



# IBM WebSphere Host Access Transformation Services (HATS) V7

*Rusty Edmister at the  
Omni User Group Meeting  
Oak Brook, IL April 17, 2007*

**WebSphere.** software

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## Agenda

- Why reuse?
- Customer Challenges
- What is HATS?
- Benefits of HATS
- How HATS works
- What's new in V7
- Packaging
- Successes
- Other

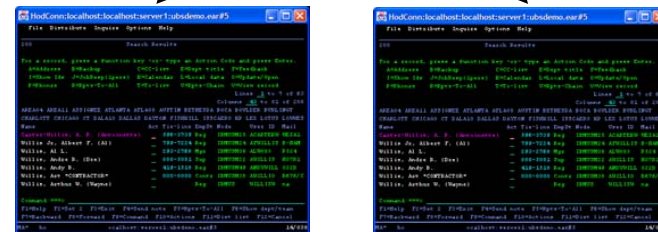
## The Reality of Existing Applications

- 200 billion lines of COBOL code exist today – RPG is even bigger
- 5 billion lines are added each year
- Similar inventory for PL/1 and RPG code
  
- A typical mainframe customer has...
  - 30M lines of COBOL code
  - Worth \$600M
  - Automating 100,000 business processes
- A typical System i customer has fewer lines of code but problems are just as big
  
- 70-80% of applications are terminal based

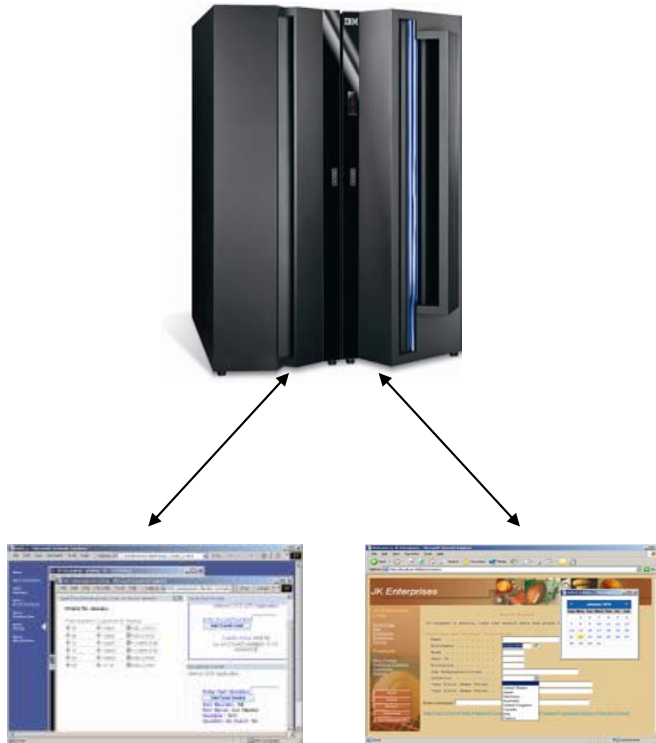


# Value of Existing Applications

- Existing applications are among the most valuable assets a company owns
  - Fully functional applications that run the business today
  - Significant investments over the years
  - Fine-tuned for dependable optimal performance
  - Run within fine-tuned reliable, robust, scalable IT infrastructure and platforms
- Accessed via character / text based terminals
  - Non-intuitive, difficult to navigate user interfaces
  - Difficult to integrate in modern business processes



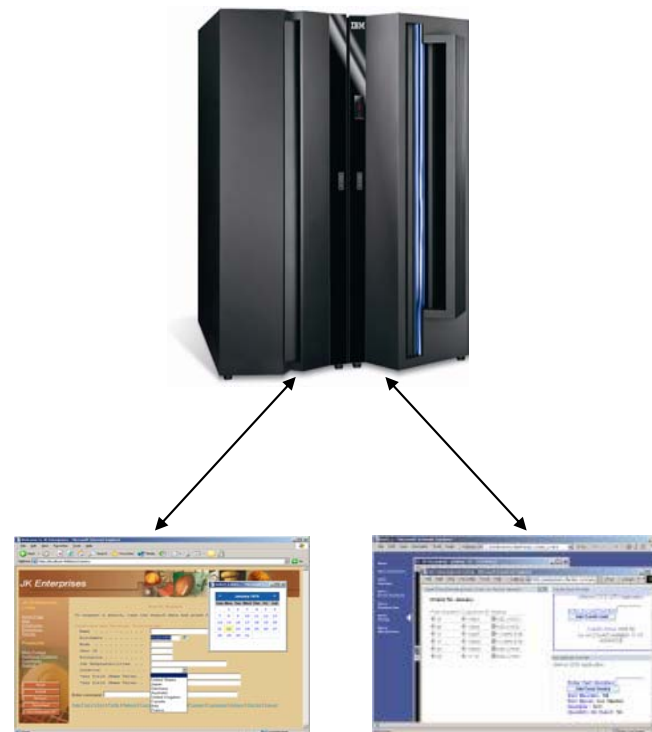
## Challenges and Customer Requirements



- Improve the appearance of user interfaces
  - Reduce learning curve for newer employees
  - Extend to new departments, new business partners, new end-user customers, who rely on web application ease-of-use
- Improve employee productivity by streamlining application flow
  - Automate where appropriate - eliminate unnecessary keystrokes and screen navigations
  - Customize access for a specific set of users

## Challenges and Customer Requirements

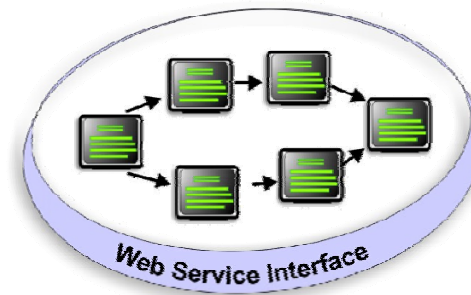
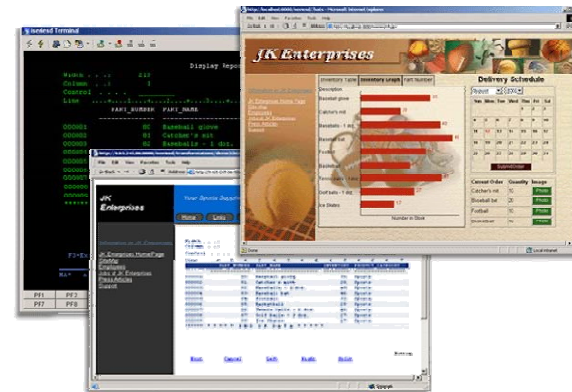
- Eliminate or reduce administration and maintenance of installed client software
  - IBM or 3rd party 3270 or 5250 emulation client SW packages
  - Browser is universally available without dependence on HW/SW
- Build new service-oriented applications that better suit current business processes
  - Combine business logic and data from existing host applications with new business logic to build a unified application



***Customers want to do all this while minimizing changes to existing applications.***

## What is Host Access Transformation Services?

- HATS gives you the tools you need to quickly and easily create Web, portal or rich client applications that provide an easy-to-use GUI for your green-screen
  - Automatic transformation
  - Low skills requirement
  - Rules-based
  - Highly customizable
  - Iterative development process
- Extends terminal application tasks as Web Services



# Host Access Transformation Services

- 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

3270 or 5250 Data stream



## Web Service



- Build self-service transactions

## Portal



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

## Web

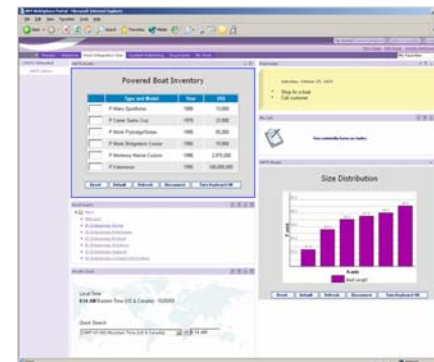


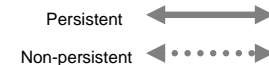
- Zero footprint
- View through your favorite browser



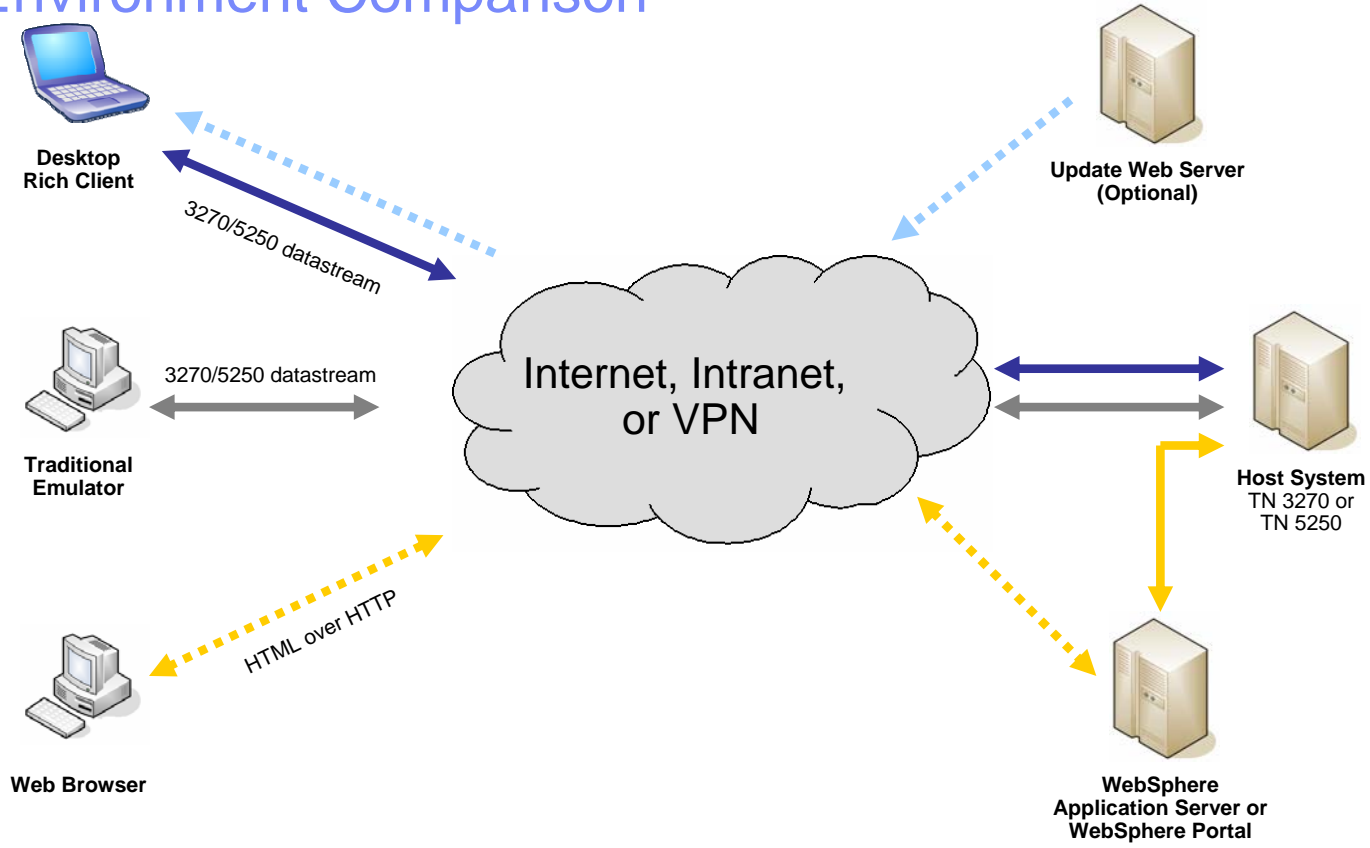
## HATS and SOA Entry Points

- The Process business entry point to SOA - HATS participate in the Business Process
  - insert an automated HATS Web service in your business process
  - tasks that are not automated using HATS programmatic services may be implemented as a User task
- The People business entry point to an SOA – Present host information as a portlet
  - aggregate applications and content and deliver them as role-based applications
  - tailor host apps to different user roles as portlets
  - present multiple host apps on the same page with business, productivity, and collaboration portlets





# Environment Comparison



## HATS Benefits

- Increases productivity and reduces training costs as it extends host applications to the widest possible audience...
  - by delivering HTML to Web browsers,
  - improving work flow from multiple applications,
  - and presenting host screens as familiar Web pages.
- Quick ROI - Host applications can be quickly deployed to the Web...
  - with green screens converted to GUIs according to HATS default rules...
  - and further customization added as time and resources permit.
  - low cost, no need to rewrite application
- Low risk – Leverage Open, Proven Platform
  - WebSphere Application Server leads the industry in market share.
  - HATS leverages the security, reliability, and scalability of the WebSphere Application Server and WebSphere Portal Server.
  - As well as the Eclipse-based open standards of the IBM Rational Software Delivery Platform tools.
  - Lotus Expeditor and Eclipse Rich Client

## Industry-standard Architecture

- IBM Rational Software Delivery Platform Tool
  - HATS Toolkit is an Eclipse plug-in to the IBM Rational Software Delivery Platform Tool
  - Wizard-based
  - Creates HATS applications
- WebSphere Application Server, WebSphere Portal Server
  - HATS leverages WebSphere Application Server (WAS) or WebSphere Portal Server at runtime
  - HATS Toolkit creates J2EE .war and .ear files for deployment
  - HATS runtime is contained in the HATS application
- Lotus Expeditor, Eclipse Rich Client, open, standards-based platform
  - HATS Toolkit creates Eclipse features for deployment



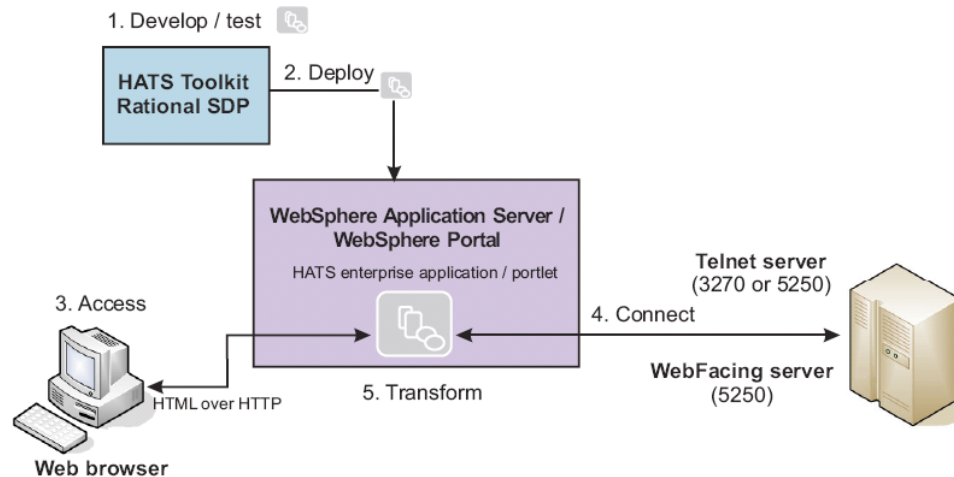
## Improve Navigation & Productivity

- **Macros & Global Variables**
  - Skip unnecessary screens; combine screens; split screens, enter data on behalf of the end user
  - Store end user input as global variables to use again; prefill text entry fields
- **Improve User Interface with Screen Customization**
  - Add buttons, hot links, drop-down menus, valid value lists, etc.
  - Modify graphics, fonts, colors, and layout
- **Add business logic**
- **Local print support**
- **Native keyboard support**
- **Security – HTTPs, SSL**
- **Performance – HTTP Compression, Contention Resolution**
- **Supports iterative development**
  - Default Transformation rules - fully functional HATS application on the web quickly
  - Customize Default Transformation rules
  - Customize screens



## Creating a HATS Web Application

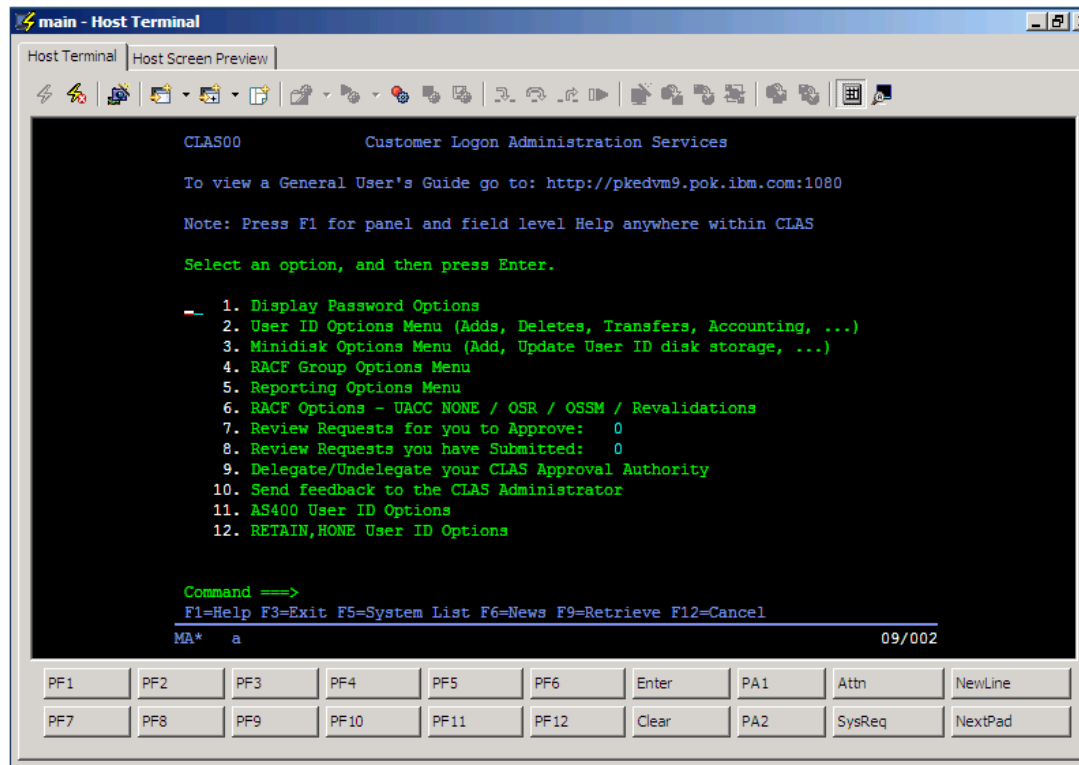
1. The developer uses the HATS Toolkit to develop and test a HATS Web application.
2. When ready, the developer deploys the HATS application by exporting it as a J2EE application and installing and running it on a WebSphere Application Server system.
3. Using a Web browser, the user accesses the HATS application.
4. The HATS runtime connects to the target host system through either a Telnet or a WebFacing server.
5. As the user interacts with the host through the HATS application, the HATS runtime transforms host screens to a GUI.



## Defining your own rule set

- HATS Toolkit provides easy-to-use wizards for customizing how host components are displayed
- For HATS Web Application, import HTML from your Web page
  - Drag and drop HTML elements to create new customized template
- Use IBM Rational Software Delivery Platform or any industry-standard HTML editor to add:
  - Logos, graphics, backgrounds, Web links and other HTML elements
- Customizations are saved as reusable rule sets that can be applied to any host screens that share similar requirements
- HATS can apply:
  - an individual rule set to each host application
  - different rules sets to a single host application for different end user communities
  - the same rule set to multiple host applications

## Traditional Green Screen





# Transformation Using Default Rules



# HATS Minor Modifications



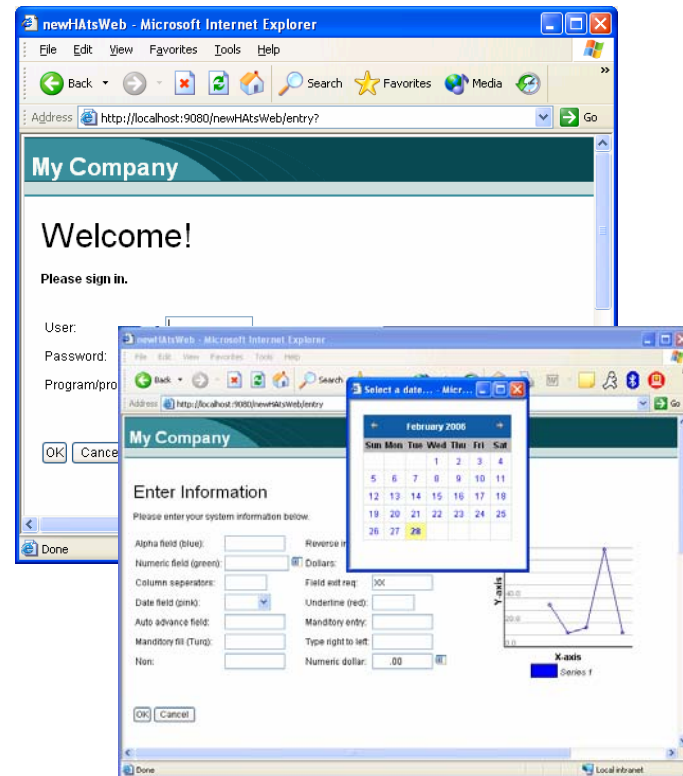
## Achieving a Green Screen Look with HATS



- HATS supports host colors and extended field attributes, including:
  - Numeric only, alphabetic only, signed numeric, reverse image, column separator, underline, and blink fields
- Supports automatic field advance
- Host keypad and OIA can be displayed (and positioned anywhere)
- Native keyboard support (i.e. pressing F12 in the browser sends F12 to the host application).

## Achieving a Modern Web Look with HATS

- Customize screens with intuitive web user controls, including:
  - Popup lists, drop-downs, checkboxes, lists, radio buttons, calendar popups, graphs, etc.
- Simplify screens and work flow by
  - Split one screen into multiple screens
  - Organize data in tabs
  - Remove functions / actions no longer needed by removing full screens or partial screens
- One customized Web page can be applied to more than 1 host screen!



# Combining Screens

The image illustrates a multi-screen environment. On the left, three overlapping Host Terminal windows are shown. The top window displays a 'Display Report' with columns for Width, Column, Control, and Line, listing values from 000001 to 000014. The middle window shows a similar report with values from 000015 to 000028. The bottom window shows a report with values from 000029 to 000032, including a 'PART\_N' column and a separator line. On the right, a Microsoft Internet Explorer browser window displays the 'JK Enterprises' website. The page features a search results table with 32 records found. The table has columns for ID, Part, Name, Price, and Category. The records list various animals and their prices, such as 'Bear, Teddy' for 26.00 and 'Jaguar' for 17.00.

ID	Part	Name	Price	Category
000001	10	Bear, Teddy	26.00	Animals
000002	11	Bear, Panda	28.00	Animals
000003	12	Bear, Koala	25.00	Animals
000004	13	Dog, Beagle	15.00	Animals
000005	14	Dog, Dachshund	16.00	Animals
000006	15	Dog, Pug	17.00	Animals
000007	16	Cat, Manx	14.00	Animals
000008	17	Cat, Persian	21.00	Animals
000009	18	Cat, Siamese	22.00	Animals
000010	19	Kangaroo	19.00	Animals
000011	20	Monkey	20.00	Animals
000012	21	Wallaby	23.00	Animals
000013	22	Manatee	24.00	Animals
000014	23	Wombat	15.00	Animals
000015	24	Bird, Cockatoo	19.00	Animals
000016	25	Bird, Macaw	18.00	Animals
000017	26	Chinchilla	19.00	Animals
000018	27	Ferret	20.00	Animals
000019	28	Hampster	17.00	Animals
000020	29	Rabbit	23.00	Animals
000021	30	Alligator	21.00	Animals
000022	31	Crocodile	22.00	Animals
000023	32	Dinosaur	20.00	Animals
000024	33	Frog	12.00	Animals
000025	34	Bobcat	18.00	Animals
000026	35	Mountain Lion	19.00	Animals
000027	36	Jaguar	17.00	Animals

# Combine and Integrate

```

HsdConn:localhost:localhost:server1:ubsdemo.ear#1
[PS/3] Back Built-in by Customer number 5/16/02 10:13:31
Support Center/400 library 5/16/02 10:13:31
Type choices, press Enter:
Customer number:
Support Center/400 problem number:
Associated problem:

HsdConn:localhost:localhost:server1:ubsdemo.ear#5
File Edit View Options Help
Search Results
File a request, give a function key key type an Action Code and give codes.
Address: F10=Home F11=Exit F12=Cancel F13=Refresh F14=Inventory search
F15=Search Customer database F16=Messages F17=Refresh search
F18=Home F19=Exit F20=Cancel F21=Refresh F22=Inventory search
F23=Search Customer database F24=Messages F25=Refresh search
F26=Home F27=Exit F28=Cancel F29=Refresh F30=Inventory search
F31=Search Customer database F32=Messages F33=Refresh search
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F834=Home F835=Exit F836=Cancel F837=Refresh F838=Inventory search
F839=Search Customer database F840=Messages F841=Refresh search
F842=Home F843=Exit F844=Cancel F845=Refresh F846=Inventory search
F847=Search Customer database F848=Messages F849=Refresh search
F850=Home F851=Exit F852=Cancel F853=Refresh F854=Inventory search
F855=Search Customer database F856=Messages F857=Refresh search
F858=Home F859=Exit F860=Cancel F861=Refresh F862=Inventory search
F863=Search Customer database F864=Messages F865=Refresh search
F866=Home F867=Exit F868=Cancel F869=Refresh F870=Inventory search
F871=Search Customer database F872=Messages F873=Refresh search
F874=Home F875=Exit F876=Cancel F877=Refresh F878=Inventory search
F879=Search Customer database F880=Messages F881=Refresh search
F882=Home F883=Exit F884=Cancel F885=Refresh F886=Inventory search
F887=Search Customer database F888=Messages F889=Refresh search
F890=Home F891=Exit F892=Cancel F893=Refresh F894=Inventory search
F895=Search Customer database F896=Messages F897=Refresh search
F898=Home F899=Exit F900=Cancel F901=Refresh F902=Inventory search
F903=Search Customer database F904=Messages F905=Refresh search
F906=Home F907=Exit F908=Cancel F909=Refresh F910=Inventory search
F911=Search Customer database F912=Messages F913=Refresh search
F914=Home F915=Exit F916=Cancel F917=Refresh F918=Inventory search
F919=Search Customer database F920=Messages F921=Refresh search
F922=Home F923=Exit F924=Cancel F925=Refresh F926=Inventory search
F927=Search Customer database F928=Messages F929=Refresh search
F930=Home F931=Exit F932=Cancel F933=Refresh F934=Inventory search
F935=Search Customer database F936=Messages F937=Refresh search
F938=Home F939=Exit F940=Cancel F941=Refresh F942=Inventory search
F943=Search Customer database F944=Messages F945=Refresh search
F946=Home F947=Exit F948=Cancel F949=Refresh F950=Inventory search
F951=Search Customer database F952=Messages F953=Refresh search
F954=Home F955=Exit F956=Cancel F957=Refresh F958=Inventory search
F959=Search Customer database F960=Messages F961=Refresh search
F962=Home F963=Exit F964=Cancel F965=Refresh F966=Inventory search
F967=Search Customer database F968=Messages F969=Refresh search
F970=Home F971=Exit F972=Cancel F973=Refresh F974=Inventory search
F975=Search Customer database F976=Messages F977=Refresh search
F978=Home F979=Exit F980=Cancel F981=Refresh F982=Inventory search
F983=Search Customer database F984=Messages F985=Refresh search
F986=Home F987=Exit F988=Cancel F989=Refresh F990=Inventory search
F991=Search Customer database F992=Messages F993=Refresh search
F994=Home F995=Exit F996=Cancel F997=Refresh F998=Inventory search
F999=Search Customer database F1000=Messages F999=Refresh search

```

ubsdemo - Microsoft Internet Explorer

Address: http://localhost:9083/

JK Funds

Homepage > About Wealth Management in the US > Home

Market Update

Dow Jones	9559.71	37.85
NASDAQ		
1918.26	13.61	
S&P 500	1002.24	3.18
30 Yr Bond	5.191	0.04

Data from 5250 Source

SC4103 Check Entitlement by Customer number 5/16/02 10:13:31 RALYS01

Support Center/400 library . . . . . : DEMOBOX20

Type choices, press Enter.

Customer number . . . . . :

Location code . . . . . :

Support Center/400 problem number . . . . . :

Associated problem . . . . . :

Log in

Username:

Password:

Go

→ First Time  
→ Error  
→ Tour

Highlights

- Think Year-End Planning
- JK Funds reports third quarter net profit of \$2.243 million
- Read the NASD's June 25, 2003 Investor Alert Regarding Class B Mutual Fund Shares
- Read the NASD's Investor Alert Regarding Mutual Fund Breakpoint Discounts
- View Current CD Rates

Our Perspective

- Municipal Market Commentary - 12/11/03
- Basis Points - 12/11/03
- On the Run - 12/06/03
- As We See It - 12/05/03
- Mary Farrell's Market View - 11/11/03
- Municipal Market in Perspective - 11/03/03
- Credit Market Relative Value Market Summary Note - 11/10/03

Data from 3270 Host

Name	Phone	Type	Node	User	Mail
Carter-Willis, A. P. (Antoinette)	596-3739	Reg	IBMUSM25	ACARTERW	WEZA1
Willis Jr, Albert F. (AJ)	799-7224	Reg	IBMUSM24	AFWILLIS	B-HAM
Willis, Al L.	293-2768	Mgr	IBMUSM08	ALW883	P524
Willis, Andre R. (Dre)	888-5081	Sup	IBMUSM22	AWILLIS	H07R1
Willis, Andy B.	419-1518	Reg	IBMUSM49	ANDYWILL	022D
Willis, AH "CONTRACTOR"	000-0000	Contr	IBMUSM38	AWILLI0	B67&C
Willis, Arthur W. (Wayne)		Reg	IBMUS	WILLISW	na

Results from VT Data Source

Query Directory: c:\

93 Dir(s) 22,888,353,792 bytes free

14 File(s) 4,175,891 bytes

Local intranet

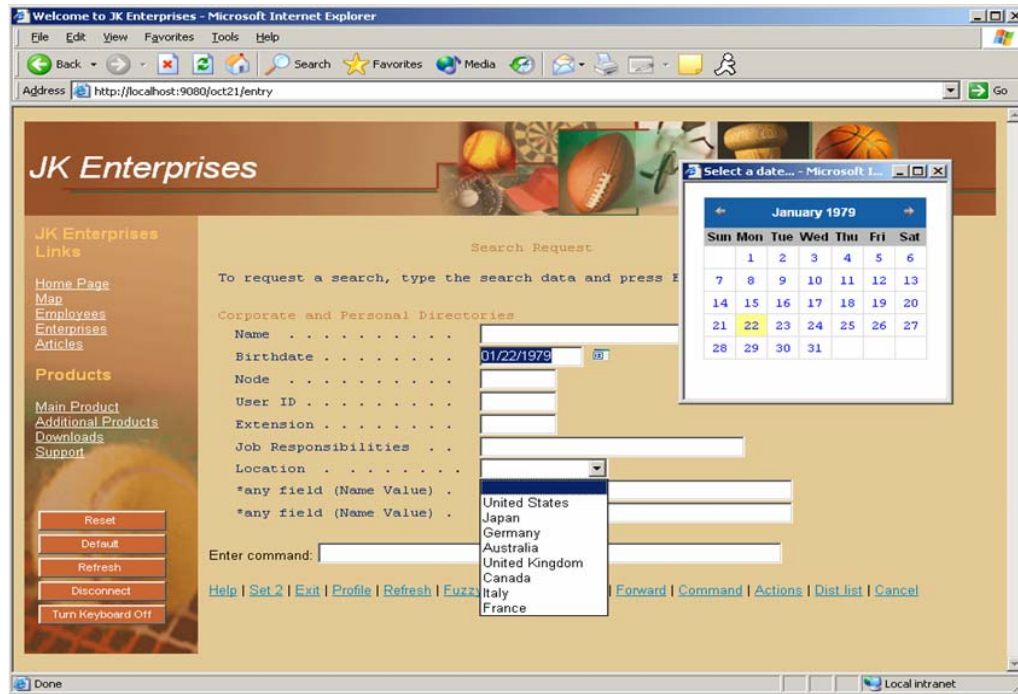
# HATS Customized Transformation

The screenshot shows a web browser window titled "Welcome to JK Enterprises - Microsoft Internet Explorer". The address bar shows "http://localhost:9080/oct21/entra". The main content area is titled "JK Enterprises" and features a navigation menu on the left with links for Home Page, Map, Employees, Enterprises, and Articles. Below this are sections for Products, Main Product, Additional Products, Downloads, and Support. The central part of the page displays an "Inventory Graph" with a horizontal bar chart showing sales prices for various animal types. The x-axis is labeled "Price" and ranges from 14.0 to 28.0. The y-axis is labeled "Type". The bars represent the following data:

Type	Sales Price
Bear, Koala	27.0
Dog, Dachshund	18.0
Cat, Manx	14.0
Cat, Persian	21.0
Cat, Siamese	22.0
Monkey	20.0
Wallaby	23.0
Manatee	24.0
Wombat	17.0

To the right of the graph is a "Submit Order" form with fields for Product number, Quantity, and Date required, along with "Order" and "Check Inventory" buttons. A "Select a date..." calendar window is open, showing the month of October 2003. The calendar has a grid with days of the week (Sun, Mon, Tue, Wed, Thu, Fri, Sat) and dates from 1 to 31. The date 27 is highlighted in yellow.

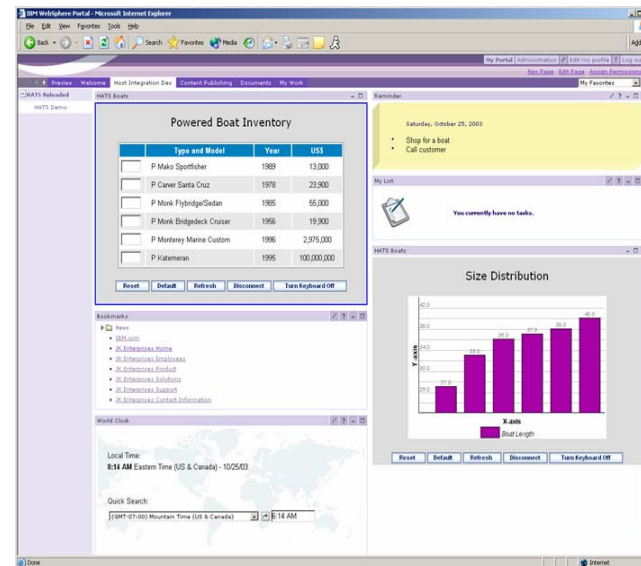
# Global Rules and Valid Value Lists





## Integration with WebSphere Portal

- Aggregate applications and content and deliver them as role-based applications
- Tailor your host application(s) to different user roles as portlets
- Present multiple host applications on the same page with business, productivity, and collaboration portlets
- HATS supports:
  - Click-to-Action
  - Credential Vault with
  - Single Sign-On



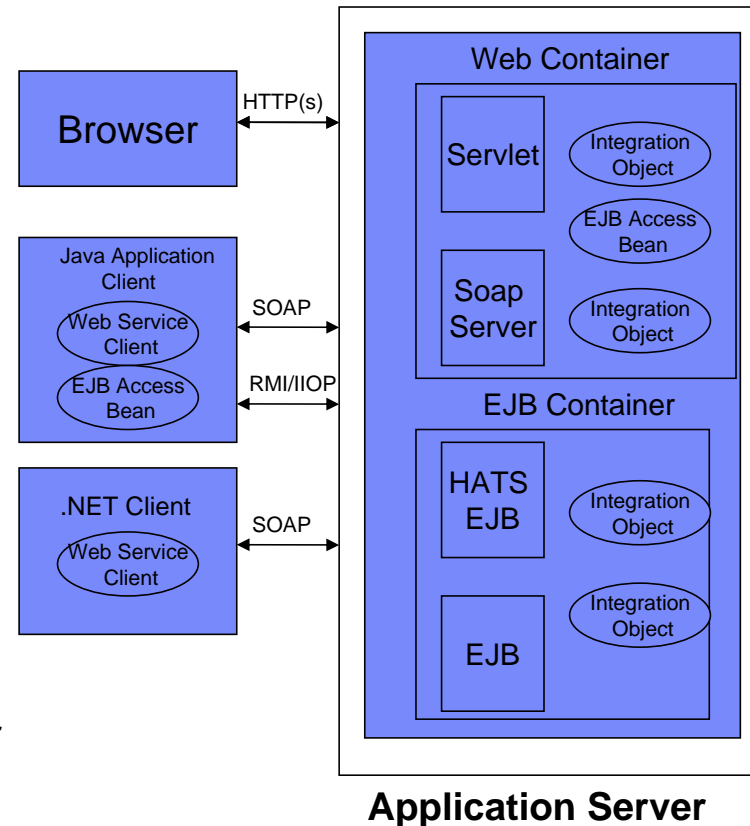
## HATS Single Sign-On Support (Web & Portal)

- **Increases Productivity**
  - No need to administer and maintain multiple host logon identities
  - Reduces password related support calls
- **HATS uses web credentials to retrieve existing network credentials from**
  - Tivoli Access Manager
  - Portal Credential
- **Extensible to any security package**
  - Developer may implement network security plug-in
- **HATS maps network credentials to host credentials**
  - DCAS/JDBC plug-in – Store network credentials to host ID mapping with JDBC, HATS retrieves passticket from DCAS
- **Developer may implement host credential mapper plug-in**



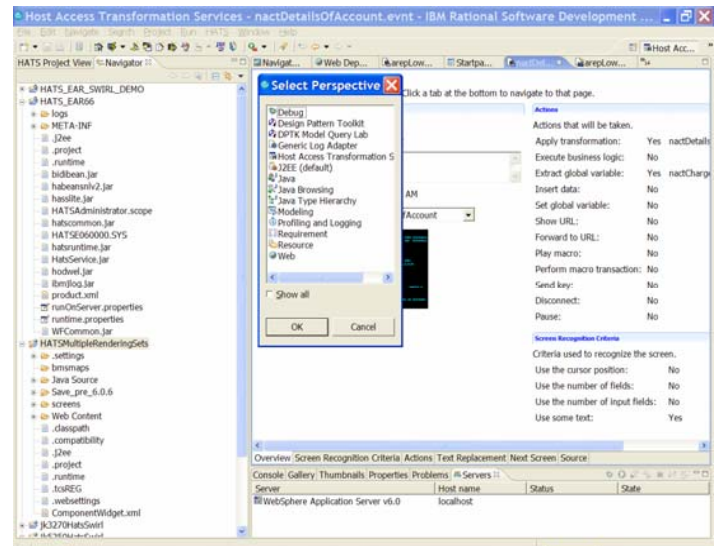
## Application to Application Integration (Web & Portal)

- Integrate terminal applications with J2EE applications
- Create reusable components:
  - Encapsulate screen navigations (macros) that define a business service in a standard JavaBean = HATS Integration Object (IO)
  - Supports session priming and pooling
  - “Chain” IOs for interactive flow through terminal application
- Using HATS Toolkit and Rational Software Delivery Platform, use IO(s) in:
  - Servlets
  - EJBs
  - Web services
- Access IO remotely via .NET or Java Application client



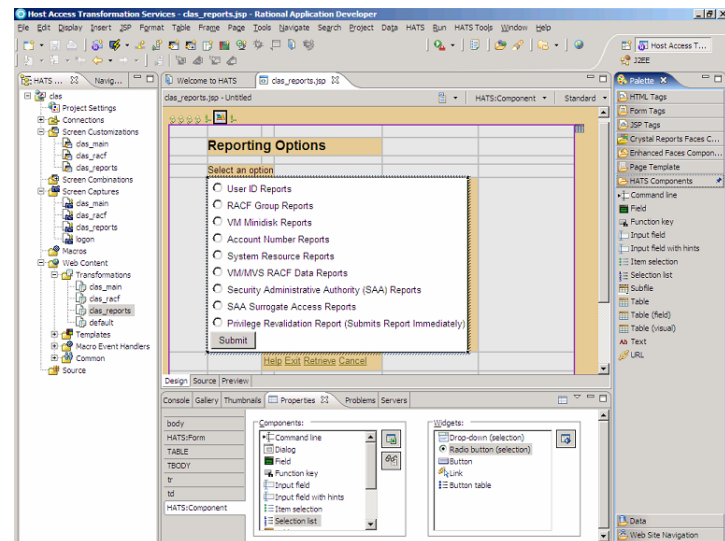
# Rational Software Delivery Platform

- Eclipse-based, extensible development environment
- Comprehensive, integrated set of tools that support entire software development cycle
- Integrated Java Development Kit (JDK) and Java Runtime Environment (JRE)
- Integrated and optimized for IBM WebSphere® Application Server and IBM WebSphere Portal Server products, and includes test environments for these products
- Profiling tools for performance and scalability
- Team Collaboration to increase productivity



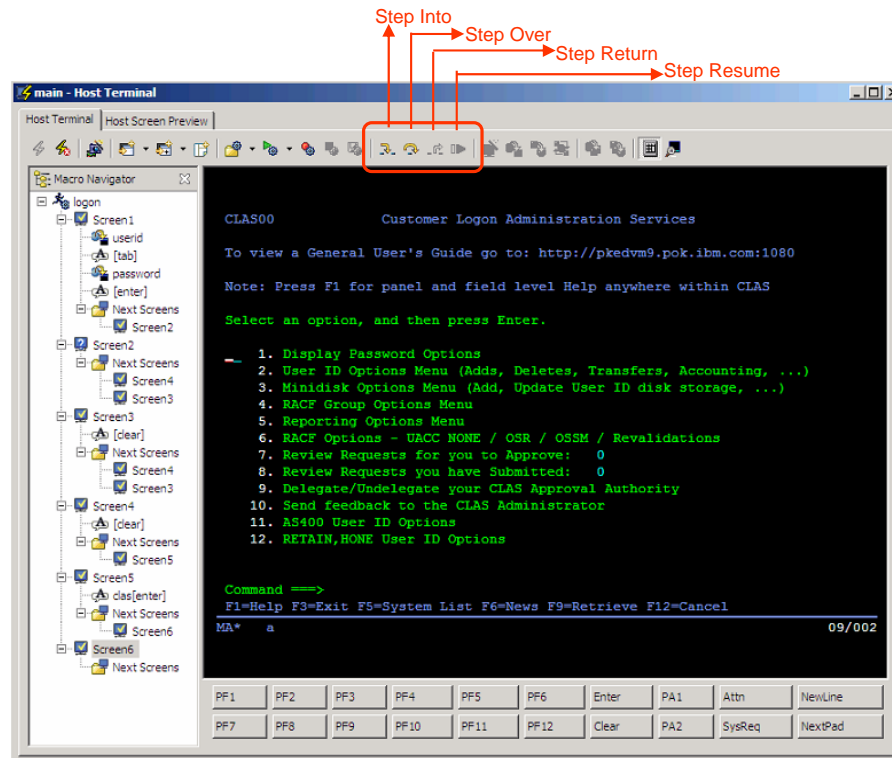
## Transformation Creation and Editing

- HATS Components available in the Palette view
  - Drag and drop to your web page with Page Designer
- Pre-fill transformations with default rendering
- Use Properties View for modification of components, widgets and text replacement
- Apply style sheets in Design view



# Macro Stepping

- **Step Into**
  - Allows stepping from action to action inside of a screen.
  - To use, press F5 or click
- **Step Over**
  - Allows stepping from screen to screen (all actions encountered along the way are executed).
  - To use, press F6 or click
- **Step Return**
  - Allows you to finish playing the actions under a screen and go to the next screen.
  - To use, press F7 or click
- **Step Resume**
  - Plays the rest of the macro from the current point

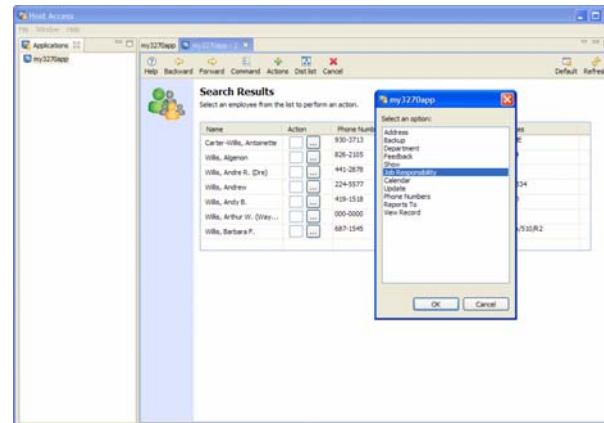


## HATS V7 Themes

- Extend the transformation of 3270 and 5250 applications to the Rich Client Platform
- Developer and end user efficiencies
  - Screen Combination Wizard
  - Integration of Host Simulator into HATS toolkit
  - Export HATS table data to a spreadsheet

## HATS Rich Client Platform Support

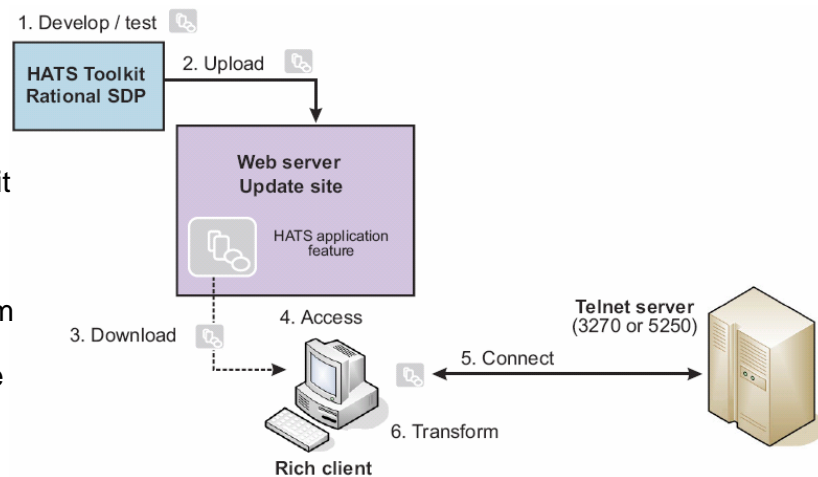
- Advantage: Increase end user productivity by integrating transformed 3270 and 5250 applications into a composite desktop
- Deployment options
  - Eclipse 3.2 Rich Client Platform
  - Lotus Expeditor V6.1





## Creating a HATS Rich Client Application

1. The developer uses the HATS Toolkit to develop and test a HATS rich client application.
2. When ready, the developer exports the HATS application as an Eclipse feature, creates an update site containing the application feature, and uploads it to a Web server for deployment.
3. The user, running a rich client platform, downloads and installs the HATS application feature from the update site.
4. The user starts and accesses the HATS application using the rich client platform environment.
5. The HATS runtime connects to the target host system through a Telnet server.
6. As the user interacts with the host through the HATS application, the HATS runtime transforms host screens to a GUI.



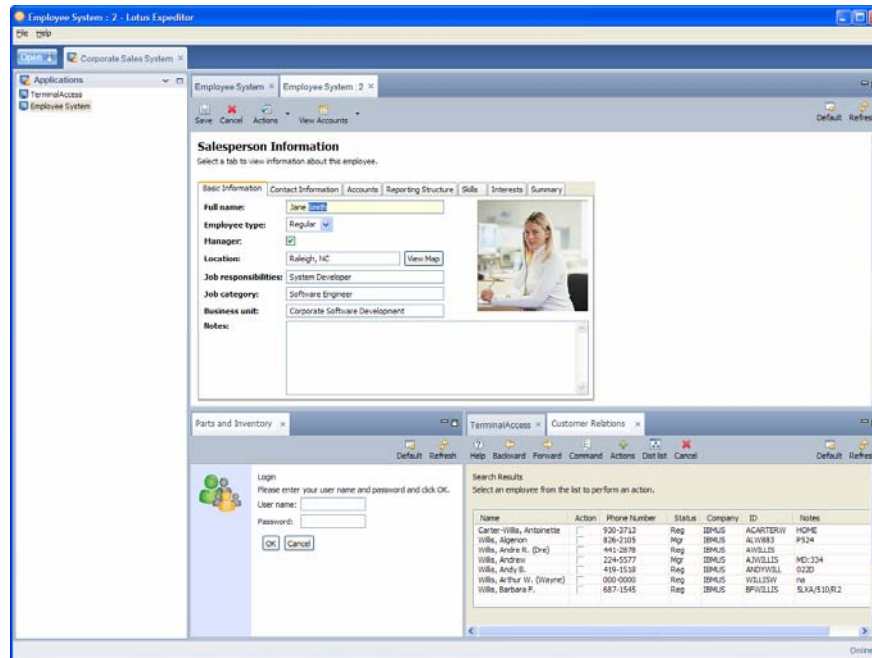
## HATS Rich Client Advantages

- Integration at the desktop with other Eclipse applications
- Client side processing (no server bottlenecks)
- Better response time (good for slow speed links)
- Rich set of user interface widgets
- Extension of same “green screen” application to different end user communities
  - Deploy to Rich client platform for intranet users
  - Deploy to Web for internet users
- Built on the standard, open Eclipse foundation
- 3270e print directly to end user’s printer

## HATS Rich Client Design Points

- Use familiar HATS development concepts for building rich client applications
- Use your favorite HATS features for rich client applications:
  - Default transformation
  - Global Rules
  - Screen customizations and transformations
  - Macros and global variables
  - Business logic
- Transformations are designed visually using the Eclipse Java Visual Editor
- Further customization options
  - Custom HATS SWT Widgets
  - Ability to link standard SWT controls with host keys, host input fields, or macros

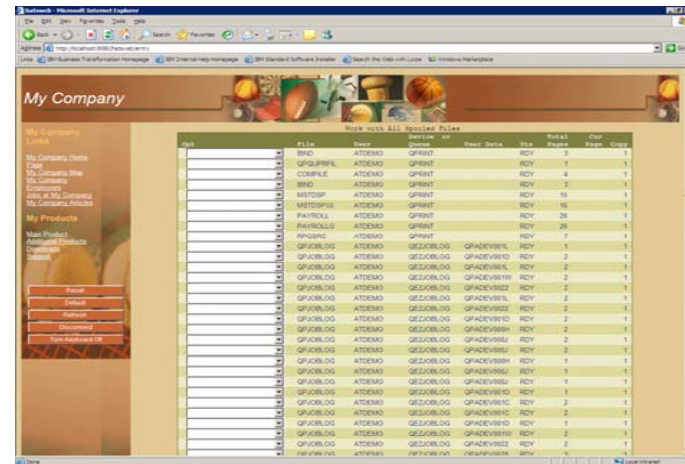
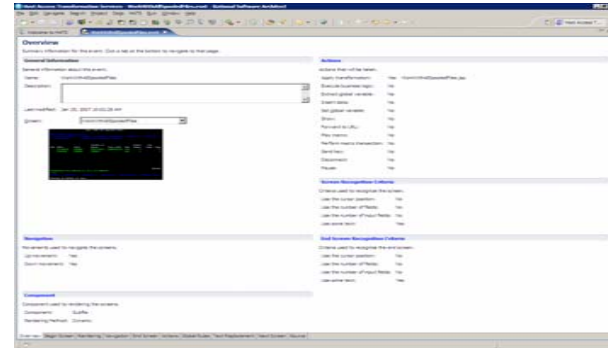
# Multiple HATS applications in one view



# Screen Combination Wizard

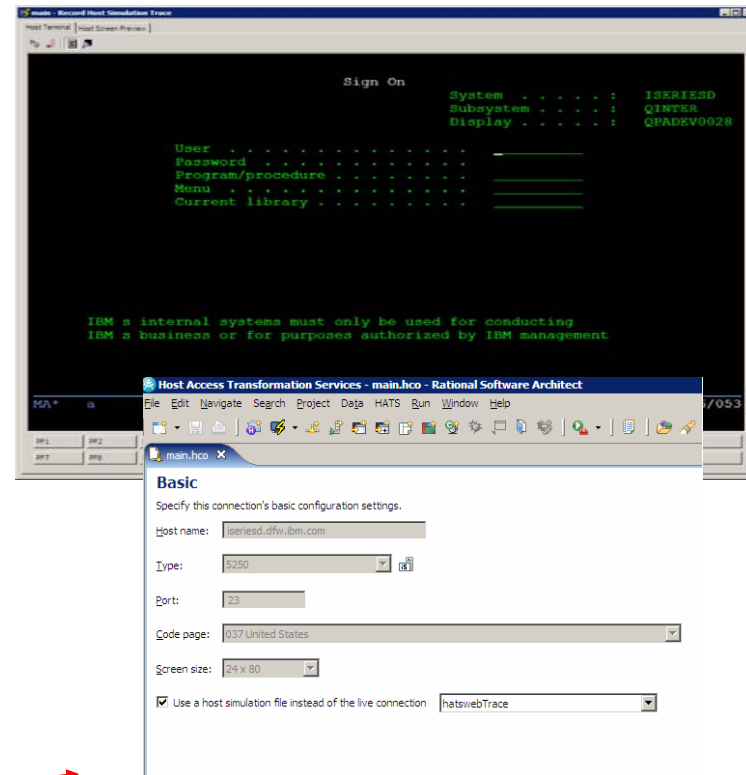
- Developer can combine screens of table, selection list, and subfile data onto one page with an easy to use screen combination wizard. No need for:
  - Macros
  - Global Variables
  - Macro handler pages
  - Integration Objects
- Increase end user efficiency by aggregating multiple screens of data onto one GUI
- AJAX option for dynamic loading of multiple screens
  - **Advantage:** End user does not have to wait for HATS to collect all the screens before first screen is displayed

## Edit screen combination in tabbed editor



## Host Simulator in HATS Toolkit

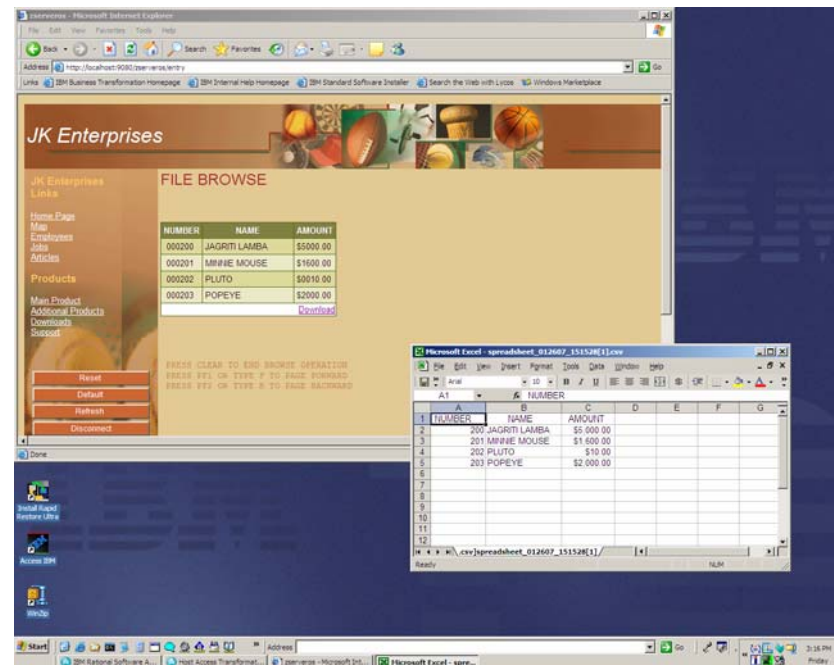
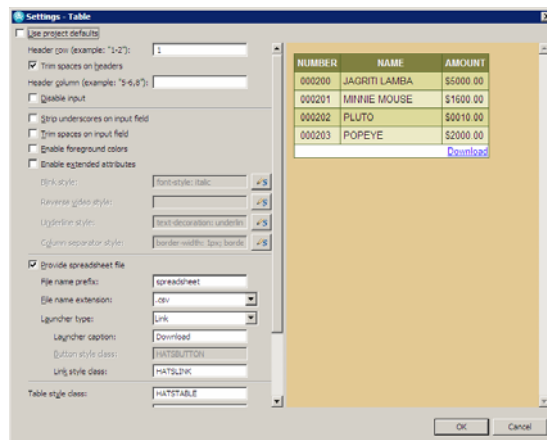
- Host Simulator Definition:
  - Records interactions with the host
  - Can be played back later for use with HATS terminal or HATS application without requiring host connectivity
- Advantages:
  - Offline and Off site development
  - Demos
  - Debug
  - Integrated- no separate install or UI



*Edit connection to configure use of simulator trace* →

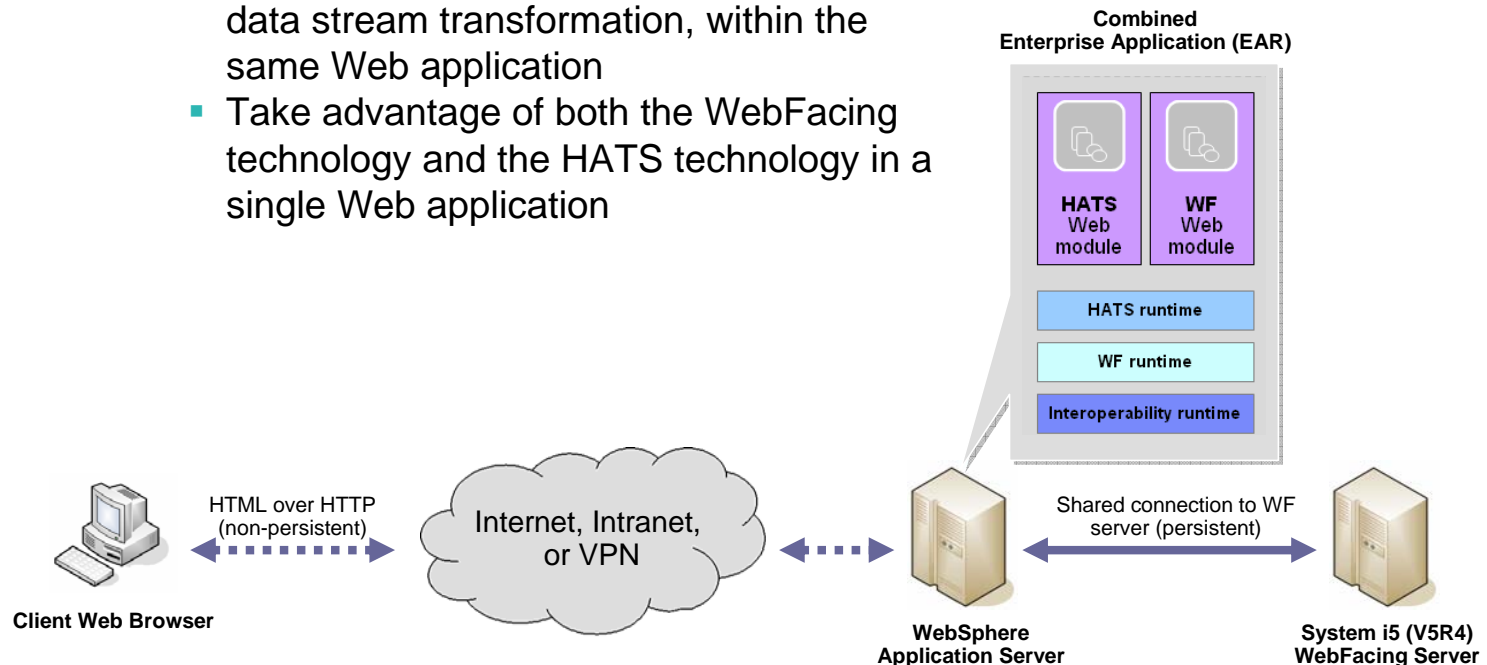
# Export HATS table data to a spreadsheet

- **Advantage:** Table data from host screen automatically transferred to a spreadsheet.
- New settings on the Table widget



## HATS and WebFacing runtime interoperability

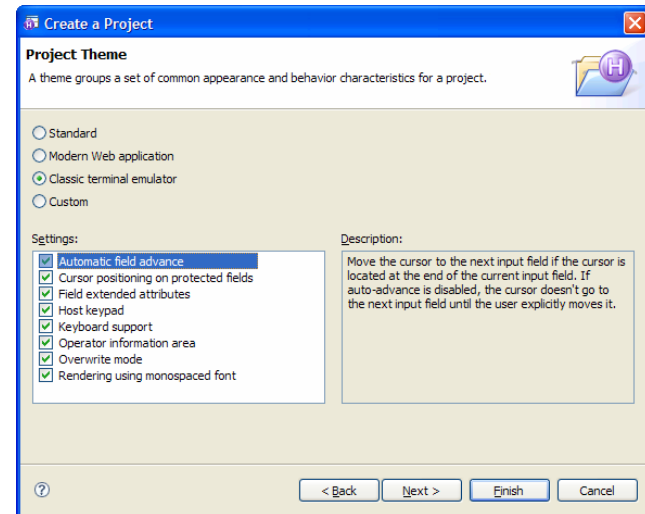
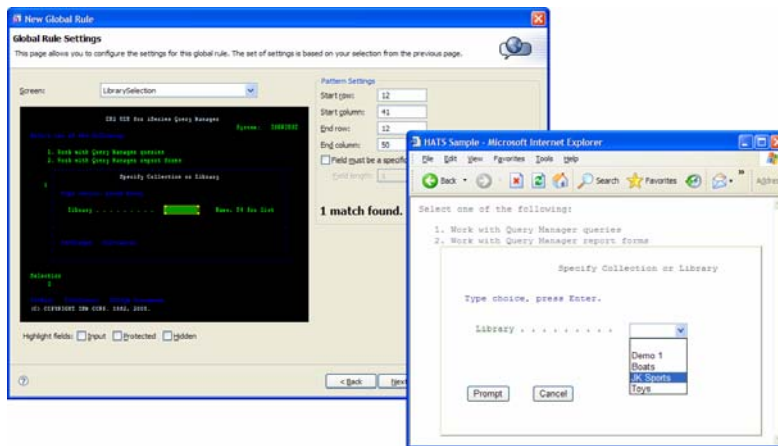
- Perform data description specification (DDS) map transformation, as well as 5250 data stream transformation, within the same Web application
- Take advantage of both the WebFacing technology and the HATS technology in a single Web application





# Other new enhancements

- Global Rule Enhancements
- Project Themes



# Other new enhancements

- New and improved host components and widgets
  - New subfile rendering options are available in the rich client.
  - Provide user option of drop-down, popup, or checkbox.
- Print support configurations

## Drop-down

Opt	Product	License Term
2=Change	5722SS1	V5R4M0
1=Add license key	5722...	V5
2=Change	5722SS1	V5R4M0
5=Display detail		
6=Print detail		
8=Work with li		

## Popup

Opt	Product	License Term	Feature
...	5722SS1	V5	
...	5722...	V5	
...	5722SS1	V5	
...	5722SS1	V5	
...	5722SS1	V5	
...	5722SS1	V5	
...	5722SS1	V5	

Select an option:

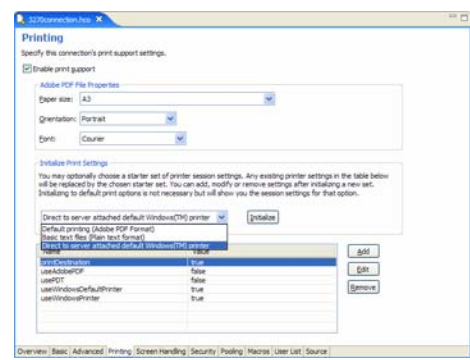
- 1=Add license key
- 2=Change
- 5=Display detail
- 6=Print detail
- 8=Work with license users

OK Cancel

## Checkbox

Add license key Change Display detail

Opt	Product	License Term	Feature
<input checked="" type="checkbox"/>	5722SS1	V5R4M0	5050
<input type="checkbox"/>	5722...	V5	5051
<input checked="" type="checkbox"/>	5722SS1	V5R4M0	5103
<input checked="" type="checkbox"/>	5722SS1	V5	5109
<input checked="" type="checkbox"/>	5722SS1	V5R4M0	5112
<input type="checkbox"/>	5722SS1	V5R4M0	5113
<input type="checkbox"/>	5722SS1	V5R4M0	5114



## Other new enhancements

- Rendering patterns for transformations
- New Support For DBCS 3270 and 5250 Fields
- Default rendering enhancement
- Client settings configuration

## Packaging

- **HATS Standard for Multiplatforms**
  - Applications can be deployed on any supported server platform
  - Available for use with 3270, 5250, and VT applications
  - Ships with a restricted WebSphere Application Server (WAS) Network Deployment license (does not include z/OS)
  - Support deployment to Web and Portal
- **HATS with Rich Client for Multiplatforms – add Rich Client support**
- **WebSphere Host Integration Solution (HIS)**
  - Ships with several Host Integration products
  - Includes HATS with Rich Client
- **WDHT (WebFacing Deployment Tool with HATS technology)**
  - Applications can be deployed on any supported server platform
  - Available for use with 5250 applications only
  - Ships with a restricted WebSphere Application Server (WAS) – Express license
  - Supports deployment to Web, Portal and Rich Client

## Washington County, Virginia

### Challenge

- Needed to provide access to citizens
- Needed more efficient response time to requests from citizens and staff

### Solution

- A real-time e-government portal that delivers existing applications through a centralized electronic workplace
- Improved employee productivity
- An open, Web-based framework and content management platform

*Modernization tools used include:*  
*WebSphere Host Access Transformation Services (HATS)*  
*WebSphere Portal Server*  
*WebSphere Studio Site Developer*



*“We evaluated a lot of solutions, including Microsoft.Net, but the IBM WebSphere solution gave us an open, integrated environment to build e-government solutions across a variety of hardware and software platforms.”*

Nadine Culberson  
Information Systems Manager,  
Washington County

Mercantil do Brasil cuts application development cycle by half, reduces customer account creation by ten days, and cuts costs

### Challenge

Help developers integrate the bank's .NET applications with its OS/390 environment.

### Solution

Use IBM modernization tools to effectively bridge the gap between Mercantil do Brasil's .NET applications and its OS/390 operating environment.

*Modernization tools used include:*

*WebSphere Host Access Transformation Services (HATS)*

*WebSphere Application Server for z/OS*

*WebSphere Studio Site Developer*

*Web Services*



### Business benefits

- Process a new customer account in just 1 day instead of 11 days.
- Decrease development cycle time from 11 to 6 months, requiring fewer personnel
- ROI in 6 months
- 100 percent cost savings in 17 months
- Speeds creation of new customer services
- Ability to change other business models

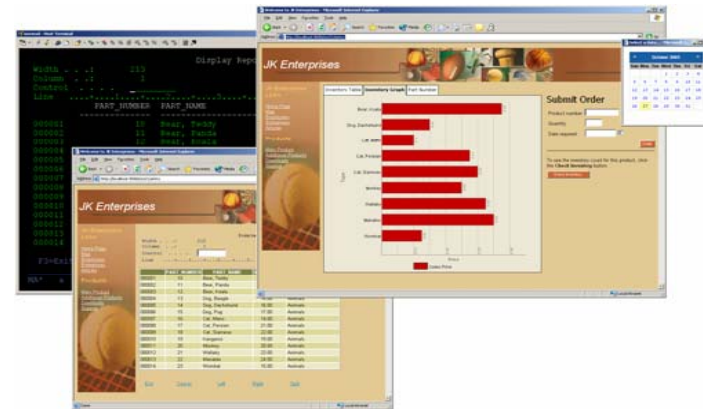
### Customer quote

"Beyond the financial benefits, this new solution gave us speed and quality in the execution of our services."

-- Jaime Herrera, technical support manager, Mercantil do Brasil

## Summary of HATS Features and Value Propositions

- Host screens are converted to GUIs on the fly, in real time
- Improved navigation of host application
- Zero footprint on the desktop with Web deployment
- Support deployment to Rich Client
- Combine screens and data from multiple applications
- Eliminates need to customize every screen
- Generate Web services from host transactions
- Exploits security & scalability of WebSphere Application Server and WebSphere Portal
- Extensible through IBM Rational Software Delivery Platform
- Supports iterative development



## HATS Education

[www.ibm.com/software/webservers/hats/education.html](http://www.ibm.com/software/webservers/hats/education.html)

- SW725 - Introduction to Building Web-to-Host Solutions using IBM WebSphere HATS - This Web-based training course is based on Host Access Transformation Services (HATS). The course is self-directed and self-paced, and divided into modules so you can select and customize the course to your educational requirements. This course is designed for anyone who wants to develop a fundamental understanding of HATS, as well as to learn how to use HATS Toolkit to develop basic HATS applications.
- SW913 - Advanced Web-to-Host Application Integration using IBM WebSphere HATS - 3 days - In this course, students will gain an in-depth understanding of how to transform existing 3270/5250 host applications using IBM WebSphere Host Access Transformation Services (HATS). Through a combination of lecture, demonstration and hands-on lab exercises, participants will learn how to use HATS Toolkit to develop applications that exploit the advanced features and capabilities of HATS to allow organizations to protect their investment in host applications by transforming them into Web-based applications. The advanced features that will be covered include macros, global variables, Integration Objects, Model 1 and 2 JSP pages to drive the Integration Objects and Web services support using HATS applications.



## Resources

- **IBM WebSphere Host Integration Solution Product Page**
  - <http://www-306.ibm.com/software/websevers/hostintegration/>
- **HATS Product Page**
  - <http://www-306.ibm.com/software/websevers/hats/>
- **Demos**
  - <http://websphere.dfw.ibm.com/whidemo/>
- **Webinars**
  - <http://www-306.ibm.com/software/websevers/hats/webinars/index.html>
- **Library, Brochures, Presentations, Redbooks**
  - <http://www-306.ibm.com/software/websevers/hats/library.html>
- **Education**
  - <http://www-306.ibm.com/software/websevers/hats/education.html>
- **Services**
  - <http://www-306.ibm.com/software/websevers/hats/services.html>
- **Trial Code**
  - <http://www-306.ibm.com/software/websevers/hats/trialcode.html>
- **Customer Comments**
  - [http://www-306.ibm.com/software/websevers/hi\\_customers/](http://www-306.ibm.com/software/websevers/hi_customers/)
- **Business Partners**
  - [http://www-306.ibm.com/software/websevers/hi\\_partners/](http://www-306.ibm.com/software/websevers/hi_partners/)
- **Customer Success Stories**
  - [http://www-306.ibm.com/software/success/cssdb.nsf/advancedsearch/VW?SearchView&Query=\(host+access+transformation\)+AND+\[WebSiteProfileListTX\]=wsssoftware&site=wsssoftware&frompage=ts&Start=1&Count=30](http://www-306.ibm.com/software/success/cssdb.nsf/advancedsearch/VW?SearchView&Query=(host+access+transformation)+AND+[WebSiteProfileListTX]=wsssoftware&site=wsssoftware&frompage=ts&Start=1&Count=30)

## Resources – Comprehensive HATS Demo CD

- To request a CD
  - Send an email to [wsnfr@us.ibm.com](mailto:wsnfr@us.ibm.com). In your email, include the name of the CD (HATS Demonstration), how many CDs are needed, the type of CD (customer or business partner), the mailing address, and your phone number.
- Development Assistance
  - Participate in WebSphere HATS development lab advocacy program. Development resource assigned for consultation. Contact Pratik Nanavati, [pratik@us.ibm.com](mailto:pratik@us.ibm.com).