



Brighten up the Front End *IBM WebFacing Deployment Tool with HATS Technology V7.0*

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Agenda


1. The latest on DB2 Web Query
2. RPG and COBOL now, where next for i5/OS development?
3. JAVA, J2EE, Web Services and SOA
4. **Brighten up the front end: V7.0 of HATS, WebFacing and WDHT**
5. Getting into the Web: JSF, EGL and PHP for i5/OS
6. What about .NET? Interoperability with i5/OS and DB2

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I want an i. I want GUI!

- The 250,000 System i customers have large inventories of RPG & COBOL code
- Typically the applications work fine, but may need to be updated in appearance or for new business opportunities
- Customer's IT shop may not have the skills, source code, or resources, to rewrite applications



Consultants estimate it costs **5X** more to rewrite a business function than to reuse existing code

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Why add a new UI?

- Reach New users – Inside & Outside
- Evolve Workflow
- Cost – training, Process
- Satisfaction – Employee, Partners
- Improve appearance
- Rewriting existing applications for the Web:
 - Time-consuming, costly and risky
 - skills are scarce
 - Speed of deployment is critical

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WebFacing

- WebFacing Tool included in WDS and WDS AE
- Creates permanent Web artifacts based on Display file DDS
 - Development time conversion
- Runtime intercept sends data directly to Web application without creating 5250 datastream
- WebFaced applications require no OLTP capacity

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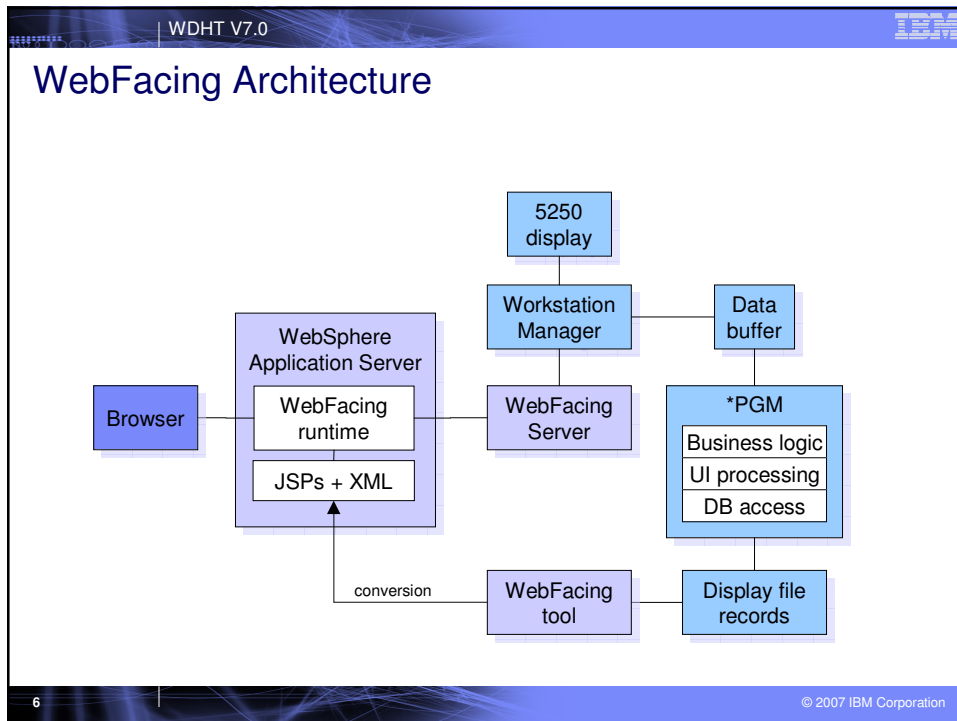


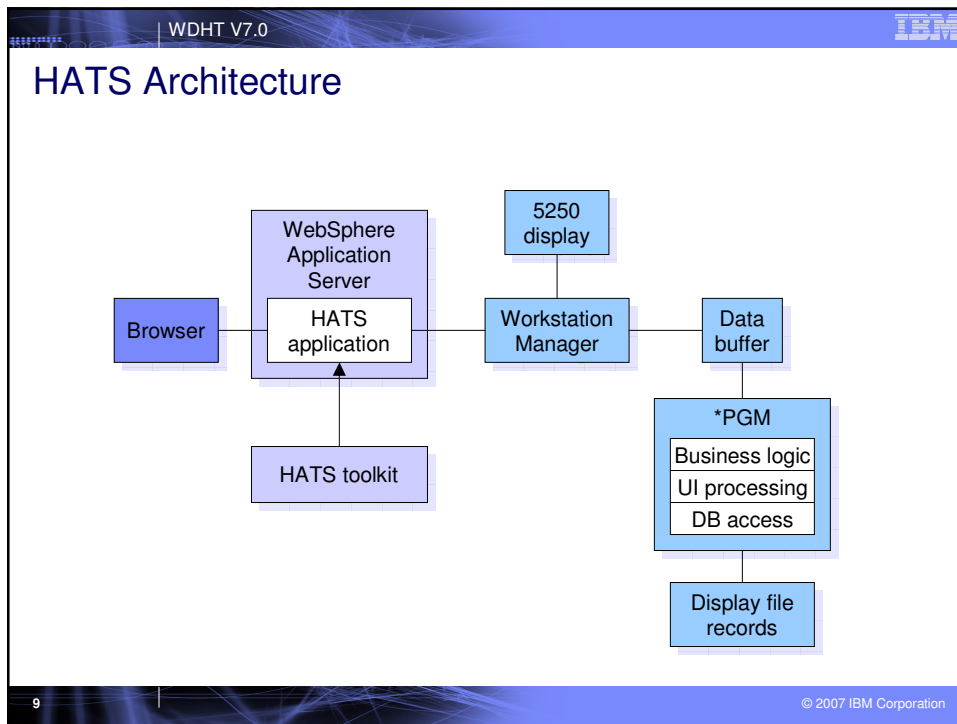
Figure 1

- 7

100 90 80 70 60 50 40 30 20 10 0

- 8





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Customizations With HATS

- HATS Toolkit in WDS & WDS AE
 - Provides customization capabilities for HATS
- Templates and Cascading Style Sheets (CSS)
- Transformation Rules
 - Can be applied to multiple screens
 - Recognize patterns in 5250 datastream and convert to something else in Web browser
- Programmable screen flow using scripts, variables & macros
 - Skip screens, combine screens

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What is WDHT?

- *WebFacing Deployment Tool with HATS Technology (WDHT)*
- WDHT integrates WebFacing and HATS
 - Combines strengths of HATS and WebFacing
- A new runtime component for the WebFacing Tool
- A replacement for HATS for iSeries and HATS for eServer i5 520
- A product that provides a system wide solution for multiple applications, with or without source code
- An IBM Passport Advantage product

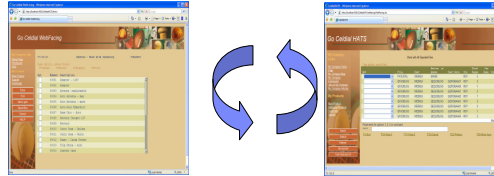
The one strategic IBM UI transformation solution for System i

WDSC & WDHT 6.0.1

- Phase 1: Partial Interoperability
- WebFacing provided 5250 data stream transformation based on HATS technology
 - System screens
 - Non-converted DDS screens
 - UIM screens
- Only provided default transformation
 - No customizations available
- HATS could still not leverage WebFacing

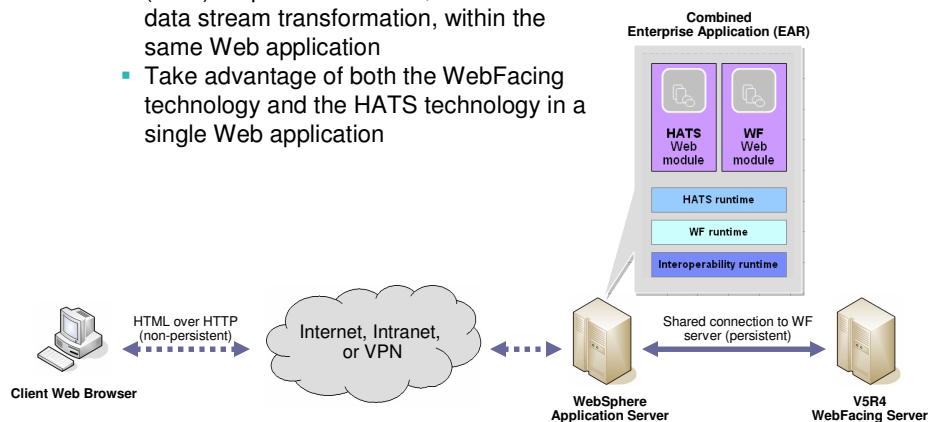
WDSC & WDHT 7.0

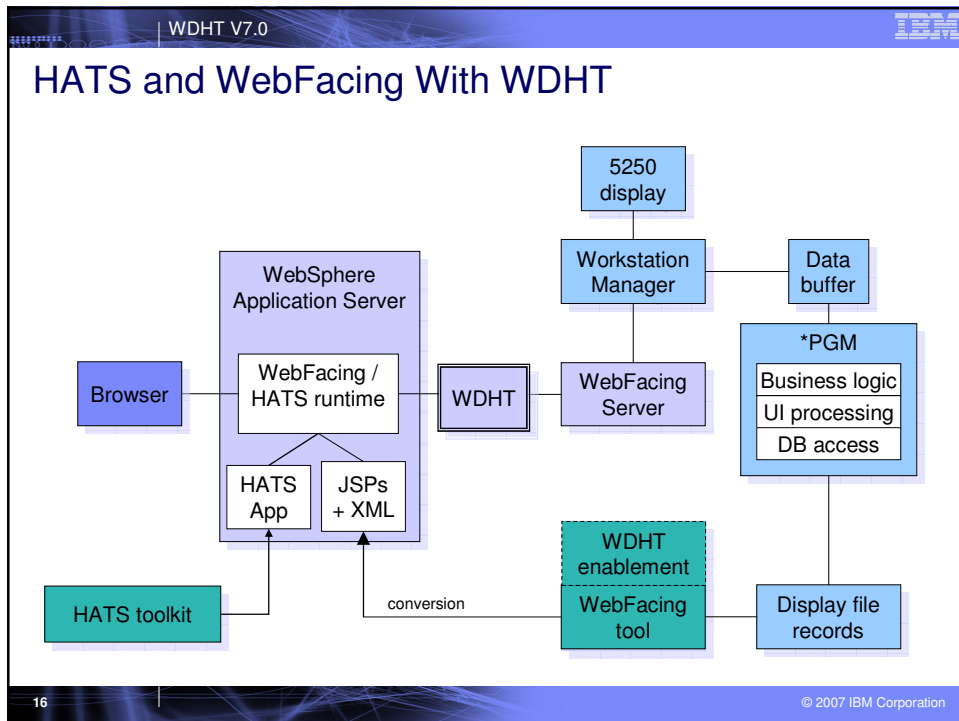
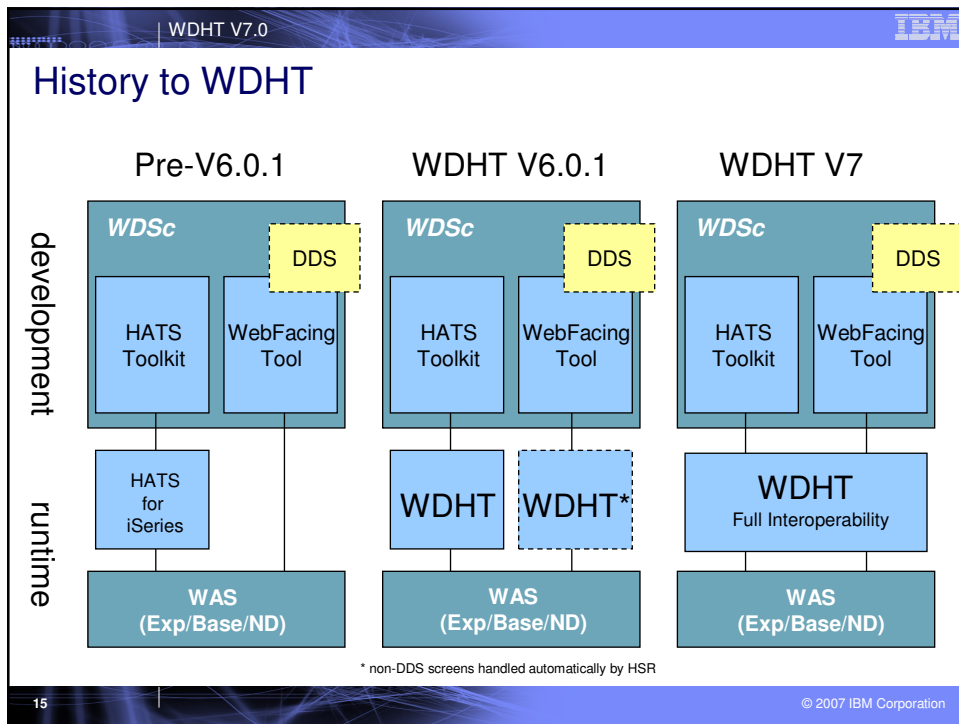
- Phase 2: Full interoperability
- Create a single Enterprise Application using both WebFacing and HATS
 - Full WebFacing and HATS customizations available
 - Runtime can dynamically switch between the two
 - Uses WebFacing if converted display files are available
 - Otherwise uses HATS
 - Single deployment
 - As an Enterprise ARchive (EAR)
 - Single runtime license
 - Single server job per application
- 6.0.1 capabilities still exist
 - Applies only to regular WebFacing Project
 - Does not apply to HATS/WebFacing Enabled Project



HATS and WebFacing runtime interoperability

- Perform data description specification (DDS) map transformation, as well as 5250 data stream transformation, within the same Web application
- Take advantage of both the WebFacing technology and the HATS technology in a single Web application






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New in HATS v7

- Modernize and streamline "green screen" applications
- Combine data from multiple screens, applications and databases
- Non-invasive

Rich Client




- Integration at the desktop with other Eclipse applications
- Client side processing
- Rich set of user interface widgets
- Built on the standard, open Eclipse foundation
- 3270e print directly to end user's printer



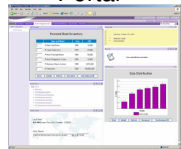
5250 Data stream

Web Service




- Build self-service transactions

Portal



- Integration at the glass
- Click-to-Action support

Web



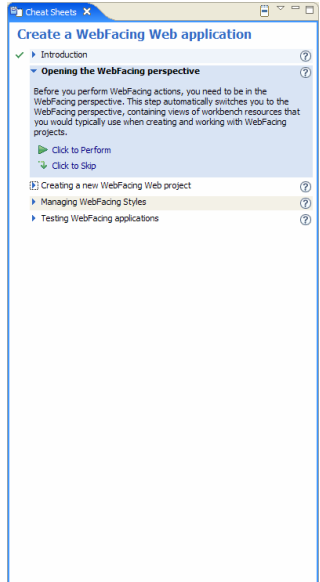
- Zero footprint
- View through your favorite browser

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New in WebFacing 7.0

- WebFacing Cheat Sheets
 - Easy starters guide to creating your first WebFacing application
 - Walks a new user through the steps of WebFacing an application



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New in WebFacing 7.0

- Application Response Measurement (ARM) support
 - Distributed Web applications are more difficult to manage because they consist of many different jobs on the system (HTTP, WAS, WebFacing server, RPG programs, DB2).
 - Track end-to-end performance metrics for WDHT applications with WebSphere Performance Monitor for System i

Elapsed time: 0:01:25

Jobs

Transactions

Select	Transactions	Average Response Time	Completed Transactions
<input type="radio"/>	All transactions		
<input type="radio"/>	HTTP server - WEB60PAW		
<input type="radio"/>	Application server - WAS60PAW/WAS60PAW		
<input type="radio"/>	112285/QE.JBSVR/WAS60PAW	0.2	16
<input type="radio"/>	DB2		
<input type="radio"/>	112035/QUSER/QZDASOINIT	0.0	16
<input type="radio"/>	cosmo.rchland.ibm.com		
<input type="radio"/>	HTTP server - WEB60PAW		
<input type="radio"/>	Application server - WAS60PAW/WAS60PAW		
<input type="radio"/>	112285/QE.JBSVR/WAS60PAW	0.2	13

Work with job...

Preferences...

View by server

Refresh

Restart statistics

Close

Quit

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WebFacing Strengths

- DDS constructs are converted to Web UI prior to runtime
 - Including customizations
 - Quick performance
- All DDS data validation done at browser level
 - No server request is required
 - Instant error feedback
- Customizations
 - Web settings in DDS
 - Unlimited customizations to generated JSPs
- RPG or COBOL application can check which mode it is running in
 - Provided by system API call
 - Take different logic paths depending on mode

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HATS Strengths

- Does not require development time conversion
- DDS source is not required
 - Applications without DDS source
 - System screens
 - UIM screens
- Transformation Rules
 - Can be applied to multiple screens
 - Recognize patterns in 5250 datastream and convert to something else in Web browser
- Programmable screen flow using scripts, variables & macros
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WDHT Licensing

- WebFacing and HATS projects limited to 2 connections
 - For development and testing purposes only
- Need to purchase and apply WDHT license for production
 - An IBM Passport Advantage product
 - Tools included in WDSC for apply to projects
- License status is written to Application Server's standard output log file

Miscellaneous

- WebSphere Application Server fail-over
 - Used for high availability
 - Standalone WebFacing projects use non-persistent connections to WebFacing server
 - Which support fail over to different WAS server
 - HATS and linked projects use persistent connections to WebFacing server
 - Which do not support fail over
- WAS Edge Server
 - Uses IP spraying for load balancing
 - Different WAS servers potentially used to serve same client browser
 - Supported by standalone WebFacing projects but not HATS or linked projects
 - For same reason as WAS fail-over

Creating a Consistent Look and Feel

- WebFacing and HATS both use templates to define the look and feel of the user interface
 - Both based on JavaServer Pages (JSP) and Cascading Style Sheets (CSS)
 - But they use different structures
 - Three templates are common to both
 - FinancialGreyRedtones, Sports, and Swirl
- WebFacing templates
 - PageBuilder.jsp defines locations for three main areas
 - JavaScript, command keys and application area
 - PageBuilder.jsp for Sports style is well documented
- HATS template
 - Templates stored under Project/Web Content/Templates as JSPs

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Creating a Consistent Look and Feel

- HATS includes wizard to create new HATS Template
 - Wizard allows template to be created from
 - Scratch
 - Existing template
 - Imported from an existing website (URL)
- Using last option to create template based on your current website
- Copy imported HATS template to WebFacing PageBuilder.jsp
 - First backup existing PageBuilder.jsp (you'll need this for reference)
 - Remote HATS tag
 - Add required tags to import WebFacing piece
 - Update CSS to match colors and fonts

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Summary

WDHT delivers on the key market requirements:

- A single Web-enabling offering that integrates HATS & WebFacing
 - Ability to deploy as a single application with both technologies
- Elimination of OLTP for HATS starting with i5/OS V5R4
- More cost-effective with added Tier based licensing
- “Out-of-the-box” integration for WebFacing with system screens and non-WebFaced 5250 application
- Additional HATS and WebFacing advances

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