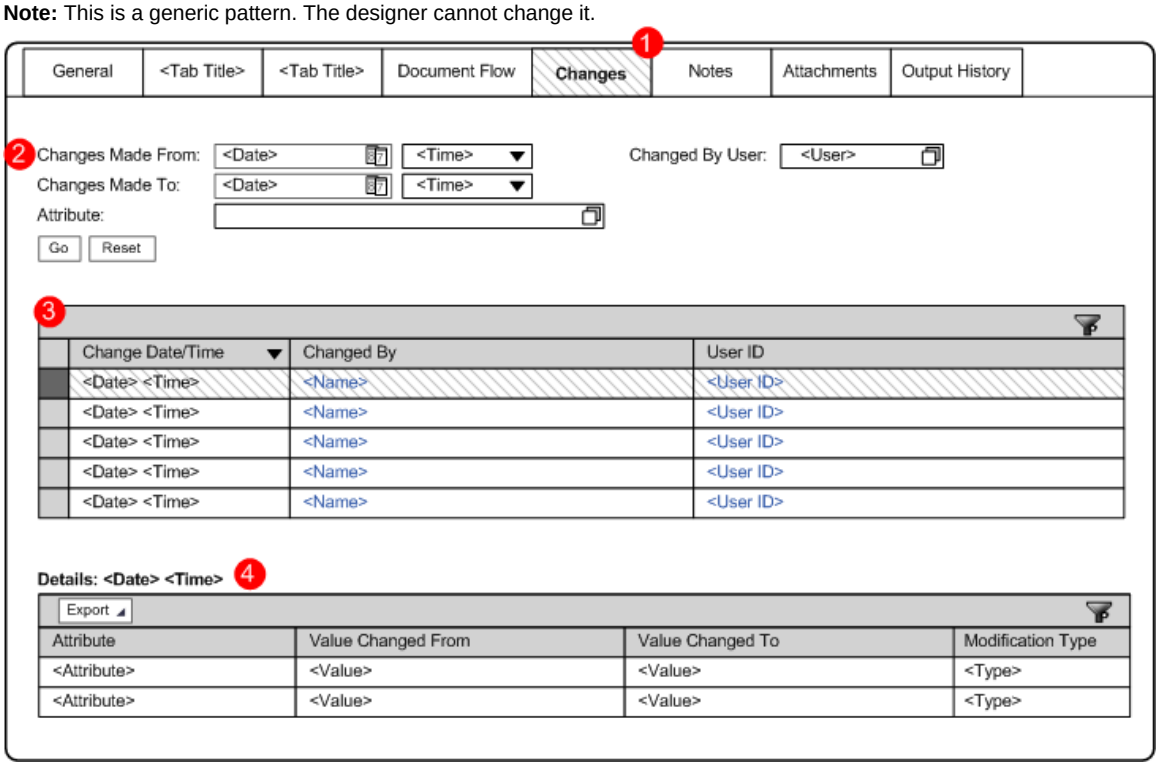
Definition: Changes

Changes is a display-only UI pattern used to show a history of business object data changes. It is provided as a tab within an OIF. It provides a search form on top and a master-detail pattern comprising two lists arranged one below the other.

Top

Consistency Rules

Note: This is a generic pattern. The designer cannot change it.

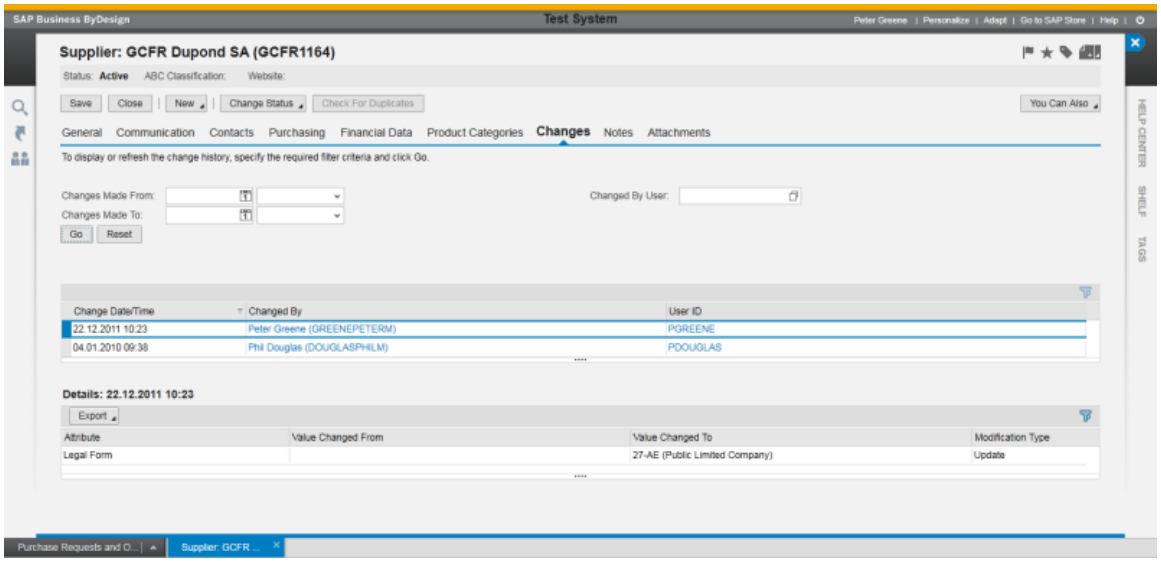


1. **Title**: The tab title is labeled *Changes*.
2. **Search**: The user can specify a date range. Additionally attributes can be selected. Users who made changes can be chosen from the users list.
3. **Master List**: Shows at what date/time a change was made by whom.
4. **Details List**: Displays for each changed attribute the old as well as the new value.

Top

Examples

The following picture is taken from an FP3.5 ByD system:



Top

More Information

Object Instance

Confirmation Dialog

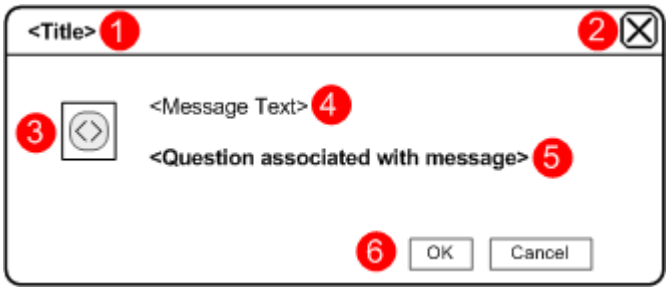
Page Content

Definition: Dialogs for Messages

Dialogs for Messages are used to display text-based messages. Unlike a message in the Message Region, message dialogs windows can include a question that requires an explicit response by the user. For example, if the user changes data in a floorplan window and then tries to close the window without saving the changes, a warning message appears in a message dialog.
A message dialog asks the user for an acknowledgement, a confirmation, a decision, or mere attention to an information. It can be used to display messages, when the message region is either not available or does not provide sufficient visibility.

Top

Consistency Rules: General



1. **Window Title**
   Use the following title format *Confirm <Action>.* For deletion use *Confirm Deletion*, for a warning message use the title *Warning*.
2. **Dialog Window Controls**
   Only the window close (X) appears in a message dialog.
3. **Message Type Icon** (optional)
   For the available message types see Definition: System Message.
4. **Message Text**
   The text of the message appears in plain text, to the right of the message type icon. It informs the user of the situation (for example, an error occurred or an action needs to be taken). Either the message text or the question (see below) must appear, you can also show both.
5. **Question**
   Asks the question to be answered by the user via the action buttons. The question text appears in bold right of the message type icon (3) and below the message text (4). Either the message text (see above) or the question must appear, you can also show both.
6. **Action Buttons**
   Depending on the type of the message dialog use the following buttons:
   - **Confirmation**: Use *OK* and *Cancel.* For **deletion** use *Delete* and *Cancel.*
   - **Decision**: [*<Yes>*] [*<No>*] [*Cancel*], replace *<Yes>* and *<No>* with meaningful words such as *Save* and *Discard.*
   - **Acknowledgement**: Use *OK* only.
   - **Information**: Use *Close* only.
     NOTE: ***Cancel*** or ***Close*** close the dialog window and let the user return to the parent window without triggering a process/action associated with the pop-up.

NOTE: The message dialog does not have any scrollbars.

When to Use a Message Dialog

ISO 9241-13 (chapter 9.2.5, Error Prevention) recommends the following:
"If user actions can have destructive consequences and cannot be undone, a warning or confirmation message should be provided to alert the user to consequences before executing the requested action."

Use a message dialog when the Message Region does not provide essential visibility for the message. Do not use a message dialog for error messages where explicit acknowledgement is not required. Such messages appear in the Message Region.

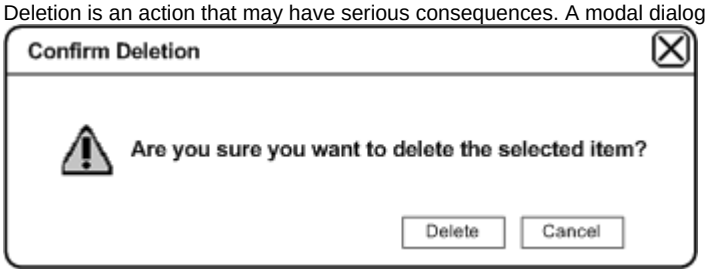
A message dialog can be used to display messages in the following scenarios:

- The Message Region can not display messages or is not available
- Confirmation of deletion
- Warnings for data loss
- Record locking

Top

Consistency Rules: Confirmation of Deletion

Deletion is an action that may have serious consequences. A modal dialog requires users to confirm deletions they initiate.

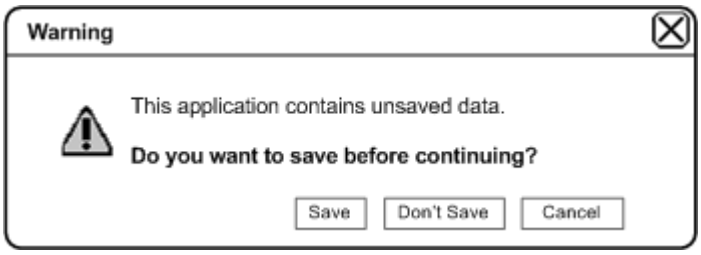


- Show the dialog title *Confirm Deletion*.
- Use the warning icon.
- Show one fo the following message texts:
  - It the user selects a **single** item: *Are you sure you want to delete <item>?* whereas *<item>* can be *Purchase Order 2711* for example
  - It the user selects **multiple** items: *Are you sure you want to delete <count> selected records?*
  - If a distinction between single and multiple selection is not possible: *Are you sure you want to delete the selected record(s)?*
- Use the buttons *Delete* for deleting the item and *Cancel* to go back to the application without any action.

Top

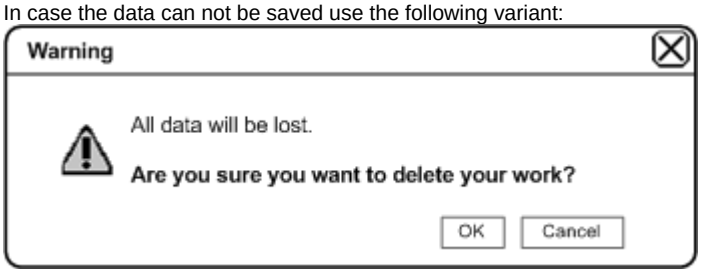
Consistency Rules: Warning of Data Loss

Warning of data loss dialogs notify the user that their unsaved data gets lost when proceeding with the selected action. This dialog is also used in case of navigation to another floorplan via *You Can Also*.



- Show the dialog title *Warning.*
- Show the message text *This application contains unsaved data.*
- Show the question text *Do you want to save before continuing?*
- Use the buttons *Save* to save the data before continuing, *Don't Save* to discard the data before continuing, and *Cancel* to go back to the calling application.

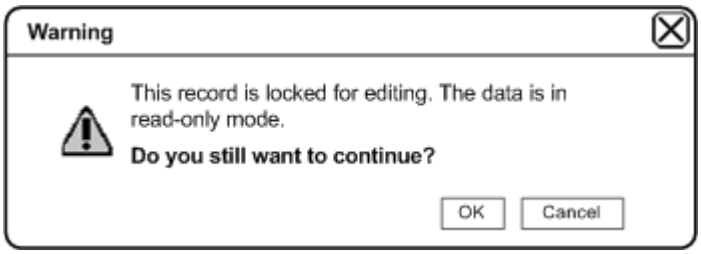
In case the data can not be saved use the following variant:



Top

Consistency Rules: Warning of Locked Record

In some use cases, multiple users access a business object instance at the same time. If a record is locked because is already edited by another user the system displays a dialog telling the user that the record is locked and offering options for the next action, as shown in the figure below.



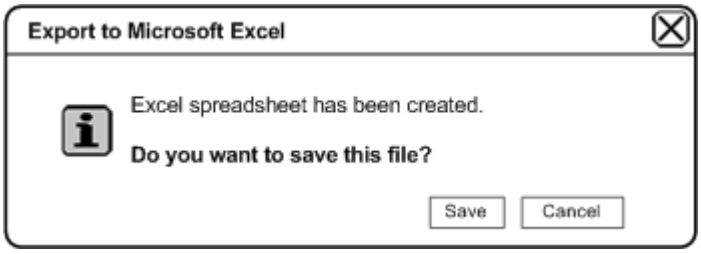
- Show the dialog title *Warning.*
- Show the message text *This record is locked for editing. The data is in read-only mode.*
- Show the question text *Do you still want to continue?*
- Use the buttons *OK* to show the record in read-only mode and *Cancel* to go back to the calling application.

NOTE: Alternatively, a warning message can be displayed in the Message Region. While this approach is less intrusive, the user is more likely to overlook the message when it appears in the Message Region.

Top

Consistency Rules: Download File Dialog

When a file is exported to MS Excel an information dialog shows up. Pressing *Save* shows up the Windows File Save Dialog to allow entering a file name and a directory.



Top

More Information

Modal Dialog

Custom Pane

Page Content

Definiton: Custom Pane

A **Custom Pane** is a 'pseudo' UI pattern that can include controls and functions for screens that are not created using a pattern-based approach. Custom Panes are used for freestyle elements in a floorplan.

Top

When to Use a Custom Pane

Developing Custom Panes requires two to four times more resources than pattern-based UI development. Developing a screen with even one Custom Pane involves significantly more resources than a pure pattern-based approach. It is important to use Custom Panes sparingly; it is allowed only when a need is justified.

The following steps are required to justify a foundation screen:

- Illustrate an understanding of the problem space
- Create a mock-up of the proposed solution
- Develop an alternative that uses only the pattern-based UI approach
- Describe the business case for the Custom Pane versus the pattern-based UI solution
- State the problem that the Custom Pane resolves. List the reasons why this solution is an important candidate for a custom pane. If possible, support your case by including information on the following:
    - Technical requirements
    - User requirements
    - Market requirements
    - Competitive analysis

The use of a Custom Pane does not relieve the designer of the responsibility to ensure consistency in the application's look and feel.

Top

More Information

Solution Development Kit (SDK) for Custom Panes and Custom Controls

Document Flow

Page Content

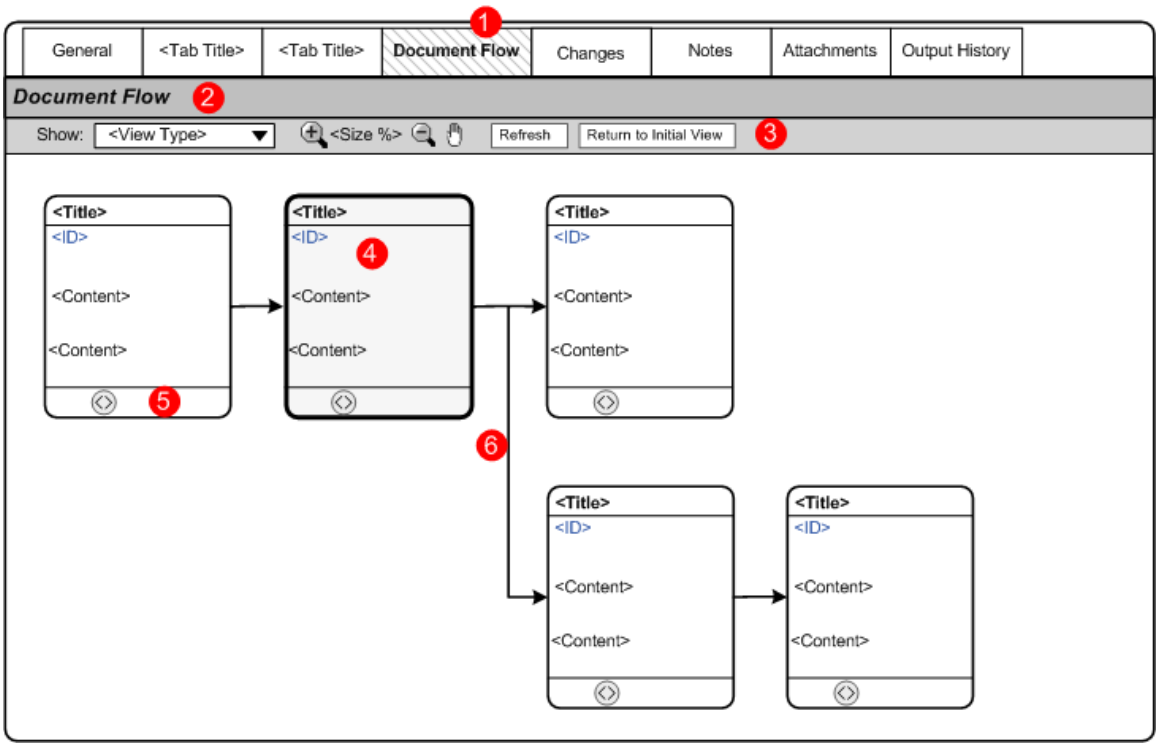
Definition: Document Flow

Document Flow is a display-only UI pattern used to show the status of a document and its related documents. It is provided as a tab within an Object Instance floorplan. It provides a graphical view of the development of a document across all related application areas. All documents are displayed with basic information and their ID. The user can click the ID to open the document's Fact Sheet.
When viewing the document flow of a purchase order, the pattern shows, for example, the whole development from the purchase request to the purchase order, the goods receipt and finally the invoice.

Top

Consistency Rules

Note: This is a generic pattern and the designer can not change it.



1. **Tab Title**: The tab title is labeled *Document Flow*.
2. **Title:** The title is also labeled *Document Flow*.
3. **Toolbar**:
    - *Show*: The user can choose between a standard view and an extended view. The standard view shows a simplified linear flow. The extended view displays all documents that have occured between the initial document and the current document status.
    - *Zoom Buttons*: The user can change the size of the view in predefined steps. The percentage is indicated between the zoom buttons.
    - *Toggle Navigation Window*: The hand icon opens the navigation window where the user can select and jump to a certain part of the document flow.
    - *Refresh*: Refreshes the view of the document flow.
    - *Return to Initial View*: In case the user gets lost in a complex flow structure this button lets the view jump to its upper left hand corner.
4. **Flow Element**: The document in a certain status of the flow is displayed. The leading document - the document from which the user called the document flow function - is displayed with a stronger frame and a different background. The flow element contains:

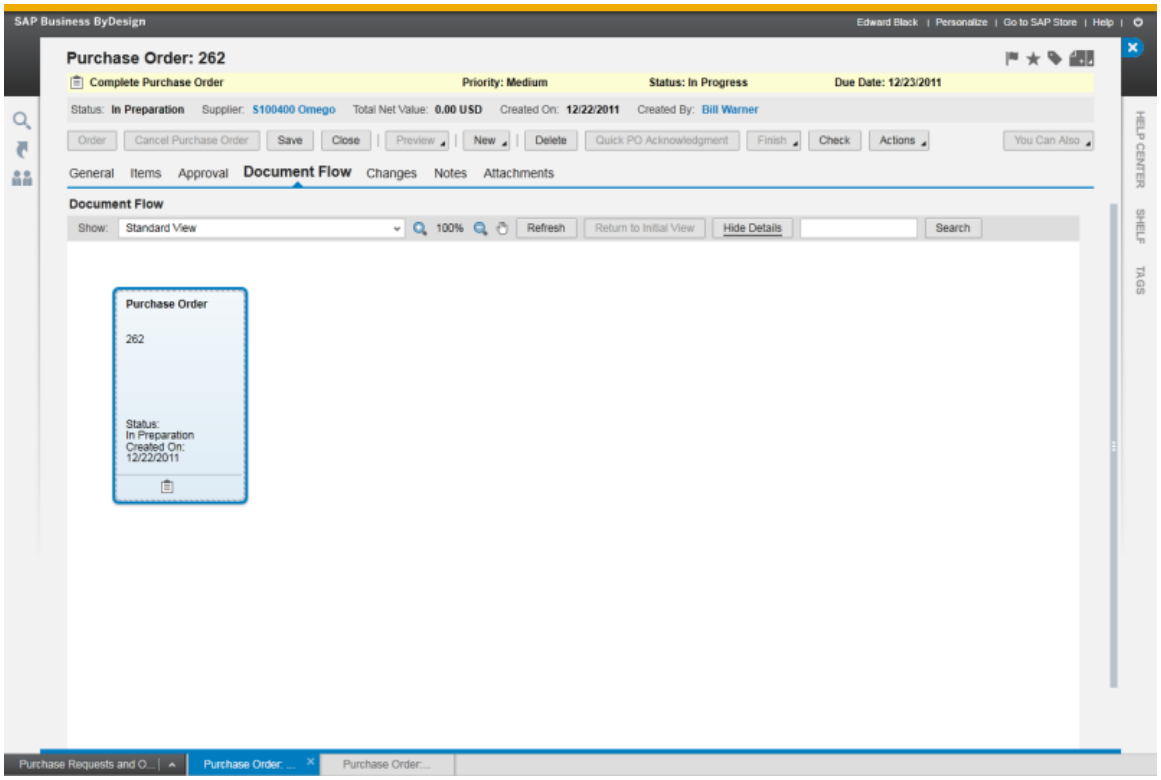
- The document title
- The ID which links to the document's Fact Sheet
- Other descriptive content such as a status or a further brief description

5. **Footer Icon**: Displays a BTM task icon or an anchor icon or an additional folder icon. Flow elements with anchor icon display the flow of the original document. Those with the BTM icon show the related BTM tasks which accompanied a document status. The additional folder icon leads to an accounting journal.
6. **Arrows**: They indicate the flow and status change of the document.

Top

Examples

The following screenshot is taken from an FP3.5 ByD system:



Top

More Information

Gantt Chart
Hierarchical Graph
Object Instance

Find Form

Page Content

Definition: Find Form Pane

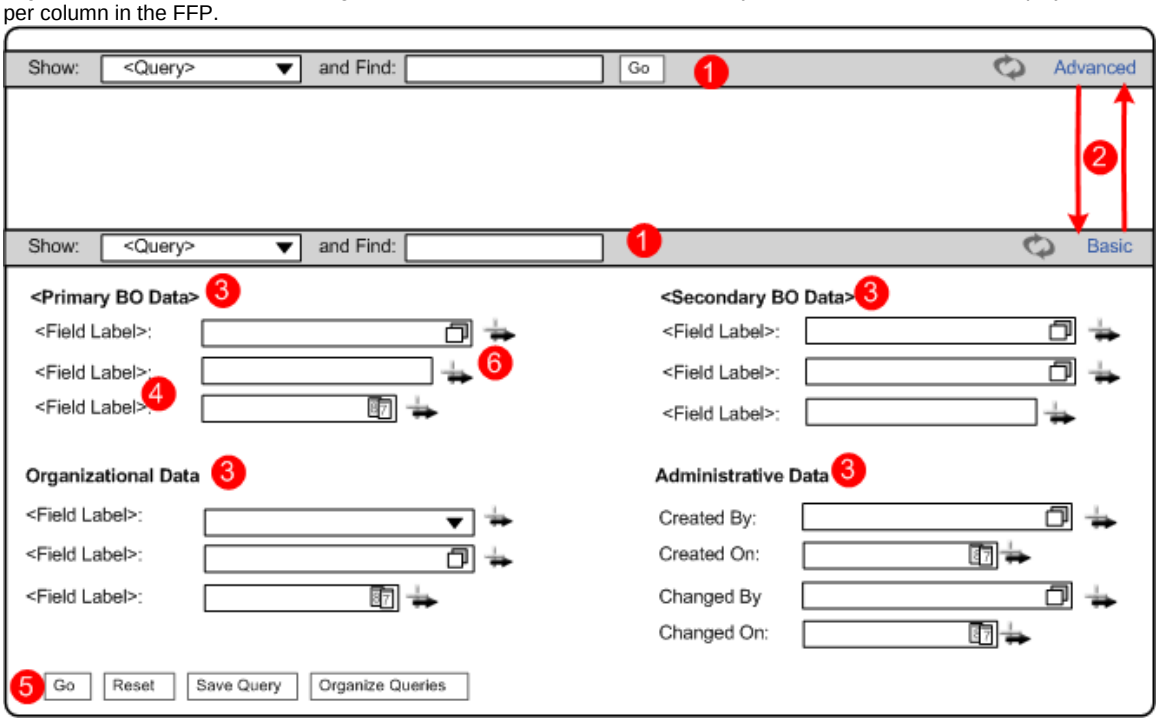
The **Find Form Pane** is a special type of a Form Pane used to enter search criteria and to execute a more complex query on an associated Advanced List Pane. Find Form is used in OWLs and OVS. It can also be used in any other table.

- **Basic Find**
  The *Basic Find* has two mandatory fields. In the *Show* field you can select a query and in the *and Find* field a search string can be entered. The basic find is always available. You need to define which BO fields the system searches for this string. The maximum number of fields to be searched for is 10.
  Do **not** include non-string fields such as date fields and amount fields.
  Include the following fields in prioritized order (if available):
  - ID and Description
  - All fields visible by default in the list
  - Important fields which are hidden by default
    NOTE: Different queries require different basic find and search scope definition.
- **Advanced Find**
  Consists of more than one search field and is optional for OWLs and OVS. The advanced find fields are usually hidden and can be shown via the *Advanced* link. If required by the use case the advanced find can be shown initially. Clicking the icon next to a field in the advanced find opens the select options dialog to define ranges. The advanced find can be hidden by the *Basic* link.

Top

Consistency Rules

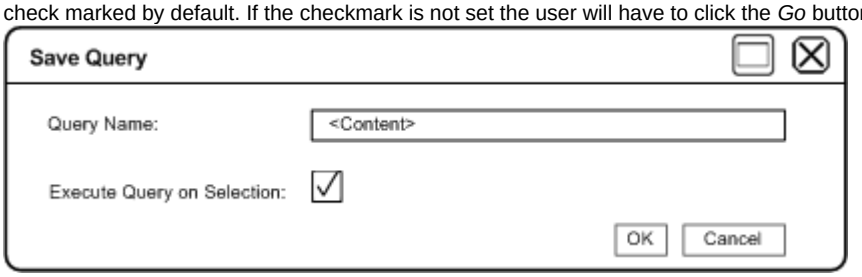
Layout: To avoid horizontal scrolling the FFP must be limited to two column layout. It is recommended to display a maximum of 5 rows per column in the FFP.



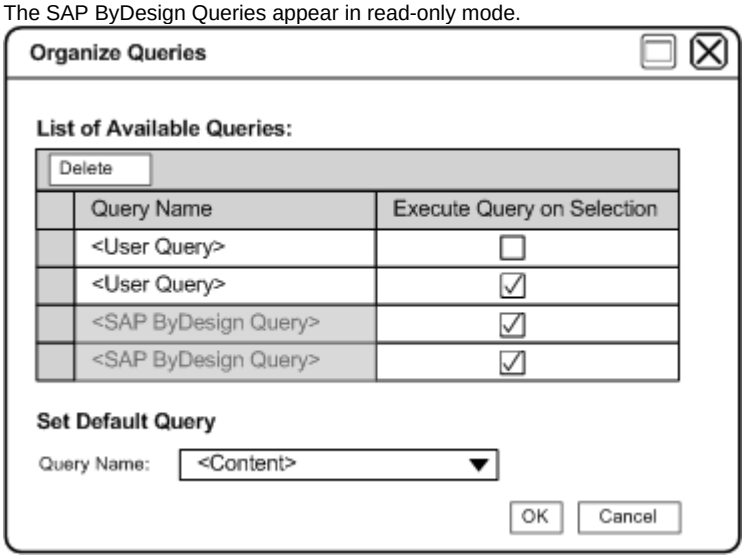
1. **Basic Find**: A single line google-like search.
   - Mandatory fields: *Show* for selecting a query and *and Find* for entering a search string. The *Go* Button executes the query.
   - **Advanced Find**: Enables searching for detailed options in the database tables using advanced mode. The advanced mode is optional. Query parameters have to be editable, even if they have a default value. Query parameters that should

not be edited by the user must be hidden. In case the user edited fields of the current query and clicked the *Go* button the entry in the *Show* dropdown listbox of the OWL changes to *Modified View - <Query Name>*.

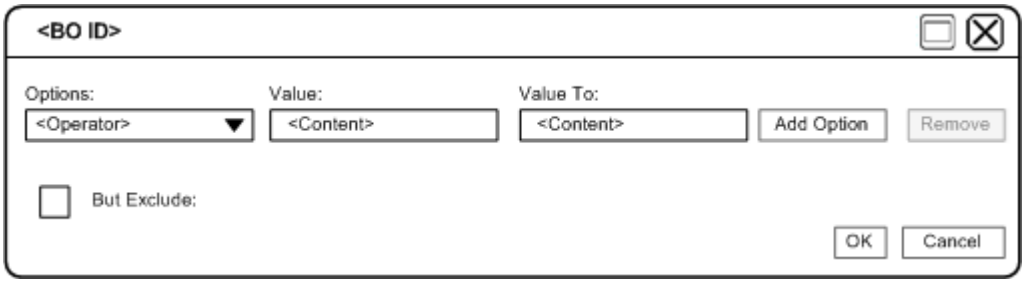
2. **Toggle *Advanced - Basic***: Toggles between basic find and advanced find. The query selection performed in the toolbar in the basic find is the same as in the advanced find.
3. **Section Groups:** It is recommended to use section groups with titles in FFPs with more than 10 fields to enhance readability. Do not define more than 4 groups. Even if you do not use titles define section groups to get a tab chain according to newspaper layout (column-wise top-to-bottom).
   For Object Work Lists (OWL), stick to the following four groups. You can use these groups also for other Advanced List Panes:
   - <Primary BO Data>: Fields of the primary BO (*Account Data* in an Account OWL, or *General*, for example)
   - <Secondary BO Data>: Fields of secondary BO or secondary data (*Supplier Data* or *Items*, for example)
   - *Organizational Data*: Use exactly this group title. If you have 4 groups then configure this group to start in a new line to ensure correct order of groups.
   - *Administrative Data*: Use exactly the group title and field labels as shown on the picture. It is always the last group.
4. **Fields**:
   - ID and description of a BO are displayed below each other with the ID above the description.
   - The labels of the fields in the Find Form Pane and in the column headers of the result list need to be identical.
     Exception: If a column contains a melting field, it is recommend to use each single field as a search field. Example: A column "Name" is a melting field consisting of last name and first name. You can use two fields in the FFP, "First Name" and "Last Name". It is also allowed to use one field if the search scope covers both fields.
   - Do not use an Object Value Selector on the BO ID field for the business object which has opened the current OVS. The reason is to prevent cyclic value help. For example: The OVS for a purchase order must not contain an OVS trigger on the Purchase Order ID field.
   - Date/Time: It is technically **not** possible to display a melting field for date and/or time.
     Therefore searching a time period has to be handled as follows:
     - If allowed by the use case, offer only one search field for the start **or** end date. Via select options the user can specify a time span in which the respective date has to be.
     - If the user needs the possibility to define a time period for the start date **and** end date you have to offer two separate fields.
     - Always arrange the start date above the end date.
5. **Toolbar**: The button order is [*Go*] [*Reset*] [*Save Query*] [*Organize Queries*].
   - *Go* executes the search
   - *Reset* restores the initial state of the selected query (clears all fields that were filled out manually)
   - *Save Query* allows you the definition of recurring search queries. *Save Query* gets enabled as soon as at least one field of the Advanced Find has been filled out manually. It opens a modal Dialog to save the current query. The name will be available in the query selection of both basic and advanced find modes. The checkbox *Execute Query on Selection* is check marked by default. If the checkmark is not set the user will have to click the *Go* button to perform the query.



   - *Organize Queries*: allows the management of saved queries. In the modal dialog you can rename and delete user defined queries. You can also set the checkmark to execute queries on selection and it is possible to define a default query for the basic and advanced find.
     The *Delete* button is mandatory. It is inactive when a SAP ByDesign Query or no query is selected.
     The SAP ByDesign Queries appear in read-only mode.



6. **Select Options**: The icon opens a modal dialog which allows you to set detailed filters on the field you have selected before.



In the modal dialog you can as many filter options as you like. Use the *Add Option* Button for inserting a new line. The *Remove* Button removes the current line. The *OK* Button closes the dialog and transfers the filter values into the field which opened the dialog.

NOTES:

- Use tri-state checkboxes: Blank, Checked, Unchecked. Blank returns a list with both values.
- If the automatic execution of a query causes performance problems, allow the execution on user request only. In this case the following message is displayed: Click *Go* to execute the query. If no result is available, the following message is displayed: *No records found.*

Top

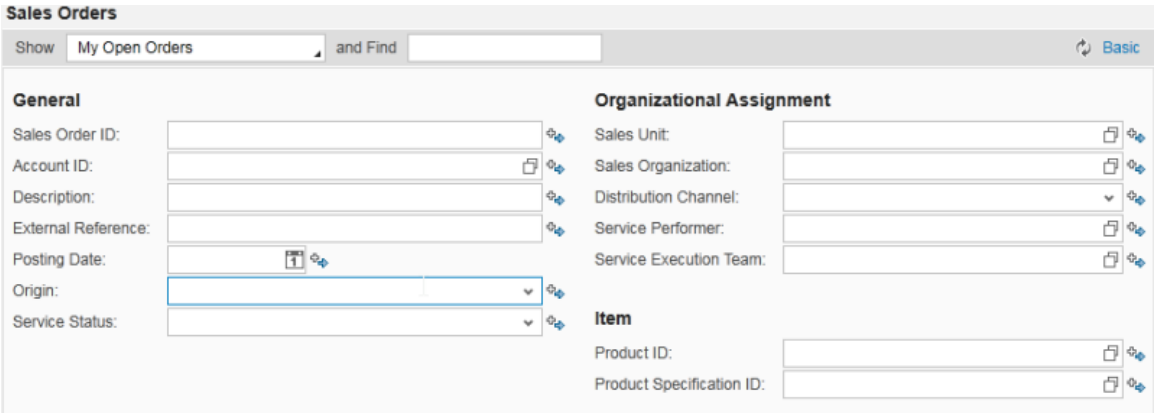
Section Groups

The layout of the find form follows the newspaper layout meaning to have one column section groups only.
See Keyboard Navigation, Tab Chain for further information.

Top

Examples

The following screenshot is taken from an FP3.5 ByD system:



Top

More Information

Advanced List Pane
Enterprise Search
Object Value Selector
Object Worklist
Tooltips for Generic Functions

Form Pane

Page Content

Definition: Form Pane

The **Form Pane** (**FP**) is a UI pattern which arranges section groups in a predefined layout either single column wise (newspaper layout) or two column wise. Section groups contain input controls like fields and dropdown listboxes. The input controls can be shown as editable, read-only, or display-only.
See Tab Chain for examplary Form Pane arrangements and the tab chain.

Top

Consistency Rules

Title
Use a Form Pane title only when there are several distinct Form Panes or List Panes with the need of seperate titles.

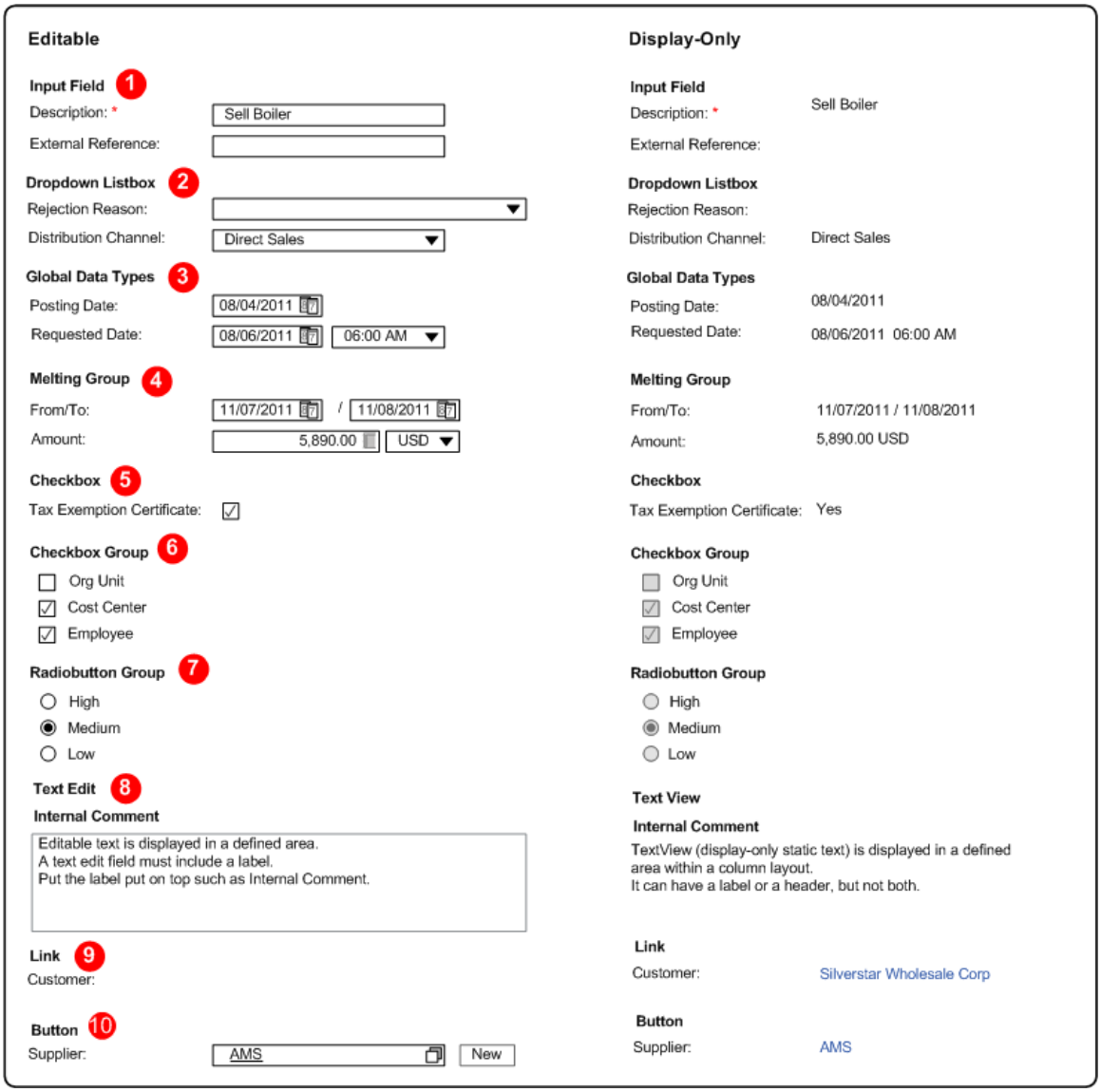
Buttons
Form Panes can have a toolbar. It is placed directly below the title.

Tab Strips
Tabs can be used to group forms into different views but also within a form to group part of a form.

Form Pane Content
A Form Pane typically contains Section Groups with fields that semantically belong together. A Section Group within a Form Pane is identified by a title. For details of form layout see Forms & Fields.

NOTE: If you show only the ID or the description/name in a form, take care that you put the other one into the hidden fields.

Controls within a Form Pane
You can use the following controls within form panes:



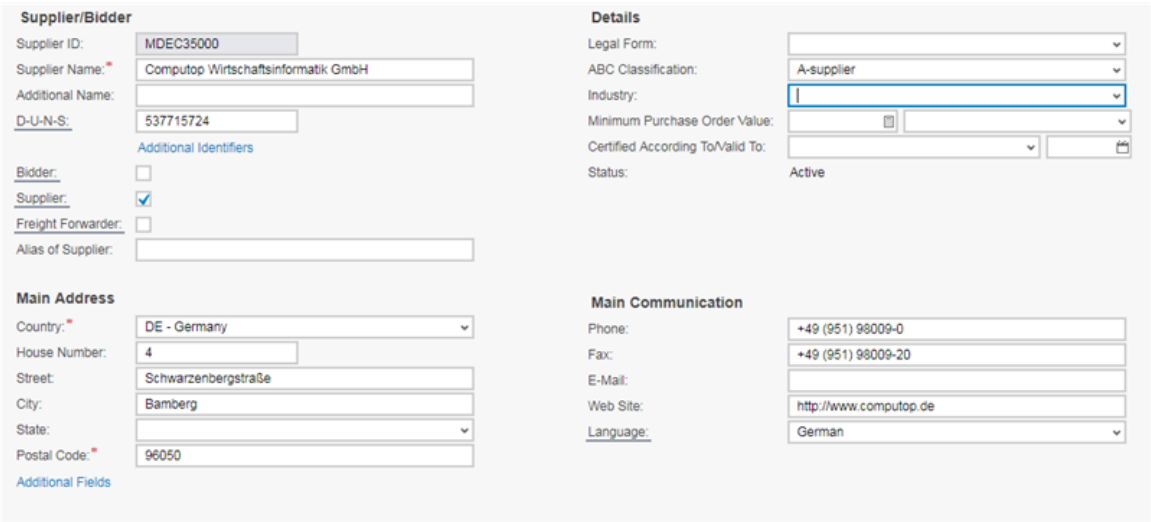
No	Element	Description	Display-only Appearance
1	Input Field	Typically appears in conjunction with a label. A **required** field is indicated by a red asterisk after the last character of the label for that field. A field can be accompanied by a Value Help control displayed to the right of the input field.	Not allowed.
2	Dropdown Listbox	Dropdown Listbox control allows the selection of one predefined value from the listbox.	Not allowed.
3	Global Data Types	Input and Value Help controls appear as determined automatically by the business object (BO) definition. The global data type determines the appropriate user interface control necessary to enter or select the data. These user interface elements may include up to three form fields with the appropriate input and value help controls. For example, the Global DateTime data type is mapped to three form fields within one melting group: (1) a date field with a calendar control, (2) a dropdown listbox for time, and (3) a dropwdown listbox for Time Zone Code.	No field borders. Background color is the same as the floorplan.
4	Melting Group	A combination of two or more controls, usually fields or dropdown listboxes, which are treated as one control. One of the controls must have a fixed size and position while the other stretches to fill the layout cell. A Melting Group does **not** wrap.	No field borders. Background color is the same as the floorplan.
5	Checkbox	The checkbox with either checked or unchecked state appears usually on the **right** side of a label when it comes alone within a group of fields.	Display either as disabled checkbox or as value (as text) of *Yes* (checked) or *No* (unchecked) to the right of the label. See Fields: Checkboxes.

6	Checkbox Group	Checkboxes can be related to each other in that they refer to the same aspect of a business object. A checkbox group allows multiple choices from an offering of two or more choices. The checkbox appears at the **left** side of the label.	Display either as disabled checkbox or as value (as text) of *Yes* (checked) or *No* (unchecked) to the right of the label. See Fields: Checkboxes.
7	Radiobutton Group	A group of radio buttons are related by topic and provide the user the option to select a single exclusive choice from an offering of two or more choices.	Display either as disabled radio buttons or as text value: *Yes* (checked) or *No* (unchecked) to the right of the label. For example: *High: No* *Medium: Yes* *Low: No*
8	Text Edit	Editable text is displayed in a defined area. A text edit field must include a label. The label should be put on top of the edit field.	No field borders. Background color is the same as the floorplan. A label is optional if a group header can function as a header for multiple fields.
	Text View	TextView (display-only static text) is displayed in a defined area within a column layout. The TextView can have a label or a header, but not both.	No field borders. Background color is the same as the floorplan.
9	Link	A hyperlink navigation control	Allowed
10	Button	Buttons can only be placed after a field, see Button Placement in Forms.	Not allowed

Top

Examples

The following screenshot is taken from an FP3.5 ByD system:



Top

More Information

Forms & Fields

Gantt Chart

Page Content

Definition: Gantt Chart

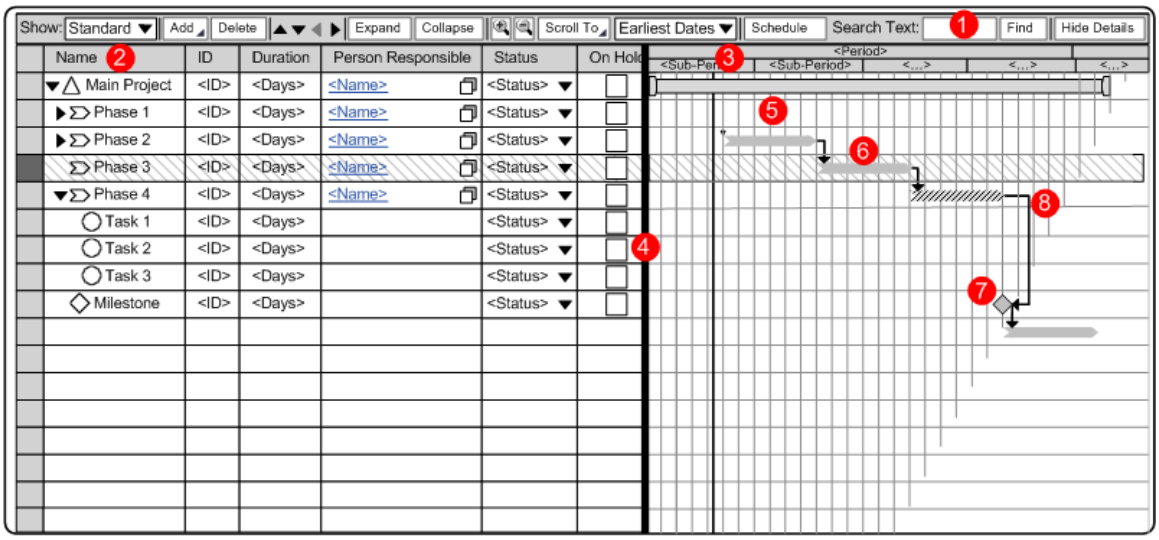
The **Gantt Chart** is a UI pattern with a graphical representation of the duration of tasks against the progression of time. The Gantt Chart is used for planning, scheduling, tracking, co-ordinating, and editing projects. An optional details area for editing entries is included. The chart can be embedded in any application floorplan.

The Gantt Chart:

- Displays the schedule of objects against a timeframe visualized in graphical and tabular areas.
- Offers the option of creating new nodes/items and links between business objects (BO) nodes.
- Provides access to detailed information about an item (details of a specific task, for example).

Top

Consistency Rules



1. **Toolbar:** Buttons may be enabled/disabled based on the row/item/entry selection in the Gantt.
   Use the following toolbar elements in the given order:
   - *Show*: Displays different views
   - *Add^*: Adds a new node (could allow selection of different type in menu)
   - *Delete*: Deletes a selected node
   - Arrows: Moves a node accordingly (*Move Up*, *Move Down*, *Outdent*, and *Indent*)
   - *Expand*: Shows items subordinated to the current line - the items will be displayed indented
   - *Collapse*: Hides the indented subordinated items to the current line
   - Magnifying glass icons: Zooms/unzooms into the the graph area for a detailed view for a range of three weeks
   - *Scroll To^*: Lets the user jump to a certain date in the graph area:
     - *Task*: Jumps to the starting date of the current node
     - *Today*: Jumps to the current date
   - *Schedule*: Schedules the selected nodes
   - *Find*: Opens a Modal Dialog to find a string
   - *Hide Details / Show Details*: Hides or shows the Details Area below the chart.
2. **Table:** The table can be a hierarchical or a flat list. The user can enter data in the empty row after the last item. Data is saved when the *Save* button of the application floorplan is activated, and the item is created at the same hierarchical level as the last item. Detail data can be displayed for the new item.
3. **Graph:** Displays the interactive or read-only graphical part of the Gantt Chart showing bar chart entries along a horizontal time axis. Relationships, if any, between items/BO nodes can be shown.
4. **Splitter:** A splitter between the table and the graph allows to resize both areas with the mouse.
5. **Cell:** Each cell corresponds to an instance of the chosen time unit. White by default and twelve additional background colors available.
6. **Bar:** Items from the table are normally represented as a bar on the Gantt graphic (large, medium, thin, or a phase (fish/arrow

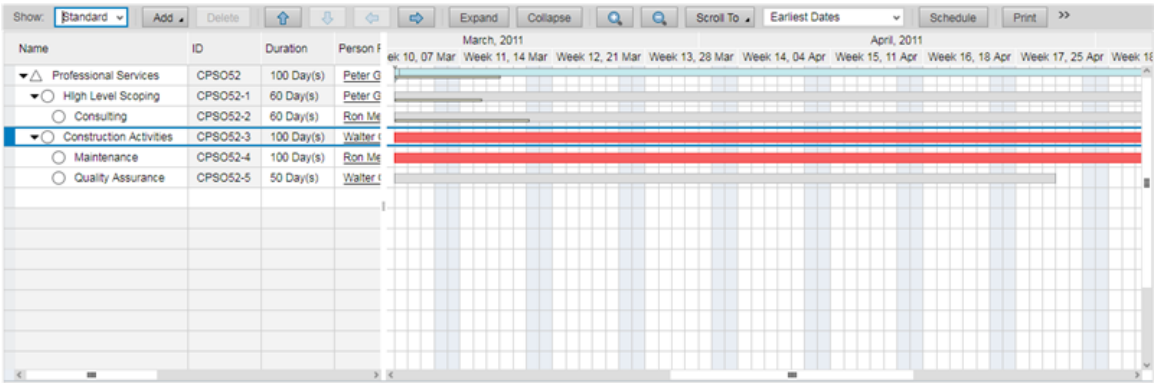
shape). By default, the size is set to large and labels appear to the right of a bar, and can be set to appear inside.
In a hierarchical table, the parent entry becomes a Project Summary Task, which can be set to critical (Orange).
Different colors can be used to represent entries/items: Default, Purple, Teal, Peach, Brown, Rose, Blue, Green, Aqua, Yellow, Metal, Black, Critical (orange), and Red.
Duration of entries/items can be modified by edits made in the tabular rows or by dragging the edge of the respective graphical element. Editing the entry/item in the graphical part is reflected as a change in the tabular part and vice versa.
A tool tip containing entry/item specific information is displayed on the entries (graphical element). Entries are selectable in the graph/table using the mouse.
Links can be created and deleted between entries/items.

7. **Milestones:** Milestones can be added on a row of the graph and take different shapes and colors (Gold, Silver, Green, Red, and Black).
8. **Dependencies:** Dependencies for successor or predecessor items can be defined for acurate scheduling.

Top

Examples

The following screenshot is taken from an FP3.5 ByD system:



Top

More Information

Hierarchical Graph
Document Flow

Hierarchical Graph

Page Content

Guidelines for UI Development
Preview is not available in FP3.5.
The pop-up menu trigger on an existing node is not available in FP3.5.

Definition: Hierarchical Graph

The **Hierarchical Graph** (**H-Graph**) is a UI pattern that visualizes a hierarchical set of nodes in a graphical parent-child structure. Connected nodes following this structure are aligned with straight lines.
The H-Graph can display the following structures:

- Hierarchical networks (one parent with multiple children)
- Web network (multiple parents and children)

The content area can display more than one chart at a time suited to business needs. Nodes can be set to:

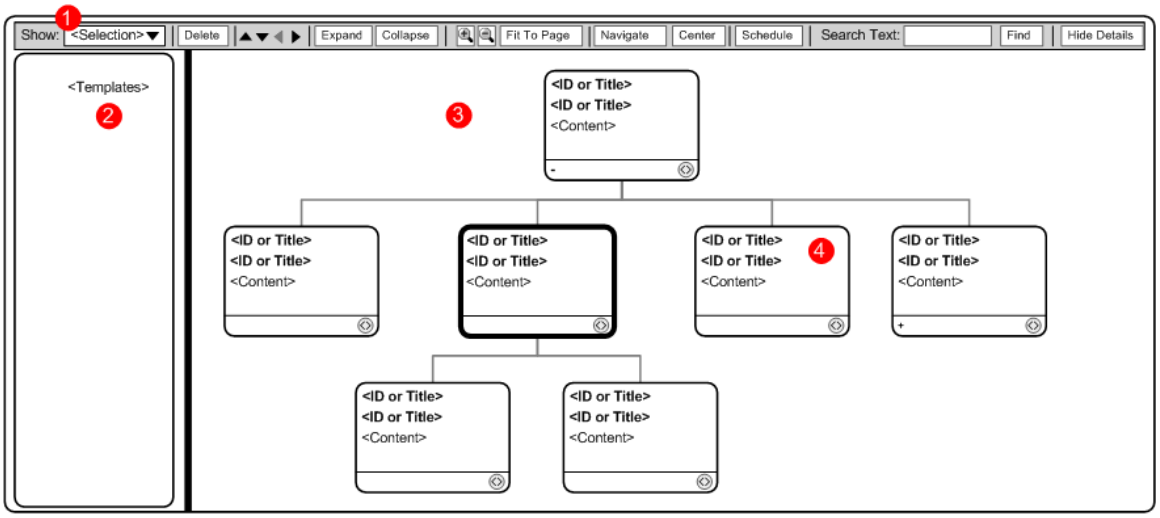
- single-selection
- multi-selection with lead selection
- display-only

Nodes are created or attached using:

- a template
- a new node from the Hierarchical Graph content area
- a new node created in the hierarchical table view which corresponds to the graphical view

Top

Consistency Rules: Editable



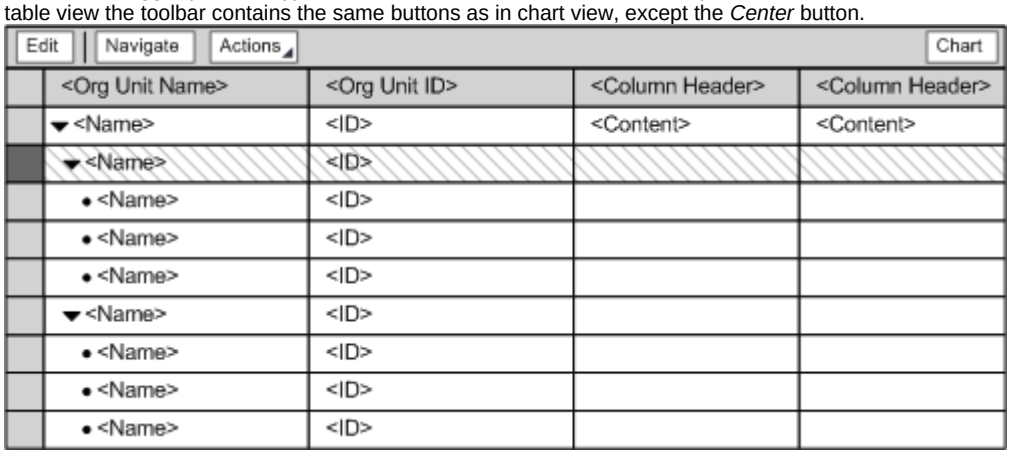
1. **Toolbar**: The toolbar let the user perform actions either on the selected node or for the entire H-Graph. The green marked entries are mandatory:

#*

- *Show*: Displays different views in the Hierarchical Graph content area
- *New*^ (recommended): Creates a new node. Possible options depend on the context. Example: Phase, Task, and

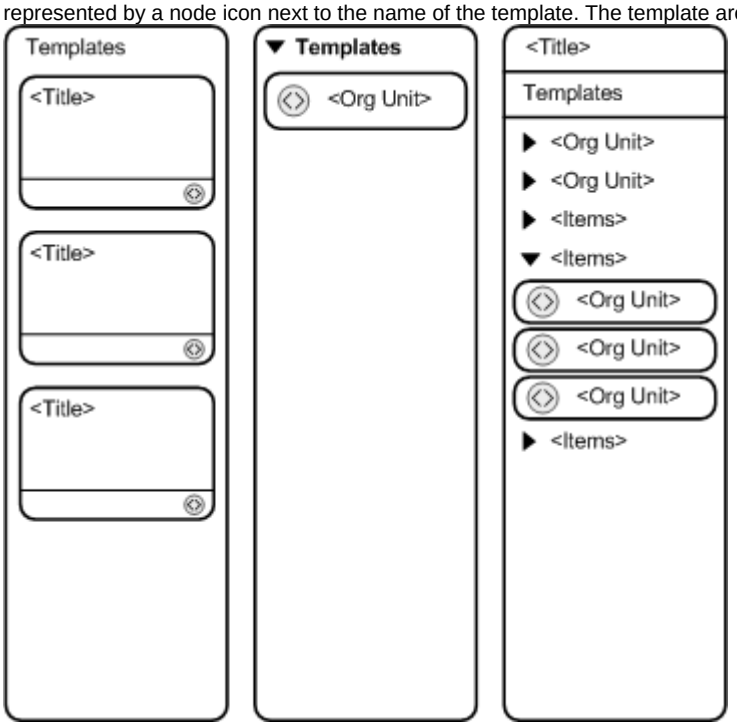
Milestone.
The menu of the *New*^ button allows to either insert a parent node or a child node. A parent node is always inserted at root level no matter which node has been selected prior. A child node is always inserted underneath the selected node. Nodes dragged from the template area and dropped to the content area are inserted as parent nodes unless they are dropped on top of an existing node. In that case the new node becomes a child node of the selected .

- *Edit*^ (recommended): This menu provides functions for the current node and its child nodes. Place the menu items in the following order:
  - *Copy*: Copies the current node to the clipboard. The node remains on the clipboard until it is pasted in the content area or another node is cut or copied.
  - *Cut*: Copies the current node to the clipboard and deletes the node after the user selected the past function.
  - *Paste*: Inserts a node from the clipboard under the current node. The user can select *Paste* from the *Edit*^ button on the toolbar or the paste function on the pop-up menu of a node.
  - *Convert to Root*: Moves a node to the top level. The function is disabled if the selected node is a root node and enabled if the selected node is a child node.
  - *Delete*: Deletes the current node and its possible child nodes
- *Print*: Prints out the Hierarchical Graph.
- *Preview*: Displays a print preview
- Indentation Icon Buttons: Perform the selected indention action for the current node.
- *Actions*^: Place functions in this menu which can contextually be grouped such as expand, expand all, collapse, collapse all.
  It is recommended to use the *Actions*^ menu but you can also place the items directly in the toolbar.
  - *Expand*: Expands the current node and shows its child nodes. Alternatively the user can use the + (plus) button on the node
  - *Collapse*: Hides the child nodes of the current node. Alternatively the user can use the - (minus) button on the node
  - *Expand All*: Shows all hierarchies of nodes
  - *Collapse All*: Hides all subnodes and shows only root nodes
- Zoom functions: Offer one of the following options:
  - Magnifier icons + (plus) and - (minus): Zoom the H-Graph content area gradually in defined steps in/out.
  - Zoom dropdown listbox (recommended): The user can select the desired zoom factor from this menu and the view of the H-Graph content area zoom in or out accordingly, such as 500%, 200%, 150%, 100%, 75%, 50%, 25%, 10%, *Fit to Page*: Automatical choice of a zoom factor that allows all nodes to be viewed in the H-Graph content area
- *Navigate*: Shows a simplified view of the chart structure. A semi-transparent rectangle highlights the area of the charts that can actually be seen on the H-Graph content area. By moving the highlighted area within the window the current content area adjusts that the highlighted area always represents the picture detail of the actual content area. This helps the user to gain overview of the whole picture of the complete chart structure and still see the details on the H-Graph.
- *Center*: If no node has been selected the whole chart area will be centered. A selected node and its child nodes will be centered.
- *Schedule*: Creates or modifies the scheduling data of the current node.
- Search Text input field plus *Find* button: Searches inside the H-Graph for the string the user typed in. By success the first node which matches the criteria is activated and centered.
- *Hide/Show Details* toggle (mandatory): Shows or hides the details area.
- *Table/Chart* toggle (mandatory): Switches the view in the Hierarchical Graph content area between a tree and a chart. In table view the toolbar contains the same buttons as in chart view, except the *Center* button.



2. **Templates:** Templates can be dragged and dropped into a Hierarchical Graph content area to generate a set of nodes and link them together.
   The templates area can be shown and hidden or horizontally be expanded/reduced by using the corresponding icons on the

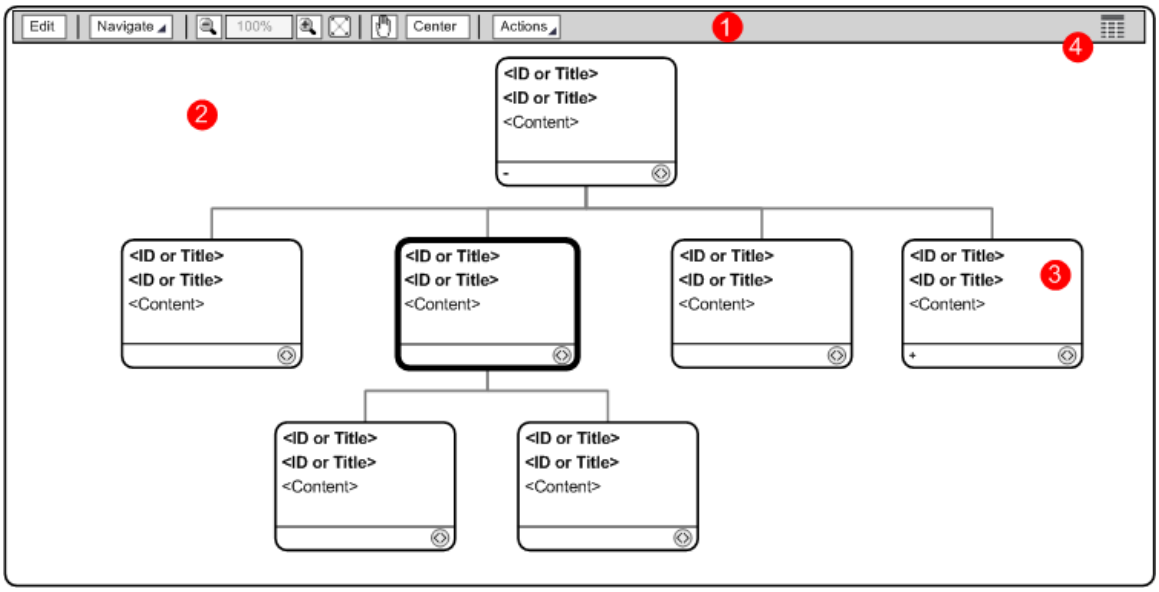
splitter. There are different options for the look of the templates. Either they look like within the chart or they could be represented by a node icon next to the name of the template. The template area can contain hierarchical menus.



3. **Hierarchical Graph Content Area:** Content (nodes, links) can be added, moved to a new location, and deleted. New nodes can be added using the following functions:
    - Drag and drop (from templates)
    - Pop-up menu trigger on an existing node: Selecting *New* from the pop-up menu. The new node is inserted as a child node of the existing node. The pop-up menu trigger offers various options for nodes. Nodes that are created via this pop-up menu are inserted as subordinated nodes. Recommended for this menu are the items *New^, Edit^, Actions^* as well as their sub-menus.
    - In a hierarchical network, the orientation of the hierarchy can be top-bottom (vertical) or left-right (horizontal).
    - In a web network, the orientation can be left-right, right-left, top-down, and bottom-up.
4. **Nodes:** Each node has an ID (mandatory) and a title (optional) which can be edited in place. If a node has at least one child node a plus or a minus sign will appear at the bottom left corner.
   The minus sign collapses all child nodes of the selected node, the plus sign expands the child node(s). The expand and collapse function does not affect the nodes structure.

Top

Consistency Rules: Display-Only



1. Toolbar: The toolbar buttons offer the same options as for the editable H-Graph. See Editable Hierarchical Graph. Except:
    - *Edit* button (mandatory): Switches the H-Graph into edit mode where you can work as described in Editable Hierarchical Graph.
2. Hierarchical Graph Content Area: Content (nodes, links) is displayed in the Hierarchical Graph content area. You cannot add or

modify nodes or use templates.
All other properties of the content area are equal to those in the editable H-Graph. See Editable Hierarchical Graph.

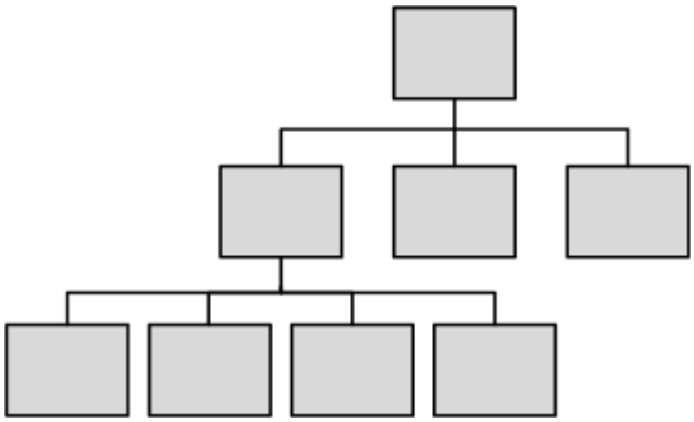
3. Nodes: Each node has an ID (mandatory) and a title (optional). If a node has at least one child node a plus or a minus sign will appear at the bottom left corner.
   The minus sign collapses all child nodes of the selected node, the plus sign expands the child node(s). The expand and collapse function does not affect the nodes structure.
4. *Table/Chart* toggle (mandatory): Switches the view in the Hierarchical Graph content area between a tree and a chart.
   In table view the toolbar contains the same buttons as in chart view, except the *Center* button.

Top

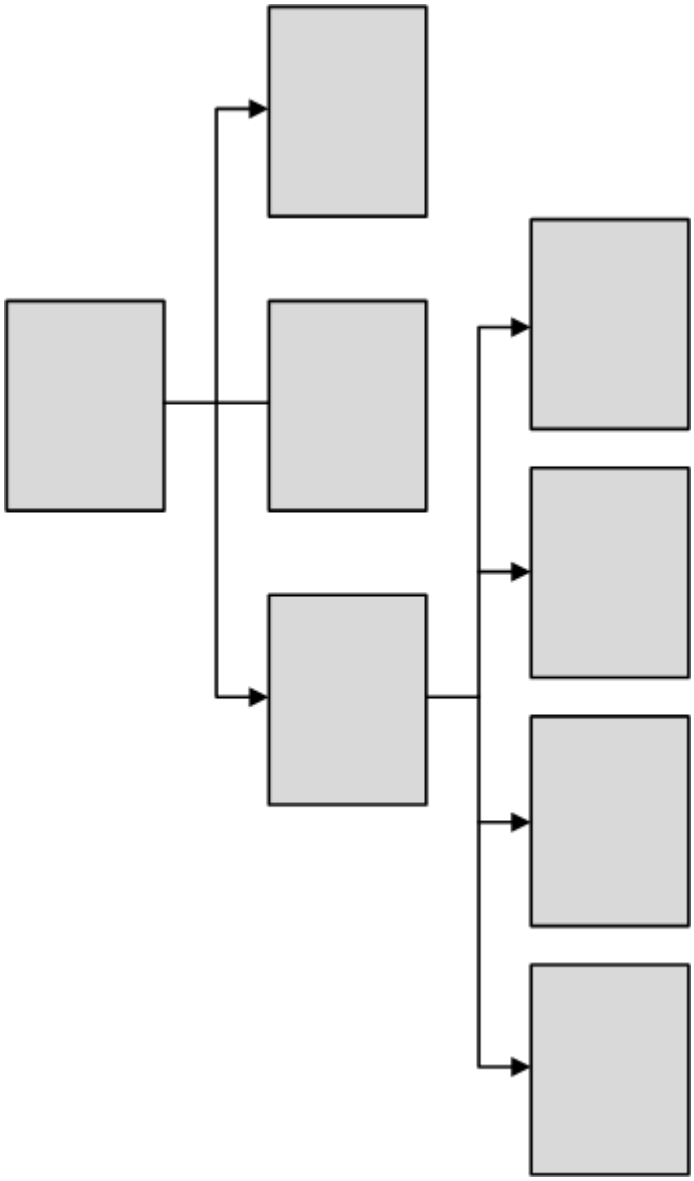
Consistency Rules: Hierarchies

In a hierarchical network, the orientation of the hierarchy can be top-bottom (vertical) or left-right (horizontal).
Illustrated below are a few graphical representation (hierarchy/network) as extracted from various requirements:

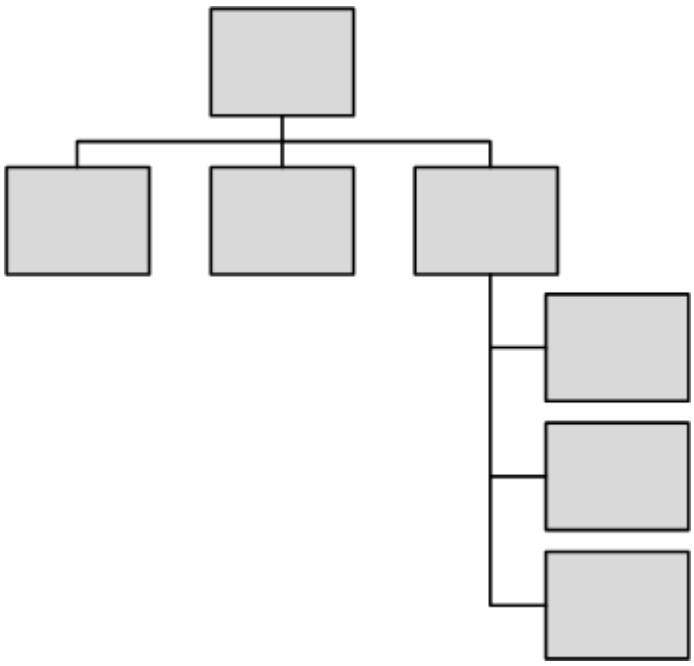
Example 1



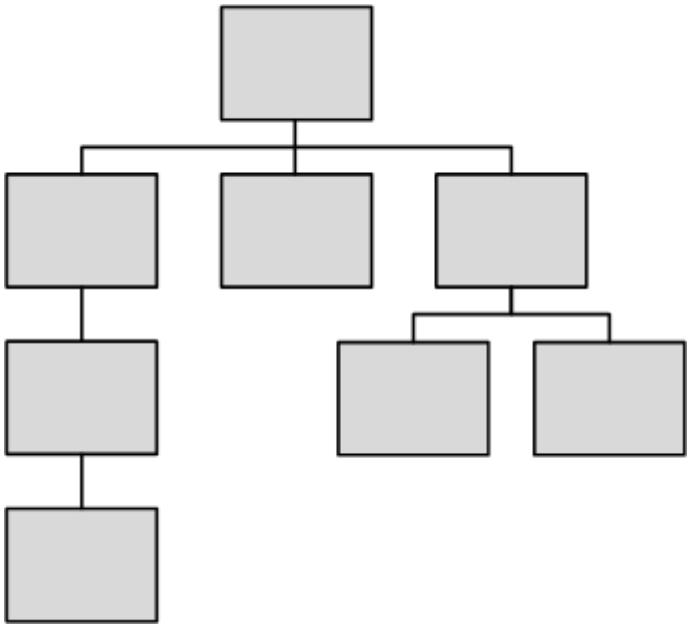
Example 3



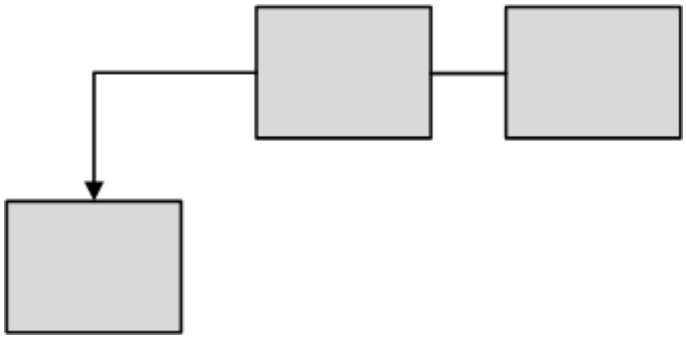
Example 2



Example 4



Example 5

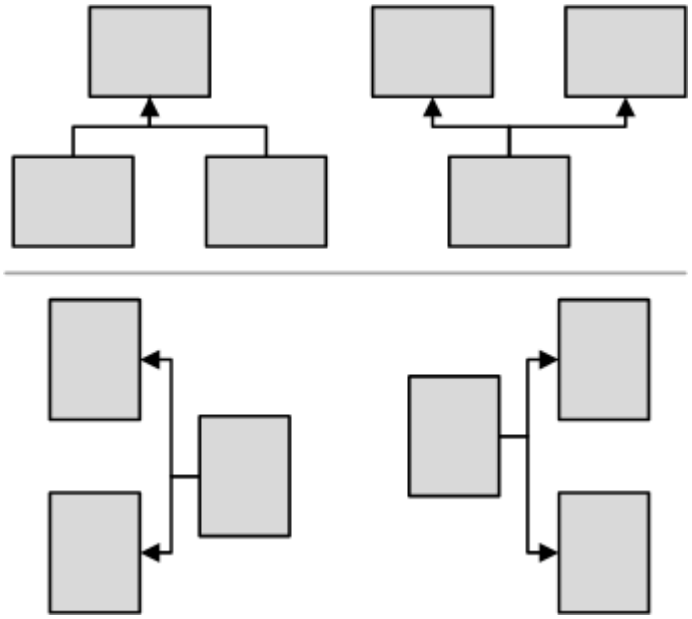


Top

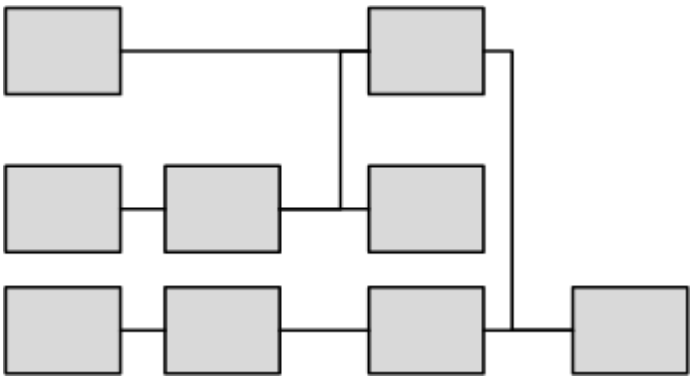
Consistency Rules: Networks

In a web network, the orientation can be left-right, right-left, top-down, and bottom-up.

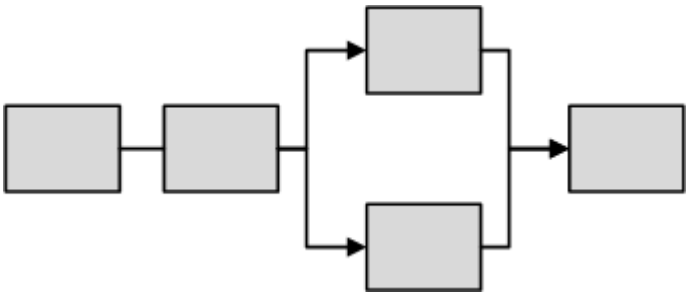
Example 1



Example 2



Example 3

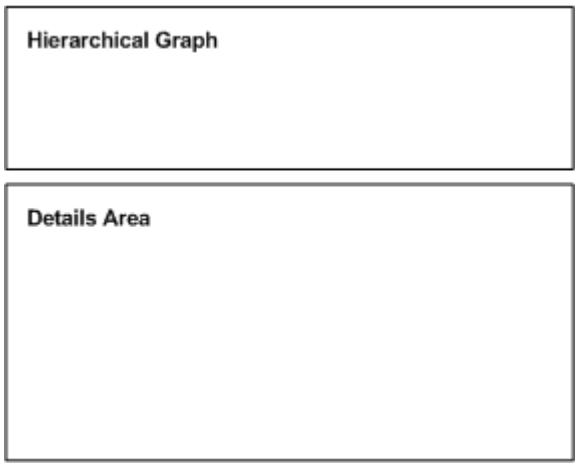


Top

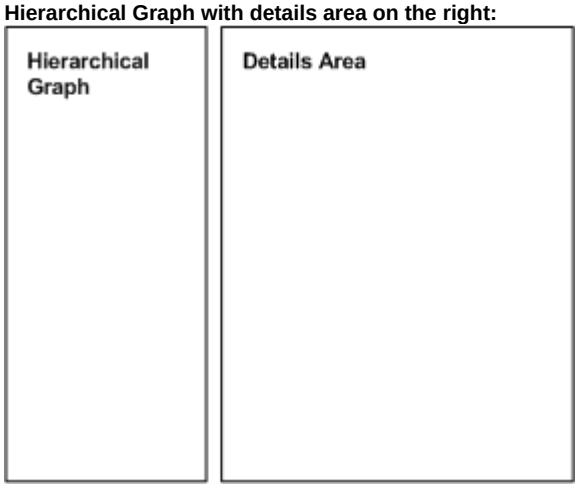
Arrangement of Hierarchical Graph and Details Area

The details area appears in a Form Pane below or on the right, and it can include a header or a tab strip. If the content area is empty, the details area presents a message: *No nodes selected*. If the details area appears on the right, the different areas can be resized dynamically. For more information see Master-Detail.

Hierarchical Graph with details area below:



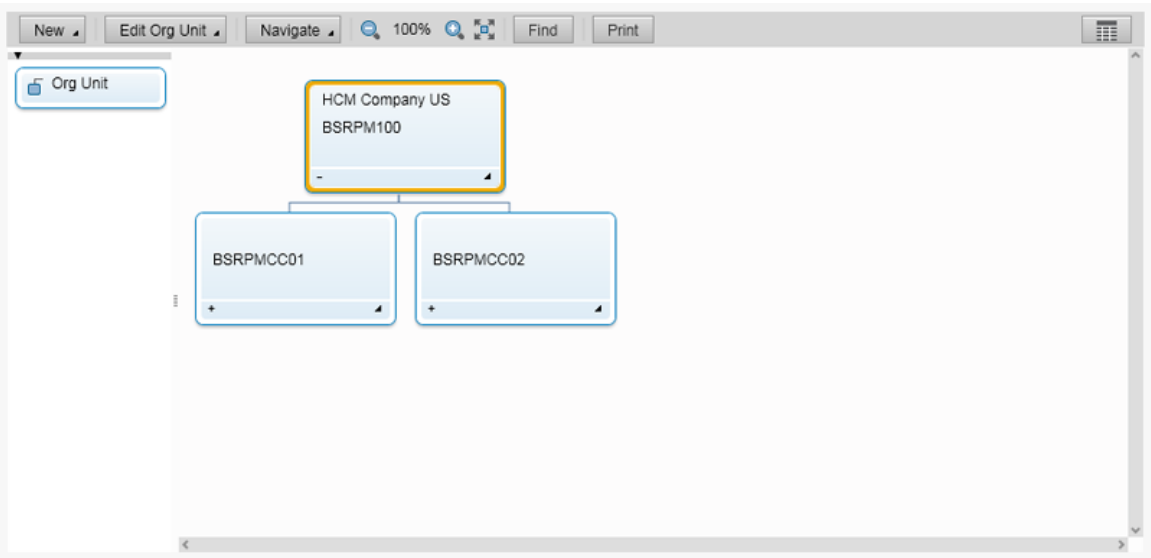
Hierarchical Graph with details area on the right:



Top

Examples

The following screenshot is taken from an FP3.5 ByD system:



Top

More Information

Gantt Chart
Document Flow

Identification Region

Page Content

Definition: Identification Region

The **Identification Region** (**IDR**) is a constituting UI Pattern supporting the user in identifying an application, and the object(s) handled in it.

The IDR consists of the following areas:

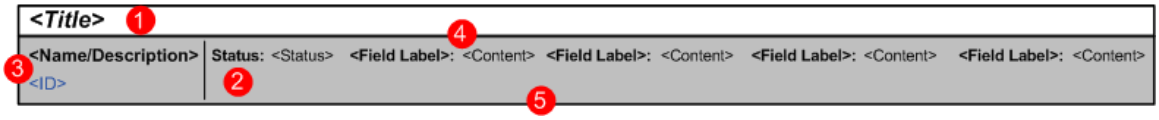
- The Basic Identification Area includes the window title (if multi-window navigation is used) and the application title. It allows the user to pick the correct window, if several are open, and to correctly identify the object or activity at hand.
- The Extended Identification Area provides further identifying information for the respective object or activity. It is valid for the entire floorplan and exposed in a display-only presentation.

Top

Consistency Rules

IDR without ticket area:

IDR with ticket area:



1. **Title**: For the naming of the title see corresponding Floorplan chapter.
2. **Number of Entries**: Do not use more than 5 fields unless really necessary.
   You are not allowed to have more than 2 rows of fields in the Extended Identification Area.
3. **Ticket Area**: Use the ticket area when the title information is not unique.
   This information includes not only a unique ID but also additional information that allows to identify an object. If you use name (or description) and ID within the ticket area place the name (description) on top and the ID below. If required, place a link on the ID. You can also place an image into the ticket element, see Image.
4. **Fields**:
   - Display fields in the IDR as label/value pairs. Values are display-only or links. You can also use icons, especially for the status information.
   - Use a melting field for ID and description, see Visualization in Melting Fields, Separate Fields, or One Field.
   - Fields can change from one step to another in a GAF: Display data from previous steps in the IDR of the current step.
5. **Order of Fields:**
   - Put the status information to the left. If the Extended Identification Area contains a ticket area put the status information right after the ticket area.
   - The status information is followed by identification information in descending importance.
   - Show administrative data such as *Created By* at the end. Use the same order as in the section group *Administrative Data*, see Forms: Administrative Data.

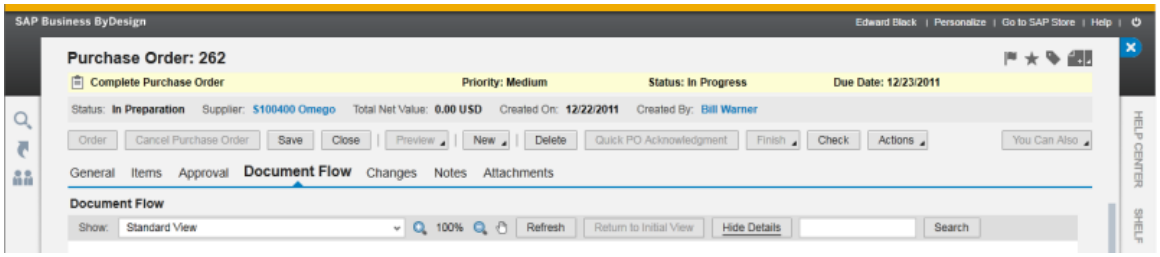
NOTE: Do not use an IDR in QAFs for creating business objects.

For IDR in Business Configuration see Consistency Rules: BC Views

Top

Examples

The following screenshot is taken from an FP3.5 ByD system:



Top

More Information

BC Views
Fact Sheet
Guided Activity
Object Instance
Quick Activity

Image

Page Content

Definition: Image Pane

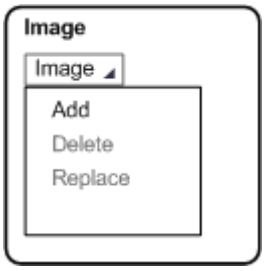
An image is a representation of an object in an optical form unit and not in a character format. The Image Pane is used to upload and to display images. The **Image Pane** can be used in any Form Pane and in the Identification Region to upload one or several images. Images need to come with a tooltip. When adding an image the user has to enter a title. This title is shown in the tooltip.

Top

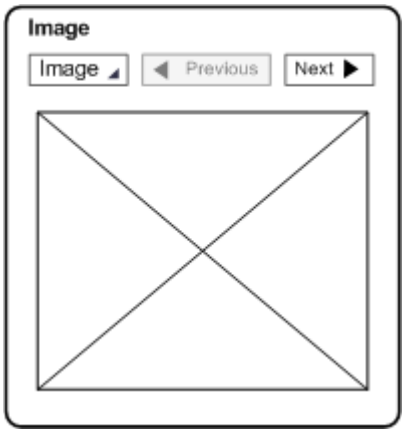
Consistency Rules

Edit Mode

If no images are uploaded: The *Image Pane* has the title *Image* and shows a menu button *Image^* with the following entries in the given order: *Add, Delete, Replace*



If images are already uploaded: Additionally, *Previous* and *Next* buttons are available to navigate between the images.

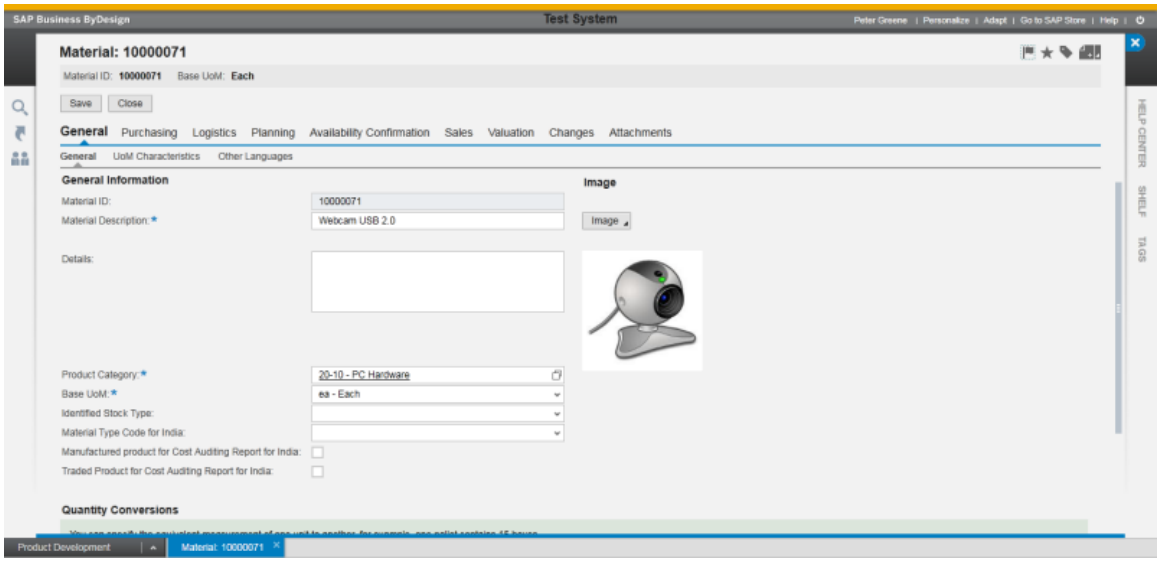


Display Only Mode

In display dnly mode the buttons are not shown.

Examples

The following screenshot is taken from an FP3.5 ByD system:



Top

More Information

Attachments
Form Pane
Identification Region
Modal Dialog
Notes
Tooltips

Information Consumer Pattern

Page Content

Definition: Information Consumer Pattern

The **Information Consumer Pattern** (**ICP**) visualizes data in a compact way as a chart or a table and is embedded in Work Center views as well as in other floorplans, for example Fact Sheets. ICPs have a tray which shows the reports title and allows to collapse, expand, and refresh the ICP. ICPs can come with or without toolbar.

An **ICP with toolbar** has the following features:

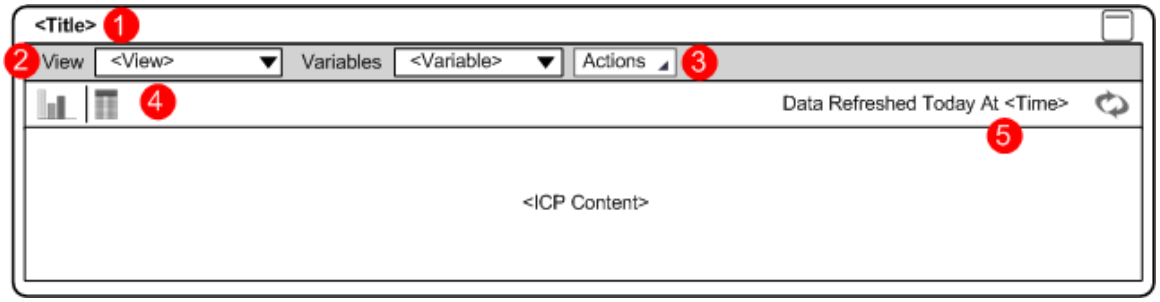
- Enables the user to navigate to the Analysis Pattern (AP) in order to see the complete report data, perform drill downs, etc.
- Has a dropdown list box for changing between different ICP view and - if defined by the user - a dropdown listbox for variables

An **ICP without toolbar** does **not** have the following features:

- Change view
- Navigate to AP
- Personal settings

Top

Consistency Rules



1. The ICP has always an ICP tray. The title in the tray shows the name of the report, the icon at the right allows to expand and collapse the tray.
2. ***View*** filter: Allows to switch between the ICP views. The views can either be standard views or created by the user.
   If the user has defined variables, an additional dropdown listbox *Variables* is shown. Variables contain the values used for starting the report.
3. ***Actions^***
   - *View Details*: Enables to navigate to an AP in order to see more details
   - *Set Latency*: Enables to define when the system should refresh the report data
4. Icons for switching between table and chart view.
5. Refresh information: Is the screen initially opened all data are up to date and no refresh information is shown. After exceeding a certain time span - the default value is six hours - the refresh information is displayed and the user can press the Refresh button.

See Tooltips for Generic Functions for the tooltips on ICP buttons.

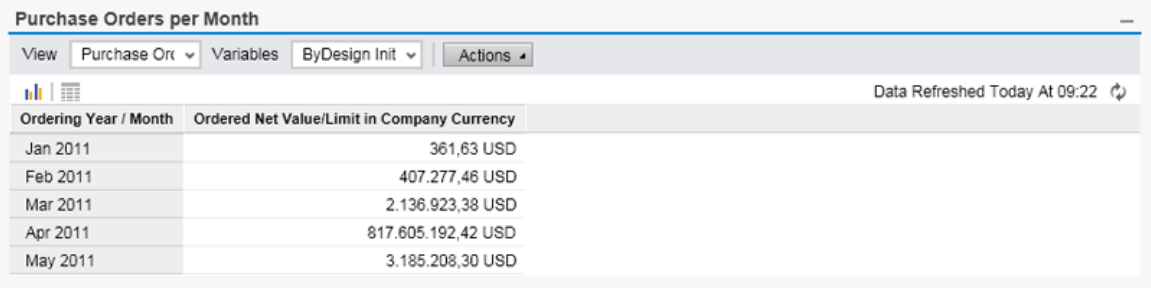
Design Recommendation:
Use not more than four ICPs and use a two-row layout.

Top

Examples

The following screenshot is taken from an FP3.5 ByD system.

ICP Table View:



Ordering Year / Month	Ordered Net Value/Limit in Company Currency
Jan 2011	361,63 USD
Feb 2011	407.277,46 USD
Mar 2011	2.136.923,38 USD
Apr 2011	817.605.192,42 USD
May 2011	3.185.208,30 USD

Top

More Information

Analysis Pattern
Analytics
Tooltips for Generic Functions

List Pane

Page Content

Guidelines for UI Development
The list menu which contains functions such as *Select All* is not available in FP3.5.

The buttons Move up, Move Down, Outdent, Indent are not available in FP3.5.

Multiple selection of rows in hierarchical tables is not available in FP3.5.

Editing of heterogeneous item levels is not available in FP3.5.

The function to move and rearrange sub trees is not available in FP3.5.

The Generic Value Placeholder is not available in FP3.5.

Definition: List Pane

The **List Pane** (**LP**) is a UI pattern containing data in a tabular form. It provides elements like a title, a toolbar, a filter row and functions such as sorting.

The List Pane supports four selection modes:

- Non-Selection
- Single-Selection
- Standard Multi-Selection
- Multi-Selection with Lead Selection. Note that multi-selection and lead selection are only technically but not visually differentiated.

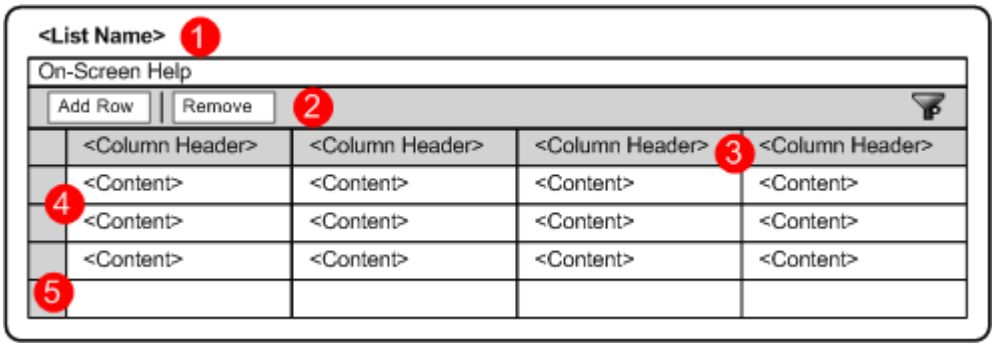
The selection modes (except Non-Selection mode) can coexist with editing modes.

List Panes have the following flavors:

Flavor	Description
Flat List Pane	Standard list
Advanced List Pane with Grouping	Is a Flat List Pane containing a Find Form on top additionally. Optionally, items can be grouped. Grouped items have common attributes and are items of the same level. Intermediate headers represent a group of line items. The intermediate header is a full width row that can be expanded and collapsed. A triangle icon toggles between showing and hiding the grouped items.
Hierarchical List Pane	Is an extension of Advanced List Pane and can group the items into a hierarchical structure of several levels. The number of levels is unlimited but should be handled carefully to avoid unnecessary complexity. The hierarchical structure is indicated in the first column: • Triangle: The item contains at least one sub item. • Bullet point: Item without subordinated items • Indents: The indention indicates the hierarchical level of each item.Can be used in OWLs and all activity floorplans. The columns have to be homogeneous across all levels - heterogeneous BOs are possible as long as they share the same columns.

Top

Consistency Rules: Flat List Pane



1. **Title**: Choose the following title format: <*List Name*>, for example Quantity Conversions, Purchase Order Items
2. **Toolbar**: For editable List Panes the only mandatory button is *Add Row*. Think about having the *Remove* or *Delete* button as well in this case such that the user can remove the content of a row, see Add and Delete Rows.

3. **Number of Columns**: Choose an appropriate number of columns to avoid horizontal scrolling. Put additional columns into the hidden section.
4. **Number of visible Rows**: See Number of Rows.
5. **Input Row**: Is automatically available as the last row in editable List Panes. This row counts as one of the visible rows (see 4).

NOTE: For information on how to label the column that counts the table lines and how to number, see Label and Numbering of Table Lines.

List Menu: The List Menu appears on the column header above the row selectors. It is always visible unless the table is set to the Non-Selection mode. The option states vary depending on the table. For multiple selection it contains: *Select All*, *Deselect All*, *Copy Selection* (to Clipboard).

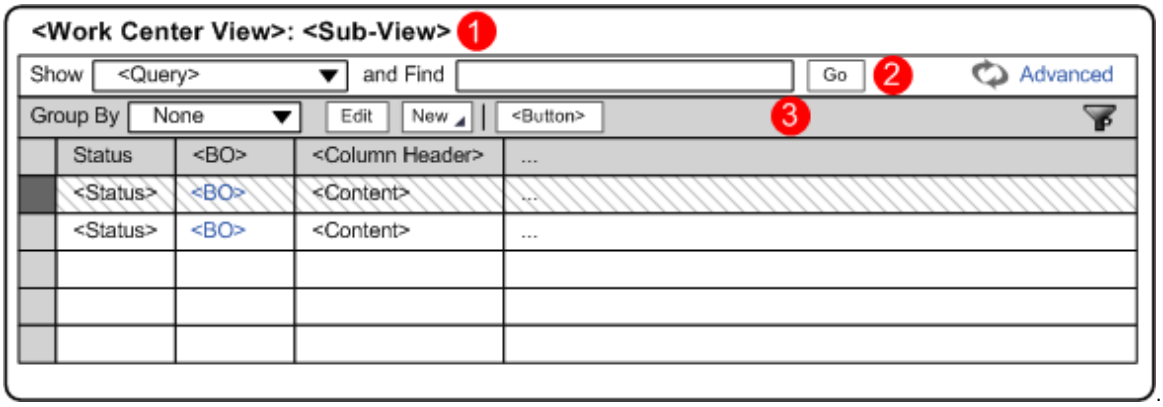
Top

Consistency Rules: Advanced List Pane

The **Advanced List Pane** (**ALP**) is like a Simple List pane which has a Find Form on top of the table. ALP can be read-only or editable.

Read-only ALP

The read-only ALP is used in OWLs to give an overview of a list of business objects.

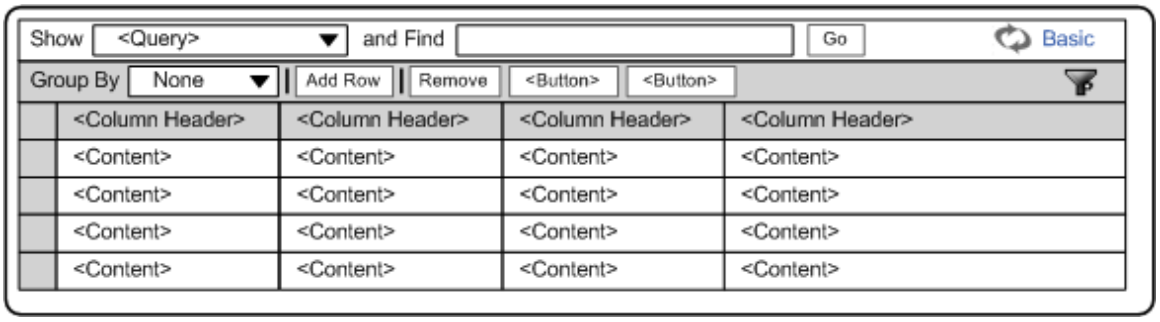


1. **Title**: Use the format: <View Name>, see Object Worklist.
2. **Search**: There are the following items in the search area:
   - *Show* dropdown listbox (mandatory)
   - *Find* field for basic search (optional)
   - Toggle *Basic* / *Advanced* search (optional), see Find Form
3. **Toolbar**: Use the buttons as defined for OWLs, see Object Worklist.

Top

Editable ALP

The editable ALP provides the *Add Row* button. It is not possible to create or edit a business object.

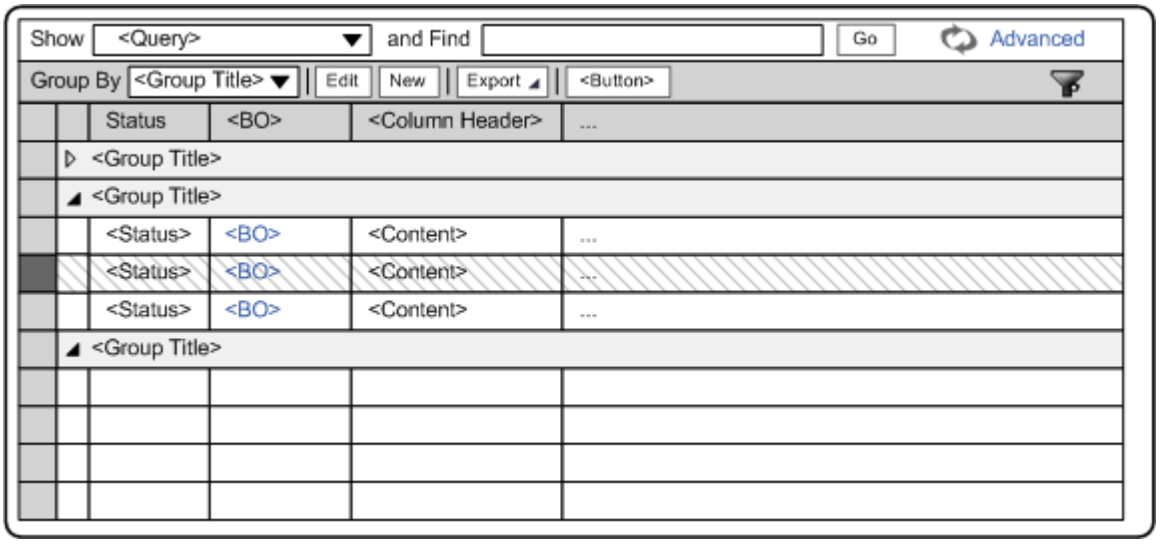


The toolbar has the following items, the checked is mandatory:

Grouped List Pane

Grouped List Pane (GLP) is an Advanced List Pane with an additional grouping option. Groups are a collection of items with a common attribute. All items within a group are at the same level. List Pane items can be of the same or a different BO type but the items must share a set of common attributes that are used for grouping.
GLPs are visualized by intermediate headers which represent a group of line items. The intermediate header is a full width row that can be expanded and collapsed (via the triangle in the picture below), thus showing and hiding the grouped items.

NOTE: The initial state of a grouped list is "open".



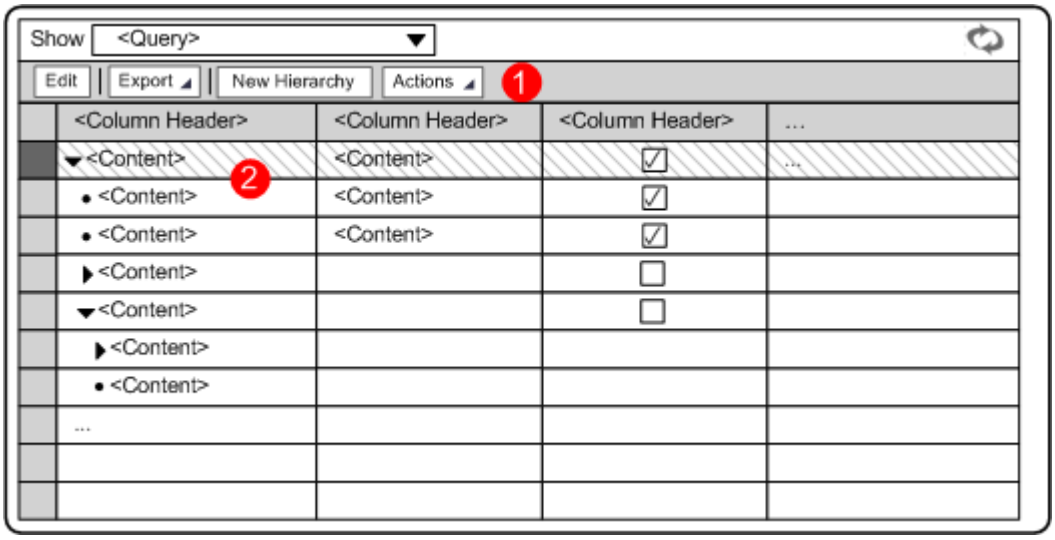
Use a meaningful attribute for naming the grouping criteria.
None stands for no grouping.

Top

Consistency Rules: Hierarchical List Pane

Read-only Hierarchical List Pane

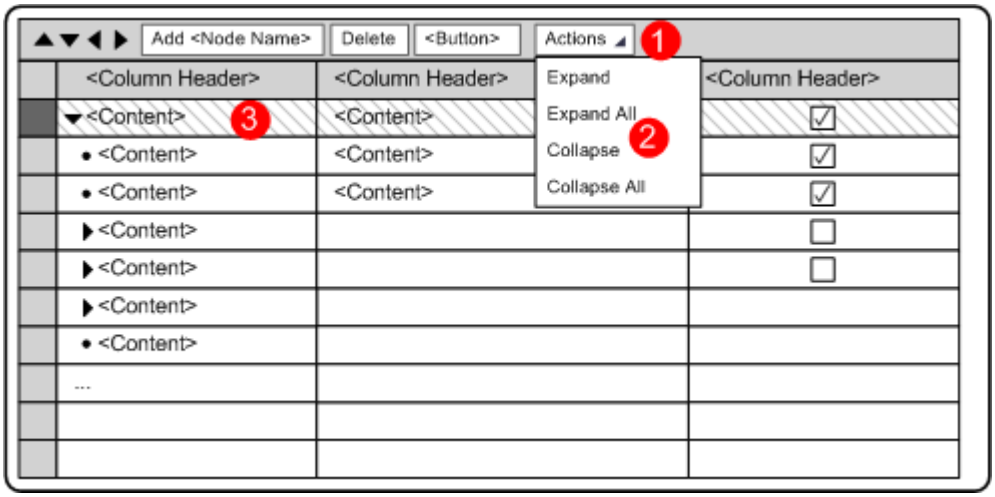
A **hierarchical List Pane (HLP)** can appear instead of an ALP within an OWL. It is read-only.



1. **Toolbar**: Use the typical OWL buttons and those specific for hierarchical tables. The specific buttons for hierarchical tables are placed after the OWL specific buttons and before the *Actions*^ button. It is recommended to use the *Actions*^ button to group all functions of the hierarchical levels. See Object Worklist.
2. **Columns**:
   - The first column shows the hierarchy: <Icon> <Item Name>. The triangle icon indicates a superior item, a bullet icon shows a node with no subordinated levels.
   - Choose an appropriate number of columns to avoid horizontal scrolling.
   - Create homogeneous columns across all levels. Heterogeneous BOs are possible as long as they share the same columns.

Editable Hierarchical List Pane

Hierarchical tables allow editing of data as well.



1. The toolbar contains:
   - Optionally a function to select data (*Show* DDLB)
   - Optionally icon buttons to move nodes up and down as well as to a higher or lower hierarchical level
   - The *Add <Node Name>* button to add new nodes, for example "Add Subgroup". Do **not** use *Add Row* for hierarchical tables.
     Instead of the *Add <Node Name>* button you can also use *Add Multiple*, see Add Multiple Rows.
   - Further specific functions
2. It is recommended to place *Expand, Collapse, Expand All,* and *Collapse All* in this order into the *Actions*^ menu. For tables with few options it is also allowed to place the *Expand, Collapse, Expand All,* and *Collapse All* buttons at one end of the toolbar in this order. *Expand* and *Collapse* are needed to expand or collapse a complete partial tree. For hierarchies with only two or three levels only *Expand All* and *Collapse All* are needed.
3. Empty rows are usually added within the hierarchical structure via the *Add <Node Name>* button. Sub-trees can be expanded and collapsed.

NOTE: The hierarchical table does not contain a list menu.

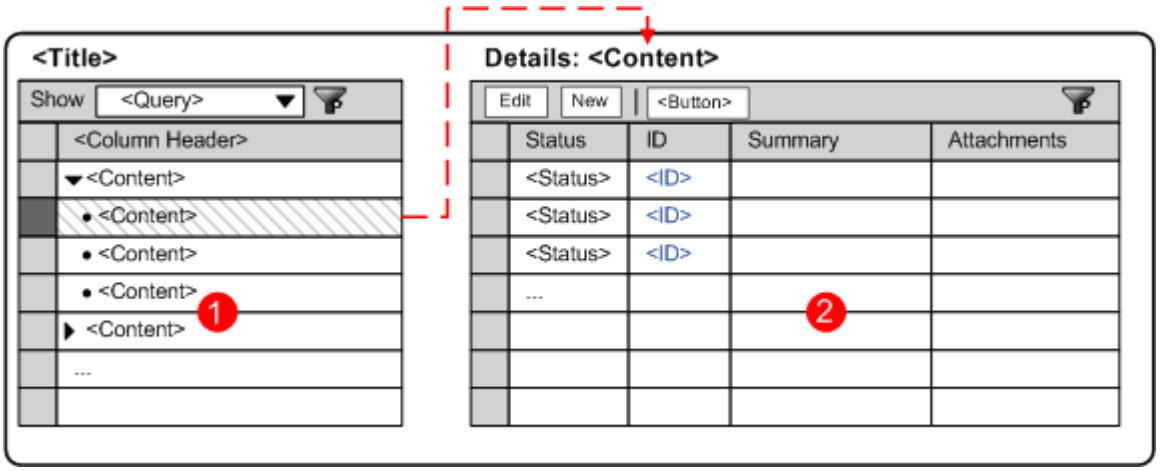
Hierarchy Maintenance

The user can change the sequence of, as well as promote or demote, an item within the hierarchy via icon buttons placed after the *Show* dropdown listbox. These buttons can be made visible at design time, based on the content type parameter setting. Hierarchy modifications are only possible with items in the current node.

No.	Button	Description
1	*Move Up*	Moves the selected row(s) up one row but does not change the hierarchical level. For example, if the selected row is a root node, the item is moved up one row, but the item remains at the root level. The *Move Up* button is disabled when the first row in the table is selected.
2	*Move Down*	Moves the selected row(s) down one row but does not change the hierarchical level. The *Move Down* button is disabled when the last row in the table is selected.
3	*Outdent*	Moves the selected row(s) up one level in the hierarchy. This button is disabled if the selected row is a root node and no further promotion for the row is possible.
4	*Indent*	Moves the selected row(s) down one level in the hierarchy. The button is disabled if the selected row is a leaf node in the hierarchy and no further demoting is allowed.
5	Adding Rows	When the user clicks the *Add <Node Name>* button in the toolbar, a new row will be added as a leaf node below and on the same hierarchical level as the currently selected item. A new entry can be added to any level of the hierarchy. If no items are selected before adding an item, the new row will be added on the root level at the bottom of the table.
6	Removing Rows	Removes a row in the hierarchical List Pane and removes therewith the current item from the table. The user can select one or multiple rows for deletion, if the table allows such an action. Removing parent nodes with subordinated child nodes will delete the child nodes automatically.

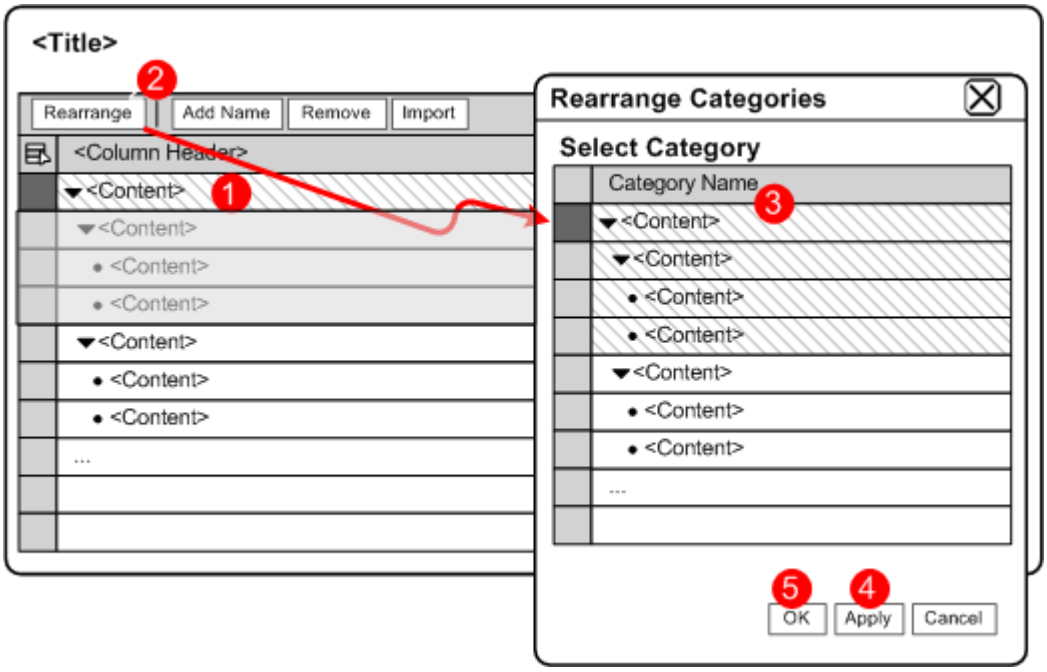
Top

Hierarchy Maintenance: If Hierarchy Levels are Heterogeneous



1. **Left side:** Use a one-column hierarchical table (tree-like) on the left side of the content area.
2. **Right side:** Display the different details on the right side of the content area

Hierarchy Maintenance: How to Move Sub-Trees



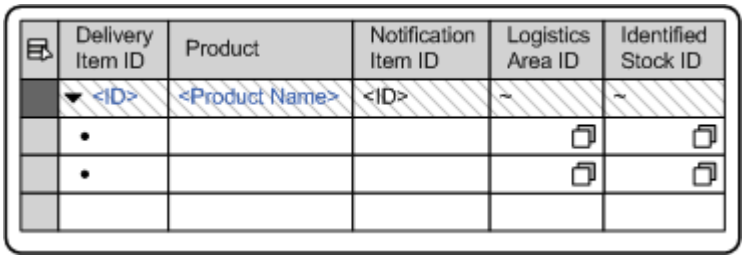
The user:

1. Selects the source entry to be moved.
2. Clicks *Rearrange*. A modal dialog opens.
3. Selects the target location.
4. Can click *Apply* to preview the changes of the update.
5. Presses *OK* to save. The modal dialog is closed and the sub tree is moved to selected target location.

Top

Generic Value Placeholder

In case a selected row has several subrows with different values or entries, use a tilde as value placeholder.



Top

More Information

Add and Delete Rows
Button Placement in Toolbars
Context Menu
Find Form
Object Worklist
Status
Tables

Master-Detail

Page Content

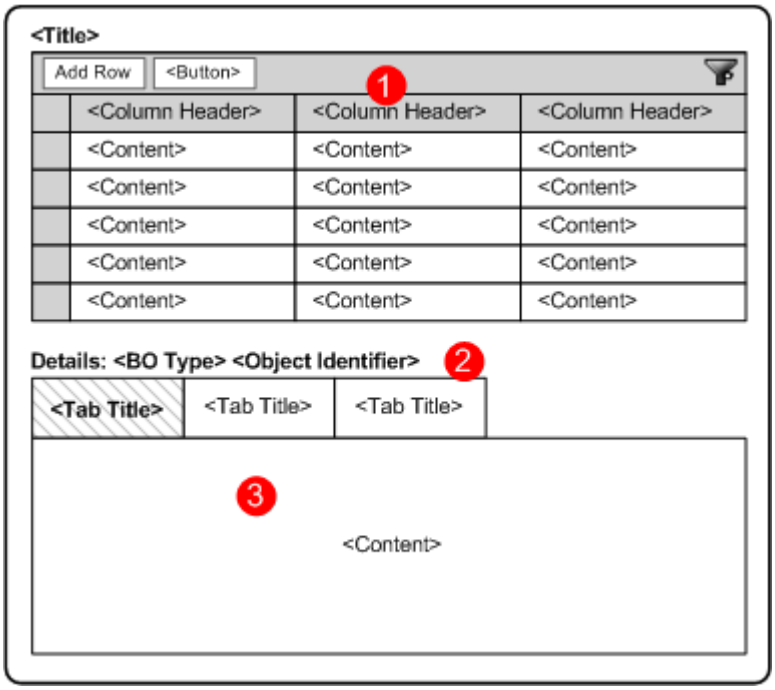
Definition: Master-Detail

Master-Detail consists of a master section (usually a table) at the top and a details section (usually a form pane) below it. If the user selects an entry within the master section the details of the entry are displayed in the details section.

- The **Master** section can consist of a (hierarchical) table, a chart, an Information Consumer Pattern, or a Calendar Pane.
- The **Details** area provides a quick overview of the selected object and covers its essential information. Tabs should be avoided whenever possible. The reason is that the purpose of the details area is only to help the user to find the right object in the list. For further details the user can open the fact sheet via the object link or switch to the object instance via the Edit button.

Top

Consistency Rules



1. **Master Area**
2. **Title:** Choose the following title format: *Details: <BO Type> <Object Identifier>* or *Line Items: <BO Type> <Object Identifier>*. *<Object Identifier>* can either be *Description* or *ID* or both. If you use ID and description, use " - " as a separator.
   Examples: *Details: Quote 423245*, *Line Items: Service Cleaning Offices, Details: Product 234456 - Heater*
3. **Details:** The content of the details can change depending on the selected master entry.
   In rare cases, a master table containing BOs of the same BO type can show different details. This means that fields and tabs can be hidden or disabled or shown.
   - You should avoid using tabs in the details to structure the data. Do not use a table title when the table is the only element within a tab.
   - Repeat all fields that need to be edited - also hidden fields - of the master List Pane in the detail form. Take into consideration to repeat also non-editable fields if they help the users orienting themselves.
     - Exception 1: If the detail does not contain more than two additional fields, do not repeat the editable columns of the master table.
     - Exception 2: For display-only detail, do not repeat any column of the master table.

Take also into consideration:

- Hierarchy: Do not display more than 3 hierarchically dependent areas on one screen:

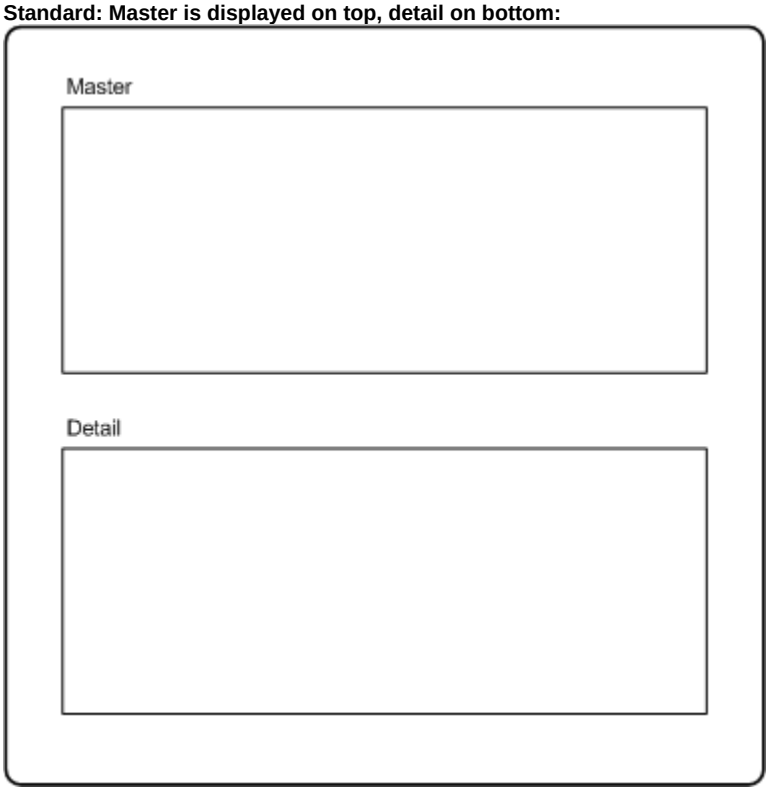
    - Master A - detail A (recommended)
    - Master A - detail A=master B - detail B
- Master and detail are simultaneously editable.
- Master and detail can both have a toolbar. Usually, only master (the table) has a toolbar.
- Initially, the first row of the table is selected displaying the according detail.

Top

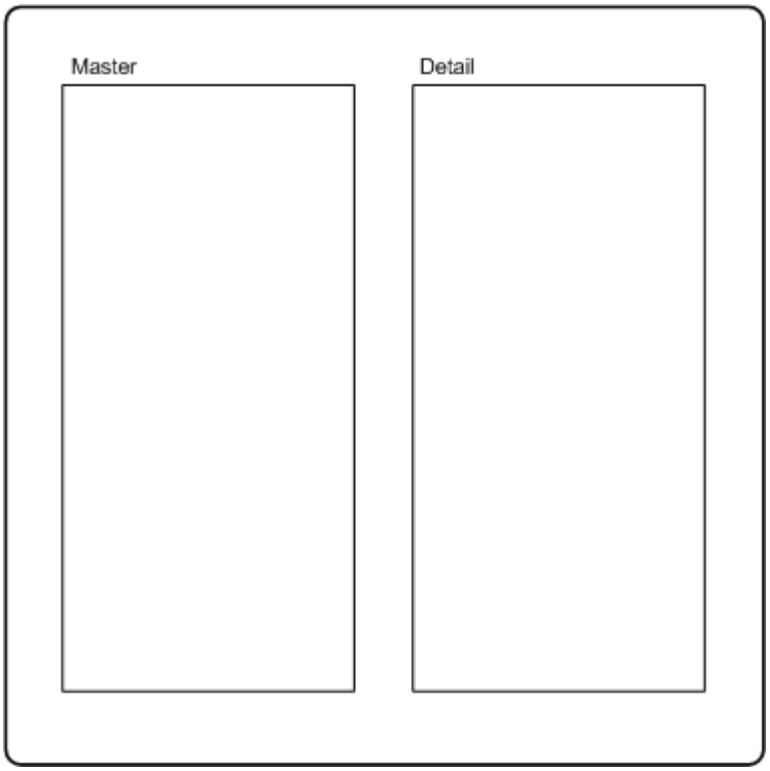
Arrangement of Master-Detail

The master and the detail section occur on one screen. The default is to display the master on top and the detail below. As an exception the master can be displayed in the left and the detail on the right.

Standard: Master is displayed on top, detail on bottom:



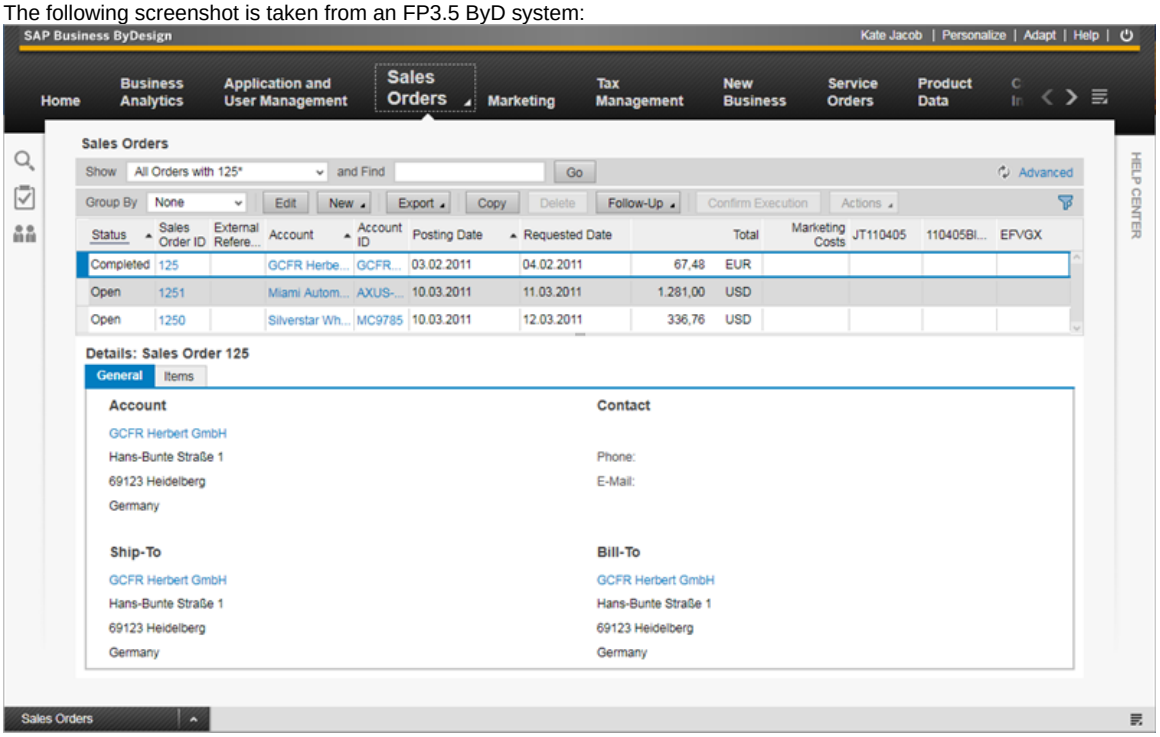
Exception: Master is displayed left, detail right:



Top

Examples

The following screenshot is taken from an FP3.5 ByD system:



Top

More Information

Object Instance
List Pane

Notes

Page Content

Definition: Notes

Notes is a specific UI pattern for entering, editing, and displaying plain text.

Top

When to Use which Note Type

Note Type	When to Use
Read-Only Notes	• You can use the read-only text box within any floorplan and the OWL preview. • The read-only text box without frame and scrollbar is only needed when the whole text of a note must be shown at once, for example when showing security remarks within manufacturing. • Use the read-only text box with language support if the users need to switch between languages.
Notes History	• You can use the notes history within any floorplan. • Use it if recording the notes and comments by multiple persons over time is needed, for example for service requests and incidents.
Notes Table	• You can use a notes table within an extra tab of the OIF for the BO header or within an extra tab of the details pane of a BO item. • You can include a notes table as an extra step within a GAF.

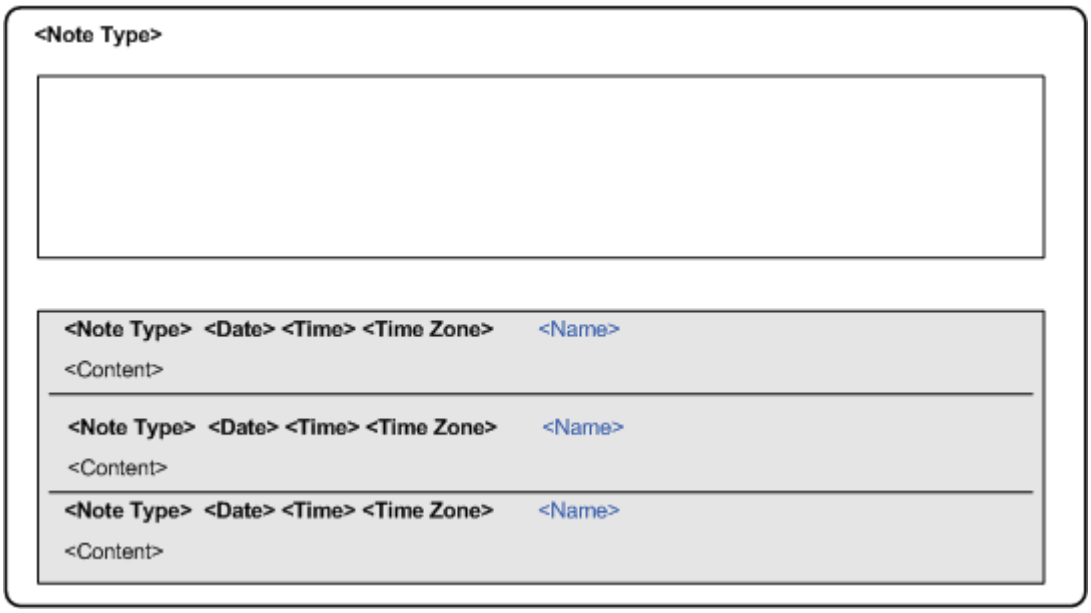
Read-Only Notes

The following picture shows a read-only note:

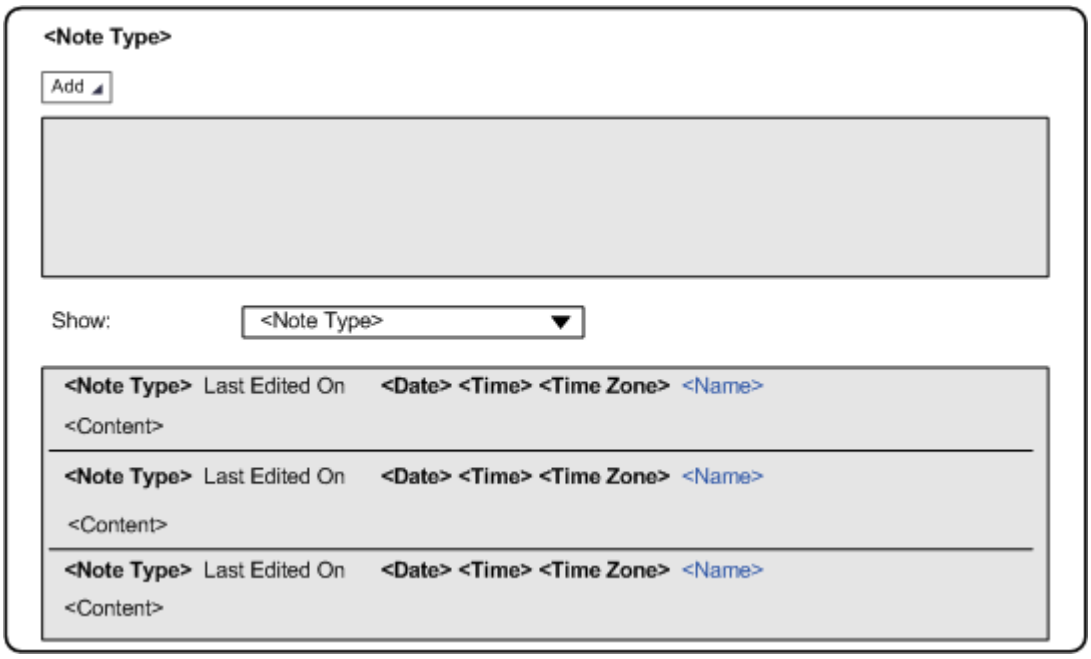
Top

Notes History

All previous notes are shown in the history part. The most recent note is at the top. The user can enter a new note in the text field:

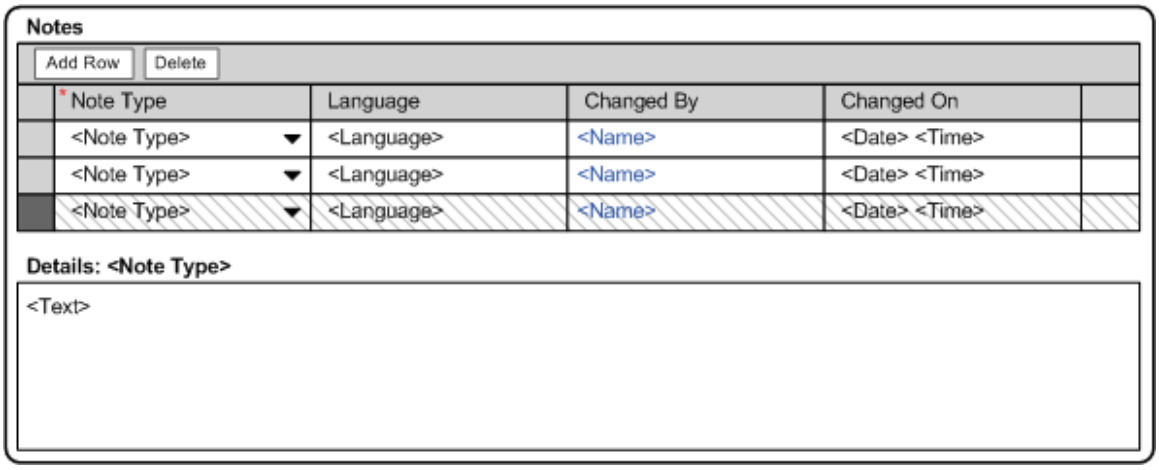


If multiple note types are available, the user can show all notes of the selected type. The *Add*^ menu contains all note types that can be created:



Notes Table

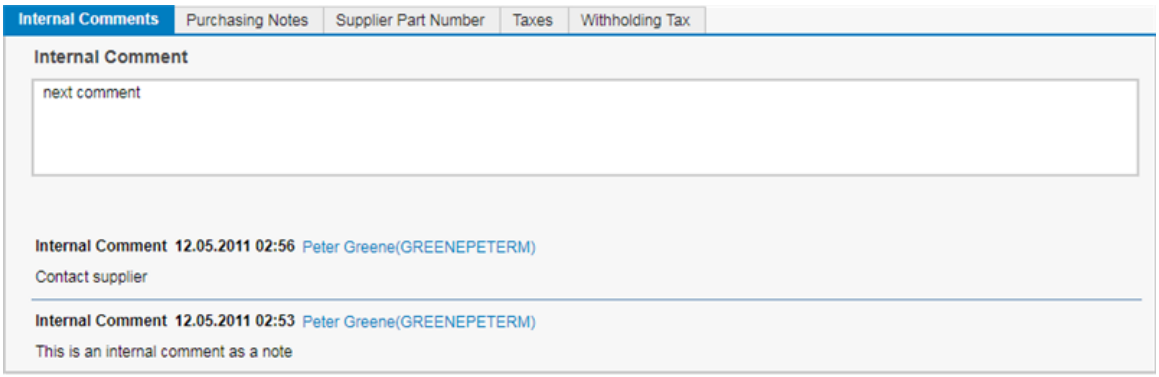
In general, the notes table is a combination of a standard table and a notes edit control where the table is the master and the notes edit the detail. Within the table, more than one text can be attached to a BO header or a BO item. When texts of different note types and languages exist for a BO header or item, they can be aggregated in the appropriate table.
The standard table behavior enables the user to manipulate the text such as adding, editing, or deleting text.



Top

Examples

The following screenshot is taken from an FP3.5 ByD system:



Top

More Information

Attachments
Text Translation

Object Value Selector

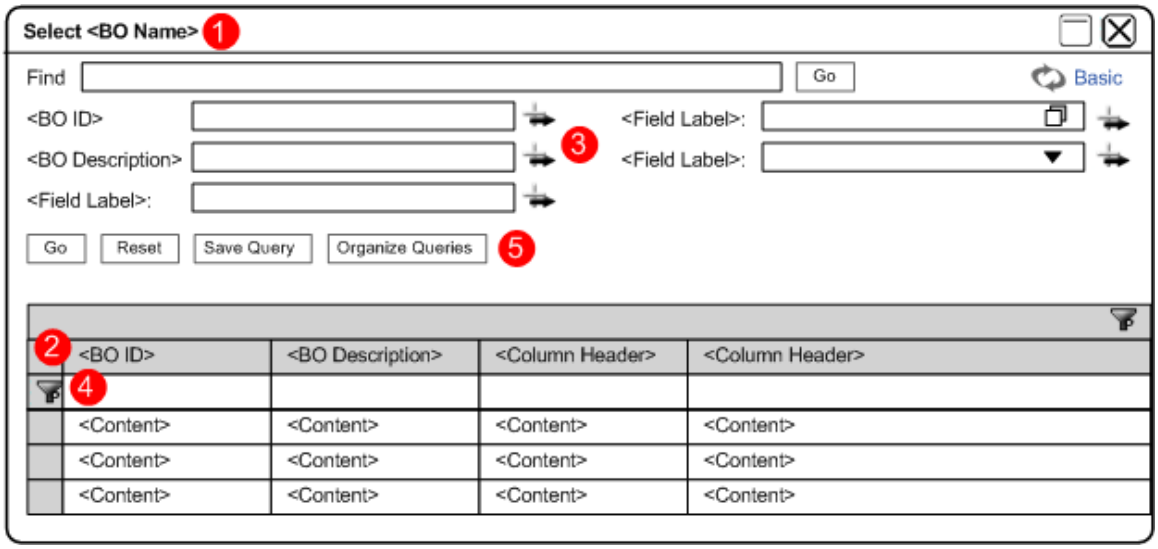
Page Content

Definition: Object Value Selector

The **Object Value Selector** (**OVS**) is a UI pattern to support users in selecting values for an input field.
It helps to select one item from a table of BO instances. It is most commonly called from an input field with a selection dialog icon. If the input field contains data, it is transferred to the selection modal dialog. Unlike other input and value help controls, the OVS does not appear attached to the input field. Rather, it appears within a modal dialog that floats above the entire window.
It is possible to save and organize queries.

Top

Consistency Rules

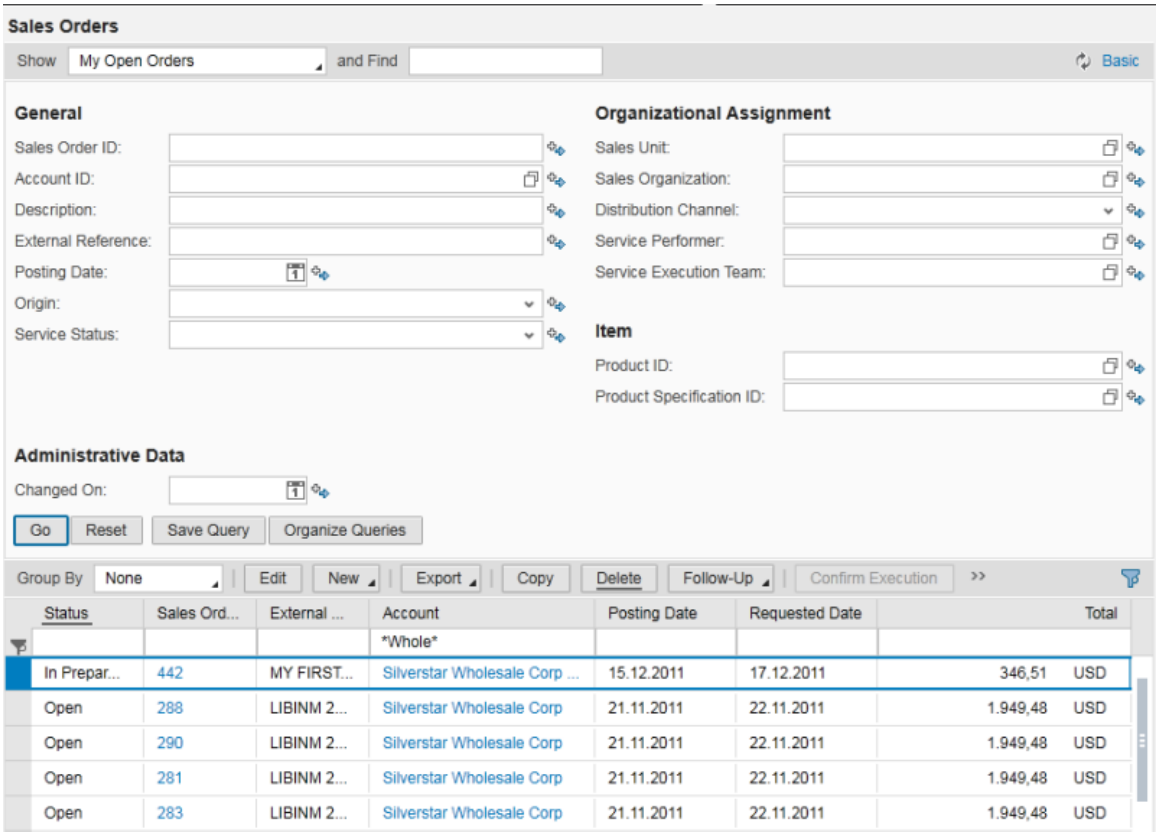


1. **Title**: Choose the following title format: *Select <BO Name>*, for example Select Contact.
2. **Order and Number of Columns**: If available display ID and description of the BO in the first and second column, respectively. Display additional information after them. Recommended is a maximum of 5 columns in the OVS results table, less than 5 columns is always fine.
3. **Advanced Find**:
   - Close the Advanced Find by default.
   - Use always two columns.
   - Do not use an Object Value Selector on the BO ID field for the business object which has opened the current OVS. The reason is to prevent cyclic value help. For example: The OVS for a purchase order must not contain an OVS trigger on the Purchase Order ID field.
   - Offer columns of the search table also in the Advanced Find.
   - Add additional search fields if required.
   - For more guidelines concerning Advanced Find see Find Form.
4. **Filter Row**: Show the filter row by default.
5. **Toolbar**: The button order is *Go, Reset, Save Query, Organize Queries*. As soon as the user defines a query the Show dropdown listbox is placed left to the Find field.
   You can find more detailed information in Find Form.

Top

Examples

The following screenshot is taken from an FP3.5 ByD system:



Top

More Information

Find Form
Tooltips for Generic Functions
Value Help

Object Worklist

Page Content

Guidelines for UI Development
For FP3.5:

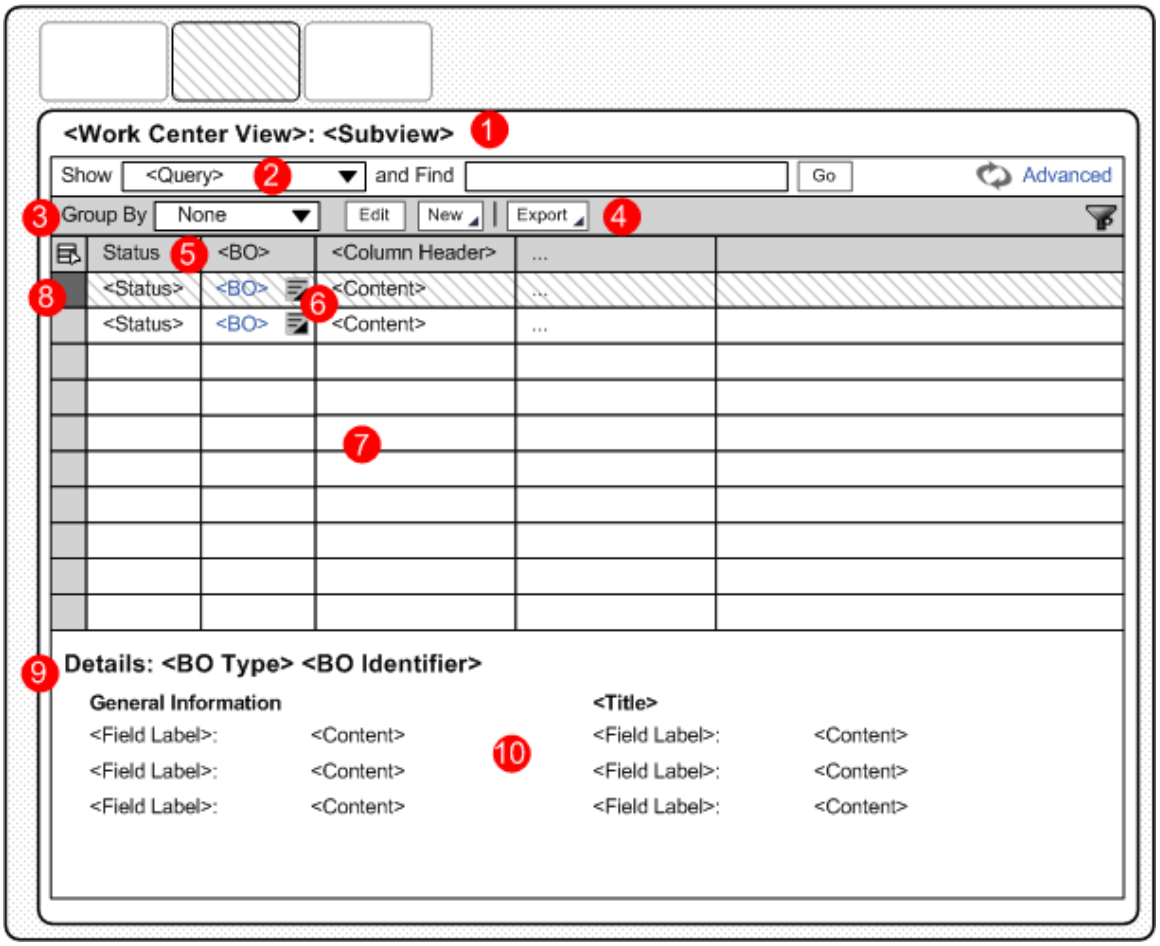
- Enable the *Export* button on OWLs even if the list is empty.
- *Print List* is not available.

Definition: Object Worklist (OWL)

The **Object Worklist** (**OWL**) is a List Pane which is always embedded in a Work Center view. The OWL contains business objects such as purchase orders or opportunities. The user can, for example, search for, display, and edit objects as well as trigger follow-on processes. A special OWL type is the task-based OWL which contains the tasks associated with the business objects.

Top

Consistency Rules: OWL



1. **OWL Title**: Choose one of the following title formats:

- *<Work Center View>* if no subviews are available, for example *Sales Orders*.
- *<Work Center View>: <Subview>* if subviews are available, for example *Opportunities: Opportunity Pipeline*.

2. ***Show* Dropdown Listbox:**
   - Define an *All <BO>* query in all OWLs thus being able to provide the complete set of data. Make *All <BO>* the last entry within the *Show* dropdown listbox. For further information see Consistency Rules: *OWL* Queries.
   - **NOTE:** Queries which could have a huge performance impact should only be executed on explicit user request and not immediately when selecting the query. Therefore, give it an 'explicit' indicator which prevents the execution of the query on select.
3. ***Group By*:** It is recommended to use *Group By*. For example, if the OWL contains a status column and you offer "status" as a grouping criterion, the user can easily access the objects according to their status. Use the mandatory entry *None* so that the user can ungroup the list.
4. **Toolbar Buttons**:
   - Use the buttons in the following order (the checkmarked buttons *New^* and *Export^* are mandatory, either *Edit* or *View* is mandatory):

   - If it is not possible to edit objects but only to display objects, replace *Edit* with *View*. If you need both functions, order them as follows: *Edit*, *View*, *New,* etc.
   - Do not repeat the word "new" for entries in the *New^* button menu. Use only the name of the object to be created such as *Opportunity*.
   - For BTM entries within the *New^* button, see *New* and *Actions* Buttons for BTM. For entries within the *Export^* button, see Output Management. For importing data via Excel, see Office Integration.
5. **Columns**:
   - Put the status column to the left followed by the most important columns, see Order of Columns.
   - Do not show too many columns (<=7) to avoid a horizontal scrollbar but show the data in the details/preview area. Consider also to add the details/preview data to the hidden table columns.
   - If the object consists of ID and description, put ID and description as separate columns into the OWL and offer a melting field consisting of ID and description as a hidden field.
   - The column header wraps and the content truncates.
   - Define the column for default sorting. The default sorting usually depends on the use case, examples: For date-dependent queries such as *Purchase Orders Changed Recently* sort the OWL according to the date column (latest BO is the first entry); for *All* queries sort via BO ID (latest BO is the first entry).
6. **Context Menu:** The context menu allows to apply additional functions on the list items, see Context Menu.
7. **Number of Rows:** Whenever possible use 10 rows. For detailed guidelines see Number of Rows.
8. **Initial Selection:** When the OWL shows up initially, the first row has to be selected, thus displaying the according preview.
9. **Details/Preview Title**: Choose one of the following title formats:
   - *Details: <BO Identifier>*
   - *Details: <BO Type><Object Identifier>*
     For more guidelines on how to display the Object Identifier in titles see Usage in Titles.
10. **Content Details/Preview**:
    - Use a two-column layout in forms.
    - The OWL preview is always display-only. Also the table in the details area is in display-only mode (not as read-only as long as nothing can be selected).
    - Group fields and use group titles. Do not duplicate fields in the details area when the values are already displayed in the details title. Example: The title contains the ID, do not display the ID in the details area.
    - Avoid tabs in the OWL preview. If really necessary do not use more than two tabs. Name the tabs as in the corresponding OIF.

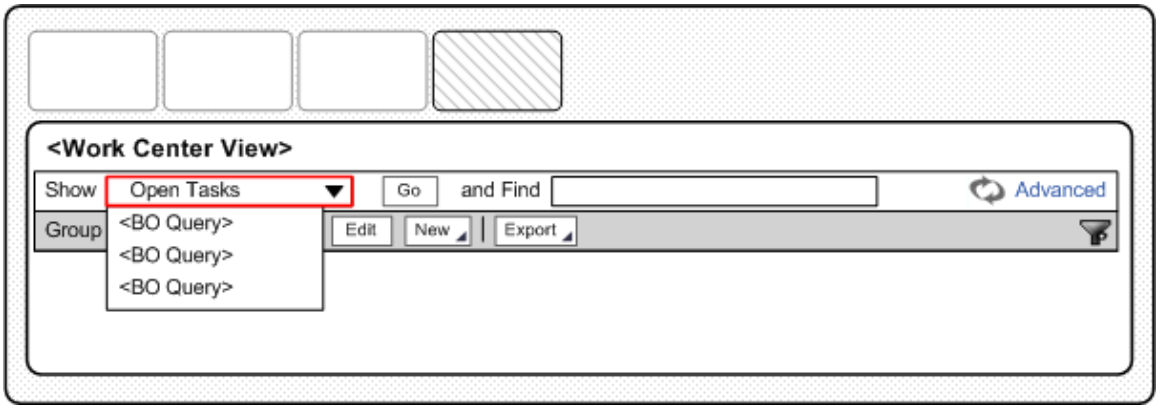
NOTE: If no OWL entry is selected, the details area is not shown.

Top

Consistency Rules: TOWL Placement

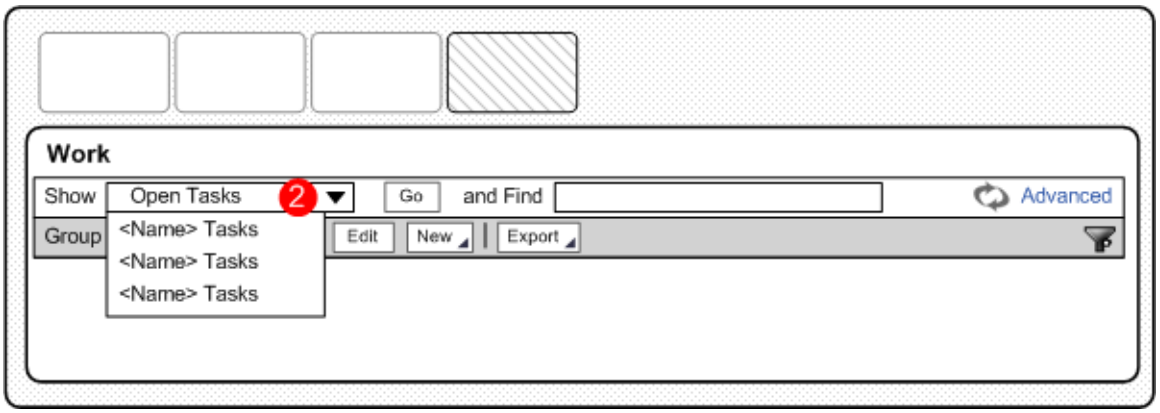
You can place the Task-Based Object Worklist (TOWL) either in the *Show* dropdown listbox of a Work Center view or in a separate WoC view called *Work*. It is **not** allowed to have *My Work* in a sub view.

***Open Tasks* in the *Show* dropdown listbox**



Place *Open Tasks* as the first entry into the dropdown listbox.

WoC view *Work*

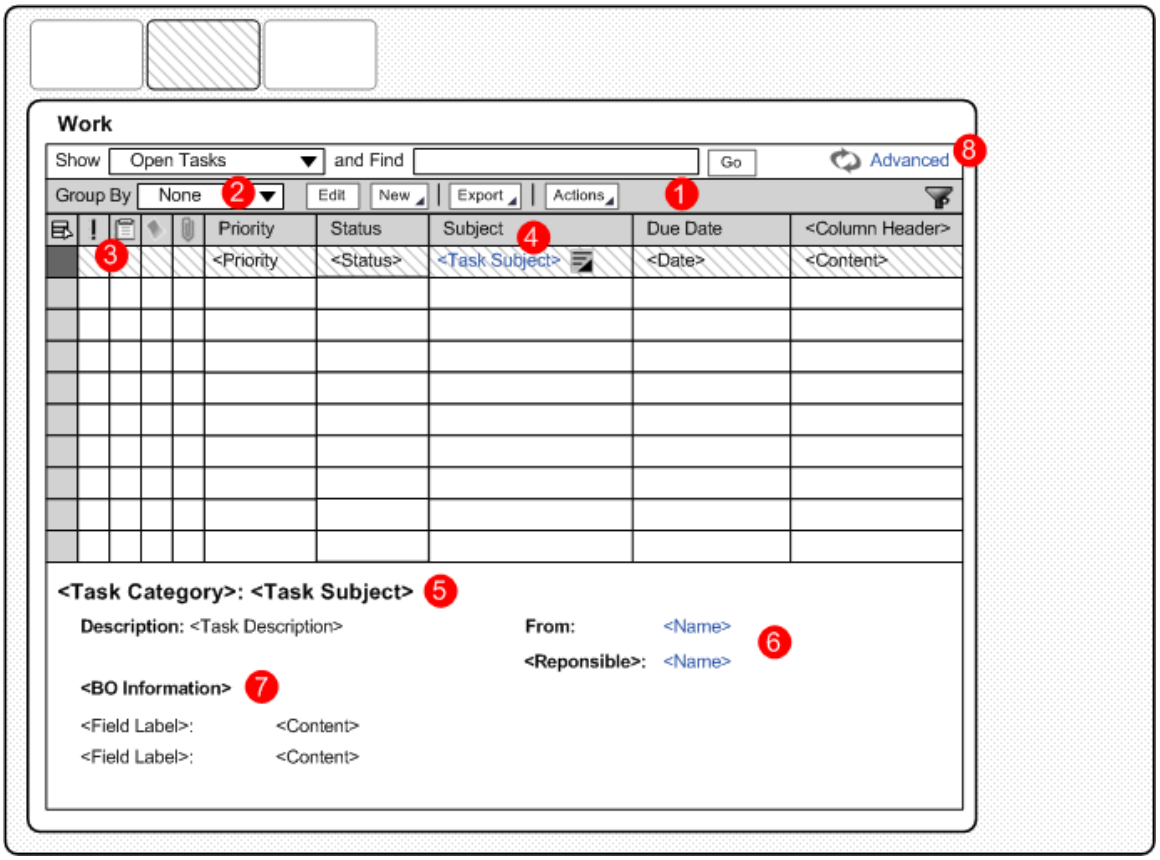


1. Create a view called *Work*: Within this view you show all task lists for the respective Work Center.
2. Place *Open Tasks* as the first entry into the dropdown listbox. It displays all tasks the user needs to work on. Show the remaining task lists below.

NOTE: The advantage of one *Work* view is that the user can centrally access all tasks. As the list usually contains heterogenuous BOs the disadvantage is that only the least common denominator of table columns can be displayed. You can show in the preview area BO specific information but this can not compensate the advantage of having all specific table columns at a glance.

Top

Consistency Rules: TOWL Content



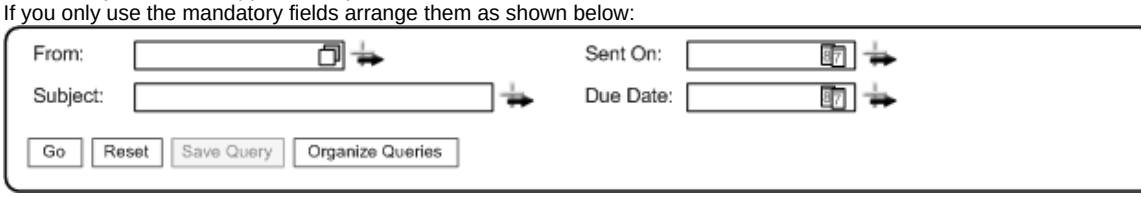
1. **Toolbar Buttons**:
   - Use the buttons in the following order (the checkmarked buttons *Edit*, *New*^, *Export*^ and *Actions*^ are mandatory):

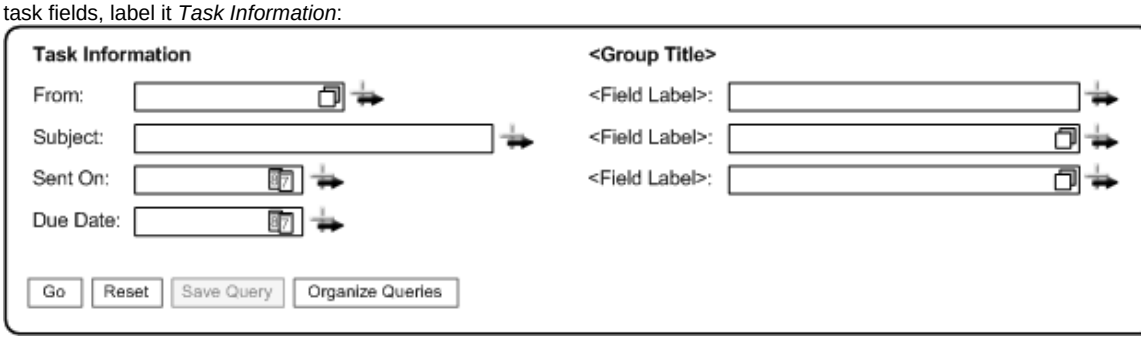
   - See *New* and *Actions* Buttons for BTM.
2. ***Group By*:** If you design a view *Work* offer the entries in the given order: *None*, *Priority*, *Status*, *Due Date, Sent On, Business*

Document Type
You can add application specific entries below.

3. **Mandatory Columns**: Keep the following order of mandatory columns in the TOWL table:
   - *Escalation*
   - *Task Category*
   - *Notes*
   - *Attachments*
     For the icons used in the first four columns see Icons.
   - *Priority*
   - *Status*
   - *Subject*
   - *Due Date*: Show the date without time.
     Optional Columns: Show additional BO specific columns in descending importance. Choose an appropriate number of columns (<= 11) to avoid horizontal scrolling.
     Hidden Columns: Add at least *Sent On* (without time) and - if you design a view *Work* - the *Business Document Type* to the hidden columns.
4. **Subject**: Put a link on the subject and offer a context menu, see Context Menu.
5. **Details Title**: Choose the title format: *<Task Category>: <Task Subject>,* where task category is replaced by *Task*, *Notification*, etc.
6. **Task Information:** Display the following task information in the upper part of the details area:
   - *Description* (long text)
   - *From* (If the task has been generated by the system or a technical user, the field contains the value *System*.)
   - <Responsible> is replaced by *Org Unit Responsible* or *Person Responsible*
7. **BO Information:** Show the most important BO information in the lower part of the details area.
8. **Find Form Pane**:
   - Use the following mandatory fields in the Find Form Pane of the TOWL: *From, Subject, Sent On* (note that since the number of TOWL items can grow intensely over time and hence the system loading time, it is recommended to preset a date), and *Due Date.*
   - If needed, you can add application-specific search fields.
   - If you only use the mandatory fields arrange them as shown below:



If you use additional fields, group them as shown below. If you use a title (not mandatory) for the group containing the task fields, label it *Task Information*:



Top

Consistency Rules: OWL Queries

We differentiate between the following OWL queries:

- BO-based OWL (most commonly used)
- Task-based OWL in the *Show* DDLB
- Task-based OWL as a view
- MDRO-based OWL
- Adjustment Run-based OWL
- Reports OWL

Use title case for all queries.

BO-Based OWLs

Stick to the following syntax:

Syntax	Example

<Status><Name> or <Name><Status>	*Purchase Orders in Preparation*
<Name><Time Statement> or <Time Statement><Status> or (in combination with a verb) <Name><Verb><Time Statement>	*Suppliers Created Last 31 Days*
<Name><Condition>	*Payments Ready for Transfer*
All <Name> or All <Status><Name>	*All Contracts*
<Status><Name>	*My Work*

Legend:

- *<Name>* represents the BO type, the name of a subview or a use case-dependent name. <Name> needs to be included in all entries.The reasons are: When downloading the OWL to Excel, the query title is used as the title in the Excel list. Some OWLs contain business objects of a different type.
- *<Status>* represents the state of *<Name>*.
- *<Time Statement>* represents a certain point in time or time period, for example "Orders Of Returns Of Last 90 Days".
- *<Condition>* represents a condition the *<Name>* is dependent on, for example "Tasks By Registration", "Purchase Order To Be Cleared".

Stick to the following guidelines:

Guideline	Example
Define an *All <Name>* query for each OWL to provide a complete set of data. Place it on bottom of the *Show* dropdown listbox.	*Requests in Preparation* *Overdue Requests* *Canceled Requests* *All Requests*
All entries should be visible in full length.	
If you combine the BO's lifecycle status (such as *In Preparation* and *In Revision*) and another status (such as *Active* and *Obsolete*), order the entries according to the BO lifecycle status.	*Active Balance Confirmation Runs* *Balance Confirmation Runs in Preparation* *Balance Confirmation Runs in Revision* *Obsolete Balance Confirmation Runs* *All Balance Confirmation Runs*
Group similar items.	*Open Sales Order Items* *Open Customer Return Items* *Open Service Order Items* *Open Service Confirmation Items* *All Sales Order Items* *All Customer Return Items* *All Service Order Items* *All Service Confirmation Items*

Top

Task-Based OWL in the *Show* DDLB

Stick to the following guidelines:

- Label the query *Open Tasks* and put it at top of the *Show* dropdown listbox (default query).
- Put the BO queries such as *Requests in Prepa*ration below.

For information on TOWLs see TOWL Placement and TOWL Content.

Task-Based OWL as View

Stick to the following guidelines:

- Label the view *Work*.
- Put *Open Tasks* at the top of the *Show* dropdown list (default query).
- Use the syntax *<Name> Tasks* for the queries, such as *Open Payroll Tasks.*

For information on TOWLs see TOWL Placement and TOWL Content.

MDRO-Based OWL

See MDRO.

Adjustment Run-Based OWL

Use the following queries in the given order. Do not add additional ones. Do not change the wording:

- *Active <BO name> Runs*
- *<BO name> Runs in Process*
- *<BO name> Runs in Revision*
- *Obsolete <BO name> Runs*
- *All <BO name> Runs*

Reports OWL

Use the following queries in the given order. Do not add additional ones. Do not change the wording:

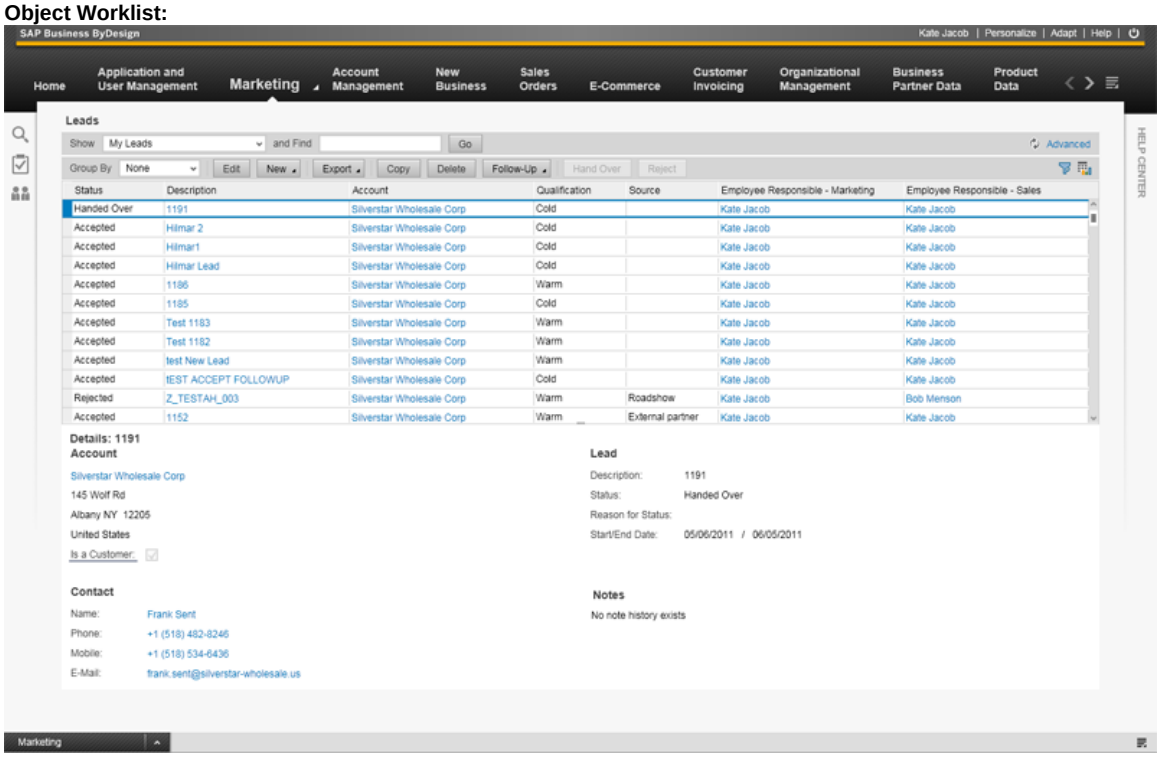
- *By Report Category*
- *My Priority Reports*
- *All Reports*

Top

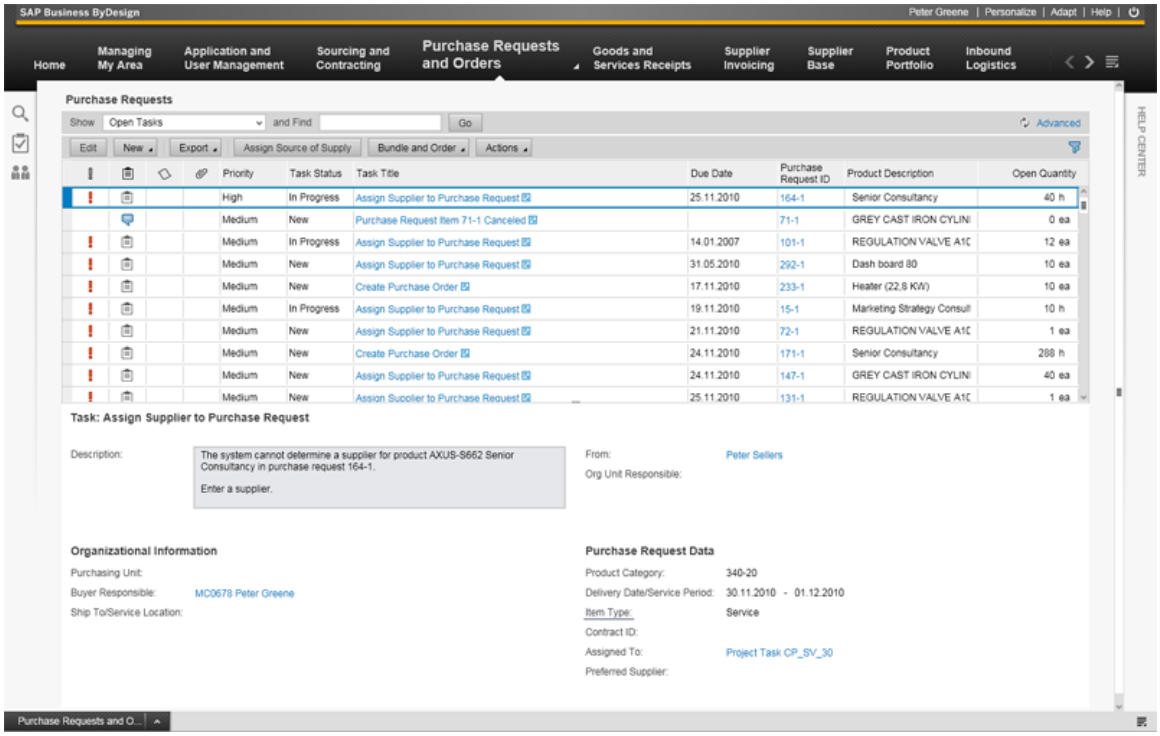
Examples

The following screenshots are taken from a ByD FP3.5 system.

Object Worklist:



Task-based Object Worklist:



Top

More Information

Context Menu
Find Form
Functions & Menus
List Pane
MDRO
Office Integration
Output Management
Status
Tables

Quick Filter

Page Content

Definition: Quick Filter

The **Quick Filter** (**QF**) visualizes data in detail as a chart or a table. QFs can be launched from Information Consumer Patterns (ICPs) and the Work Center view *Reports*.

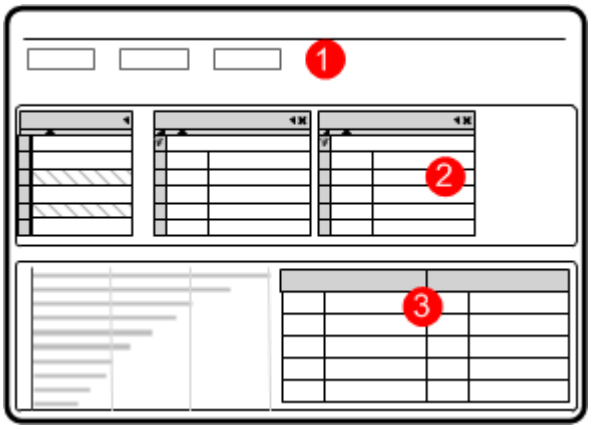
Compared to ICPs, Quick Filters enhance relevant functions which are needed for analytical reporting on characteristics in the Quick Filter Area.

The Quick Filter is an alternative to the Analysis Pattern and allows users to select one or more characteristics. As soon as a characteristic is selected, the report data is immediately updated. The Quick Filter offers less functions compared to the Analysis Pattern, for example users cannot define the layout of the report data. It is intended for a quick analysis by simply selecting characteristics. For example, to show top ten products (the report) sold by Akron Heating Company (company as first characteristic) purchased from supplier BuyParts (supplier as second characteristic).

Users can access the Quick Filter from the Reports view using the *View With* function or using the *Actions* function in the Information Consumer Pattern.

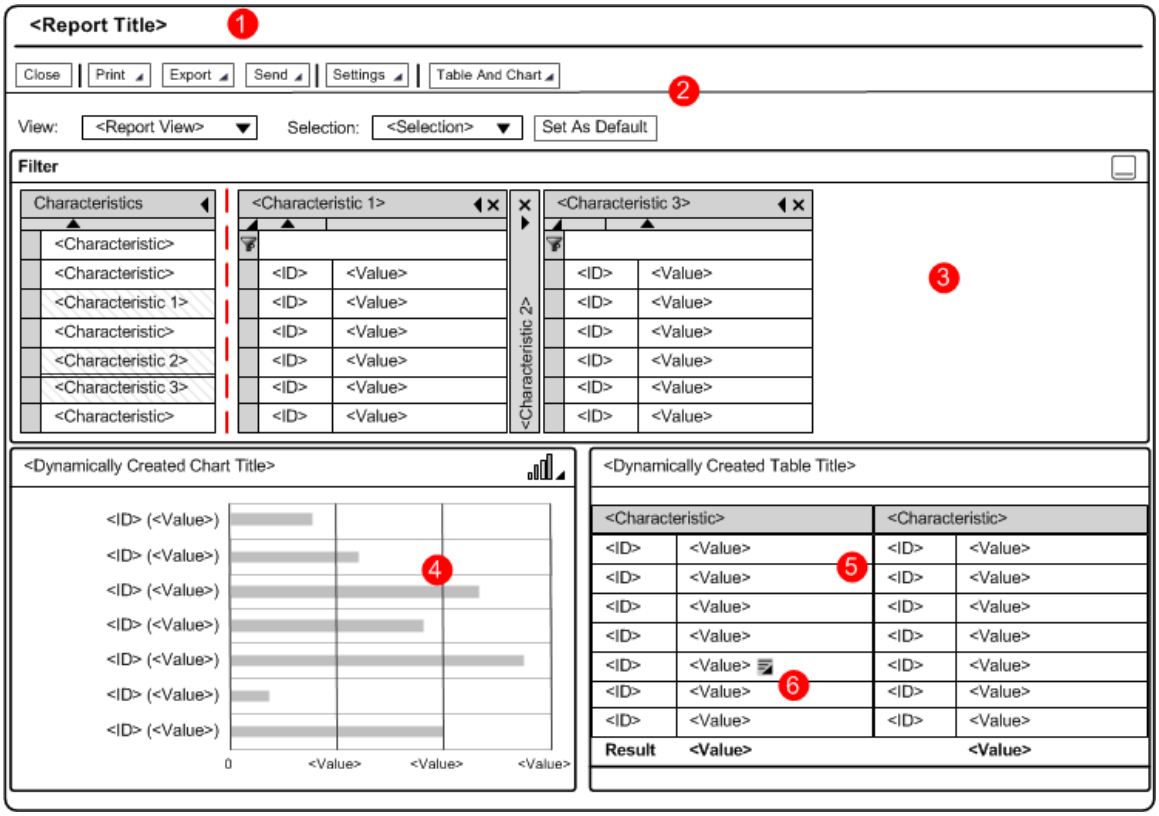
Top

Consistency Rules



1. **Toolbar Area**: Contains title and functions and allows to select a report view.
2. **Quick Filter Area**: Allows users to select one or more characteristic. After selecting a characteristic it is displayed to the right. When selecting further characteristics they are ordered from left to right.
3. **Content Area**: The user can define to display the report as a table (default), a chart or both.

The Quick Filter in detail consists of the following:



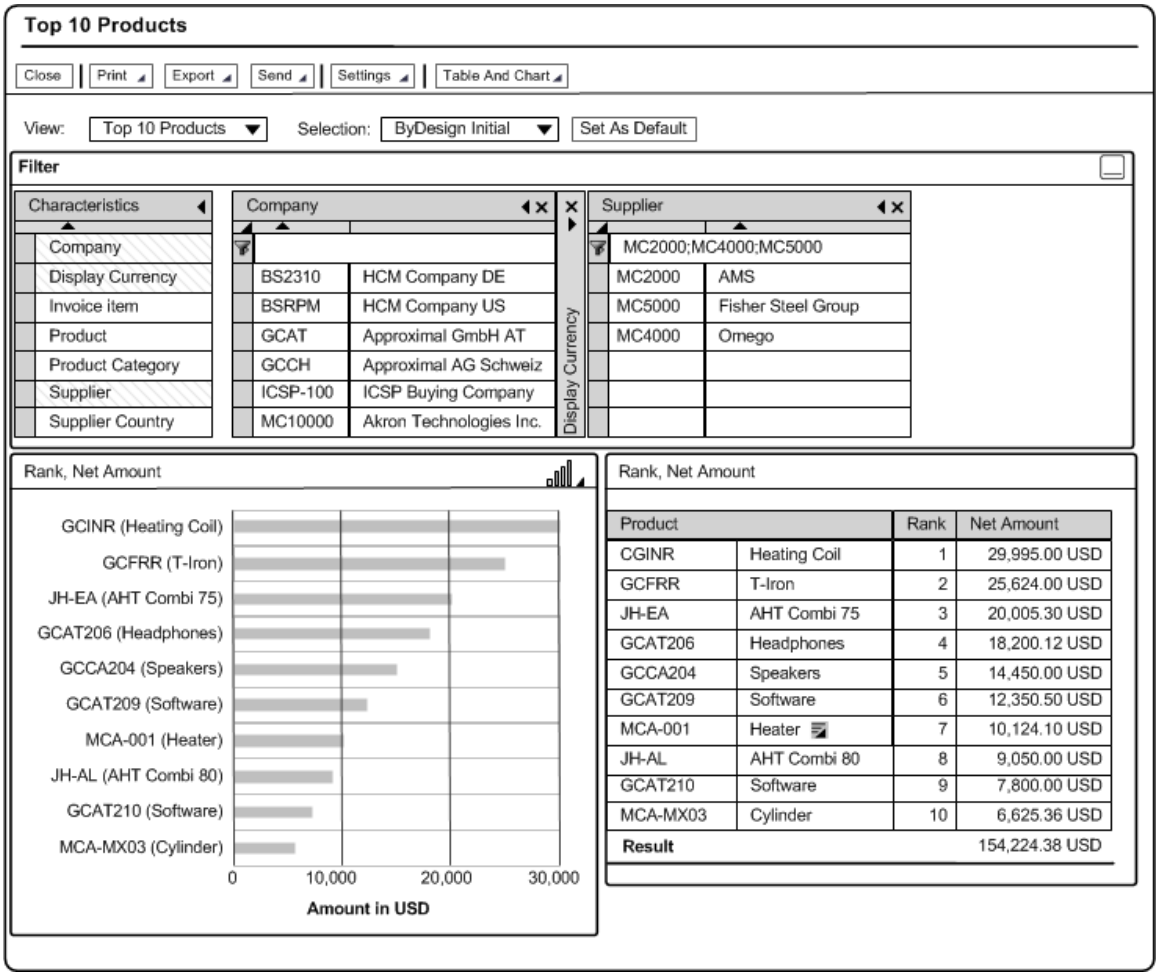
1. **Report Title**
2. **Toolbar Area**:
   - ***Close*** (mandatory): Closes the window or tab.
   - ***Print^*** (mandatory): Allows printing with the following options:
     - *Table*
     - *Chart*
     - *Table And Chart*
   - ***Export^*** (mandatory): Allows exporting:
     - *To Microsoft Excel*: Exports the report into an Excel file.
     - *To XML*: Exports the report into an XML file. For more information see the Analysis Pattern.
   - ***Send^*** (mandatory): Allows sending the report as an e-mail:
     - *Attachment (XLS Table)*: Sends the report as an attached Excel file.
     - *Web Browser Quick Link*: Sends a link to the URL of the report.
     - *Link (MS Excel in XML Format)*: Sends a link to the URL of the report as an Excel sheet in XML format. For more information see the Analysis Pattern.
   - ***Settings^*** (mandatory): Layout options for tables and charts:
     - *Characteristics*: The user can select characteristics and set their order of appearance and sorting.
     - *Key Figures*: The user can select key figures and set their order of appearance and sorting.
     - *Exceptions*: The user can activate, create and edit exceptions for the table and chart view.
     - *Conditions*: The user can activate, create and edit conditions for the table and chart view.
     - *Table*: The user can set table column and sorting options.
     - *Chart*: The user can define options for the chart view.
   - ***Table And Chart^*** (mandatory): The user can toggle between chart and table view:
     - *Table* (default): Shows the report as a table only.
     - *Chart*: Shows the report as a chart only.
     - *Table And Chart*: Shows the report as a table and as a chart.
   - ***View***: The user can switch between the report views.
   - ***Selections***: The user can edit and manage variables and define the start options for the report.
   - ***Save as Default***: The user can set the current view and selection as default.
3. **Quick Filter Area**: Consists of two sub-sections:
   - Characteristics (left to the dotted line): Lists all report characteristics which can be selected. The characteristics are always shown and can be sorted, collapsed, or expanded.
   - Characteristics values (right to the dotted line): This section is empty by default. The user can select multiple characteristics values which will be displayed in the order of selection. Each value can be filtered, sorted, collapsed, or expanded.
4. **Chart Area**: Is part of the content area and shows the chart view of the report. All data is updated and displayed in real time. By default, the chart shows a predefined set of characteristics and values. The selected characteristics values are not shown in the chart area but the filters affect the data displayed in the chart. It is possible to override the default settings.
   - The chart title is created dynamically.
   - The user can switch the chart layout (such as bar chart or pie chart) clicking the chart icon on the upper right side.
5. **Table Area**: Is part of the content area and shows the table view of the report. The title is created dynamically. All data is updated and displayed in real time. By default, the table shows a predefined set of characteristics and values. The selected characteristics values are not shown in the table area but the filters affect the data displayed. It is possible to override the default settings.

6. **Context Menu**: The user can interact with the table data such as navigating to other reports or opening an Object Instance.

Top

Examples

The following picture shows a possible implementation of the Quick Filter pattern.



Top

More Information

Analysis Pattern
Analytics
Information Consumer Pattern

Service Map

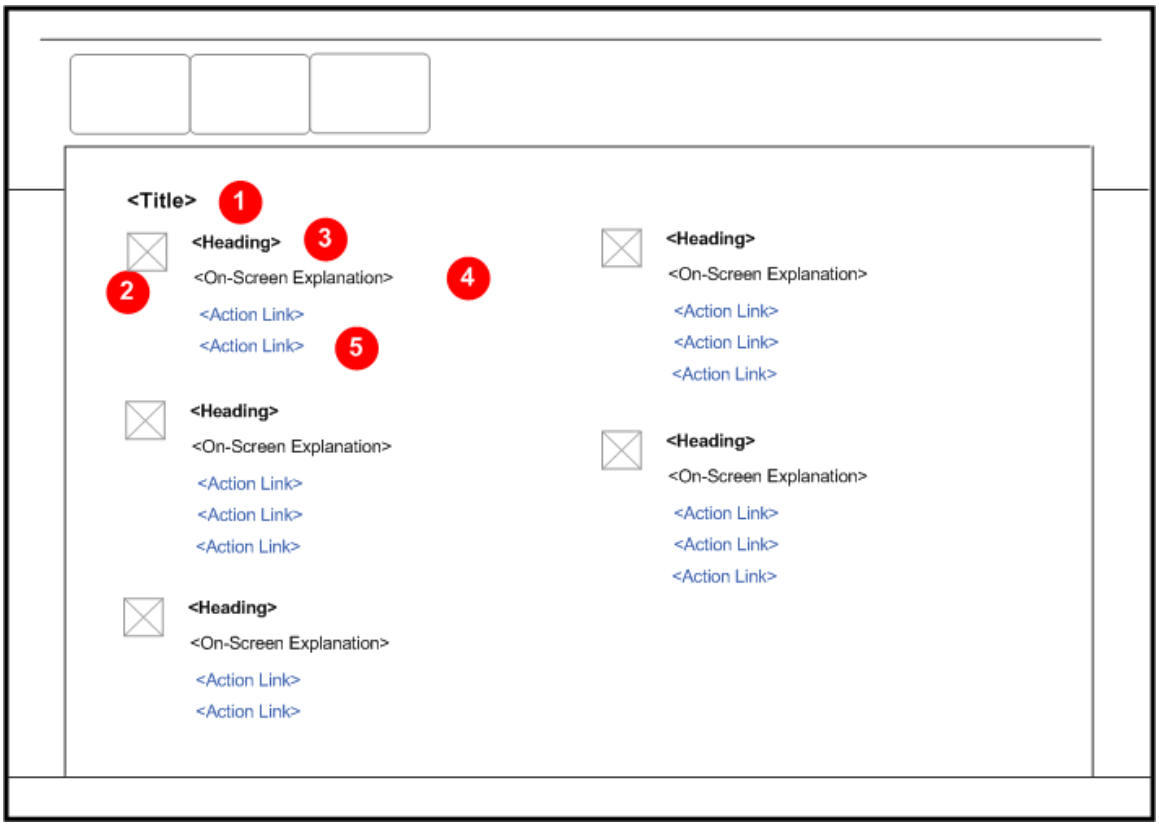
Page Content

Definition: Service Map

A **Service Map** povides quick access to predefined activities. For example, the *Self-Services* view in *Home* provides an overview of all self-service functions that are available to the user. Furthermore, the service map is available in Work Center views where the business context calls for applications to be presented around user activities.

Top

Consistency Rules

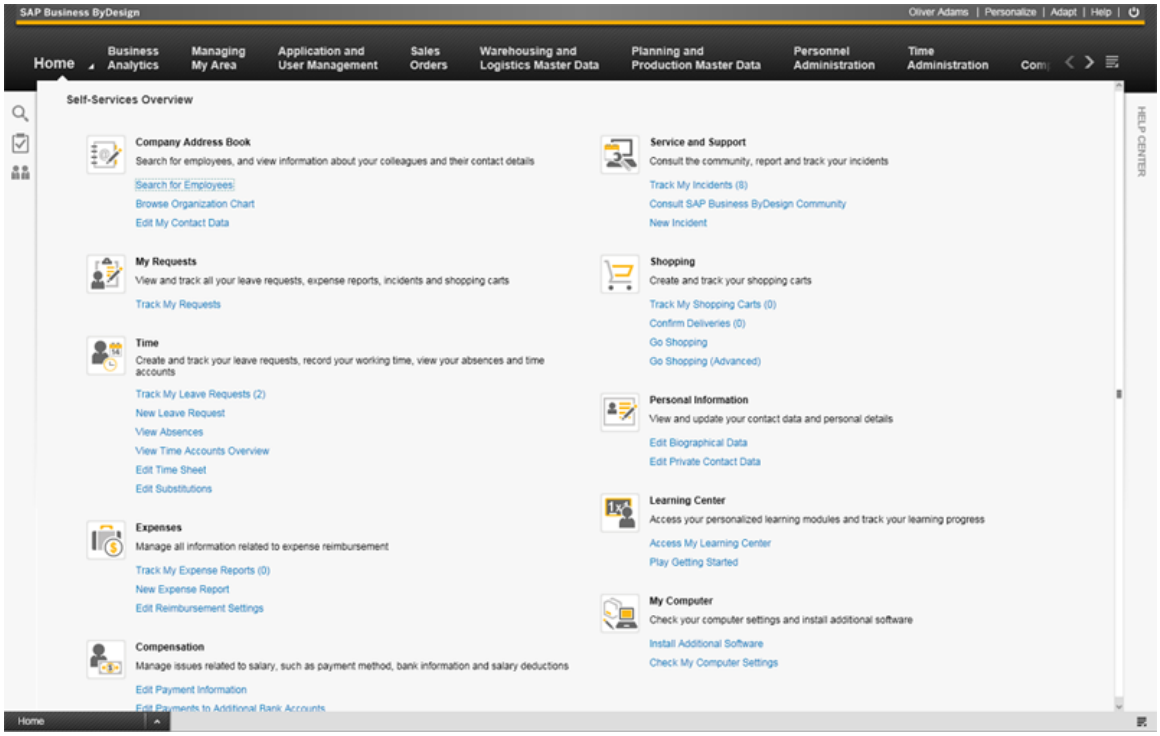


1. **Title**: Choose one of the following title formats:
   - *<Work Center View>* if no subviews are available.
   - *<Work Center View>: <Subview>* if subviews are available.
2. **Pictogram:** Add a pictogram, see the list of all ByD Pictograms.
3. **Heading:** Give the action group a meaningful title.
4. **On-Screen Explanation:** Give a short description of the actions available in the group.
5. **Action Link:** Provide a link for all actions the user can carry out.
   Use the following syntax for the link: <Action Verb><Name of Destination Window>
   The use of the action verb such as View, Edit is mandatory.
   Example: *View Time Account Overview*

Top

Examples

The following screenshot is taken from an FP3.5 ByD system:



Top

More Information

Primary Help

Interaction Models

Interaction Models

Summary

The chapter "Interaction Models" provides guidelines for mockup development and all the information you need to design interactive dynamic procedures.

You learn how to create dialogs and flows for certain types of interaction and the right way to "Create Objects", "Change Objects", "Save Data", "Print", and "Search".

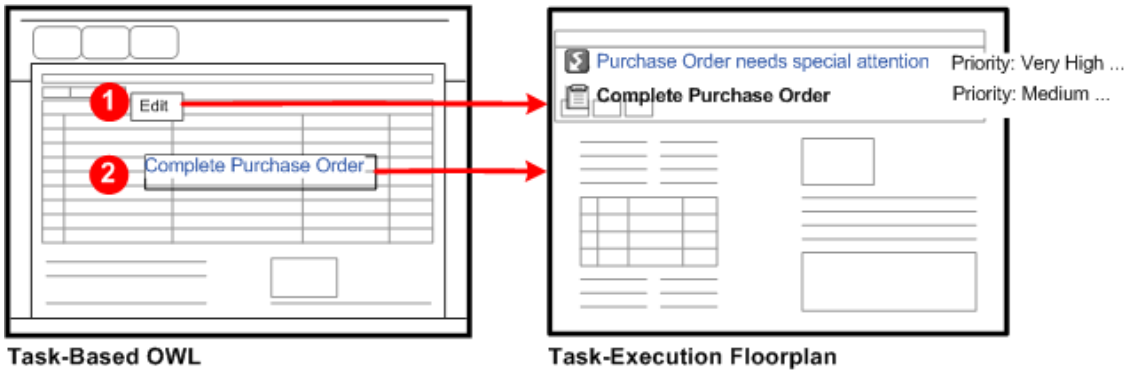
You learn about the "Navigation" paradigm and how to navigate from one "Window" to another. In addition you get introduced to the concepts of customizing ByD, called "Business Configuration".

Action Navigation

Page Content

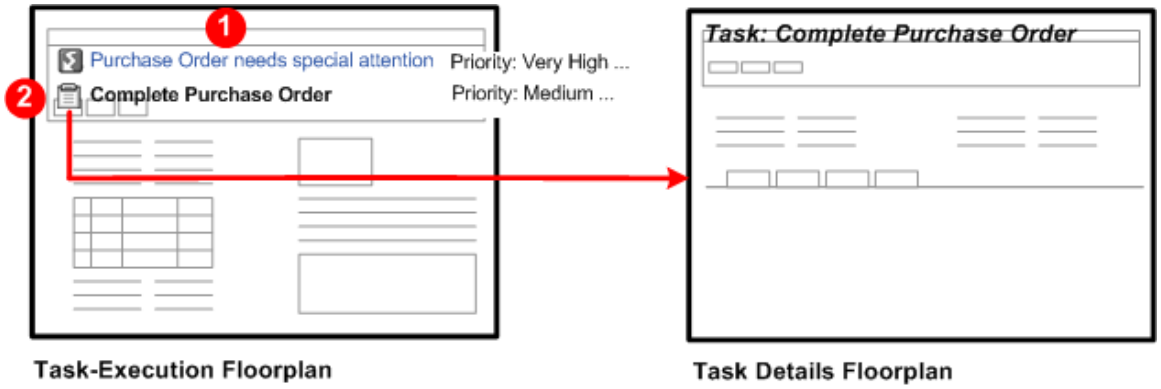
Task-Based Navigation

Navigation: From Task-Based OWLs to Task-Execution Floorplans



1. The *Edit* button opens the task-execution floorplan.
2. Clicking the task subject also opens the task-execution floorplan.

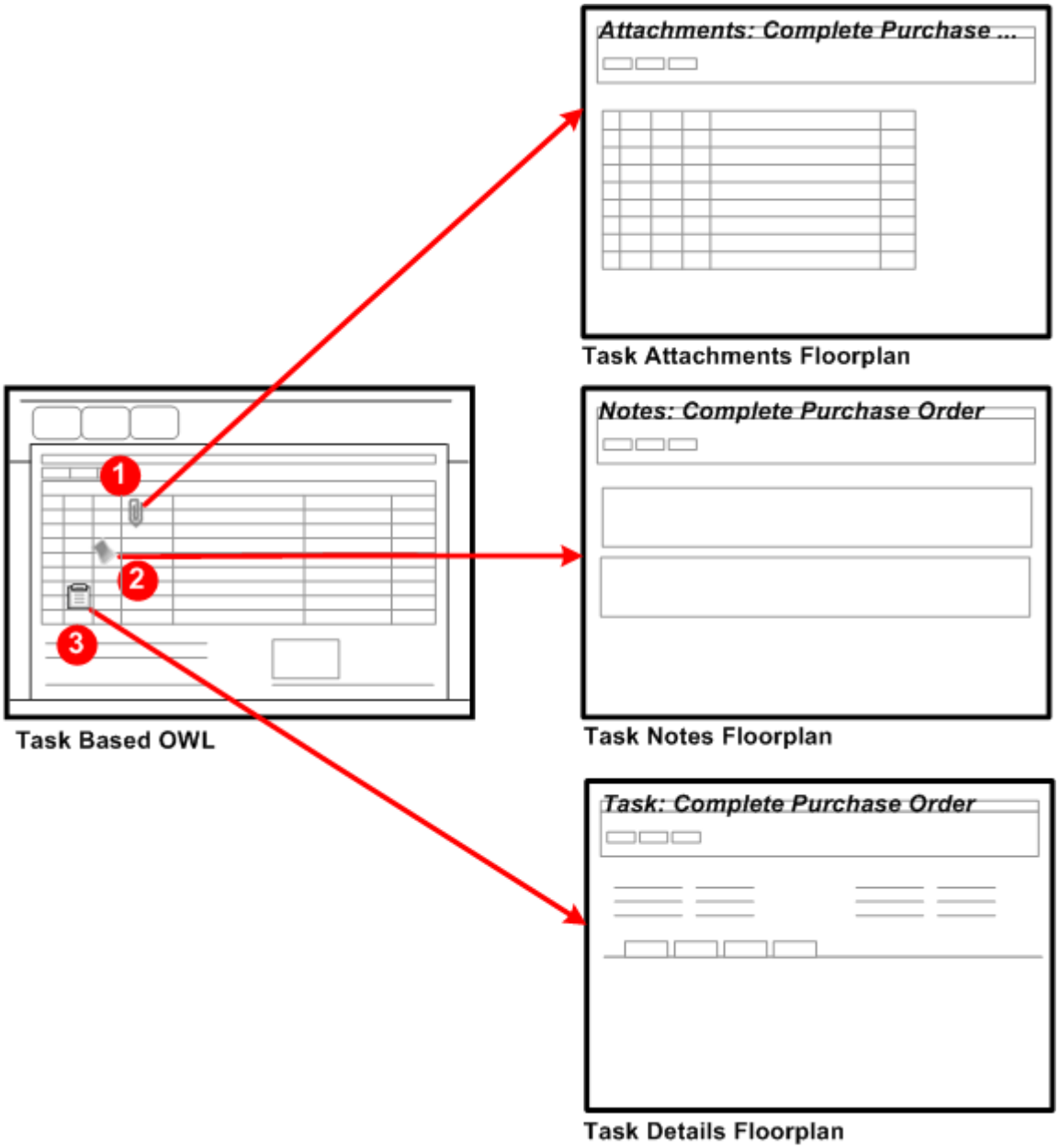
Task Region Navigation



1. Clicking the task subject opens the respective task-execution floorplan inplace.
2. Clicking the task icon opens the task details floorplan in a new window/tab.

NOTE: The subject of the task currently in focus does not have a link but is bold.

TOWL Icon Navigation

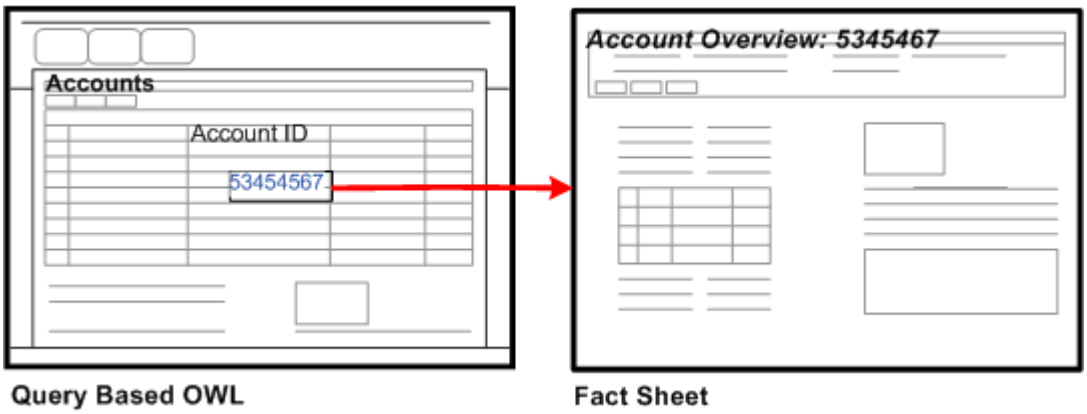


1. Clicking the attachments icon launches the BTM attachments screen.
2. Clicking the notesicon launches the BTM notes screen.
3. Clicking the task icon launches the task details screen.

Top

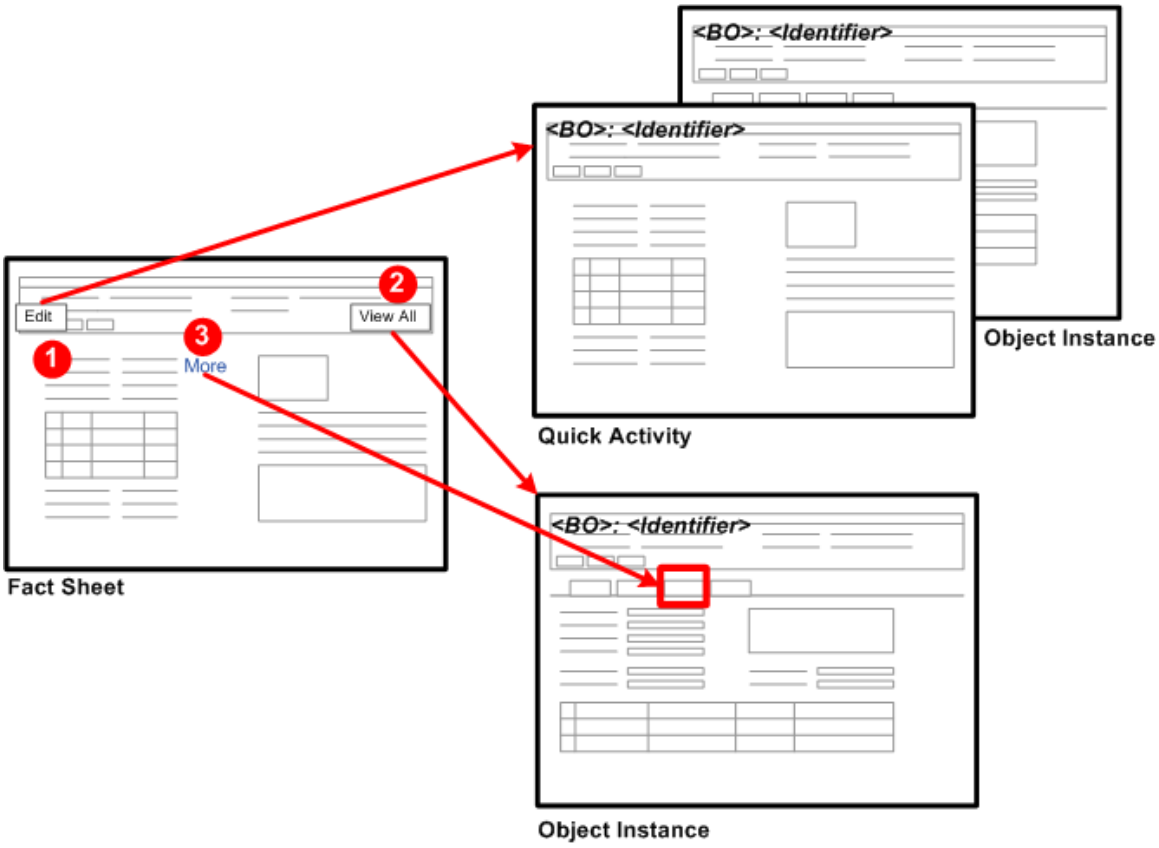
General Navigation

Navigation: From Query-Based OWLs to Fact Sheets



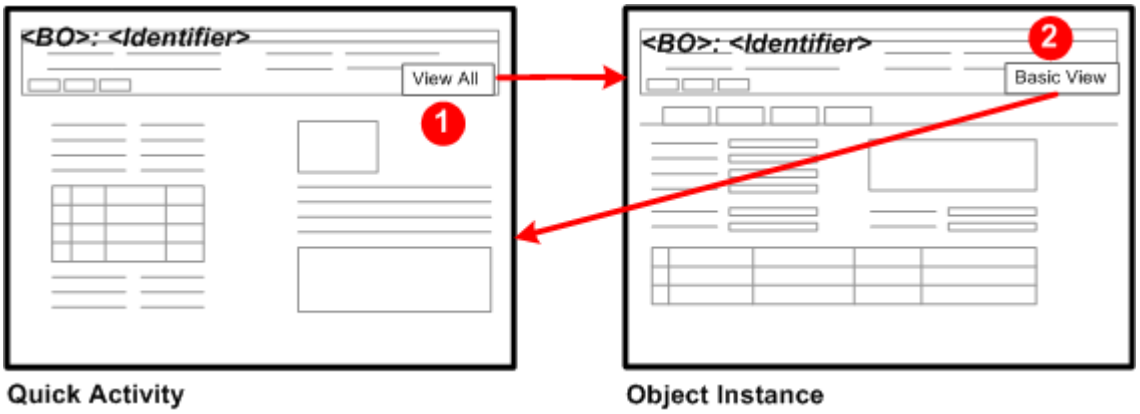
Clicking the link in a query-based OWL launches the Fact Sheet of the object.

Navigation: From Fact Sheets to OIFs



1. The *Edit* button in a Fact Sheet launches either a QAF or an OIF inplace. In case a QAF is opened the user can navigate from the QAF to the object's OIF via the *View All* button. The navigation is inplace.
2. The *View All* button in a Fact Sheet launches the OIF with the complete object data. The OIF is opened inplace which is the recommended behaviour. In rare cases it might be necessary to open the OIF in a new window/tab.
3. The *More* link navigates to a specific tab within the OIF.

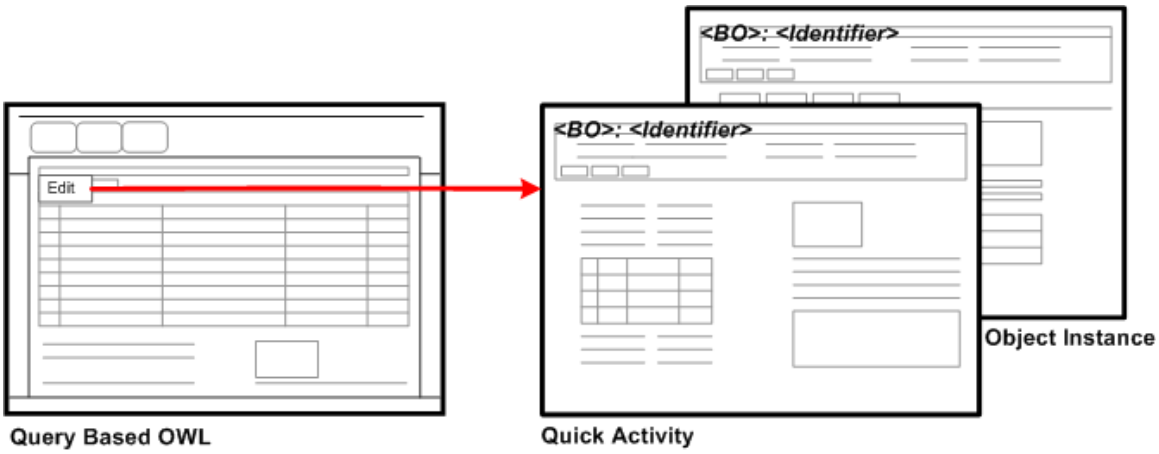
Navigation: From QAF to OIF and from OIF to QAF



If both, QAF and OIF are defined for a BO, provide a navigation from the QAF to the OIF and vice versa.

1. On the QAF, use the *View All* button to navigate to the OIF
2. On the OIF, use the *Basic View* button to navigate to the QAF

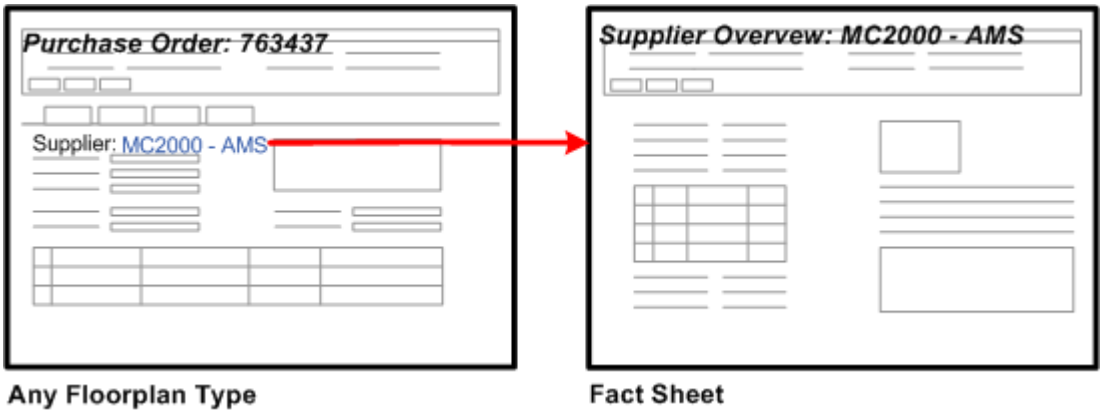
Navigation: From Query-Based OWLs to Editable Flooplans



The *Edit* button in the OWL launches an editable floorplan, either a QAF or an OIF. If both, OIF and QAF are available, preferably open the QAF.

NOTE: For a read-only OIF or QAF the *View* button instead of the *Edit* button is shown.

Navigation: From Floorplans to Related Fact Sheets



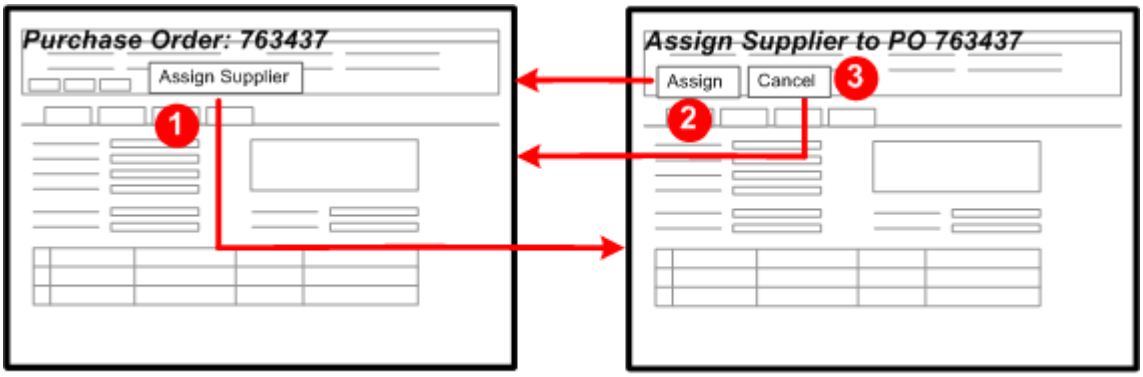
Clicking the link in a BO floorplan launches the Fact Sheet version of the respective object.

Navigation from Creation Floorplan to Editable Floorplan

Create Floorplan Edit Floorplan

When creating a BO and clicking *Save* instead of *<F-Action>*, the floorplan title changes from *New <BO>* to *<BO>: <BO-Number>*, for example from *New Service Request* to *Service Request: 56398*. Buttons can change from disabled to enabled.

Exception: Inplace Navigation from one Application to another and back



Calling Floorplan Called Floorplan

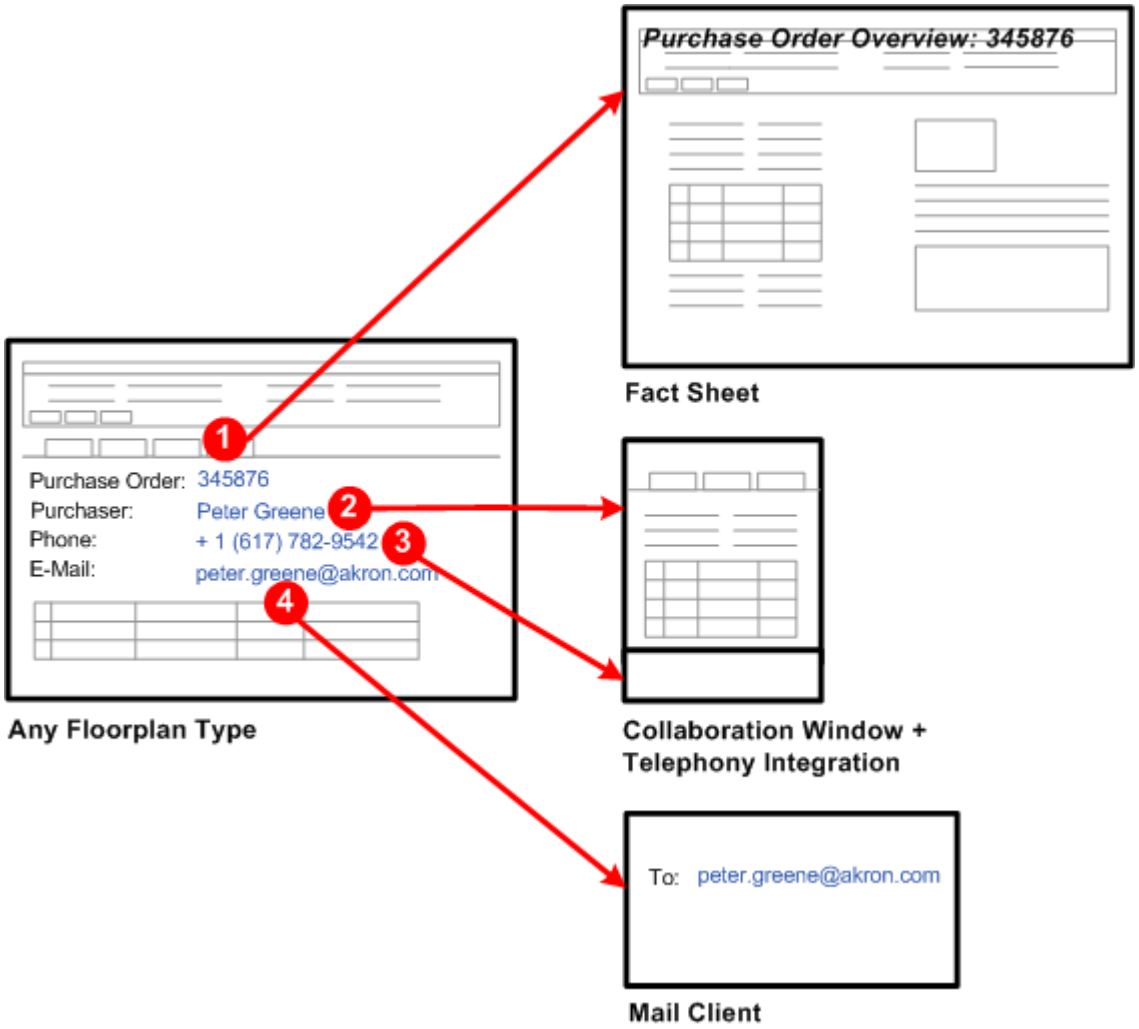
In some rare cases it may be necessary to transfer data from another application to the the calling one. If so, the:

- Calling application contains a button which calls the second application inplace, in the example the *Assign Source of Supply* button.
- The toolbar of the called application consists of *Assign* and *Cancel*. Both buttons navigate back (inplace) to the calling application. Data is either transferred (*Assign*) or not (*Cancel*). No confirmation dialog is needed.

NOTE: Try to avoid calling a secondary application and use a modal dialog instead.

Top

Navigation via Links to Fact Sheet, Collaboration Window, Telephony, Mail Client



1. **Fact Sheet:** Links on the object ID and the description/name navigate to the Fact Sheet.
   Exception: If the use case requires to directly edit the object an editable OIF, QAF or GAF can be launched.
2. **Collaboration Window**: Links on person names (including employees) navigate to the Collaboration Window.
   Exceptions:
   - In the HCM application links on names and IDs navigate to the personnel file Fact Sheet.
   - Links on business partner names and IDs navigate to the Fact Sheet of the business partner
3. **Telephony:** Links on the telephone number navigate to the telephony application.
4. **Email Client**: Links on the email address link to the mail client.

Top

More Information

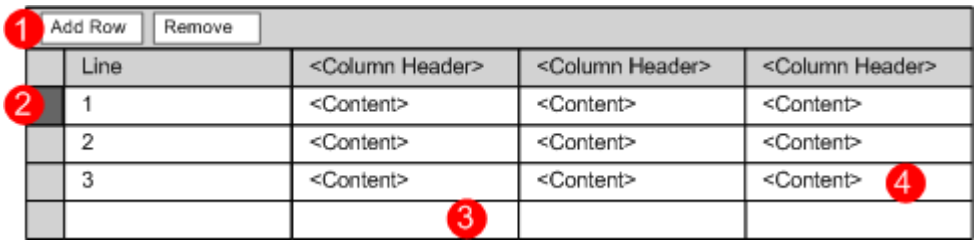
Collaboration Window
Fact Sheet
Guided Activity
Navigation Paradigm
Object Instance
Object Worklist

Add and Delete Rows

Page Content

Guidelines for UI Development
In FP3.5 it is not possible to add a row via clicking the row selector.

Add a Single Row



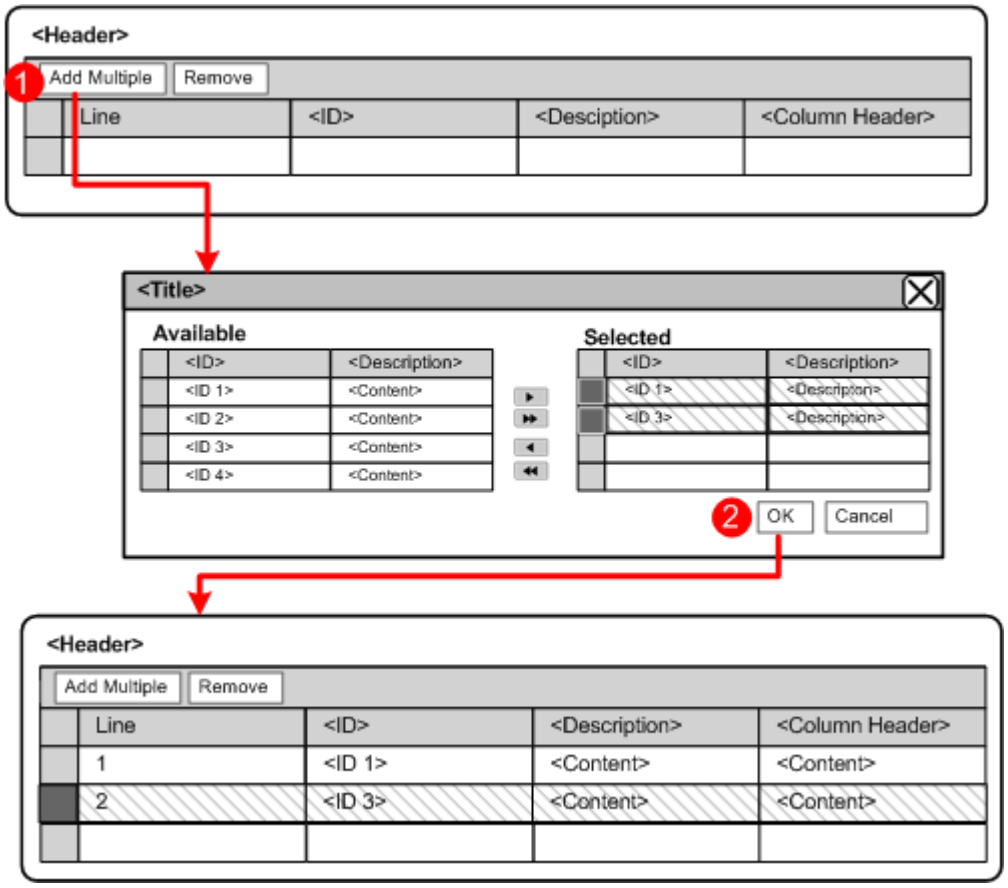
The user has the following possibilities to add a new row:

1. Click the *Add Row* button.
   The *Add Row* button must be the first button in editable tables. Clicking *Add Row* inserts an empty row with default values and moves the cursor to the first editable cell in that row.
   The row is appended before the blank row, see 3. The user can **not** determine where the row is inserted.
2. Click the row selector.
3. Click any cell within the blank row.
   This causes a server roundtrip which returns the default values. The users can now enter their data.
   An additional blank row is automatically appended.
4. If the focus in on the last cell, use the TAB or the ENTER key to add a blank row.

NOTE: If the user should be able define where the new row will added, for example between row 2 and 3, the application needs to define the function by itself. Use the button text *Insert Row*.

Top

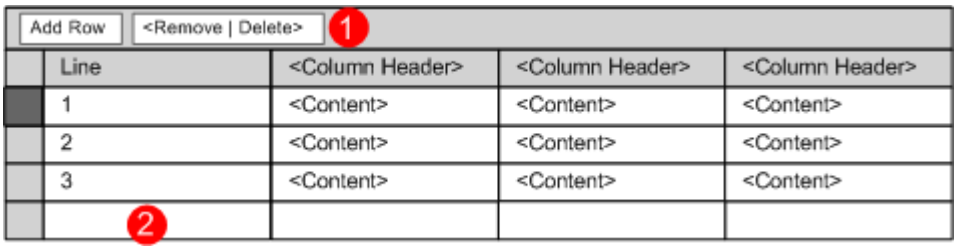
Add Multiple Rows



1. Put the *Add Multiple* button into the toolbar (instead of *Add Row*).
   Clicking the button launches a modal dialog, see Modal Dialog.
2. Within the modal dialog use a Browse and Collect pattern for selecting multiple items, see Browse & Collect.
   Clicking *OK* closes the modal dialog and transfers the selected items into the table rows. The focus on the last added row.

Top

Delete/Remove Rows



1. You can either use the *Remove* or the *Delete* button:
   - *Remove*: If only the reference to the object is removed
   - *Delete*: If the object is physically deleted from the database. In this case a dialog window needs to be launched where the user must confirm the deletion.
2. You can not delete or remove an automatically inserted empty row.

In order to delete or remove one or more rows it/they must be selected. After deletion or removal no row is selected.

Top

More Information

Browse & Collect
List Pane
Modal Dialog
Tables

Adobe PDF Forms

Page Content

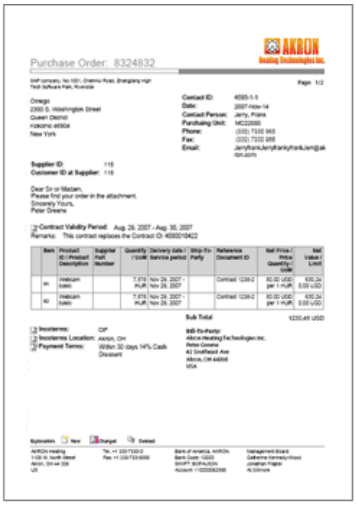
Definition: Forms

A **Form** is an electronic representation of a paper form. The form is a generated portable document format (Adobe PDF®) document. It can be:

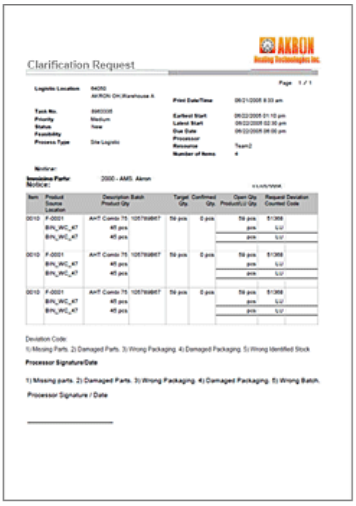
- static: the information is display-only
- interactive: the form allows entering and submitting data

Forms are used to send documents, such as purchase orders, to external business partner. They can be issued as a letter, e-mail, or fax for example. Forms can also be used for printing internal documents, such as Fact Sheets or warehouse task lists, in a comfortable layout.

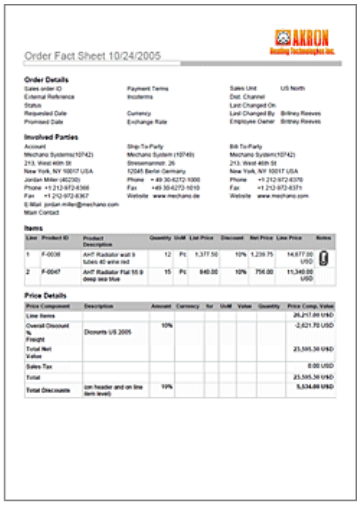
There is a Form Styleguide available for Adobe Forms that should be used by everyone who needs to define or build an ByD form or to create a mock-up. You can find the Form Styleguide and other information in the Form Wiki. It includes general guidelines and covers the following form types:



Outbound Letter



Item List



Fact Sheet

For more information refer to the Form Styleguide mentioned above.

Top

Standard/Localization Form

In order to meet the main business market requirements form templates can be delivered as generic country independent or as country specific. An Outbound Letter typically is developed with respect to the country it is used in. Item Lists and Fact Sheets usually are created and delivered as generic country independent form templates.
Country specific parts typically include changes in one or all of the following areas:

- Page size and margin / Envelope size and possible window position and size
- Sender and receiver address position, size, spaces / upright Info block and footer position
- Terminology

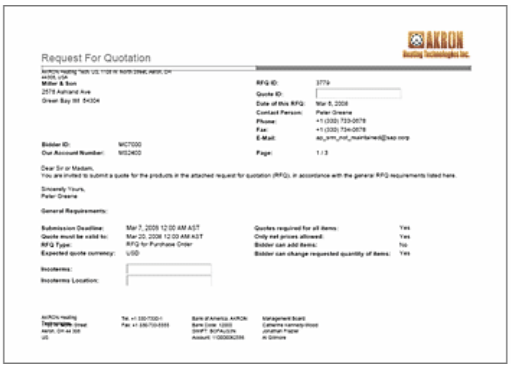
For each country a blueprint for the Outbound Letter is provided in the Forms Styleguide. They show an exact positioning and size of the elements used in the form - such as margins as well as the size and positioning of logo and title, sender and receiver address address, minimum and maximum visible size of the address blocks in the envelope window.

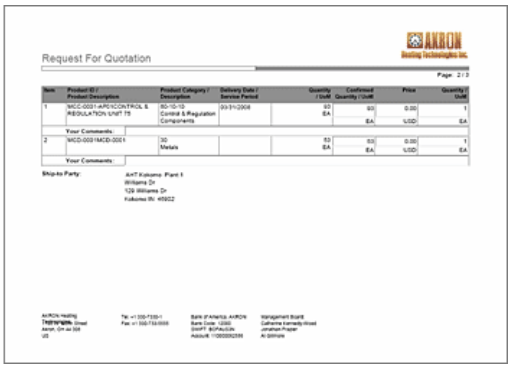
Top

Interactive Forms

Interactive Forms are sent to customers, suppliers, or other business partners by e-mail. The receiver opens the form with Adobe Reader, enters the data (such as decisions, comments and signatures) and sends it back.

The input field is the field that expects input from the recipient. Mandatory input fields can be highlighted by Adobe Reader.





Top

More Information

Form Styleguide
Form Wiki
Output Management

Approvals View

Page Content

Guidelines for UI Development
With FP3.5 it is not possible to show the comments and attachments of the business object in the details area of the Approvals List. Therefore the sections Comments and Attachments are not available.

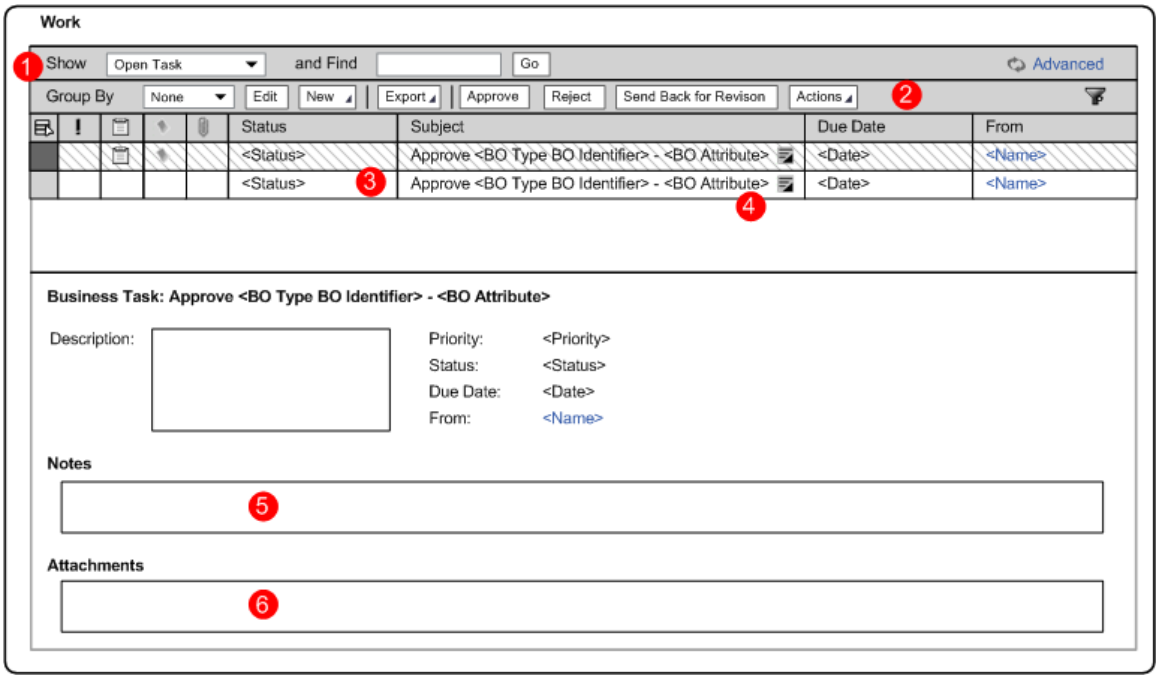
Definition: Approvals in Managing My Area

One of the managers' jobs is to approve requests from their employees, for example leave requests or shopping carts which contain materials or services needed by the employees. All requests are displayed in the BTM-based approvals worklist in the *Managing My Area* Work Center.

As the requests arise from different applications but are approved by one and the same manager the approval floorplans need to be designed similar. This allows the manager to easily grasp the structure and content of the floorplans.

Top

Consistency Rules: Approvals List



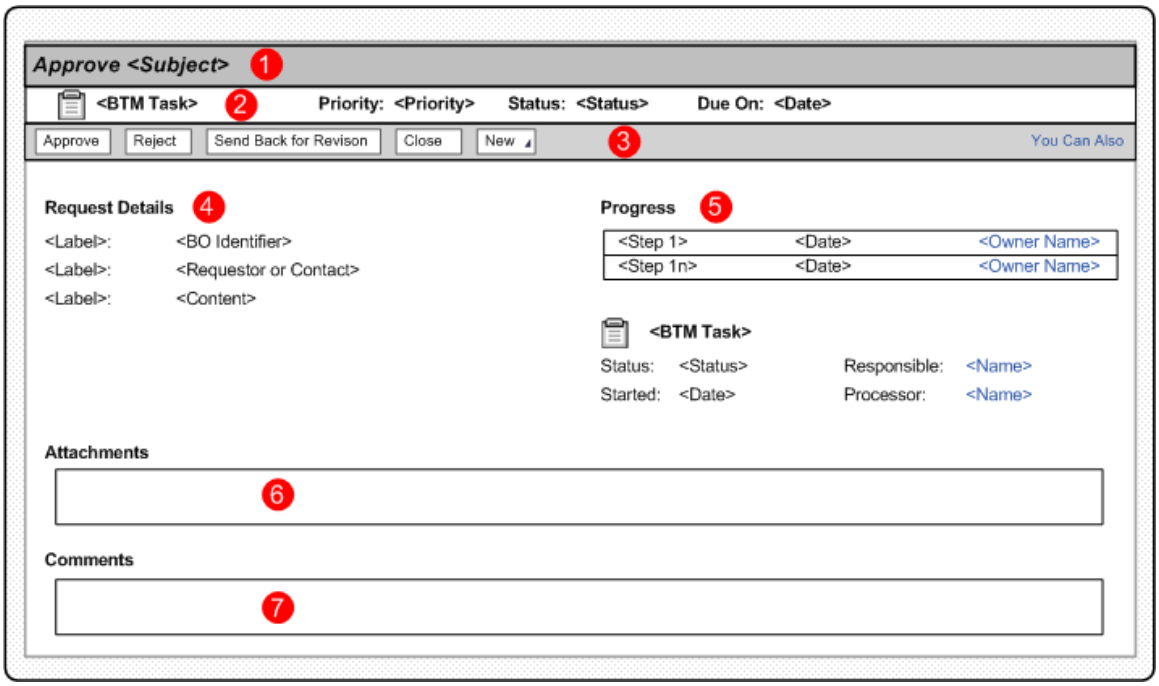
1. ***Show***
   Offer the following entries in this order: *Open Tasks*, <n context specific queries>, *Closed Tasks*
2. **Toolbar Buttons**
   Use the following buttons to allow one click actions: *Approve*, *Reject*, *Send Back for Revision*
3. **Task Subject**
   Use the following format: *Approve* <BO Type BO Identifier> - <BO Attribute>
   As it is not possible to show object attributes in the table or in the preview you can show up to three attributes in the title. If so, concatenate the attributes via "-". Do not use any prepositions.
   Example: *Approve Expense Report 000031 - Kate Jacobs*
4. **Context Menu**
   Offer the following functions in this order: [*Edit*] [*Approve*] [*Reject*] [*Send Back for Revision*]
5. **Notes**
   Show the notes history in display-only mode. The notes history combines the notes of the business object and notes of the task. See also Notes History.

6. **Attachments**
   Use the small attachment pane, see Small Attachment Pane.

You can find information on the fields of the Advanced Find in Consistency Rules: TOWL Content.

Top

Consistency Rules: Approval QAF



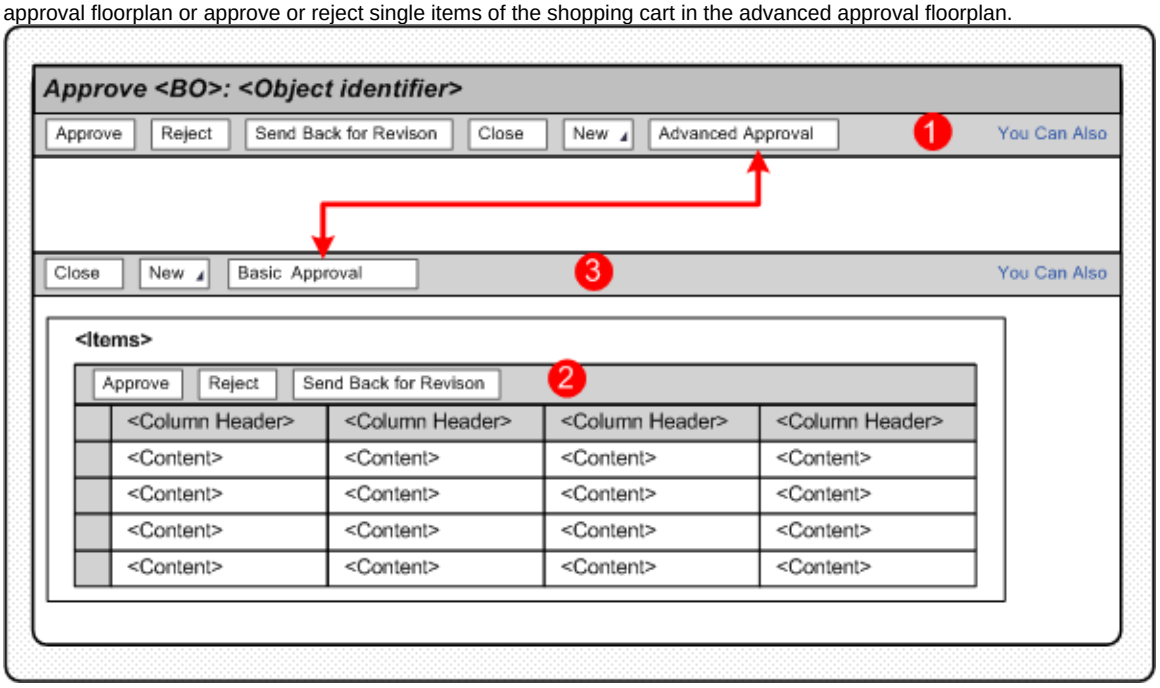
1. **Title**
   Use the following format: *Approve* <BO Type>: <Object Identifier>.
   Do not show additional task or business object attributes.
   Example: *Approve Shopping Cart: 4711*
   Do not use an Identification Region (IDR)
2. **BTM Task Bar**
   Show the name of the BTM task, the status, the priority and its due date.
3. **Toolbar**
   Show the buttons *Approve*, *Reject*, *Send Back for Revision*, *Close*, and *New* in the mentioned order. If an advanced approval is necessary, place the *Advanced Approval* button at the end.
   In rare cases functions like *Reject* or *Send Back for Revision* are not available. The respective buttons should then be disabled to avoid unnecessary feedback.
4. **Request Details**
   Mandatory fields are the business object ID (with a link to the Fact Sheet) and the contact or the requestor (with a link to the collaboration window).
   Recommended is the field *Reason*.
   Additionaly, you can show up to five business object attributes to support the managers in making their decision.
5. **Progress**
   Plug-in that shows what happened so far and what is the current step in the process.
6. **Attachments**
   Use the small attachment pane, see Small Attachment Pane.
7. **Comments**
   Offer editable comments including the comment history. The history shows comments of the business object and the task.See also Notes History.

Top

Basic and Advanced Approval

In most cases the manager needs to approve or reject the complete business object (basic approval). Only if the manager can approve or reject single items of a business object, another floorplan is opened (advanced approval). The navigation is inplace.

If the manager needs to approve a shopping cart, for example, they can either approve or reject the complete shopping cart in the basic approval floorplan or approve or reject single items of the shopping cart in the advanced approval floorplan.



1. On the **basic approval** floorplan the complete object can be approved or rejected. Clicking the *Advanced Approval* button launches the advanced approval floorplan inplace.
2. On the **advanced approval** floorplan the items of the object can be approved or rejected. The advanced approval has no progress area.
3. *Basic Approval* navigates back to the basic approval floorplan.

Top

More Information

Business Task Management
Identification Region
Object Worklist
Quick Activity

Business Configuration

Page Content

Guidelines for UI Development
With FP3.5, it is not possible to show the fields Changed On, Changed By in BC Views.

Business Configuration: Definition

Business Configuration (BC) is the process of adapting the ByD solution to the requirements of the customer at any time in the life cycle of the solution. A separate Work Center is available which allows full access to business configuration. In addition, "immediate changes" allow changes to the business configuration directly from the relevant Work Centers during the runtime.
The functions available in the Business Configuration Work Center slightly differ between two states: Before go-live and after go-live.

BC consists of the following parts:

- **Implementation Project**: In this part the scope of the implementation is defined, using a Guided Activity. With finishing the Guided Activity, the activity list is generated.
  - Before go live: The implementation project is created with the provision of the system and the customer can directly start to work on the activities in the activity list.
  - After go live: The customers can create implementation projects on their own, to change the configuration of their system.
- **Activity List**: Is a structured collection of mandatory and critical tasks, generated from the implementation project. The tasks must be completed either before the solution can go live for the first time, or before changes can be implemented later in the solution life cycle. The activity list can also include optional activities that can be completed at any stage. The activity list covers the following sequential phases:
  - Prepare
  - Fine-Tune
    Fine-Tune is the configuration of the solution to meet customer requirements that exceed the level of predefined content in the software. It is done via BC Views.
  - Integrate and Extend
  - Testing
  - Go-Live

- **BC Views**: BC Views configure the behaviour and UI of ByD applications. For each activity of the activity list one or more BC Views need to be maintained. If more than one BC View needs to be maintained, they are bundled together in a Fact Sheet. Alternatively, some BC Views can be called during runtime as *Immediate Change* from the application Work Centers.
  BC Views functions dynamically depend on the individual scope of the customer. BC Views are "attached" to the Business Adaptation Catalog (BAC) on the level of business options (n:m relation).

Top

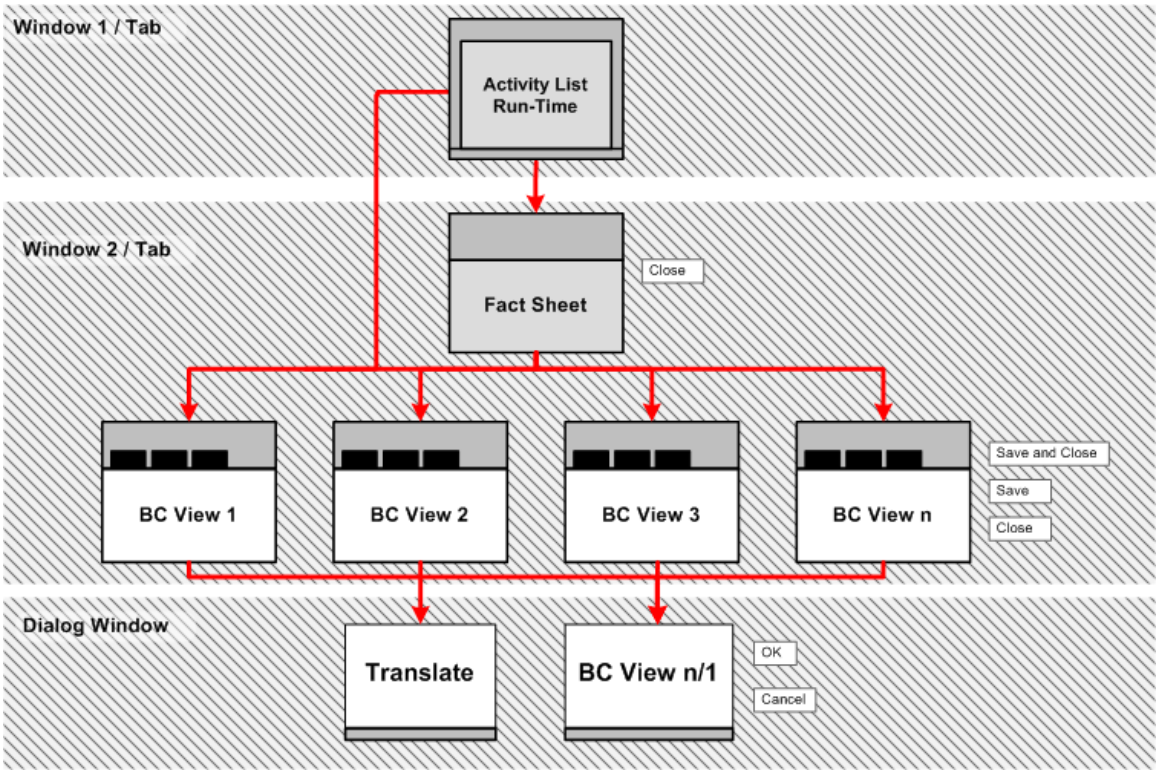
Navigation Paradigm

BC Views can be launched directly from the Activity List or from run-time. If more than one BC View needs to be edited for an activity you can launch a Fact Sheet instead. The Fact Sheet collects all necessary BC Views and enables the user to access the BC Views. Instead of linking to BC Views, Fact Sheets can also link to application UIs, MDRO screens or Formula Derivation Tool (FDT) screens. Unlike BC Views, these screens are opened in a separate window/tab.

If a BC View is opened from a Fact Sheet, it is opened in the same window/tab (inplace) as the sheet. Links and actions do not open new windows/tabs but stay inplace. If the BC View needs to be translated or has a second data screen, a Modal Dialog is opened.

NOTE: Unlike standard navigation behaviour, clicking *Save and Close* or *Save* on the BC View returns to the Fact Sheet and does not close the window/tab.

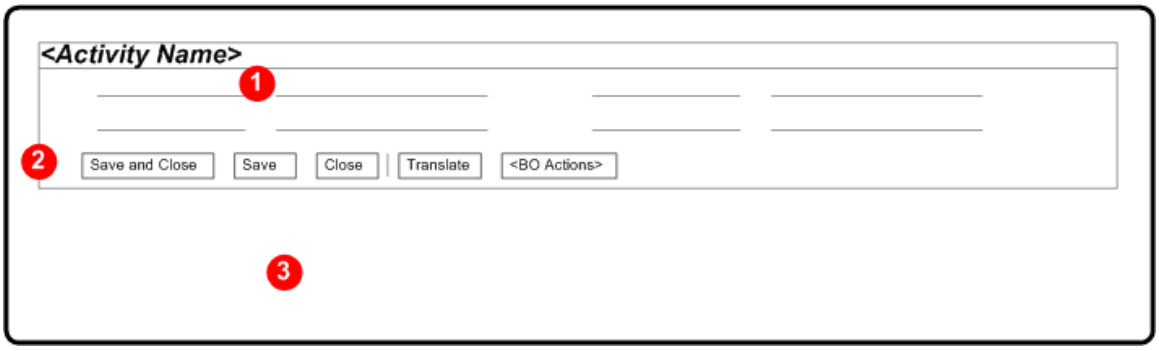
The following picture shows the navigation paradigm for BC Views:



Top

Consistency Rules: BC Views

BC Views are opened using a Quick Activity. Only in exceptional cases you can use a Guided Activity.



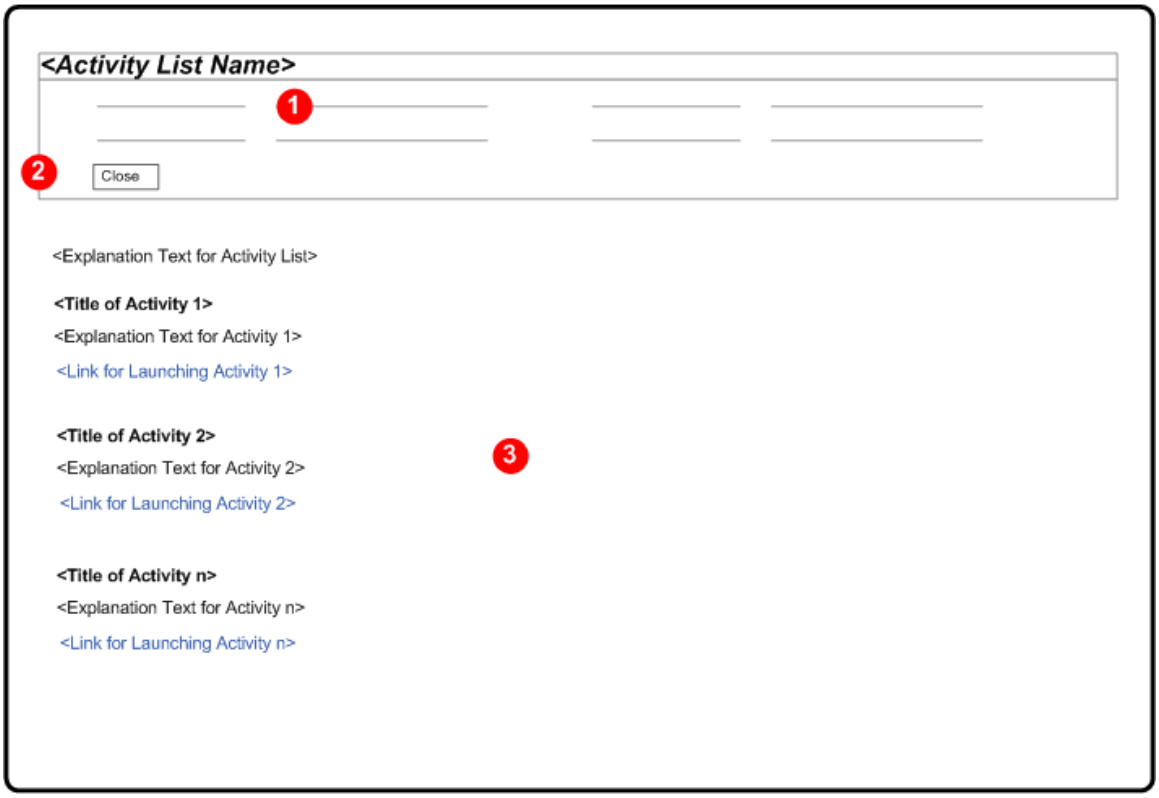
1. **Identification Region:**
   - Use the following title format: *<Activity Name>* such as *Leads*.
   - Show the following entries in the given order in the IDR:
     - *Version* which can either be default or customer specific. *SAP Default* is the default version.
     - *Changed On*, is only shown if the version is customer specific
     - *Changed By*, is only shown if the version is customer specific
     - *Business Option* which indicates the hierarchical path where the Business Option for the particular BC View is located. The path elements are separated via colon.
       Example: *Financials: Financial Accouting General Ledger: Final Reportig Structure*
2. **Toolbar:**
   Show the following mandatory buttons in the given order *Save and Close, Save, Close.* If the BC View needs to be translated, show also *Translate*. Optionally, you can add BO specific buttons.
3. **Content Area:**
   If needed show an on-screen explanation, see Primary Help.
   You can use any pattern within the content area, in most cases tables are used. See the respective pattern chapter for further information.
   See the following BC View specific guidelines and information:
   - **Tables**:
     - Use the buttons *Add*, *Delete* or *Remove*, followed by *Copy (optional)* and *<BC View Actions>* (optional)
     - If a record is deleted from a table, use the button *Delete*. If an assignment is removed, use *Remove* instead.
     - A BC View action can navigate to a second level BC View which is displayed in a secondary window. When returning from this secondary window, the data is not saved. Save takes place after clicking *Save* or *Save and Close* in the primary BC View.
     - Open the filter row by default.

    - Do not use radio buttons in tables.
    - You can use tables which allow editing within rows. You can also use tables which only allow adding and deleting rows but no editing within the rows. The latter do not have an *<Actions>* button.
    - Use hierarchical tables rarely. Use a Master-Detail (the first level of hierarchy would then be the master table) or *Group By* filters whenever possible.
    - For more information see List Pane and Tables.
- **Master Detail:**
  If the master node of the underlying schema is non-extensible and the BC Set contains only one entry, the master table will change into a form.
  For more information see Master-Detail.

Top

Consistency Rules: Fact Sheet

A Fact Sheet enables the user to access all BC Views belonging to an activity. Fact Sheets are display-only and list all tasks. Links on the tasks launch the BC Views. You do not need to design the Fact Sheet as it is automatically created.



1. **Title**
2. **Toolbar:** Shows only the *Close* button
3. **Content Area:** Lists all BC Views for the activity. Each BC View is displayed in a section with a title, a one line on-screen explanation of the BC View function, and a link to open the BC View.

Top

Generic Function: Translate

If a BC View contains text which is not translated by SAP but needs to be translated by the customer you need to offer a *Translate* button on the BC View. For example, if the customer creates their own products they need to translate the description of the products into the languages needed. If no translation is necessary do **not** show the button *Translate.*

When the user clicks the *Translate* button the Modal Dialog for translation is launched. This screen does not only list the translatable fields of the BC View from which it is launched but lists all fields from all BC Views belonging to an Activity List. Therefore the translation screen contains a hierarchical structure where each node represents one BC View.

NOTE: Any changes on the translation screen are saved in the cache and are not stored in the database until the calling BC View is saved.

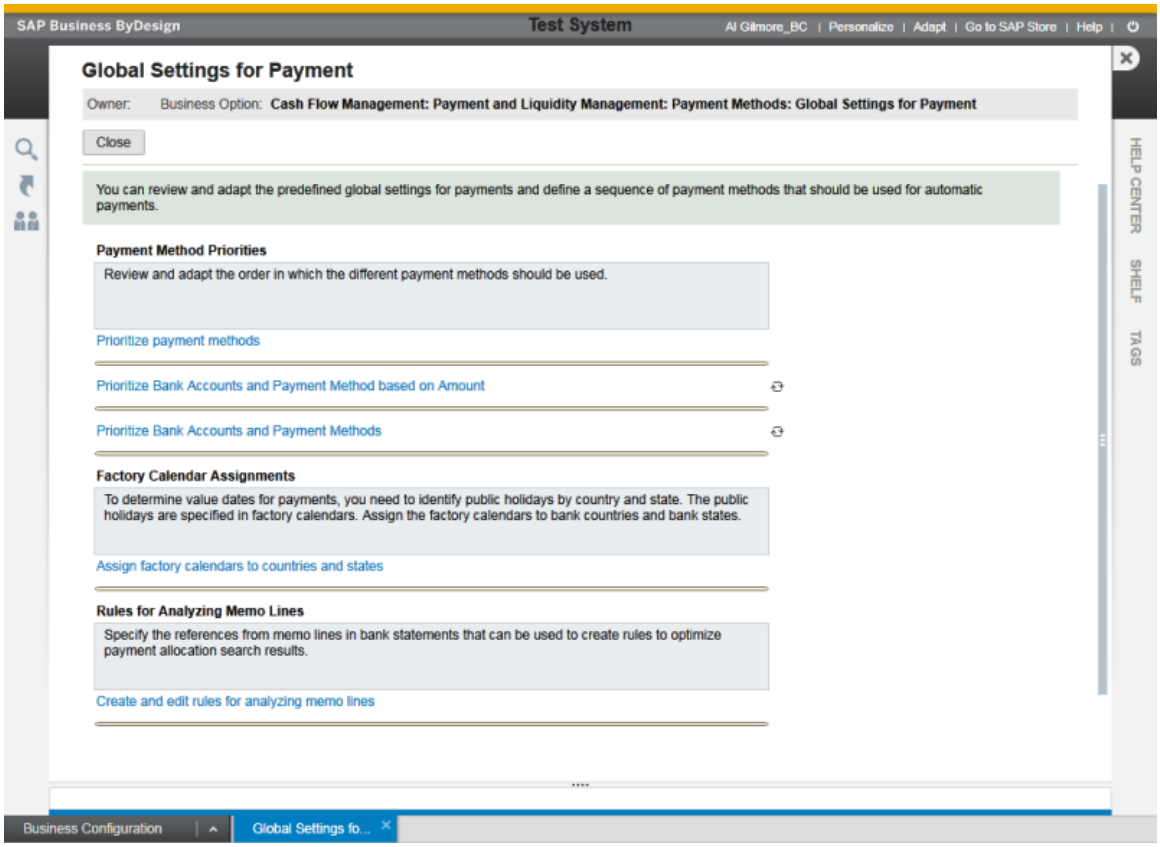
You do not need to design the translation screen as it is automatically created. See *Examples* below for a picture.

Top

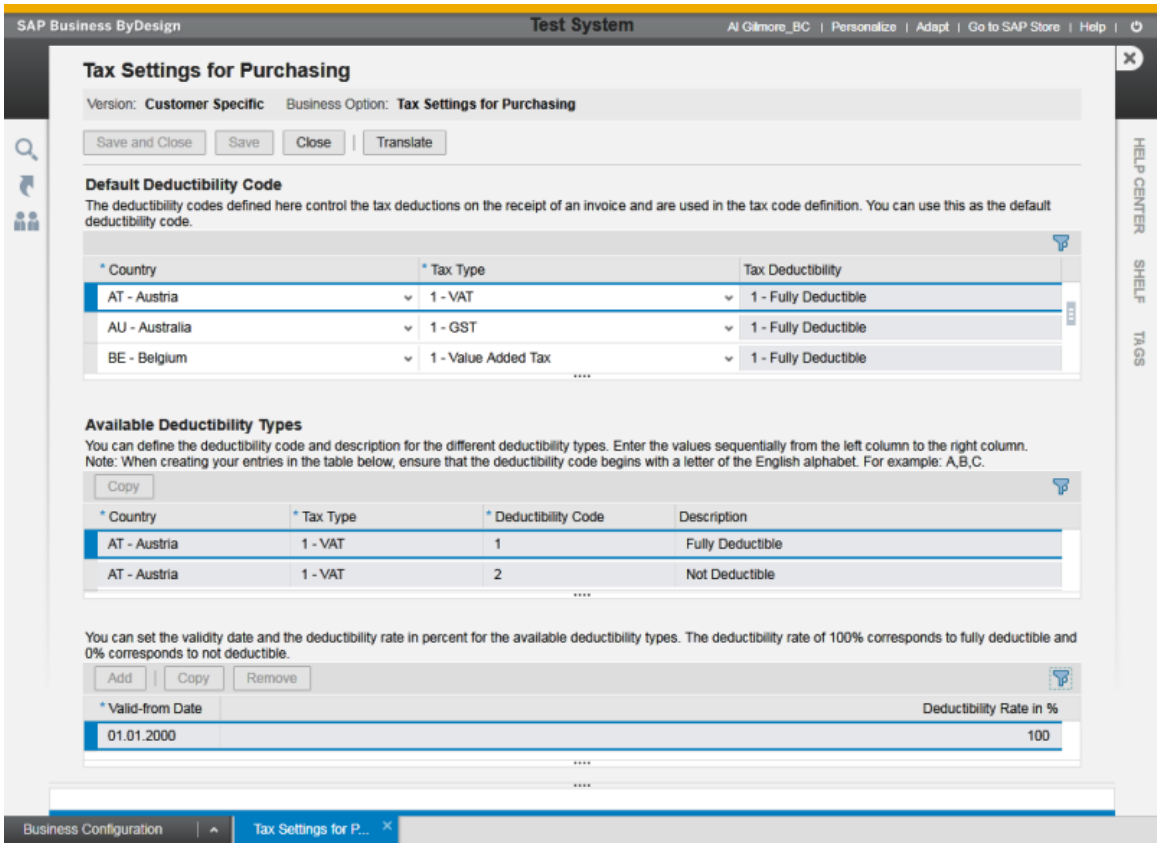
Examples

The following screenshots are taken from a ByD FP3.5 system.

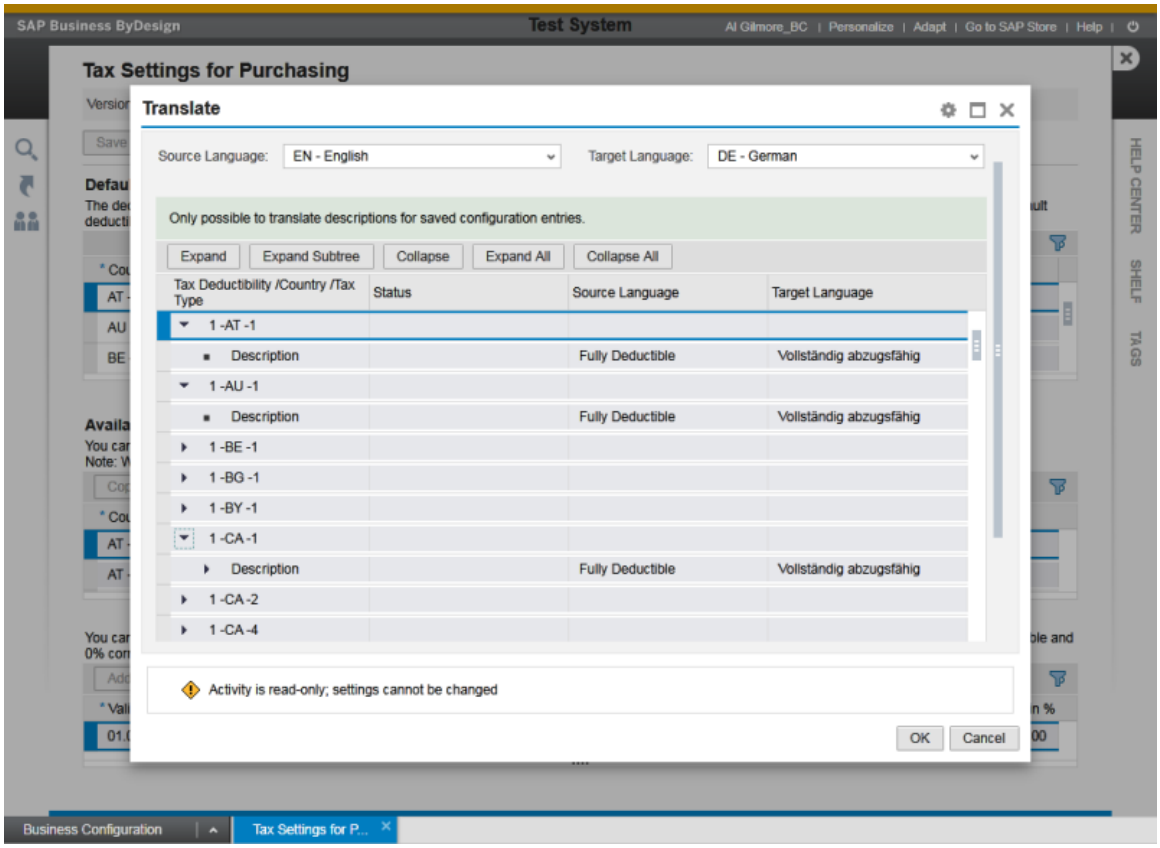
Fact Sheet



BC View



Modal Dialog *Translate*



Top

More Information

Creating Business Objects
Fact Sheet

Creating Business Objects

Page Content

Basics

Business Objects can either be created **from scratch** or by using an already **existing Business Object as a reference**.
The fields on the create floorplan are usually empty with default values preset. If the Business Object is created with reference the data of the referenced Business Object is also preset. The create floorplan must have either all required fields on the screen or you must assure that the required fields have defined logical defaults (preferably personalizable settings).

You can use the following activity floorplans for creating Business Objects:

- GAF
- QAF
- OIF (not recommended)

Preferably use a QAF to keep it simple or use a GAF to provide guidance to the user when needed.

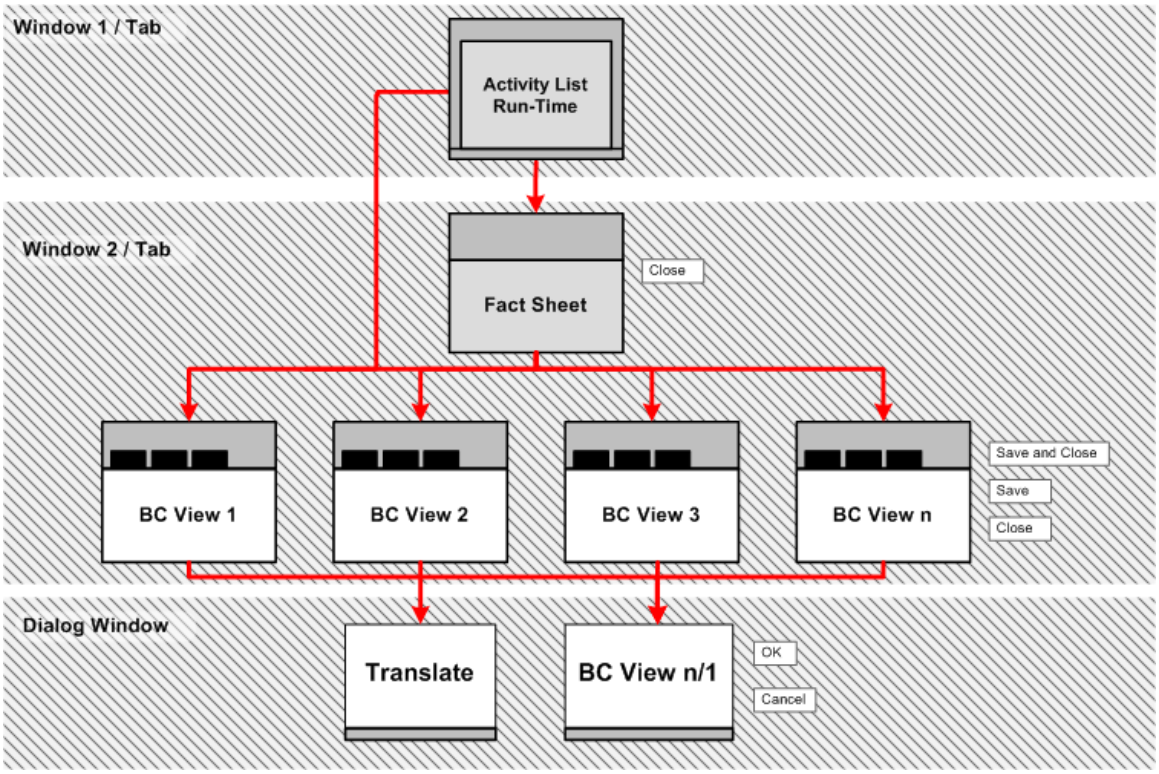
From Where to Create Business Objects

You can create Business Objects from the following contexts:

- *Common Tasks* menu of WoC (via link *New <Business Object>*)
- OWL (via *New* button in toolbar)
- QAF, OIF, GAF (via *New* button in the toolbar of QAF, OIF or via link in the *What do you want to do next?* area of the GAF confirmation step)
- Fact Sheet (via *New* button)
- Rarely: In creation floorplans QAF or OIF when mass creation of objects is required (*Save and New* button)
- Rarely: If a different Business Object than shown has to be created *(You Can Also* menu of OIFs or QAFs)
- When needed: Within Business Object creating or editing a Business Object of another Business Object type can be created (via *New* button). For example, the user creates a purchase order and within the purchase order the user can create a new supplier the puchase order will be sent to.

NOTE: Keep in mind that the term *New* is only used when creating a Business Object from scratch. For creating Business Objects with reference see *Button and Link Labels* below.

The following picture shows the standard ways of how to create a new Business Object:



Button and Link Labels

Use one of the following labels when creating a Business Object in **OWLs** and **activity floorplans**:

Label	Description
New	Use it when the BO is created from scratch. You can offer different create variants within a *New* menu button.
Follow-Up	Use it when the BO is created as a follow-on document to a selected document. The new BO is of a different type than the referenced BO. Example: The user selects a lead and creates a sales order via the *Follow-Up* function.
Copy	Use it when a BO of the same BO type is duplicated.
Create with Reference	Use it when a modal dialog shows up where a referred object has to be selected. Example: The user creates a sales order and selects from the Modal Dialog a lead as reference.

In the ***Common Tasks*** menu and the ***You Can Also*** menu use a link with the format *<Label><Business Object Type>* such as *New Service Order*, see Common Task Labels.

From Creation to Editing Floorplans

As soon as the new object is saved, the *New* screen is exchanged with the *Edit* screen, see *Navigation from Creation Floorplan to Editable Floorplan* in General Navigation.

Top

Create Business Objects From Scratch (*New*)

- Do not show an IDR initially.
  When using a GAF you can show the IDR from the second step on filled with the information from the previous step.
  When using a QAF or an OIF you can show the IDR after the Business Object has been saved.
- Leave the fields of the content area empty with defaults preset.
- When needed add *New* buttons behind the fields to allow for creating related objects on the fly.

NOTE: If you create a Business Object using an OIF do not put *Open Overview* in *You Can Also* menu.

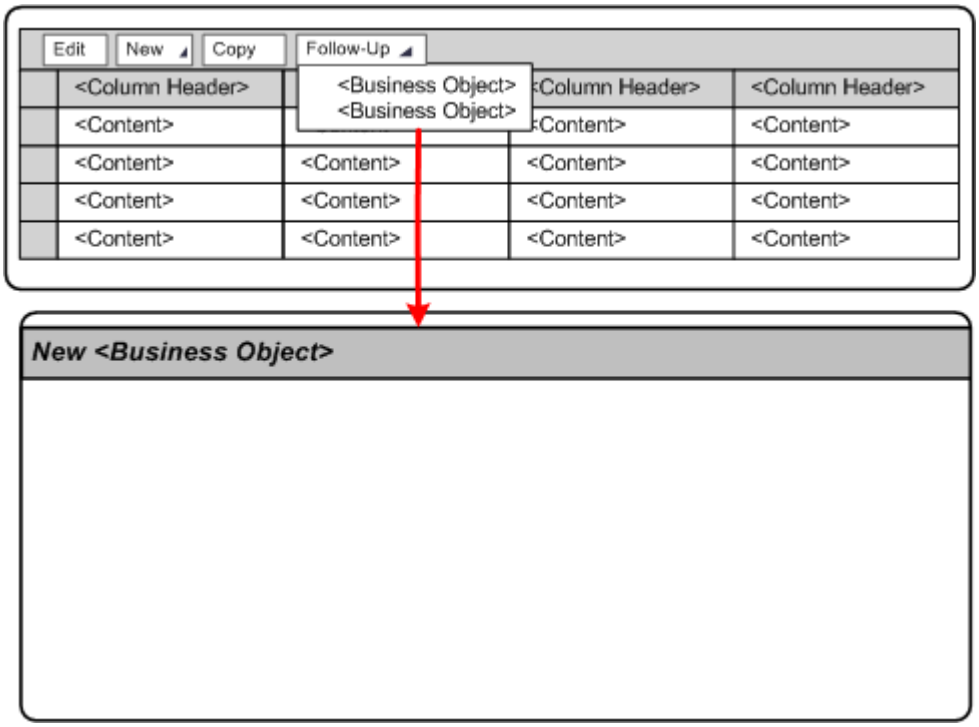
Top

Create Business Objects With Reference (*Follow-Up*, *Copy*, *Create with Reference*)

If the user creates a Business Object with reference via *Copy* or *Follow-Up* they have the Business Object to be referenced already selected. In this case the system can already preset the data of the reference object in the creation floorplan.

In rare cases the user launches the create floorplan without selecting the referenced Business Object first. In this case the user needs to select the referenced Business Object within the creation floorplan.

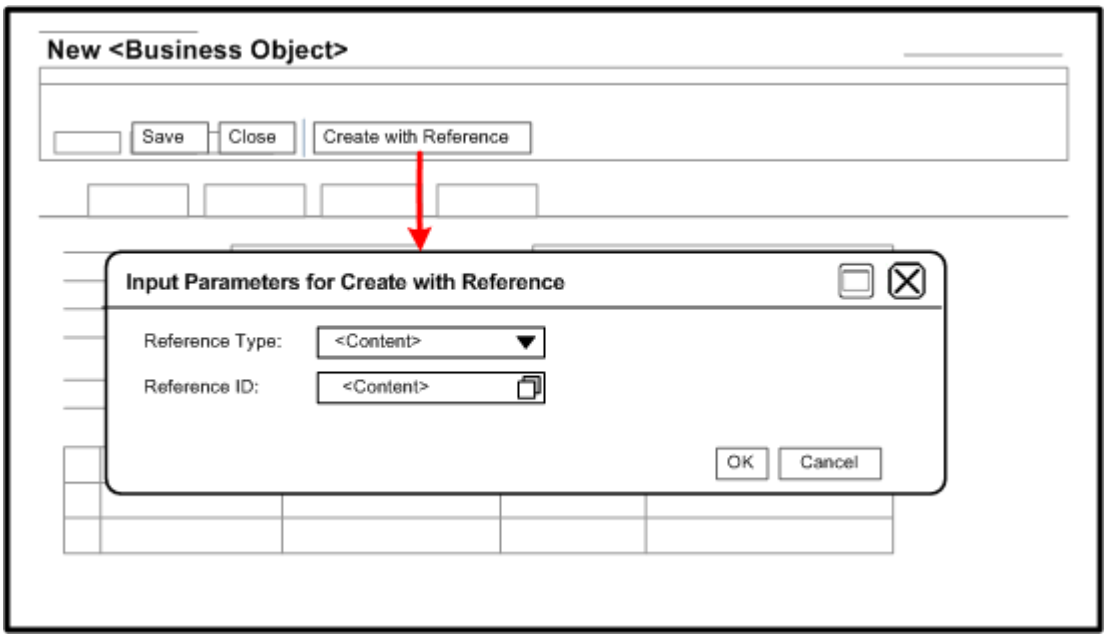
Referenced Business Object Is Already Selected



Referenced Business Object Is Not Selected

If the user needs to select the referenced Business Object in the creation floorplan use the following solution:

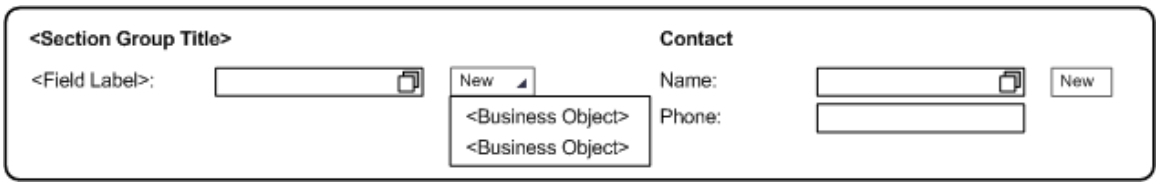
Place a *Create with Reference* button into the toolbar. Clicking the button launches a modal dialog where the user selects the referenced Business Object. After confirming the selection the fields of the underlying floorplan are filled accordingly.



Top

Create Business Objects From Within An Application (*New*)

Place a *New* button behind a Business Object identifier field when an according object can be created from within an application.



Place the *New* button (or *New*^ menu button) behind the object identifier field. Pressing *New* opens the creation floorplan.

Top

More Information

Action Navigation
Fact Sheet
Functions & Menus
Guided Activity
Navigation Paradigm
Object Instance
Object Worklist
Save, Cancel, and Close

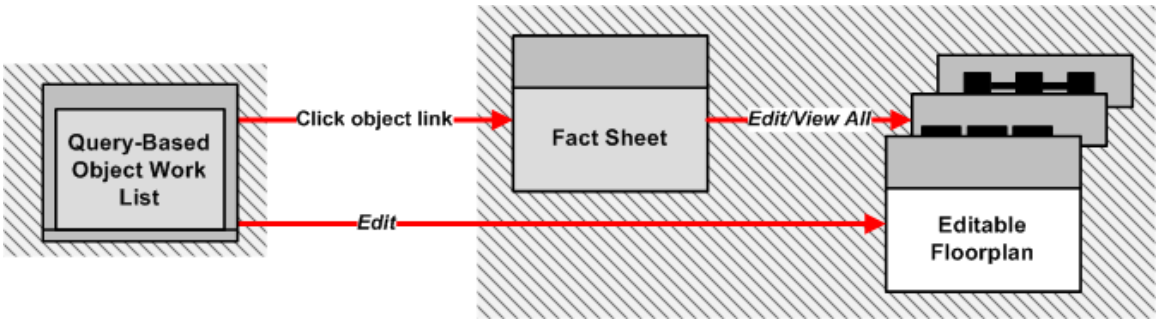
Editing Business Objects

Page Content

Editing: From OWL to QAF/OIF

From a query-based OWL the user has two possibilities to edit an object:

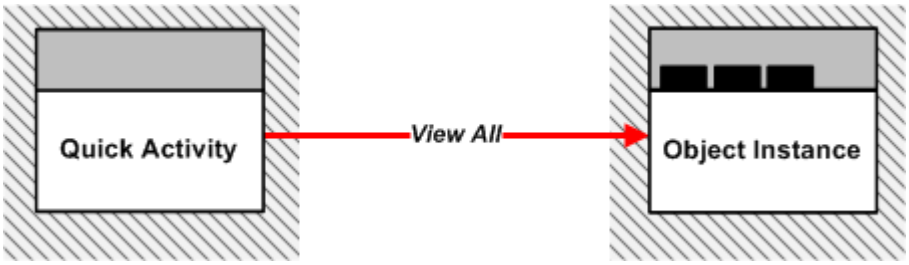
- Navigating to the Fact Sheet and clicking the *Edit* or *View All* button
- Selecting the object within the OWL and clicking the *Edit* button



Top

Editing: From QAF to OIF

According to progressive disclosure let the user start editing an object in a simple QAF whenever possible.
When necessary provide a *View All* button so that the user can navigate to an OIF with full editing capabilities.



Top

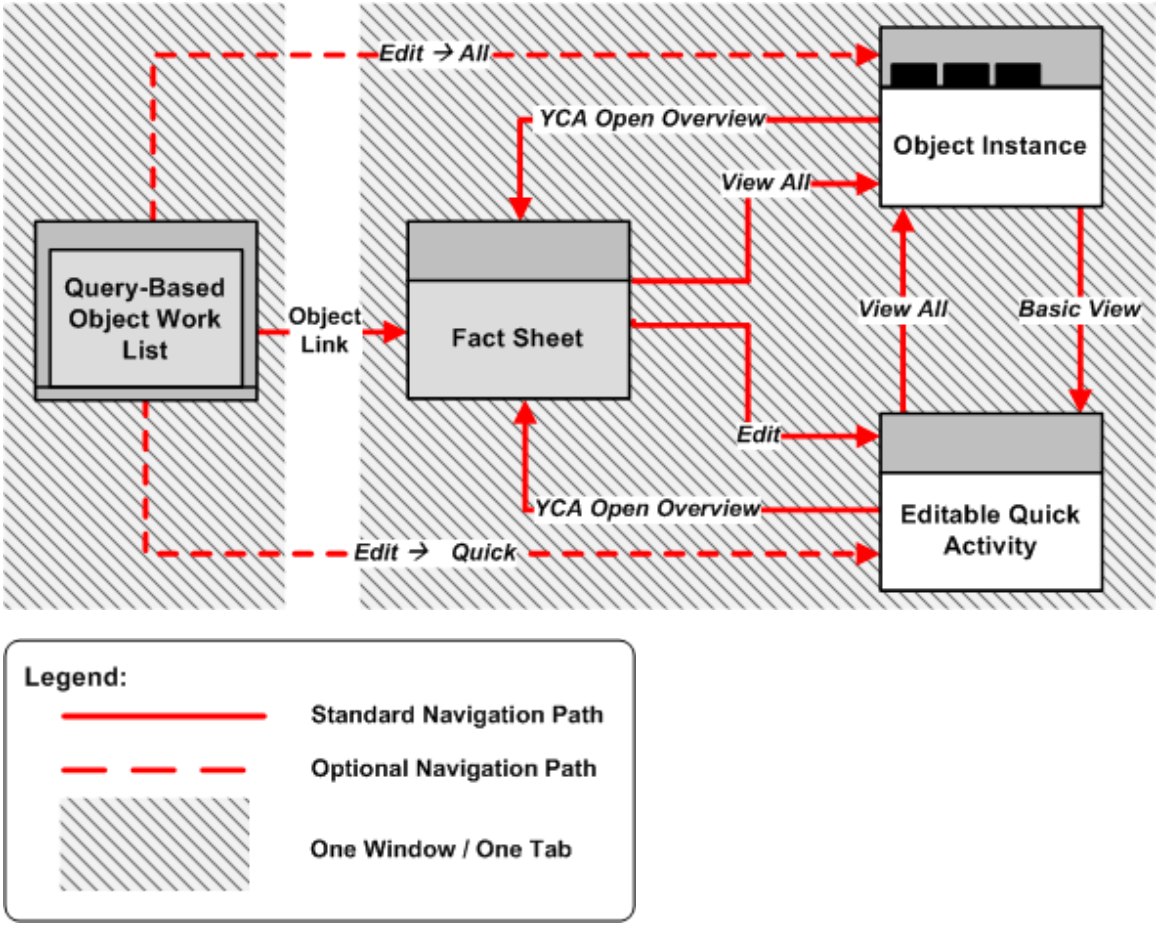
Complete Edit Navigation Model

For quick access of an editable floorplan from an OWL, provide an *Edit* button within the OWL toolbar.

The following use cases have to be distinguished (OWL):

- Only a QAF is available: *Edit* opens the QAF
- Only an OIF is available: *Edit* opens the OIF
- Both, QAF and OIF are available:
    - If the OIF contains a tab which matches the QAF: *Edit* opens the OIF
    - Otherwise decide whether Edit opens the QAF or OIF.
    - If the use case requires that the user needs to select either the QAF or OIF directly from the OWL toolbar, provide an *Edit*^ menu button with the following options in the given order: *All* (opens the OIF) and *Quick*, (opens the QAF)

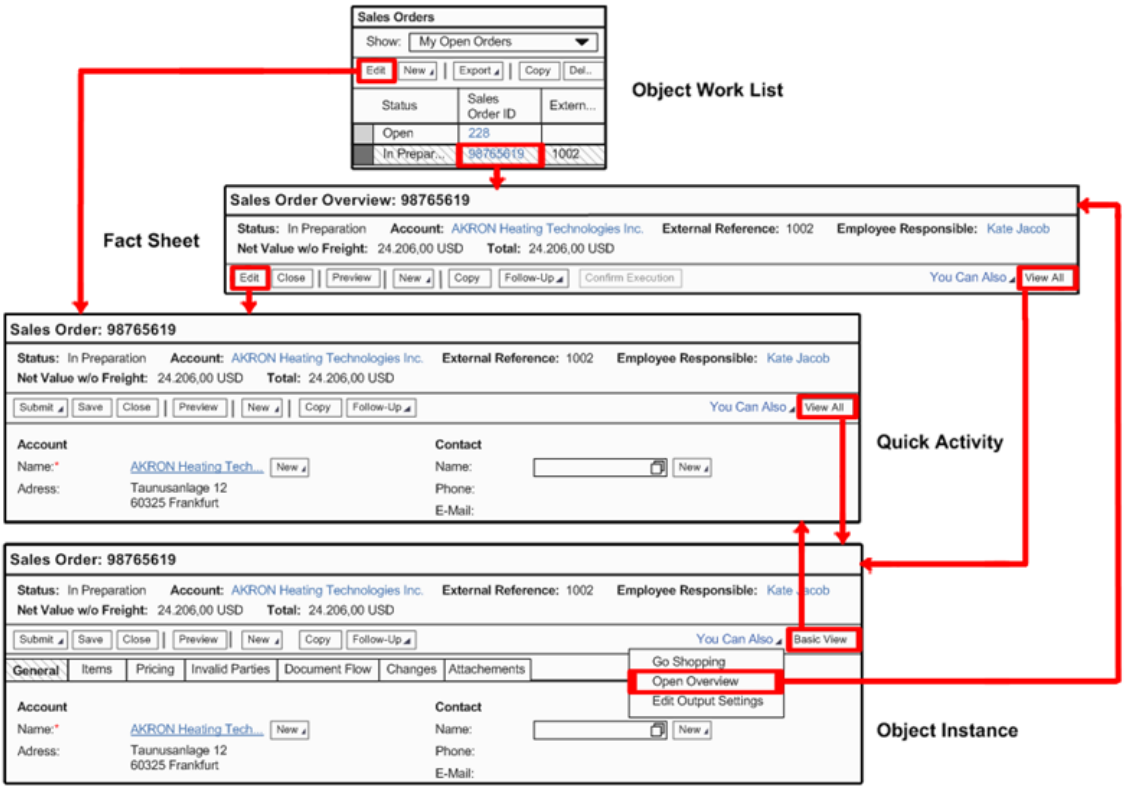
The following picture shows the complete navigation model:



Top

Examples

The example shows the recommended navigation path from an OWL via Fact Sheet to QAF and OIF. It also shows the back navigation from QAF and OIF back to the Fact Sheet as well as the navigation between QAF and OIF.



Top

More Information

Creating Business Objects
Fact Sheet
Guided Activity
Object Instance
Object Worklist
Quick Activity

Mass Change

Page Content

Basics

Mass change allows users to change a field value in many BOs or items at once without opening the single BO or item. The value can either be changed by entering a concrete value (such as changing the responsible purchaser from Peter Greene to Arthur Major) or a formula (such as increase prices by 5%). Fields with blank values are ignored and not changed.

Usually, the user selects the BOs or items to be changed in the OWL or a table within an activity floorplan.

Examples for mass change are:

- Changing the start or end date for a group of activities in the same project
- Approving multiple items with the same approval code
- Changing the responsible purchaser for purchase orders

Floorplans

You can use the following floorplans for mass changes:

- **QAF**: Contains one table for selection and change
- **Modal Dialog (MD)**: Contains the fields to be changed. Selection needs to be done on the floorplan from which the modal dialog is launched.

NOTE: You can also use GAFs (no best practices available) and custom UIs for exceptional cases which are not supported by the standard. Additionally it it possible to use the export to and save from Excel function for carrying out mass changes, see Office Integration .

Wording

Use the following wording:

- Use the button *Mass Change* to evoke the floorplan for mass change.
- Use the title format *Mass Change: <Noun>* for the mass change floorplan, example: *Mass Change: Materials General Data.*
- Use the button *Apply Mass Change* to carry out the changes.

Top

Use Cases and Recommended Floorplans

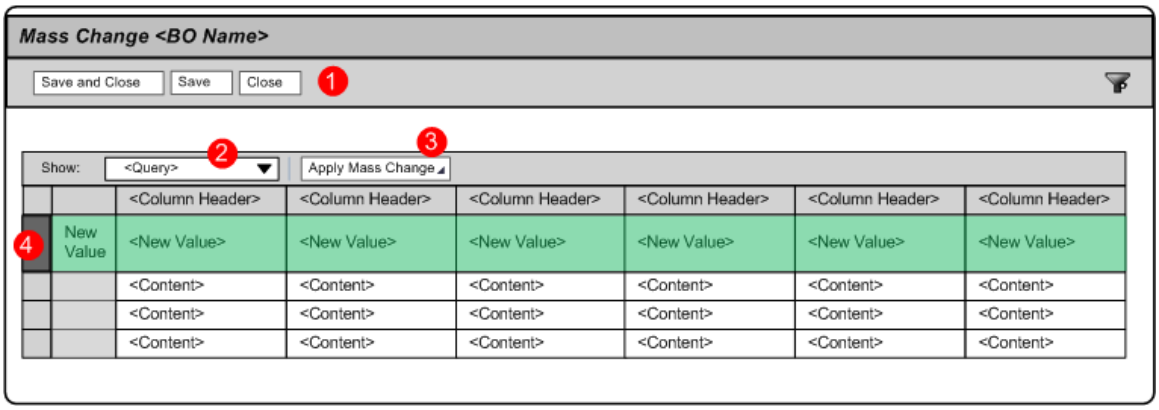
You can use the following floorplans per use case:

Use Case	Recommended Floorplan
Change one attribute in multiple BOs to the same value	MD, QAF
Change one attribute in multiple BOs to multiple values	QAF
Change multiple attributes in multiple BOs to the same value per attribute	MD, QAF
Change multiple attributes in multiple BOs to the multiple values	QAF

Top

Mass Change Using a Quick Activity

You can use a QAF for mass change. Select the rows you want to include in the mass change before you click the _Mass Change_ button on the appropriate table.



1. Include *Save and Close*, *Save*, and *Close* buttons.
2. The *Show* dropdown listbox allows to switch between different sets of fields.
3. The *Apply Mass Change^* menu button replaces the values of selected objects with the new values. The new values are saved to the database with either *Save* or *Save and Close*. The *Apply Mass Change^* menu button has the following entries:
   - *All Items*: all rows will be affected by the mass change
   - *Selected Items*: only the rows you have selected manually will be modified by the mass change.
4. The *New Value* row in the table allows to enter new values for the displayed fields.

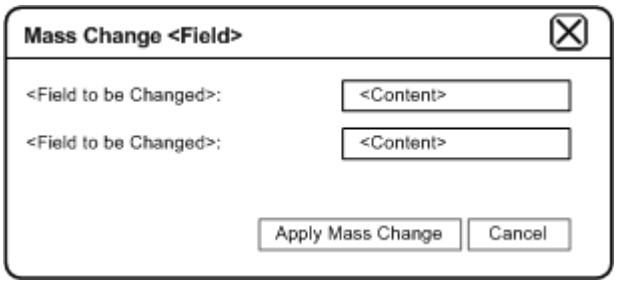
NOTE: Put the tooltip *For Mass Change Row* on the header of the second column. Put the tooltip *Values for Mass Change* on the cell containing the text *New Value*.

Top

Mass Change Using a Modal Dialog

You can use a modal dialog containing the fields to be changed.

N**OTE:** A modal dialog cannot be used to clear data from a data entry field. This must be done by a user either manually or via a command used specifically for clearing information from a field.



Top

More Information

Guided Activity
MDRO
Modal Dialog
Quick Activity

MDRO

Page Content

Definition: Mass Data Run Object

A **Mass Data Run Object** (**MDRO**) is used to execute an automatic mass processing of a business transaction. For example, the invoice clerk can define and run an MDRO for invoices: The system creates invoices for suppliers AMS and Miller & Son on a weekly basis without the need for any manual action of the invoice clerk.

Top

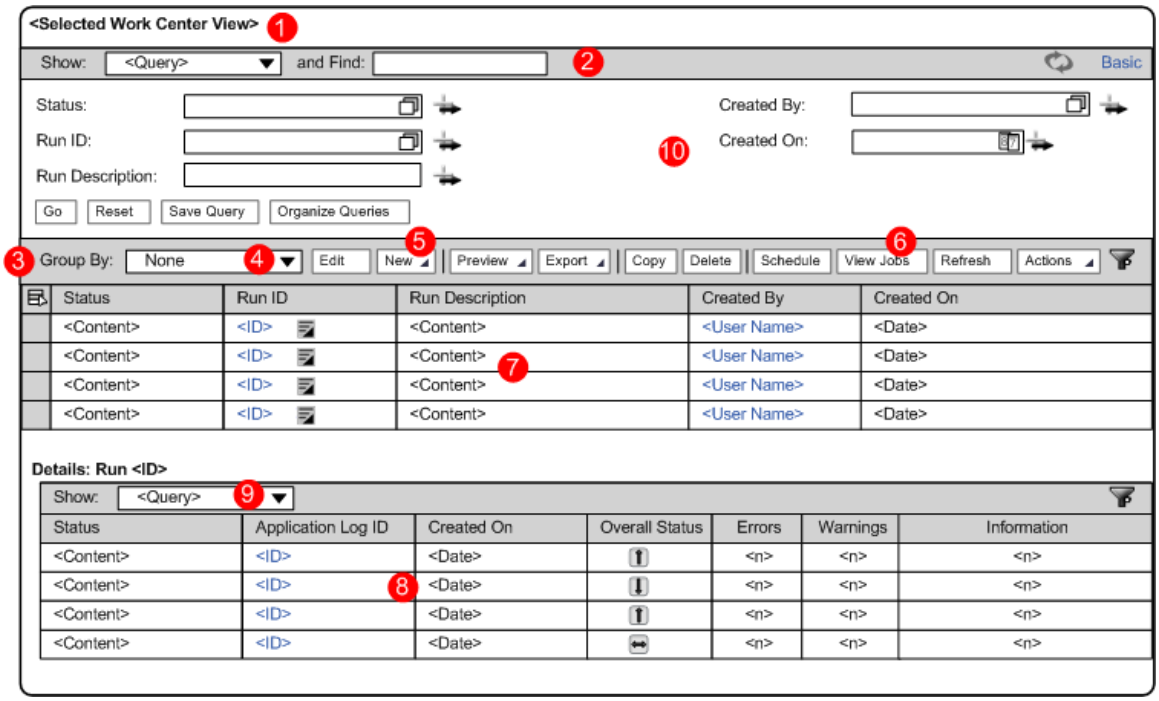
General Information

The following guidelines focus on the MDRO OWL and the QAF which is used to create an MDRO. In rare cases you can use an OIF or GAF to create an MDRO. The floorplan stucture for editing an MDRO follows the structure of the creation MDRO. Neither creation via OIF or GAF nor the generic scheduling and job monitor screens are mentioned in the guidelines.

Top

Consistency Rules: MDRO OWL

Do only label buttons, fields, and column titles as shown in the picture.



1. **Title:** Use the term *Runs* within the OWL title, for example *Demand Planning Runs*.
2. ***Show* Dropdown Listbox*:*** Use the following entries in the given order:
   - *Active <BO name> Runs*
   - *<BO name> Runs in Preparation*
   - *<BO name> Runs in Revision*
   - *Obsolete <BO name> Runs*
   - *All <BO name> Runs*
3. ***Group By* Dropdown Listbox*:*** Use the following entries in the given order:
   - *None*
   - *Status*

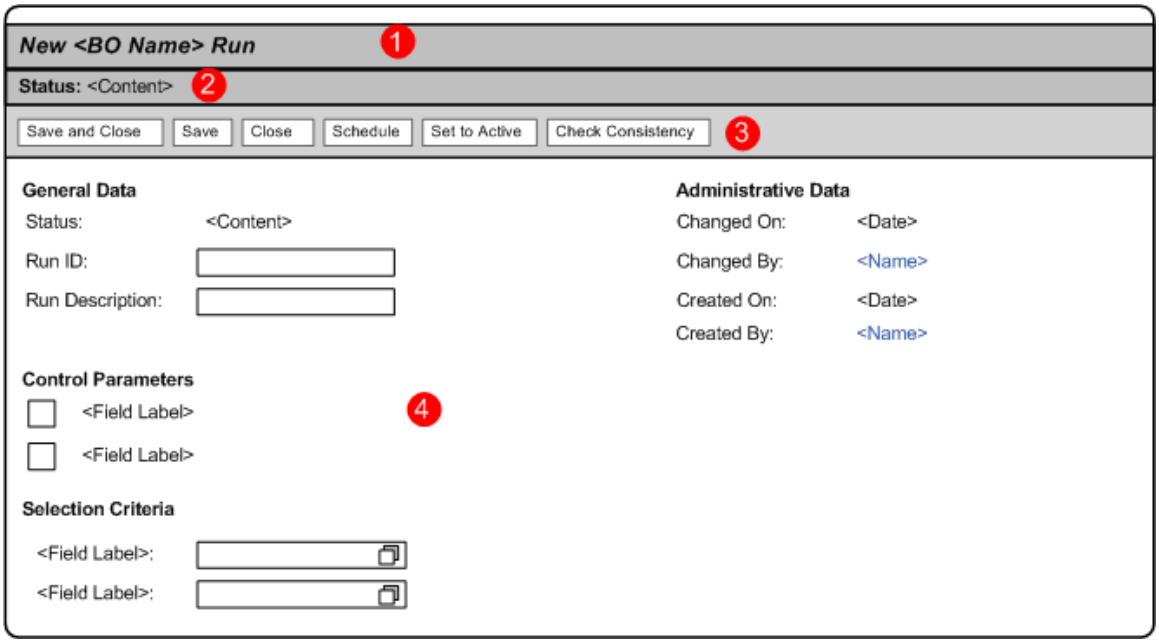
    - *Created By*
    - Optional: <Application-specific entries>
4. **Toolbar:** Put the following mandatory buttons in the given order into the toolbar:
   [*Edit*] | [*New*^] | [*Delete*] | [*Schedule*] | [*View Jobs*] | [*Actions*^]
   The picture shows also all possible optional buttons and their order.
   NOTE: The *Copy* button opens a new screen with the data of the selected run already preset, see Creating Business Objects.
5. ***New* Button**: Use the following entries:
    - *<BO Name Run>*
    - *Task*
    - *Notification*
    - *Alert*
    - *Clarification Request*
6. ***Actions* Button**: Use the following entries:
    - *Set to Active*
    - *Set to Obsolete*
    - *Undo Obsolete*
7. **Table:** Keep the table structure as shown in the picture.
   Define additional columns as hidden so that the user can display them via personalisation. You must define *Changed By* and *Changed On* in this order as hidden columns.
8. **Details Table:** Keep the structure of the table in the details area exactly as shown in the picture. Define *Execution ID* and *Background Job ID* as hidden columns. Define all other columns also as hidden.
   NOTE: If you want to display fields in the details area which are not part of the table, use a section group above the details table.
9. **Details *Show* Dropdown Listbox:** Use *Show* to limit the number of displayed log files.
   Possible queries are:
    - For all application areas: *Last 5 Executed Logs*, *Last 100 Executed Logs*, *All Logs*
    - Financials (FIN) specific: *Today's Logs*, *Last 7 Days' Logs*, *Current Month's Logs, Last 3 Months' Logs*, *All Logs*
    - Place the *All* query at the end.
10. **Advanced Find Form:** Use the sequence and position of search fields shown in the picture.

Exception: The Financials application has MDROs which need to differ because of specific use case and legal reasons (Adjustment Runs), therefore they do not follow these guidelines.

Top

Consistency Rules: Create QAF

Do only labels buttons, titles, fields as shown on the picture. Structure the content area as shown on the picture.



1. Use the title format *New <BO name> Run*, for example, *New Invoice Run*.
2. Display always the IDR with the *Status* information.
3. Use the following buttons in the given order:
   [*Save and Close*] [*Save*] [*Close*] [*Schedule*] [*Set to Active*] [*Check Consistency*]
    - *Schedule* saves and activates the MDRO and opens the schedule activity.
    - *Set to Active* sets the status of the MDRO to active.
    - Use *Check Consistency* only for MDROs which have a consistency check implemented.
4. Use the following groups in the content area:
    - *General Data*
      Display the fields *Status*, *Run ID*, and *Run Description.*
      For **adjustment runs**: The field *Run ID* is not necessary as it is automatically created by the system.
    - *Control Parameters*

Show this group only if control parameters are available.
Examples:
- Run mode: Indicates whether the run is a simulation run only
- Exception rule: Defines if only incoming checks from all selected customers should be considered in the run.

- *Selection Criteria*
  Show the selected parameters such as the customer range or the product range for this MDRO.
- *Administrative Data*
  Is only shown after the MDRO has been created.
  For **adjustment runs**: Do not show the fields *Changed On* and *Changed By* as the adjustment runs can not be changed.

Top

More Information

Mass Change
Object Worklist
Quick Activity

Output Management

Page Content

Guidelines for UI Development
Print List and Export to Adobe PDF® are not available with FP3.5.

Send --> As E-Mail Attachment is not available with FP3.5.

Output Management

The customers can define how business objects, such as purchase orders, are transferred to their business partners, such as suppliers. For example, they can e-mail or fax the business object electronically or first print them out and send the paper.

Backend Output vs Local Output

Backend output means that that the business object is transferred to an external business partner. The status of the business object is changed in the ByD system, for example from *In Preparation* to *Sent*. Opposite is **local output** which means that the business object is printed or faxed etc. for internal purposes; the status does not change.

Top

Backend Printing

Automatic and Manual Printing

Backend printing can either be done automatically or manually via the ByD UI.

For automatic printing it is a prerequisite that ByD desktop applications are installed at the customer's desktop:

- Print Manager: Is used for central printing, that means the key user defines the printers.
- Collaboration Window: Is used for personal printing, that means each user can define a printer. For example, a purchaser defines to print purchase orders or requests for information on a printer in his office.

The customer can combine automatic and manual printing.

Print Process

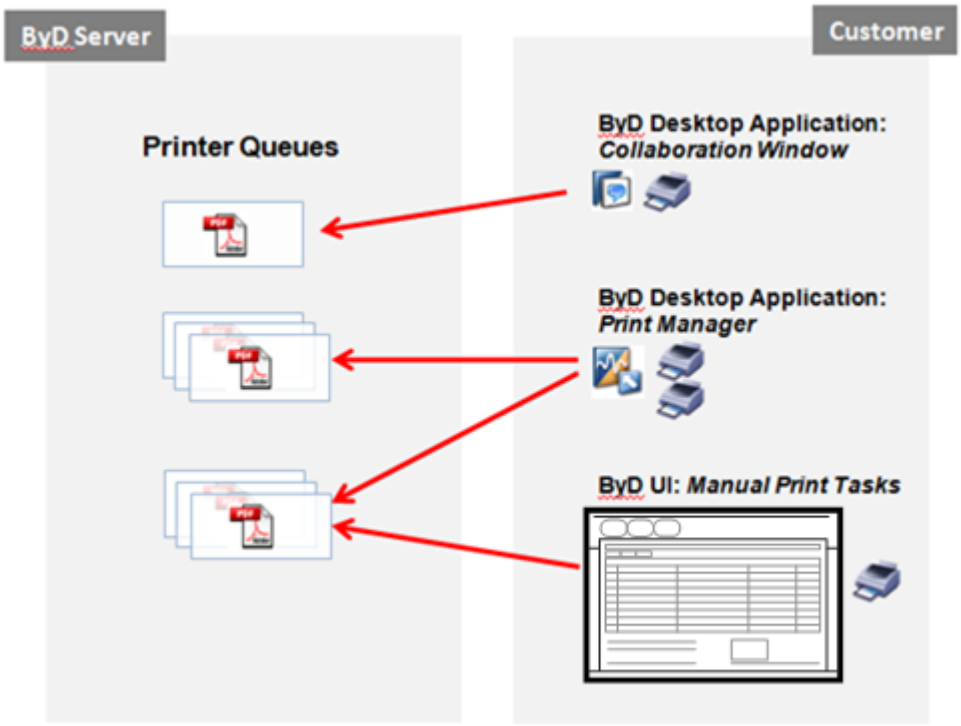
The business objects are not directly printed but collected in a printer queue. In Business Configuration it is defined which business objects are collected in which printer queue. For example, all purchasing documents are collected in one queue and customer invoices in another queue.

Printing works as follows:

1. The user clicks the application button for transferring business objects, such *Order* for transferring purchase orders to suppliers.
2. The business object(s) are stored in printer queues.
3. In case of:
    - **Automatic printing**: The ByD desktop application checks regularly if the printer queue(s) contain business objects. If so they are printed on the printer(s) defined in the desktop application.
    - **Manual printing**: From *Home*, the user selects *Work --> Manual Print Tasks*. All business object the user needs to print are shown. The user selects a business object and prints via the standard print dialog window.

Accessing Printer Queues

The following picture shows the different ways how customers can access the printer queues:



Top

Preview, Print, Send, Print List, Export

Output Management provides the following functions:

Function	Description	Consistency Rules
Preview	• Used for template based output • Opens a new window which shows the business object in Adobe PDF® format • If more than one template is available, a modal dialog is shown. The user can select a template. • Within the PDF window the user can Print or send the form locally via the Adobe functions. Local output means that the business object is printed or sent within the company. It is not sent to an external business partner.	• Do not use a menu button. • Label the button *Preview*.
Print	• Used for printing the current screen • For local printing	• Do not use a menu button • Label the button *Print*.
*Send^*	• Used only in Analysis Pattern for local sending, see Analysis Pattern. • Opens a modal dialog with an e-mail form	• Use a menu button *Send^* with the following entries: As *E-Mail Attachment, As E-Mail Link*
Print List	• Opens a new window which shows the list in Adobe PDF format • The complete query result is shown	• Label the button *Print List*.

*Export^*	• Used for exporting lists, for example to Microsoft Excel • Calls the download function of the browser. Example: In Internet Explorer the dialog window "File Download - Do you want to open or save this file" is launched. • The complete query result is downloaded in the selected file format.	• Use the following syntax for the menu entries: *To <company name of application> <file type name>,* example *To Microsoft Excel*. Do **not** use the file extension such as xls. • Do not use multiple Export buttons but combine them into a menu button. • If only one export function is available, the menu is removed, see Menu Buttons.

Besides these output buttons each application can trigger a backend output via an application specific button like *Send to Bidder*. Backend output means that the business object is delivered to an external business partner, such as a purchase order is delivered to a supplier via the *Order* button. Label the buttons suitable to the application area such as *Submit*, *Order*, *Send to Bidder.*

Top

Button Usage and Placement

Output Function	Where to Use
Preview	OIF, QAF, GAF Confirmation Step, Fact Sheet, OWL
Print	Any floorplan
Print List	OWL, tables
Export	OWL, tables, Analysis Pattern
Send	Analysis Pattern

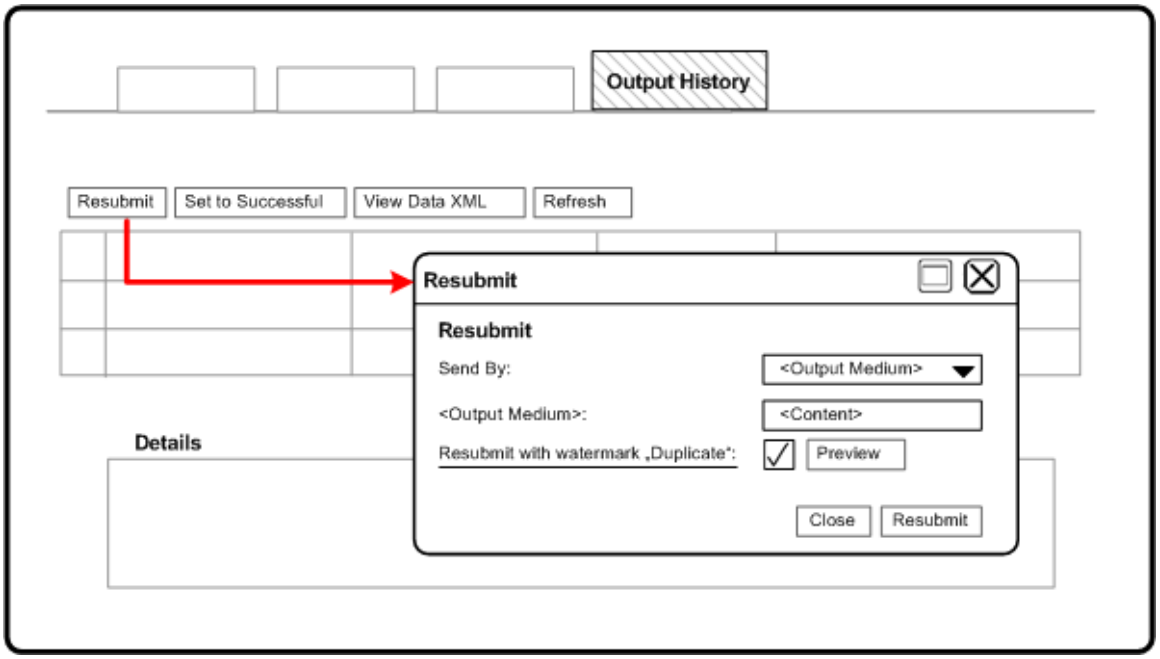
If form templates are available it is recommended to use the *Preview* button in OIFs and QAFs. In Fact Sheets it is recommended to use *Preview*, if template based print is needed.
For information on button placement see Button Placement in Toolbars (QAF, OIF, GAF, Fact Sheet, Modal Dialog).

Top

Output History Tab in OIF

Output History shows a list of accomplished backend output (mandatory when backend output is needed). The user can resubmit an already sent business object.

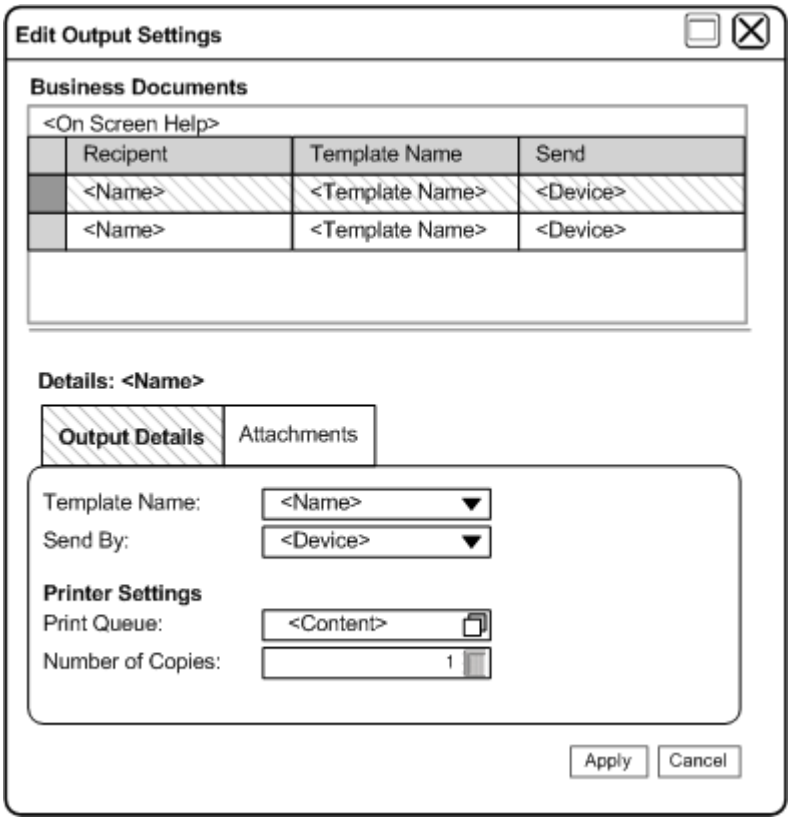
The following screenshot shows a Schema of the *Output History* as well as the *Resubmit* Modal Dialolg:



Top

Edit Output Settings

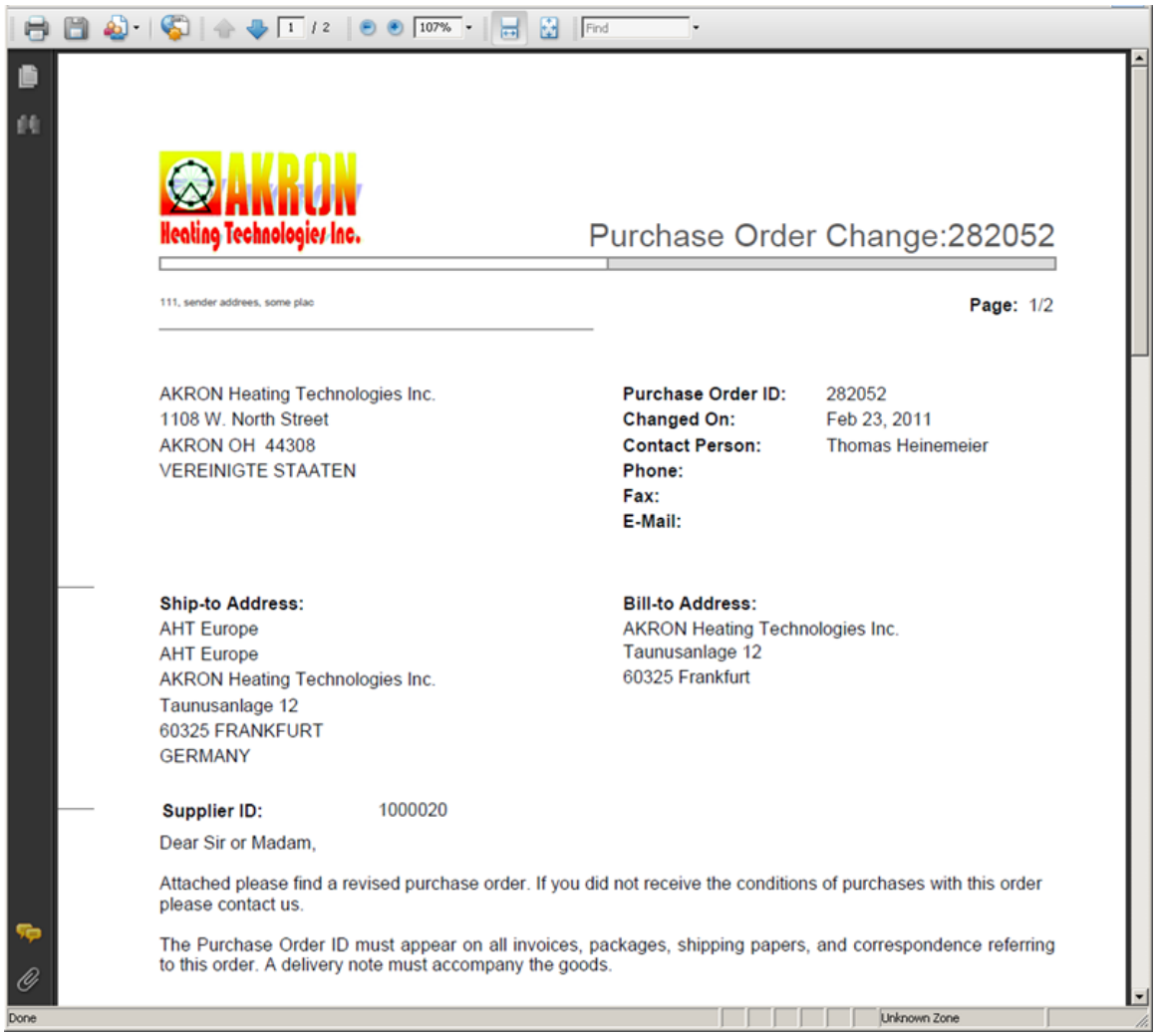
The output settings for backend output are defined in the system, for example it is defined that all requests for quotation are sent via fax. If the users want to change the output settings for the current business transaction, they use the *Edit Output Settings* function. *Edit Output Settings* can either be placed in the toolbar or in the *You Can Also* menu.



Top

Examples

The following screenshot is taken from an FP3.5 ByD System. It shows a preview screen. The user can use the native Adobe print and send functions for local output.



AKRON Heating Technologies Inc.

Purchase Order Change:282052

111, sender addrees, some plac

Page: 1/2

AKRON Heating Technologies Inc.
1108 W. North Street
AKRON OH 44308
VEREINIGTE STAATEN

Purchase Order ID: 282052
Changed On: Feb 23, 2011
Contact Person: Thomas Heinemeier
Phone:
Fax:
E-Mail:

Ship-to Address:
AHT Europe
AHT Europe
AKRON Heating Technologies Inc.
Taunusanlage 12
60325 FRANKFURT
GERMANY

Bill-to Address:
AKRON Heating Technologies Inc.
Taunusanlage 12
60325 Frankfurt

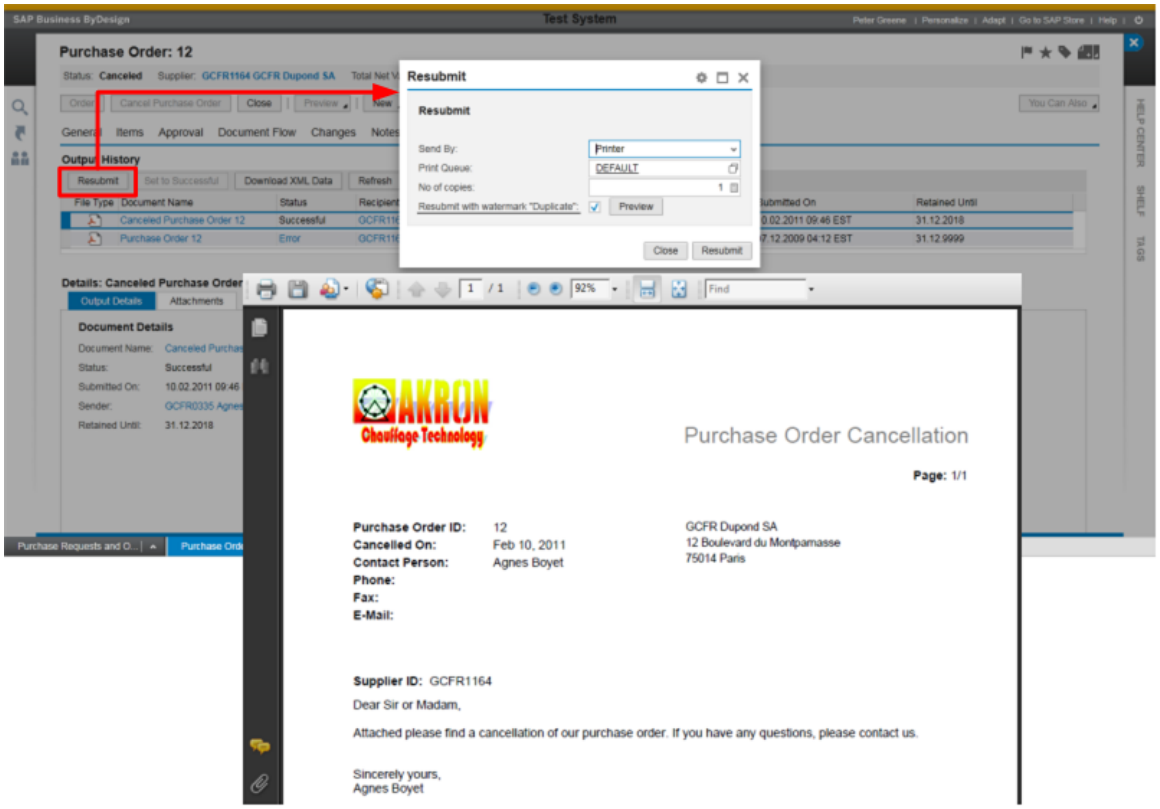
Supplier ID: 1000020

Dear Sir or Madam,

Attached please find a revised purchase order. If you did not receive the conditions of purchases with this order please contact us.

The Purchase Order ID must appear on all invoices, packages, shipping papers, and correspondence referring to this order. A delivery note must accompany the goods.

The following screenshot is taken from an FP3.5 ByD System.



Top

More Information

Analytics
Button Placement in Toolbars (QAF, OIF, GAF, Fact Sheet, Modal Dialog)
Guided Activity
Object Instance
Object Worklist
Quick Activity

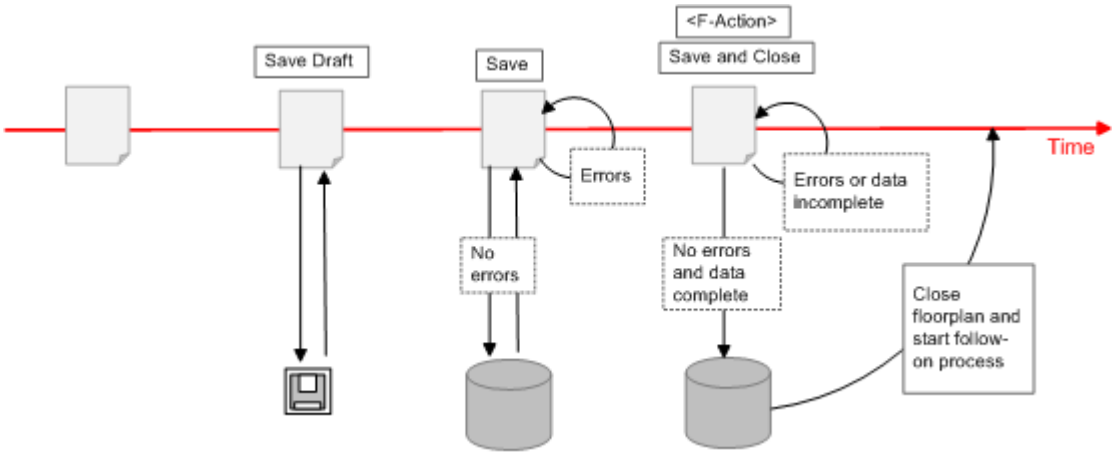
Save, Cancel, and Close

Page Content

Ways of Saving Data

Data can be saved in the following ways:

- On the **user's local machine**. No other user than the creator can work on the object. Incomplete data can be saved.
  Use the *Save Draft* button.
  NOTE: *Save Draft* is no generic function. If needed, the application needs to implement the function by itself.
- On the **database**. Every authorized user can work on the object.
  Use the following buttons:
  - *Save*:
    The system checks whether the data is correct and complete. If so, the data is saved on the database, the floorplan stays open and editable. If not, the system displays error messages and does not save the data.
  - *Save and Close:*
    The system checks whether the data is correct and complete. If so the data is saved on the database and the floorplan is closed. If not, the system displays error messages and does not save the data. The floorplan stays open.
  - *<F-Action>*, such as *Post*, *Publish*, *Release*:
    Behaves like *Save and Close*. Additionally a follow-on process is triggered. For example, if a purchaser creates a request for quotation (RFQ) and publishes it, the follow-on process "Send RFQ to suppliers" is triggered.

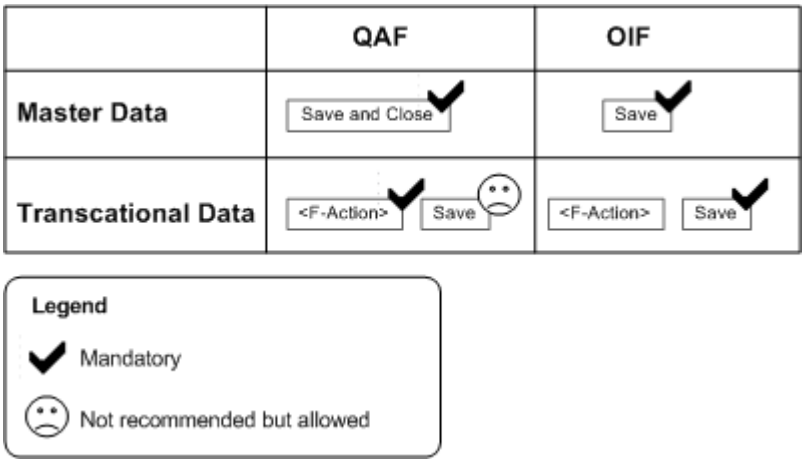


Top

Saving Data in QAFs and OIFs

Saving Master Data and Transactional Data

Depending on the type of business object to be created or changed you need to use different buttons. Master data is the fundamental data of a company which is regularly used and seldom changed, for example products, customers, and suppliers. Transactional data is short-lived, for example purchase orders and sales orders.



QAF

- Use either *Save and Close* (for master data) or *<F-Action>* (for transactional data) . The data is saved and the window is closed. If you additionally provide *Save* the data is also saved but the window stays open.
- Additionally you can use *Save and New.* In this case the data of the current BO is saved and the floorplan changes to new mode. The success message that the current object is changed is also displayed in this floorplan.
- Use always *Close*.

OIF

- Use always *Save*. The data is saved and the window stays open. In exceptional cases you can additionally use *<F-Action>.*
- Additionally you can use *Save and New*. In this case the data of the current BO is saved and the floorplan changes to new mode. The success message that the current object is changed is also displayed in this floorplan.
- Use always *Close*.

QAF/OIF Button Function

The following table shows the consequences when clicking *Save*, *<F-Action>* or *Save and Close*, and *Close* in **new mode**:

Function	Data complete No error messages	Data incomplete Error messages
Save	• Saves BO • Changes to "Edit" mode	• Displays error messages • Does not save the BO • Stays in "New" mode
<F-Action> or *Save and Close*	• Saves the BO • Triggers the follow-on process (only for *<F-Action>*) • Closes the window • Displays success message on calling screen	• Displays error messages • Does not save the BO and does not trigger any process • Stays in "New" mode
Close	Closes the window. If unsaved data is available a confirmation dialog is shown, see Consistency Rules: Warning of Data Loss	Closes the window. If unsaved data is available a confirmation dialog is shown, see Consistency Rules: Warning of Data Loss

The following table shows the consequences when clicking *Save*, *<F-Action>* or *Save and Close*, and *Close* in **edit mode**:

Function	Data complete No error messages	Data incomplete Error messages
Save	• Saves BO • Stays in "Edit" mode	• Displays error messages • Does not save the BO • Stays in "Edit" mode

<F-Action> or *Save and Close*	• Saves the BO • Triggers the follow-on process (only for <F-Action>) • Closes the window • Displays success message on calling screen	• Displays error messages • Does not save the BO and does not trigger any process • Stays in "Edit" mode
Close	Closes the window. If unsaved data is available a confirmation dialog is shown, see Consistency Rules: Warning of Data Loss	Closes the window. If unsaved data is available a confirmation dialog is shown, see Consistency Rules: Warning of Data Loss

Top

Saving Data in GAFs

Saving Master Data and Transactional Data

Saving data in GAFs differs from QAF and OIF as follows: For saving master data use the *Finish* button, for transactional data use *<F-Action>*. In both cases the data is saved and the *Confirmation* step is shown.

NOTE: The *Finish* or *<F-Action>* button can be active from that step on where all mandatory data is entered which is not necessarily the *Review* step. Use *Cancel* on all steps except the *Confirmation* step. Use *Close* on the *Confirmation* step.

GAF Button Function

The following table shows the consequences when clicking *Finish*, *<F-Action>* and *Cancel.* As *Close* is only available after the data has been saved successfully it simply closes the window.

Function	Data complete No error messages	Data incomplete Error messages
Finish or *<F-Action>*	• Saves BO • Moves to *Confirmation* step • Triggers the follow-on process (only for *<F-Action*)	• Displays error messages • Does not save the BO • Stays in "New" mode in current step
Cancel	Closes the window. If unsaved data is available a confirmation dialog is shown, see Consistency Rules: Warning of Data Loss	Closes the window. If unsaved data is available a confirmation dialog is shown, see Consistency Rules: Warning of Data Loss

Top

When to Use *Cancel* and *Close*

Both, the *Cancel* and the *Close* button, discard any changes, close the screen and return the user to the calling application or work center. Depending on where the screen is launched, either *Cancel* or *Close* is used. Do never use both in one floorplan.

- Use ***Cancel*** if the screen is launched within a process chain. This applies to GAFs as well as editable modal dialogs:
  - As each step of a GAF represents a step within the process chain, use the *Cancel* button on all steps except the *Confirmation* step. As the *Confirmation* step is displayed after the process is finished use the *Close* button here.
  - Modal Dialogs also pop up within a process chain. For example, Modal Dialogs can be introduced within a delete process to ask for confirmation: *Are you sure you want to delete the selected item?* They can also pop up in a create or change process to allow the user to enter additional data.
- Use ***Close*** if the screen is not launched within a process chain. This applies to editable and read-only QAFs and OIFs as well as Fact Sheets, and read-only Modal Dialogs.

Whenever the user has entered or changed any data and clicks *Cancel* or *Close* the system launches a confirmation dialog; if no changes have been made and in read-only mode the screen is closed without any confirmation dialog.

Top

More Information

Confirmation Dialog
Functions & Menus
Guided Activity
Modal Dialog
Object Instance
Quick Activity

Text Translation

Page Content

Definition: Language Dependent Text

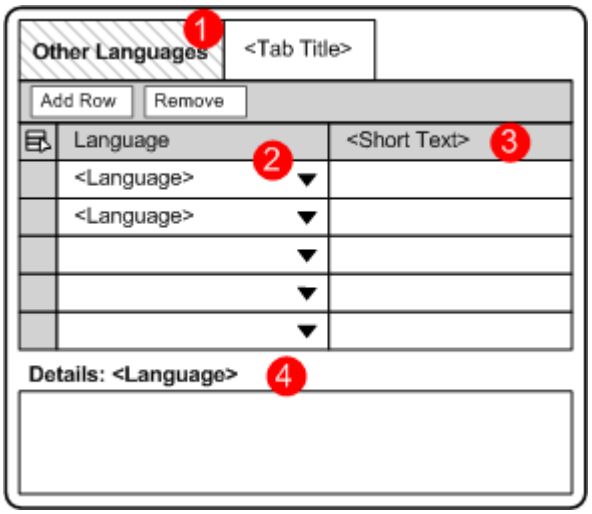
Language dependent texts allow to maintain texts in different languages independent from the user's logon language.
This applies to multiple master data objects as well as to other areas.

Texts can be:

- Short and long texts
- Notes

Top

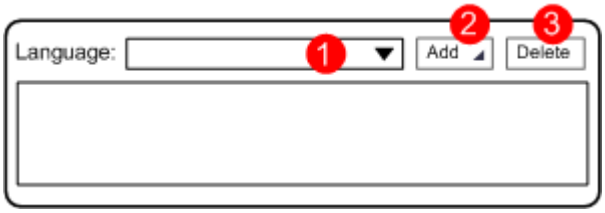
Consistency Rules: Translation of Short and Long Texts



1. If the translation table is displayed in a tab, label the tab *Other Languages*.
2. Put a dropdown list in the first column that contains the languages into which the text can be translated. Label the column *Language.*
3. Put a text input field in the second column for translating the short text. Label the column *<Object Short Text to be Translated>,* such as *Material Description*.
4. Use a details area with a textbox for translating the long text. Label the area *Details: <Language>,* example *Details: English*

Top

Consistency Rules: Translation of Notes



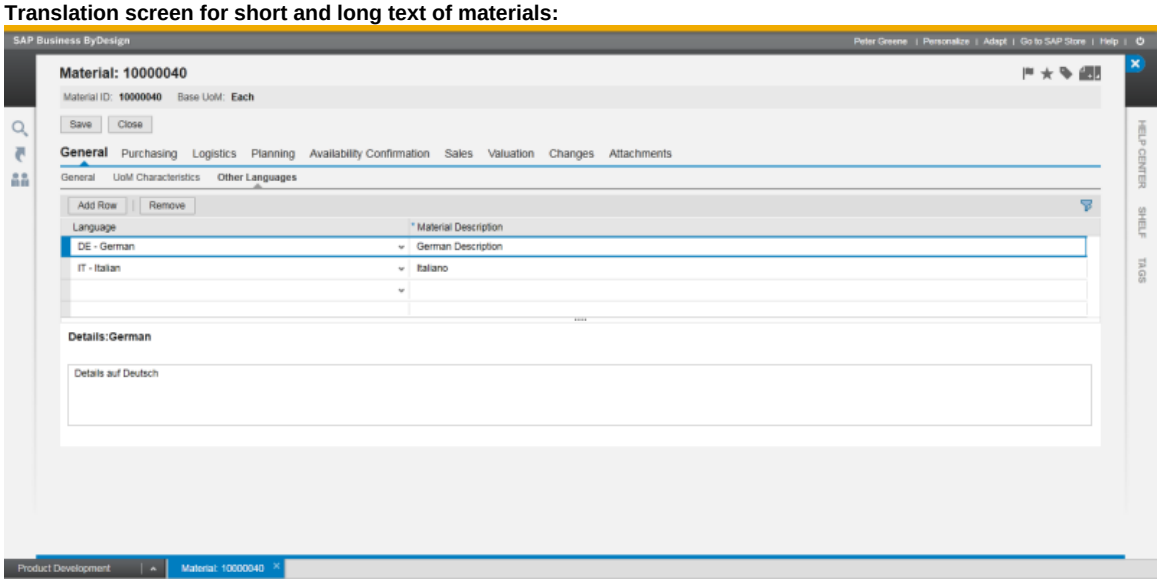
1. Offer a dropdown listbox that contains all languages that have already been maintained. Label the field *Language*.
2. Place an *Add^* menu button behind the field. The menu button contains all languages into which the note can be translated.
3. Place a *Delete* button next to the *Add^* button.

Top

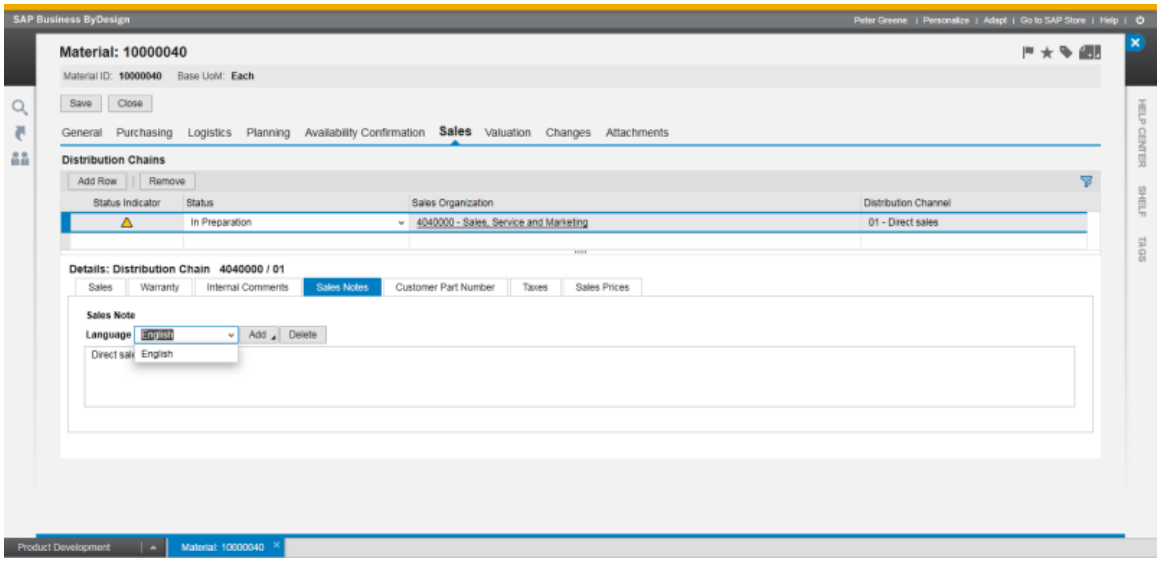
Examples

The following screenshots are taken from an FP3.5 ByD system.

Translation screen for short and long text of materials:



Translation screen for sales notes:



Top

More Information

Business Configuration
Notes
Wording

Specific Topics

Specific Topics

Summary

This chapter explains the right usage of controls, positioning of elements, appropriate usage of texts and answers many detailed questions which may occur in your daily design efforts.

Forms & Fields

Page Content

Forms: Newspaper Layout

The layout in forms is described in Tab Chain.

Top

Forms: Number of Fields per Section Group

Avoid to use more than 9 fields per section group. Give section groups a meaningful title, see Avoid Redundancy between Group Titles and Field Labels.

Top

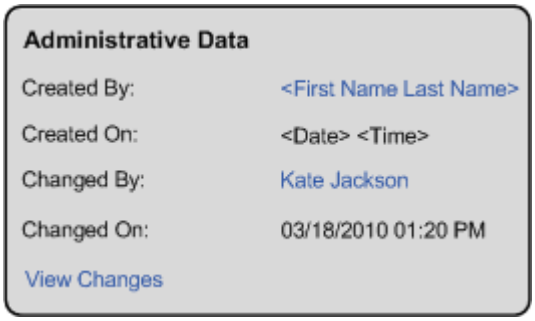
Names of Persons and Technical User IDs

For how to visualize names in editable mode, see Visualization in Melting Fields, Separate Fields, or One Field.

Standard: Display of Names

Names in general are displayed without the person's ID.

Examples:



Created By	Created On	Changed By	Created On
<Last Name>, <First Name>	<Date> <Time>	<Last Name>, <First Name>	<Date> <Time>
Jackson, Kate	03/15/2010 05:36 PM	Jackson, Kate	03/15/2010 05:36 PM

Exception: Display of Names in Accounting Relevant Business Objects

Due to lawful reasons (compliance) you **must** display the Backend ID (also called Technical ID which is the 12 character ABAP user name) in the field values of *Changed By* and *Created By* in all **accounting relevant business objects**. Place the ID, such as

0987ODKGOLD3, in brackets behind the name. This applies to forms and tables. Do not use the Employee ID like *MC1645* or the Logon User ID like *JGoldman*.

Examples:

Administrative Data

Created By:	<First Name Last Name (Backend ID)>
Created On:	<Date> <Time>
Changed By:	Kate Jackson (0987ODKGOLD3)
Changed On:	03/18/2010 01:20 PM

Created By	Created On	Changed By	Changed On
<Last Name>, <First Name (Backend ID)>	<Date> <Time>	<Last Name>, <First Name (Backend ID)>	<Date> <Time>
Jackson, Kate (0987ODKGOLD3)	03/15/2010 05:36 PM	Jackson, Kate (0987ODKGOLD3)	03/18/2010 01:20 PM

Display of Names in Forms, Titles, Preview Panes, and IDR

In forms, titles, preview panes, and IDRs display names of persons as *<First Name Last Name>*.
Example:

Requester: Kate Jackson

Display of Names in Tables

Tables provide functions to sort a column and to filter columns. Thus, depending on the use case, different variants to display names are possible.

It is recommended to display the name of a person as *<Last Name, First Name>* to allow for sorting according to the last name and to better support searching and filtering with wildcards: The user can enter *S**, for example, to find all persons whose last name begins with S or **, M** to find all persons whose first name begins with M.
Example:

Employee ID	Employee Name
<ID>	<Last Name, First Name>
5119840	Jackson, Kate

Exceptions:

- If the use case requires to sort or personalize (hide or show) first name and last name separately use two columns.
- If the name is address related, meaning *<First Name Last Name>* coming together with address information, or just secondary information display *<First Name Last Name>.*

Field Labels and Column Headers for Names

Label the field or column header as specific for persons as possible, such as *Employee*, *Customer, Manager, Requester*. If no specific label is possible use *Name*.

Avoid labels like *Employee Name, Customer Name*. Exception: When the name field comes together with an ID field add *Name* to the label.

NOTE: In address related section groups and in the ticket area of IDRs do not display an additional label, just display the name.

Technical User IDs (System)

If the user is not a person but a technical user, display *System.* Do not display the technical ID.

Top

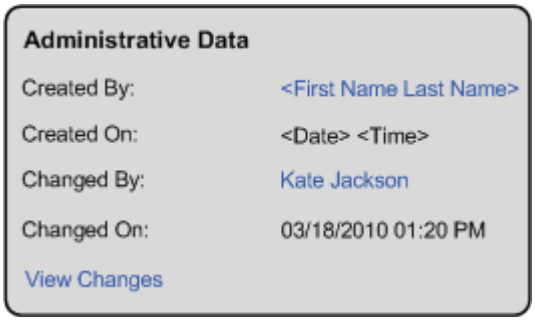
Addresses of Organizations and Persons

The guidelines for the arrangement of address fields differ slightly between addresses of persons and addresses of organizations. See Addresses for a description.

Top

Administrative Data

The *Administrative Data* section group informs the user when a business object was created and changed and by whom.
Use the following layout:

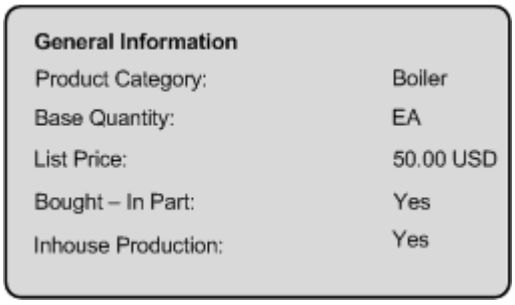


- Show the fields in one column as one section group with the title *Administrative Data.*
- Order the fields as follows: *Created By*, *Created On*, *Changed By*, *Changed On*
- For names: Display the full name. Exception: For all accounting relevant business objects display also the Backend ID in brackets behind the name, see Display Names of Persons.
- For time: Display date and local time (according to the user's settings) without time zone in a melting group.

Top

General Information

Use the section group title *General Information* if you want to group generic fields of a business object.
Do **not** use *General* or *General Data*.



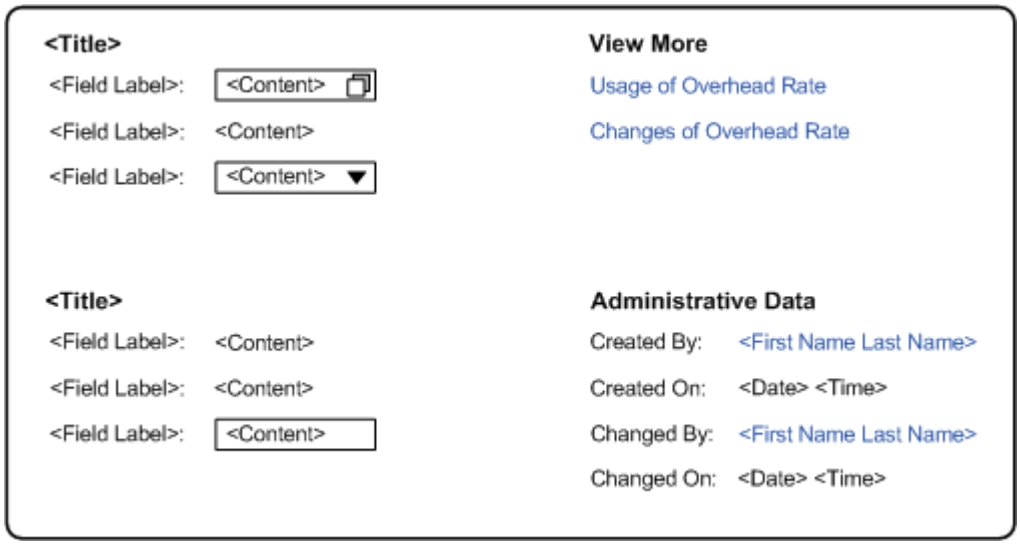
Top

Forms: Links without Field Labels

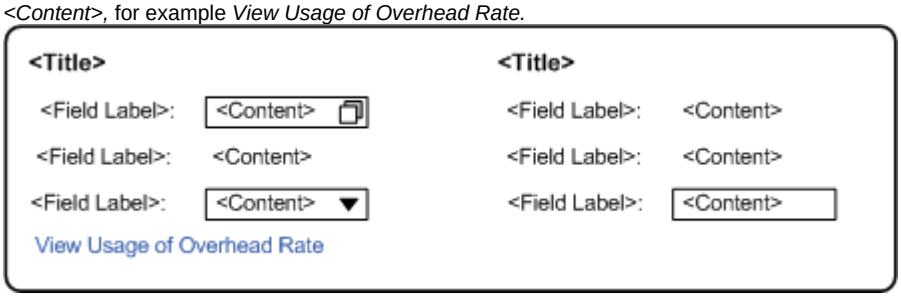
Linking to Display-Only or Read-Only Floorplans

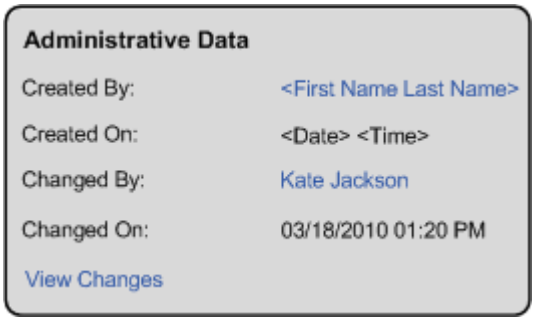
If you want to open a display-only or read-only floorplan, such as reports or changes, do not use a field label. Show the link only.

- If the link (or links) **refers to all section groups** within the form:
  - Use a section group titled *View More* for placing the links.
  - In the details area of an OWL, place the section group before *Administrative Data.*
  - In all other forms, the section group is the last one.
  - Do **not** repeat the term *View* in the link text. Label the link *Usage of Overhead Rate*, for example.



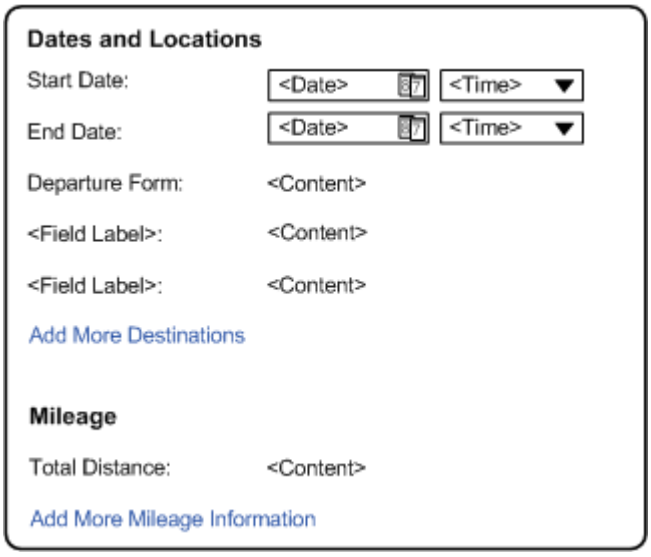
- If the link (or links) **refers to a specific section group**, put the link at the bottom of the section group. Label the link *View <Content>*, for example *View Usage of Overhead Rate.*





Linking to Editable Floorplans

Usually you use buttons for carrying out actions and launching editable floorplans, see Navigation via Links and Buttons. If the user needs to launch a window for editing data that refers to a complete section group, use a link without a field label instead. Put it at the bottom of the section group. Label the link as precisely as possible. Start with a a verb to indicate that an action is carried out.



If you want to put rarely used fields in a separate window, proceed as follows:

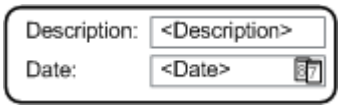
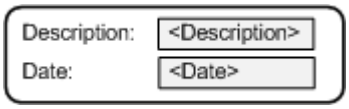
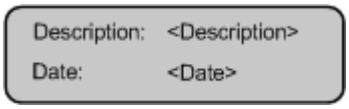
- If you show the additional fields in the window, label the link *Edit Additional Fields* and open a Modal Dialog with the title *<Section Group>: Additional Fields.*
  Example: The section is labeled *Supplier*. The title of the dialog window is *Supplier: Edit Additional Fields*.
- If you show all fields in the window, label the link *Edit All Fields* and open a Modal Dialog with the title *<Section Group>: Edit All Fields*. For an example see Forms: Addresses of Organizations and Persons.

NOTE: If an action belongs to a specific field in a form, place the button directly next to the field, see Button Placement in Forms.

Top

Fields: Visualization Mode (Edit, Read, Display)

Fields can appear in the following visualization modes:

Example	Visualization Mode	Use it when
	Editable	the user can enter data.
	Read-Only	the field is usually available for editing but is disabled in the current context (example: another user has opened the same floorplan to edit data or the user does not have the permission to edit the data).
	Display-Only	a field is never editable.

- Fact Sheets and the OWL details area are always completely in display-only mode.
- OWL and TOWL are always in read-only mode. (The OWL and TOWL visualization differs from other read-only tables.)

Top

Fields: Length

Usually you do not need to take care about the length of fields because the length is automatically rendered relating to the type of the field. For each field type a default length is defined, for example the length of date fields is 12 ex and the length of IDs is 17 ex.

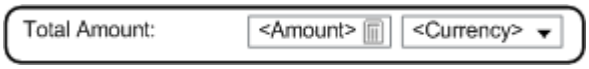
In rare cases it is required to overwrite the default. Example: The default length for an identifier is 17 ex. If an application decides to introduce identifiers that are longer the default can be changed.

Top

Fields: Melting

Values and Units
Display values and their respective units (currencies or units of measurement) always in a melting field.
The unit is **not** part of the field label, for example do **not** design a label like *Amount (USD).*

Usually, display units with their abbreviations, at least for editable fields. For more information on when to use abbreviations see Value Help.

Example	Visualization Mode
	Editable
	Read-Only
	Display-Only

Date and Time
Use a melting field when dispaying date and time, see Date & Time.

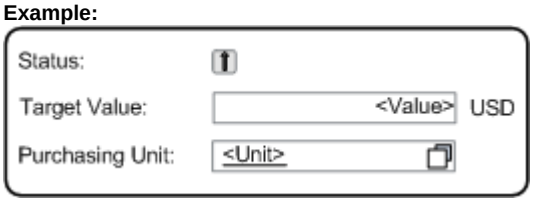
Top

Fields: Alignment of Values

In forms align fields as follows:

- Right-align amounts and decimal numbers
- Left align all remaining fields and icons

Example:



For the alignment in tables, see Alignment of Content and Column Headers.

Top

Fields: Mandatory

Fields are mandatory if they are required for saving data or the execution of a finalizing action.

Indicate mandatory fields in editable mode with a red asterisk behind the label. If a melting group contains a mandatory field, the label of that group gets an asterisk as well:

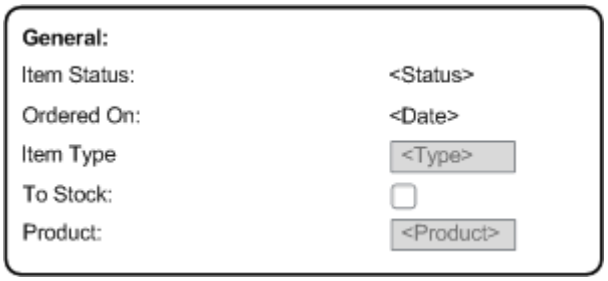
Do not display the asterisk in read-only or display-only mode:

Top

Fields: Checkboxes

You can either place the checkbox label on the right or on the left of the checkbox.

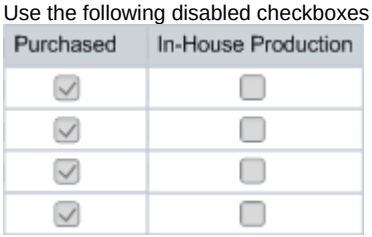
When to put the label left
If one or two checkboxes are part of a section group within a form, put the checkbox right and the label left.



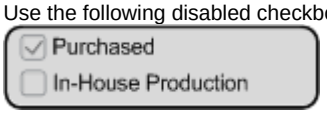
When to put the label right
If the checkboxes build an own group or three or more checkboxes are part of a section group within a form, put the checkbox left and the label right.

Disabled Checkboxes

Use the following disabled checkboxes for read-only tables:



Use the following disabled checkboxes within display-only forms:



Verbal (display-only) checkboxes

Use them

- for text like cases only
- within the IDR

Checkboxes in Find Form Panes

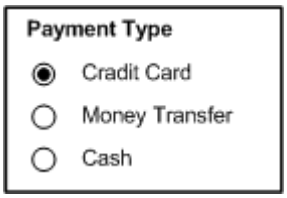
Use a tri-state checkbox to enable searching for both values (checked and unchecked).

Top

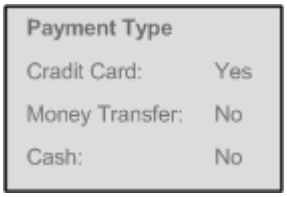
Fields: Radiobuttons

Radio buttons are related by topic and provide the user the option to select a single exclusive choice from an offering of two or more choices. The guidelines for radiobuttons are similar to Checkboxes. The differences are mentioned in this section.

Alignment
Place radiobuttons left and the label right.



Verbal radiobuttons have to be placed right to the label. They can only appear display-only.



For more information see also Form Pane.

Top

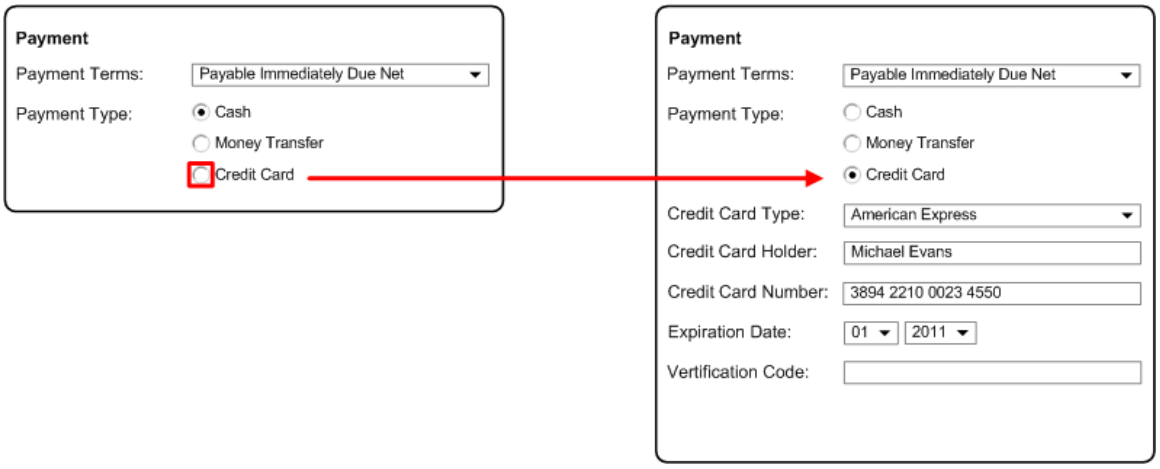
Eventing/Dynamic Forms

Relationship between Fields

In many business contexts, fields relate to each other. If the user selects an entry from a dropdown listbox, selects a checkbox or a radiobutton, the system can prepopulate associated fields as well as hide or show fields.

Example

The following example shows the enabling (showing) of fields depending on the selection of the *Payment Terms* and the *Payment Type*:



Top

Status

Definition

A status is an attribute of a business object (BO) describing its state from a business process perspective. It indicates:

- Summarized BO information (such as *Financial Data Complete*)
- The lifecycle of a BO (such as *New*, *In Process*, *Complete*)
- Prerequisite of a processing step (such as *Released*, *Approved*)
- The result of a processing step (such as *Delivered*, *Sent*)
- The next logical processing step (such as *In Planning*, *In Process*)

We distinguish two types of status variables:

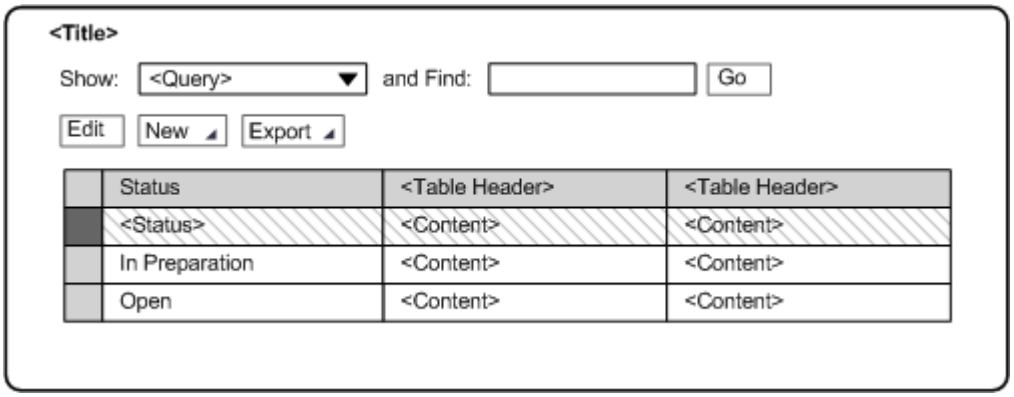
- Transition based (such as *To Be Planned*, *To Be Executed*, *To Be Completed*)
- State based (such as *Planned, Executed, Completed*)

Where Do Status Show Up?

Status are displayed in:

- OWL
- QAF, OIF, GAF within a form or within a table
- IDR of a Fact Sheet, OIF, QAF, GAF on the left side, see Identification Region

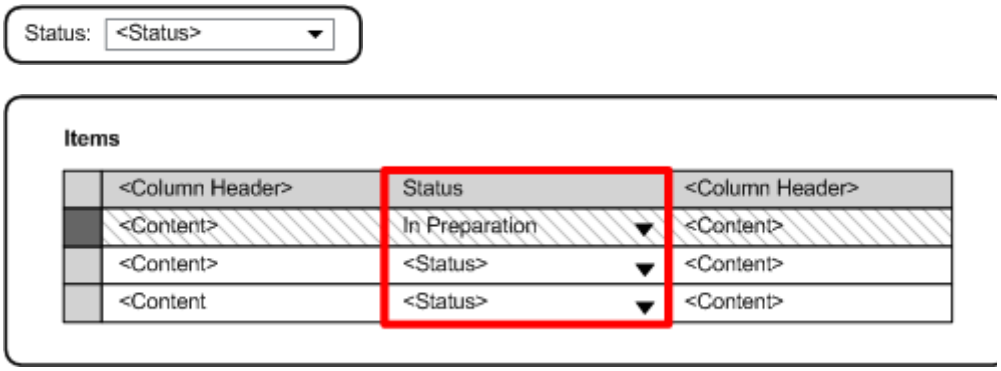
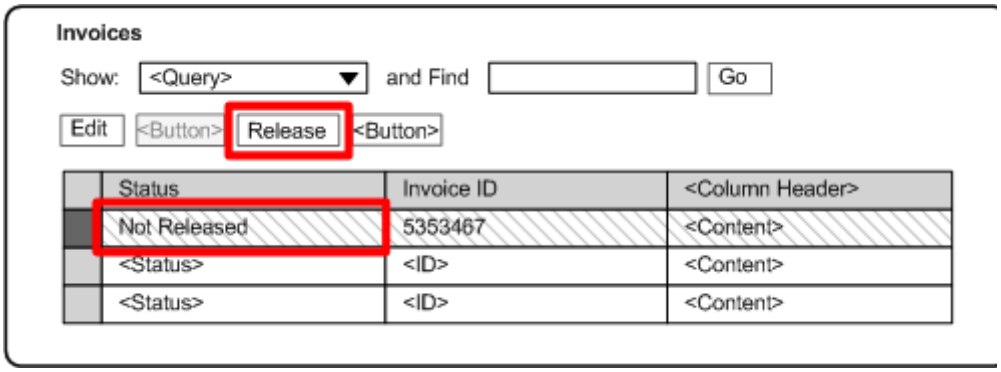
Example OWL Table:



Example IDR:

Changing a Status

You can design status changes as follows:

Use a...	Where	Example
Menu button *Change Status^*	• Toolbar of OWL tables • Toolbar of item tables • Toolbar of QAF, OIF, GAF	
Dropdown listbox	• Forms in QAF, OIF, GAF • Rows in item tables	
Specific button, such as *Release*	• Toolbar of OWL tables • Toolbar of item tables • Toolbar of QAF, OIF, GAF	

Consistency Rules

Take the following into consideration

- Choose status values with an understandable meaning. Avoid to use, for example, a *Cancellation Status* with the values *Yes* and *No*. Choose in such a case values like *Cancelled* and *Not Cancelled*.
- Usually, label the main BO related status field or column just *Status.*
- For more specific or additional status label the field or column with a more specific name (see *Price Variance* in example "Edit An Invoice" below).
- Status values plus description: Each status value can have one or more additional textual descriptions. Label the additional textual description *Note* (see example "Edit An Invoice" below).
- Use texts for status values whenever possible. Only for very generic status variables use the icons of the official icon set.

Examples for Status Values:

Object (Application)	Status Values
Import Status of Internal Supplier Catalogs (SRM)	Not Started, In Process, Successful, Failed
Purchase Plan (SRM)	New, Draft, In Approval, Approved, Released, Rejected, Used
Travel and Events	New, In Process, Completed
Approval Status Time Administration (HCM)	Not Released, In Approval, Approved, Rejected, Auto-approved, To be Changed, To be Deleted
Location (MOM)	In Preparation, Active, Blocked, Obsolete
Plans (Manager)	Not Started, In Process, Accepted, Rejected
SL Request (SCM)	In Preparation, Released, Started, Finished, Cancelled
SL TASK (SCM)	Not Started, In Process, Finished

Example Status Value plus Description:

The status Price Variance consists of values and and their descriptions. Show the status values of Price Variance in a table column called *Price Variance*. Show the textual description of Price Variance in a table column called *Note:*

Price Variance	Note	
Clarified	Peter Greene accepted Price Variance	
Clarified	Larry Fox changed manually Invoice Quantity	
Forwarded	Exception forwarded to Peter Greene	Top

More Information

Addresses
Avoid Redundancy between Group Titles and Field Labels
Date & Time
Field Labels
Form Pane
Object Identifier

Icons

Page Content

When to Use Icons

In general, we recommend to use as few application specific icons as possible. Use plain text whenever possible. You can use icons to indicate a status and for the generic purposes described below.

Take the following into consideration:

- The sorting of table columns is based on the associated tooltip text, which may be contained in a column that is not visible.
- Status icons are allowed in the extended IDR because icons can significantly speed up the user's orientation towards critical information.
- Use either icons or texts as values for a status. Do not mix icons and text.
- All icons must come with a tooltip, see Tooltips.

Top

Available Icons

Find all icons here: List of all Icons.

You can use the following icons for table headers (black and white versions) and for table columns (usually used in TOWLs, *Notes* and *Attachments* can also be used in OWLs). They come with the tooltip mentioned in the table:

Icon	Tooltip
	Escalation
	Task Category
	Notes
	Attachments

Application icons need to come with an application specific tooltip. See the following table for the examples of application specific icons:

Icon	Example Tooltip
	Released
	Pending
	In Escalation
	In Preparation

Top

English and German Tooltips for Generic Icons

The following table shows the most common generic icons used in patterns and their tooltips:

Pattern	Icon / Screen Element	English Tooltip	German Tooltip
ICP			

	Expand Tray [Icon]	Expand Tray	Bereich expandieren
	Collapse Tray [Icon]	Collapse Tray	Bereich komprimieren
	Graphic [Icon]	Switch to Chart	Zur Grafikansicht wechseln
	Table [Icon]	Switch to Table	Zur Tabellenanzeige wechseln
OWL			
Toolbar	Filter [Icon]	Delete Filter and Close Filter Row	Filter entfernen und Filterzeile schließen
Toolbar	Filter [Icon]	Show Filter Row	Filterzeile anzeigen
Filter Row	Filter [Icon]	Apply Filter	Filtern
AFFP	More Options [Icon]	More Options	Weitere Optionen
Toolbar	Refresh [Icon]	Refresh	Aktualisieren
Column Header	Sorted Down [Icon]	Sorted in Descending Order	Absteigend sortiert
Column Header	Sorted Up [Icon]	Sorted in Ascending Order	Aufsteigend sortiert
Selection Row	Table Selection Menu [Icon]	Show Selection Menu	Auswahlmenü anzeigen
	Drag Scroll-Slider [Element]	Row <var 1> to <var 2> of <var 3> Example: *Row 1-10 of 465*	Zeile <var 1> bis <var 2> von <var 3>
Settings Dialog			
	Arrow Right [Icon]	Add Column	Spalte hinzufügen
	Arrow Double Right [Icon]	Add All Columns	Alle Spalten hinzufügen
	Arrow Left [Icon]	Remove Column	Spalte entfernen
	Arrow Double Left [Icon]	Remove All Columns	Alle Spalten entfernen
	Arrow Right [Icon]	Move Up	Nach oben
	Arrow Double Right [Icon]	Move to Top	An den Anfang
	Arrow Left [Icon]	Move Down	Nach unten
	Arrow Double Left [Icon]	Move to Bottom	An das Ende
Work Center			
	Scroll Left [Icon]	Scroll Left	Nach links
	Scroll Right [Icon]	Scroll Right	Nach rechts
	Show All [Icon]	Show All	Alle anzeigen
Message Region			
	Help [Icon]	Help	Hilfe
Value Help			
	Object Value Selector [Icon]	Open Value Selection	Werteauswahl öffnen
	Select Options [Icon]	Options Selection	Optionen auswählen
	Calendar [Icon]	Calendar	Kalender
	Calculator [Icon]	Calculator	Rechner

Top

More Information

Alignment of Values
Tooltips
Tooltips for Generic Functions
Units of Measurement

Date & Time

Page Content

Guidelines for UI Development
In FP3.5 time periods are separated via "/".
Example: From/To: __ / __

Abbreviations Related to Date and Time

The following table contains the abbreviations for terms related to date and time.

Term	Abbreviation
Month names	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec
Day names	Mon, Tue, Wed, Thur, Fri, Sat, Sun
Year	yr
Month	mo
Week	wk
Day	d
Hour	h
Minute	min
Second	s

See also General Standards and Guidelines for Writing at SAP .

Top

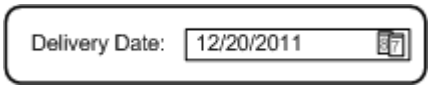
When to Use Date Only /Date, Time / Date, Time, Time Zone

Date Only

Show only the date when the exact time is not needed.
Label the field:

- In editing mode: *<Name> Date*, for example *Delivery Date: 02/25/2009*
- In display/read-only mode: *<Verb> On*, for example *Delivered On: 02/25/2009*

Examples:



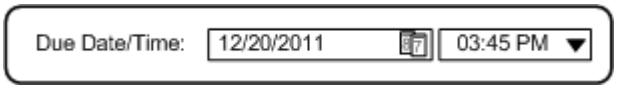
Delivered On
02/19/2010
03/14/2010
06/23/2010

Date and Time

Use a melting field for date and time in forms and tables.
Label the field:

- In editing mode: *<Name> Date/Time*, for example *Delivery Date/Time: 02/25/2009 04:00 PM*
- In display/read-only mode: *<Verb> On*, for example *Delivered On: 02/25/2009 04:00 PM*

Examples:



Due Date/Time
02/19/2011 06:00 PM
03/14/2011 03:00 PM
03/01/2011 10:00 AM

Date, Time and Time Zone

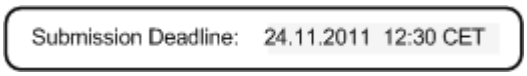
Standard: Time zone is not displayed

Display the time without time zone.

Exception: Time zone is required

Showing also the time zone may be required when the time relates to an object that is different from the current location's time zone.

If the use case requires the time zone, show the time zone code (such as *CET*) as static text (display-only mode). Do not show the description:

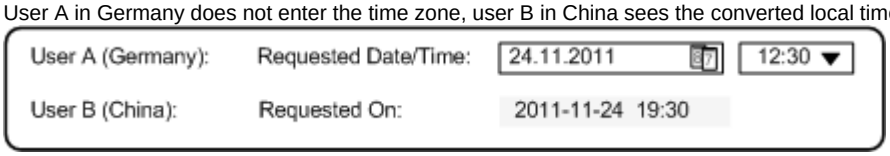


In rare cases the time zone needs to be editable. In this case the timezone is always shown, unaffectedly by user's local timezone. If so use the description (such as *Central European Time*) in the value help:

Example

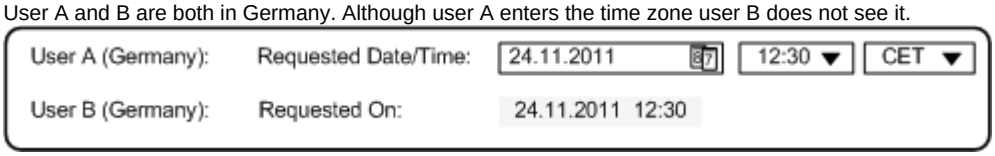
The following examples show in which cases which information is displayed on the screen:

User A in Germany does not enter the time zone, user B in China sees the converted local time without timezone.



User A in Germany enters the time zone, user B in China sees A's time and timezone.

User A and B are both in Germany. Although user A enters the time zone user B does not see it.

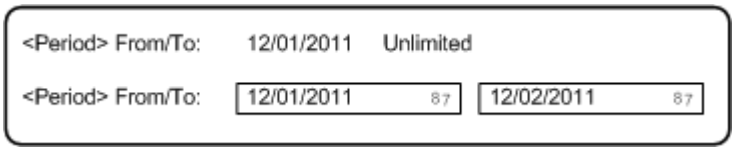


Top

Periods and Duration

Periods

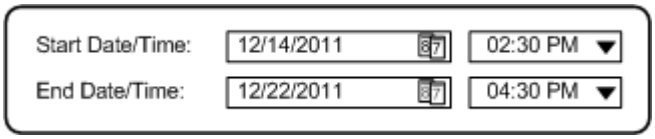
Date Only Period:
In **forms**:
Use a melting field, label it *<Period> From/To*; for example: *Expenses From/To*.



In **tables**:
Use two columns for start and end date.

Start Date	End Date
12/01/2011	12/09/2011
12/24/2011	12/31/2011

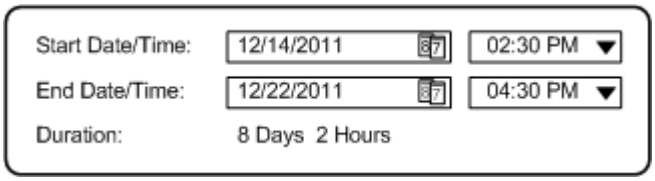
Date and Time Period:
Im forms as well as in tables use two melting fields and label them *Start Date/Time* and _End Date/Time._



Start Date/Time	End Date/Time
12/01/2011 03:00 AM	12/09/2011 05:00 PM
12/24/2011 00:30 AM	12/31/2011 06:30 PM

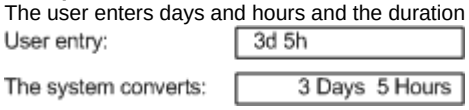
Duration

The duration of time spans can be displayed in forms as well as in tables.
Duration fields should be labeled *Duration*. In forms the duration field should be placed below and in tables after the date/time fields.



Start Date	End Date	Duration
12/01/2011	12/09/2011	8 Days
12/24/2011	12/31/2011	7 Days

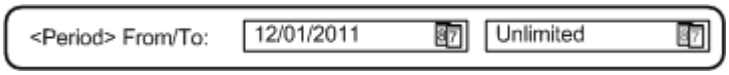
NOTE:
The duration is automatically calculated after the user enters the dates/times and presses ENTER.
Duration fields can also be editable in forms or tables. Depending on the internal definition of the respective duration field the user can enter a value which will be converted automatically.
Example:
The user enters days and hours and the duration field converts his as a valid duration value.



Undefined Start/End Date

The start and end date of a time period can be undefined or unlimited. In this case choose an empty field as value for the respective date.
The system will set the field to *Unlimited* after a roundtrip.

Example:



Top

Displaying Time Stamps

Display time stamps with date and time.

In Forms
Display a label describing the purpose, followed by a colon and then display date and time in display-only format. Display the time zone when neccessary. For more information see When to Use Date Only / Date, Time / Date, Time, Time Zone.

Examples:

- *Updated On: 02/26/2009 04:45 PM*
- *Refreshed On: 12/31/2009 07:32 AM*
  (Use the term *Refreshed On* if the user explicitely refreshes the screen.)

In ICPs

Use the term *Data Refreshed Today At,* then display the time without timezone, for example *Data Refreshed Today At 09:48 AM*

Top

Displaying Elapsed Time

Use *<N> <Unit> ago*. Use *Now* when the elapsed time is less than one minute.

Example:

Feed	Published
<Feed>	Now
<Feed>	12 minutes ago
<Feed>	2 hours ago

Top

Displaying Administrative Data (Created On, Changed On)

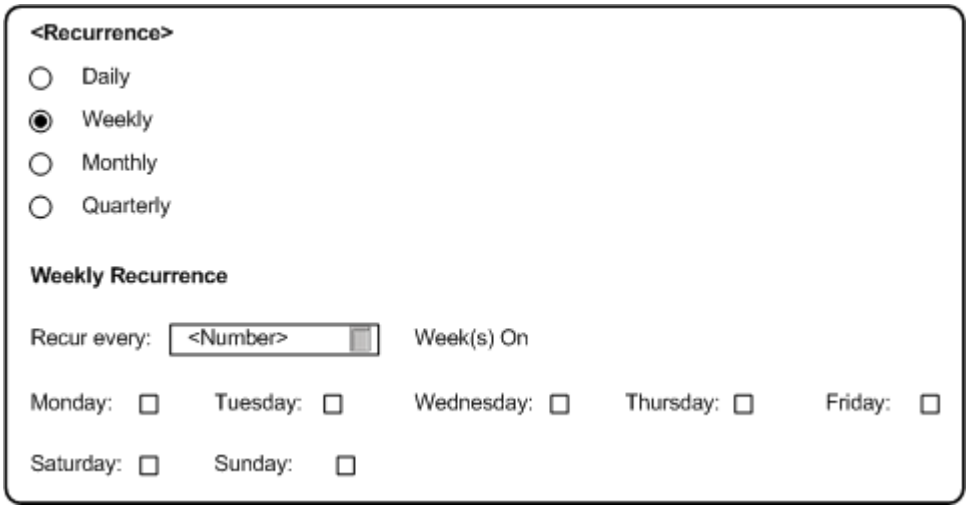
Use the labels *Created On* and *Changed On* and display date and time in display-only format. Do not display the time zone.

For an example within a form see Administrative Data.
For an example within a table see Display: Names of Persons.

Top

Recurrence

Use the following design:



Top

More Information

Forms & Fields

Functions & Menus

Page Content

Guidelines for UI Development
Print List is not available with FP3.5.

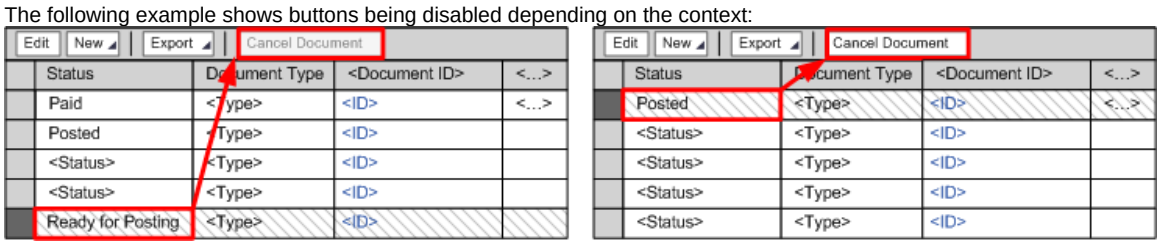
Enabled (Active), Disabled, Hidden Buttons

Buttons can have the one of the following states:

- **Enabled (Active):** If the user can carry out the function in the current context.
- **Disabled**: If the user can not carry out the function in the current context. The button is visible but deactivated.
- **Hidden**: If a function is never available for a user in the current context. The button is not visible.

If buttons are available in a certain context they can usually only be disabled. They should not be hidden to ensure positional consistency. This also applies to buttons on creation floorplans: In *New* mode the buttons which are only selectable after *Save* are disabled.

The following example shows buttons being disabled depending on the context:



Examples

Disabled Buttons

- **GAF - Confirmation Step**
  The *Previous* and *Next* buttons are disabled.

- **OWL**
  The *Edit* button is disabled when the table is empty. As soon as the table contains entries, *Edit* is active.
- **Read-only Floorplan**
  All buttons are disabled.

Hidden Buttons

- **Create -> Save -> Edit**
  In a creation floorplan buttons can be hidden although they appear in the editable floorplan. For example, when creating and saving a purchase order (PO) the *Cancel Purchase Order* button is hidden as it only makes sense to cancel a PO after you created the PO and sent it to the supplier.

- **Fact Sheet (display-only)**
  All buttons of the editable floorplan of the business object are hidden.

Top

Finalizing Actions/Business Object (BO) Specific Functions

F-Actions (finalizing actions) and BO specific functions are functions that can be applied to a specific BO. They differ as follows:

- **F-Action**
  - Finishes creation or editing of a business object
  - Placed left in the toolbar. This allows the user to easily finish a task with one click on a button that is always in the same position.
  - Closes the screen, success message is displayed on the calling screen
  - Saves business object on database, usually triggers a follow-on process
  - In most use cases only one F-Action is needed. In approval uses cases, for example, you need more than one F-Action (*Approve*, *Reject*).
- **BO specific functions**
  - Can be carried out before finishing the creation or editing of a business object
  - Placed right in the toolbar
  - Do not close the screen
  - Do not necessarily save the business object

The following picture shows an example of a purchase order toolbar containing an F-Action and BO specific actions:

1. F-Action
2. BO specific functions
   Place the most often used functions as separate buttons in the toolbar. If there are many or less often used BO specific functions available you can put them into the *Actions*^ menu button.

Top

Menu Buttons

Menu buttons should contain two entries at least. If only one entry is available:

- The entry needs to be removed.
- The button label does not change.
- The tooltip consists of the button label plus the menu entry.
  Example: The *Export*^ button only offers the entry *To Microsoft Excel*. The menu is removed, the button is labeled *Export* and the tooltip *Export to Microsoft Excel*.

Top

New and *Actions* Buttons for BTM

New Button

You **must** include the *New*^ button in **OWLs and TOWLs** to offer at least the generic Business Task Management (BTM) functions in the following order:

- OWL: <*Application-Specific BO Type*> | *Task*, *Notification*, *Alert* | *Clarification Request*
- TOWL: *Task*, *Notification*, *Alert* | *Clarification Request*

For other floorplans: Include the *New*^ button also in **OIFs, Fact Sheets** and on the *Confirmation* step of a **GAF** offering at least *Task*, *Notification*, *Alert* | *Clarification Request.* Use it also in **QAFs** if an additional *Save* button is available besides the F-Action. Generic BTM functions can only be carried out for already created objects.

In rare use case the *New*^ button can be omitted.

NOTE: Do not repeat the word "new" for entries in the *New*^ button menu.

Actions Button

You **must** include the *Actions*^ button in **TOWLs** to offer the generic BTM functions in the following order:

- *Change Priority*
- *Forward*
- *Acknowledge* (for notifications)
- *Complete* (optional, depends on the design of the task type)
- *Cancel* (optional, depends on the design of the task type)
- *Open Details*
- *Add Notes* or *Show Notes* (*Add Notes* is used when no notes are available; *Show Notes* is used when notes are already available, the user can also add notes from the floorplan launched.)
- *Add Attachments* or *Show Attachments* (*Add Attachments* is used when no attachments are available; *Show Attachments* is used when attachments are already available, the user can also add attachments from the floorplan launched.)

Top

Button Placement in Forms

Place buttons in forms next to the input field. Commonly used buttons in forms are *New* and *Go*:

- *New*: Used to create a new instance of the business object
- *Go*: Used to select one or more instances of a business object and prepopulate its data on the screen. For example, if you want to create an invoice with reference to a purchase order you need enter the purchase order ID and click *Go.* The invoice screen is prepopulated with the purchase order data.

Top

Button Placement in Toolbars of Floorplans (QAF, OIF, GAF, Fact Sheet, Modal Dialog)

In floorplans, place the buttons in the order shown in picture 1 into the toolbars. Place additional buttons for output management, BO specific actions, etc. behind the buttons on the left side in picture 1 and use the order shown in picture 2. Picture 3 shows you the recommended order for the most commonly used BO actions.

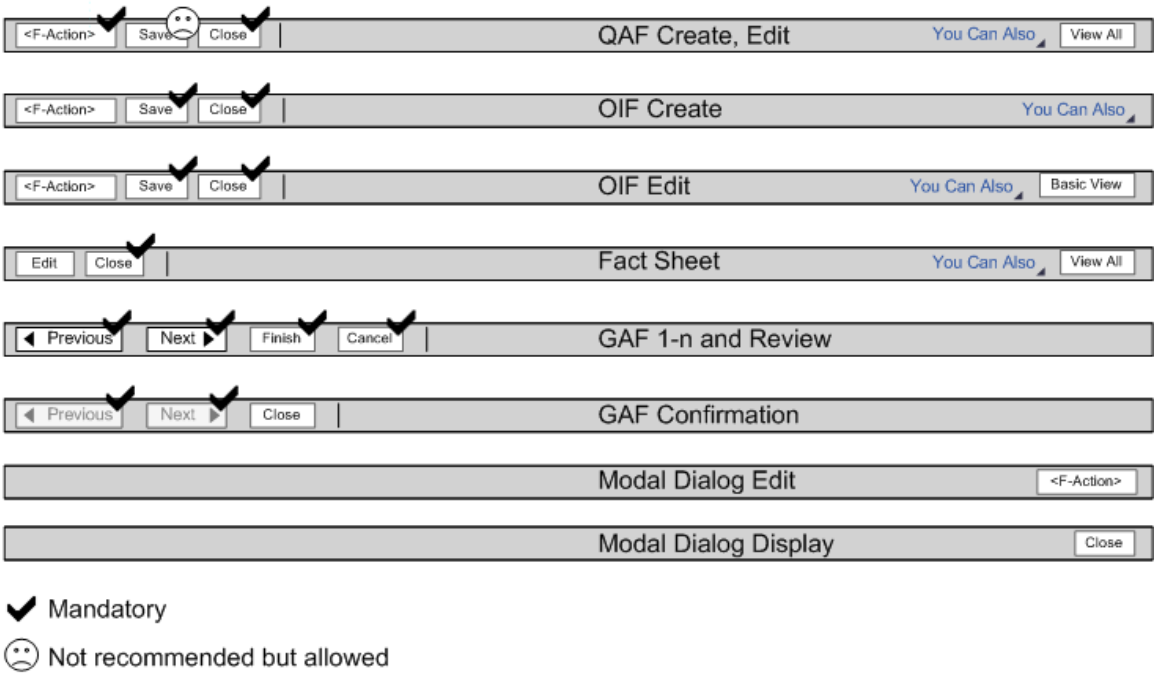
Separators (**|**) segregate button groups.

Rule of thumb for QAFs and OIFs: **[*F-Action*] [*Save*] [*Close*] | [*Preview*] | [*New*] | [*BO-Action*] [*Actions^*]**

NOTE: For the placement of buttons in patterns, see the respective pattern chapters.

Picture 1: Finalizing Action, Save, Close, View All, Basic View

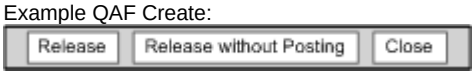
The following picture shows the buttons of the first button group and - if available - the buttons on the right side of the toolbar. Place output management, *New* or BO specific buttons right next to the first button group. For their order see *Picture 2: Output Management, New, BO Actions* below.



NOTES
<F-Action>

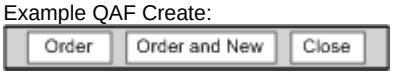
- For the behaviour of finalizing actions see F-Actions/Business Object (BO) Specific Functions and Saving Data in QAFs and OIFs
- If necessary you can use more than one *<F-Action>* button. Place the most often used *<F-Action>* left. If you need to display

alternative functions, place the positive one first (for example, place *Approve* first, then *Reject*), see Saving Data in QAFs and OIFs.
Example QAF Create:



- For master data objects such as Product or Supplier you can label the button *Save and Close* instead of *<F-Action>,* see Saving Data in QAFs and OIFs.
  Example QAF Create:

- If the use case requires to create another object within the same window you can place *<F-Action and New>* after *<F-Action>*.
  Example QAF Create:



- If you use *<F-Action>* and *Save and Close*, use the following order: 1-n *<F-Action>, Save and Close, Close*.
  Guided Activity (steps 1-n and Review)
- Depending on the context the *Previous*, *Next*, and *Finish* buttons are disabled.
  For example, the *Previous* button is disabled on the first step, the *Finish* button is disabled until the step where all necessary data is entered. The *Next* button is disabled on the *Review* step.
- You can also label the *Finish* button *<F-Action>,* see Saving Data in GAFs.

Modal Dialog (editable)

- You can also label the *<F-Action>* button *OK.*
- If the application implemented a cancel function with automatic clearing of the buffer place the *Cancel* button after the *<F-Action>* button.
- Additional functions like *Clear* or *Reset* affecting the whole modal dialog may appear behind the *<F-Action>* or - if a *Cancel* button is available - behind the *Cancel* button.
  Example:
  [*OK*] [*Cancel*] [*Clear*] [*Reset*]

You Can Also**,** see *You Can Also* (YCA) Menu

View All* vs *Basic View

- Use *Basic View* on OIFs if a QAF is available (navigates from OIF to QAF).
- Use *View All* on QAFs and Fact Sheets if an OIF is available (navigates from QAF to OIF).

Save Draft

- If you use *Save Draft* in QAFs and OIFs, place the button directly behind the *Close* button.
- If you use *Save Draft* in GAFs, place the button directly behind the *Cancel* button.

Picture 2: Output Management, *New*, BO Actions

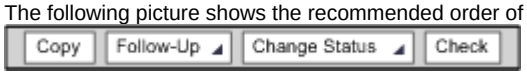
The following picture shows the order of output functions, *New* button and BO actions:

NOTES

- *Print* triggers a page print and is mandatory for Fact Sheets.
- *Preview* triggers a form based print, see Preview, Print, Send, Print List, Export.
- *New*^ button:
  - **OIFs**, **Fact Sheets**: is mandatory for BTM
  - **QAFs**: is mandatory if an additional *Save* button is available
  - **GAFs**: is mandatory ifor BTM. Place the button only on the *Confirmation* step.
  - See *New* and *Actions* Buttons for BTM
- You can use 1-n *<BO-Action>* buttons
- On a display Modal Dialog you can not add any other buttons but only use *Close*.

Picture 3: Order of Commonly Used BO Actions

The following picture shows the recommended order of commonly used *<BO Actions>*:



Toolbar Examples

Example QAF Create:

Example QAF Create:

Example OIF:

Common Tasks (CT) Menu

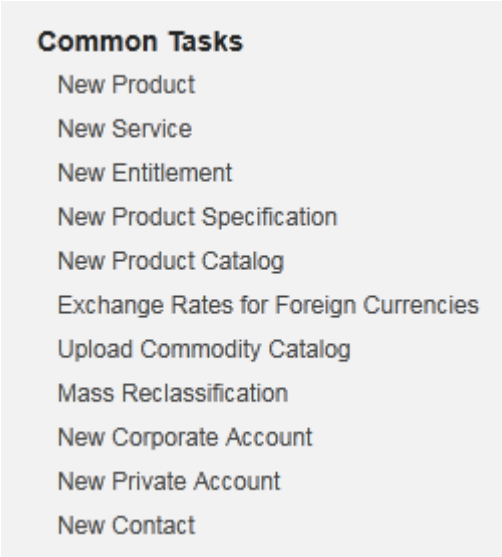
To design the Common Tasks Menu use the following guidelines:

1. For common tasks triggering new BOs use *New <BO Type>*. Example: *New Purchase Order*
2. For other cases use generally *<Verb> <BO Type>*. Example: *Change Stock*
   Consider the following cases:
   - If the floorplan title is equivalent to the format *<Verb> <BO Type>* use the floorplan title for the common task.
   - For common tasks triggering editable floorplans use the format *Edit <BO Type>*.
   - For common tasks triggering display-only and read-only floorplans use *View <BO>*.
   - For common tasks triggering a report use *Run <Report Name>*.
3. If the common task triggers MS Outlook use one of the following labels:
   - *Open Calendar*: Opens the Outlook calendar
   - *New E-Mail*: Opens a new empty mail
   - *New Contact*: Opens a new empty contact window
   - *New Task*: Opens a new empty task
4. Sort the entries in descending order of importance/frequency of use.
   All common tasks are visible. Group them as follows and sort them alphabetically within the groups:
   - New CTs
   - Action CTs
   - Report CTs
   - Outlook CTs
5. Choose only one *Common Tasks* menu per WoC. If this is not possible, design the *Common Tasks* similar for the sub-views.

For information about navigating in the Common Tasks Menu see Common Tasks.

Example

The following screenshot is taken from an FP3.5 ByD System:



Top

Context Menu

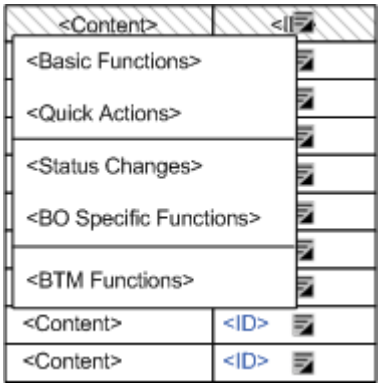
Context menus are strongly recommended in OWLs and TOWLs. Clicking the context menu icon opens the context menu.

- OWL: Place the context menu icon next to the BO ID the OWL is consisting of. For example, if the OWL contains purchase orders the you should offer a context menu for each purchase order in the column *Purchase Order ID*.
- TOWL: Place the context menu icon next to the task title.

Context menus should not only contain the actions of the toolbar. Use them for more specialized functions and functions that can only be applied to one OWL or TOWL entry. For multiple row actions use the toolbars BO actions area, see Business Object (BO) Specific Functions.
The number of items in a context menu should not exceed 15.

A context menu consists of up to three sections that are separated by separator lines. These sections contain:

- Basic generic functions and quick actions
- Status changes and BO specific functions
- BTM functions



The following functions can be placed into the context menu:

- **Basic Generic Functions**: *Edit* (or alternatively *Edit All, Quick Edit*), *View*
- **Quick Actions**: *Approve*, *Reject*, *Delete*, *Remove*
- **Status Changes**: *Change Status*
- **BO Specific Functions**: *Start Travel Cancellation, Publish, Download, Simulate, Archive, Retrieve from Archive, Release, Terminate, Transfer, Hold, Manage Jobs, View Defaults*
- **BTM Functions TOWL**: *Forward, Change Priority, Complete, Cancel, Open Details, Add Notes* or *Show Notes, Add Attachments* or *Show Attachments*

Top

You Can Also (YCA) Menu

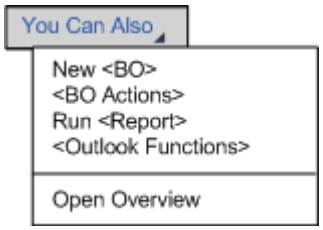
Put functions in the YCA menu that do not relate directly to the primary BO of the floorplan. Add in case of an editable OIF and QAF *Open Overview* to navigate to the Fact Sheet. Avoid redundancy: do not add functions that are already shown in the toolbar.

NOTE:
Open Overview does not appear in a Fact Sheet.

Put the entries into the following order. The generic actions are on bottom:

1. *New <BO>*, whereas the BO is of a different type than the BO dealt with
2. *<BO Actions>*, examples: *Assign Logistics Unit*, *Edit Project, Edit Output Settings*
3. *Run <Report>*, example: *Run Cost Center Planning*
4. *<Outlook Functions>*, examples: *Open Calendar*, *Open Tasks*
5. *Open Overview*, opens the Fact Sheet of the BO

Example:



Top

Generic Functions

The following table lists the most common generic functions, their meaning and german translation:

Function Name English	Description	Function Name German

*Actions^*	• Contains secondary BO actions and BTM actions *Forward* and *Change Priority*	*Aktionen^*
Add to Favorites	• Adds a floorplan to the favorites	*Zu Favoriten hinzufügen*
Add Row	• Adds a row at the end of the list	*Zeile hinzufügen*
Advanced	• Switches from basic to advanced search	*Erweitert*
Apply	• Used in dialog windows. Shows preview of changes but does not save.	*Übernehmen*
Approve	• Used for approving BOs	*Genehmigen*
Basic	• Switches from advanced to basic search	*Einfach*
Basic View	• Used in OIFs. Launches an (editable) QAF inplace (not available if QAF does not exist).	*Einfache Sicht*
Cancel	• Used in GAFs (all steps except the *Confirmation* step) and Modal Dialogs. Closes the window.	*Abbrechen*
Cancel <BO>	• If *Cancel* is an application specific function, add the BO type. Example: *Cancel Negotiat* ion	depends on function
Check or *Check Consistency*	• Checks whether a business object is consistent and does not contain any errors. Use *Check* whenever possible. Use *Check Consistency* when a corresponding field such as *Consistency Status* is on the screen so that the relation between the button and the field is clear to the user..	*Prüfen* or *Konsistenz prüfen*
*Change Status^*	• Changes the status of a BO, see Status	*Status ändern*
Close	• Closes the window	*Schließen*
Close <BO>	• If *Close* is an application specific function, add the BO type . Example: *Close Lot*	depends on function
Collaborate	• Opens collaboration window	*Zusammenarbeiten*
Copy	• Creates a new object of the same BO type in a new window	*Kopieren*
Create with Reference	• Used in creation floorplans. Opens a modal dialog for selecting the BO to be referenced	*Anlegen mit Bezug*
Default	• Used in ICPs. Sets view as standard.	*Standard*

Delete	• Deletes the BO after launching a confirmation dialog • Success message for the deletion is shown in the WC	*Löschen*
Details	• Used in ICPs. Opens analysis pattern in a new window.	*Details*
Edit	• Opens a floorplan of a selected object in edit mode. If both, QAF and OIF, should be launchable use a menu button *Edit^* with the options *Quick* and *All* in the given order.	*Bearbeiten*
Edit Output Settings	• Allows to change the output settings, for example from print to email	*Ausgabeeinstellungen bearbeiten*
Export	• Downloads data to Excel or Adobe	*Exportieren*
<F-Action>	• Finalizing Action, saves data to the database • Eventually triggers a follow-on process • Closes the window, success message is displayed on calling screen • Can be labelled *Submit*, *Order*, *Post*, etc.	depends on function
<F-Action> and New	• Saves data and clears fields on the floorplan	*<F-Action> und neu*
Finish	• Finalizing action in GAFs	*Fertigstellen*
Follow-Up	• Creates a new object with reference • Starts the appropriate floorplan in a new window • The data of the referenced object is preset in the new floorplan	*Folgeaktion*
Go	• Used in OWLs and TOWLs to start search	*Start*
Graphic	• Used in ICPs. Changes from list to graphics view.	*Grafik*
Log Off	• Logs off from ByD and closes all open windows	*Abmelden*
Log On	• Logs on	*Anmelden*
Mass Change	• Used for changing many BOs	*Massenänderung*
More	• Used in Fact Sheets and forms. • Fact Sheets: Opens the tab of the corresponding OIF • Forms: Opens a modal dialog with additional information	*Mehr*
New	• Creates an object. If necessary you can also name the object, *New <BO>*. Example: *New Invoice*	*Neu*
Next	• Moves one step forward; can be replaced with *Submit* or *<F-Action>* from the step on where all mandatory data is entered	*Weiter*

Open	• Opens an editable floorplan but the user's goal is to view information and not to change data	*Öffnen*
Open Overview	• Used in *You Can Also* to open the factsheet	*Übersicht öffnen*
OK	• Default action in modal dialogs	*OK*
Organize Queries	• Used for organizing queries, such as renaming, deleting	*Abfragen organisieren*
Personalize	• Opens personalization area	*Personalisieren*
Preview	• Opens a PDF document based on a template to print or send the document	*Vorschau*
Previous	• Moves one step back	*Zurück*
Print List	• Prints the table (OWL) displayed on the screen via new window and a PDF	*Liste drucken*
Reject	• Used for rejecting BOs	*Ablehnen*
Remove	• Removes a BO or an item from a table but does not delete it from the database	*Entfernen*
Reset	• Used in OVS to reset the search criteria	*Zurücksetzen*
Save	• Window stays open • Data is saved, no follow-on process is triggered • Fields remain editable	*Sichern*
Save and Close	• Saves data and closes the floorplan	*Sichern und schließen*
Save and New	• Saves data and clears fields on the floorplan	*Sichern und neu*
Save Draft	• Window stays open • Saves (incomplete) data without checking for completeness • Fields remain editable **NOTE**: Save Draft is currently not implemented.	*Entwurf sichern* (may vary depending on application)
Save Query	• Saves user defined query	*Abfrage sichern*
Submit	• General term for an <F-Action>. Use it only if no specific term is available.	*Abschicken* (may vary depending on application)
Table	• Used in ICPs. Changes from graphics to table view.	*Tabelle*
Translate	• Opens the floorplan for translating texts	*Übersetzen*

View	• Opens a floorplan in read-only mode. If necessary you can also name the object, *View <BO>*. Example: *View Invoice*	*Anzeigen*
View All	• Launches an OIF inplace (either editable or read-only). It is not available if no OIF exists.	*Alles anzeigen*

NOTE:

- **Do not** use
  - combinations of two functions like *Submit and Print* (exceptions are *<F-Action> and Close* and *Save and Close*).
  - *Maintain*, use *Edit* instead.
  - *Show* or *Display*, use *View* instead.
  - *Download*, use *Export* instead.
- Functions like *Check*, *Activate*, *Simulate, Change Status* which cause actions in the backend should raise an information message.

Top

Tooltips for Generic Functions

Note: Usually you do not need tooltips on buttons. It is **not** allowed to simply repeat the label of the button in the tooltip.

The following table lists the English and German tooltips for generic functions:

Function	English Tooltip	German Tooltip	UI Element
Advanced	Advanced Search (Ctrl+G)	Erweiterte Suche (STRG+G)	Find Form (OWL, OVS)
Basic	Basic Search (Ctrl+G)	Einfache Suche (STRG+G)	Find Form (OWL, OVS)
Cancel	CTRL+Q	STRG+Q	GAF (all steps besides Confirmation step)
Close	CTRL+Q	STRG+Q	OIF, QAF, GAF (Confirmation step)
Finish	CTRL+S	STRG+S	GAF
Save	CTRL+S	STRG+S	OIF, QAF
View All	View All and Edit	Alles anzeigen und bearbeiten	Fact Sheet, QAF

Top

More Information

Accelerator Keys and Hot Keys
Preview, Print List, Send and Export
Tooltips
Generic Icons: English and German Tooltips

Object Identifier

Page Content

Guidelines for UI Development
With FP3.5 the suggest feature does not show not up until entering two characters.

Display Only ID or Only Description or Both?

You are allowed to display only the ID or only the description if the business object is identified most of all by this. Display ID and description together if both parts of the Object Identifier are useful or needed to identify the business object or if different user groups (such as experts, novices) prefer either the one or the other.

NOTE: If you display ID and description, place ID before description.

Top

Usage in Titles

If ID and description are concatenated, separate them with a whitespace in titles of the OWL details area and with a dash "-" in floorplan titles. Use a blank before and after the dash.

Titles within details area:

- *Task: Complete Purchase Order 234566*
- *Details: Sales Order 49821*

Floorplan titles:

- *Lead Overview: 232543*
- *Service Agent: 345435 - Peter Bond*

Do not use the terms *ID* and *Description* in titles.

Top

Visualization of BOs in Melting Fields, Separate Fields, or One Field

In editable or read-only mode use **one field only** naming the business object to display ID and description. You are allowed to display either the ID and the description, or only the description of the business object without ID (recommended) within the field. The field content is displayed as a tokenizer which means that it is underlined and the respective Fact Sheet can be accessed by a double click.

Use the tokenizer also in editable tables. Do **not** use the tokenizer for read-only or display-only tables or within the Advanced Find Form.

Field Label

Do not use the terms *ID* and *Description* for tokenizer field labels and melting field labels. Use *<BO Type>:*, such as *Product:* or *Supplier:*

Editing: IDs and Names in Dropdown Listboxes and Tokenizer

Do not show the backend ID (or technical ID) of names in dropdown listboxes. If necessary, show the employee ID. Order the names in the listbox as follows: *<Last Name>, <First Name>*. Use the same order for the tokenizer. You can optionally show the employee ID, if so, the order is *<Employee ID>, <Last Name>, <First Name>.*

Example: After entering "mi**"** in the entry field, the dropdown listbox shows the following entries:

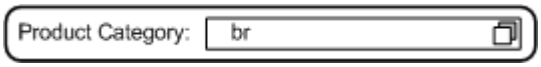
- *Miller, Peter*
- *Miller, Robert*
- *Milly, Anna*
- *Peters, Miranda*

After selecting Miranda Peters, the tokenizer is *Peters, Miranda*

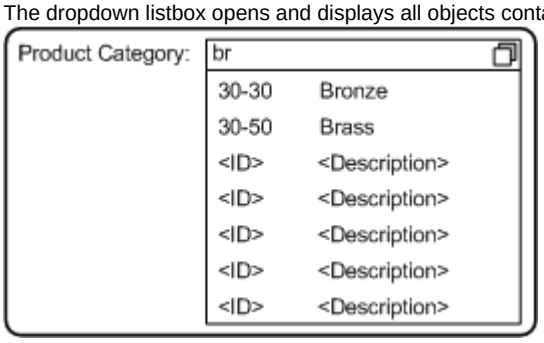
For displaying ID and names see Names of Persons and Technical User IDs.

Example: Editing ID and Description

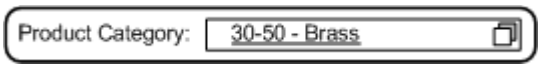
The user enters "br":



The dropdown listbox opens and displays all objects containing "br". This function is called **suggest feature** and is not case-sensitive.

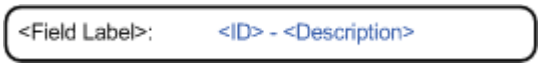


The user selects an object. Object and description are displayed as tokenizer:



Displaying ID and Description in Melting Fields

If ID and description are concatenated in display-only forms or IDRs, separate them with one dash " - ". The dash is preceeded and followed by a blank. Place one link on ID and description:



Example:

Exceptions

- If the suggest feature can not be used in a Find Form Pane you can use two separate fields for ID and description. Arrange the ID above the description.
- In OWLs offer ID and description as separate columns to allow sorting for both values. It is recommended to offer a melting field with ID and description in the hidden fields.

Top

More Information

Field Labels
Identification Region
Names of Persons and Technical Users

Positive and Negative Values

Page Content

Displaying Positive & Negative Totals for Business Objects

For different types of business objects that are displayed in one list, usually an OWL, follow these rules:

- Display a column telling the user the type of the business object such as invoice, cancellation, credit memo.
- Display the total value using the same sign per type. Positive signs are not displayed in the UI, negative signs are visualized with "-". Use the sign of the according total value in the transaction which is usually **positive**.

The following example shows an excerpt of an OWL containing invoices and credit memos:

	<...>	<...>	Invoice Type	<...>	Net Value
			Invoice		10,000.00 USD
			Invoice		500.00 USD
			Credit Memo		- 2,000.00 USD
			Invoice		1,500.00 USD
			Credit Memo		- 5,000.00 USD

Top

Displaying Positive & Negative Values for Business Object Items

If a business object contains items of different types, such as an invoice may contain credit memo items and invoice items, follow these rules:

- Display values of the same item type with the same sign (for example, show credit memo items always as negative values and invoice items always as positive values).
- To figure out which sign should be assigend to an item type:
  - Understand the meaning of the business object first.
  - Decide which item types **add** to the total value of the business object (positive value).
  - Decide which item types **subtract** from the total value of the business object (negative value).
- If necessary show an extra column with the item type.

NOTE: Changing the overall document type from *Posted* to *Canceled* does **not** change the sign of items.

Example: Items in a Business Object

In an invoice, credit memo items subtract from the total value, therefore they get a negative number. Invoice items add to the total value, therefore they get a positive number.

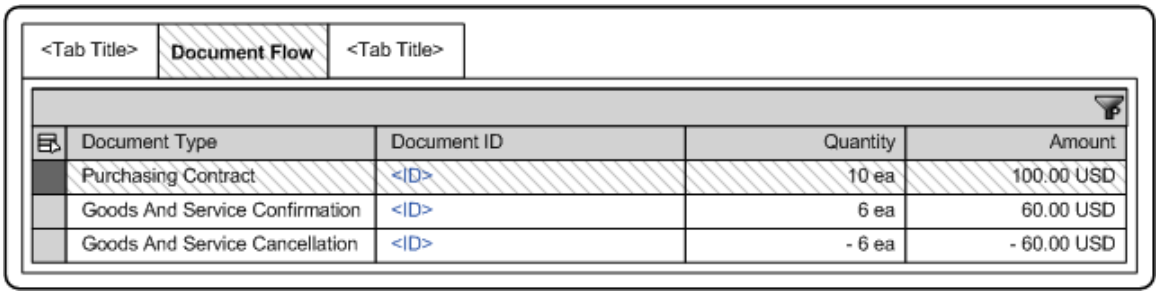
Example: Invoice

	Number	Product ID	Product Description	Purchase Order ID	Purch. Order Item	Tax Code	Invoice Quantity	Invoice Price	Price per	Net Value
	1		<Description>	<ID>		<Tax Code>	1 ea	100.00 EUR	ea	100.00 EUR
	3		<Description>	<ID>		<Tax Code>	1 ea	100.00 EUR	ea	- 100.00 EUR

Example: Items in a Document Flow

In the document flow of a purchase order item the goods receipt items get a positive value and the goods receipt cancellation items get a negative value.

Example: Purchase Order Item



Top

More Information

Display and Editable Modes
Forms & Fields

Primary Help

Page Content

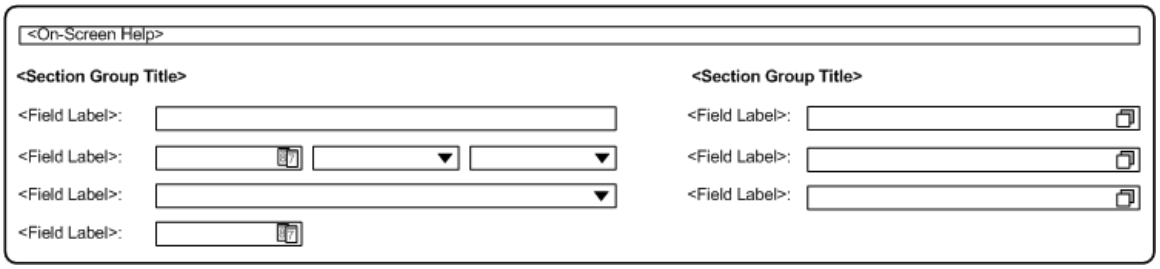
Definition: Primary Help

Primary Help are texts that do not show up in the Help Center but directly on screen areas, fields, buttons, etc. Primary Help is either permanently displayed such as on-screen explanations or displayed on user request such as rollover explanations and tooltips.

Top

On-Screen Explanations

On-screen explanations explain the purpose and impact of a particular screen or part of a screen. They are displayed by default but the user can switch them off via personalization, see *My Settings* in Additional Personalization Features.

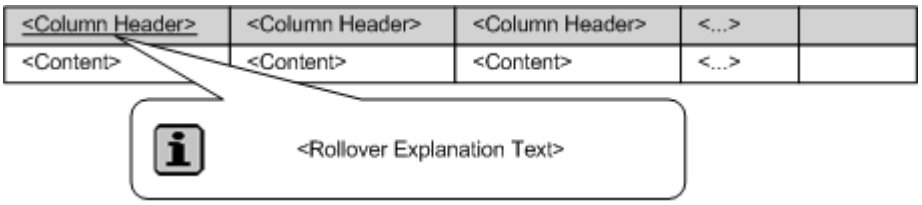


Top

Rollover Explanations

Rollover explanations, also called mouseovers, explain the purpose and impact of a field, a function, a tab, or a table column header. Field labels, buttons, tabs and table column headers with a rollover explanation have an underline. When the user points the mouse cursor on the field label or button, the text is displayed. The underlines are shown by default but the user can switch them off via personalization, see *My Settings* in Additional Personalization Features.

Note: No other controls than the above mentioned must have rollover explanations.



Top

Tooltips

Tooltips display the name of a screen element when the user points the mouse cursor on the element.

When to Add a Tooltip

A tooltip is required when the screen element has one of the following characteristics:

- Can be (partially) hidden from the user's view. This is for example the case for table screen elements such as column header lables and table cells which can be resized.

- Is abbreviated
- Has a hot key
- Is an icon
- Is an image

NOTE: If necessary you can add tooltips to screen elements such as buttons or hyperlinks that do not have the characteristics mentioned above. The reason is that the tooltip describes the function more precisely.

Do only show tooltips for screen elements that have one of the above characteristics. **Do not show tooltips** that simply repeat the text of the screen element.

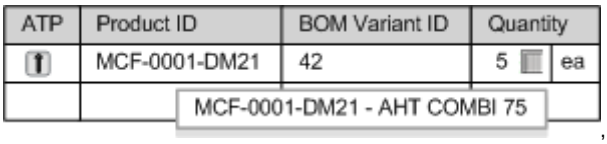
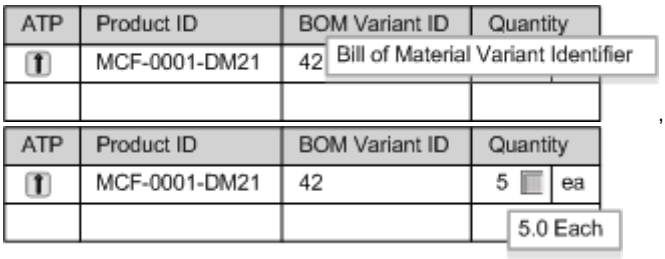
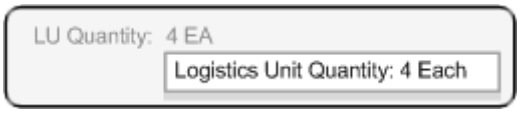
Wording of Tooltips

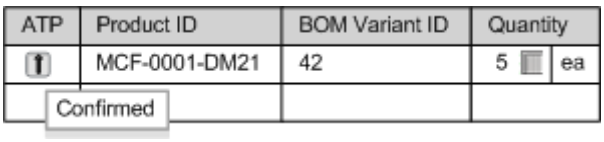
Follow these guidelines:

- For **screen elemens** that can be (partially) hidden: Use the same wording for the screen element and for the tooltip.
- For **abbreviations**: Write out the abbreviation. Do not add any additional text into the tooltip.
  NOTE (for display-only and read-only fields and table columns):
  - For melting fields containing an abbreviated unit of measurement (UoM) or a currency such as EA or USD proceed as follows: Write out the value and the abbreviation in the tooltip, see example below.
  - For abbreviated field labels in connection with a melting field content whereas the content contains an abbreviated UoM or currency, proceed as follows: Write out the label and the content in one tooltip. Separate label and content with ":", see example below.
- For screen elements accessible via **hot key**: Do only write the hot key into the tooltip. Example: The *Save* button shows the tooltip *CTRL+S*. For further information see Accelerator Keys and Hot Keys.
- For **icons**:
  - Use a name that precisely indicates the purpose.
  - Use the same tooltip for an icon throughout the system. If the function of a screen element differs significantly in the context of a particular screen or application, create a variant of the standard tooltip.
  - For further information see Icons.
  - For a list of all icons and their standard tooltips see also Application Icons.
- For **images**: When adding an image the user needs to enter a title. The title is shown in the tooltip. Therefore no guidelines are available.
- **General**:
  - Use title case.
  - Use noun or verb forms or a combination of both such as *Calendar*, *Print Preview, Browse*, *Insert Hyperlink,* and *Display Filter Row*.
  - For verb-based forms use the imperative or the format *<Verb + Object>*. Do not use articles *(a, an, the)* when using the *<Verb + Object>* format.

Examples

The following table shows examplary tooltips:

Screen Element	Tooltip
Partially Hidden	
Abbreviation	
Display-Only / Read-Only: Abbreviation Melting Field	
Display-Only / Read-Only: Abbreviation Label and Content	

Icons	

Top

More Information

Generic Icons: English and German Tooltips
Help, Sticky Notes, Tags, Shelf
Icons
System Messages
S&G for Application Platform and Business ByDesign Documentation
Tooltips for Generic Functions
Value Help

System Messages

Page Content

Definition: System Message

System messages provide system feedback, such as success, information, warnings, and errors. An icon indicates the type of the message:

Icon	Message Type
	Success
	Information
	Warning
	Error

System messages provide concrete instructions, telling the user how to solve an issue in a certain context. They are displayed in the message region at the bottom of a screen - the message area has a maximum height of 5 lines (approximately 95 pixels). In case or error messages, the message is additionally displayed next to the entry field that the user needs to work on. The entry field is framed in red color.

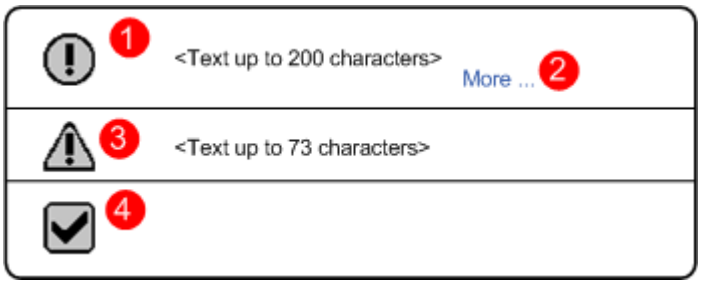
The text of a system message displayed on the UI can either come from an Application Platform or ByD T100 message short text or from a UI text used as a system message.

T100 message texts can contain up to 73 characters.

If a T100 message short text is not suitable for the UI, for example, because the end user needs more information or concrete instructions on how to solve an error on the UI, or because the Application Platform terminology differs from the terms used on the UI, a UI text used as a system message can be assigned. The UI text is then displayed on the UI instead of the T100 message. UI texts used as system messages can contain up to 200 characters (additionally, a buffer of 50 characters is available for translation).

If the error situation is very complex, the user can access additional information via the *More* link in the message region. The additional information is displayed in a new window.

Messages are displayed in the message region at the bottom of a screen:



1. System message with text based on UI text used as system message (maximum of 200 characters)
2. "More" link launches a document in a new window
3. System message with text based on T100 message short text (maximum of 73 characters)
4. Message with success text

Top

Specification and Test

NOTE: Messages are written by development and reviewed by Knowledge Management (KM).

UIDs need to take into consideration the following issues:

- Specification phase: Propose message texts, mainly for already known error situations. KM needs to review the message text, after that you can put it into the UI specification.
- Test phase: Check if messages are understandable and user friendly, and comply with guidelines (see below). If not, contact your responsible information developer. Ensure that field labels in the message text are the same as used in the UI.

Top

Guidelines for Writing System Messages

You can find the *S&G for SAP Business ByDesign System Messages* on the following page: S&G for Business ByDesign Documentation

Top

Example

The following message is taken from an FP3.0 ByD System:

Top

More Information

Confirmation Dialog
Help, Sticky Notes, Tags, Shelf
Icons

Tables

Page Content

Cell Shading

It is possible to define different (standard) cell background colors and you can highlight values. The following table shows the available colors.

Color	Color Hex	Color RGB	UR Enumeration: SapTableCellDesign	Semantic Value Description	Comment
	FBA33F	251;163;63	TOTAL	Totals	3 px high at bottom line; can be used with semantic background colors such as critical. Totals must be in **bold** font.
	WHITE	White	STANDARD	Standard color	
	F3732F	244;115;47	NEGATIVE	3-step traffic light semantic	Data rating
	FFD800	255;216;0	CRITICAL	3-step traffic light semantic	Data rating
	D6FF9A	214;255;154	POSITIVE	3-step traffic light semantic	Data rating
	F4732F	244; 115;47	BADVALUE_DARK	**Negative** threshold values	Data rating
	FF8567	255;133;103	BADVALUE_MEDIUM	**Negative** threshold values medium degree	Data rating
	FEB913	254;185;19	BADVALUE_LIGHT	**Negative** threshold values low degree	Data rating
	FFF843	255;248;67	CRITICALVALUE_DARK	**Critical** value high degree	Data rating
	FFD800	255;216;0	CRITICALVALUE_MEDIUM	**Critical** value medium degree	Data rating
	FFE25C	255;226;92	CRITICALVALUE_LIGHT	**Critical** value low degree	Data rating
	B7DF68	183;223;104	GOODVALUE_DARK	**Positive** threshold value	Data rating
	BAF16D	186;241;109	GOODVALUE_MEDIUM	**Positive** threshold value medium degree	Data rating
	D6FF9A	214;255;154	GOODVALUE_LIGHT	**Positive** threshold value low degree	Data rating
	A6E5F4	166;229;244	KEY_MEDIUM	Marker 1 in date navigator	Data rating: important value
	A2C3EA	162;195;234	GROUP_LEVEL1	Top level of hierarchical table	Customizable
	BDCFE9	189;207;233	GROUP_LEVEL2	Group color 2 also for hierarchical table level 2	Customizable: use this color as level 1 if you only have two levels
	D4DFEF	212;223;239	GROUP_LEVEL3	Group color 3 also for hierarchical table level 3	Customizable

Totals must be displayed in bold font.

Example

The following screenshot is taken from an FP3.0 ByD system:

Completion Year/Week	Priority	Solved Incidents	Average IRT in hours
09.2011	High	10	1.274,9
	Medium	1	0,1
	Low	2	0,1
	Result	**13**	**980,7**
08.2011	Low	1	
Result		**14**	**910,7**

Negative, critical, and positive values can appear together in the same table. There is a 3-step traffic light semantic consisting of **Positive** , **Critical**, **Negative**. The elements of this group are bolded entries in the semantic Value Description column.

Color	3-Step Semantic
	NEGATIVE
	CRITICAL
	POSITIVE

Values of this 3-step traffic light must not be combined with the 9-step traffic light of GOODVALUE; BADVALUE; CRITICALVALUE having the three values DARK, MEDIUM and LIGHT. They are listed in the UR Enumeration: SapTableCellDesign column.

Color	UR Enumeration
	BADVALUE_DARK
	BADVALUE_MEDIUM
	BADVALUE_LIGHT
	CRITICALVALUE_DARK
	CRITICALVALUE_MEDIUM
	CRITICALVALUE_LIGHT
	GOODVALUE_DARK
	GOODVALUE_MEDIUM
	GOODVALUE_LIGHT
	GROUP_LEVEL3

NOTE: The colors are highlighting a semantic. The specific color may change in the future but the semantic behind it remains.

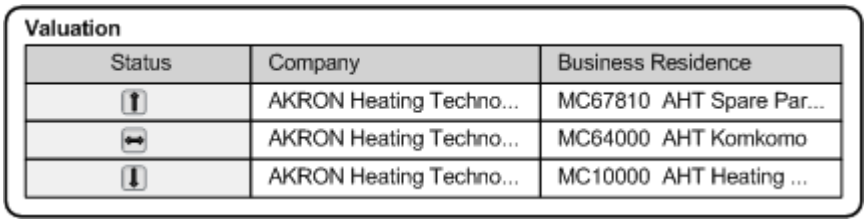
Example
The color used for a specific semantic such as CRITICAL must not be used for totals.

Top

Display and Editable Modes

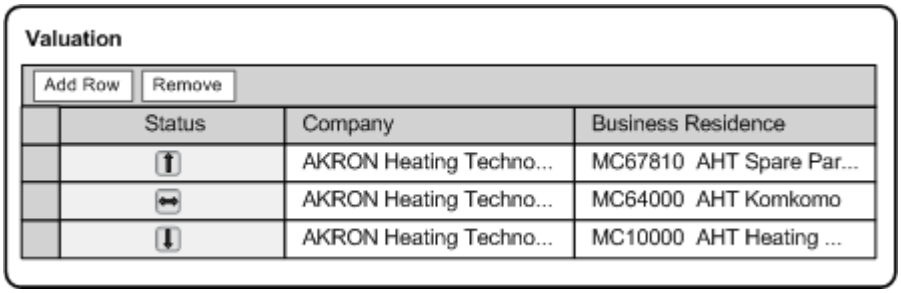
Display-Only Mode

In a display-only table rows and cells can not be selected. It is possible to sort and scroll. You can use a toolbar, a *Show* dropdown list, and the basic/advanced search.



Editable and Read-Only Mode

Tables in editable and read-only mode allow row and cell selection, sorting, and possibly vertical as well as horizontal scrolling. The data can be editable, read-only, or a combination of both. In case of a combination of read-only and editable fields, read-only fields get a blue background.



Top

Alignment of Content and Column Headers

Align table content as follows:

Left Aligned	**Center Aligned**	Right Aligned
Text Number (such as phone numbers, digits and other integers that do not take part in calculations) Date (such as 16/06/2011) IDs (such as 55678) Abbreviations Links Units, Currencies	Icons (such as attachment icons) (category header of tables meaning second row header)	Amounts Decimal Numbers (such as 302.00 USD)

Align table headers in the same way as the content. For example, align headers for text content left and headers for number content right.

For an example see Fields: Alignment of Values

Top

Wrapped or Truncated Text

Set **column headers** to wrap (default). This causes that the content wraps when the text length exceeds the column width. If a word is longer than the column width it is truncated, see *Respons...* in the picture below.

Set **content cells** to truncated (default). This causes that the content is truncated when the text length exceeds the column width.

The tooltip displays the complete text in any case. Truncated text is often readable enough while wrapped text costs much vertical space.

The following picture shows the default settings:

Operation Type	Status	Start Date	Responsible Person	Delivery Notification ID
Unload		09/25/2...	Arvid Halgri...	22334455
Returns u...		10/15/2...	Jon Kristen...	11448899
Returns u...		12/12/2...	Adam Gilm...	20560279

Exception Content Cells:
Set text to wrap if:

- It is vitally important to the user to see the entire text at once
- The user may come to the wrong conclusion unless they see the entire text
  Example: The user sees *Mechanical f...* on the UI which can be *Mechanical failure* or *Mechanical fine*
- It makes no sense to truncate, like a long notes field with a lot of text

Top

Melting Fields

Melt two fields in a single column when they belong semantically together. Use melting fields always if possible.
Exception: Do not use them in tables when sorting for both fields is needed.

Example:

- Melt amount and unit (currency) in a single column, such as *59,95 USD*.
- Name headers for such melting fields with a common and meaningful title from the two fields being merged, such as *Net Value*.

Quantity		Net Value
3	EA	59.95 USD

For information about the usage of single values see Units of Measurement.

Top

Displaying Totals

Totals and sub totals are normally shown as part of the table. The total or sub total line displays the totals of the same unit. Totals or sub totals of a different unit are shown in an other total line.

Invoice ID	Net Value	Currency
20030012	120.00	EUR
20034523	80.00	EUR
25035718	225.50	USD
25034549	124.50	USD
20035711	134.86	EUR
20036009	65.14	EUR
Total	**400.00**	**EUR**
Total	**350.00**	**USD**

Totals for fields not shown in the table can be placed in a separate block below the table. This is also valid for total fields which must always be visible. Place the values for different fields above each other. Align the block of fields to the right.

Product ID	Tax Code	Quantity	Net Price	Net Value
254965	2 – Domestic Aqui...	3 ea	100.00	300.00
345006	2 – Domestic Aqui...	1 ea	200.00	200.00

Subtotal:	500.00	EUR
Total Tax Amount:	95.00	EUR
Balance:	0.00	EUR
Total Gross Value:	595.00	EUR

NOTE: Currently, a proper alignment of labels in this block with table columns can not be achieved.

Top

Number of Columns in OWLs and TOWLs

Do not show more than 7 columns in an Object Worklist and 11 columns for a Task-Based Object Worklist to avoid a horizontal scrollbar. Display the status information in the first columns.
You can offer additional columns as hidden fields. The user can put these columns on the UI using personalizasion.

Top

Number of Rows

The number of rows to be shown is depending on the floorplan:

- **OIF/QAF/GAF Floorplan**
  Use exactly 5, 10 or 15 visible rows for one List Pane on the screen.
  For two List Panes on the screen use exactly 5/5, 5/10 or 10/5 visible rows.
- **OWL without Preview**
  Use exactly 5, 10 or 20 visible rows.
- **OWL with Preview**
  Use exactly 5 or 10 visible rows. If the preview contains a List Pane, use 5/10, 10/5 or 10/10 visible rows.
- **Fact Sheet and display-only tables**
  Display only as many rows as are filled with data (maximum 50).

In case of small tables, that means tables using half width, the minimal number of visible rows has to be at least 3. In case of read-only tables without any content the system shows one row containing the text *No records found*.

Top

Order of Columns

Display the status/priority information in the first column(s) of a table or OWL.

Place the object ID and description columns (Object Identifier) of the primary BO after the column(s) with the status information. Order the subsequent columns according to their importance. If you show administrative data such as *Created On*, *Created By*, etc. use the order described in Forms: Administrative Data.

For more information on how to display the object identifier in tables see Visualization of BOs in Melting Fields, Separate Fields, or One Field.
For more information on status see Status. For icons that can be used to indicate a status see Icons.

Status	Description	Account	Expected Value	Employee Responsible
	<Description>	Silverstar Wholesale Inc.	15,603.12 USD	Kate Jacob
	<Description>	Chauffages s.a.r.l.	26,900,30 EUR	Wayne Short
	<Description>	Kieler Yachtbau GmbH	230,000.00 EUR	John Mehl
	<Description>	Northern Heatings a/s	654,500.00 NOK	Jan Gabelrek

For the order of columns in TOWLs see Consistency Rules: TOWL Content.

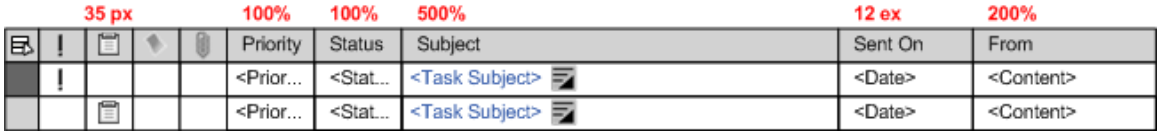
Top

Width of Columns

Usually you do not need to take care about the width of columns because the width is automatically rendered relating to the type of the field. For fields with an exact width such as date, time and icons the exact default width is rendered. All other fields have a relative width in %.

In rare cases it is required to overwrite the default. Example: The default length for an identifier is 100%. If an application decides to introduce identifiers that are longer the default can be changed.

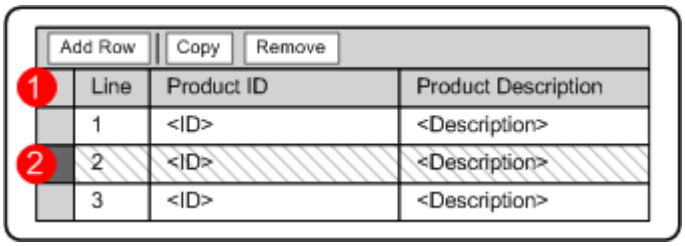
The following picture shows examples for the width of columns:



Top

Label and Numbering of Table Lines

Use the following term and numbering (for flat tables that do not offer an insert row function):



1. Label the column header *Line*. If *Line* conflicts with any business object term also containing "line", use *Line Item*.
2. Number lines: 1, 2, 3, n

NOTE: If insert row is possible number as follows: 10, 20, 30, n

Top

More Information

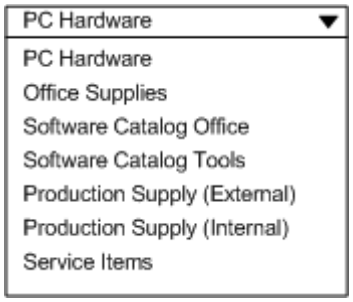
Add and Delete Rows
Displaying Names in Tables
Forms & Fields
List Pane
Object Identifier
Status

Value Help

Page Content

Single Value Selector (SVS)

In a **Single Value Selector** input values are displayed within a dropdown listbox:

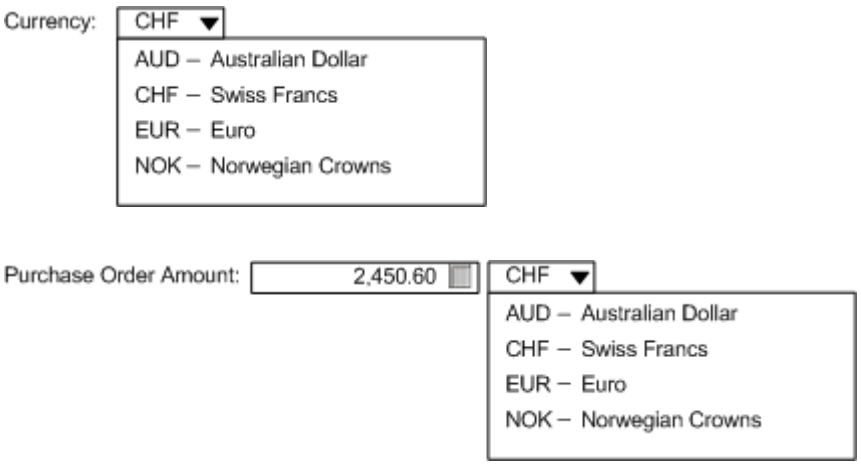


Input values of a SVS consist of a **code** and a **description**. Usually only the description is selected and displayed.
The code part is a string (letters, icons, or symbols) that for brevity and/or language independence is used to represent or replace a definitive value or text of an attribute. The code comes always together with a text part called description.

NOTE: For units of measurement the **symbol** instead of the unit code is displayed, see *Units of Measurement* (UoM) below.

The following table shows when to use only code or description and when to use both:

Code / Description	When To Use in Dropdown Listboxes	Edit / Read-Only Example
Only Description	In general, we recommend to display the **description alone**. This rule holds for all properties where the code is arbitrary such as numbers. This rule applies most often for status settings such as "In progress".	Status: Active Active Blocked In Preparation Initial
Code plus Description	Sometimes you can display **code plus description**. This happens when the code part is somehow "speaking" to the user such as "FOB" but not generally known. The description "Free on board" helps to decipher the code.	Incoterms: CIF – Cost and freight CFR – Cost and freight CIF – Cost and insurance CIP – Cost and insurance paid to CPT – Carriage paid to

Only Code	Display the **code only** • Within the entry field of the SVS for UoM (m, carton), currencies (EUR), and time (wk). The dropdown listbox displays both, code (or symbol) and description. • In the second field of a melting group for UoM, currencies, and time.	

How to separate Code and Description?
Use a hpyhen ("-") to separate code and description. The hyphen is preceeded and followed with a blank.

How to show "No selection"?
If the user does not need to select an entry, show a blank entry.
If the use case requires a text instead of the blank entry, use a text like *All*, *None*, *Unlimited*. Do not use special characters like *, -, +.

Sorting

Define the appropriate sort order for the entries in dropdown listboxes. The following sort orders are available:

- **Standard (Default)**: If either code alone or code plus description is displayed the entries are sorted by code. If only the description is displayed the entries are sorted by description.
- **Unsorted**: Only use "Unsorted" if the sorting provided by the backend is correct.
- **Ascending Code**: The entries are sorted by code.
- **Ascending Description**: The entries are sorted by description.

Units of Measurement

The **Units of Measurement** (UoM) unit code is automatically replaced by a symbol (see table below). The unit code is never displayed. Example: In case of hours the symbol *h* is displayed instead of the unit code HUR. Usually UoM appear together with an amount field.

NOTE: Currently descriptions cannot be translated. They show up in English only.

See the common UoM with their unit codes, descriptions, and symbols:

Unit Code	Description (English)	Symbol (English)	Description (German)	Symbol (German)
5B	batch	**batch**	Charge	**Charge**
ACT	activity	**act**	Aktivität	**Akt**
ANN	year	**yr**	Jahr	**Jahr**
AU	Activity unit	**au**	Leistungseinheit	**leh**
DAY	day	**d**	Tag	**t**
DZN	dozen	**dz**	Dutzend	**dz**
E49	working day	**wday**	Arbeitstag	**a.tag**
EA	each	**ea**	Stück	**stk**
FOT	foot	**ft**	Fuß	**ft**
FTQ	cubic foot	**ft^3**	Kubikfuß	**ft^3**
GLL	gallon (US)	**gal**	Gallone (US)	**gal**
GRM	gram	**g**	Gramm	**g**
HUR	hour	**h**	Stunde	**std**
INH	inch	**in**	Zoll	**zoll**

KGM	kilogram	**kg**	Kilogramm	**kg**
KMT	kilometre	**km**	Kilometer	**km**
LBR	pound	**lb**	Pfund	**lb**
LTR	litre	**l**	Liter	**l**
MIN	minute [unit of time]	**min**	Minute [Einheit der Zeit]	**min**
MMT	millimetre	**mm**	Millimeter	**mm**
MON	month	**mo**	Monat	**mo**
MTQ	cubic metre	**m³**	Kubikmeter	**m³**
MTR	metre	**m**	Meter	**m**
ONZ	ounce	**oz**	Unze	**oz**
SEC	second [unit of time]	**s**	Sekunde [Einheit der Zeit]	**s**
SMI	mile (statute mile)	**mile**	Meile (englische Meile)	**mi**
STN	ton (US) or short ton (UK/US)	**ton**	Tonne (US) oder Shortton (GB/US)	**ton**
TNE	tonne (metric ton)	**t**	Tonne (metrische Tonne)	**t**
WEE	week	**wk**	Woche	**Woch**
XBG	Bag	**bag**	Beutel, Tüte	**Tüte**
XBX	Box	**box**	Kasten	**ks**
XCR	Crate	**crate**	Lattenkiste	**lki**
XCS	Case	**case**	Kiste (Case)	**ki**
XCT	Carton	**carton**	Karton	**kar**
XPK	Package	**pack**	Paket	**Paket**
XPX	Pallet	**pallet**	Palette	**Pal.**
XSX	Set	**set**	Garnitur	**Garn.**
YRD	yard	**yd**	Yard	**yd**

Top

Object Value Selector (OVS)

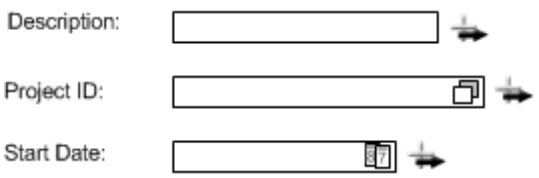
The **Object Value Selector** (OVS) is launched when the user clicks the selection icon beneath an input field. It appears within a modal dialog and allows the user to select one item. For an example and OVS consistency rules see Object Value Selector.

Top

Select Options

Clicking the select options icon next to a field in the advanced find opens the select options dialog to define ranges. See Find Form for detailed information.

Example



Top

Date Picker

The date picker inside a date field allows to select a date from a calender. see Date & Time for more information.

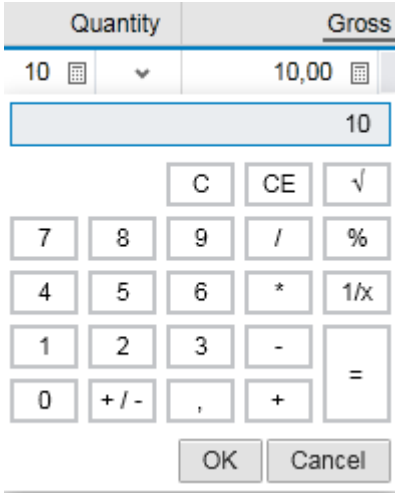
Example

Top

Calculator

The calculator icon opens a calculator which allows to compute values while editing numeric fields.

Example
The following example is taken from an FP3.5 ByD System:

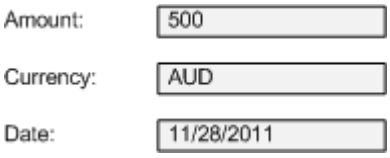


Top

Read-Only and Disabled Fields

For read-only and disabled fields no value help dropdown listbox or icon displayed.

Example:



Top

More Information

Help Center
Primary Help

Wording

Page Content

Title Case and Sentence Style

The English language generally distinguishes between two styles of capitalization: Title case and sentence style. (Title case is often referred to as initial caps or headline style.)
In title case, the first letter of each word is capitalized, except for certain small words such as articles and short prepositions.
In sentence style, only the first letter of the sentence or phrase is capitalized. All words after that are written in lowercase, except for proper nouns.

Use title case for the following screen elements on the user interface:

- Menu options, buttons, and quick info texts
- Field, checkbox, and radiobutton labels
- Frame, screen, and dialog box titles
- Tab page titles
- All structure nodes or roles
- Possible entries, help selections, and options in dropdown listboxes
- Column and row headings
- Titles of reports and lists
- All short descriptions such as statuses

In title case, the following words are capitalized:

- Words that carry a meaning (nouns, verbs, adjectives)
- Prepositions and conjunctions with 5 or more letters (for example, *Without*, *During*, *About*)
- Determiners and pronouns (for example, *This*, *All*, *You*)
- The first and last word, no matter what part of speech they are
- Any word after a colon or semicolon

Use sentence style for the following texts on the user interface:

- Messages
- Complete sentences and questions

Top

Abbreviations

In general, do **not** use any abbreviations on the user interface. Only **units of measurement** are **always abbreviated**, see *Units of Measurement* in Single Value Selector (SVS).

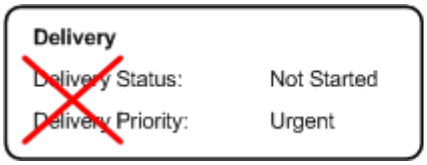
Top

Avoid Redundancy between Group Title and Labels

Use a title which characterizes the section group. If this is not possible think to avoid the group title.
Avoid to repeat the section group title in the field labels.

Example: As *Delivery* is the group title you do not need to repeat *Delivery* within the field label. Use *Status* instead of *Delivery Status*

as field label.



Top

Button Labels

Create new button labels only if you can not use the generic buttons. Choose a verb that describes the function. Choose an additional noun only if the verb is not sufficient.

For a list of generic button labels see Generic Functions.

Top

Common Task Labels

Label a common task as defined in Common Tasks Menu.

Top

Field Labels

Field labels usually consist of only a noun. In some cases, field labels are composed of a noun and an adjective. Place the adjective after the noun such as *Date Requested, Employee Responsible* or *Date Projected.*

Special Usage for ID and Description:

Use Case	Example
Tokenizer is implemented	<BO Type>, such as *Contract*
ID and Description are shown in separate fields	<BO Type> ID, such as *Contract ID* <BO Type> Description, such as *Contract Description*
ID and Description are shown in a melting field	<BO Type>, such as *Contract*

For guidelines on field labels for date and time see Date or Date/Time in Field or Column Labels, for address data see Display: Addresses of Organizations and Persons.

Usage of "/" in Field Labels

If you use / in field labels, do not put blanks before and after /.
Example: *Date/Time*

Top

Labels of GAF Steps

Label the last GAF step *Confirmation* and the step before the last step *Review*. Label all other steps in the format *<Verb> <Noun>,* such as *Define Settings* and *Enter Price*. For additional information see Guided Activity.

Top

Floorplan Titles (Fact Sheet, QAF, OIF, GAF)

In edit or display mode you can use in most cases the title syntax <BO Type>: <BO ID>, for example *Purchase Order: 345435*. If you want to show also the description or name, use <BO Type>: <BO ID> - <BO Description or Name>, for example *Service Agent: 345346 - Peter Miller*.

- If you refer to **hierarchies** or **versions**, use the following syntax:
  <BO Type or any text describing the task>: <Level 1> --> <Level 2> --> <Level n>
  Use a blank before and after " --> "
  Examples:

Multi-Level BOM Structure: Office Supplies --> Stapler
Car: Van01 --> Red

- If you refer to **entities on the same level**, use:
  <BO Type or any text describing the task>: <Part 1> / <Part 2> / <Part n>
  Use a blank before and after " / "
  Example: *Product Planning Details: MCREP-0001 / MC64000*
- If you refer to **items**, use:
  <BO Type or any text describing the task>: <BO ID> - <BO Item>
  Use a blank before and after the dash " - "
  Example: *Sales Order Planning Details: 31 - 20*

Top

See the respective floorplan chapters for further information.

Tooltips

For the wording of tooltips and when to use them see Tooltips.

Top

Work Center Labels

Choose nouns as Work Center labels. Avoid abbreviations and do not use special characters like *&*. For *&* use *and* instead.

Examples: *General Ledger, Cost and Revenue, Supplier Invoicing*

For additional information see Work Center.

Top

Work Center View Labels

Choose nouns as Work Center View labels. If possible use the BO type as label, such as *Opportunities* or *Sales Orders*. Use also nouns for the sub-view lables. Do not use abbreviations and any special characters like "&", but "and". If the label gets too long it is truncated. Name the first view in a WoC *Overview* and the last view *Reports*. Views specific for the WoC appear between them.

For additional information see Work Center.

Top

Version Naming

Name versions with their full name: Use "Version 1.x" or replace x with an integer, for example "Version 1.5" or "Version 2".
Do not abbreviate a version like "V1.5".

Top

Section Group Titles

Name section group titles as specific as possible. Avoid generic terms like Data and Information in combination with General or Main.
Exception: See Forms & Fields for the goup title *General Information*.

Use title case for section group titles.

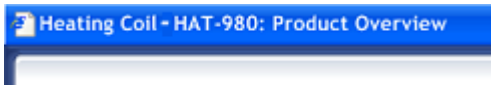
- For section groups containing general data use the title *Basic Data* unless it can be named like the BO: *Account*, *Lead*, *Supplier.*
- For specific section groups find a descriptive term like *Business Address* or name it like a referred object. Avoid titles such as *Details* or *Data* but prefer *Business Details* or *Invoicing Details* or *Personal Data*.

Top

Window Titles

The corresponding window title of a flooplan title that contains a colon is reversed at the colon. The reason for this is that the user can better identify the content of a window within the task bar of Windows.

Example
For the floorplan title *Product Overview: Heating Coil - HAT-980* the corresponding window title is:



NOTE: This does not apply to floorplan titles without colon, such as *New Purchase Order*. Their window title is identical with the floorplan title.

Top

Navigation Tab Titles

The tab titles in the navigation area at the bottom contain the floorplan title in case the floorplan title does not contain a colon. If it contains a colon the description will be mentioned first in the tab title. The naming logic is similar to the window title.

Top

Registered Trademarks of Non-SAP Products

Registered trademarks of Non-SAP products on the UI have to be mentioned in the format:

<Trademark>®

Example: Microsoft Excel®

For more information see Copyright.

Top

More Information

Abbreviations Related to Date and Time
Display: Addresses of Organizations and Persons
Date or Date/Time in Field or Column Labels
Generic Functions

Standards & Guidelines for Business ByDesign Documentation

Index

E ^

F ^

G ^

H ^

I ^

K ^

L ^

M ^

N ^

O ^

P ^

Q ^

R ^

S ^

T ^

U ^

V ^

W ^

Y ^

More Guidelines (Mobile, Partner)

Mobile Player Guidelines iPhone

Mobile applications are implemented in the development tool "UI Designer" using the standard ByD floorplans and patterns. A player software interprets the the floorplans and patterns and arranges the screen content on the iPhone as described in the ByD iPhone Mobile Player Guidelines (PDF).

Mobile Player Guidelines BlackBerry

Similar to the mobile player guidelines for iPhone the guidelines for the BlackBerry are available as well. ByD BlackBerry Mobile Player Guidelines (PDF).

Mobile Player Guidelines Windows Phone 7

For Microsoft Windows Phone 7 the player guidelines are released.
ByD Windows Phone 7 Player Guidelines (PDF)

iPad Gestures Styleguide

The iPad Gestures Styleguide (PDF)specifies the gestures which are used in ByD iPad applications.

Partner Styleguide

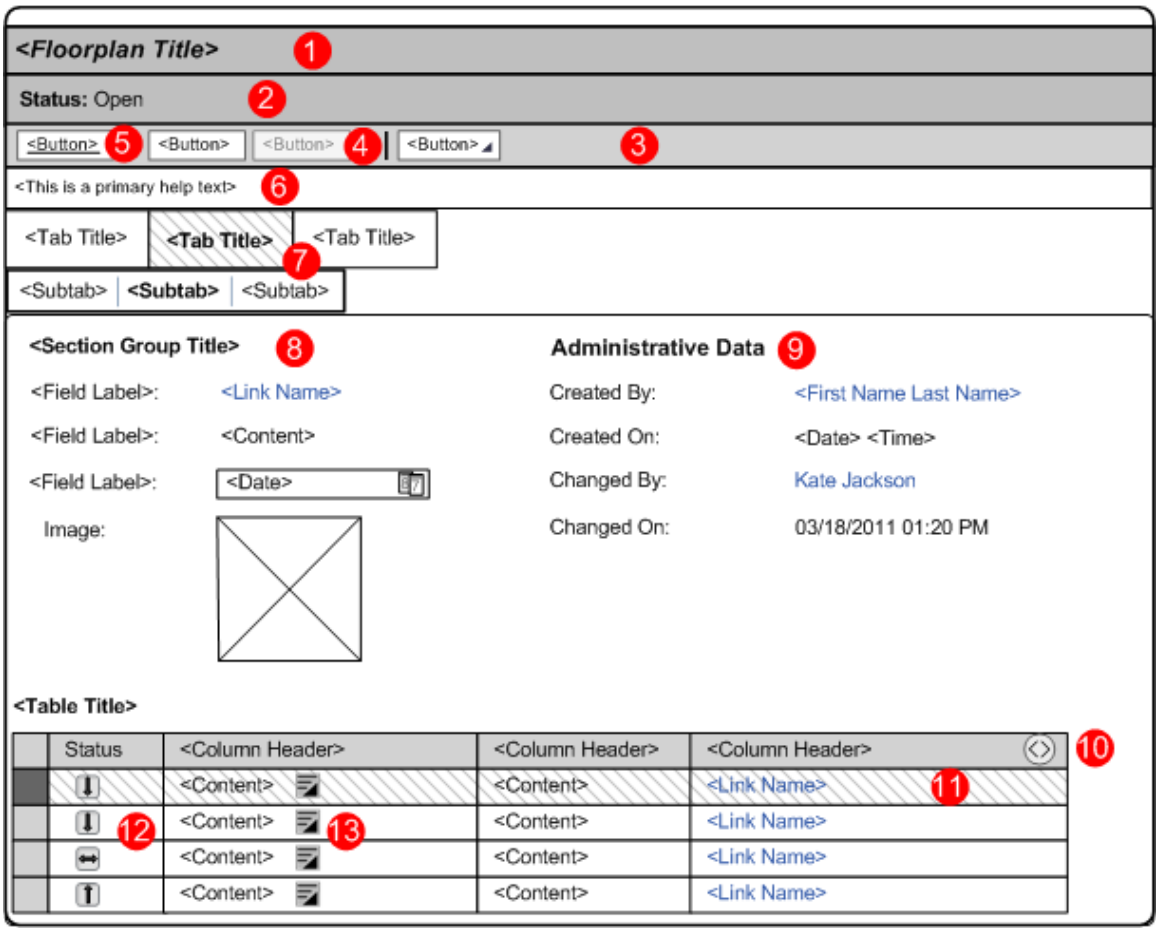
Partners develop applications on the basis of the ByD UI Styleguide. They receive a condensed version: Partner Styleguide (PDF)

Forms Styleguide

Styleguide for Adobe PDF Forms

Picture Legend

The following picture shows the most often used elements:



1. Title Bar
2. Identification Region
3. Toolbar
4. Disabled button
5. Active (enabled) button with help
6. Primary Help
7. Tabs and subtabs. The active tab is shaded and in bold font, the active subtab is in bold font.
8. The paranthesis '< >' are a placeholder where you can fill in variable text.
9. Fix text is written without paranthesis, such as the *Administrative Data* section group.
10. Placeholder for icons
11. Selected row in a table
12. Status icons "Red" (arrow down), "Yellow" (double arrow), "Green" (arrow up)
13. Context menu

Top

Abbreviations

Abbreviation / Acronym	Description
ALP	Advanced List Pane
AP	Analysis Pattern
BCP	Browse & Collect (Pane)
BO	Business Object
BTM	Business Task Management
ByD	SAP Business ByDesign
ByD FPx.y	Business ByDesign Feature Pack (Version x.y)
CC	Control Center
CNP	Contextual Navigation Panel
CNR	Contextual Navigation Region
CNR	Contextual Navigation Region
CW	Collaboration Window
DC	Document Center
DDL	Dropdown Listbox
FF	Find Form
FP	Form Pane
FS	Fact Sheet
GAF	Guided Activity (Floorplan)
GLP	Grouped List Pane
HC	Help Center
HG	Hierarchical Graph
HLP	Hierarchical List Pane
ICP	Information Consumer Pattern
ID	Identifier
IDR	Identification Region
LP	List Pane
MD	Modal Dialog
MDRO	Mass Data Run Object
MR	Message Region
OIF	Object Instance (Floorplan)
OVS	Object Value Selector
OWL	Object Worklist
QAF	Quick Activity (Floorplan)
RR	Roadmap Region
SVS	Single Value selector

TOWL	Task-based Object Worklist
TR	Task Region
UI	User Interface
UIBB	User Interface Building Blocks
UoM	Unit of Measurement
WoC	Work Center

Top