

CICS WEB PROCESSING USER EXPERIENCE



We Mean e-business.™

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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

Even WESTI

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



IESADMSL.IESEADM

USE/ESA FUNCTION SELECTION

APPLID: DBDCCICS

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

PF1=HELP

3=SIGN OFF
9=Escape(m)

6=ESCAPE(U)

==>

IESADMSL.IESEADM

VSE/ESA FUNCTION SELECTION

APPLID: DBDCCTC

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

PF1=HELP

3=SIGN OFF

6=ESCAPE (U

9=Escape (m)

==>

Enter	PA1	PA2	PA3	Clear	Refresh	Disc						
PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	
PF13	PF14	PF15	PF16	PF17	PF18	PF19	PF20	PF21	PF22	PF23	PF24	

Global Customization

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



z/Web-Host CICS Interface

IESADMSL.IESEADM

VSE/ESA FUNCTION SELECTION

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==>

Enter

Clear

Refresh

Disc

PF1

PF2

PF3

PF4

PF5

PF6

PF7

PF8

PF9

PF10

PF11

PF12

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

z/Web-Host VSE/ESA Function Selection Menu

APPLID: DBDCCICS

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](#)

USE ONLY THE ENTER KEY OR ONE OF THE KEYS LISTED ABOVE.

==>

Enter

PA1

PA2

PA3

Clear

Refresh

Disc

HELP

SIGN OFF

Powered by VSE/ESA!

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?**



Welcome to IntelliWare.com

z/Web-Host



Help!

Sign Off

Escape (U)

Escape (m)

Refresh

Disconnect

Powered by z/Web-Host!

A more complex example

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



ISPF Primary Option Menu

Option ==>

0	Settings	Terminal and user parameters	User ID . . :	ISICM4
1	View	Display source data or listings	Time . . . :	16:51
2	Edit	Create or change source data	Terminal. :	3278
3	Utilities	Perform utility functions	Screen. . :	1
4	Foreground	Interactive language processing	Language. :	ENGLISH
5	Batch	Submit job for language processing	Appl ID . :	ISR
6	Command	Enter TSO or Workstation commands	TSO logon :	ISPFPROC
7	Dialog Test	Perform dialog testing	TSO prefix:	ISICM4
8	LM Facility	Library administrator functions	System ID :	S390
9	IBM Products	IBM program development products	MVS acct. :	**NONE**
10	SCLM	SW Configuration Library 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

F1=Help F2=Split F3=Exit F7=Backward F8=Forward F9=Swap
F10=Actions F12=Cancel



ISPF/PDF

Primary Options Menu

- MENU
- UTILITIES
- COMPILER
- OPTIONS
- STATUS
- HELP



SETTINGS



VIEW



EDIT



UTILITIES



FOREGROUND



BATCH



COMMAND



DIALOG TEST



LIBRARY ADMIN



Prog Dev



SCLM



ISPF WORKPLACE



SDSF



Program Products



EXIT

- Enter
- Clear
- Refresh
- Disc
- Help
- Split
- Exit
- Backward
- Forward
- Swap
- Actions
- Cancel

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.

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-scrapers

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 web-enabling 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