

Applying PTFs using z/OSMF Software Update

November 2020

Agenda

z/OSMF, Software Management, and Software Update overview.

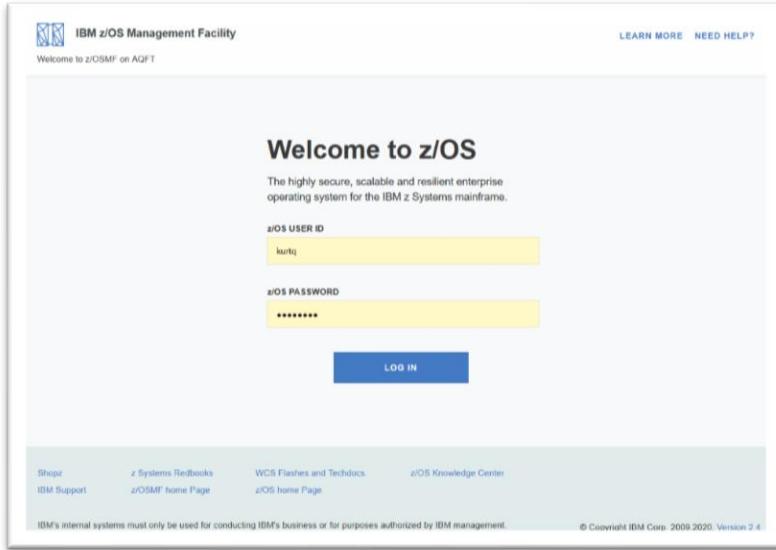
What is a Software Instance?

- How do you define a Software Instance?

Software Update

- Install corrective updates
- Install recommended updates
- Install functional updates
- Additional features

What is z/OSMF?



z/OSMF Login Page

- IBM z/OS Management Facility (z/OSMF) is a webserver for z/OS management applications.
- Integrated lightweight application server, using WebSphere Application Server Liberty profile.
- User interface through a browser.
- Security is implemented using standard z/OS SAF-based authorization.
- Provides integrated applications (tasks) with capability to add additional plug-ins.
- Provides public RESTful services for z/OSMF and z/OS resources.
- z/OSMF is a base element of z/OS since z/OS V2.2.

What is Software Management?



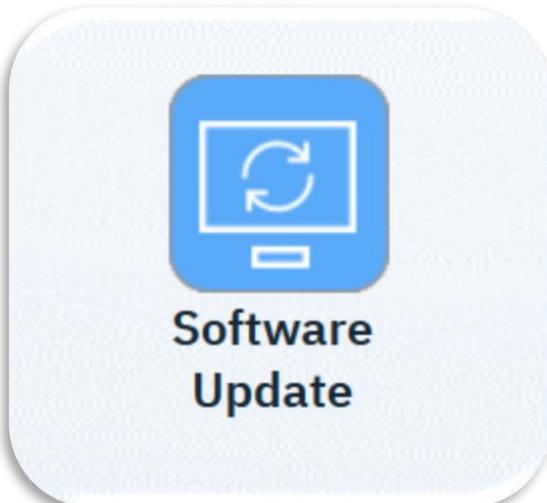
Software Management is a z/OSMF task to help simplify installation and management of z/OS platform software.

Installed software is known to z/OSMF as a **software instance**.

The Software Management application allows you to:

- View data sets that compose a software instance.
- View Product, Feature, FMID content of software instances.
- Identify software products that are approaching, or have reached, end of service support.
- Validate the SMP/E structure and content of a software instance.
- Identify missing HIPER and PE fixes, and fixes associated with fix categories.
- Determine if specific fixes are installed.
- Compare functional and service content of two software instances to aid in migration planning or debugging.
- Install and Deploy software instances.
- Launch workflows defined for a software instance to perform setup and configuration tasks.

What is Software Update?



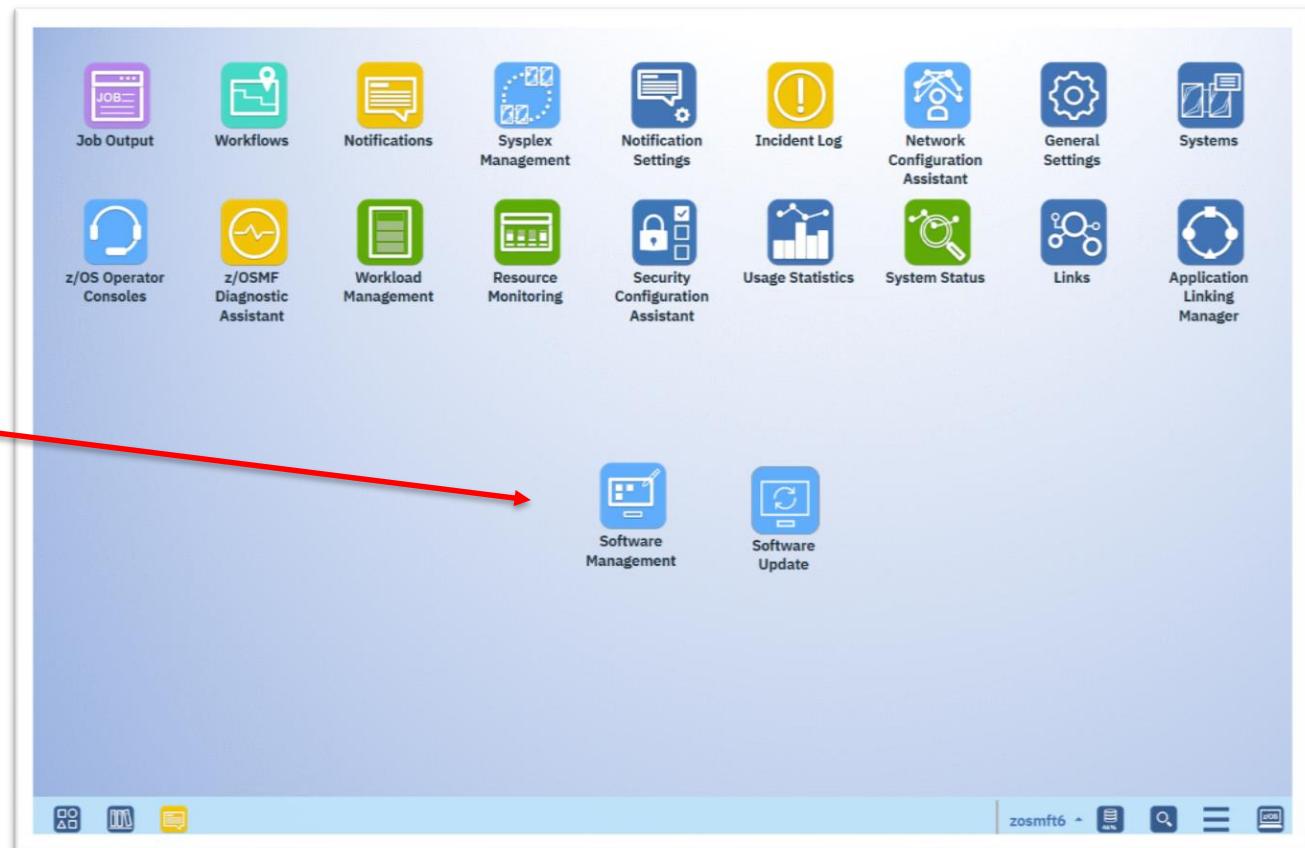
- Software Update is a new z/OSMF task.
- Software Update simplifies installing SMP/E managed software updates (aka PTFs).
 - Target users are early tenure z/OS system administrators and system programmers.
 - Codifies best practices for installing software updates.
- New function in the Software Management plug-in.
 - Not a separate z/OSMF plug-in.
 - New for z/OS **V2.4** and **V2.3** with updates for APAR PH28412.
- Installed software is known to z/OSMF as a software instance.
- The Software Update task allows you to install software updates on a software instance.

What is Software Update?

The z/OSMF desktop.

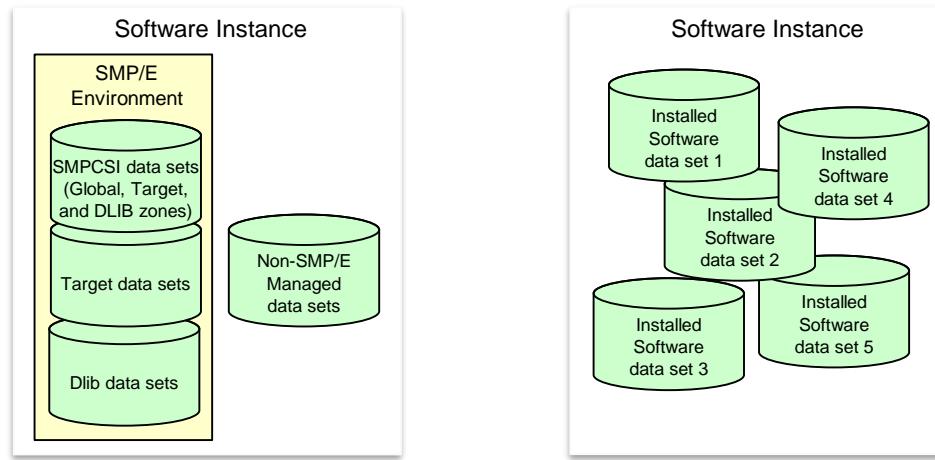
Two related tasks:

1. Software Management
2. Software Update



What is a Software Instance?

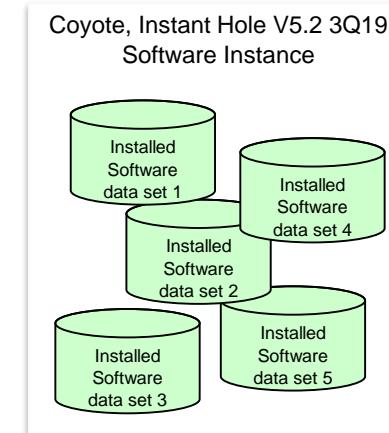
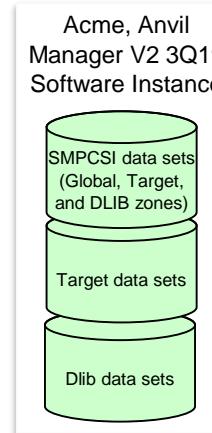
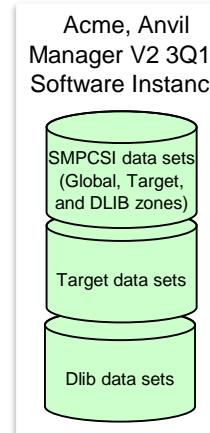
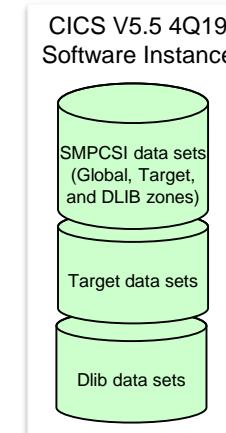
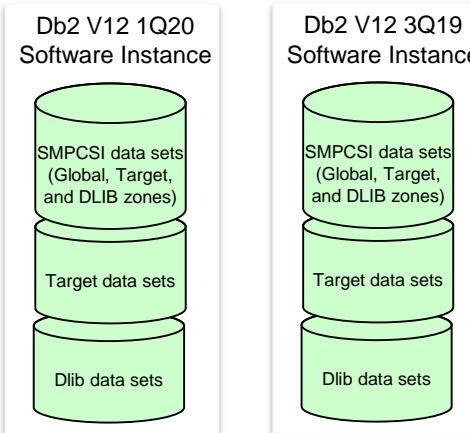
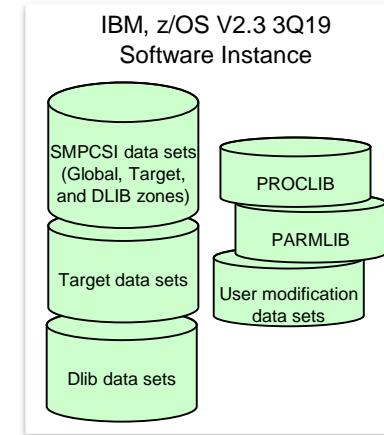
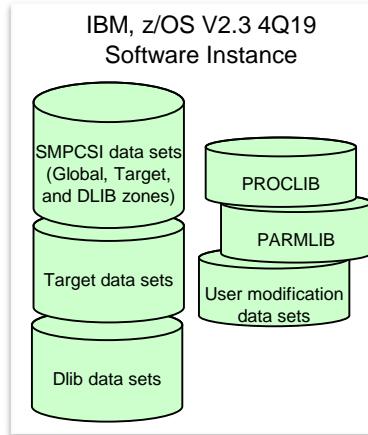
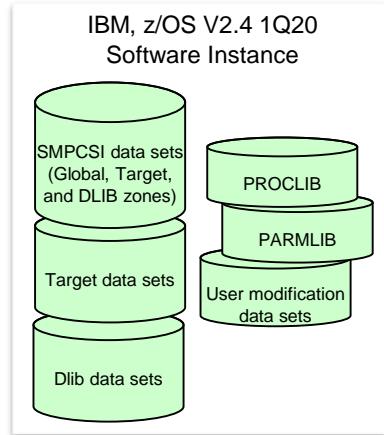
What is a Software Instance?



A software instance (SWI):

- Describes a deployable unit of installed software.
- Is a collection of data sets containing installed software
 - Sequential, PDS(E), VSAM, zFS, HFS.
- May include SMP/E managed target and distribution libraries, as well as the global, target, and distribution zone SMPCSI data sets.

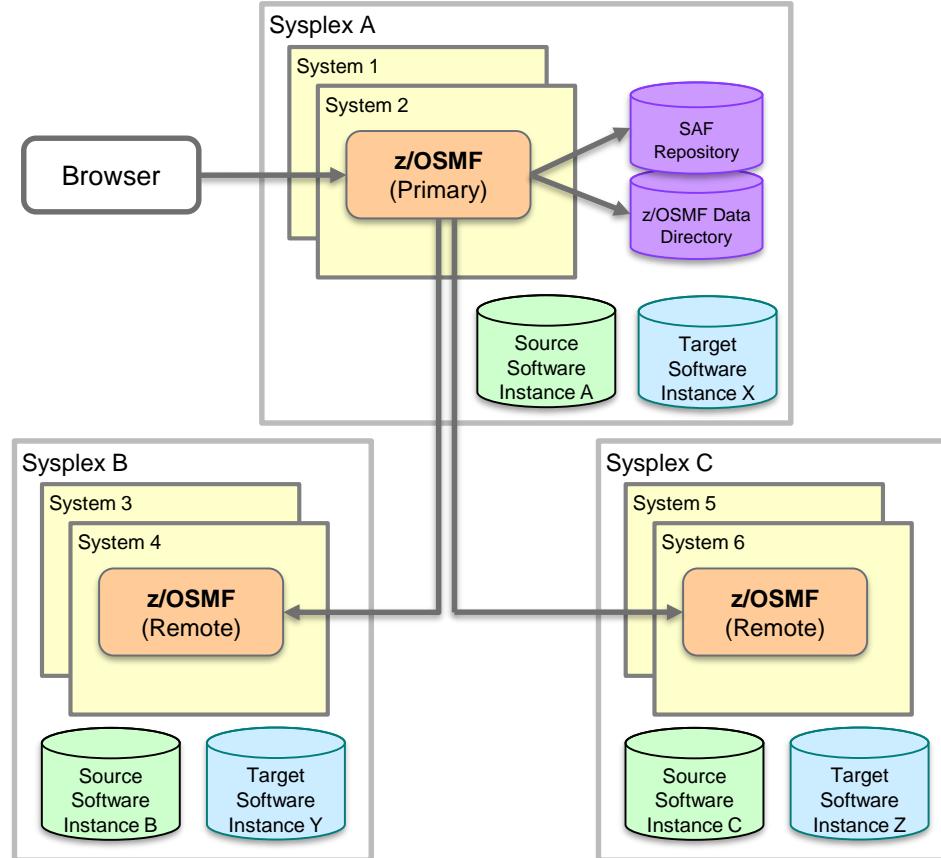
What is a Software Instance?



z/OSMF Software Management / Update Topology

The **primary** z/OSMF server communicates with the **remote** z/OSMF servers.

A software instance is accessible to the z/OSMF server in its sysplex.



How do you define a Software Instance?

How to define a Software Instance

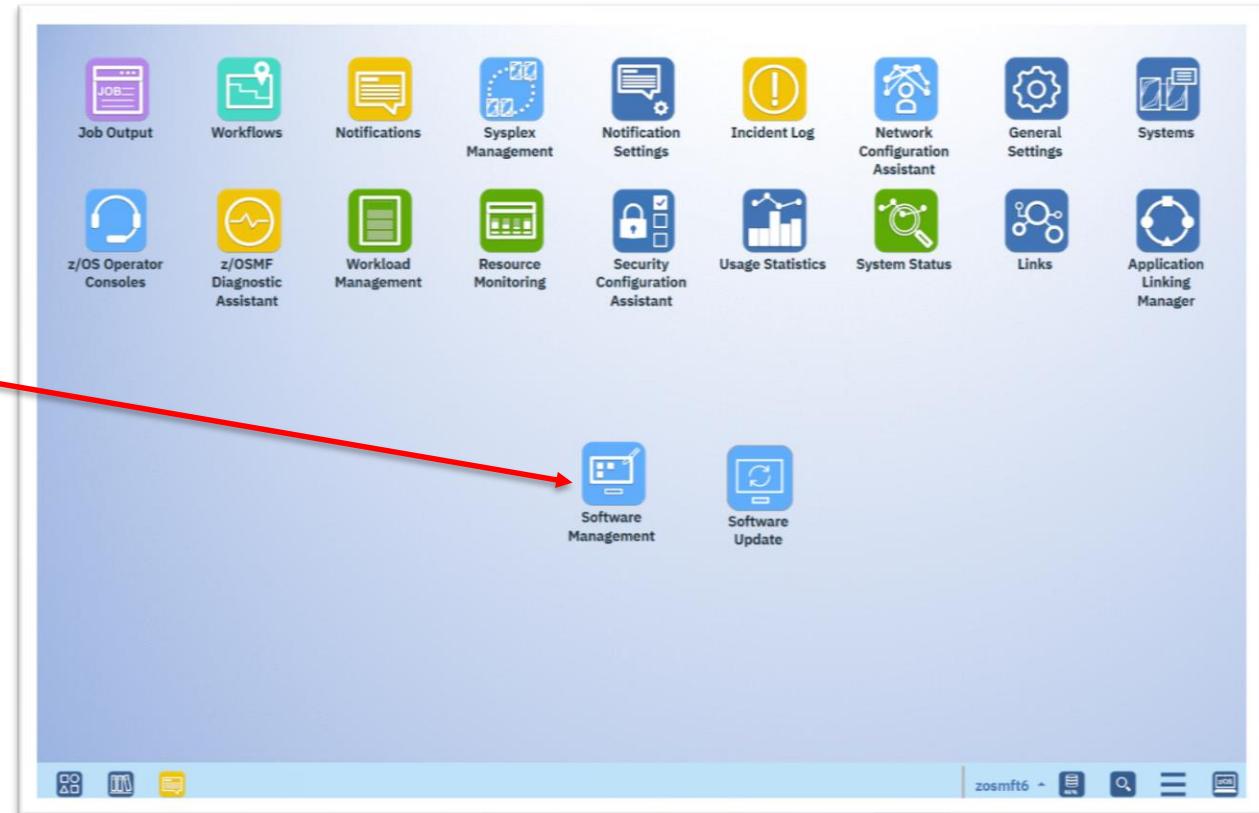
Two methods to define a software instance for **existing installed software**:

1. Interactively in the Software Management task.
2. Programmatically using the Add Software Instance REST API.

Or, install **new software** with a Portable Software Instance from a software provider.

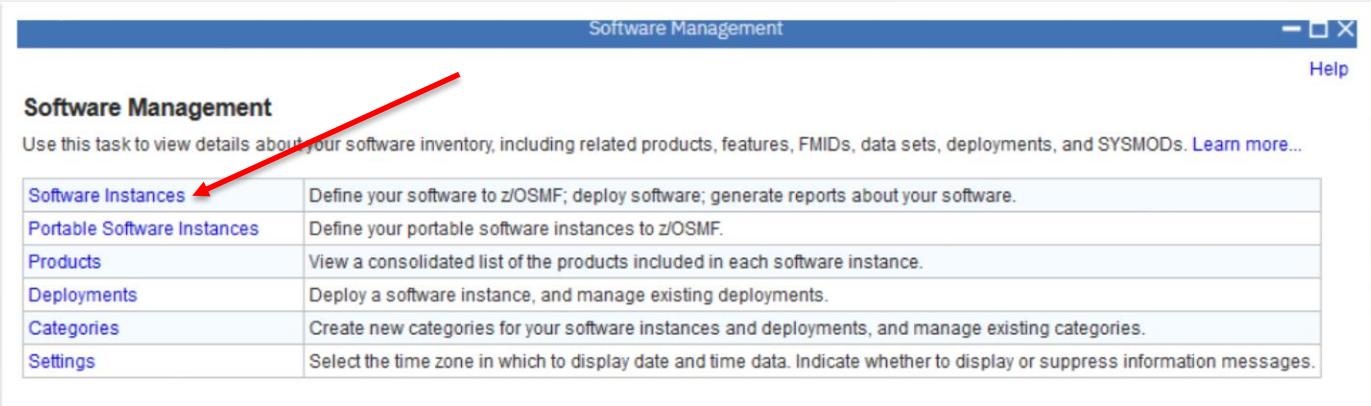
How to define a Software Instance Interactively in Software Management

Open the Software
Management task



How to define a Software Instance Interactively in Software Management...

On the Software Management primary page, click “Software Instances”

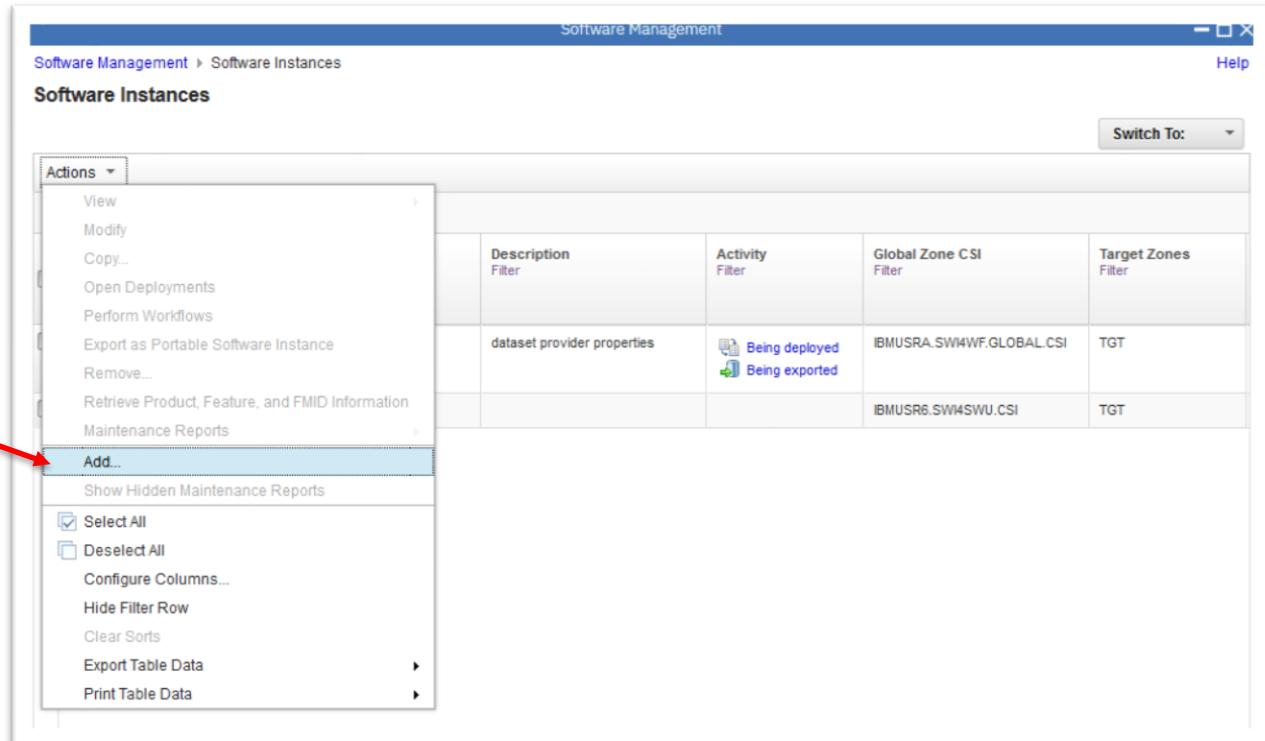


The screenshot shows the 'Software Management' application window. The title bar reads 'Software Management'. On the right side of the title bar are standard window control buttons: a minus sign for minimize, a square for maximize/minimize, and an X for close. Below the title bar is a blue navigation bar with the text 'Software Management' and a 'Help' link. The main content area has a heading 'Software Management' and a descriptive text: 'Use this task to view details about your software inventory, including related products, features, FMIDs, data sets, deployments, and SYSMODs. [Learn more...](#)'. Below this is a table with six rows, each containing a link and a brief description. A red arrow points to the first row, which is 'Software Instances'.

Software Management	
Software Instances	Define your software to z/OSMF; deploy software; generate reports about your software.
Portable Software Instances	Define your portable software instances to z/OSMF.
Products	View a consolidated list of the products included in each software instance.
Deployments	Deploy a software instance, and manage existing deployments.
Categories	Create new categories for your software instances and deployments, and manage existing categories.
Settings	Select the time zone in which to display date and time data. Indicate whether to display or suppress information messages.

How to define a Software Instance Interactively in Software Management...

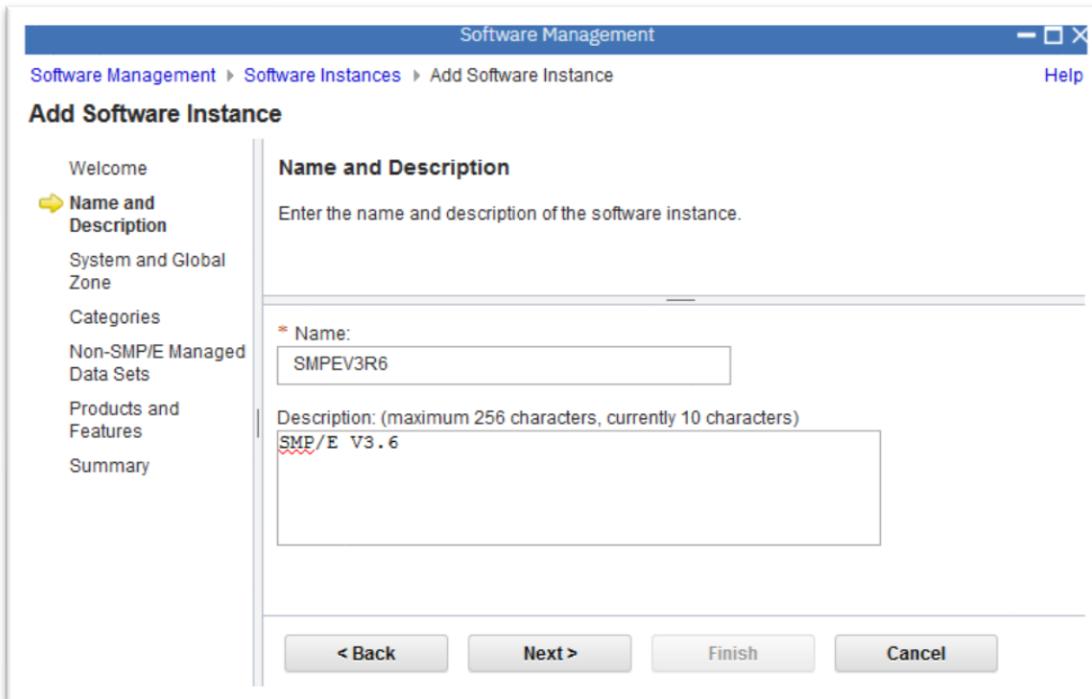
On the Software Instances page,
click Actions →
Add.



How to define a Software Instance Interactively in Software Management...

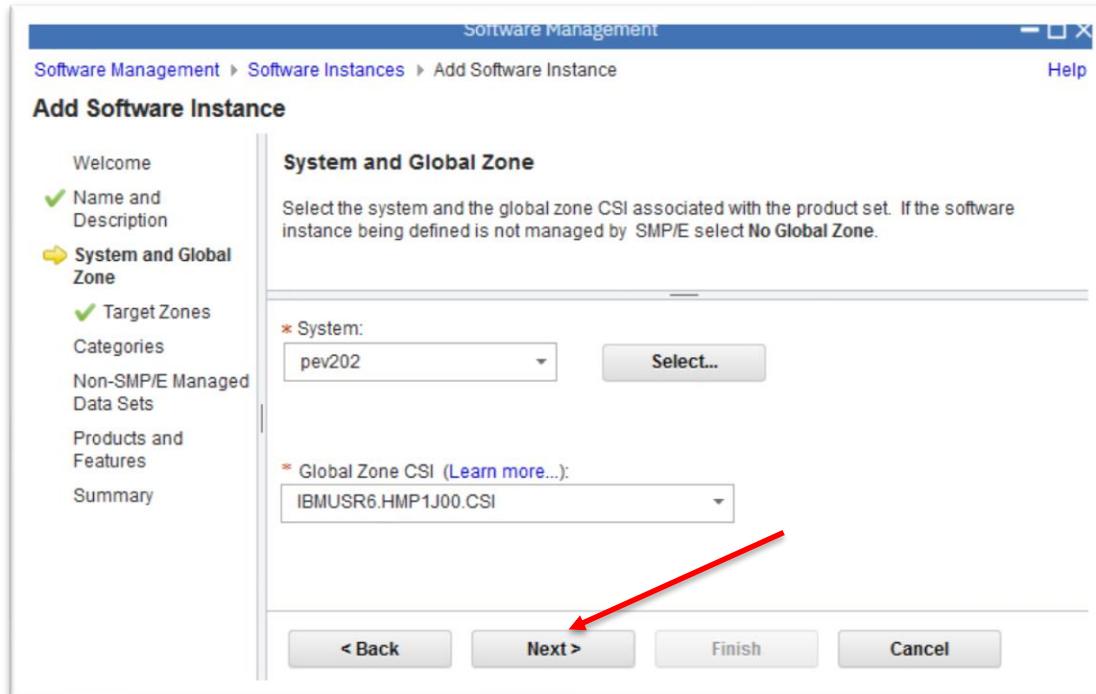
In the Add Software Instance wizard

- Enter a name and optional description for the software instance
- Click “Next”



How to define a Software Instance Interactively in Software Management...

- Select the z/OSMF host system where the software resides.
(refer to the topology page).
- Enter the global zone CSI data set name
- Click “Next”



How to define a Software Instance Interactively in Software Management...

- Select one or more target zones.
- Click “Finish”

Software Management

Software Management > Software Instances > Add Software Instance

Add Software Instance

Target Zones

Select the target zones that describe the target libraries associated with the product set.

Target Zones

Actions ▾

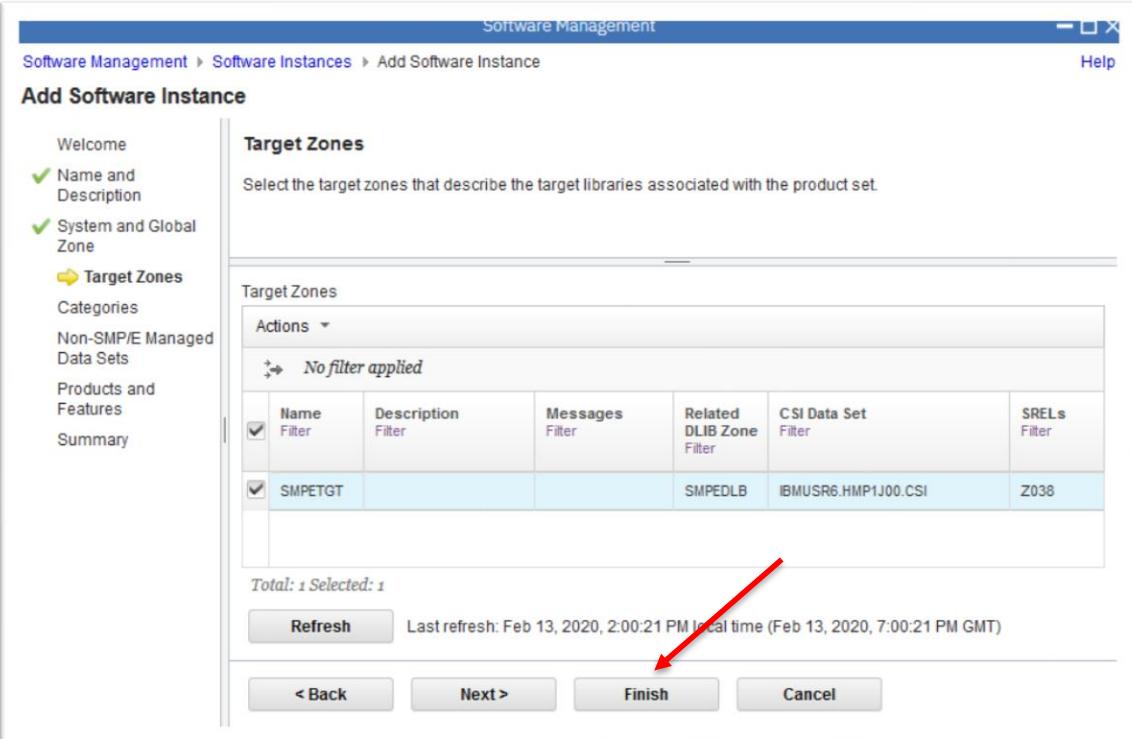
No filter applied

Name Filter	Description Filter	Messages Filter	Related DLIB Zone Filter	CSI Data Set Filter	SRELS Filter
<input checked="" type="checkbox"/> SMPETGT			SMPEDB	IBMSUSR6.HMP1J00.CSI	Z038

Total: 1 Selected: 1

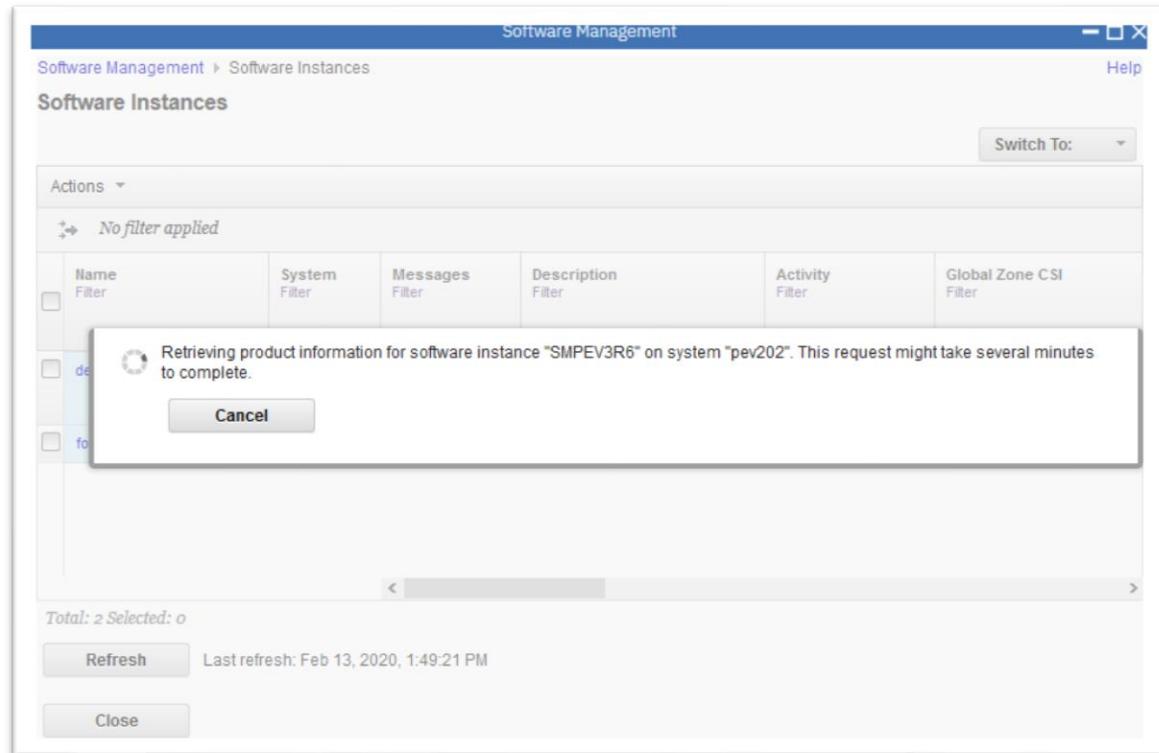
Refresh Last refresh: Feb 13, 2020, 2:00:21 PM Local time (Feb 13, 2020, 7:00:21 PM GMT)

< Back Next > Finish Cancel



How to define a Software Instance Interactively in Software Management...

The global and target zones are analyzed to get product information for the installed software.



How to define a Software Instance Interactively in Software Management...

That's it! The software instance is now defined and ready for action.

The screenshot shows the Software Management interface with the title "Software Management" at the top. Below it, the breadcrumb navigation shows "Software Management > Software Instances". On the right, there is a "Help" link and a "Switch To:" dropdown menu. The main area is titled "Software Instances" and contains a table with the following data:

Name	System	Messages	Description	Activity	Global Zone CSI	Target Zones
Filter	Filter	Filter	Filter	Filter	Filter	Filter
<input type="checkbox"/> deb_appscan	pev202		dataset provider properties	Being deployed Being exported	IBMUSR4.SWI4WF.GLOBAL.CSI	TGT
<input type="checkbox"/> forSWU	pev202				IBMUSR6.SWI4SWU.CSI	TGT
<input type="checkbox"/> SMPEV3R6	pev202		SMP/E V3.6		IBMUSR6.HMP1J00.CSI	SMPETGT

The row for "SMPEV3R6" is highlighted with a red border.

The Software Update task

What is a Software Update?

A **software update** is a generic term for a PTF.

Three actions for installing software updates, each with a different method to identify which updates to install:



1. Corrective

- Install updates to fix a specific problem.
- Updates are identified by user specified name (ID).

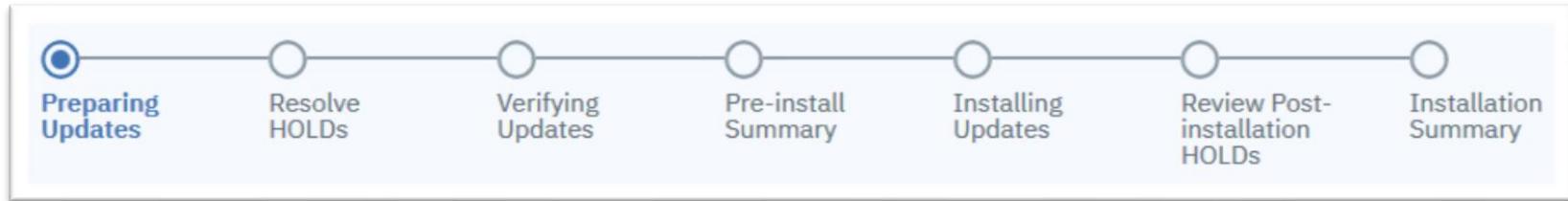
2. Recommended

- Install vendor recommended updates.
- Updates are identified by vendor defined source IDs.

3. Functional

- Install updates to support new function.
- Updates are identified by selected fix categories.

Software Update process steps



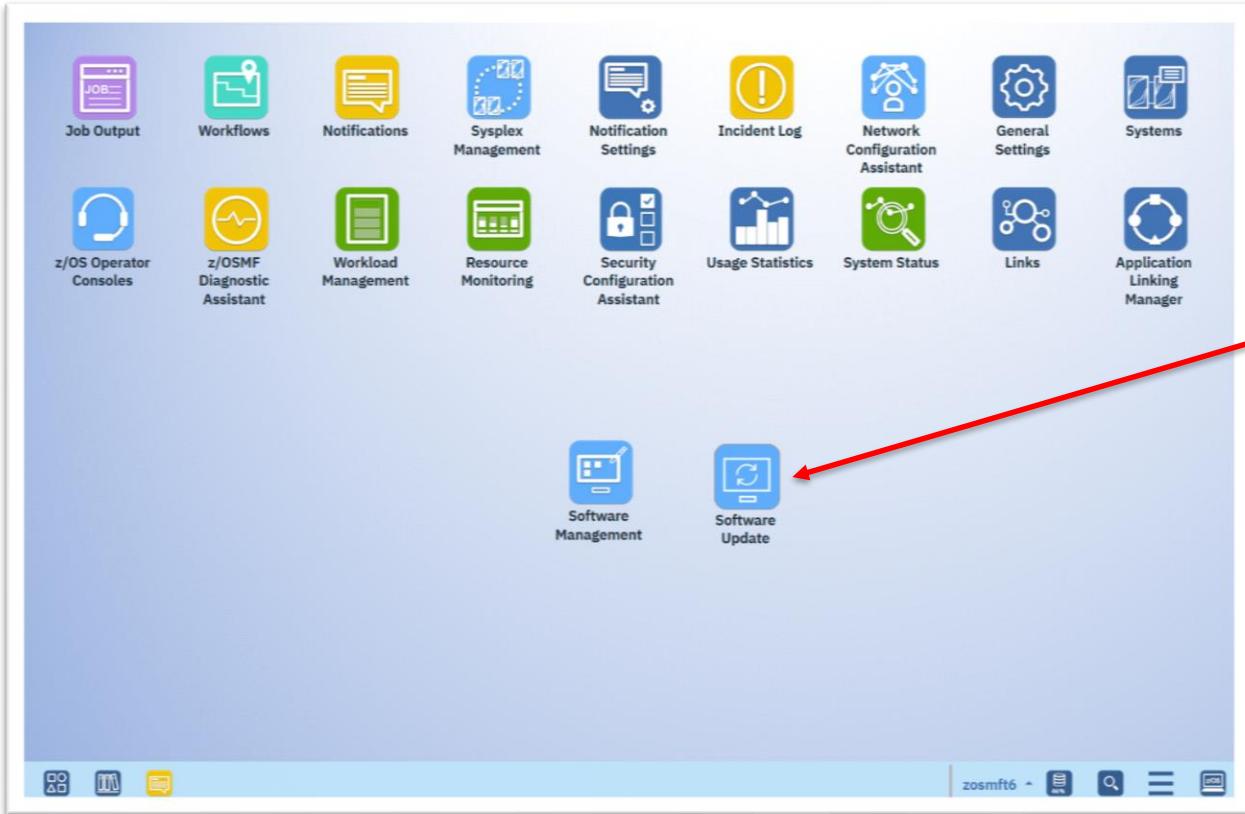
After identifying which updates to install, Software Update guides the user through the following steps:

Step	Action
Preparing updates	z/OSMF performs APPLY CHECK to identify HOLDS to review and ensure no missing requisites
Resolve HOLDS	User reviews and resolves each HOLD, either bypass the HOLD or exclude the update
Verifying updates	z/OSMF performs APPLY CHECK to validate the HOLD resolution choices
Pre-installation summary	User reviews the list of updates that will be installed.
Installing updates	z/OSMF performs APPLY
Review post-installation HOLDS	User reviews any HOLDS that need action after the APPLY

Install Corrective Updates

Install updates to fix a specific problem.

Install Corrective Updates



Open the Software Update task

Install Corrective Updates

The Software Update main page

The list of Software Instances is displayed.

The screenshot shows the 'Software Update' main page. At the top, there are two buttons: 'Start New Software Update' (highlighted in blue) and 'View Updates in Progress'. To the right are 'Settings', 'Help', and a 'Show completed updates' button with a plus sign. Below this is a section titled 'Software Instances and Zones' with the sub-instruction 'Choose a software instance and select a zone for a software update.' A search bar is present above a table. The table has columns for Name, System, Description, and Status. It lists four entries:

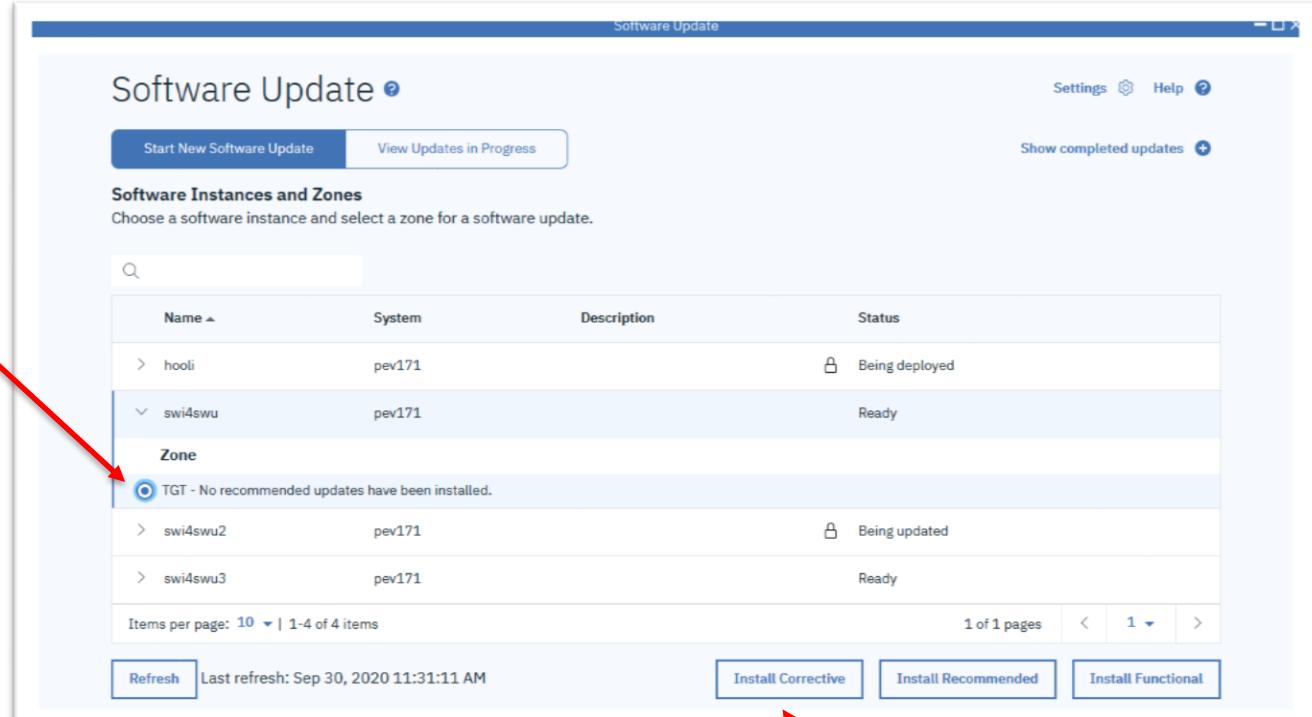
Name	System	Description	Status
> hooli	pev171		Being deployed
> swi4swu	pev171		Ready
> swi4swu2	pev171		Being updated
> swi4swu3	pev171		Ready

At the bottom, there are buttons for 'Refresh' (highlighted in blue), 'Last refresh: Sep 30, 2020 11:31:11 AM', and three other buttons: 'Install Corrective', 'Install Recommended', and 'Install Functional'.

Install Corrective Updates

The Software Update main page...

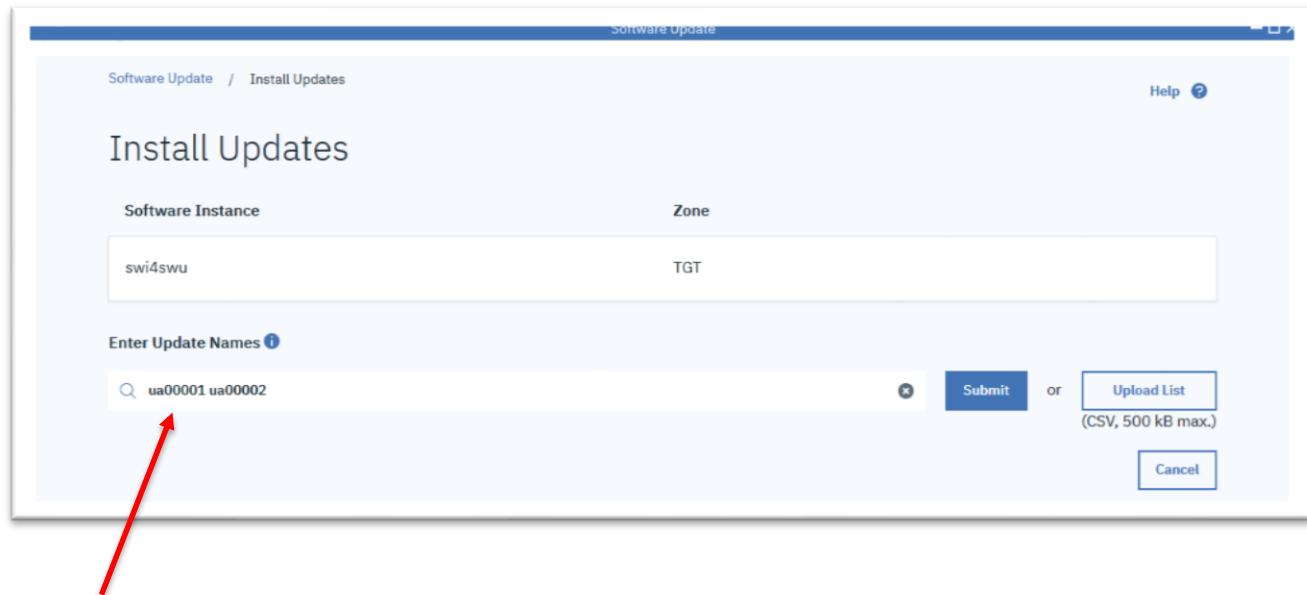
- Select a software instance and the desired target zone to be updated.
- Click “Install Corrective”



Install Corrective Updates

Identifying the software updates

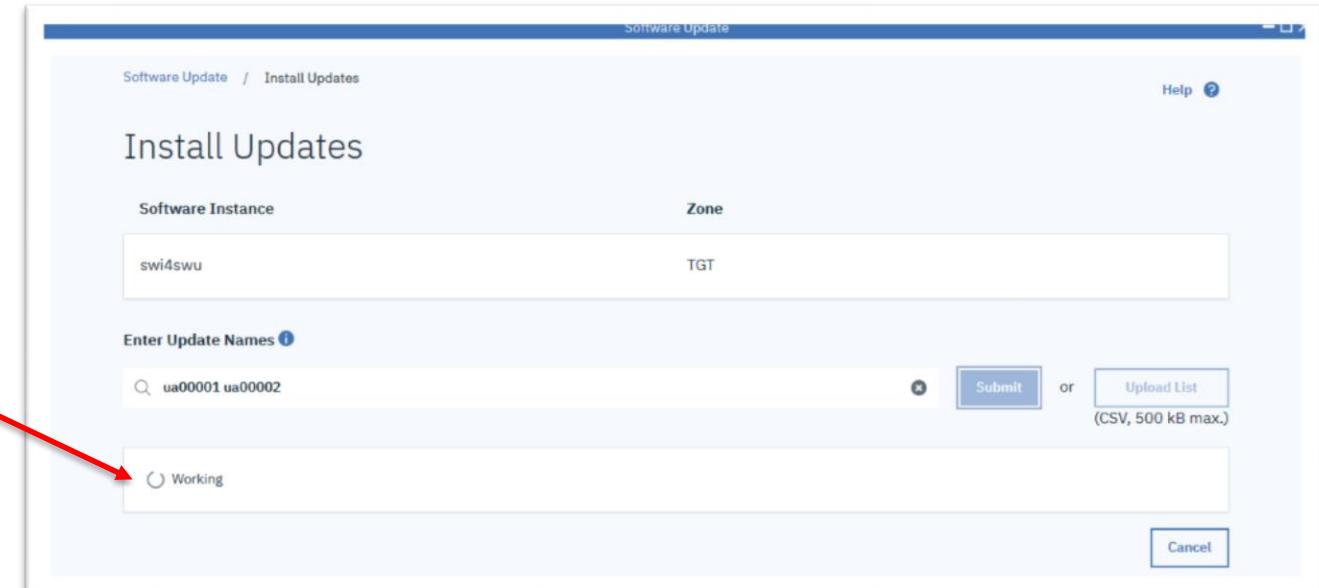
- Enter the IDs for the updates (PTFs) you want to install.
- Click “Submit”



Install Corrective Updates

Identifying the software updates...

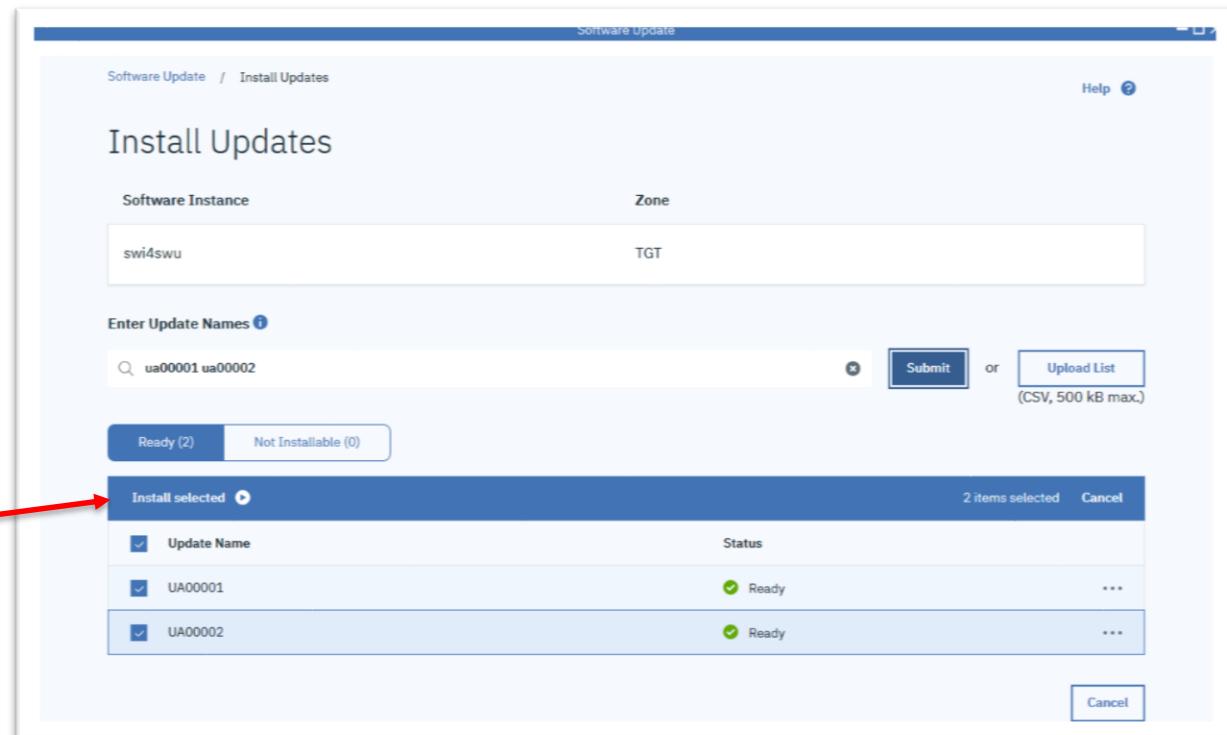
The global zone is analyzed to find the specified PTFs.



Install Corrective Updates

Identifying the software updates...

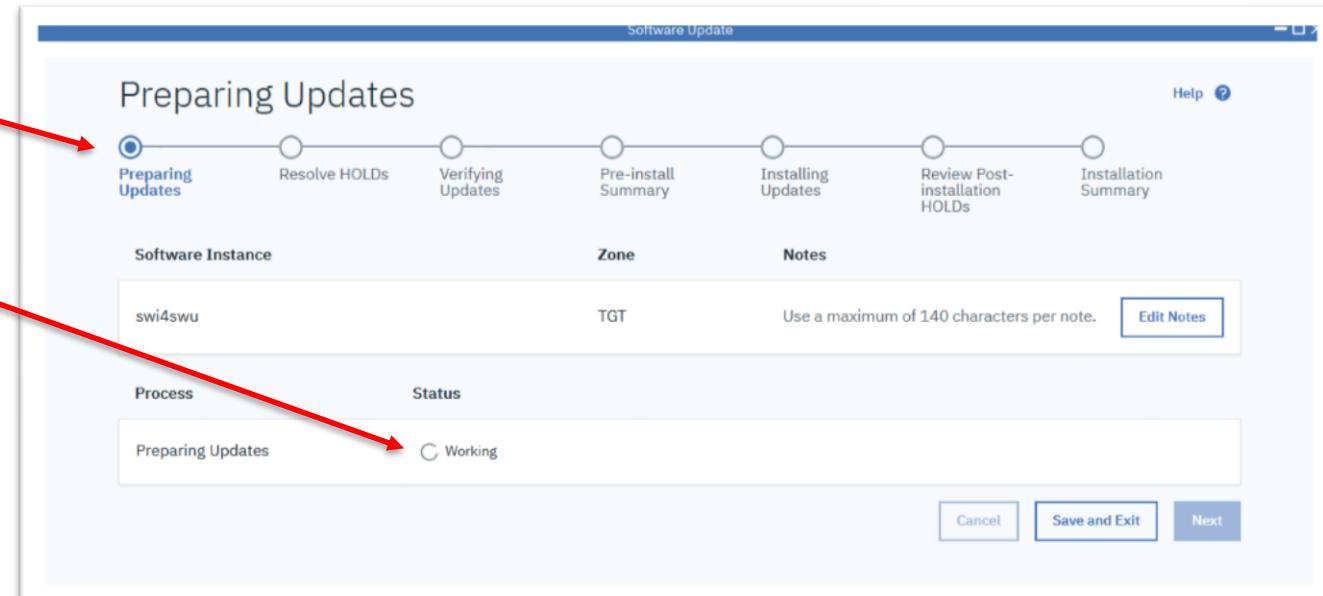
- The updates are found in the global zone and they are ready to be installed.
- Click “Install selected”.



Install Corrective Updates

Preparing Updates

- The overview across the top indicates the current step in the process.
- A first pass APPLY CHECK identifies all relevant HOLDS and ensures requisites are found.



Install Corrective Updates

Preparing Updates...

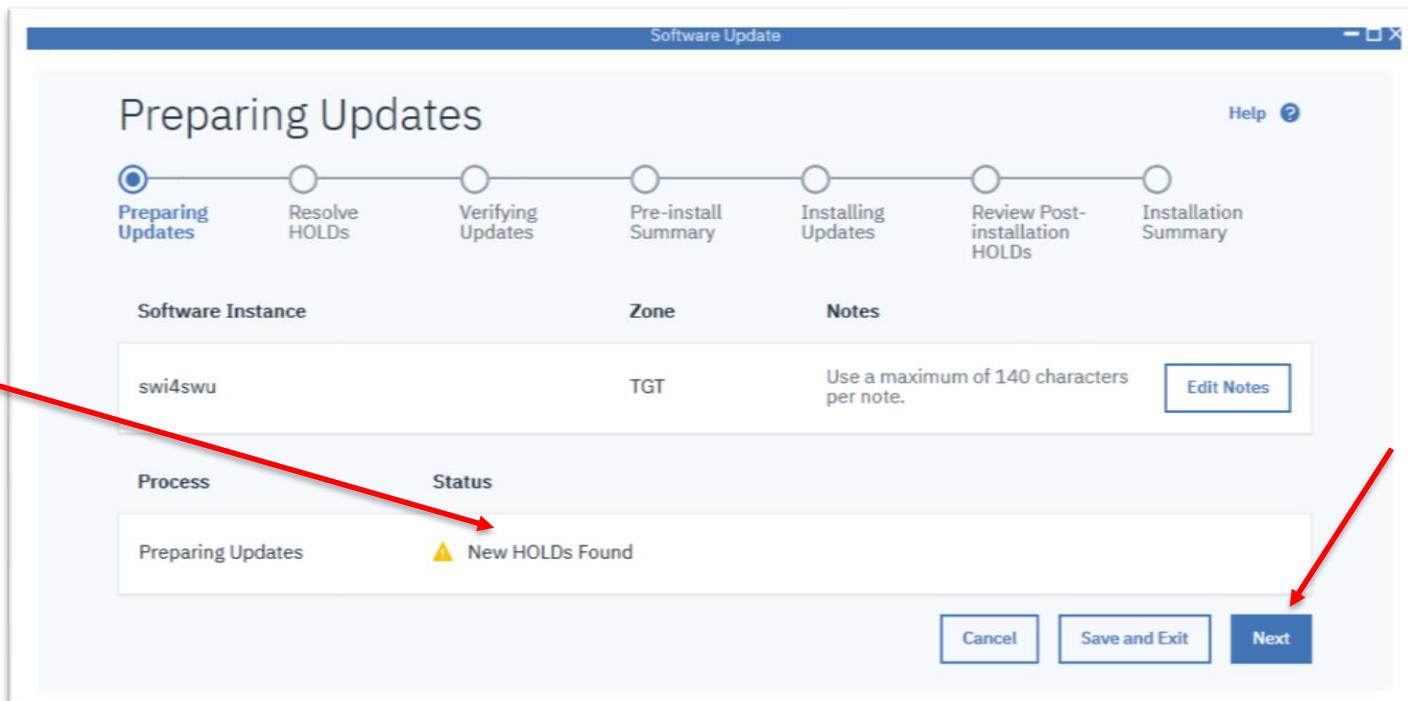
```
APPLY  
SELECT (UA00001, UA00002)  
GROUPEXTEND  
BYPASS (HOLDSYSTEM)  
CHECK.
```

- The Install Corrective action uses GROUPEXTEND on the APPLY.
- Ensures requisite updates are also installed.

Install Corrective Updates

Preparing Updates...

- APPLY CHECK completed.
- HOLDs that must be resolved are found in the APPLY CHECK results.
- Click “Next”



Install Corrective Updates

Resolve HOLDs

- HOLDs are presented for review and resolution.
- You can filter the view by HOLD Type or Reason

The screenshot shows the SAP Software Update interface with the title "Resolve HOLDS". The process step is highlighted. Below it, there's a table for "Software Instance" with columns for "Zone" and "Notes". A note says "Use a maximum of 140 characters per note." and has an "Edit Notes" button. Below the table are two filter sections: "Filter by Type" (with checkboxes for ERROR (0), SYSTEM (3), FIXCAT (0), and USER (0)) and "Filter by Reason" (with checkboxes for IPL (2) and DOC (1)). A red arrow points from the text "You can filter the view by HOLD Type or Reason" to these filter sections. At the bottom, there's a search bar, an "Export" button, and buttons for "Cancel", "Save and Exit", and "Next".

Software Instance	Zone	Notes
swi4swu	TGT	Use a maximum of 140 characters per note. Edit Notes

Unresolved (3) Resolved (0) Resolve after Installation (0) Excluded (0)

Filter by Type

ERROR (0) SYSTEM (3) FIXCAT (0) USER (0)

Filter by Reason

IPL (2) DOC (1)

Reset all filters [\(refresh icon\)](#)

Export [\(download icon\)](#)

Type	Reason	FMID	Update Name
SYSTEM	IPL	HSWUPD1	UA00001
SYSTEM	DOC	HSWUPD1	UA00001
SYSTEM	IPL	HSWUPD1	UA00002

[Cancel](#) [Save and Exit](#) [Next](#)

Install Corrective Updates Resolve HOLDS...

- Open and review each unresolved HOLD.
- For each HOLD click to:
 1. Resolve now
 2. Resolve and review later
 3. Exclude the update
- You can select and resolve one or more HOLDS at a time.

The screenshot shows the 'Resolve HOLDS' step of the Software Update process. The top navigation bar includes 'Software Update', 'Help', and a 'Next' button. Below the navigation is a progress bar with seven steps: 'Preparing Updates' (checkmark), 'Resolve HOLDS' (highlighted in blue), 'Verifying Updates', 'Pre-install Summary', 'Installing Updates', 'Review Post-installation HOLDS', and 'Installation Summary'. The main area is titled 'Resolve HOLDS' with a question mark icon. It displays a table with columns 'Software Instance', 'Zone', and 'Notes'. A note for 'swi4swu' in 'TGT' zone says 'Use a maximum of 140 characters per note.' with an 'Edit Notes' button. Below the table are buttons for 'Unresolved (3)', 'Resolved (0)', 'Resolve after Installation (0)', and 'Excluded (0)'. A 'Filter by Type' section includes checkboxes for 'ERROR (0)', 'SYSTEM (3)', 'FIXCAT (0)', 'USER (0)', 'IPL (2)', and 'DOC (1)'. A 'Filter by Reason' section includes checkboxes for 'SYSTEM', 'IPL', and 'DOC'. A 'Reset all filters' link and an 'Export' button are also present. The central part of the screen shows a detailed view of a selected HOLD. The HOLD details table has columns 'Type', 'Reason', 'FMID', and 'Update Name'. The first HOLD listed is for type 'SYSTEM', reason 'IPL', FMID 'HSWUPD1', and update name 'UA00001'. The 'Reason' column contains a large block of text describing the hold: '+HOLD(UA00001) SYSTEM FMID(HSWUPD1) REASON(IPL) COMMENT(***** * Function Affected: (OA56243) * z/OS UNIX System Services * Description: * Problem with CLPA * ***** * Timing: * Post-APPLY * In order for this PTF to be fully effective, an IPL with CLPA is required. *)'. At the bottom of this panel are three buttons: 'Resolve HOLD', 'Resolve HOLD after Installation', and 'Exclude Update from Installation'. Below this panel, there are two more entries in the HOLD list: another 'SYSTEM', 'DOC' hold for 'HSWUPD1' and 'UA00001', and a third 'SYSTEM', 'IPL' hold for 'HSWUPD1' and 'UA00002'. The bottom of the screen features 'Cancel', 'Save and Exit', and 'Next' buttons.

Install Corrective Updates

Resolve HOLDS actions...

Resolve HOLD:

- I've read and understand the HOLD.
- I want the containing update to be installed.
- I've taken the appropriate action or know I can safely ignore the action.
- Do not show me this HOLD again during this operation.

Resolve HOLD after installation:

- I've read and understand the HOLD.
- I want the containing update to be installed.
- I need to take the appropriate action later, after the update has been installed.
- Show me this HOLD later at the end of this operation.

Exclude update from installation:

- I've read and understand the HOLD.
- I cannot take the appropriate action at this time.
- I do **not** want the containing update to be installed.

Install Corrective Updates

Resolve HOLDs...

- HOLDs change state as they are resolved.
- Resolve all unresolved HOLDS before continuing.

The screenshot shows the 'Resolve HOLDS' step in a software update process. The workflow steps are: Preparing Updates, Resolve HOLDS, Verifying Updates, Pre-install Summary, Installing Updates, Review Post-installation HOLDS, and Installation Summary. The 'Resolve HOLDS' step is currently active. Below the steps, there is a table with columns: Software Instance, Zone, and Notes. One row is shown for 'swi4swu' in the 'TGT' zone with a note about character limits. Below the table are buttons for Unresolved (1), Resolved (2), Resolve after Installation (0), and Excluded (0). A red arrow points from the 'Unresolved (1)' button to the 'Resolved (2)' button. At the bottom, there are filters for Type (ERROR (0), SYSTEM (1), FIXCAT (0), USER (0), IPL (0), DOC (1)) and Reason, along with a search bar and export options. The main table lists one unresolved hold: SYSTEM (DOC) with FMID HSWUPD1 and Update Name UA00001. Buttons at the bottom include Cancel, Save and Exit, and Next.

Software Instance	Zone	Notes
swi4swu	TGT	Use a maximum of 140 characters per note. Edit Notes

Unresolved (1) Resolved (2) Resolve after Installation (0) Excluded (0)

Filter by Type

ERROR (0) SYSTEM (1) FIXCAT (0) USER (0) IPL (0) DOC (1)

Filter by Reason

Reset all filters

Export

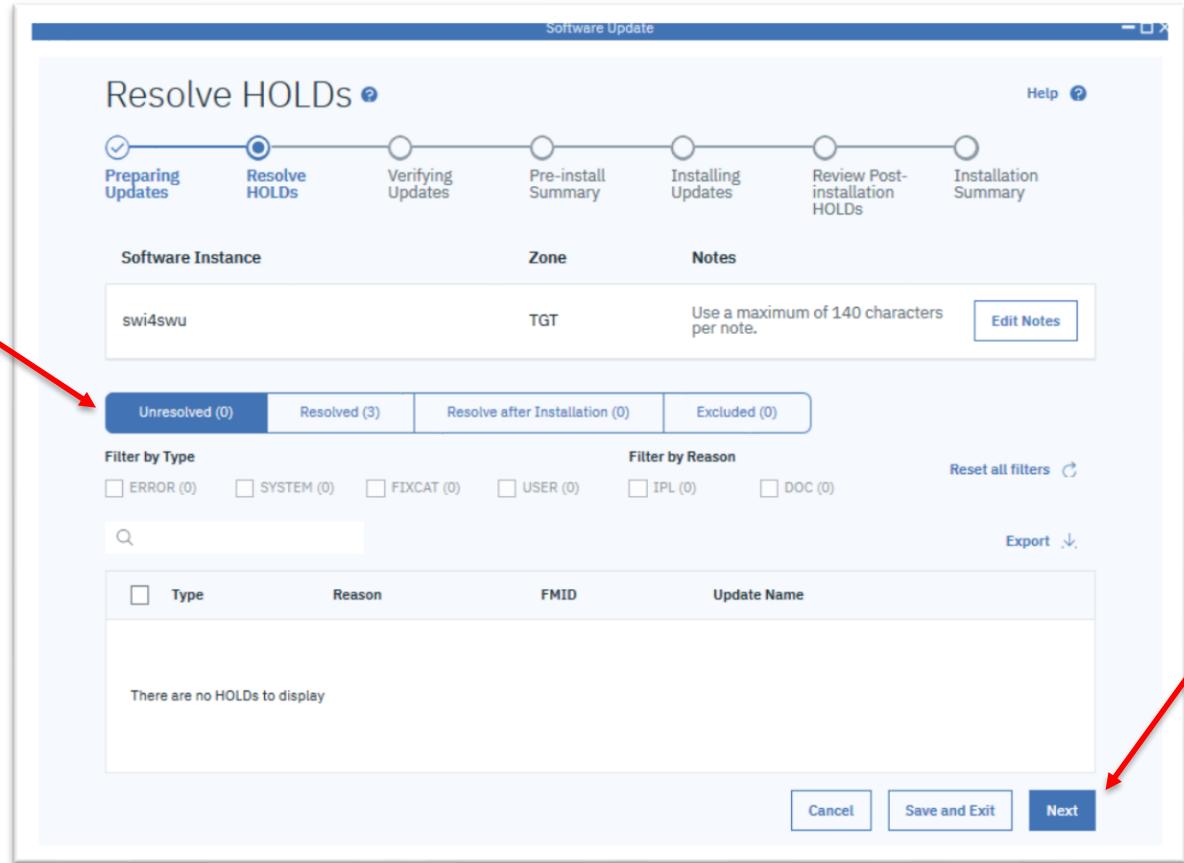
Type	Reason	FMID	Update Name
SYSTEM	DOC	HSWUPD1	UA00001

Cancel Save and Exit Next

Install Corrective Updates

Resolve HOLDs...

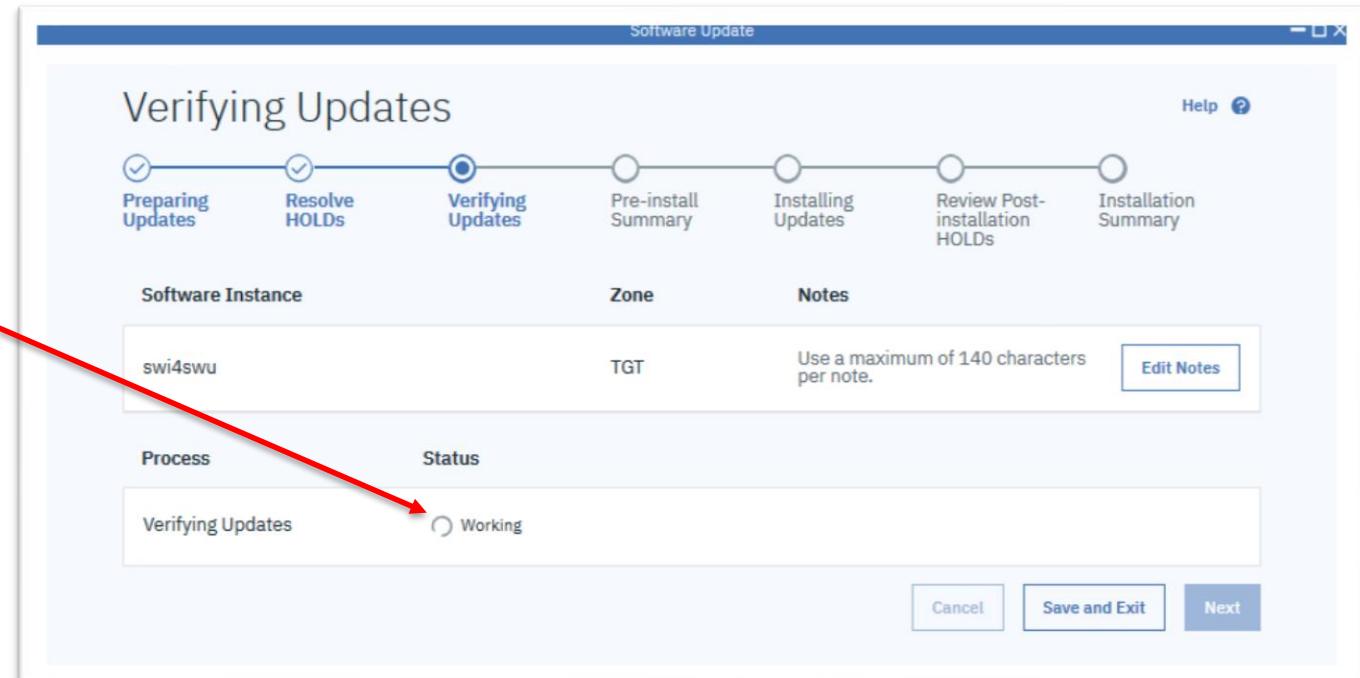
- All HOLDs are resolved.
- Click “Next”



Install Corrective Updates

Verifying Updates

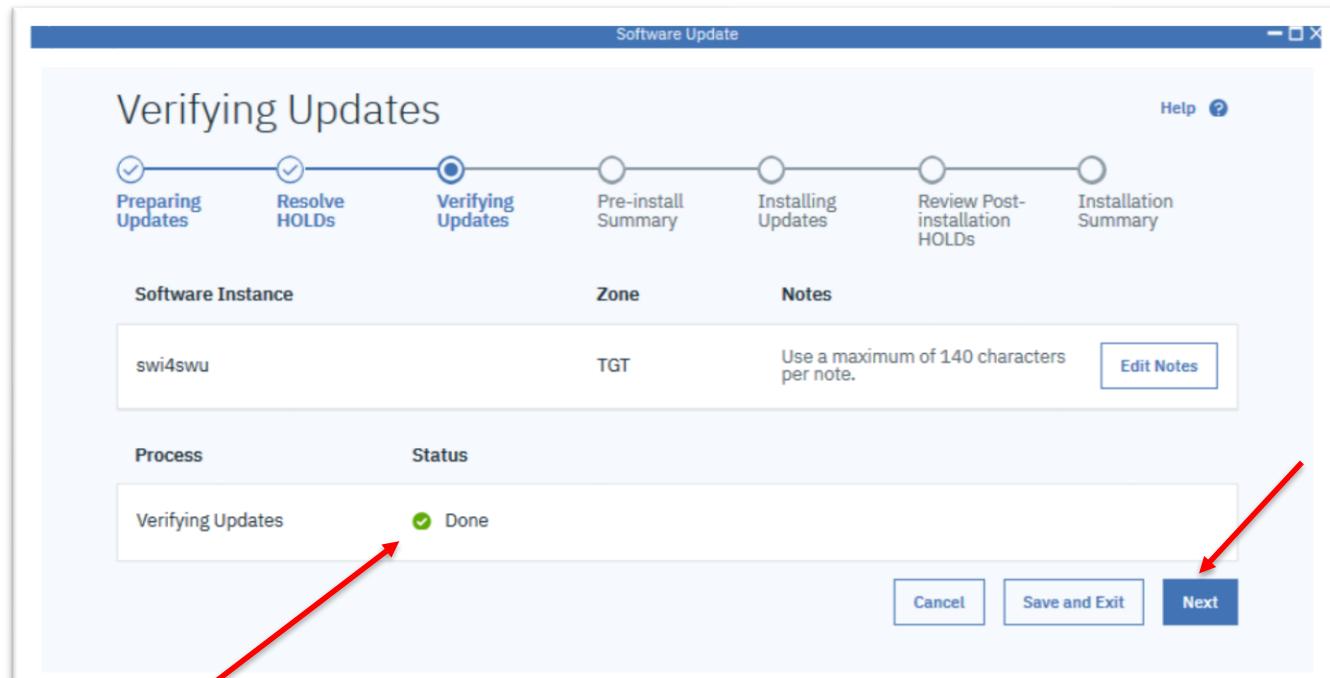
- Performing
APPLY CHECK
to verify your
HOLD resolution
and update
exclusion
choices.



Install Corrective Updates

Verifying Updates...

- APPLY CHECK is complete, all is well.
- Click “Next”.



Install Corrective Updates

Pre-install Summary

- A summary of the updates to be installed is displayed.
- Click “Export” to download and review SMP/E output.
- After reviewing the list of updates to be installed click “Next”.

The screenshot shows the "Pre-install Summary" step of a software update process. The top navigation bar includes "Software Update", "Help", and a "Pre-install Summary" tab. Below the navigation is a horizontal progress bar with seven steps: "Preparing Updates" (checkmark), "Resolve HOLDs" (checkmark), "Verifying Updates" (checkmark), "Pre-install Summary" (highlighted blue circle), "Installing Updates" (empty circle), "Review Post-installation HOLDS" (empty circle), and "Installation Summary" (empty circle). The main content area has three columns: "Software Instance" (swi4swu), "Zone" (TGT), and "Notes" (a text input field with a character limit of 140 characters). Below this is a section titled "Updates to be installed" with a "Filter by Installation Status" dropdown containing three options: "Will be installed" (selected), "Excluded", and "Will be installed (satisfies dependencies)". A red arrow points to the "Export" button. The table below lists two updates: UA00001 and UA00002, both marked as "Will be installed". At the bottom, there are buttons for "Cancel", "Save and Exit", and a large "Next" button highlighted with a red arrow. The status bar at the bottom indicates "1 of 1 pages" and page navigation controls.

Update Name	Installation Status
UA00001	Will be installed
UA00002	Will be installed

Items per page: 10 | 1-2 of 2 items

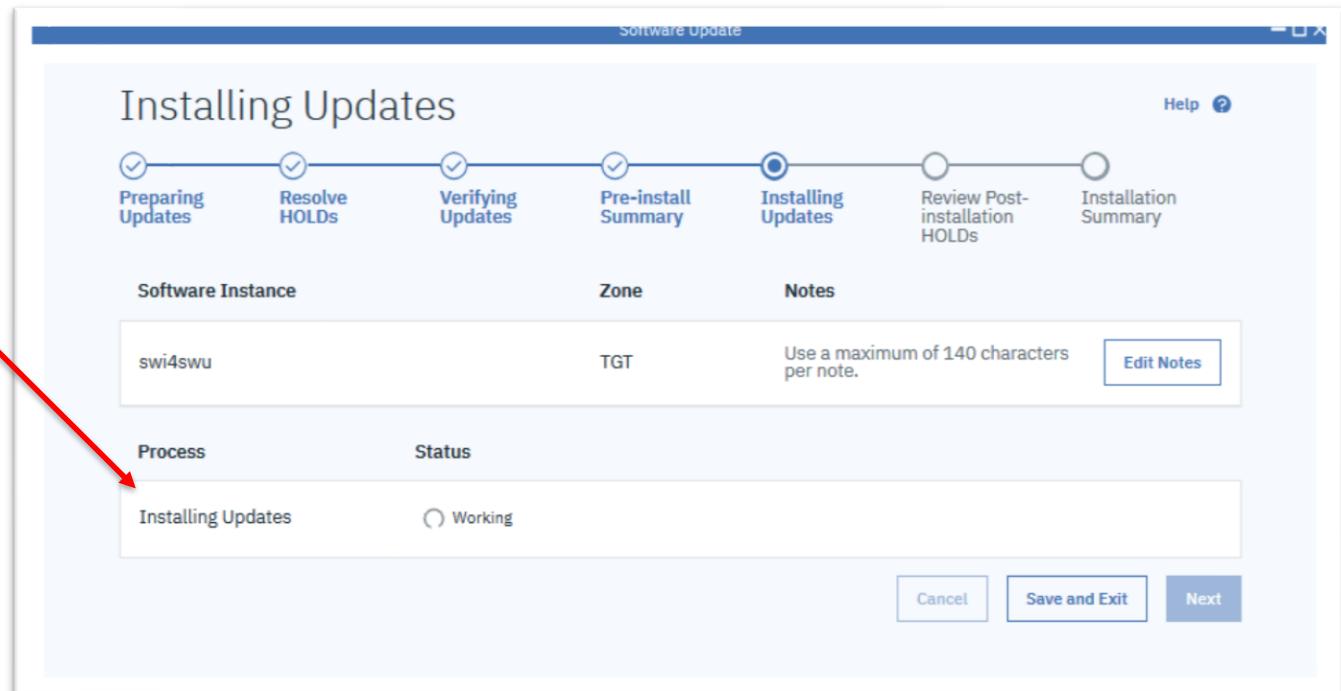
1 of 1 pages < 1 >

Cancel Save and Exit Next

Install Corrective Updates

Installing Updates

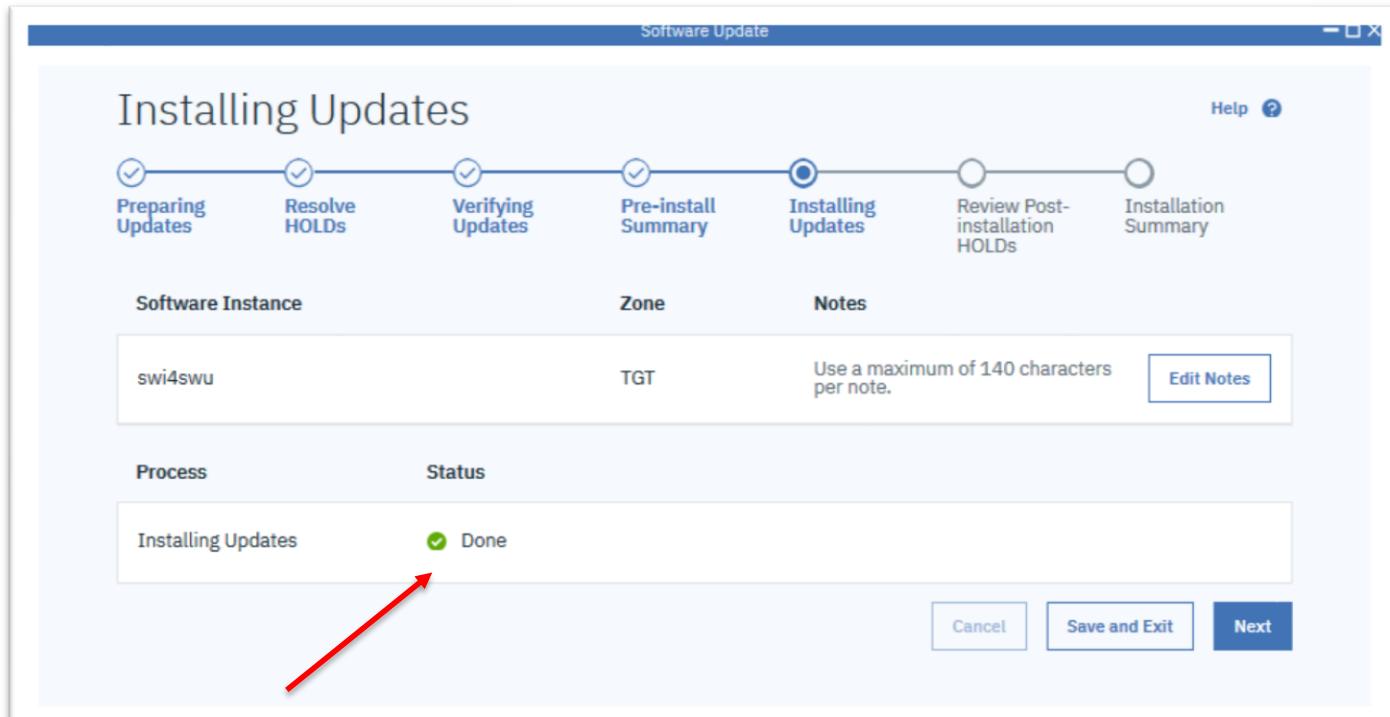
- Performing
APPLY to install
the updates.



Install Corrective Updates

Installing Updates...

- The APPLY is finished!
- Click “Next”.



Install Corrective Updates

Review Post-Installation HOLDS

- If there are HOLDS to be resolved after the install, review and resolve them now.
- Click “Next”.

Software Update

Review Post-installation HOLDS

Help ?

Preparing Updates Resolve HOLDS Verifying Updates Pre-install Summary Installing Updates Review Post-installation HOLDS Installation Summary

Software Instance	Zone	Notes
swi4swu	TGT	Use a maximum of 140 characters per note. Edit Notes

[Unresolved \(0\)](#) [Resolved \(0\)](#)

Filter by Type: ERROR (0) SYSTEM (0) FIXCAT (0) USER (0)

Filter by Reason: [Type](#) [Reason](#) [FMID](#) [Update Name](#)

[Reset all filters](#) [Export](#)

There are no HOLDS to display

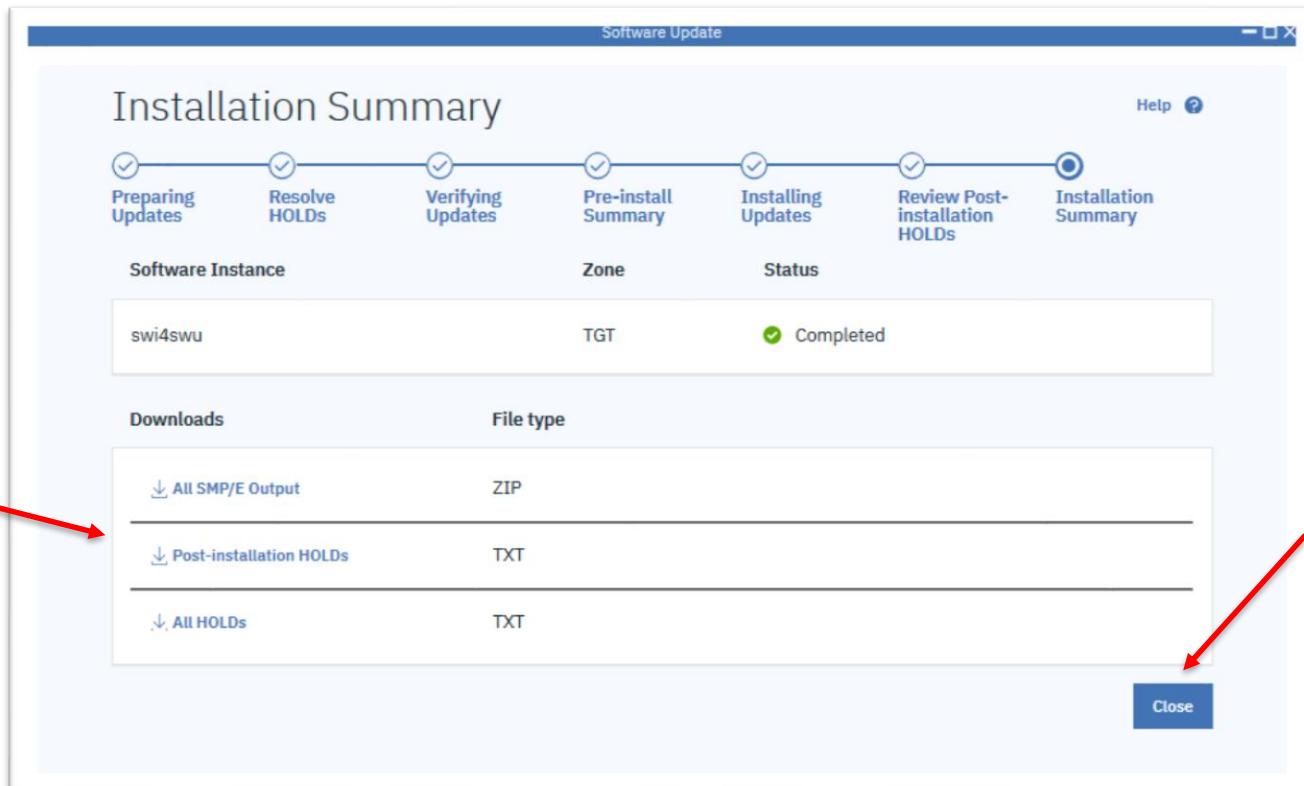
[Save and Exit](#) [Next](#)



Install Corrective Updates

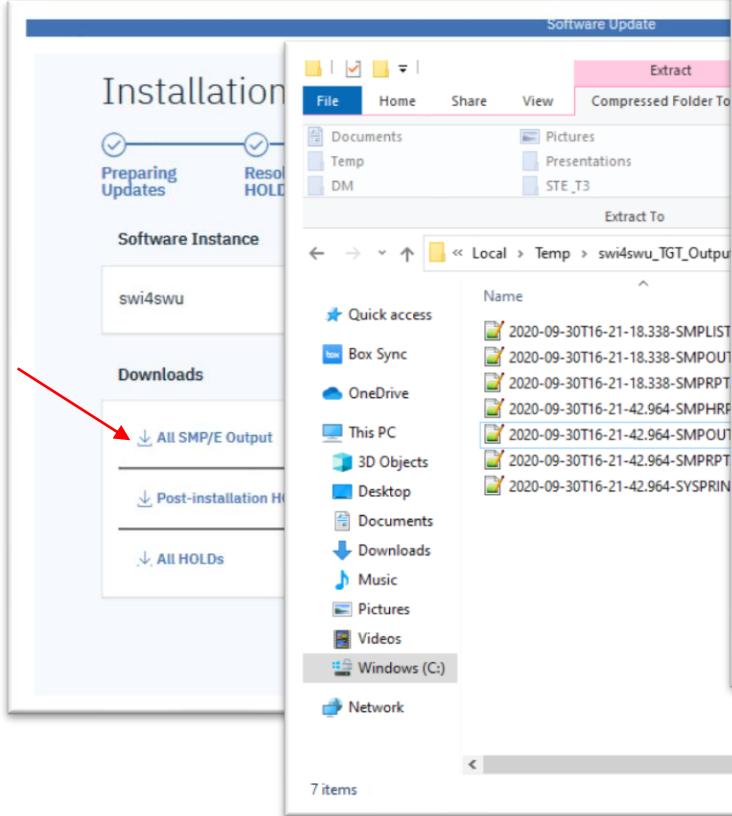
Installation Summary

- The Software Update operation is now finished!
- SMP/E output and text files containing HOLDS can be downloaded.
- Click “Close”



Install Corrective Updates

Installation Summary...



Click and a zip file is downloaded to your workstation.

The screenshot shows a Notepad++ window displaying the file '2020-09-30T16-21-42.964-SMPOUT.txt'. The log contains several entries related to the SMP/E installation process:

```
PAGE 0001 - NOW SET TO TARGET ZONE TGT DATE 09/30/20 TIME 12:21:21 SMP/E 37.07 SMPOUT OUTPUT
GIM42401I THE FOLLOWING PARAMETERS WERE SPECIFIED ON THE EXEC STATEMENT FOR GIMSNP: 'PROCESS=END'.
SET
BOUNDARY(TGT).
GIM20501I SET PROCESSING IS COMPLETE. THE HIGHEST RETURN CODE WAS 00.

APPLY
SELECT(UA00001
UA00002)
GROUPEXTEND
BYPASS(HOLDSYSTEM(DOC(UA00001
IPL(UA00001
UA00002)))
*
.

GIM42001I THE FOLLOWING CONDITIONS FOR SYSMOD UA00001 WERE NOT SATISFIED, BUT WERE IGNORED BECAUSE THE BYPASS OPERAND
WAS SPECIFIED. PROCESSING CONTINUES.
GIM3596E1 SYSTEM HOLD IPL ORIGINATED BY SYSMOD UA00001 WAS BYPASSED.
GIM42001I THE FOLLOWING CONDITIONS FOR SYSMOD UA00002 WERE NOT SATISFIED, BUT WERE IGNORED BECAUSE THE BYPASS OPERAND
WAS SPECIFIED. PROCESSING CONTINUES.
GIM3596E1 SYSTEM HOLD IPL ORIGINATED BY SYSMOD UA00002 WAS BYPASSED.
GIM22701I APPLY PROCESSING WAS SUCCESSFUL FOR SYSMOD UA00001.
GIM22701I APPLY PROCESSING WAS SUCCESSFUL FOR SYSMOD UA00002.
GIM59701I THE GLOBAL ZONE WAS UPDATED WITH CHANGES FROM THE TGT ZONE.
GIM20501I APPLY PROCESSING IS COMPLETE. THE HIGHEST RETURN CODE WAS 00.

GIM20502I SMP/E PROCESSING IS COMPLETE. THE HIGHEST RETURN CODE WAS 00. SMP/E IS AT LEVEL 37.07.
```

Install Recommended Updates

Install vendor recommended updates.

Install Recommended Updates

Software Update

Software Update ?

Start New Software Update View Updates in Progress

Show completed updates +

Settings ⚙ Help ?

Software Instances and Zones
Choose a software instance and select a zone for a software update.

Search icon

Name	System	Description	Status
> GuineaPigSWI	pev171	📝	Ready
> deb_zos23	pev171		🔒 Being updated
> hooli	pev171		🔒 Being deployed
> smptest	pev171		🔒 Being deployed
> swi4swu	pev171		Ready
swi4swu2	pev171		Ready

Zone

TGT - Recommended updates were last installed on Aug 3, 2020 10:42:30 AM

> test	pev171	Ready
--------	--------	-------

Items per page: 10 ▾ | 1-7 of 7 items

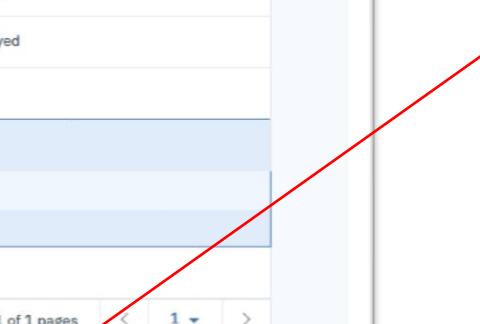
1 of 1 pages < 1 >

Refresh Last refresh: Aug 24, 2020 1:10:12 PM

Install Corrective

Install Recommended

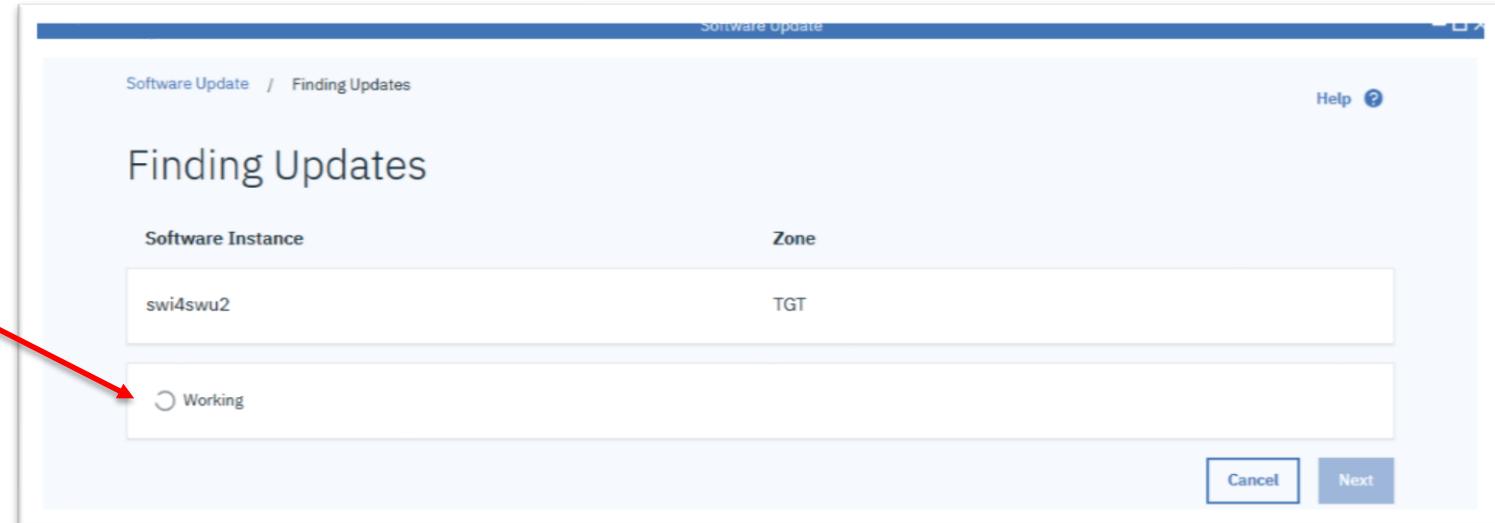
Install Functional



Click

Install Recommended Updates...

Performing APPLY
CHECK SOURCEID
to find recommended
updates.



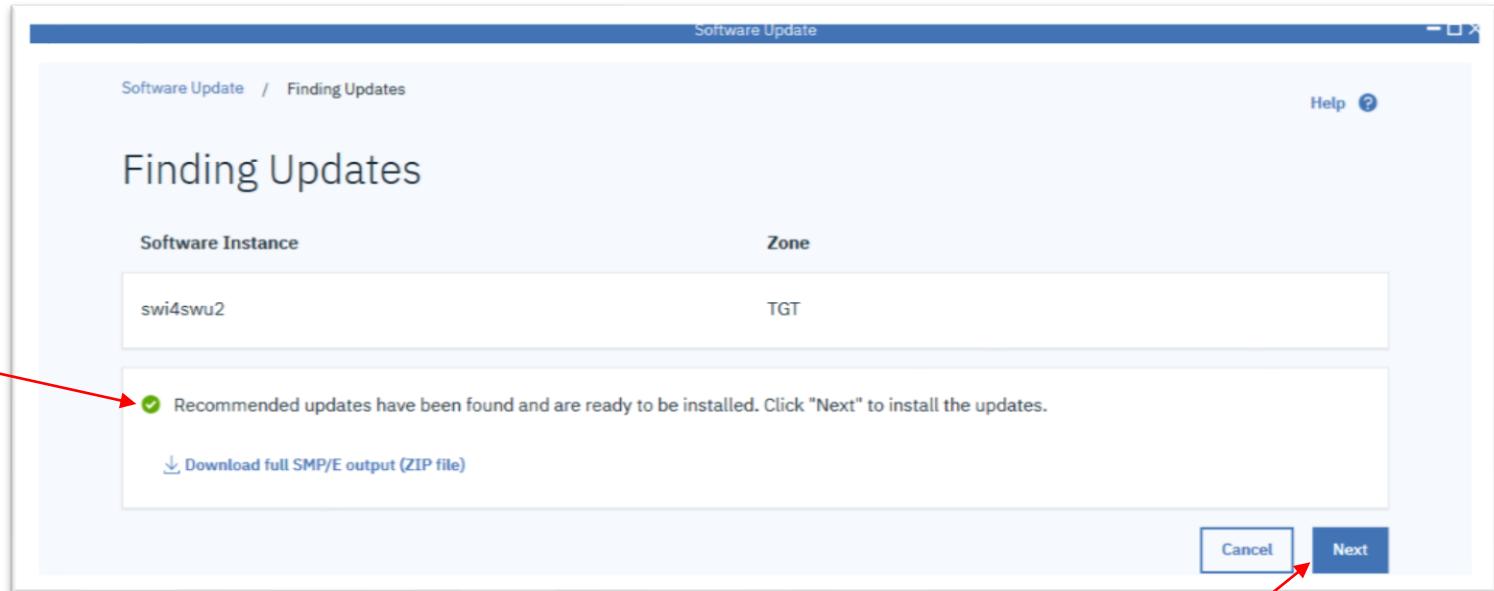
Install Recommended Updates...

```
APPLY  
SOURCEID(RSU*, HIPER, PRP, SECINT, CAR*, RSL*)  
GROUP  
BYPASS(HOLDUSER, HOLDSYSTEM, HOLDFIXCAT)  
CHECK.
```

- Recommended updates are identified by vendor defined source IDs:
 - RSU*, HIPER, PRP, SECINT (IBM)
 - CAR*, HIPER, PRP (Broadcom)
 - RSL* (BMC)
- The list of source IDs is not user modifiable.
- Updates with an unresolved ERROR HOLD (PE PTFs) are **not** installed.
 - The ERROR HOLD is not displayed for the user to choose a resolution.
 - The PE PTF is **automatically** and unconditionally excluded.

Install Recommended Updates...

One or more recommended updates were found and can be installed.



Click "Next" starts the update process.

Install Recommended Updates...

Performing
APPLY
CHECK to find
missing
requisites and
HOLDs.

Software Update

Preparing Updates

Help ?

Prepared Updates Resolve HOLDS Verifying Updates Pre-install Summary Installing Updates Review Post-installation HOLDs Installation Summary

Software Instance	Zone	Notes
swi4swu2	TGT	Use a maximum of 140 characters per note. Edit Notes

Process	Status
Preparing Updates	Working

[Cancel](#) [Save and Exit](#) [Next](#)

Install Functional Updates

Install updates to support a new function.

Install Functional Updates

Software Update

Software Update ?

Start New Software Update View Updates in Progress

Show completed updates +

Settings ⚙ Help ?

Software Instances and Zones
Choose a software instance and select a zone for a software update.

Search icon

Name	System	Description	Status
> GuineaPigSWI	pev171	📝	Ready
> deb_zos23	pev171		🔒 Being updated
> hooli	pev171		🔒 Being deployed
> smptest	pev171		🔒 Being deployed
> swi4swu	pev171		Ready
▼ swi4swu2	pev171		Ready

Zone

TGT - Recommended updates were last installed on Aug 3, 2020 10:42:30 AM

> test	pev171	Ready
--------	--------	-------

Items per page: 10 ▾ | 1-7 of 7 items

1 of 1 pages < 1 ▾ >

Refresh Last refresh: Aug 24, 2020 1:10:12 PM

Install Corrective

Install Recommended

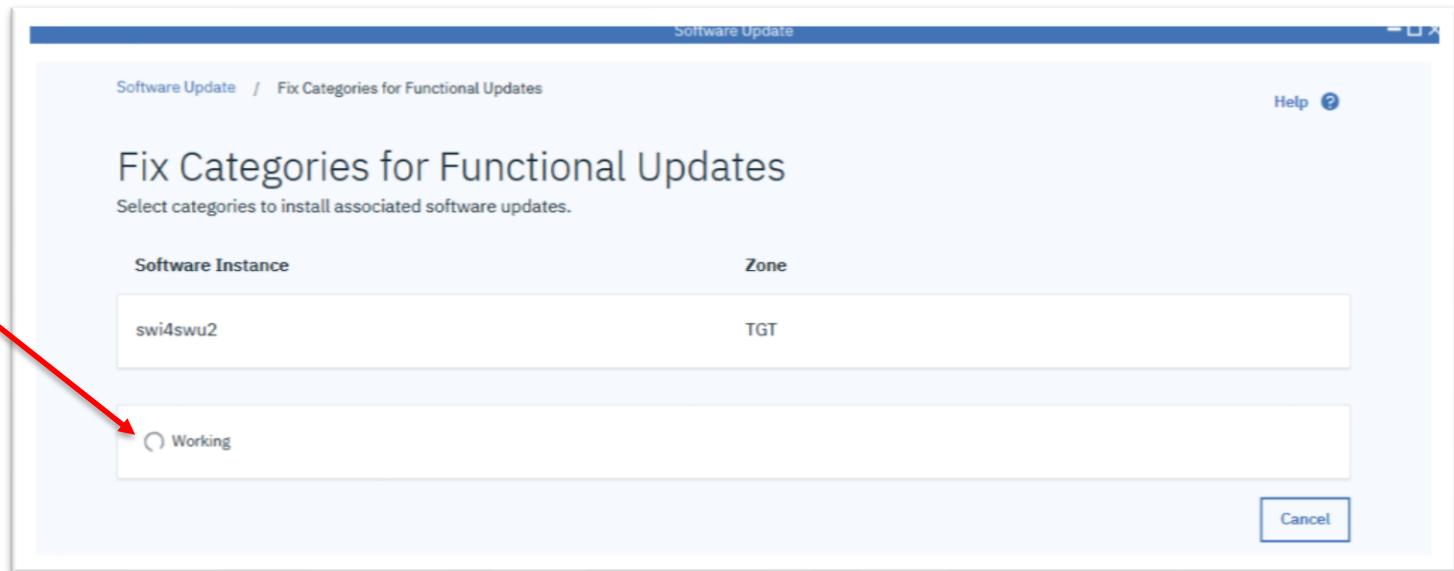
Install Functional



Click

Install Functional Updates...

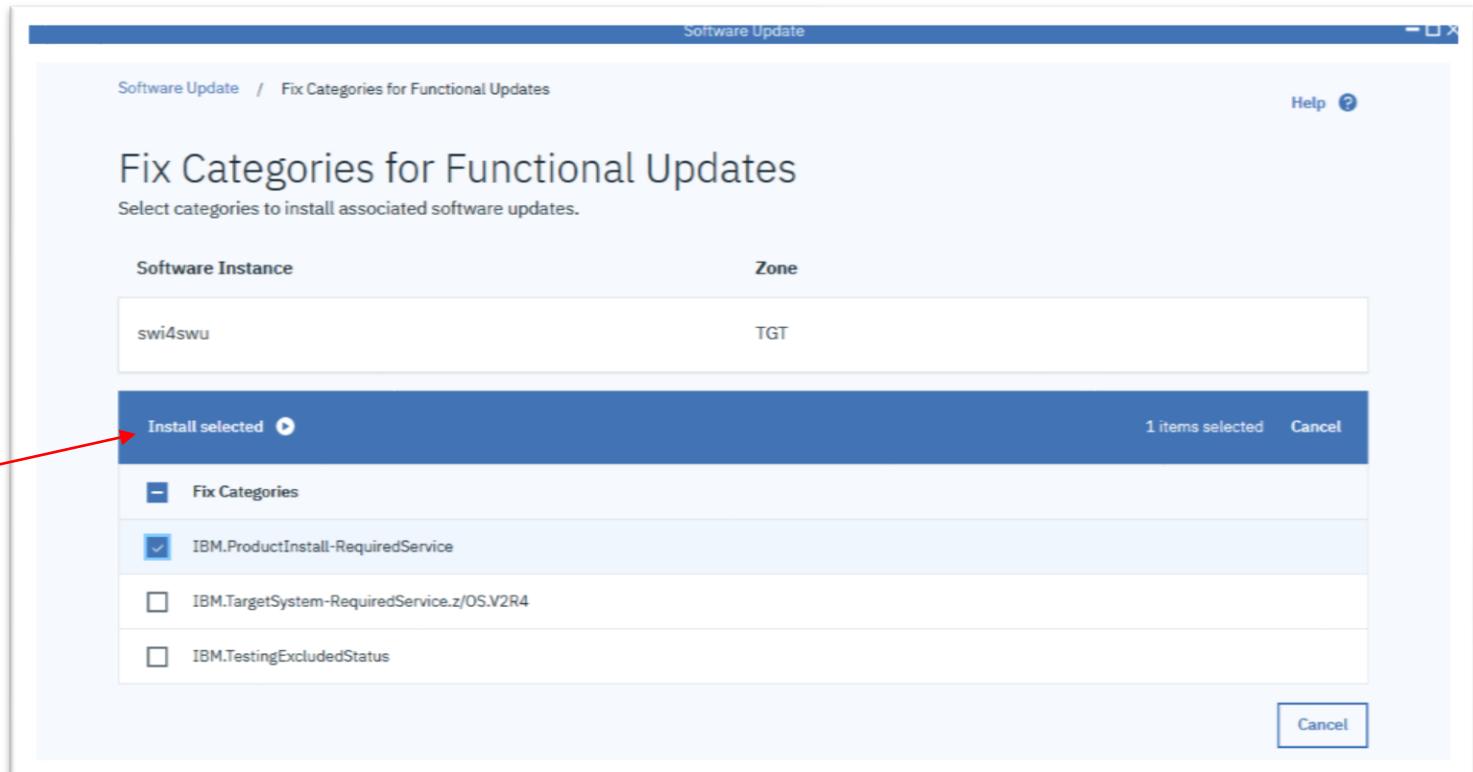
- Querying FIXCAT HOLDS to find missing updates.
- Just like SMP/E REPORT MISSINGFIX FIXCAT(*) processing.



Install Functional Updates...

One or more fix categories were found with updates not yet installed.

- Click “Install selected” starts the update process.
- All updates for the selected categories will be installed.



Install Functional Updates...

Performing
APPLY
CHECK to find
missing
requisites and
HOLDs.

The screenshot shows a software update interface titled "Preparing Updates". At the top, there is a navigation bar with tabs: "Software Update", "Help ?" (with a question mark icon), and a close button. Below the title, a horizontal progress bar shows the current step: "Preparing Updates" (highlighted with a blue dot), followed by "Resolve HOLDS", "Verifying Updates", "Pre-install Summary", "Installing Updates", "Review Post-installation HOLDs", and "Installation Summary".

The main area contains two tables. The first table has columns: "Software Instance", "Zone", and "Notes". It lists one instance: "swi4swu" (Zone: TGT). A note says: "Use a maximum of 140 characters per note." with a "Edit Notes" button. The second table has columns: "Process" and "Status". It shows "Preparing Updates" with a status of "Working".

At the bottom right are three buttons: "Cancel", "Save and Exit", and "Next".

Install Functional Updates...

```
APPLY  
SOURCEID (IBM.PRODUCTINSTALL-REQUEREDSERVICE)  
GROUPEXTEND  
BYPASS (HOLDSYSTEM)  
CHECK.
```

- All PTFs with the selected Fix Category SOURCEID will be installed.
- GROUPEXTEND ensures requisite updates will also be installed.

A note on acquisition of updates

Acquisition of Updates

- Software Update does **not** acquire updates or HOLDDATA.
- Updates must already be received into the global zone and SMPPTS.
- The **BEST PRACTICE** is to use **SMP/E RECEIVE ORDER**
 - Use a Job scheduler to automate acquisition on a regular cadence
- The SMP/E RECEIVE ORDER command works with a server to
 - Build custom packages of PTFs
 - Download PTFs to your z/OS
 - Receive PTFs into the global zone and SMPPTS
- IBM and several leading z/OS software providers support SMP/E RECEIVE ORDER to acquire PTFs and HOLDDATA for their software products.

Additional Features

- Save and Resume
- Completed and Cancelled
- Settings

Save and Resume

Preparing Updates



Software Instance

Zone

Notes

swi4swu

TGT

Use a maximum of 140 characters per note.

[Edit Notes](#)

Process

Status

Preparing Updates

Working

[Cancel](#)

[Save and Exit](#)

[Next](#)

- Most steps in the process allow you to pause and then resume later.
- Click the “**Save and Exit**” button.

Save and Resume...

On the Software Update main page click “View Updates in Progress” to see the saved update operations.

The screenshot shows the Software Update interface. At the top, there are two buttons: "Start New Software Update" and "View Updates in Progress". A red arrow points from the text in the previous slide to the "View Updates in Progress" button. To the right of these buttons are "Settings", "Help", and a search bar labeled "Show completed updates".

The main area is titled "Software Instances and Zones" with the sub-instruction "Choose a software instance and select a zone for a software update." Below this is a search bar and a table listing software instances:

Name	System	Description	Status
GuineaPigSWI	pev171	...	Ready
deb_zos23	pev171	...	Being updated
holi	pev171	...	Being deployed
smptest	pev171	...	Being deployed
swi4swu	pev171	...	Being updated
swi4swu2	pev171	...	Ready
test	pev171	...	Ready

At the bottom, there are buttons for "Refresh", "Last refresh: Aug 24, 2020 5:03:46 PM", and three "Install" buttons: "Install Corrective", "Install Recommended", and "Install Functional".

Save and Resume...

Select the operation you want to resume.

The screenshot shows the 'Software Update' interface with the title 'Software Update'. It has tabs for 'Start New Software Update' and 'View Updates in Progress' (which is selected). A button 'Show completed updates' is also present. The main area is titled 'Updates in Progress' with the sub-instruction 'Choose a software update to resume.' Below is a table listing two updates:

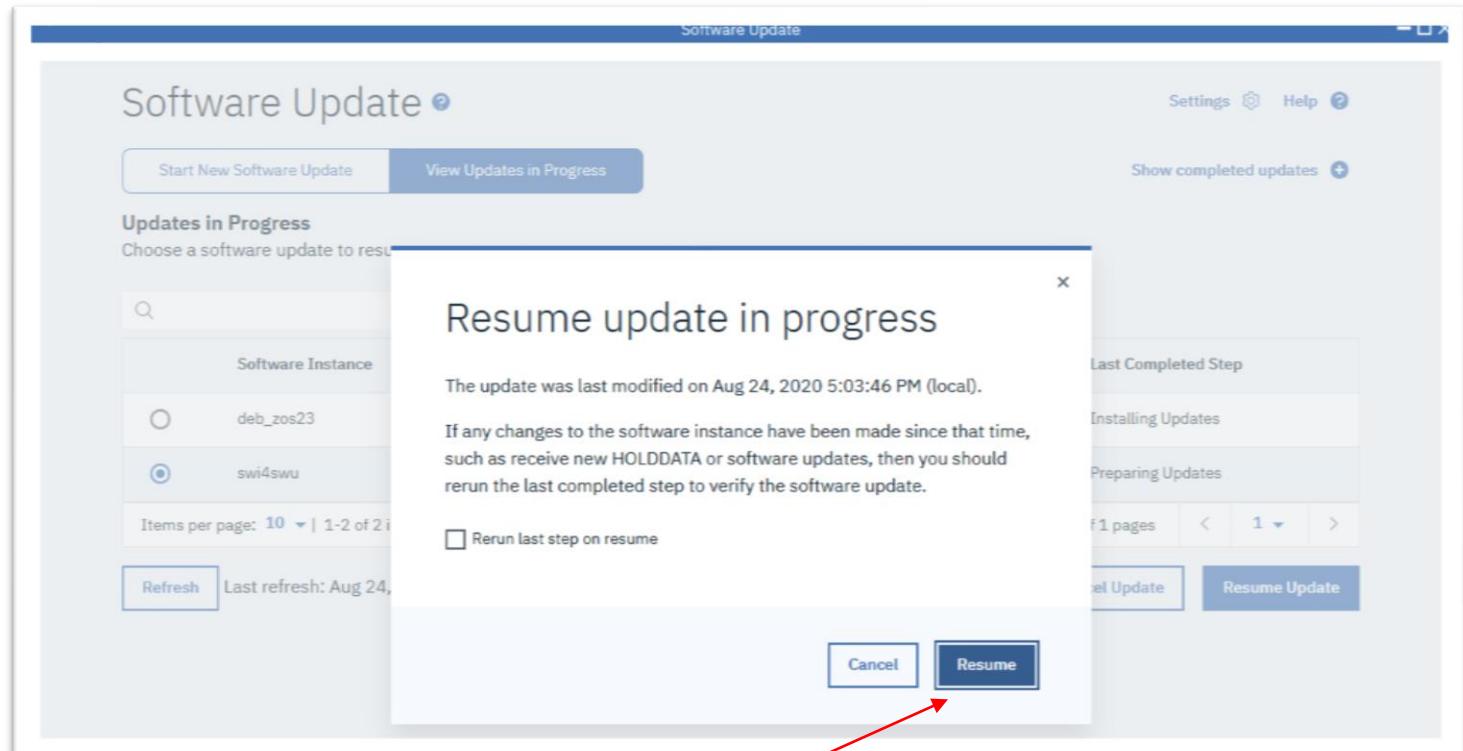
Software Instance	Zone	System	Type	Notes	Last Modified (local)	Last Completed Step
deb_zos23	TGT23	pev171	F	...	Aug 3, 2020 12:14:51 PM	Installing Updates
swi4swu	TGT	pev171	F	...	Aug 24, 2020 5:03:46 PM	Preparing Updates

At the bottom, there are buttons for 'Refresh' (disabled), 'Cancel Update', and 'Resume Update' (highlighted with a red arrow).

Click "Resume Update" to open and return to the saved step.

Save and Resume...

Confirm you want to resume a saved update operation.



Click "Resume" to open and return to the saved step.

Completed and Cancelled

The screenshot shows the Software Update interface. At the top, there are two buttons: "Start New Software Update" and "View Updates in Progress". Below this is a section titled "Software Instances and Zones" with the sub-instruction "Choose a software instance and select a zone for a software update." A search bar is present above a table. The table has columns for Name, System, Description, and Status. The data is as follows:

Name	System	Description	Status
> GuineaPigSWI	pev171	💬	Ready
> deb_zos23	pev171	🔒	Being updated
> hooli	pev171	🔒	Being deployed
> smpitest	pev171	🔒	Being deployed
> swi4swu	pev171	🔒	Being updated
> swi4swu2	pev171		Ready
> test	pev171		Ready

At the bottom, there are buttons for "Refresh", "Last refresh: Aug 24, 2020 5:34:17 PM", "Install Corrective", "Install Recommended", and "Install Functional".

Show completed updates +

On the Software Update main page click “**Show completed updates**” to view completed and cancelled update operations.

Completed and Cancelled...

The screenshot shows a software application window titled "Software Update". In the top navigation bar, there are links for "Software Update" and "Completed Updates". On the right side of the top bar, there is a "Help" link with a question mark icon. Below the navigation, the title "Completed Updates" is displayed. A search bar with a placeholder "Software Instance Name" and a "Search" button are located above the table. The main content is a table with the following columns: Software Instance, Zone, System, Type, Notes, Date Completed (local), and Status. The table lists 12 items, with the last item highlighted by a blue border. Each row contains a download icon (a downward arrow) in the last column. At the bottom of the table, there is a pagination control showing "Items per page: 10 | 1-10 of 12 items" and "1 of 2 pages" with navigation arrows.

Software Instance	Zone	System	Type	Notes	Date Completed (local)	Status	
swi4swu	TGT	pev171	F		Aug 24, 2020 4:45:02 PM	Canceled	
swi4swu2	TGT	pev171	R		Aug 24, 2020 4:34:50 PM	Canceled	
swi4swu2	TGT	pev171	C		Aug 24, 2020 3:30:36 PM	Completed	
swi4swu2	TGT	pev171	R		Aug 24, 2020 11:30:07 AM	Canceled with errors	
swi4swu	TGT	pev171	F		Aug 21, 2020 12:28:57 PM	Canceled	
swi4swu2	TGT	pev171	R		Aug 3, 2020 10:42:30 AM	Completed	
swi4swu	TGT	pev171	R		Jul 16, 2020 3:40:31 PM	Completed	
swi4swu	TGT	pev171	F		Jul 15, 2020 3:51:39 PM	Canceled	
swi4swu	TGT	pev171	C		Jul 9, 2020 11:55:43 AM	Canceled	
swi4swu	TGT	pev171	R		Jul 9, 2020 11:21:15 AM	Canceled	

The list of completed update operations are displayed.

Click to download saved output.

Completed and Cancelled...

Software Update / Completed Updates

Help ?

Completed Updates

Software Instance Name Search

Software Instance	Zone	System	Type	Notes	Date Completed (local) ▾	Status	Download
swi4swu	TGT	pev171	F		Aug 24, 2020 4:45:02 PM	Canceled	⬇️
swi4swu2	TGT	pev171	R		Aug 24, 2020 4:34:50 PM	Canceled	⬇️
swi4swu2	TGT	pev171	C		Aug 24, 2020 3:30:36 PM	Completed	⬇️
swi4swu2	TGT	pev171	R		Aug 24, 2020 11:30:07 AM	Canceled with error	⬇️
swi4swu	TGT	pev171	F		Aug 21, 2020 12:28:57 PM	Canceled	⬇️
swi4swu2	TGT	pev171	R		Aug 3, 2020 10:42:30 AM	Completed	⬇️
swi4swu	TGT	pev171	R		Jul 16, 2020 3:40:31 PM	Completed	⬇️
swi4swu	TGT	pev171	F		Jul 15, 2020 3:51:39 PM	Canceled	⬇️
swi4swu	TGT	pev171	C		Jul 9, 2020 11:55:43 AM	Canceled	⬇️
swi4swu	TGT	pev171	R		Jul 9, 2020 11:21:15 AM	Canceled	⬇️

Items per page: 10 ▾ | 1-10 of 12 items

1 of 2 pages < 1 ▾ >

Select a file to download.

Settings

The screenshot shows the Software Update interface. At the top, there's a navigation bar with 'Software Update' and icons for minimize, maximize, and close. Below it is a header with 'Software Update' and three buttons: 'Start New Software Update', 'View Updates in Progress', and 'Show completed updates'. On the right side of the header, there are 'Settings' (with a gear icon), 'Help' (with a question mark icon), and a 'Logout' button. A red arrow points from the text 'On the Software Update main page click "Settings"' to the 'Settings' button. The main content area is titled 'Software Instances and Zones' and contains a search bar and a table. The table has columns for Name, System, Description, and Status. It lists seven entries: 'GuineaPigSWI' (Ready), 'deb_zos23' (Being updated), 'holi' (Being deployed), 'smptest' (Being deployed), 'swi4swu' (Being updated), 'swi4swu2' (Ready), and 'test' (Ready). At the bottom, there are buttons for 'Refresh', 'Last refresh: Aug 24, 2020 5:34:17 PM', 'Install Corrective', 'Install Recommended', and 'Install Functional'.

Name	System	Description	Status
> GuineaPigSWI	pev171	💬	Ready
> deb_zos23	pev171		Being updated
> holi	pev171		Being deployed
> smptest	pev171		Being deployed
> swi4swu	pev171		Being updated
> swi4swu2	pev171		Ready
> test	pev171		Ready

On the Software Update main page click "Settings"

Settings...

Select a z/OSMF host system from the dropdown.

Specify allocation parameters for the temporary SMP/E output data sets on the selected system:
SMPOUT, SMPRPT, SMPHRPT, SMPLIST, SYSPRINT.

The screenshot shows the 'Software Update' interface with the 'Settings' tab selected. A red arrow points to the 'Select a System' dropdown menu, which is currently set to 'pev171'. Another red arrow points to the 'Reset all parameters' button in the top right corner of the settings area. The 'Temporary Data Set Allocation Parameters' section contains fields for Storage Class, Data Class, Management Class, Data Set Name Prefix, Unit, and Volume Serial, each with a corresponding reset icon.

Software Update / Settings

Settings

Select a System

pev171

Temporary Data Set Allocation Parameters

Storage Class

Data Class

Management Class

Data Set Name Prefix

ZOSMFT6

Unit

SYSALDDA

Volume Serial

Reset all parameters

Close Save

In Summary

- Software Update simplifies installing SMP/E managed software updates (PTFs).
- Target users are early tenure z/OS system administrators and system programmers.
- Codifies best practices for installing software updates.
- New function for z/OS **V2.4** and **V2.3** with PTFs for APAR PH28412
 - UI72029 for z/OS V2.4
 - UI72028 for z/OS V2.3
- For more information:
<https://www.ibm.com/support/z-content-solutions/software-update-zosmf/>

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