

# Smart Forms – the Form Printing Solution

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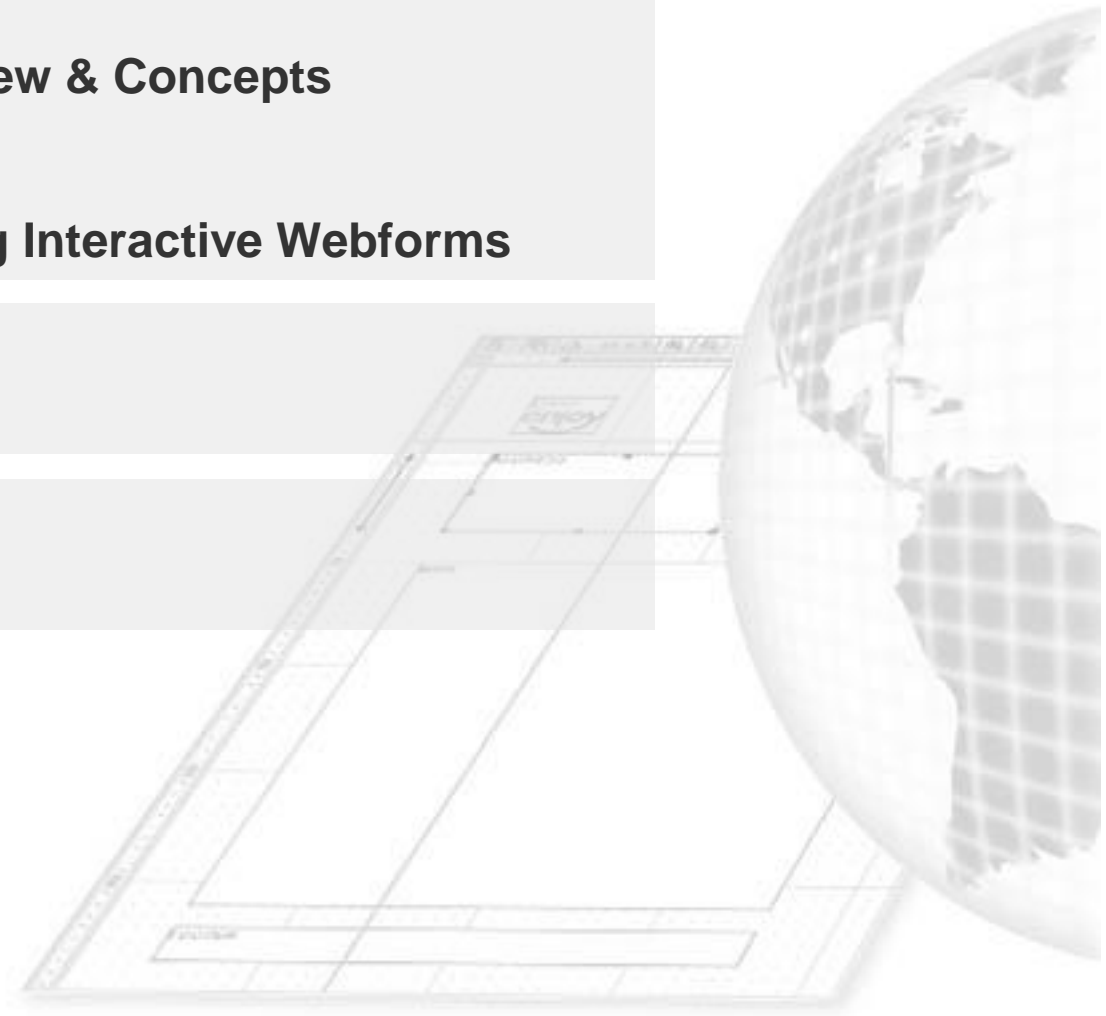
# Overview

## Presentation

- Smart Forms - Tool Overview & Concepts
- Short Overview:  
Internet Applications Using Interactive Webforms

## Demo

## Exercises

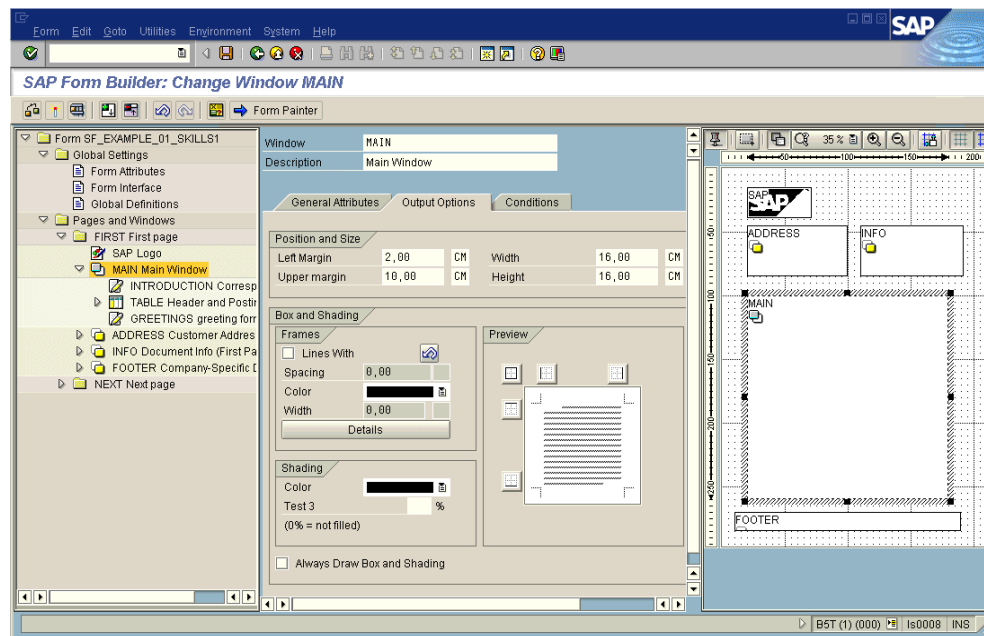


# SAP Smart Forms – SAP's Form Printing Solution

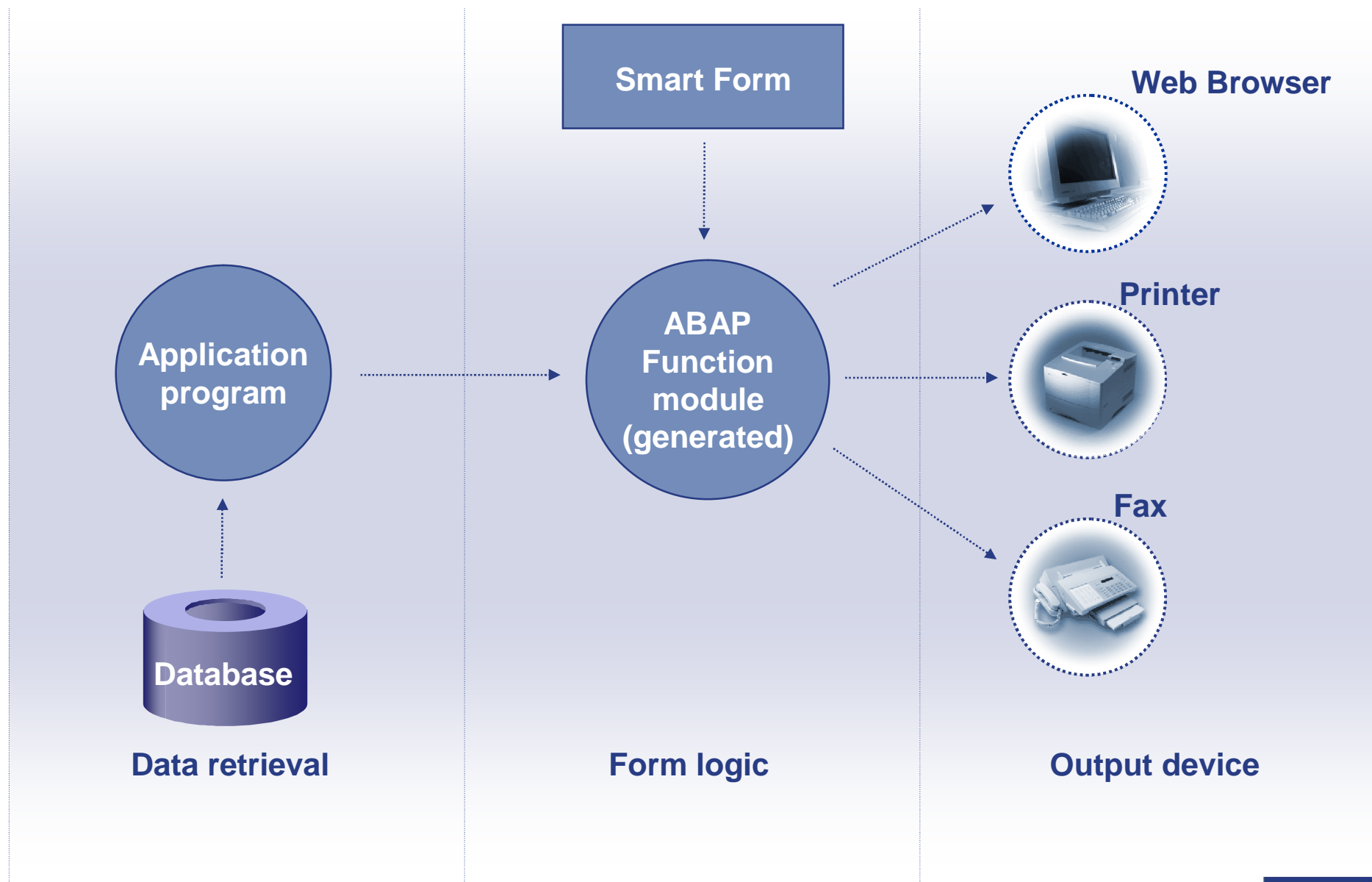
- Users can easily create/adjust forms:  
Minimal implementation costs
- Enjoyable graphical user interface:  
No programming skills required
- Interactive Webforms based on generated XML output  
(XSF, Basis Release 4.6C; HTML+XSF, SAP Web AS 6.10)

- Smart Forms are delivered for various central business processes  
(starting with CRM 2.0; BBP; SD, FI, HR 4.6C)

- Migration of SAPscript forms supported



# SAP Smart Forms - Architecture



# Form Builder

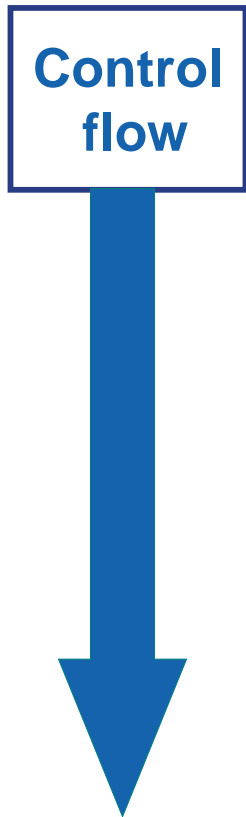
The screenshot displays the SAP Form Builder interface for editing a form window. The interface is divided into three main sections:

- Navigation tree:** Located on the left, it shows a hierarchical structure of the form. The selected node is "MAIN Main Window".
- Attributes (of selected node):** Located in the center, it displays the properties of the selected node. The "Position and Size" tab is active, showing the following values:

| Property     | Value | Unit |
|--------------|-------|------|
| Left Margin  | 2,00  | CM   |
| Upper margin | 10,00 | CM   |
| Width        | 16,00 | CM   |
| Height       | 16,00 | CM   |
- Form Painter:** Located on the right, it shows a visual representation of the form layout. The form contains a SAP logo, an ADDRESS field, an INFO field, and a FOOTER field. A red dashed box highlights the main content area.

Additional annotations include a yellow box labeled "Selected node" with an arrow pointing to the "MAIN Main Window" in the navigation tree, and a red dashed box around the entire interface area.

# Control Flow and Conditions



**Nodes with condition(s) are marked**

| Field Name  | Comparison Value |
|-------------|------------------|
| CUSTOMER-ID | < 50             |

**Condition must be met before node is processed**

And Additional Events

- Only on First Page
- Not on First Page
- Only After End of Main window
- Only Before End of Main Window
- Only on Page

# Window Types

Windows are output areas on your design page

Various window types

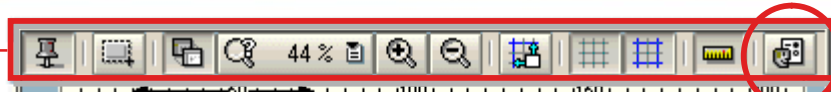
- **Main window:** For continuous output (e.g. table output)
- **Secondary window:** For output with a fixed length
- **Final window:** Special secondary window for output of information that is not available until the end of form processing (as of SAP Web AS 6.10, for older releases see SAPnet note 359009)
- **Copies window:** Special secondary window for marking pages as copy or original (as of SAP Web AS 6.10)

Additional output areas

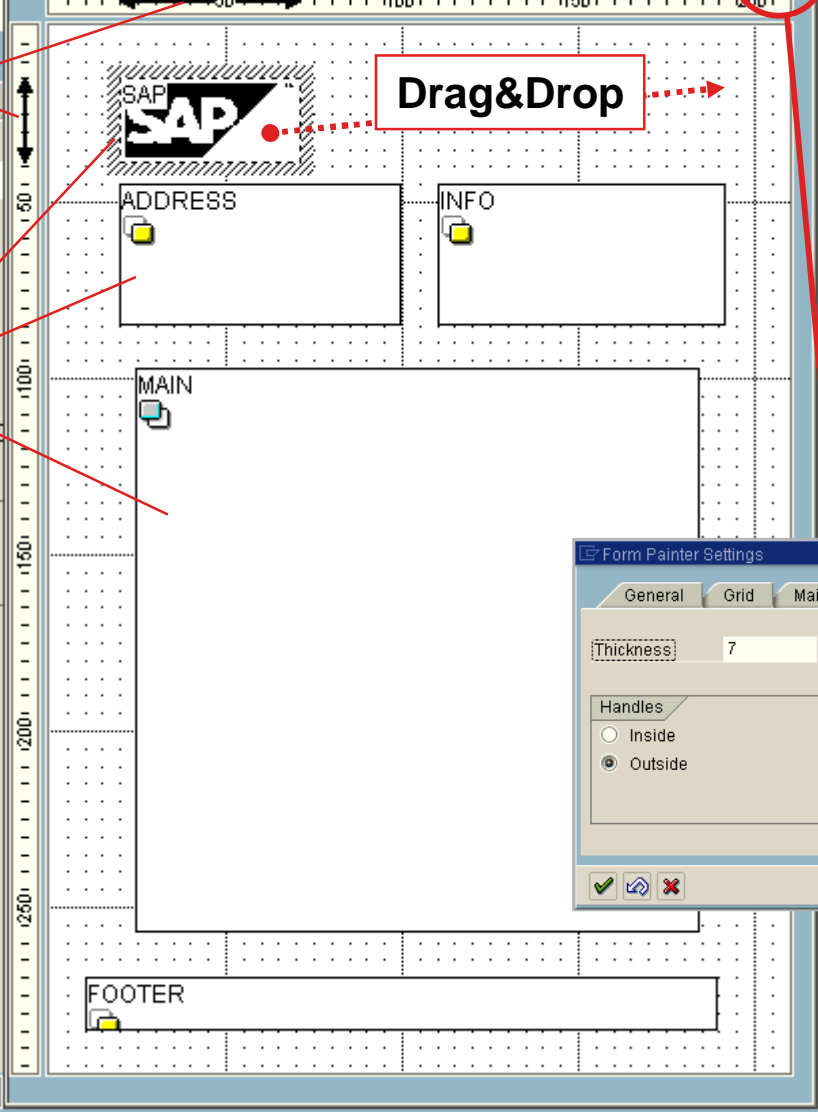
- **Graphic node**
- **Address node**

# Graphical Form Painter - Overview

Toolbar



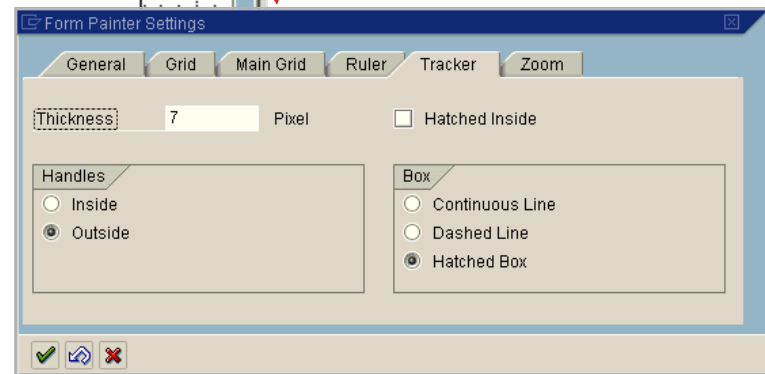
Ruler with size of selected window



Windows for text and graphics

Personal settings

- zooming
- grid
- ruler
- etc.





# Graphical Form Painter - Design Area

The screenshot displays the SAP Graphical Form Painter Design Area. The interface includes a toolbar at the top with various icons for editing and viewing. The main design area is a grid-based workspace where a form is being designed. The form is titled "8D Report" and is for "IDES HOLDING AG". It contains several sections:

- ADDRESS:** E.B Earlin, Jakoballe 25, D-12001 BERLIN.
- INFO:** Name: Fischer, Abt., Telephone:, Telex:.
- Deadline monitoring:** A table with columns for Date, Start, Analysis, Defect class, Short term, Long term, and Solution.
- 1. Reference:** A table with columns for REFERENCE, Notification title, and Complaint date.
- DESCRIPTION:** A section for describing the issue.
- CAUSE:** A section for identifying the root cause.
- RESPONSIBLE:** A section for assigning responsibility.
- MAIN:** A section for main-term solution (activities).
- 5 Long-term solution (basics):** A section for long-term solutions.
- 6 Identification of delivered material:** A section for identifying delivered material.
- 7 Check statuses of corrective tasks:** A section for checking the status of corrective tasks.
- 8. Comment:** A section for providing additional comments.

## Design support

- Two-level grid
- Window position
- Cursor position with gridlines
- Autozooming
- Background display

## Changing windows

- Drag & drop
- Snap to grid
- Autoscrolling

## Context menu

# Texts and Fields - Concepts

For text output a *text node* is used

Three text types

- **Text elements (locally in form)**
- **Text modules (for reusing texts)**
- **Include texts (for including SAPscript texts)**

No commands in text nodes

- **Besides text only fields are allowed**
- **SAPscript commands in Include texts are ignored**

Fields are global variables of a form

- **Interface parameters: Data transferred from application program**
- **Global data: Additionally required variables (e.g. for work areas)**
- **System fields: For special purposes (e.g. date, page number)**

Fields can be used in text nodes and to set attributes dynamically

- **For example, to decide dynamically which graphic to include**

# Texts and Fields - Field list and Inline Editor

SAP Form Builder: Change Text INFO\_TEXT

Form Painter

Text: INFO\_TEXT  
Description: Clerk & Company

General Attributes | Web Properties | Output Options | Conditions

Text Type: Text Element | Start Time | New Paragraph

Paragraph Formats: AS | Character Formats

Invoice

Administrative clerk: Mr. Jones  
Telephone: +1/2 12/99 10 99  
Telefax: +1/2 12/99 12 99  
Signed: 39999 / 2000  
Customer number: &CUSTOMER-ID&  
Date: &SFSY-DATE&

Field list:

| Field Name    |      |
|---------------|------|
| Global Data   |      |
| System Fields |      |
| SFSY          | SAF  |
| PAGE          | Paç  |
| FORMPAGES     | Tot: |
| JOBPAGES      | To   |
| COPYCOUNT     | Co   |
| COPYCOUNT0    | Co   |
| DATE          | Dat  |
| TIME          | Dat  |
| SUBRC         | Ret  |
| USERNAME      | SAF  |

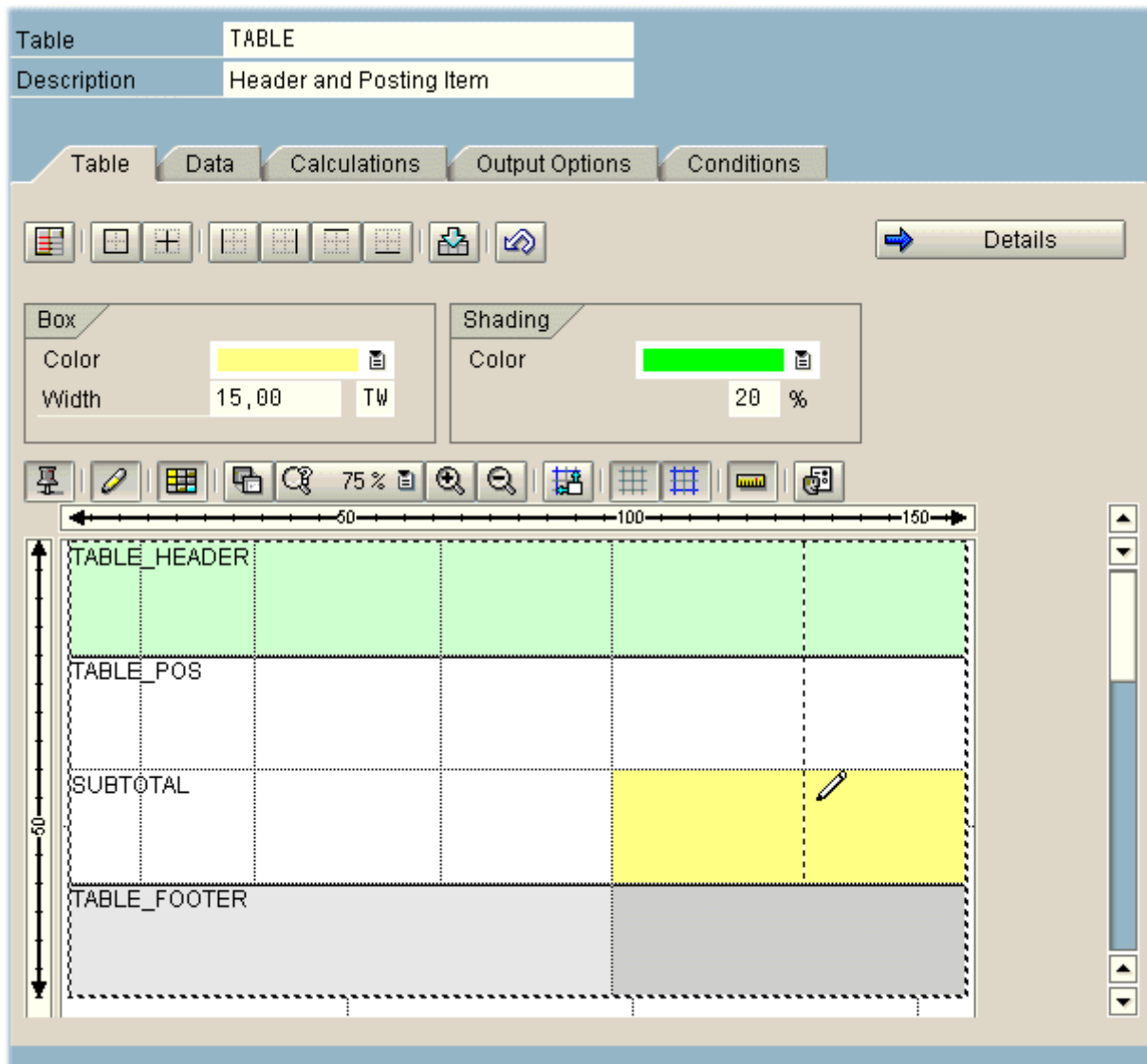
Drag&Drop

Field list

Paragraph and character formats

- Belong to a Smart Style
- System displays only available formats of current style (corporate identity)
- Each Smart Form must have one global style
- Global style can be overwritten by local style

# Table Output - Graphical Table Painter



For the design of tables and templates

Similar handling to Form Painter

- **Snap to grid**
- **Autozooming**
- **Context menu**
- **Ruler**
- **Personalization**

Boxes and shading (6.10) for line types

# Table Output - Content

The screenshot shows the SAP Form Builder interface for configuring a table. The main window is titled 'SAP Form Builder: Change Table TABLE'. The table is named 'TABLE' and has the description 'Header and Posting Item'. The configuration is set to 'Internal Table' with the name 'BOOKINGS' and 'INTO' variable 'WA\_BOOKING'. The table is configured to loop through the internal table, and the main area is also set to loop through the internal table. The 'Sort Criteria' section shows 'CARRID' as the field name, with 'Event on Sort' checked. The 'WHERE Condition' section is empty. The 'Form Painter' toolbar is visible at the top. The left sidebar shows the project structure, including 'Form SF\_EXAMPLE\_01\_SKILLS1', 'Global Settings', 'Pages and Windows', and 'MAIN Main Window'. A red box highlights the 'BOOKING\_ROW Table List' and its sub-elements: 'BODY\_CELL\_1 Airline', 'BODY\_CELL\_2 Flight', 'TEXT\_CONNID Flight', 'BODY\_CELL\_3 Departure', 'BODY\_CELL\_4 Departure', and 'BODY\_CELL\_5 Price'. A yellow callout box points to the 'Loop through internal table = Loop through main area' setting.

Table **TABLE**  
Description Header and Posting Item

Table Data Calculations Output Options Conditions

LOOP Loop  
 Internal Table BOOKINGS INTO WA\_BOOKING  
Line to

WHERE Condition  
Fld Name Comparison Value

**Loop through internal table =  
Loop through main area**

Sort Criteria  
Field Name Event on Sort... Event on Sort...  
CARRID

Already Sorted

B5T (1) (000) Is0008 INS

Convenient table processing

- Headers and footers
- Sorting
- Display output (e.g. subtotals) after sort levels

Automatic calculations (as of 6.10)

- Totals, average, number

# Local and Global Checks

The screenshot shows the SAP Form Builder interface. The main window displays a form field named 'ADDRESS' with the description 'Customer Address'. The field content is a paragraph with the text: `&CUSTOMER-FORMN&`, `&CUSTOMER-NAME&`, and `&CUSTOMER-STREET&`. The field name 'ADDRESS' is circled in red. Below the form editor, an 'Error Messages' dialog box is open, listing the following errors:

| Type    | Node    | Error   |
|---------|---------|---|
| Warning | FIRST   | Enter a graphic name or a valid field   |
| Error   | ADDRESS | The data object "CUSTOMER" has no component called "FORMN", but there is a component called "FORM". |
| Warning | ADDRESS | Field CUSTOMER-FORMN has no defined value   |

List of error messages with navigation to corresponding node

Check if fields exist

Warnings for fields that might have no value

# Other Features

## Localization

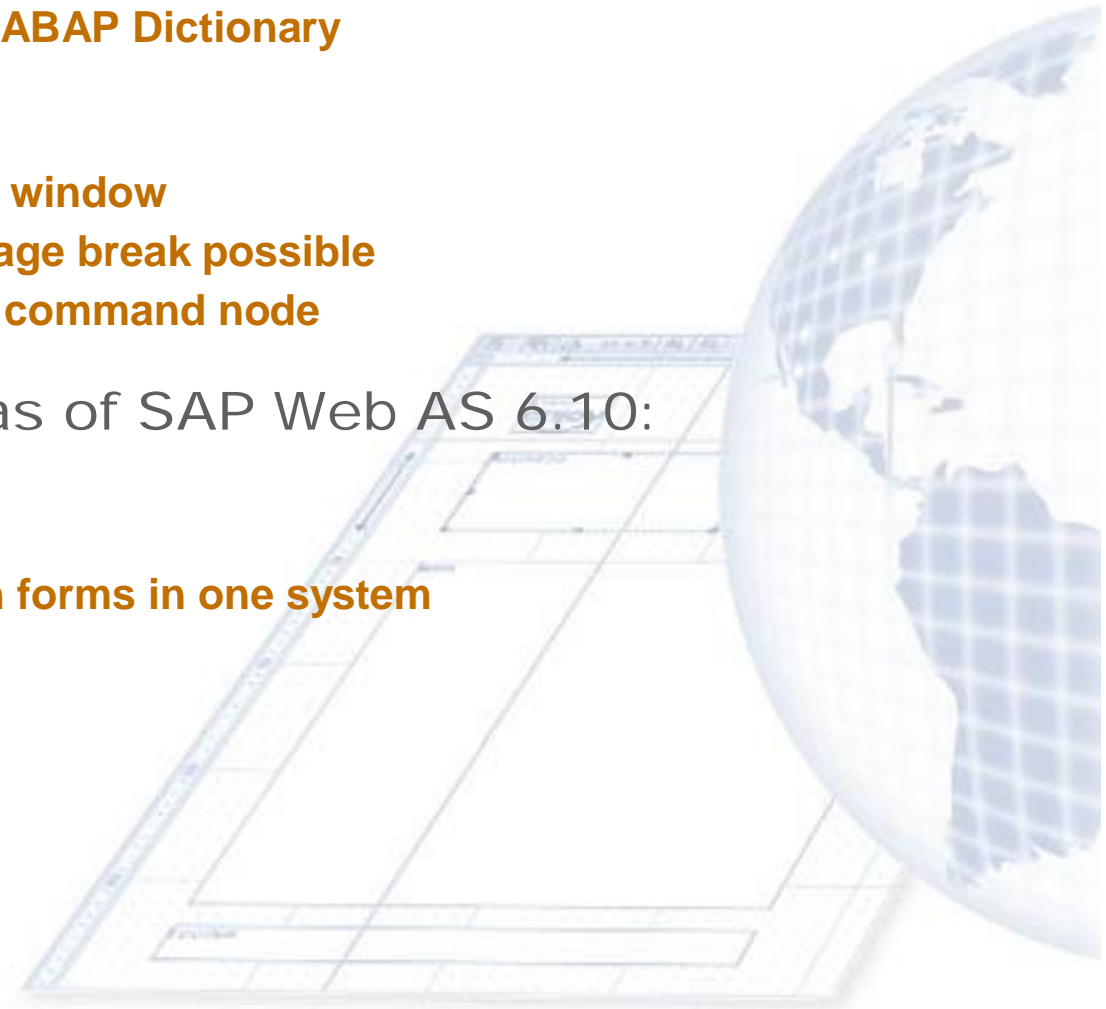
- **Address node (use of Business Address Services)**
- **Currency relations drawn from ABAP Dictionary**

## Page breaks

- **Automatic page breaks in main window**
- **Protection against automatic page break possible**
- **Dynamic page breaks by using command node**

## Additional new features as of SAP Web AS 6.10:

- **Undo/Redo of actions**
- **Upload/Download using XML**
- **Copy of form subtrees between forms in one system**



# Smart Forms: Interactive Web Forms

XSF: XML for Smart Forms (Basis 4.6C)

- **Data stream XSF: Has the same purpose as RDI of SAPscript**
- **Contains form content but no layout information**

HTML: Interactive Web forms (SAP Web AS 6.10)

- **Based on generated XML output:  
XSF is converted to HTML using XSLT**
- **Join us in our workshop  
*Building Interactive Web Forms Using Smart Forms***



# Interactive Web Forms: Properties

IDES Holding AG, Postfach 9999, D-99999 Merkersdorf  
SAP AG  
Neurottstraße 16  
D-69190 Walldorf  
Germany

**Rechnung**

Unser Sachbearbeiter: Herr Jonas  
Telefon: 069/99-10-99  
Telefax: 069/99-12-99  
Zeichen: 39999 / 2000  
Kundennummer: 00000006  
Datum: 06.04.2001

Sehr geehrte Damen und Herren,  
wir wären Ihnen sehr verbunden, wenn Sie die folgende Rechnung bald begleichen würden. Für das entgegengebrachte Vertrauen bedanken wir uns.

| Ges                | Linie | Flugdatum  | Abflug   | Preis                | Cancellation             |
|--------------------|-------|------------|----------|----------------------|--------------------------|
| AA                 | 0017  | 18.07.2001 | 13:30:00 | 923,00 DEM           | <input type="checkbox"/> |
| AA                 | 0064  | 08.12.2000 | 09:00:00 | 898,557 ITL          | <input type="checkbox"/> |
| AA                 | 0064  | 02.03.2001 | 09:00:00 | 0,00                 | <input type="checkbox"/> |
| AZ                 | 0789  | 15.09.2001 | 11:45:00 | 0,00                 | <input type="checkbox"/> |
| DL                 | 1699  | 09.10.2000 | 17:15:00 | 923,00 DEM           | <input type="checkbox"/> |
| DL                 | 1699  | 06.11.2000 | 17:15:00 | 2.695.671 ITL        | <input type="checkbox"/> |
| DL                 | 1984  | 26.03.2001 | 10:00:00 | 1.846,00 DEM         | <input type="checkbox"/> |
| <b>Gesamtsumme</b> |       |            |          | <b>3.692,00 DEM</b>  |                          |
|                    |       |            |          | <b>3.594.228 ITL</b> |                          |
|                    |       |            |          | <b>0,00</b>          |                          |

Mit freundlichen Grüßen  
IDES HOLDING AG

Accept without cancellations    Cancel selected entries    Reset selection

- Layout corresponds to printed form
- Offline data entry using HTMLinput fields (text, hidden, submit, reset, checkbox, radio button, list box)
- Web forms are embedded in Internet applications, e.g. in BSP applications
  - Data entered can be processed on next BSP page
- Several scenarios for offline changes

# Other Sources of Information

## Demos

- **Reports / Forms:**  
SF\_EXAMPLE\_01, SF\_EXAMPLE\_02, SF\_EXAMPLE\_03
- **BSP applications:**  
SF\_WEBFORM\_01, SF\_WEBFORM\_02, SF\_WEBFORM\_03

SAP Library in Help Portal (<http://help.sap.com/>)

- **Basis (SAP Web Application Server)**
  - > Basis-Services / Communication Interfaces (BC-SRV)
  - > SAP Smart Forms (BC-SRV-SSF)

## Training

- **BC470 - Form Printing Using SAP Smart Forms**

SAP Service Marketplace

- <http://service.sap.com/smartforms>



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