

CICS WEB PROCESSING USER EXPERIENCE



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IntelliWare Systems, Inc. Tel: 1-866-S390-eBIZ or 1-817-277-0800 Email: <u>info@intelliware.com</u> <u>http://www.intelliware.com</u>

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Presenter:

- Cyrus Mead IV
 - IntelliWare Systems, Inc
- Senior Support Representative.
- cmead@intelliware.com
- 847-816-4963





Experience

- CICS WEB Support is New with CICS 2.5 and beyond.
- It is just starting to get used.
- HOWEVER: My experience is with the IntelliWare product z/Web-Host
- Have assisted in installation of z/Web-Host on both VSE and OS/390 systems.





z/Web-Host Features

- **NOT CICS Release Specific**
- Not even CICS Specific
- Works on any 3270 Datastream
 - CICS
 - TSO
 - VM/CMS

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Experience

- So all of my experience will not be relevant to CICS issues
- But it WILL be relevant to the general issues involved in migrating 3270 screens to the web.
- And this will be true whatever product is used.





Why put CICS data on the web?

External Display

- Makes data available world-wide
- Displays data from the source without copying and reformatting.
- Internal Display
 - Limited to internal employees
 - Productivity gains available through using commonly available tools.





Internal vs External Display

- Internal display must focus on productivity.
 - **3270** expertise is rare and getting rarer
- External Display must focus on presentation
 - Form and Content are important when presenting to end-customers.





How does it work?

- A batch program that runs in a partition
- Listens on a specific TCP/IP port (80)
- After a request is received, it established a TN3270 connection on a port (23)
- From the mainframe perspective, all it sees is a TN3270 connection
- BUT all input/output is captured and changed





How does it work?

- Received screens are tested to see if they match key-fields
- If match is found, the screen is modified as specified in the webscreen source
- Screen is then merged into an HTML template
- Completed HTML output is sent to browser





Customization Possible

- No customization
- Global customization
- Individual Webscreens
- Low-Level HTML
- JavaScript customization
- Application Automation



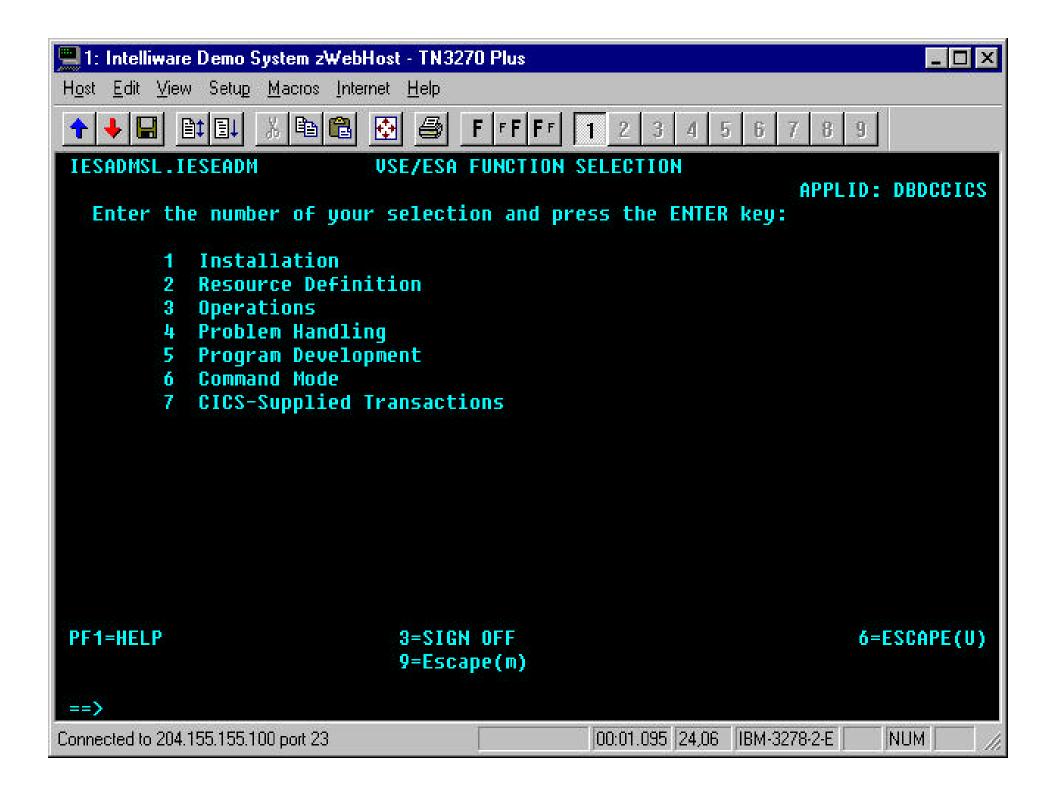


No customization

- The product is used "out of the box"
- Screen fields are modified for web usage but otherwise unchanged.
- Suitable for Internal Display
- Background and font are changed
- Input areas shown as a box.
- Virtual keyboard for function keys



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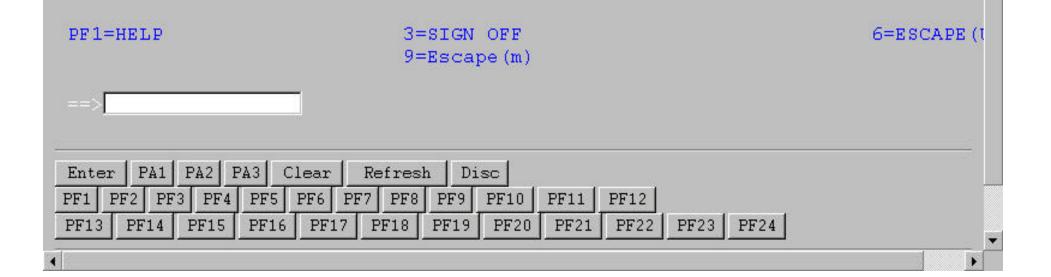


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APPLID: DBDCCI

Enter the number of your selection and press the ENTER key:

- 1 Installation
- 2 Resource Definition
- 3 Operations
- 4 Problem Handling
- 5 Program Development
- 6 Command Mode
- 7 CICS-Supplied Transactions

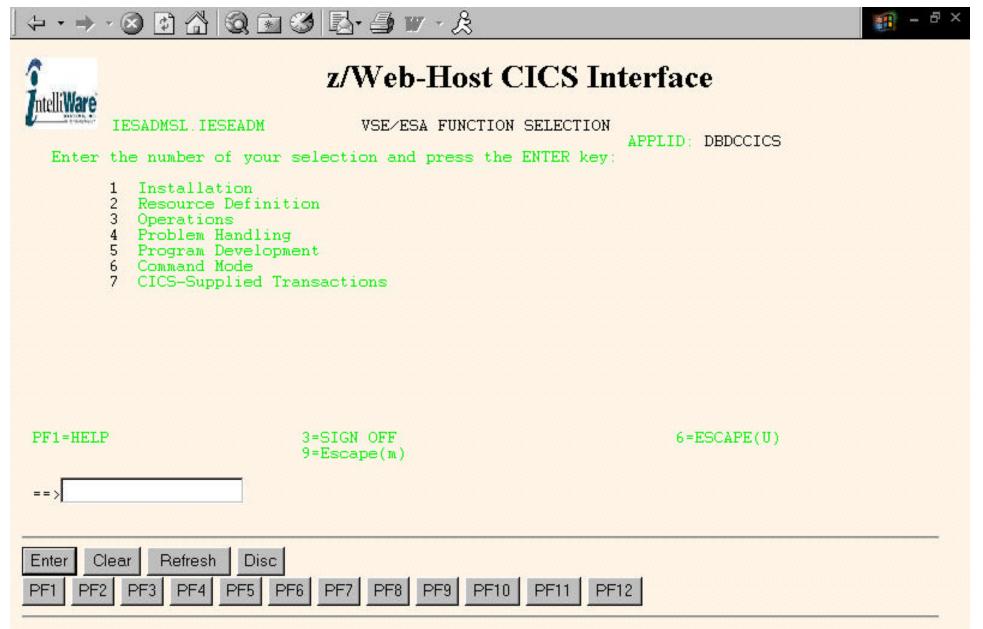




Global Customization

- All accomplished with one global HTML template.
- User selected background, font, and logo
- Unused keys eliminated





Powered by z/Web-Host!



Individual Webscreen Customization

- Screen is redesigned
- Menu choices become hyperlinks
- To do this we create a "Webscreen" control file.
 - Unique screen identification
 - Screen name
 - Location and processing of control fields



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z/Web-Host VSE/ESA Function Selection Menu

APPLID: DBDCCICS

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Enter the number of your selection and press the ENTER key:

- 1 Installation
- 2 <u>Resource Definition</u>
- 3 Operations
- 4 Problem Handling
- 5 Program Development
- 6 <u>Command Mode</u>
- 7 CICS-Supplied Transactions

USE	ONLY	THE	ENTER	KEY	OR	ONE	OF	THE	KEYS	LISTED	ABOVE
U D D	ONTEL	TUR	DIVI DIV	NET.	OK	ONE	OF	TUR	NET 0	TTOTED.	ABOVE.

Refresh

Disc

Powered by VSE/ESA!

Enter PA1 PA2 PA3 Clear

SIGN OFF

==>

HELP



Low-Level HTML Customization

- Choices replaced by Icons
 - Function keys replaced by buttons
- Screen totally rearranged
- No input area
- **Does this look like a 3270?**



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Welcome to IntelliWare.com

z/Web-Host

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Resource

Definition





Problem Handling

CICS Transactions



Program Development

Contact Directory



Help! Sign Off Escape (U) Escape (m) Refresh Disconnect

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A more complex example

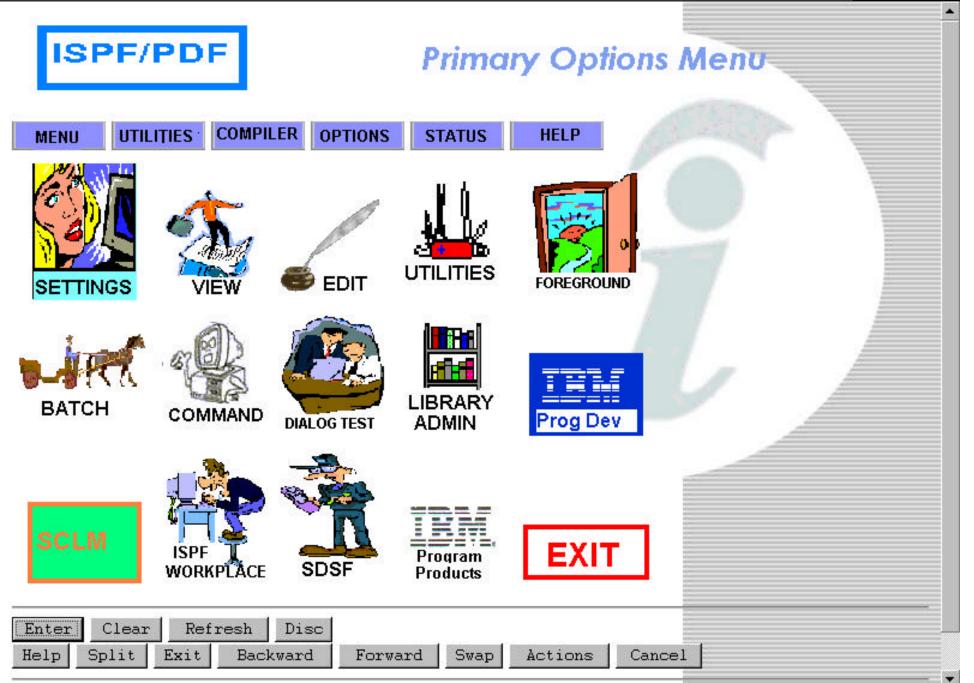
- OS/390 ISPF/PDF Main Menu
- Input selections, pull-down menus
- Converted to low-level HTML



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Host Edit ⊻iew Setup Macros Internet Help											
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ISPF Primary Option Menu											
Option ===>											
0 Settings	Terminal and user pa	rameters	User ID	. : ISICM4							
1 View	Display source data	Time	Time : 16:51								
2 Edit	Create or change sou	Terminal	Terminal. : 3278								
3 Utilities	Perform utility func		Screen : 1								
4 Foreground			Language. : ENGLISH								
5 Batch	Submit job for langu		Appl ID . : ISR								
6 Command	Enter TSO or Worksta		TSO logon : ISPFPROC								
7 Dialog Test	Perform dialog testi	TSO prefix: ISICM4 System ID : S390									
8 LM Facility Library administrator functions System ID :											
9 IBM ProductsIBM program development productsMVS acct. : **NONE**10 SCLMSW Configuration Library ManagerRelease . : ISPF 4.8											
10 SCLM SW CONFIGURATION LIDRARY MANager Release . : ISPF 4.8 11 Workplace ISPF Object/Action Workplace											
S SDSF Spool Search and Display Facility											
M More Additional IBM Products											
Enter X to Terminate using log/list defaults											
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F10=Actions F12=Cancel											
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JavaScript Customization

- Allows you to create more customized screens
- Seldom attempted due to complexity
- Over time we can build up a library of customized JavaScript Functions
- But we are not there yet!





Application Automation: How about

- Read in Userid/Password on one screen and go automatically to a different screen that uses it?
- Select an icon and go to a particular menu choice on a lower screen?
- Display multiple screens of a POWER listing on a single webscreen?
- Select an item from a list and go to a transaction to display details?





Application Automation:

- A brand new feature of z/Web-Host
- Provides a basic programming language with all the necessary tools.
- Read variables from a CICS screen, return a screen to CICS without modifying the Web display, Test variables to control order of execution.





Application Automation

Divorces not only the screen display but the order of execution from the underlying mainframe system.

Examples in our demo systems are still not available.



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Configuration Comparisons

- Individual configurations are quick and easy.
- Webscreens are all in text no compilation.
- Result: they multiply like rabbits
- So give thought to sizing the project and to setting up naming conventions.





General Observations on z/Web-Host

- Totally independent of the programs used to produce the 3270 screens.
- No modification to mainframe code required.
- No modification to PC code
- Very quick to implement





General Observations on z/Web-Host

- Application Automation can provide significant re-engineering without touching the original application
- Much more powerful than a screen-scraper



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General Observations on z/Web-Host

- Z/Web-Host depends on a browser with a browser's limitations.
- "Old Edna" the 3270 flash will not like it as well.
- But Edna will retire, and her replacement will.
- And so will employees who do not currently have 3270 access





Summary

- z/Web-Host offers one approach to webenabling CICS transactions or other 3270 applications.
- Customization of screens can be carried out at a variety of levels to meet your requirements.
- For a live demo running on a live system:
 - www.intelliware.com/zwebdemo.htm

