



International Technical Support Organization

## IBM System z9 - Hardware Management Console

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**Redbooks Workshop**  
IBM ITSO - International Technical Support Organization

IBM System z9 - Workshop

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## New IBM System z9 HMC

### Highlights:

- Leverage new technologies
- Provide full function remote access
- Improve User Interface (UI) consistency:
  - within the HMC and SE
  - with other IBM products / series
- Minimize changes to the user interface
- Support CMOS and zSeries products
- Optional network (Internet) based “call home” support

## Enhancements

- **Full function remote access**
  - Allows multiple simultaneous remote users
    - (HMC only) using standard web browsers
      - Internet Explorer 6.0 or later
      - Mozilla 1.6 or later
      - Firefox 1.0 or later
      - Netscape 7.1 or later
      - Opera 8.0 or later
- **Security**
  - Uses 128 bits SSL based certificates for encrypted communications
  - Dynamic & Integrated Firewall limits communications / connectivity
- **New User Interface (UI) style**
  - Tree-style user interface available
  - “windows-like” compatible with other series/controllers

## Similarities

- **Main UI**
  - As much the same as today as possible
- **Tasks**
  - Most tasks present very similar panels
- **Server Capabilities Maintained**
  - Phone Server
  - Change Management
  - Automation access point
  - Configuration data carried forward for upgrades

## Differences

- **Closed System**
  - Embedded operating System
  - No desktop access
  - Customer applications cannot be installed
- **TCP/IP only**
  - Auto-discovery uses IP-Multicast (replaces NetBios)
  - No support for SNA
  - Call home uses Async/LAN methods only
- **Escon Director / Sysplex Timers**
  - Previous WINOS2 HMC applications no long supported
  - Director/Timer console definition/SOO operations still supported
- **Legacy**
  - Some levels of zSeries HMC hardware will not be supported

## More differences

- **API Support**
  - APIs are no longer obtained from the HMC hard disk
  - APIs will be available at IBM Resource Link site
    - <http://www.ibm.com/servers/resourcelink>
  
- **Legacy Systems not supported**
  - 9221
  - 967x G1 – G4
  - Multiprise 2003
  - 7060 (Multiprise 3000)
  
- **Supported Legacy Systems <sup>(1)</sup>**
  - Z990 / z890 (driver 55)
  - Z900 / z800 (driver 3G)
  - 9672 G5 & G6 (driver 26)

(1)- the support will be provided via new MCLs to the specified drivers

## Previous HMC

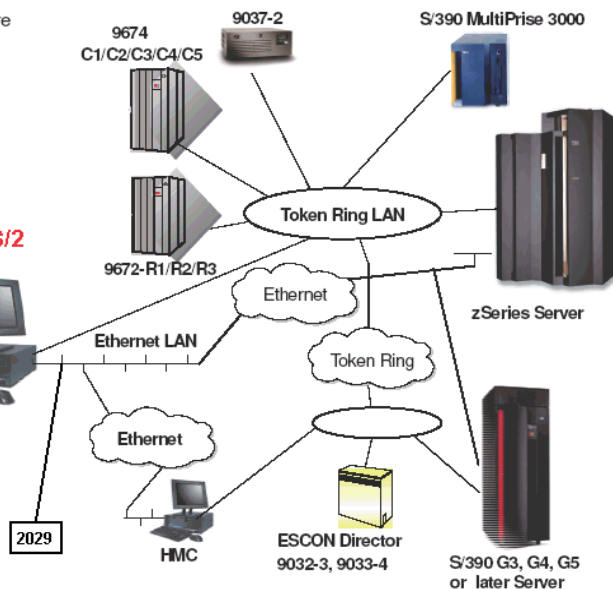
Primary Interface for Human to Hardware Operation

✓ Object Oriented Workplace

Single point of Operation for Hardware Elements

✓ One single HMC supports multiple systems attached through a LAN

- Drv 55 OS/2 HMC**
- Remote Console Connection
- Remote HMC Operation
- ✓ HMC over interconnected LAN
  - ✓ Token Ring or Ethernet
- Remote Console Operation
- ✓ Web Browser
  - ✓ DCAF to HMC





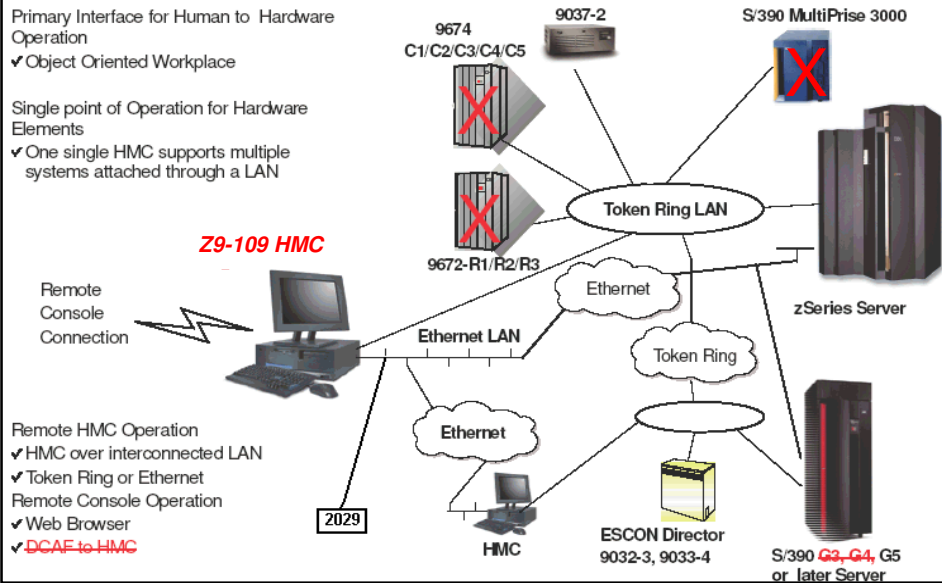
## New Generation HMC

Primary Interface for Human to Hardware Operation

- ✓ Object Oriented Workplace

Single point of Operation for Hardware Elements

- ✓ One single HMC supports multiple systems attached through a LAN



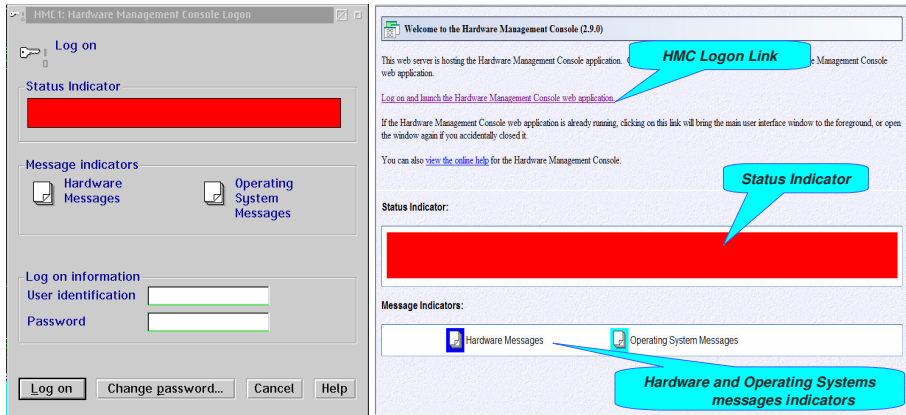
- Remote HMC Operation
- ✓ HMC over interconnected LAN
  - ✓ Token Ring or Ethernet
- Remote Console Operation
- ✓ Web Browser
  - ✓ DCAF to HMC

## User Interfaces

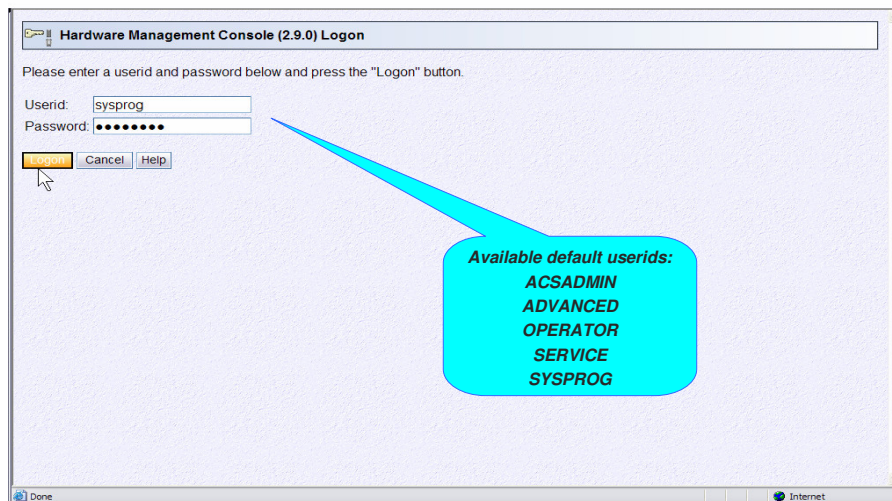
- **Total Web based**
  - Most panels are html based
  - Use of applets avoided where possible
  - Remote access same as local access
- **Look and feel maintained**
  - Presentation is similar to OS2 HMC
  - Some differences / enhancements
- **Logoff and Disconnect**
  - New disconnect option is provided along with logoff
  - Executing tasks remain active when disconnected
  - Disconnect sessions persists till HMC application is restarted

# HMC Logon

- Logon replaced by the **HMC Welcome Page**
  - Welcome page displays status and messages
  - Provides a link to perform the logon



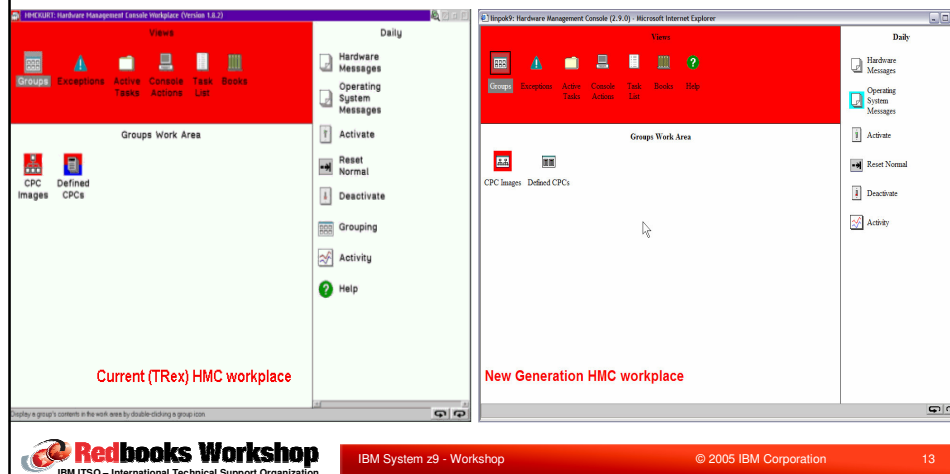
# Logon Screen





## Look & Feel

- **Total Web based**
  - **Preserve today's look and feel**
  - **Seamless Local and Remote access**
    - Except for functions that need local manual intervention (ex media format)



## Changes

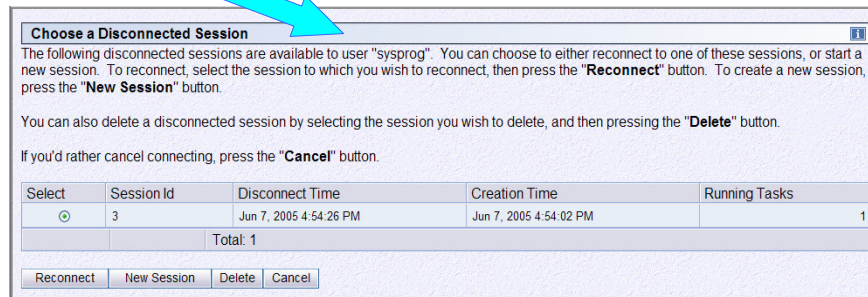
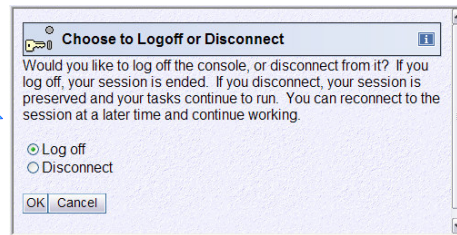
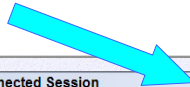
- **Logoff**
  - This function is now performed using the “**Logoff or Disconnect**” under “**Console Actions**”
- **Logon Details (Users & Tasks)**
  - This function is now performed using the “**Login Details and Tasks**” under “**Console Actions**”
- **Hover Help**
  - This function is now provided by the “**User Settings**” under “**Console Actions**”
- **Single Object Selection**
  - This function is now provided by the “**User Settings**” under “**Console Actions**”
- **Autosize**
  - This function is no longer supported in the new generation HMC

## Logoff & Disconnect

- New “Logoff or Disconnect” option
  - Under console actions



- Disconnected sessions lasts as long as the HMC/SE application is not restarted



## Changes

- **Logoff**
  - This function is now performed using the “Logoff or Disconnect” under “Console Actions”
- **Logon Details (Users & Tasks)**
  - This function is now performed using the “Login Details and Tasks” under “Console Actions”
- **Hover Help**
  - This function is now provided by the “User Settings” under “Console Actions”
- **Single Object Selection**
  - This function is now provided by the “User Settings” under “Console Actions”
- **Autosize**
  - This function is no longer supported in the new generation HMC

## Logon Details

The following is the list of users currently logged on. The table below lists all tasks running in the system.

**Users Logged On**

Session Id	User Name	Logon Time	Running Tasks	Access Location	Notes
6	pemode	9/27/05 1:21 AM	2	At console	Disconnected at 9/27/05 8:47 PM. The user didn't reauthenticate in time.
9	sysprog	9/27/05 8:51 PM	1	9.18.198.7	This is your session

**Running Tasks**

Select	Task Id	Task Name	Targets	Session Id	Start Time
<input type="radio"/>	26	Analyze Console Internal Code		6	9/27/05 1:21 AM
<input type="radio"/>	39	Perform Support Actions		6	9/27/05 6:32 PM
<input type="radio"/>	41	Users and Tasks		9	9/27/05 8:54 PM

Switch To Terminate

Logon Details function now under console actions

## Changes

- **Logoff**
  - This function is now performed using the “Logoff or Disconnect” under “Console Actions”
- **Logon Details (Users & Tasks)**
  - This function is now performed using the “Login Details and Tasks” under “Console Actions”
- **Hover Help**
  - This function is now provided by the “User Settings” under “Console Actions”
- **Single Object Selection**
  - This function is now provided by the “User Settings” under “Console Actions”
- **Autosize**
  - This function is no longer supported in the new generation HMC

## Hover Help

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linp0k9: Hardware Management Console (2.9.0) - Microsoft Internet Explorer

Views: Groups, Exceptions, Active Tasks, **Console Actions**, Task List, Books, Help

Console Actions Work Area:

- View Console Events
- View Console Service History
- Customize Console Date Time
- Change Console Internal Code
- Single Step Console Internal Code
- Backup Critical Console Data
- View Console Information
- Customize Scheduled Operations
- Transmit Console Service Data
- Authorize Internal Code Changes
- Report a Problem
- Transmit Vital Product Data
- Manage Remote Support Requests
- Manage Remote Connections
- Certificate Management
- Change Password
- Configure 3270 Emulators
- Format Security Logs to DVD

Once selected, Hover Help will produce the effect shown here, for "mouse-over" on HMC/SE objects

Daily: Hardware Messages, Operating System Messages, Activate, Reset Normal, Deactivate, Grouping, Activity

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## Changes

- **Logoff**
  - This function is now performed using the "Logoff or Disconnect" under "Console Actions"
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  - This function is now performed using the "Login Details and Tasks" under "Console Actions"
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- **Single Object Selection**
  - This function is now provided by the "User Settings" under "Console Actions"
- **Autosize**
  - This function is no longer supported in the new generation HMC



## Single Object Selection

The screenshot displays the IBM System z9 console interface. At the top, there is a navigation bar with 'Views' and various icons. Below this is the 'Console Actions Work Area'. A 'User Settings' dialog box is open, showing the 'Controls' tab. The 'Single object selection' checkbox is checked, and the 'Apply' button is highlighted. The dialog also includes 'Reset' and 'Defaults' buttons. The background shows various console panels and a 'Daily' activity list on the right.

## Changes

- **Logoff**
  - This function is now performed using the “Logoff or Disconnect” under “Console Actions”
- **Logon Details (Users & Tasks)**
  - This function is now performed using the “Login Details and Tasks” under “Console Actions”
- **Hover Help**
  - This function is now provided by the “User Settings” under “Console Actions”
- **Single Object Selection**
  - This function is now provided by the “User Settings” under “Console Actions”
- **Autosize**
  - This function is still supported in the new generation HMC

## Changes cont..

- **Drag and drop**

- Still supported  
(uses the left mouse button instead of the right mouse button).

- **Help icon**

The Help icon has been moved from the Tasks area to the Views area of the main user interface.

- **Active Tasks**

The Active Tasks view now shows an icon for all tasks associated with the current user's session.

- **Busy Objects**

Double clicking a busy target object now will always result in the display of the details window for the target object.

## Changes cont..

- **Drag and drop**

- Still supported  
(uses the left mouse button instead of the right mouse button).

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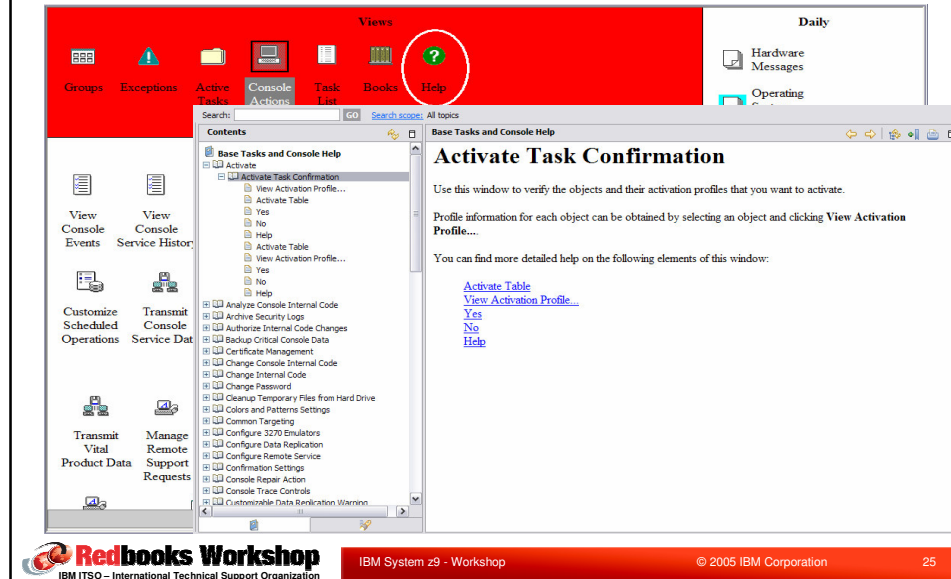
- **Busy Objects**

Double clicking a busy target object now will always result in the display of the details window for the target object.



## Help Icon

- Clicking on Help Icon launches the Help Index



## Changes cont..

- Drag and drop**  
 Still supported, but uses the left mouse button instead of the right mouse button.
- Help icon**  
 The Help icon has been moved from the Tasks area to the Views area of the main user interface.
- Active Tasks**  
 The Active Tasks view now shows an icon for all tasks associated with the current user's session.
- Busy Objects**  
 Double clicking a busy target object now will always result in the display of the details window for the target object.

## Active Tasks

Views

Groups Exception

Change Console Internal Code

Change Management Services: Enabled

**Change Console Internal Code options**

- Accept installed changes that were activated
- Check dependencies
- Install and activate changes that were retrieved
- Browse system and internal code information
- Remove and activate changes
- Retrieve internal code changes
- Select the configuration-specific changes
- Delete retrieved changes that were not installed

OK Cancel Help

Daily

- Hardware Messages
- Operating System Messages
- Activate
- Reset Normal
- Deactivate
- Grouping
- Activity

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## Changes cont..

- **Drag and drop**

Still supported, but uses the left mouse button instead of the right mouse button.

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The Help icon has been moved from the Tasks area to the Views area of the main user interface.

- **Active Tasks**

The Active Tasks view now shows an icon for all tasks associated with the current user's session.

- **Busy Objects**

Double clicking a busy target object now will always result in the display of the details window for the target object.

## Busy objects

Double clicking a busy target Object will now always result in the display of the details window for the target object.

In this example, T57 object was busy running an Operating System Messages task (which is minimized)

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## Changes cont...

- **Object Locking**
  - Locking an object works at HMC level
    - Lock / Unlock can be accomplish from different users
- **User settings**
  - Now at the user level rather than at the HMC/SE level.
    - Confirmations
    - Colors
    - Automatic object locking
- **Additional HMC settings are now under**
  - Hardware Management Console Settings
    - Network Settings
    - Customer Information
    - API Settings
    - Automatic Logon
    - Data Replication
    - Object Lock Settings

## Object Locking

- Locking managed at the UI level, not at the HMC/SE level
  - Located under "CPC Details" panel

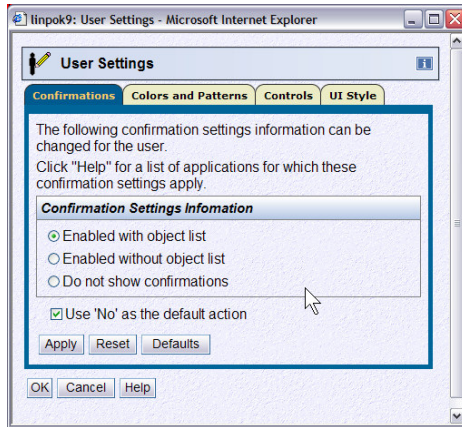
The screenshot shows a web browser window titled "linpok9: T57 Details - Microsoft Internet Explorer". The main content area displays "T57 Details" with tabs for Instance Information, Acceptable Status, Product Information, and Network Information. The Instance Information tab is active, showing details like Status (Not Operating), Group (Defined CPCs), and Task Information (Service Status). A context menu is open over the "CPC Details" panel, with "Toggle lock" selected. Other menu items include Daily, Recovery, Service, Change Management, Remote Customization, Operational Customization, and Configuration. A red arrow points from the text "Located under 'CPC Details' panel" to the context menu.

## Changes cont...

- **Object Locking**
  - Locking an object works at HMC level
    - Lock / Unlock can be accomplish from different users
- **User settings**
  - Now at the user level rather than at the HMC/SE level.
    - Confirmations
    - Colors
    - Automatic object locking
    - User Style (when allowed by ACSADMIN)
- **Additional HMC settings are now under**
  - Hardware Management Console Settings
    - Network Settings
    - Customer Information
    - API Settings
    - Automatic Logon
    - Data Replication
    - Object Lock Settings

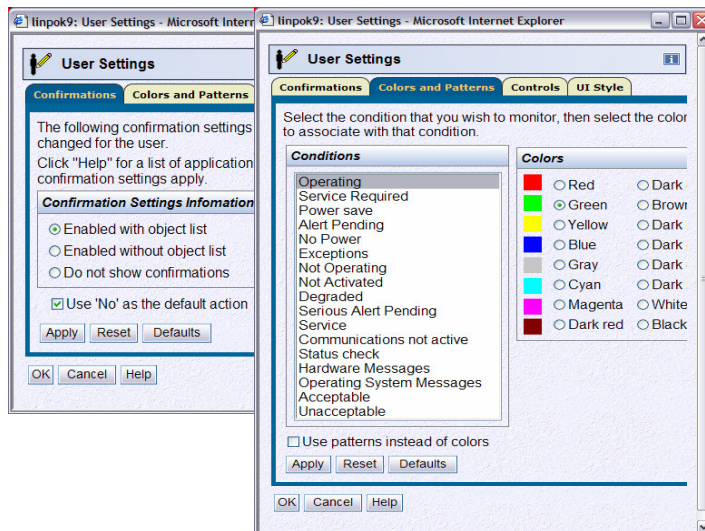
# User Settings

- Setting Confirmations..



# User Settings

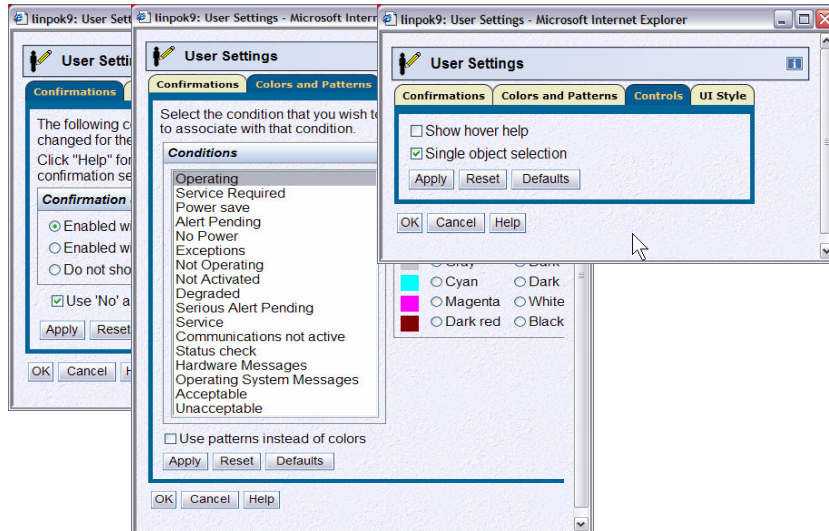
- Colors and Patterns





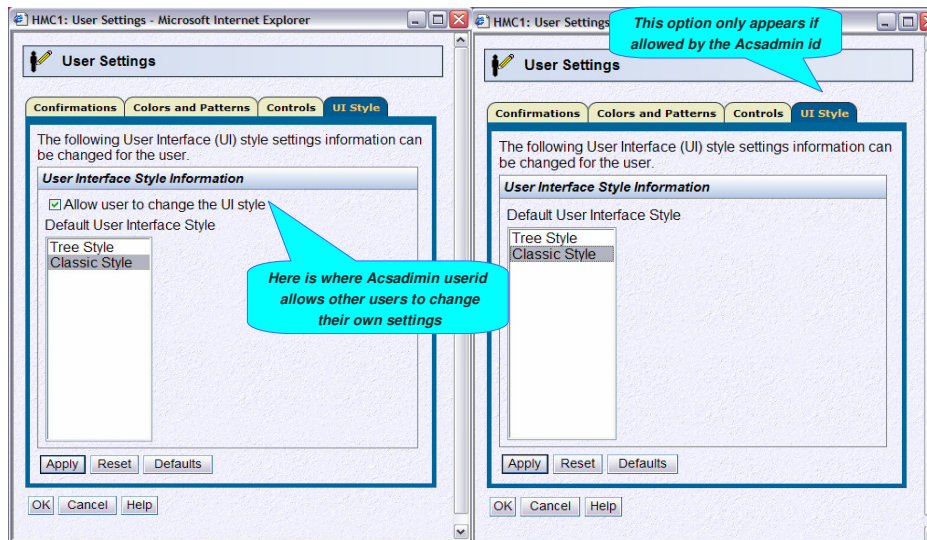
# User Settings

## Setting Controls



# User Settings

## Choosing UI Style



# User Settings

The screenshot displays several overlapping 'User Settings' dialog boxes from the IBM System z9 console. The dialog boxes are titled 'linpok9: User Settings - Microsoft Internet Explorer'. The visible settings include:

- Confirmations:** Radio buttons for 'Enabled with...', 'Enabled with...', and 'Do not show...'. A checked option 'Use 'No' as...' is visible.
- Conditions:** A list of system events such as 'Operating Service Required', 'Power save Alert Pending', 'No Power Exceptions', etc.
- UI Style:** A section titled 'User Interface Style Information' with a checked option 'Allow user to change the UI style' and a list of styles including 'Tree Style' and 'Classic Style'.

Buttons for 'Apply', 'Reset', 'Defaults', 'OK', 'Cancel', and 'Help' are present on each dialog box.

# User Profiles / Remote Access

The screenshot shows the IBM Hardware Management Console interface. The 'Modify User' dialog box is open, showing the following details:

- User ID:** SYSPROG
- Description:** System programmer level
- Password Rule:** basic
- Managed Resource Roles:** A list with checkboxes for 'All Directors/Timers Managed Objects', 'All Fiber Saver Managed Objects', 'All Managed Objects' (checked), and 'Defined Directors/Timers Managed Objects' (checked).

The 'User Properties' dialog box is also open, showing:

- Timeout Values:** Input fields for 'Session timeout minutes' (0), 'Verify timeout minutes' (15), and 'Idle timeout minutes' (0).
- Allow remote access via the web:** A checked checkbox.

A blue callout bubble points to the 'Remote Connections' option in the console's left-hand menu, with the text: 'Allowing the user to access this HMC remotely'.

## User Profiles / Creating new HMC Users

The screenshot shows the 'Add User' dialog in the IBM Hardware Management Console. The 'User ID' field contains 'BOBGREEN' and the 'Description' field contains 'OPERS1'. The 'Password Rule' is set to 'basic'. Under 'Resource Roles', 'Defined Directors/Timers Managed Objects' and 'Defined Fiber Saver Managed Objects' are selected. Under 'Task Roles', 'Operator Tasks' is selected. The dialog has 'OK', 'User Properties...', 'Cancel', and 'Help' buttons at the bottom.

**Select "Add" option from User pull-down menu**

**Enter new user name, select the required options and click "OK"**

## Changes cont...

- **Object Locking**
  - Locking an object works at HMC level
    - Lock / Unlock can be accomplish from different users
- **User settings**
  - Now at the user level rather than at the HMC/SE level.
    - Confirmations
    - Colors
    - Automatic object locking
- **Additional HMC settings are now under ...**
  - Hardware Management Console Settings
    - Network Settings
    - Customer Information
    - API Settings
    - Automatic Logon
    - Data Replication
    - Object Lock Settings



## Additional HMC Settings

The screenshot displays the IBM Hardware Management Console (HMC) interface. At the top, there is a navigation bar with icons for Groups, Exceptions, Active Tasks, Console Actions, Task List, Books, and Help. Below this is the 'Hardware Management Console Settings Work Area', which contains several configuration options: Configure Remote Service, Customize Auto Answer Settings, Customize Console Services, Customize Customer Information, Customize Modem Settings, Customize Outbound Connectivity, and Object Locking Settings. A red callout box points to this area with the text: "HMC Setup functions Moved to this new Work area" and "Hardware Management Console Settings Work Area". On the right side, there is a 'Daily' section with various system messages and actions like Activate, Reset Normal, Deactivate, Grouping, and Activity.

## Changes cont...

- **Task Invocation**
  - Single invalid target panel used
  - Each invalid target is shown with the invalid reason
- **Pull-Down Menus**
  - Pull down menu displayed with "mouse-over"
  - No keyboard supported functions for pull-down menu
    - No abbreviation (short-cuts)
    - No active cursor keys (mouse over and click to select)
    - Escape key does not hide the menu
- **Selection Lists**
  - Item in the list is selected via selection box
    - No "double click on item" support
  - Selection boxes used for multiple item selections
  - Radio buttons used for single selections
  - Scrolling throughout the list is done using vertical scroll bars
    - List size will change based on the number of entries
  - The total number of entries in the list is always shown

## Task Invocation

The screenshot shows the 'Groups Work Area' in the IBM System z9 Workshop. A dialog box titled 'Invalid Target Object List' is open, displaying the following information:

Task: Hardware Messages  
 One or more of the objects to be targeted for the selected task are currently not valid for the task.  
 Review the object list to determine which objects are not valid for the task at this time.  
 Click "Yes" to continue the task with only the valid objects as targets. Click "No" to end the task.

Object Name	Reason
PATCH7	Valid for use at this time
PATCH8	Object is not communicating at this time
PATCHTX1	Valid for use at this time

Total: 3

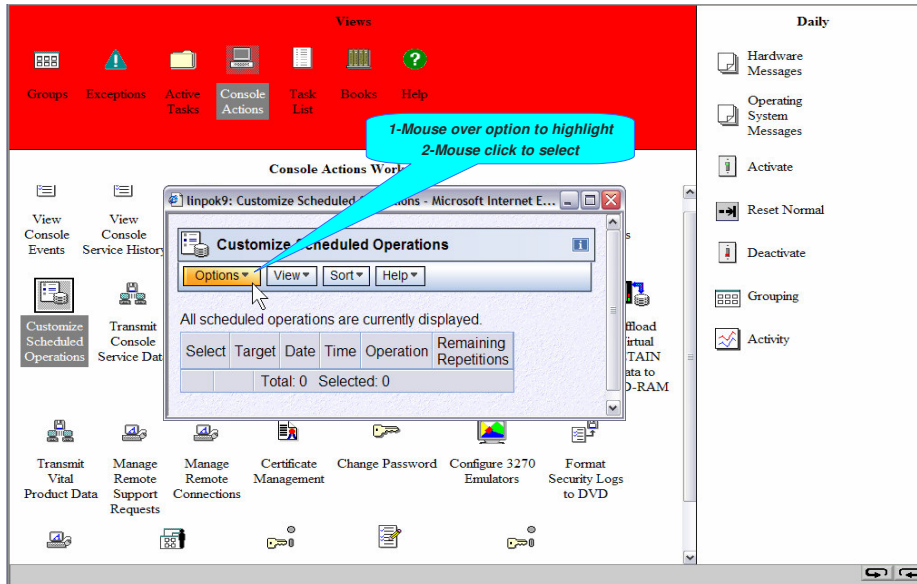
Buttons: Yes, No, Help

Callout text: There are 3 CECs under Defined CPCs group. One of them, PATCH8, is not communicating

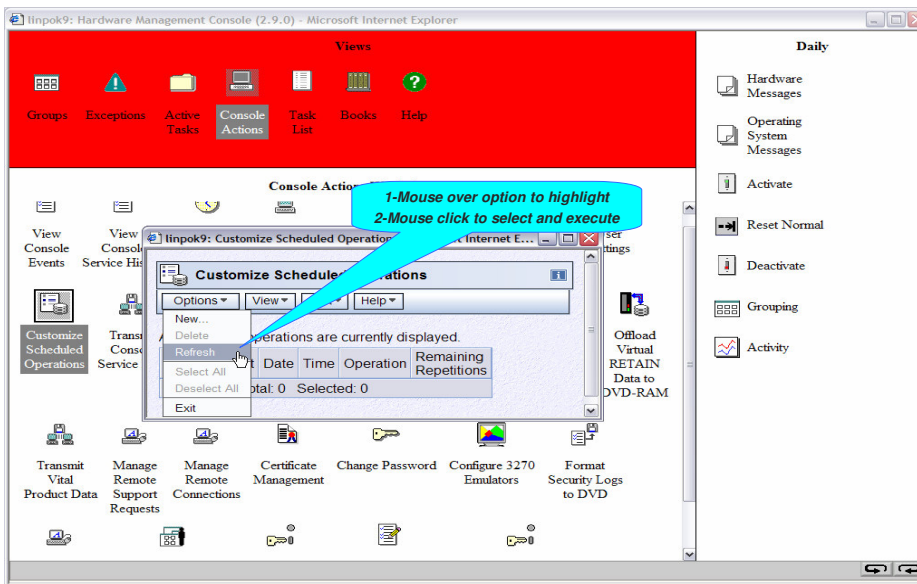
## Changes cont...

- **Task Invocation**
  - Single invalid target panel used
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# Pull Down Menus

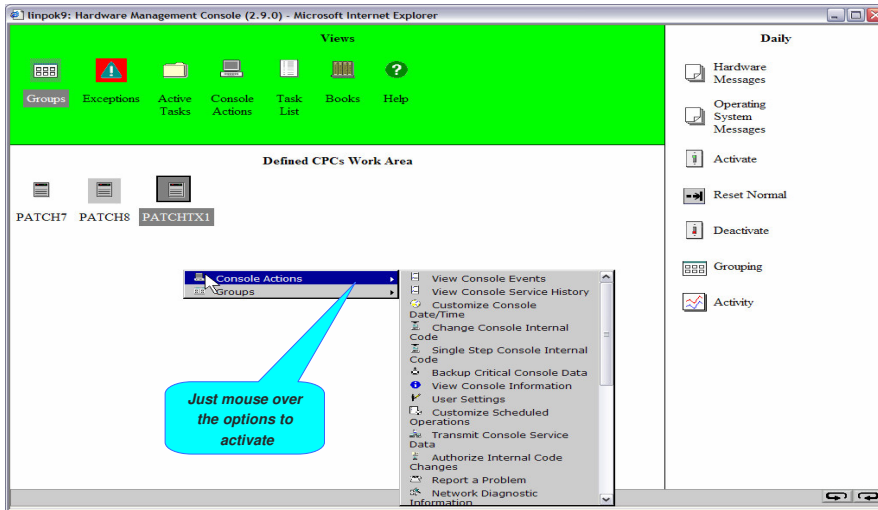


# Pull Down Menus



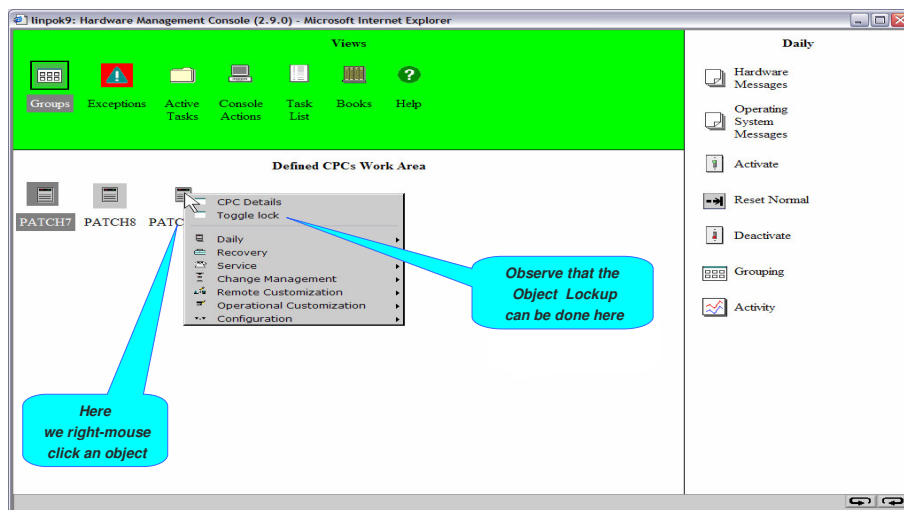
# More Pull-down menus..

- **New right-mouse click on objects**
  - Enhancement to the functions available on previous HMC



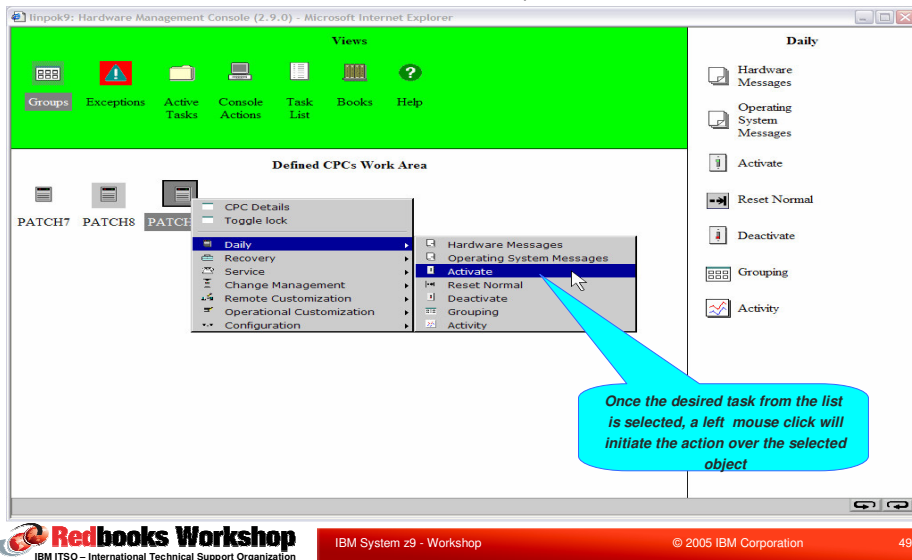
# More Pull-down menus..

- **New right-mouse click on objects**
  - Enhancement to the functions available on previous HMC



## More Pull-down menus..

- **New right-mouse click on objects**
  - Enhancement to the functions available on previous HMC



## Single Object Operation - SOO

- **Task Invocation**
  - Single invalid target panel used
  - Each invalid target is shown with the invalid reason
- **Pull-Down Menus**
  - Pull down menu displayed with "mouse-over"
  - No keyboard supported functions for pull-down menu
    - No abbreviation (short-cuts)
    - No active cursor keys (mouse over and click to select)
    - Escape key does not hide the menu
- **Selection Lists**
  - Item in the list is selected via selection box
    - No "double click on item" support
  - Selection boxes used for multiple item selections
  - Scrolling throughout the list is done using scroll bars
    - List size will change based on the number of entries
  - The total number of entries in the list is always shown

# Selection Lists

Individual items are selected via the selection box. Check boxes are used for multiple selections and Radio buttons for single selection.

Total number of entries in the list is provided here

Scroll thru the list using the scroll bar on the right

Select	Date	Time	Message Text
<input type="checkbox"/>	June 9, 2005	11:04:05 GMT-04:00	Licensed internal code problem
<input type="checkbox"/>	June 9, 2005	11:09:26 GMT-04:00	Licensed internal code problem
<input type="checkbox"/>	June 9, 2005	11:46:51 GMT-04:00	Hardware problem.
<input type="checkbox"/>	June 9, 2005	11:47:03 GMT-04:00	ACT00083I Licensed Internal Code Changes require further action.
<input type="checkbox"/>	June 9, 2005	11:47:08 GMT-04:00	Power problem.
<input type="checkbox"/>	June 9, 2005	11:55:15 GMT-04:00	Hardware problem.
<input type="checkbox"/>	June 9, 2005	12:08:48 GMT-04:00	Licensed internal code has detected a problem.
<input type="checkbox"/>	June 9, 2005	12:50:51 GMT-04:00	Hardware problem.
<input type="checkbox"/>	June 9, 2005	13:05:26 GMT-04:00	Hardware problem.
<input type="checkbox"/>	June 9, 2005	13:13:48 GMT-04:00	Hardware problem.
<input type="checkbox"/>	June 9, 2005	13:18:12 GMT-04:00	Licensed internal code has detected a problem.
<input type="checkbox"/>	June 9, 2005	13:31:29 GMT-04:00	Hardware problem.
<input type="checkbox"/>	June 9, 2005	13:34:55 GMT-04:00	Licensed internal code has detected a problem.
<input type="checkbox"/>	June 9, 2005	13:41:52 GMT-04:00	Hardware problem.
<input type="checkbox"/>	June 9, 2005	13:44:42 GMT-04:00	Licensed internal code has detected a problem.

Total: 29

# SE Workplace (legacy)

Logging off an SE session (SOO) from a legacy server. The "old style" logoff panel is presented

Restore Alt+F5  
 Move Alt+F7  
 Size Alt+F8  
 Minimize Alt+F9  
 Maximize Alt+F10  
 Hide Alt+F11  
 Log off Alt+F4  
 Window list Ctrl+Esc  
 Select all  
 Deselect all  
 Lock all  
 Autosize Windows  
 Logon details  
 Hover Help  
 Views

Active Tasks Console Task Books

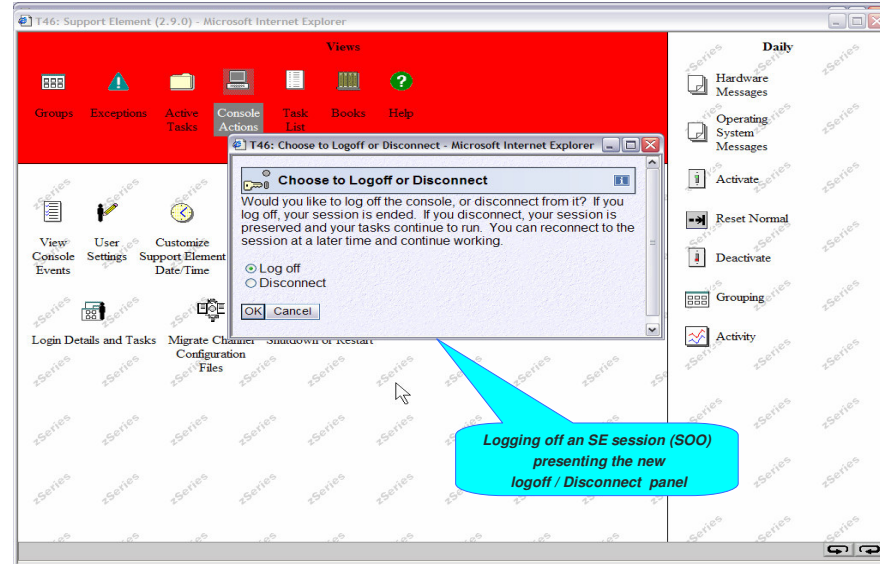
Groups Work Area

Views Daily  
 Hardware Messages  
 Operating System Message  
 Activate  
 Reset Normal  
 Deactivate  
 Grouping  
 Activity  
 Help

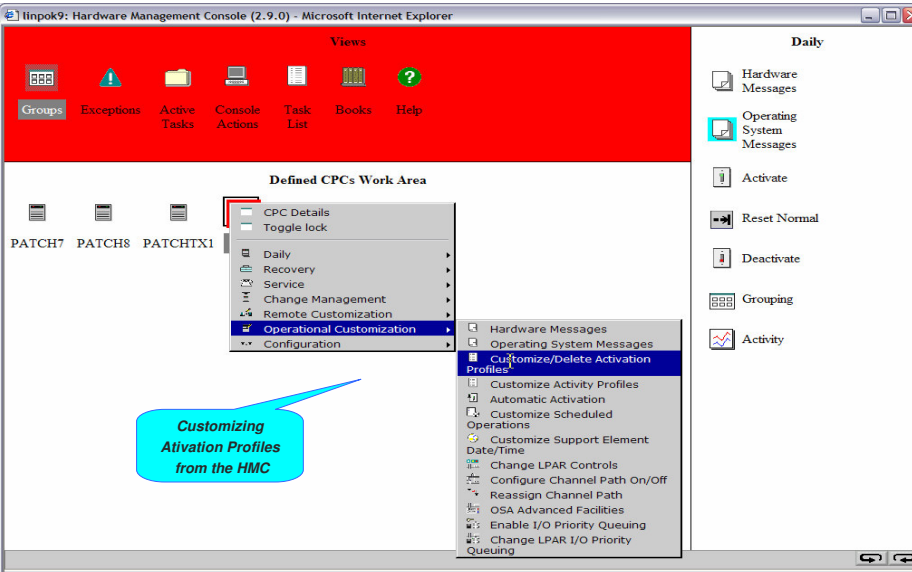
Display a group's contents in the work area by double-clicking a group icon.



### SE workplace - Current



### Profiles



# Profiles

Panel lists all available profiles. Select the profile to be change then click customize

Select	Profile Name	Type	Profile Description
<input type="radio"/>	A0	Reset	This is the default Reset profile.
<input type="radio"/>	DEFAULT	Reset	This is the default Reset profile.
<input checked="" type="radio"/>	TTESTEA0	Reset	This is the default Reset profile.
<input type="radio"/>	DEFAULTLOAD	Load	This is the default Load profile.
<input type="radio"/>	IODF80	Load	This is the default Load profile.
<input type="radio"/>	IODF80ZOS17	Load	This is the default Load profile.
<input type="radio"/>	IODF8E	Load	This is the default Load profile.
<input type="radio"/>	ZOS16IPL	Load	This is the default Load profile.
<input type="radio"/>	0D0LP01	Image	IOCCDS D0 Image 0D0LP01 Profile.
<input type="radio"/>	0D0LP02	Image	IOCCDS D0 Image 0D0LP02 Profile.
<input type="radio"/>	0D0LP03	Image	IOCCDS D0 Image 0D0LP03 Profile.
<input type="radio"/>	0D0LP04	Image	IOCCDS D0 Image 0D0LP04 Profile.
<input type="radio"/>	CF01	Image	This is the default Image profile.
<input type="radio"/>	CF11	Image	This is the default Image profile.
<input type="radio"/>	CF21	Image	This is the default Image profile.
<input type="radio"/>	CF31	Image	This is the default Image profile.
<input type="radio"/>	DEFAULT	Image	This is the default Image profile.
<input type="radio"/>	TC4S01	Image	This is the default Image profile.
<input type="radio"/>	TC4S02	Image	This is the default Image profile.
<input type="radio"/>	TC4S03	Image	This is the default Image profile.

Total: 33 Selected: 1

Buttons: Customize, Delete, Cancel, Help

# Profiles

The new "Customize Activation Profiles" panel uses a new approach. Observe the highlighted "General" Tab

Basically, same options as previous HMC

Select	Input/Output Configuration Data Set	Type	Allow Dynamic I/O	Partitions
<input checked="" type="radio"/>	A0 IODF80	Partition	Yes	CF01 TC4S01 TC4S02 TC4S03 TC4S04 CF11 TC4S11 TC4S12 TC4S13 TC4S14
<input type="radio"/>	A1 HSAMAX	Partition	Yes	CF01 TC4S01 TC4S02 TC4S03 TC4S04 CF11 TC4S11 TC4S12 TC4S13 TC4S14
<input type="radio"/>	A2 IODF8E	Partition	Yes	CF01 TC4S01 TC4S02 TC4S03 TC4S04 CF11 TC4S11 TC4S12 TC4S13 TC4S14
<input type="radio"/>	A3 IODF83	Partition	Yes	CF01 TC4S01 TC4S02 TC4S03 TC4S04 CF11 TC4S11 TC4S12 TC4S13 TC4S14
<input type="radio"/>	D0 DIAGNOSE	Partition	No	0D0LP01 0D0LP02 0D0LP03 0D0LP04
<input type="radio"/>	Use Active IOCCDS	Currently A0		

Total: 6 Selected: 1

Mode: Logically partitioned

Load Delay for Power Sequencing: \*0 minutes \*0 seconds

Buttons: Save, Copy Notebook, Paste Profile, Assign Profile, Cancel, Help



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# Profiles

Clicking on these tabs takes you to the selected "page"

Select	Input/Output Configuration Data Set	Type	Allow Dynamic I/O	Partitions
<input checked="" type="radio"/>	A0 IODF80	Partition	Yes	CF01 TC4S01 TC4S02 TC4S03 TC4S04 CF11 TC4S11 TC4S12 TC4S13 TC4S14
<input type="radio"/>	A1 HSAMAX	Partition	Yes	CF01 TC4S01 TC4S02 TC4S03 TC4S04 CF11 TC4S11 TC4S12 TC4S13 TC4S14
<input type="radio"/>	A2 IODF8E	Partition	Yes	CF01 TC4S01 TC4S02 TC4S03 TC4S04 CF11 TC4S11 TC4S12 TC4S13 TC4S14
<input type="radio"/>	A3 IODF83	Partition	Yes	CF01 TC4S01 TC4S02 TC4S03 TC4S04 CF11 TC4S11 TC4S12 TC4S13 TC4S14
<input type="radio"/>	D0 DIAGNOSE	Partition	No	0D0LP01 0D0LP02 0D0LP03 0D0LP04
<input type="radio"/>	Use Active IOCDs	Currently A0		

Mode: Logically partitioned

Load Delay for Power Sequencing: \*0 minutes \*0 seconds

Save Copy Notebook Paste Profile Assign Profile Cancel Help

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# Profiles

Storage Information "page"

Observe the information available here

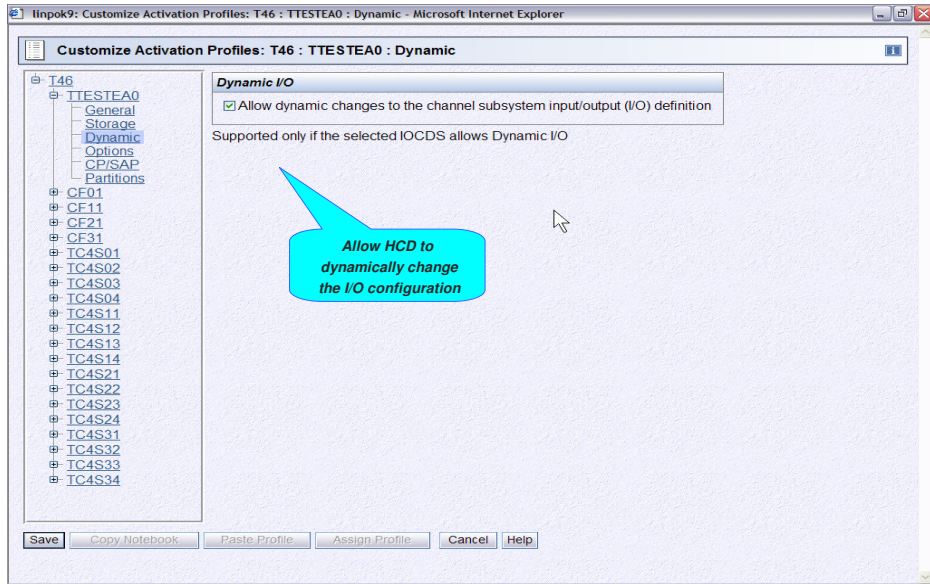
Installed Storage Details

- Installed storage (in Megabytes): 262144 MB
- Customer storage: 262144 MB

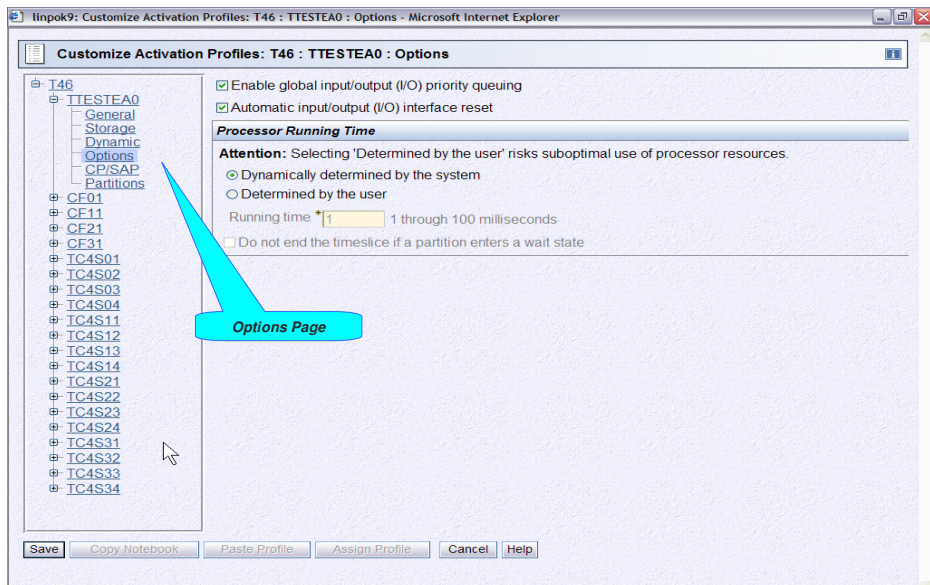
Save Copy Notebook Paste Profile Assign Profile Cancel Help

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# Profiles



# Profiles





# Profiles

linpok9: Customize Activation Profiles: T46 : TTESTEA0 : CP/SAP - Microsoft Internet Explorer

Customize Activation Profiles: T46 : TTESTEA0 : CP/SAP

Select a CP/SAP assignment.

Select	CPs	SAPs
<input checked="" type="radio"/>	38	8
<input type="radio"/>	37	9
<input type="radio"/>	36	10
<input type="radio"/>	35	11
<input type="radio"/>	34	12
<input type="radio"/>	33	13
<input type="radio"/>	32	14
<input type="radio"/>	31	15
<input type="radio"/>	30	16
<input type="radio"/>	29	17
<input type="radio"/>	28	18
<input type="radio"/>	27	19
<input type="radio"/>	26	20
<input type="radio"/>	25	21
<input type="radio"/>	24	22
<input type="radio"/>	23	23
<input type="radio"/>	22	24
<input type="radio"/>	21	25
<input type="radio"/>	20	26
<input type="radio"/>	19	27

Total: 25 Selected: 1

Integrated coupling facility processors (ICFs): 8

Integrated facility for applications (IFAs): 8

Display fenced book page

Save Copy Notebook Paste Profile Assign Profile Cancel Help

**CP / SAP assignment. Observe the ammount of special PU's available**

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# Profiles

linpok9: Customize Activation Profiles: T46 : TTESTEA0 : Partitions - Microsoft Internet Explorer

Customize Activation Profiles: T46 : TTESTEA0 : Partitions

Select a Partition assignment.

Select	Partition	Order
<input type="radio"/>	CF01	1
<input type="radio"/>	CF11	2
<input type="radio"/>	CF21	3
<input type="radio"/>	CF31	4
<input type="radio"/>	TC4S01	5
<input type="radio"/>	TC4S02	6
<input type="radio"/>	TC4S03	7
<input type="radio"/>	TC4S04	8
<input type="radio"/>	TC4S11	9
<input type="radio"/>	TC4S12	10
<input type="radio"/>	TC4S13	11
<input type="radio"/>	TC4S14	12
<input type="radio"/>	TC4S21	13
<input type="radio"/>	TC4S22	14
<input type="radio"/>	TC4S23	15
<input type="radio"/>	TC4S24	16
<input type="radio"/>	TC4S31	17
<input type="radio"/>	TC4S32	18
<input type="radio"/>	TC4S33	19
<input type="radio"/>	TC4S34	20

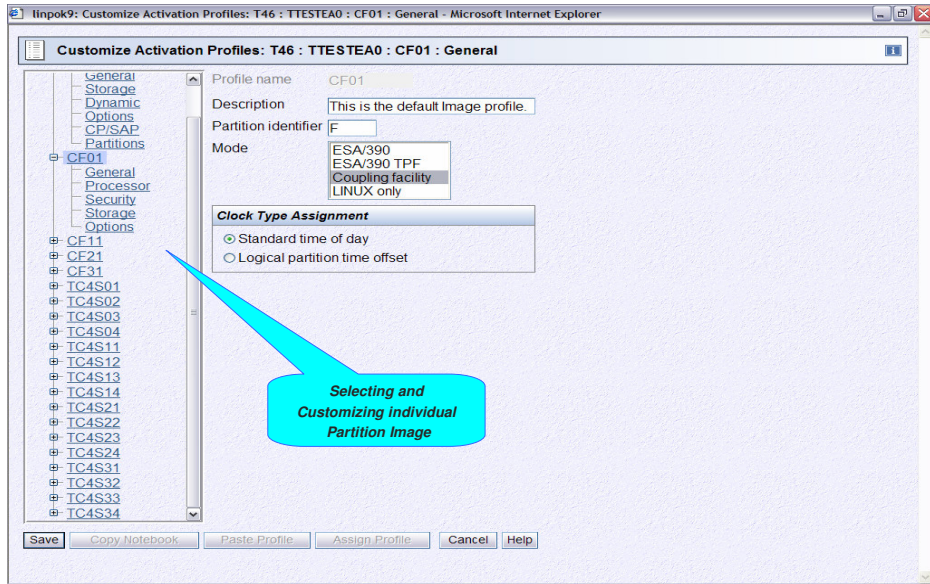
Total: 60 Selected: 0

Save Copy Notebook Paste Profile Assign Profile Cancel Help

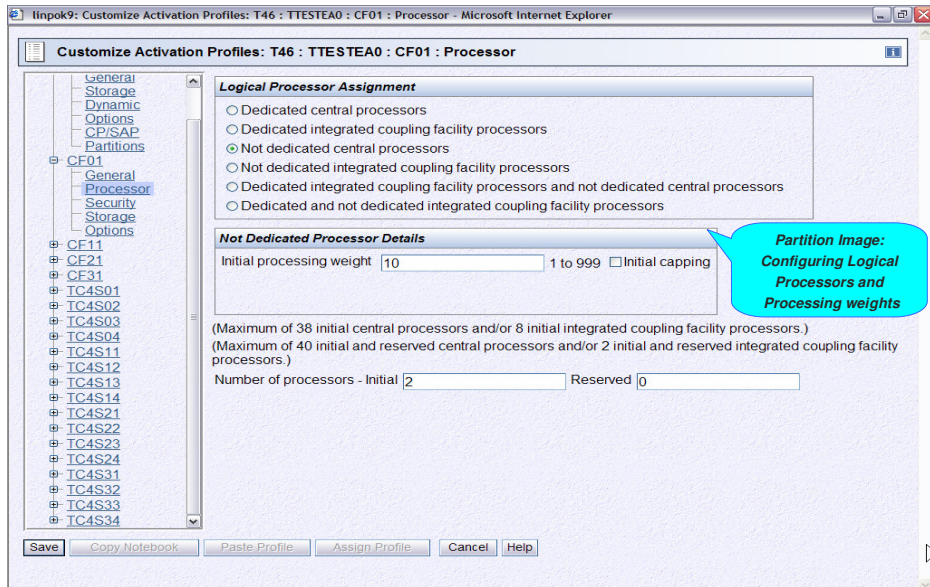
**Partitions tab (or page)**

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# Profiles



# Profiles





# Profiles

**Customize Activation Profiles: T46 : TTESTEA0 : CF01 : Processor**

**Logical Processor Assignment**

- Dedicated central processors
- Dedicated integrated coupling facility processors
- Not dedicated central processors
- Not dedicated integrated coupling facility processors
- Dedicated integrated coupling facility processors and not dedicated central processors
- Dedicated and not dedicated integrated coupling facility processors

**Not Dedicated Processor Details**

Initial processing weight:  1 to 999  Initial capping

(Maximum of 38 initial central processors and/or 8 initial integrated coupling facility processors.)  
(Maximum of 40 initial and reserved central processors and/or 2 initial and reserved integrated coupling facility processors.)

Processor Type	Initial	Reserved
Dedicated integrated coupling facility processors	<input type="text" value="0"/>	<input type="text" value="0"/>
Not dedicated integrated coupling facility processors	<input type="text" value="10"/>	<input type="text" value="0"/>

**Logical Processors Assignment. Observe the new options for the ICFs**

**Observe the new fields available based on the Logical Processor Assignment selection**

Buttons: Save, Copy Notebook, Paste Profile, Assign Profile, Cancel, Help

# Profiles

**Customize Activation Profiles: T46 : TTESTEA0 : CF01 : Security**

**Partition Security Options**

- Global performance data control
- Input/output (I/O) configuration control
- Cross partition authority
- Logical partition isolation

**No changes to the Partition "Security" options**

Buttons: Save, Copy Notebook, Paste Profile, Assign Profile, Cancel, Help

# Profiles

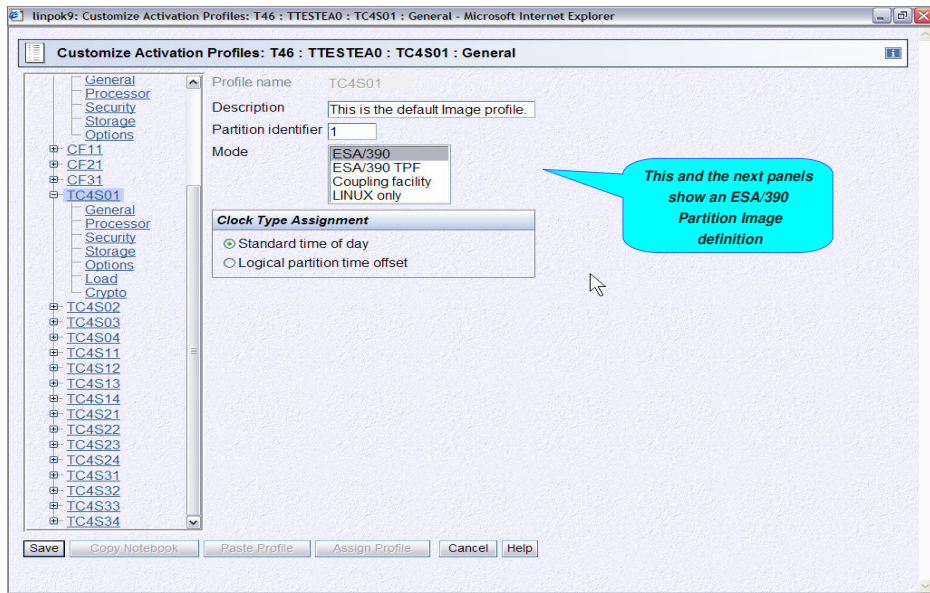
This screenshot shows the 'Partition Central Storage definition page' in the IBM System z9 Workshop. The window title is 'Inpok9: Customize Activation Profiles: T46 : TTESTEA0 : CF01 : Storage - Microsoft Internet Explorer'. The main content area is titled 'Customize Activation Profiles: T46 : TTESTEA0 : CF01 : Storage'. On the left, a tree view shows the navigation structure: General, Storage, Dynamic, Options, CP/SAP, Partitions, CF01, General, Processor, Security, Storage, and Options. The 'Storage' section is expanded, showing 'Central Storage' with the following fields: 'Amount (in megabytes)' with 'Initial' set to 4096, and 'Storage origin' with radio buttons for 'Determined by the system' (selected) and 'Determined by the user', and an 'Origin' field set to 0. A blue callout bubble points to the 'Central Storage' section with the text 'Partition Central Storage definition page'. At the bottom, there are buttons for 'Save', 'Copy Notebook', 'Paste Profile', 'Assign Profile', 'Cancel', and 'Help'. The footer contains the 'Redbooks Workshop' logo, 'IBM ITSO - International Technical Support Organization', 'IBM System z9 - Workshop', '© 2005 IBM Corporation', and the page number '67'.

# Profiles

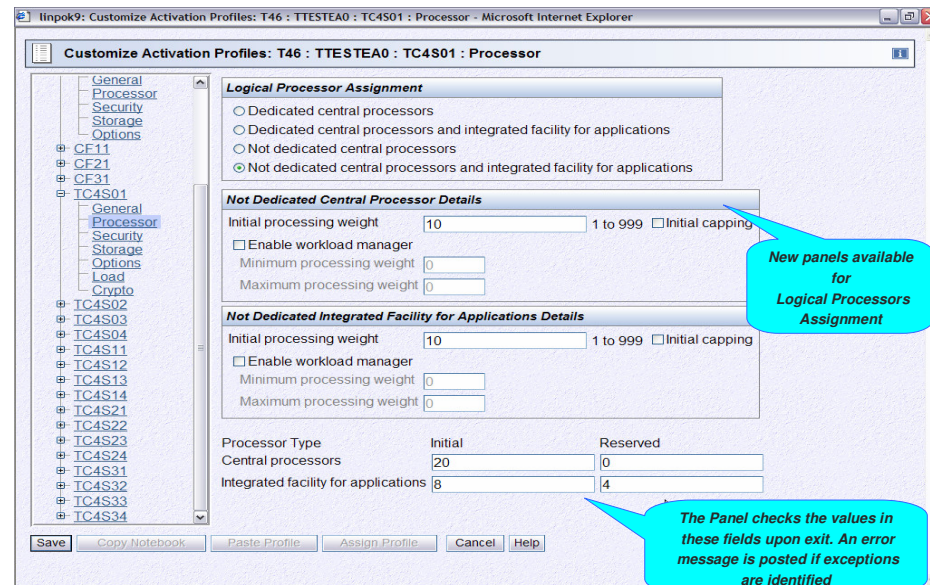
This screenshot shows the 'Partition's options page' in the IBM System z9 Workshop. The window title is 'Inpok9: Customize Activation Profiles: T46 : TTESTEA0 : CF01 : Options - Microsoft Internet Explorer'. The main content area is titled 'Customize Activation Profiles: T46 : TTESTEA0 : CF01 : Options'. On the left, a tree view shows the navigation structure: General, Storage, Dynamic, Options, CP/SAP, Partitions, CF01, General, Processor, Security, Storage, and Options. The 'Options' section is expanded, showing 'Image Options' with three input fields: 'Minimum input/output (I/O) priority' set to \*0, 'Maximum input/output (I/O) priority' set to \*0, and 'Defined capacity' set to \*0. A blue callout bubble points to the 'Image Options' section with the text 'Partition's options page'. At the bottom, there are buttons for 'Save', 'Copy Notebook', 'Paste Profile', 'Assign Profile', 'Cancel', and 'Help'. The footer contains the 'Redbooks Workshop' logo, 'IBM ITSO - International Technical Support Organization', 'IBM System z9 - Workshop', '© 2005 IBM Corporation', and the page number '68'.



# Profiles



# Profiles



# Profiles

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## Profiles

inpk9: Customize Activation Profiles: T46 : TTESTEA0 : TC4S01 : Security - Microsoft Internet Explorer

Customize Activation Profiles: T46 : TTESTEA0 : TC4S01 : Security

General Processor Security Storage Options

CF11 CF21 CF31

TC4S01

General Processor Security Storage Options Load Crypto

TC4S02 TC4S03 TC4S04 TC4S11 TC4S12 TC4S13 TC4S14 TC4S21 TC4S22 TC4S23 TC4S24 TC4S31 TC4S32 TC4S33 TC4S34

**Partition Security Options**

- Global performance data control
- Input/output (I/O) configuration control
- Cross partition authority
- Logical partition isolation

Security Options for a ESA/390 Partition. No changes from the previous generation HMC

Save Copy Notebook Paste Profile Assign Profile Cancel Help

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# Profiles

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## Profiles

inpk9: Customize Activation Profiles: T46 : TTESTEA0 : TC4S01 : Storage - Microsoft Internet Explorer

Customize Activation Profiles: T46 : TTESTEA0 : TC4S01 : Storage

General Processor Security Storage Options

CF11 CF21 CF31

TC4S01

General Processor Security Storage Options Load Crypto

TC4S02 TC4S03 TC4S04 TC4S11 TC4S12 TC4S13 TC4S14 TC4S21 TC4S22 TC4S23 TC4S24 TC4S31 TC4S32 TC4S33 TC4S34

**Central Storage**

Amount (in megabytes) Storage origin

Initial 13120  Determined by the system

Reserved 2048  Determined by the user

Origin 0

**Expanded Storage**

Amount (in megabytes) Storage origin

Initial 0  Determined by the system

Reserved 0  Determined by the user

Origin 0

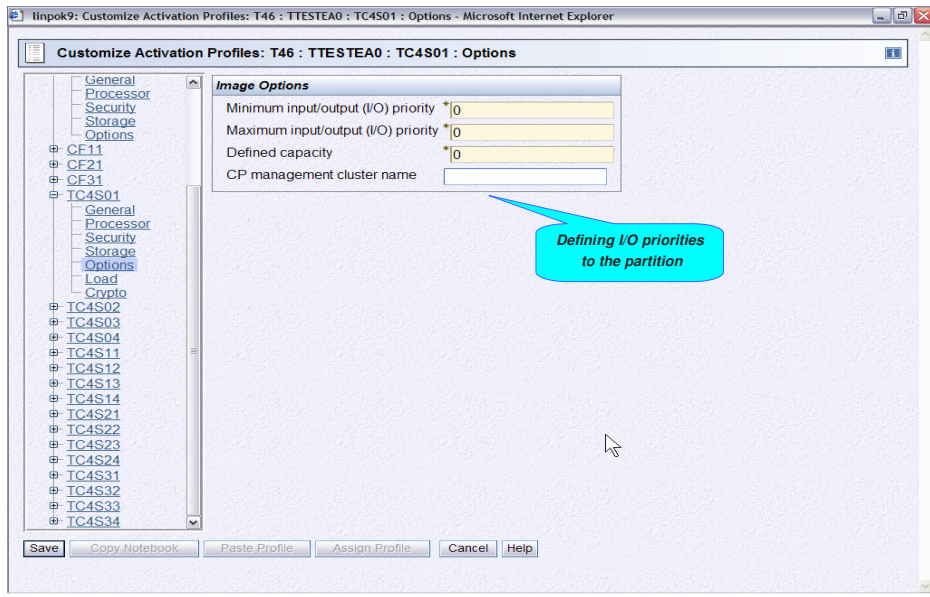
Defining Central and Expanded Storage to the partition

Save Copy Notebook Paste Profile Assign Profile Cancel Help

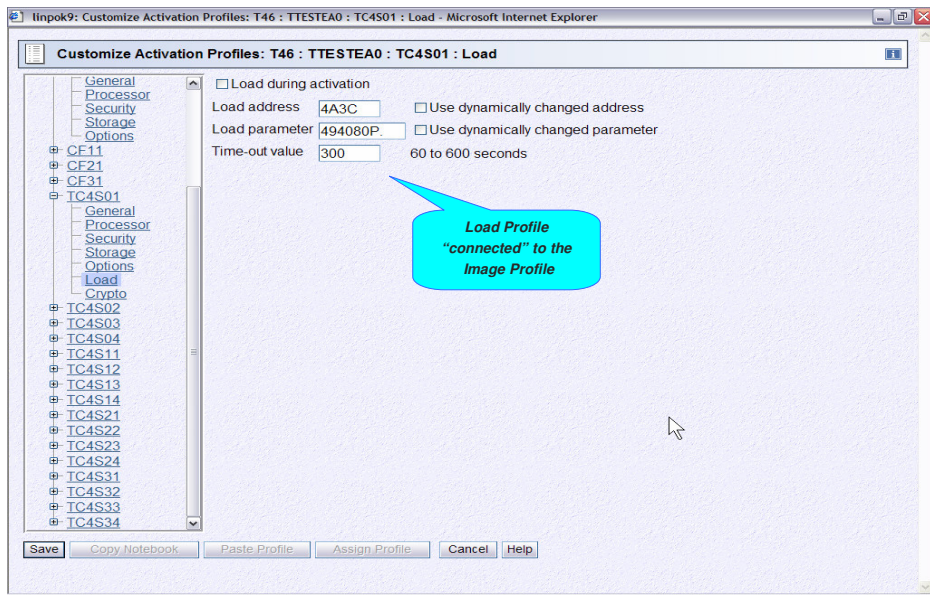
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# Profiles



# Profiles



# Profiles

linpok9: Customize Activation Profiles: T46 : TTESTEA0 : TC4S01 : Crypto - Microsoft Internet Explorer

**Customize Activation Profiles: T46 : TTESTEA0 : TC4S01 : Crypto**

Control Domain Index

Select	Usage C
<input checked="" type="checkbox"/>	0
<input type="checkbox"/>	1
<input type="checkbox"/>	2
<input type="checkbox"/>	3
<input type="checkbox"/>	4

Total: 16 Selected: 1

Cryptographic Candidate List

Select	Cryptogr
<input type="checkbox"/>	0
<input type="checkbox"/>	1
<input type="checkbox"/>	2
<input type="checkbox"/>	3
<input type="checkbox"/>	4

Total: 16 Selected: 0

Attention: You must install the 'IBM CP Assist for Cryptographic Functions' (CPACF) feature if a cryptographic candidate is selected from the list box; otherwise, some functions of Integrated Cryptographic Service Facility (ICSF) may fail.

Save Copy Notebook Paste Profile Assign Profile Cancel Help

New panels available for Logical Partition Crypto

# Profiles

linpok9: Activation Profiles - Microsoft Internet Explorer

**Activation Profiles**

When your request to save the set of parameters has completed successfully, this task will be exited.

Additional actions may be required to activate these changes. Reference the PR/SM Planning Guide.

Do you want to continue with the save?

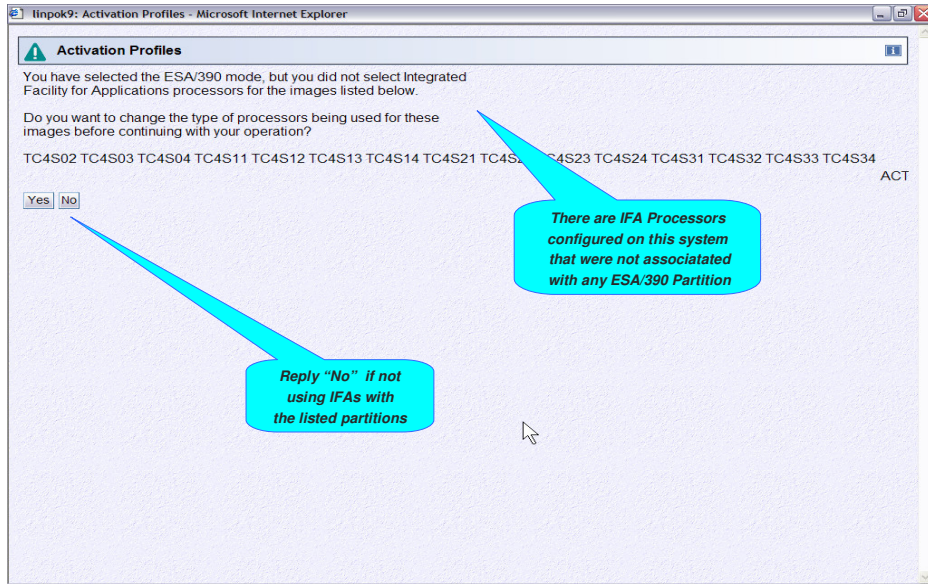
ACTB0PSV

OK Cancel

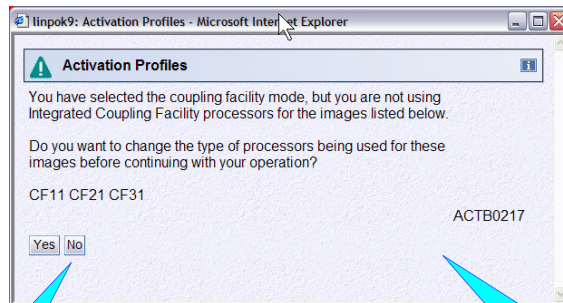
This panel is presented when user selects "SAVE" in the profile panel



# Profiles



# Profiles



# Profiles

Hardware Management Console (2.9.0) - Microsoft Internet Explorer

Views

Groups Exceptions Active Tasks

Customize/Delete Activation Profiles

**Customize/Delete Activation Profiles List**

Select	Profile Name	Type	Profile Description
<input type="radio"/>	TTESTEA0	Reset	This is the default Reset profile.
<input type="radio"/>	DEFAULTLOAD	Load	This is the default Load profile.
<input checked="" type="radio"/>	IODF80	Load	This is the default Load profile.
<input type="radio"/>	IODF80ZOS17	Load	This is the default Load profile.
<input type="radio"/>	IODF8E	Load	This is the default Load profile.
<input type="radio"/>	ZOS16IPL	Load	This is the default Load profile.
<input type="radio"/>	0D0LP01	Image	IOCDS D0 Image 0D0LP01 Profile.
<input type="radio"/>	0D0LP02	Image	IOCDS D0 Image 0D0LP02 Profile.
<input type="radio"/>	0D0LP03	Image	IOCDS D0 Image 0D0LP03 Profile.
<input type="radio"/>	0D0LP04	Image	IOCDS D0 Image 0D0LP04 Profile.
<input type="radio"/>	CF01	Image	This is the default Image profile.
<input type="radio"/>	CF11	Image	This is the default Image profile.
<input type="radio"/>	CF21	Image	This is the default Image profile.
<input type="radio"/>	CF31	Image	This is the default Image profile.
<input type="radio"/>	DEFAULT	Image	This is the default Image profile.
<input type="radio"/>	TC4S01	Image	This is the default Image profile.
<input type="radio"/>	TC4S02	Image	This is the default Image profile.
<input type="radio"/>	TC4S03	Image	This is the default Image profile.
<input type="radio"/>	TC4S04	Image	This is the default Image profile.
<input type="radio"/>	TC4S11	Image	This is the default Image profile.

Total: 33 Selected: 1

Customize Delete Cancel Help

**Selecting a "Load" Profile from the list**

Daily

- Hardware Messages
- Operating System Messages
- Activate
- Reset Normal
- Deactivate
- Grouping
- Activity

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# Profiles

Hardware Management Console (2.9.0) - Microsoft Internet Explorer

Views

Groups Exceptions Active Tasks

Customize/Delete Activation Profiles

**Customize Load Profiles: T46 : ZOS16IPL : Load**

T46

- ZOS16IPL
  - Load

Profile name: ZOS16IPL

Description: This is the default Load profile.

Load type:  Normal  Clear

Load address: 4923  Use dynamically changed address

Load parameter: 494080P.  Use dynamically changed parameter

Time-out value: 300 60 to 600 seconds

Store status

Save Copy Notebook Paste Profile Assign Profile Cancel Help

**Load Profile selected from the list of profiles**

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## System Activity - SAD

The screenshot shows the 'System Activity - SAD' interface. On the left, there is a list of components under 'HIGH USE' with their respective activity levels and bar charts. The components include GP 1 through GP E, CPALL, SAP 0 through SAP 3, and SAPALL. A callout box with a blue arrow points to the 'Stop' button in the 'Font Size' menu. The main area shows 'Channel Activity' for 'T46' with a red bar chart. A 'Daily' section is visible at the top right.

**Font Size:** Stop Help

**Channel Activity**

**T46**

Click in one of the SAD screens to activate it

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## System Activity - SAD

The screenshot shows the 'System Activity - SAD' interface with a detailed list of components and their activity levels. The components are listed in two sections: 'HIGH USE' and 'SAPALL'. The first section includes GP 1, GP 6, GP 9, GP C, ICF 12, ICF 14, GP 21, GP 22, GP 23, GP 30, GP 33, GP 3C, and CPALL. The second section includes SAP 0, SAP 1, SAP 2, SAP 3, and SAPALL. The third section includes CHPID 0.85 through CHPID 0.0D. Each component has a bar chart representing its activity level.

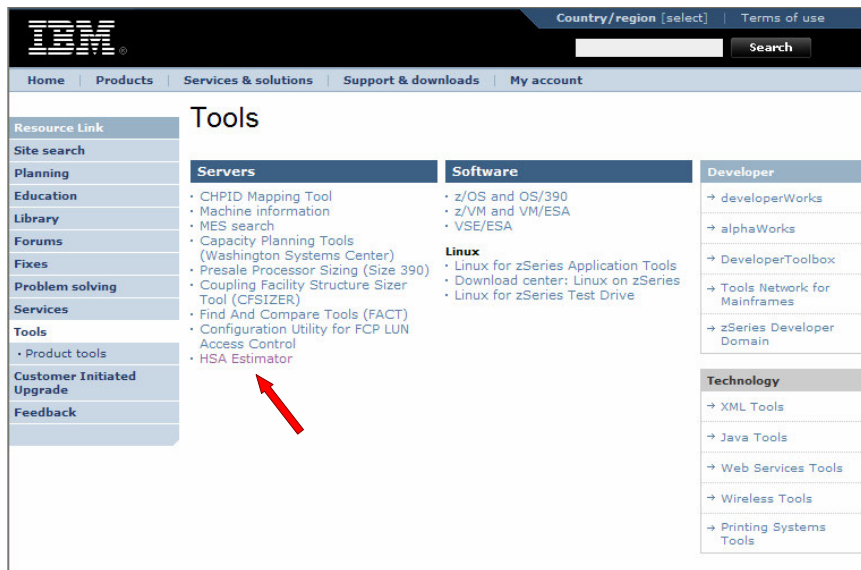
**Font Size:** Stop Help

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## HSA Estimation Tool

- HSA Estimator now on ResourceLink
  - Previously was only available on the Support Element
  - Values relative to the machine it was on, **only**.
    - Could not do estimates for an upgrade until the upgrade was done
- Significantly larger than on pre z990 processors
- HSA is also larger than that experienced on z990 or z890 processors
  - Probable values in the 4-6 GB range
    - Encourage use of the estimator tool (prior to memory decision)

## HSA Estimation Tool



The screenshot shows the IBM Redbooks website interface. At the top, there is a navigation bar with the IBM logo, a search box, and a 'Search' button. Below the navigation bar, there are several tabs: Home, Products, Services & solutions, Support & downloads, and My account. The main content area is titled 'Tools' and is divided into four columns: Servers, Software, Developer, and Technology. The 'Servers' column contains a list of tools, including 'HSA Estimator', which is highlighted with a red arrow. The 'Software' column lists tools for z/OS, z/VM, and Linux. The 'Developer' column lists tools for developerWorks, alphaWorks, and DeveloperToolbox. The 'Technology' column lists tools for XML, Java, Web Services, Wireless, and Printing Systems.



# HSA Estimation Tool

## HSA Estimator for z9-109 v2.9.0

- Resource Link
- Site search
- Planning
- Education
- Library
- Forums
- Fixes
- Problem solving
- Services
- Tools
  - Product tools
  - Customer Initiated Upgrade
  - Feedback

Select the items and specify the values that correspond to the ones that will be used when you IML your CPC. This tool estimates the HSA size for the specified configuration. The tool may not produce the exact HSA size that would result when you IML your CPC. The object of the tool is not to underestimate the HSA requirement for a given configuration. To minimize user interfaces, the tool makes some assumptions (e.g. concurrent patch is enabled) that increase HSA requirements, therefore the tool may slightly overestimate your HSA requirements.

- Shortcuts
  - Help for HSA Estimator
  - Using the HSA Estimator Tool

Configuration

S08 Model  dynamic enabled

HiperSocket Channels

0 Number of devices CSS 0, SS-0

0 Number of devices CSS 0, SS-1

0 Number of logical partitions CSS 0

0 Number of devices CSS 1, SS-0

0 Number of devices CSS 1, SS-1

0 Number of logical partitions CSS 1

0 Number of devices CSS 2, SS-0

0 Number of devices CSS 2, SS-1

0 Number of logical partitions CSS 2

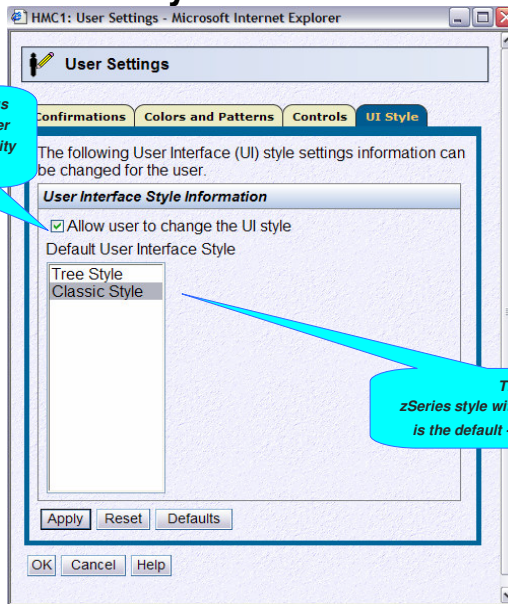
0 Number of devices CSS 3, SS-0

0 Number of devices CSS 3, SS-1

0 Number of logical partitions CSS 3

Result Window

# Changing HMC UI Style



Acscadmin User Settings determines the reminder user styles and the ability for them to change it

The zSeries style with drag and drop is the default - OS2 classic

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# Tree-Style UI

**Navigation Area**

- Welcome
- System Management
- HMC Management
- Status Overview
- Settings

**Task Bar**

**Status Bar**

Status: Attention

**Work Area**

**Welcome**

Welcome to the Hardware Management Console (HMC). From here you can manage this HMC as well as servers, images, ESCON directors, Sysplex timers, fiber savers, and other resources. Click on the links in the navigation area at the left to begin.

**System Management**  
Manage servers (CPCs), images, ESCON directors, Sysplex timers, fiber savers, and custom groups. Setup, configure, view current status, troubleshoot, and apply solutions.

**HMC Management**  
Perform tasks associated with the management of this HMC.

**Status Overview**  
Display status for this HMC, servers, images, ESCON directors, Sysplex Timers, and Fiber savers. View system objects which may require attention (for example: a system object reporting messages or in an unacceptable state).

**Settings**  
Adjust the appearance of the HMC user interface.

**Status Bar**  
Expand the status bar to display a quick summary of status for the HMC, Servers, Images, ESCON directors, Sysplex Timers, and Fiber savers.

**Additional Resources**  
[Resource Link](#)  
Customized Web-based solutions for planning, installing, and maintaining zSeries servers and software.

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# System Management

**System Management tree view displays managed objects in a hierarchical structure**

**Contents of: Servers**

Select	Name	Status	Description
<input type="radio"/>	PATCH7	Operating	zSeries Central Processing Complex (CPC)
<input type="radio"/>	PATCH8	Communications not active	zSeries Central Processing Complex (CPC)
<input type="radio"/>	PATCHTX1	Operating	zSeries Central Processing Complex (CPC)

Total: 3 Filtered: 3 Selected: 0

Tasks: Servers

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# System Management - Servers

The screenshot shows the IBM Hardware Management Console interface. On the left, a tree view under 'System Management' has 'Servers' selected. The main area displays a table of servers. A callout box labeled 'Managed Servers' points to the table. Another callout labeled 'Servers selected' points to the 'Servers' folder in the tree. A third callout labeled 'Status Column Indicates objects states and messages' points to the 'Status' column of the table.

Select	Name	Status	Description
<input type="radio"/>	PATCH7	Operating	zSeries Central Processing Complex (CPC)
<input type="radio"/>	PATCH8	Communications inactive	zSeries Central Processing Complex (CPC)
<input type="radio"/>	PATCHTX1	Operating	zSeries Central Processing Complex (CPC)

Total: 3 Filtered: 3 Selected: 0

# Servers & Images

The screenshot shows the IBM Hardware Management Console interface. On the left, a tree view under 'System Management' has 'Servers' > 'PATCHTX1' selected. The main area displays a table of server images. A callout box labeled 'Server PATCHTX1 Selected' points to the 'PATCHTX1' folder in the tree. Another callout labeled 'Server PATCHTX1 Images' points to the table.

Select	Name	Status	Description
<input type="radio"/>	PATCHTX1 A30P1 (ENGTEST1-S05)	Operating	zSeries LPAR Image
<input type="radio"/>	PATCHTX1 A30P2	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHTX1 A30P3	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHTX1 A30P4	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHTX1 A30P5	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHTX1 A30P6	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHTX1 A30P7	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHTX1 A30P8	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHTX1 A31P1 (ENGTEST1-S05)	Operating	zSeries LPAR Image

Total: 30 Filtered: 30 Selected: 0

# Custom Groups

linpok9: Hardware Management Console (2.9.0) - Microsoft Internet Explorer

Hardware Management Console

Predefined groups: "All Images" and "All Objects"

User defined group: zGroup

Select	Name	Description
<input type="radio"/>	All Images	Contains all Image objects managed by this HMC.
<input type="radio"/>	All Objects	Contains all objects managed by this HMC.
<input type="radio"/>	zGroup	Userdefined Group

Total: 3 Filtered: 3 Selected: 0

Tasks: Custom Groups

Daily

Grouping

Status: Attention

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# Unmanaged Resources

linpok9: Hardware Management Console (2.9.0) - Microsoft Internet Explorer

Hardware Management Console

Same as "Undefined Groups" in Classic UI

The Unmanaged Resources selection is available only for Acsadmin and Service logons

Select	Name	Description
<input type="radio"/>	CPC Manual Definition	
<input type="radio"/>	G18	object.cpc.caption
<input type="radio"/>	G21	object.cpc.caption
<input type="radio"/>	P004AD6D	object.cpc.caption
<input type="radio"/>	P0051535	object.cpc.caption
<input type="radio"/>	P0057390	object.cpc.caption
<input type="radio"/>	P00B0ABE	object.cpc.caption
<input type="radio"/>	PATCH6	object.cpc.caption
<input type="radio"/>	PATCHA	object.cpc.caption

Total: 13 Filtered: 13 Selected: 0

Tasks: Servers

Status: Attention

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# Tools - Filters

This "twist" button Allows "ascending" and "descending" sorts

Click "Edit Sort" Button for multi-column sorts

Select the column and the type of sort

The screenshot shows a table with columns for Name, Status, and Description. The table lists several LPAR images, some with a 'twist' icon in the Name column. Below the table is a 'Filter' dialog box with three 'Sort' sections. Each section has a dropdown for the column to sort by and a dropdown for the sort order (Ascending or Descending). There are 'OK' and 'Cancel' buttons at the bottom of the dialog.

Select	Name	Status	Description
<input type="radio"/>	PATCHTX1 A30P1 (ENGTEST1.S05)	Operating	zSeries LPAR Image
<input type="radio"/>	PATCHTX1 A30P2	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHTX1 A30P3	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHTX1 A30P4	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHTX1 A30P5	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHTX1 A30P6	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHTX1 A30P7	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHTX1 A30P8	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHTX1 A31P1 (ENGTEST1.S06)	Operating	zSeries LPAR Image

# Tools – Configure Columns

Click here to Configure Column display and order

Changing the column ordering

Select the columns to display or hide

The screenshot shows the 'Configure Columns' dialog box. It has a list of columns: Name, Status, and Description. Each column has a checkbox and a small arrow icon. The 'Name' and 'Status' checkboxes are checked. Below the list are 'OK' and 'Cancel' buttons. The background shows the same table of LPAR images as the previous slide.

# Task List

tinpok9: Hardware Management Console (2.9.0) - Microsoft Internet Explorer

IBM Hardware Management Console

Welcome

- System Management
  - Servers
    - PATCH7
    - PATCH8
    - PATCHTX1
  - Custom\_Groups
  - HMC Management
  - Status Overview
  - Settings

Contents of: PATCHTX1

Select	Name	Status	Description
<input type="radio"/>	PATCHTX1 A30P1 (ENGTEST1.S05)	Operating	zSeries LPAR Image
<input checked="" type="radio"/>	PATCHTX1 A30P2	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHTX1 A30P3	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHTX1 A30P4	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHTX1 A30P5	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHTX1 A30P6	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHTX1 A30P7	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHTX1 A30P8	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHTX1 A31P1 (ENGTEST1.S06)	Operating	zSeries LPAR Image

Total: 30 Filtered: 30 Selected: 1

Tasks: PATCHTX1 A30P2

- Daily
- Recovery
- Operational Customization

Status: Attention

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# Context Menus

tinpok9: Hardware Management Console (2.9.0) - Microsoft Internet Explorer

IBM Hardware Management Console

Welcome

- System Management
  - Servers
    - PATCH7
    - PATCH8
    - PATCHTX1
  - Custom\_Groups
  - HMC Management
  - Status Overview
  - Settings

Contents of: PATCHTX1

Name	Status	Description
PATCHTX1 A30P1 (ENGTEST1.S05)	Operating	zSeries LPAR Image
PATCHTX1 A30P2	Not Activated	zSeries LPAR Image
PATCHTX1 A30P3	Not Activated	zSeries LPAR Image
PATCHTX1 A30P4	Not Activated	zSeries LPAR Image
PATCHTX1 A30P5	Not Activated	zSeries LPAR Image
PATCHTX1 A30P6	Not Activated	zSeries LPAR Image
PATCHTX1 A30P7	Not Activated	zSeries LPAR Image
PATCHTX1 A30P8	Not Activated	zSeries LPAR Image
PATCHTX1 A31P1 (ENGTEST1.S06)	Operating	zSeries LPAR Image

Total: 30 Filtered: 30 Selected: 1

Tasks: PATCHTX1 A30P2

- Daily
- Recovery
- Operational Customization

Status: Attention

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# Pull Down Menu

The screenshot shows the IBM Hardware Management Console interface. On the left is a navigation tree with 'System Management' expanded to 'Servers', where 'PATCHX1' is selected. The main area displays 'Contents of: PATCHX1' with a table of tasks. A 'Tasks' pull-down menu is open, showing options like 'Daily', 'Recovery', and 'Operational Customization'. A callout bubble points to the 'A30P2' task in the table and the 'Operational Customization' option in the menu.

Select	Name	Status	Type
<input type="radio"/>	PATCHX1 A30P1 (ENGT)	Not Activated	zSeries LPAR Image
<input checked="" type="radio"/>	PATCHX1 A30P2	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHX1 A30P3	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHX1 A30P4	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHX1 A30P5	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHX1 A30P6	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHX1 A30P7	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHX1 A30P8	Not Activated	zSeries LPAR Image
<input type="radio"/>	PATCHX1 A31P1 (ENGTST1.S06)	Operating	zSeries LPAR Image

Tasks: PATCHX1 A30P2

- Daily
- Recovery
- Operational Customization

# Task Bar

The screenshot shows the IBM Hardware Management Console interface. The left navigation tree has 'System Management' expanded to 'Servers', where 'PATCH7' is selected. The main area displays 'Contents of: PATCH7' with a table of tasks. A 'Task Bar' is visible at the bottom of the task list, showing 'PATCH7 VM3' selected. Callout bubbles explain the task bar and the help/logoff functions.

Select	Name	Status	Description
<input type="radio"/>	PATCH7 CF	Operating	zSeries Coupling Facility Image
<input type="radio"/>	PATCH7 CF1	Operating	zSeries Coupling Facility Image
<input type="radio"/>	PATCH7 LINUX5	Exceptions	zSeries LPAR Image
<input type="radio"/>	PATCH7 MVS1	Exceptions	zSeries LPAR Image
<input type="radio"/>	PATCH7 MVS2	Exceptions	zSeries LPAR Image
<input type="radio"/>	PATCH7 SAK4	Exceptions	zSeries LPAR Image
<input checked="" type="radio"/>	PATCH7 VM3	Exceptions	zSeries LPAR Image
<input type="radio"/>	PATCH7 XTIV	Exceptions	zSeries LPAR Image

Tasks: PATCH7 VM3

- Daily
- Recovery
- Operational Customization

# HMC Management

The screenshot shows the HMC Management Console interface. On the left is a navigation tree with 'Service Applications' selected. The main pane displays a table of service applications:

Name	Description
Console Logs	Contains tasks for accessing console logs.
Console Internal Code	Contains tasks for managing the console's internal code.
Copy OS/2 Support Element Data	Copy OS/2 Support Element Data
Format Media	Format a diskette, high speed memory key, or DVD-RAM
Hardware Messages	Display hardware messages from selected objects
Installation Complete Report	Send IBM report of completed installation in console's domain
Perform a Console Repair Action	Display online instructions for repairing console
Rebuild Vital Product Data	Rebuild the Hardware Management Console's vital product data
Report a Problem	Report problem and request service for console

Total: 9 Filtered: 9

**HMC Management functions.**  
**Note:** the service applications shown here are the ones available under service logon

# Status Overview

The screenshot shows the HMC Status Overview page. It displays the following status summary:

- Servers: Attention** (Total Managed: 3, Exceptions: 1, Messages: 0)
- Images: Attention** (Total Managed: 38, Exceptions: 30, Messages: 0)
- HMC: OK** (No Hardware Messages)

**Exceptions reported by one server (out of 3 managed servers).**  
 No messages pending.  
**Also note:** HMC is OK, and there are exceptions reported by the images.



# Servers Attention

The screenshot shows the IBM Hardware Management Console interface. On the left, a navigation tree includes 'System Management', 'Servers' (with sub-items PATCH7, PATCH8, PATCHTX1), 'HMC Management', 'Status Overview' (with 'Servers: Attention' selected), and 'Settings'. The main content area is titled 'Contents of: Servers: Attention' and contains a table with columns 'Name', 'Status', and 'Description'. One entry is visible: 'PATCH8' with status 'Communications not active' and description 'zSeries Central Processing Complex (CPC)'. Below the table, a 'Tasks: PATCH8' section lists various tasks like Daily, Recovery, Service, etc. Two blue callout boxes provide context: one points to the 'Status' column with the text 'PATCH8 Indicates Communications not Active', and another points to the 'Tasks' list with the text 'PATCH8 Available tasks are indicated here'.

# Servers Attention

This screenshot shows the 'Status: Attention' area expanded in the IBM Hardware Management Console. The left navigation tree now shows 'Status Overview' with 'Servers: Attention' selected. The main content area is titled 'Contents of: Servers: Attention' and features a table with columns 'Name', 'Status', and 'Description'. The table contains one entry: 'PATCH8' with status 'Communications not active' and description 'zSeries Central Processing Complex (CPC)'. Below the table, the 'Tasks: PATCH8' section is visible, listing tasks such as Daily, Recovery, Service, Change Management, Remote Customization, Operational Customization, and Configuration. A large blue callout box points to the 'Status: Attention' area, containing the text: 'The "Status Attention" area can indicate the presence of: Hardware and Operating System Messages, Exceptions and "OK" status for Servers and Images.' Another blue callout box points to the expand/collapse icon in the 'Tasks: PATCH8' section with the text: '"Status Attention" Expand / Collapse icon'.