WebFacing Advanced Topics

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ITSO

▸ This presentation reviews the Advanced features of the IBM WebFacing Tool in Version 5.0

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Acknowledgment:
- This presentation is a collaborative effort of the IBM Toronto iSeries Application Development presentation team, including work done by:
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▶ This presentation is a collaborative effort from the very team that brings you WDSc!

WebFacing

✓ What it is:

- **Development Tool**
  - ▶ Converts DSPFs to Web UI
  - ▶ Application converted at development time, not at runtime
- **Runtime Intercept**
  - ▶ *PGM data fed to Web UI

✓ What is not:

- **5250 datastream converter!**
  - ▶ No 5250 datastream ever created

✓ Why:

- **For BPs/ISVs to quickly convert to Web**
  - ▶ No limitation to customization of output
  - ▶ No runtime cost, ubiquitous tool

Eclipse

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- ▶ There are many options available now for transforming green screens to Web pages, but WebFacing is unique among them.
- ▶ WebFacing does this conversion at development, taking as input the display file DDS source, and generating JavaServer Pages for the output (ie, Web pages)
- ▶ The JSPs generated by WebFacing are then deployed to a Web application server, such as WAS, and the application runs as is, but in a Web browser. To enable this to work, with no changes to the underlying application, there is a runtime intercept in OS/400, which detects when an application is running in WebFacing mode. When this happens, the screen data from the application is passed directly to the WebFacing runtime, instead of being used to generate a 5250 datastream.
- ▶ So WebFacing absolutely is not a screen scraper. Indeed, it can't be because there is no 5250 datastream to scrape when running in WebFacing mode.
- ▶ WebFacing is the result of business partners pleading for a conversion option that allows infinite finessing of the generated output, and is cost effective. WebFacing enables this because its output is editable at development time, and the runtime is a free part of OS/400 in V4R5 or higher.

WebSphere Development Studio Client 5.0

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WebSphere Development Studio

RPG | COBOL | C | C++ | ADTS

Host

WebSphere Development Studio Client

WebSphere Studio Site Developer + iSeries Tools

Client

Team Projects UI F/W

WebSphere Application Server Test Environment

| Plugin Tools | Java Tools | Web Tools | Struts Tools | AppSrvr Tools | WebSvc Tools | XML Tools | DB Tools |

iSeries Projects

iSeries Extns

iSeries Extns

iSeries Extns

Remote System Explorer

WebFacing Tool

CODE | VisualAge RPG

Free upgrade from WDT or WDSc Version 4!

5722-WDS Refresh code FC 5903

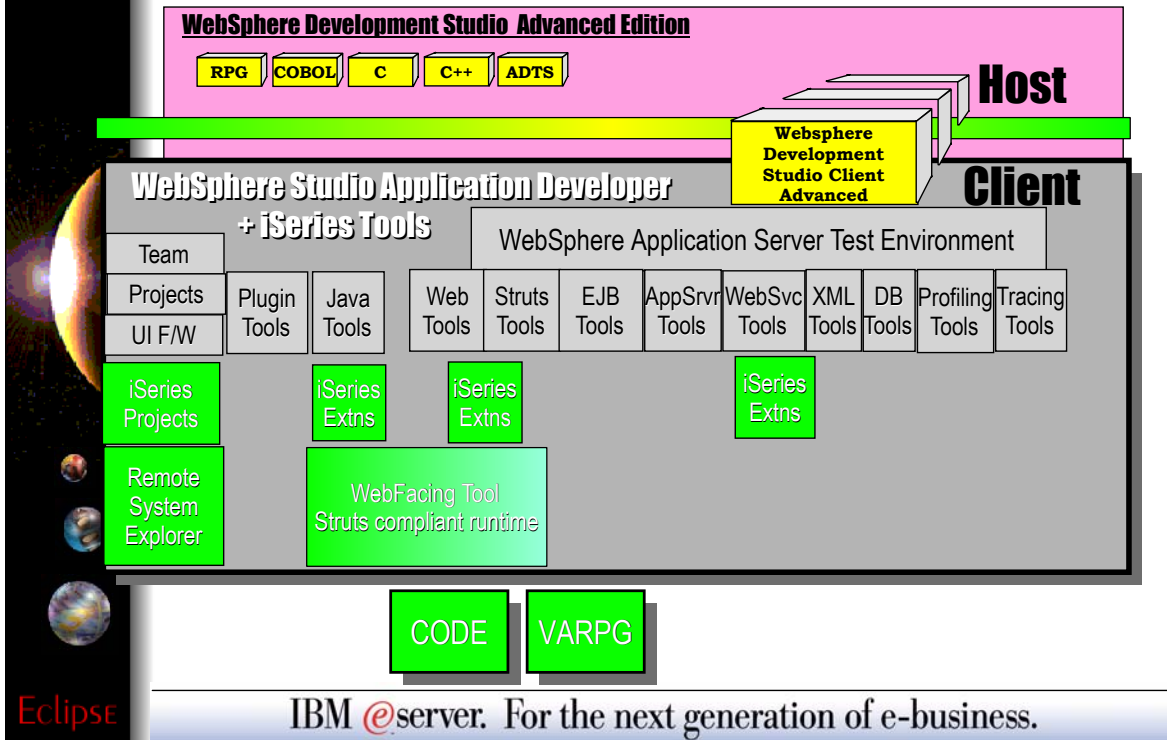IBM @server. For the next generation of e-business.

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▸ The next generation of workstation development tools to create iSeries e-business applications that leverage the iSeries and the power of WebSphere Application Server
▸ Inherits and extends the WebSphere Studio Site Developer's robust, easy-to-use development environment for creating, building, and maintaining dynamic Web sites, or developing Java, Web and Web services applications. It also includes a robust, easy-to-use development environment for creating, building and maintaining iSeries RPG, COBOL, C, C++ applications, and Web-enabled applications using the IBM WebFacing Tool. The Remote Systems Explorer also makes it easy to access UNIX, Windows, and Linux application resources.

WDSc Advanced 5.0

WebSphere Development Studio Advanced Edition

| RPG | COBOL | C | C++ | ADTS |

Host

Websphere Development Studio Client Advanced

WebSphere Studio Application Developer + iSeries Tools

Client

WebSphere Application Server Test Environment

| Team Projects UI F/W | Plugin Tools | Java Tools | Web Tools | Struts Tools | EJB Tools | AppSrvr Tools | WebSvc Tools | XML Tools | DB Tools | Profiling Tools | Tracing Tools |

iSeries Projects

iSeries Extns

iSeries Extns

iSeries Extns

Remote System Explorer

WebFacing Tool
Struts compliant runtime

CODE

VARPG

Eclipse

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- ▸ The next generation of advanced workstation development tools to create iSeries e-business applications that leverage the execution capabilities of WebSphere Application Server
- ▸ Inherits and extends the application development environment for the creation and maintenance of J2EE and Web services applications from WebSphere Studio Application Developer V5.0. It also includes a robust, easy-to-use development for creating, building, and maintaining iSeries RPG, COBOL, C, C++ applications, and Web-enabled applications using the IBM WebFacing Tool. The Remote Systems Explorer also makes it easy to access UNIX, Windows, and Linux application resources.

WDSc: WebFacing

► WebFacing Settings

- ● **Conversion**
  - ► Conversion settings, specified in the project's properties page
  - ► WebSettings specified using CODE Designer
    - ✓ *Annotates your DDS with comments interpreted as WebSettings specs by the conversion tool*

- ● **Runtime**
  - ► Web application settings
  - ► iSeries host settings
    - ✓ specified in the project's properties page
  - ► WebFacing server settings
    - ✓ specified in the WebFacing server configuration area
    - ✓ *Coming soon, PTF to OS V5R1 and V5R2*

- ● **Styles**
  - ► specified in the project's properties page

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Conversion Settings

✓ Conversion

- **Command key recognition patterns**
  - ▶ To detect and extract labels for web buttons that represent your DDS FN keys. You specify the pattern.
    - ✓ Pattern: *prefix* followed by *separator*
    - ✓ e.g **F3 = Return** defined in your source will convert to [Return]

- **Command key button labels**
  - ▶ To force the display of cmd key buttons for function keys that are defined in your DDS but not shown on 5250

- **MNUDDS options**
  - ▶ Convert menu options to Hyperlink - options number are shown as a hyperlinks
    - ✓ *Clicking on the link will submit the correct option number to the application*

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Runtime Settings

✓ Runtime

- ● **Web Application Settings**
  - ▶ To specify the IP address of the host where the native application runs
    - ✓ the web application communicates with the WebFacing server: you also need to specify the IP port for the WebFacing server
  - ▶ To specify whether the user gets prompted for password
  - ▶ Other settings: Web page height, Forced Deferred Write, Keyboard text entry mode: overwrite or insert

- ● **Web Application Settings can be at project or link level**

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Runtime Settings

✓ Runtime

- **Display File Mappings**
  - ▶ Map display file objects to the location of their generated JavaServer Pages
    - ✓ You can overwrite the defaults if you move the DSPF objects for production

- **UIM Panel Mappings**
  - ▶ Map UIM panel objects to the location of their generated JavaServer Pages
    - ✓ You can overwrite the defaults if you move the UIM objects for production

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Runtime Settings

✓ WebFacing server

- **Support for multiple subsystems**
  - ▶ Configuration data area QQFCONFIG in QQFTEMP library
    - ✓ You specify the number of interactive subsystems dedicated to WebFacing interactive jobs
    - ✓ The WebFacing server starts QQF interactive jobs targetting the SBS
  - ▶ How do I configure?
    - ✓ Create interactive SBS description - model after QINTER
    - ✓ Add WorkStation Entry ADDWSE for QQFx* jobs
      - ✓ x is zero-based, x max is F (all in hex)
    - ✓ Maximum number of SBS configured in data area is 16
    - ✓ Interactive jobs are QQF0* ...... QQFn*

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Style Settings

✓ Style

- **Customize DDS UI constructs for the web**
- **Cascading Style Sheets (CSS) based**
  - ▶ DDS field
    - ✓ color
    - ✓ display attributes
  - ▶ Window
  - ▶ Subfile
  - ▶ Command keys
    - ✓ roll-over and button-down effects
- **CSS classes**

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WebSettings: Designer

1. Select field
2. Set Web Settings

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Selected DDS | Web Settings | Comments | Error list

- 'Custom... . . .'
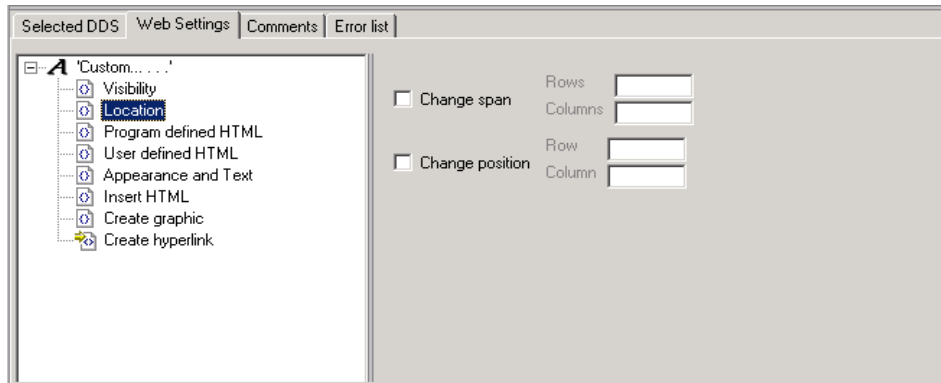 - Visibility
  - Location
  - Program defined HTML
  - User defined HTML
  - Appearance and Text
  - Insert HTML
  - Create graphic
  - Create hyperlink

○ Hide field ⊙ Show field

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Change Field pos and size

➤ Change span: to indicate the number of rows and columns that will be given to your field.

    ✓ Use: using a graphic in place of the text values that the program originally used to populate the field.

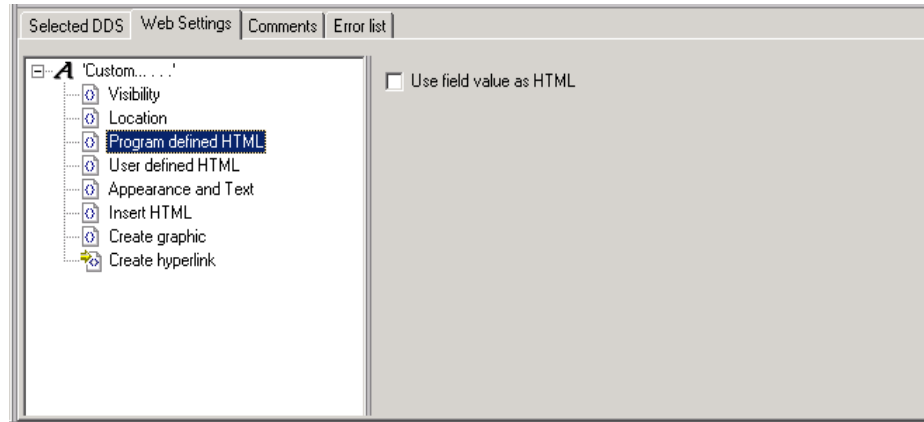➤ Change position: to indicate the row and column that will be the starting position for your field.

| Selected DDS | Web Settings | Comments | Error list |

'Custom... . . . .'
- Visibility
- Location
- Program defined HTML
- User defined HTML
- Appearance and Text
- Insert HTML
- Create graphic
- Create hyperlink

☐ Change span   Rows [   ]   Columns [   ]

☐ Change position   Row [   ]   Column [   ]

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Use field contents as HTML

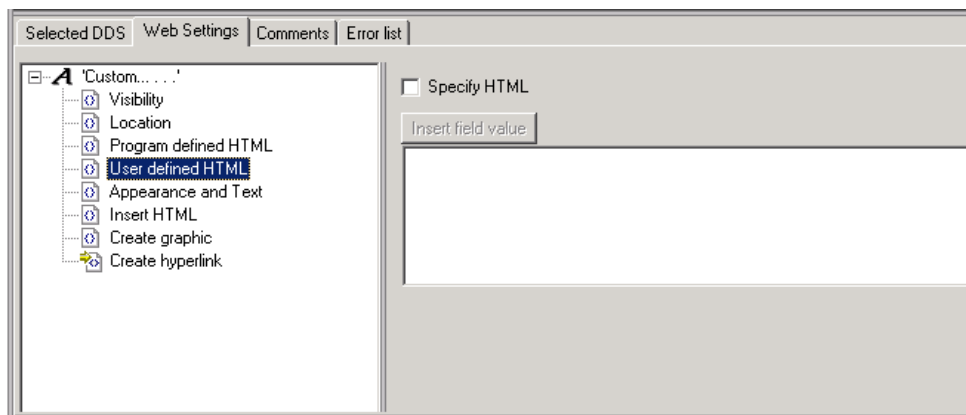► Use field value returned by the field as HTML markup that you would like to use in your page

Replace field with HTML

► Specify HTML text or tags that can be displayed with
   or in place of the value for your field.

Selected DDS	Web Settings	Comments	Error list

'Custom... . . . .'
- Visibility
- Location
- Program defined HTML
- User defined HTML
- Appearance and Text
- Insert HTML
- Create graphic
- Create hyperlink

☐ Specify HTML

[Insert field value]

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Override Field on Web

► Overrides constant text (e.g field description)

► Overrides field value

► Hides specified characters

| Selected DDS | Web Settings | Comments | Error list |

- **A** 'Custom... . .'
  - Visibility
  - Location
  - Program defined HTML
  - User defined HTML
  - **Appearance and Text**
  - Insert HTML
  - Create graphic
  - Create hyperlink

☐ Change style class
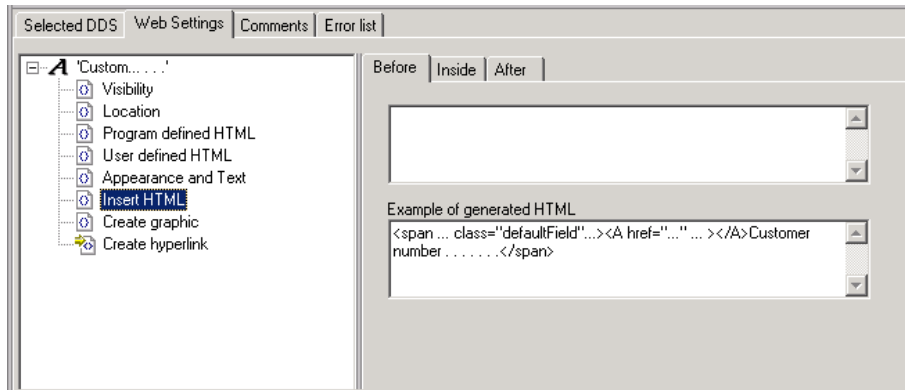
☐ Override constant text

☐ Hide characters
From
To

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Customize field with HTML
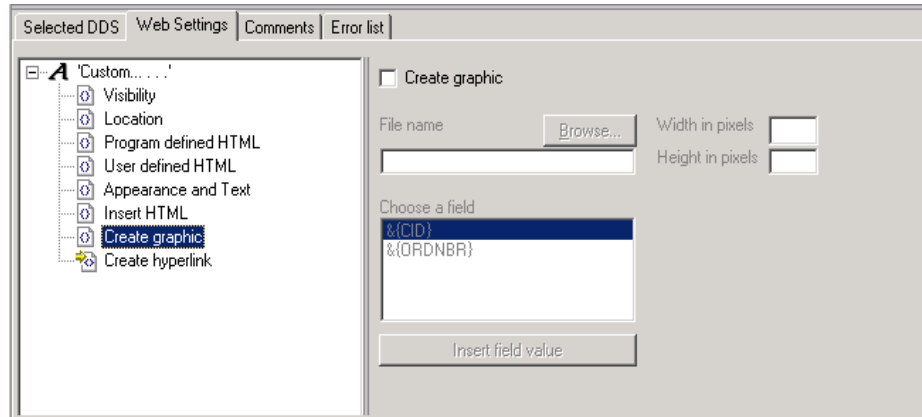
► To customize your fields by adding additional HTML Before, Inside, and After the HTML tag that is automatically generated for the field.

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Replace field with image

►Populate the File name field with the complete URL to an image file (e.g. http://www.ibm.com/image.gif), or with a field value
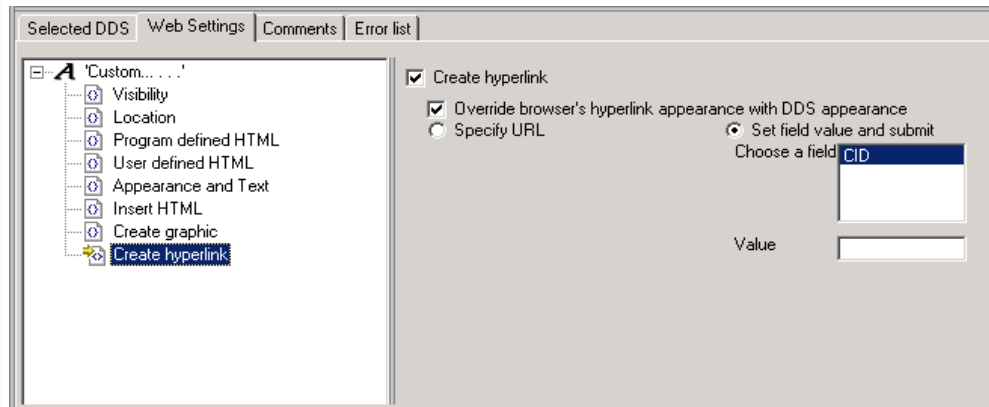

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Display field as hyperlink

► Applies to output fields only

► Maps link to a field

► On click, submits specified value

Selected DDS | **Web Settings** | Comments | Error list

- **A** 'Custom... . . . .'
  - {} Visibility
  - {} Location
  - {} Program defined HTML
  - {} User defined HTML
  - {} Appearance and Text
  - {} Insert HTML
  - {} Create graphic
  - {} Create hyperlink

☑ Create hyperlink

  ☑ Override browser's hyperlink appearance with DDS appearance

  ○ Specify URL   ⦿ Set field value and submit

                           Choose a field   CID

                           Value

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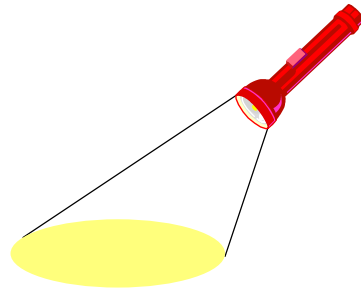# Q & A

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► How to order WDSc

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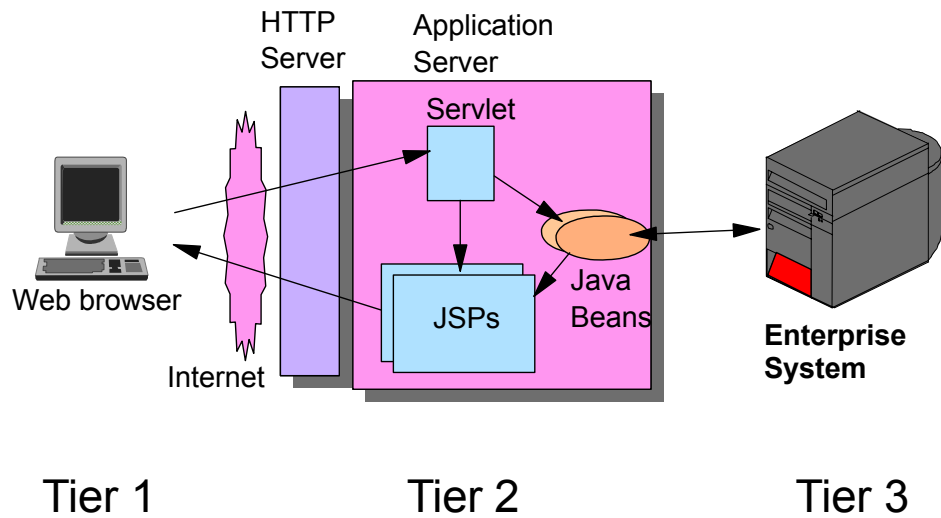
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WDT400　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　**Page (22)**

HTTP Server

Application Server

Servlet

Web browser

Internet

JSPs

Java Beans

Enterprise System

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Tier 1   Tier 2   Tier 3

▶ The Application server and HTTP server can be on a different system than the system with the application