



z/OSMF Software Deployment Application User Experience The IBM Perspective

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Agenda

Recent Enhancements

- -Support for unmounted z/OS UNIX file system data sets
- Support for deployment configuration copy
- Support for granular control over which users can view and modify deployment task artifacts

Software Deployment Hints and Tips

- Deploying volumes
- -Resuming deployments
- -Cancelling and removing deployments
- -Submitting the deployment jobs

Navigation Hints and Tips



NEW FUNCTION - PTFs UK73699 and UO01300



Support for Unmounted z/OS UNIX File System Data Sets

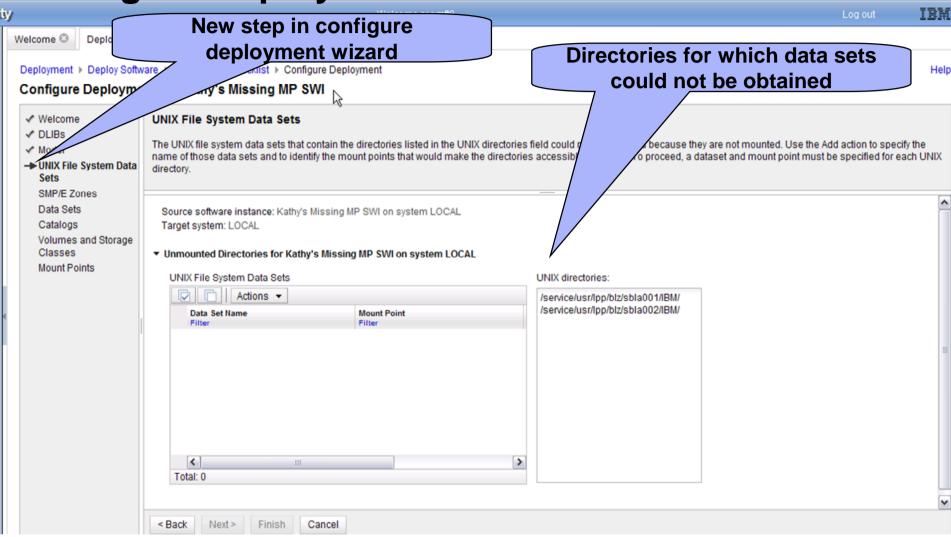
- -Currently UNIX file system data sets must be mounted so the Deployment task of z/OSMF can find the data sets where directories defined by DDDEF entries reside.
- -If a data set cannot be found for one or more directories because the data set is not mounted, then the Deployment task generates an error message to identify the directory and does not continue the deployment operation.
- -Now the user will be given the opportunity to identify the data sets that contain the subject directories.



z/OSMF Software Deployment – User Experience (the IBM Perspective)

Configure Deployment Wizard ...



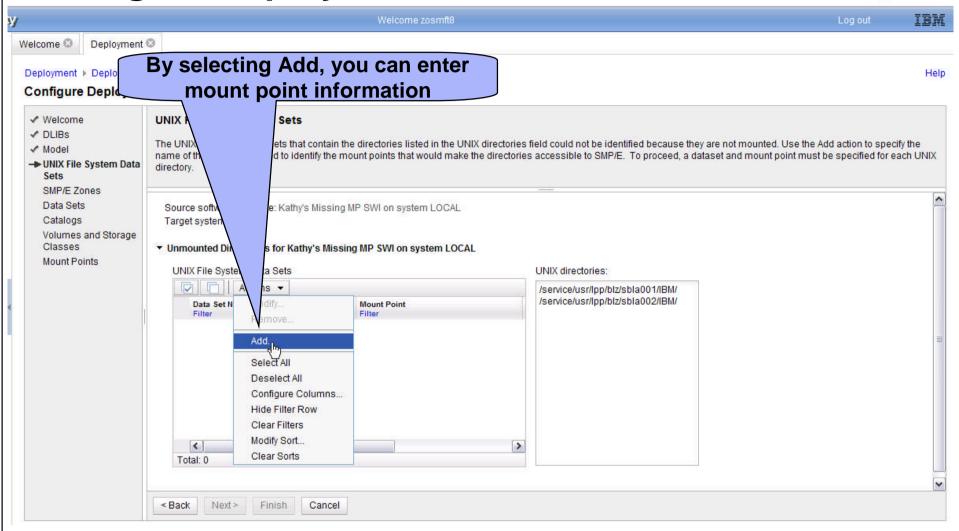


If a data set cannot be determined because a directory is not mounted or cannot be found, the user will be given the opportunity to supply the mount point and the UNIX file system data set. The deployment will not proceed until the user provides the data set for the mount point or the directory is mounted so that the data set can be determined.

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Configure Deployment Wizard ...

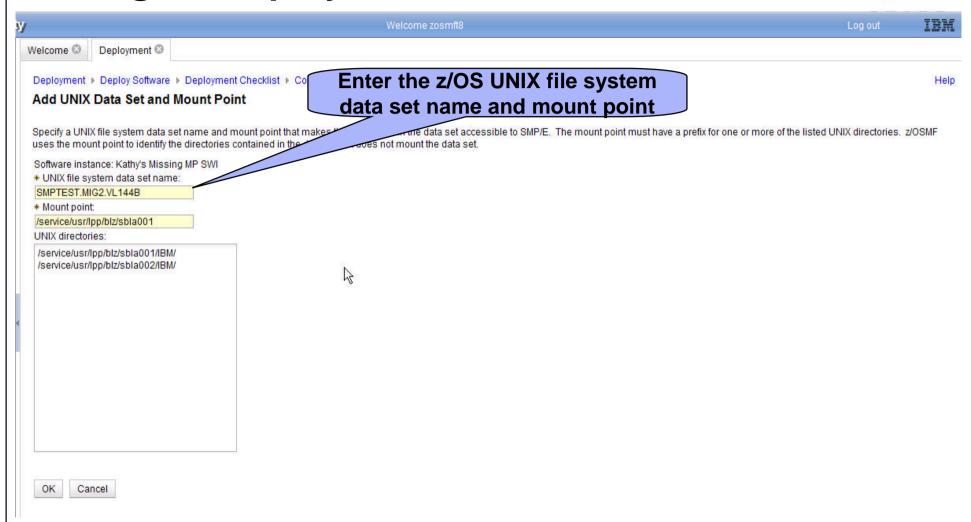




On the right you can see the directories for which z/OS UNIX file system data sets could not be obtained. By selecting the Add Action, the user can enter the mount point information.

Configure Deployment Wizard ...





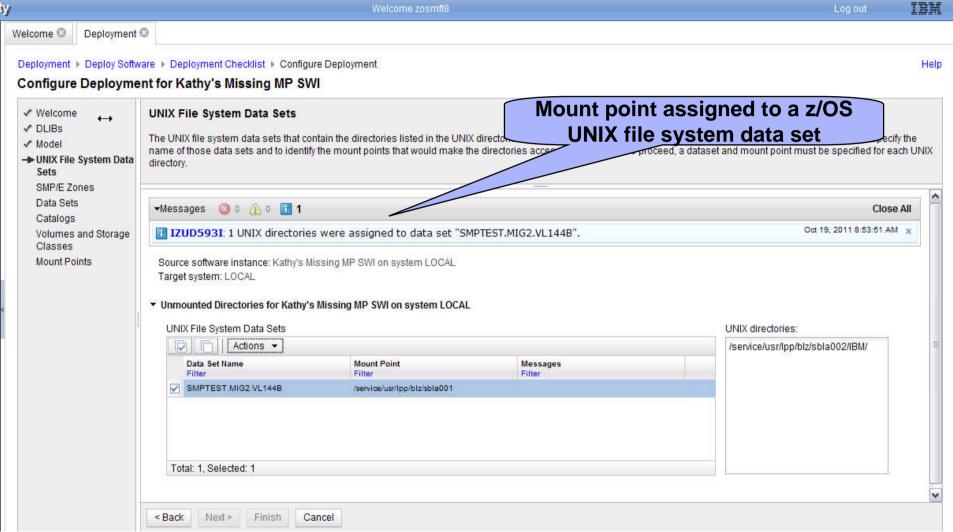
The user can enter the Unix file system data set and the mount point.



Configure Deployment Wizard ...



SHARE in Atlanta



Upon return from adding a mount point, you can see that one has been resolved. The user would again use the Add Action to resolve the second missing Unix directory.

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Configure Deployment Wizard ...



Welcome Deployment 3 Deployment ▶ Deploy Software ▶ Deployment Checklist ▶ Configure Deployment Help All mount points are resolved, Configure Deployment for Kathy's Missing MP SWI configuration can continue ✓ Welcome **UNIX File System Data Sets** ✓ DLIBs The UNIX file system data sets that contain the directories listed in the UNIX director be identified because they are not mounted. Use the Add action to specify the ✓ Model ssible to SMP/E. To proceed, a dataset and mount point must be specified for each UNIX name of those data sets and to identify the mount points that would make the → UNIX File System Data directory. Sets SMP/E Zones Data Sets ▼Messages ② 0 A 0 1 2 Close All Catalogs Oct 19, 2011 8:53:51 AM x IZUD593I: 1 UNIX directories were assigned to data set "SMPTEST.MIG2.VL144B". Volumes and Storage Classes Oct 19, 2011 8:56:04 AM y IZUD593I: 1 UNIX directories were assigned to data set "PINTO.VICOM.JCL". Mount Points Source software instance: Kathy's Missing MP SWI on system LOCAL Target system: LOCAL ▼ Unmounted Directories for Kathy's Missing MP SWI on system LOCAL UNIX File System Data Sets UNIX directories: Actions ▼ Data Set Name Mount Point Messages SMPTEST.MIG2.VL144B /service/usr/lop/blz/sbla001 ✓ PINTO.VICOM.JCL /service/usr/lpp/blz/sbla002/IBM Total: 2. Selected: 1 < Back Finish Cancel After all mount points have been resolved, clicking Next will proceed through the Configuration process as normally done. If errors result from the mount points entered by the user, control will remain on this pane until the errors are resolved. SHARE in Atlanta © 2012 IBM Corporation



Support for Deployment Configuration Copy

- -Currently when creating a deployment operation in the Deployment task of z/OSMF, the configuration to describe the target software instance must be specified from scratch.
- A better solution is to allow a user to reuse the configuration information from a prior completed deployment operation.
 - Allows the user to reuse all the mappings from a prior deployment
 - User can also model after another current software instance
 - Simplifies the deployment, similar to using an existing configuration during a ServerPac install



Creating access controls for the Deployment task



- The Deployment task allows users with proper authorization to manage global zones, software instances, deployments, and categories.
- For some actions, users must also have appropriate authorization to the physical resource these objects describe, such as a target zone or data set.
- In Repository Authorization Mode, you can control which users are authorized to the Deployment task, but you cannot restrict user access to an object or an action.
 - In this case, all users authorized to the Deployment task have equal access to these objects.
- In SAF Authorization Mode, if APARs PM40764 and PM50651 are installed, you can use your security product to control access to the task and to create more granular authorizations, such as restricting access to an object or an action.



NEW FUNCTION - APAR PM40764 (was PM40765)

- Access to the Deployment task and its objects are controlled through the following default resource profiles, which are defined in the ZMFAPLA class:
 - -<safPrefix>.ZOSMF.SOFTWARE DEPLOYMENT.**
 - -<safPrefix>.ZOSMF.SOFTWARE_DEPLOYMENT.DATA.**
- By default, the IZUADMIN and IZUUSER groups are permitted
 - -READ <safPrefix>.ZOSMF.SOFTWARE DEPLOYMENT.**
 - -CONTROL <safPrefix>.ZOSMF.SOFTWARE_DEPLOYMENT.DATA.**
 - These permissions allow z/OSMF administrators and z/OSMF users to perform all actions for all objects.
- Important: All users of the Deployment task should be permitted at least
 - -READ <safPrefix>.ZOSMF.SOFTWARE_DEPLOYMENT.DATA.**.
 - Otherwise, no actions can be performed because users will not have access to any objects.





- To further restrict access to the objects and actions, define a SAF resource profile for each object and grant users the appropriate access authority.
 - -Regardless of where the physical resource described by an object resides, the SAF profiles for that object must be defined on the z/OS system that hosts the z/OSMF instance to which a user's Web browser is connected.
 - The Deployment task uses this z/OS system when performing SAF authorization checking.
- Use the SAF resource names, which are generated by the Deployment task, to help you define profiles that will control user access to an object or an action.
- The SAF resource names for each object are constructed using properties of the object.
 - -The casing used for each property value is preserved; therefore, SAF resource names are case sensitive.



Authorizing users to global zones

- –A global zone object describes an SMPCSI data set that contains an SMP/E global zone.
- -To control access to a specific global zone, define a SAF resource profile for that resource. The SAF resource name for a global zone object has the following format:
 - <safPrefix>.ZOSMF.SOFTWARE_DEPLOYMENT.DATA.GZN.syste mName.dsname

o where:

- » GZN indicates that the object associated with this SAF resource is a global zone.
- » systemName is the name of the z/OSMF host system that has access to the global zone CSI data set. The system is defined on the Systems page in the Deployment task.
- » dsname is the name of the CSI data set that contains the global zone.





Authorizing users to software instances

- -A software instance describes a deployable unit of software, composed of data sets containing SMP/E installed software.
- -To control access to a specific software instance, define a SAF resource profile for that resource.
- The SAF resource name for a software instance object has the following format:

<safPrefix>.ZOSMF.SOFTWARE DEPLOYMENT.DATA.SWI.category.systemName.instanceName

- where:
 - o SWI indicates that the object associated with this SAF resource is a software instance.
 - o category is the name of the category assigned to the software instance. If multiple categories are assigned, a separate SAF resource name is created for each category. If no category is assigned, the category value is NOCATEGORY.
 - o systemName is the name of the z/OSMF host system that has access to the volumes and data sets where the software instance resides. The system is inherited from the global zone associated with the software instance, and is defined on the Systems page in the Deployment task.
 - o instanceName is the name of the software instance.
- -To perform an action, users must have the access authority required for that action for all the SAF resource names associated with the software instance.





Authorizing users to deployments

- -A deployment is a checklist that guides users through the process of cloning or deploying a software instance, and it is the object in which z/OSMF stores information about the clone, such as its data set names and locations, catalog structure, and SMP/E zone names.
- -To control access to a specific deployment, define a SAF resource profile for that resource.
- -The SAF resource name for a deployment object has the following format:
 - <safPrefix>.ZOSMF.SOFTWARE_DEPLOYMENT.DATA.DEP.category.deploymentName where:
 - DEP indicates that the object associated with this SAF resource is a deployment.
 - category is the name of the category assigned to the deployment.
 - o If multiple categories are assigned, a separate SAF resource name is created for each category.
 - o If no category is assigned, the category value is NOCATEGORY.deploymentName is the name of the deployment.
- -To perform an action, users must have the access authority required for that action for all the SAF resource names associated with the deployment.





Authorizing users to categories

- A category is a string or label used to organize and group software instances and deployments.
 - A category might denote a system, subsystem, software vendor, software life cycle state, business function, or geographic location.
 - There are no predefined categories.
- —To control access to a specific category, define a SAF resource profile for that resource.
- -The SAF resource name for a category object has the following format:
 - <safPrefix>.ZOSMF.SOFTWARE_DEPLOYMENT.DATA.CAT.categoryName
 where:
 - CAT indicates that the object associated with this SAF resource is a category.
 - categoryName is the name of the category.





Software Deployment Hints and Tips

Deploying Volumes

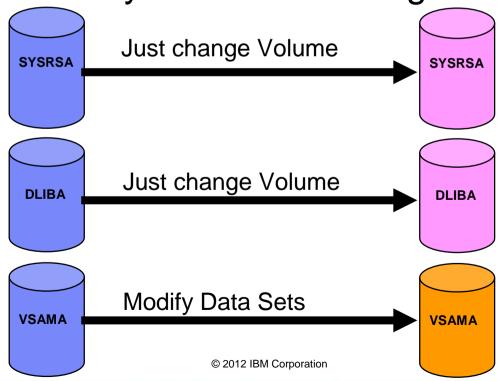
- -If you are keeping the logical configuration of the target software instance's data sets the same as the model software instance (same data set names, and same grouping of data sets on volumes)
 - Then it may be more efficient to change the volume serial on the Volumes page, than change them on the Data Sets page
 - o Even though the Data Sets page is presented first in the configuration wizard
 - If you want to rename select data sets (e.g., zFS or CSI data sets), then you should do that through the data sets portion of the wizard



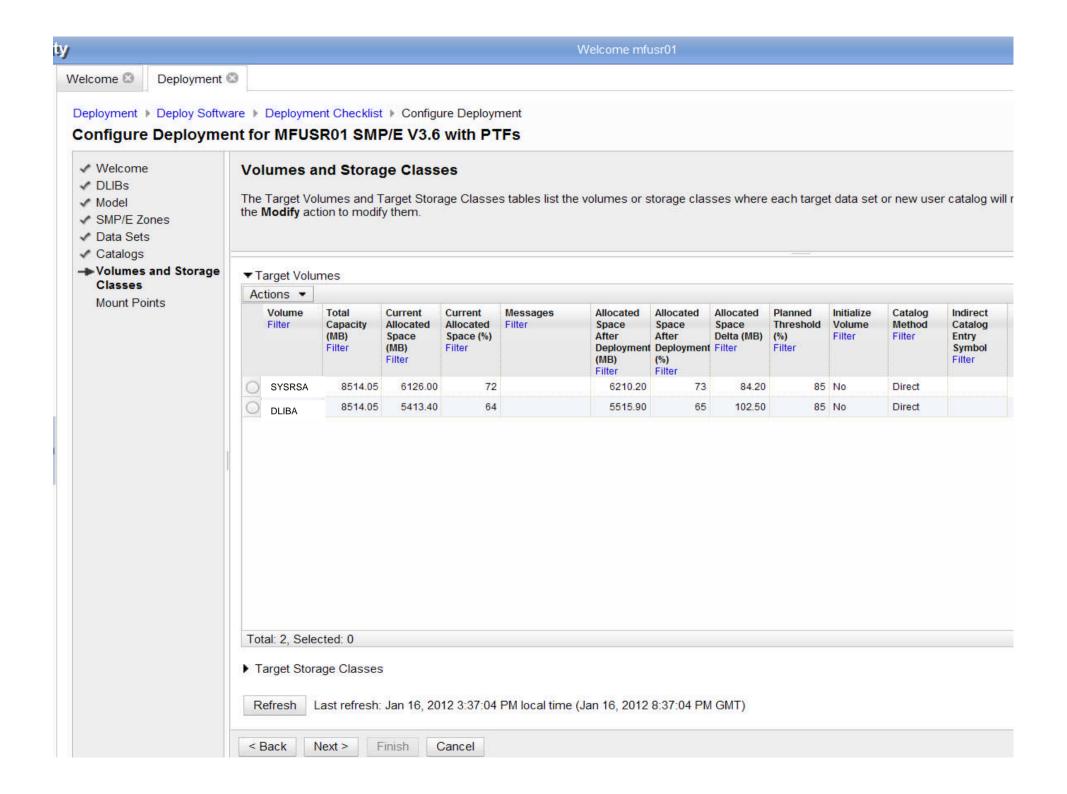


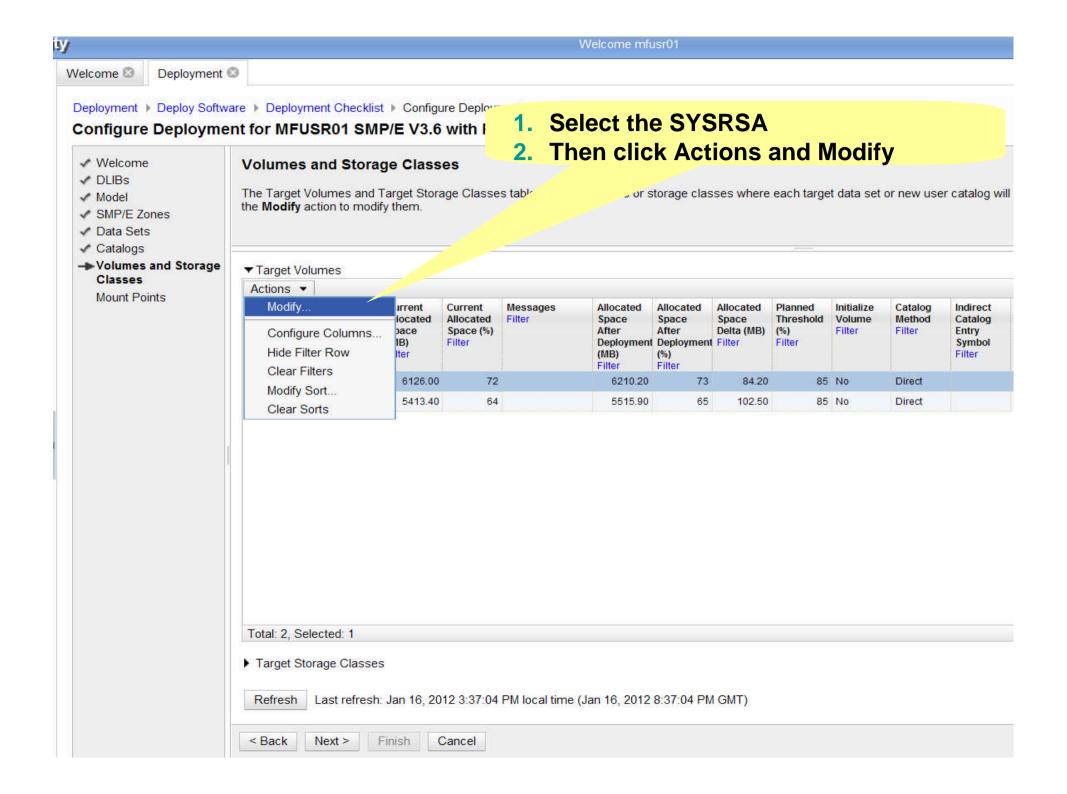
Software Deployment Hints and Tips

- Deploying Volumes ...
 - -For example, if you have a SYSRES and a DLIB volume that you want to copy and you want to keep all the data set names the same and a third volume where you want to change data set names

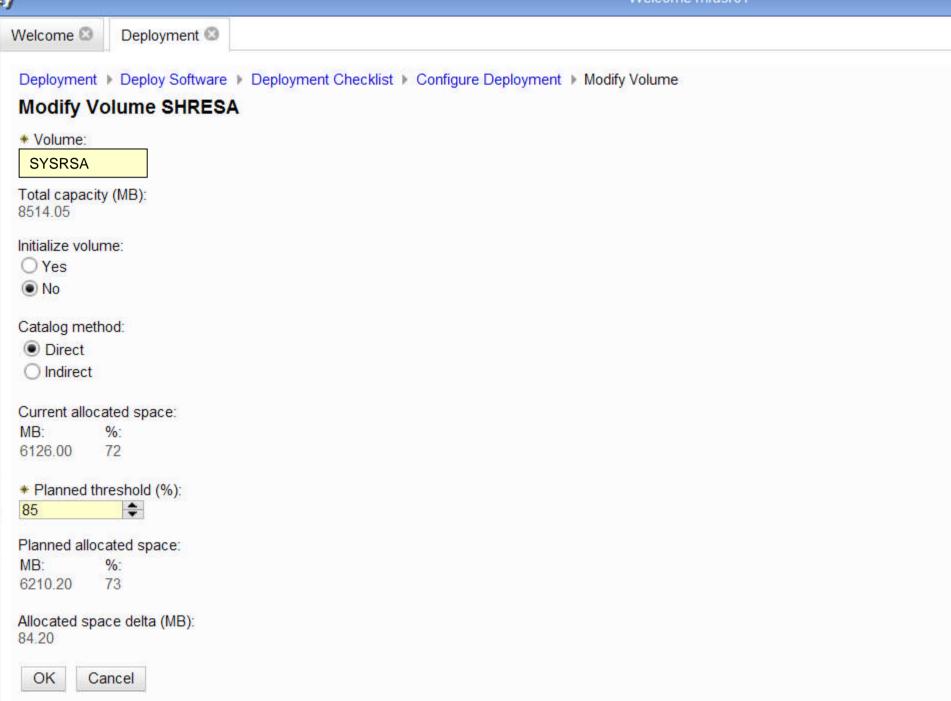














Deploying Volumes ...

- Note that you CAN use Modify Data Sets, you just have to:
 - 1. Filter the data set list either by volume or data set name
 - 2. Select all
 - 3. Use Actions > Modify
 - 4. Then change the volume as desired



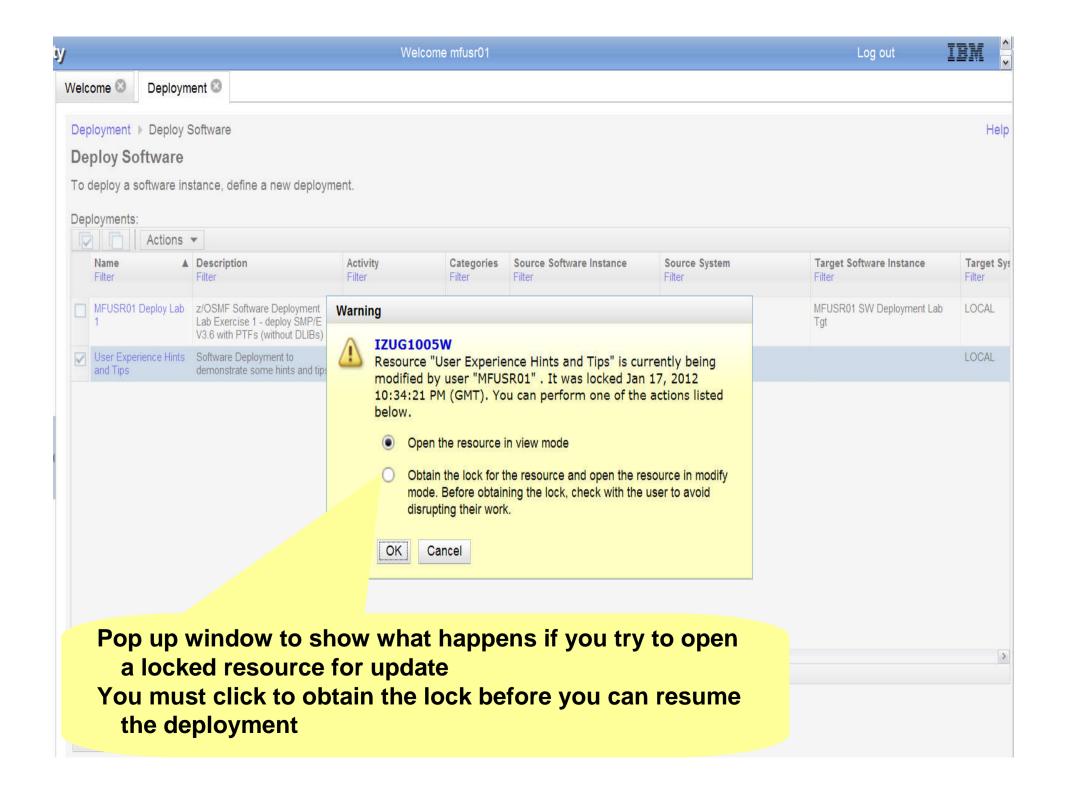


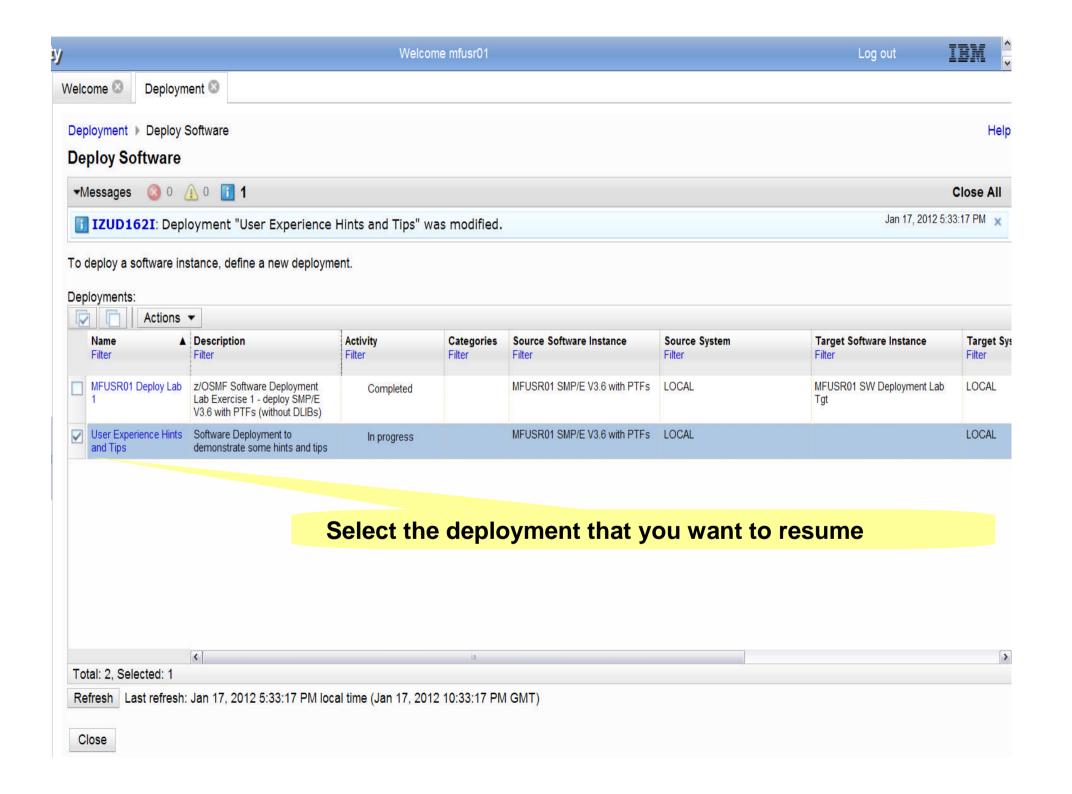
Software Deployment Hints and Tips

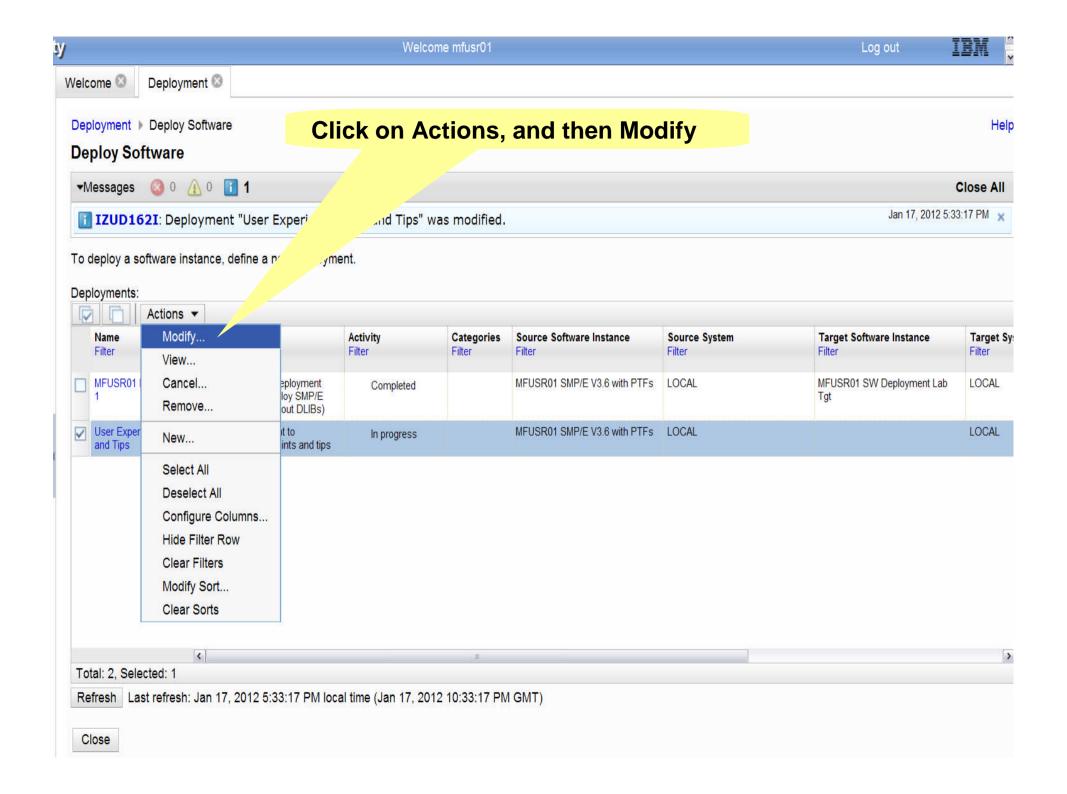
Resuming Deployments

- -You can leave the Software Deployment application at any time (e.g., close tabs, windows, browser, ...)
 - Progress is saved as of the last time you completed a step
 - o Clicked on OK or Finish (for a Wizard)
 - o Clicking Next in a Wizard is not considered a completed step for resuming a deployment
 - » in flight changes will be lost
- —If you don't close the application cleanly, then you will still hold a z/OSMF lock
 - You or another user can:
 - o View the resource that is locked
 - o Obtain the lock to continue (or cancel) the deployment
- -To resume a deployment you would select the deployment and click Actions and then Modify









Welcome

Deployment 🖾

Deployment ▶ Deploy Software ▶ Deployment Checklist

Deployment Checklist

To deploy a software instance, complete the checklist.

| - | | | | list |
|------|--------|---|---|------|
| n | \sim | _ | | пет |
| | _ | | n | |

You are brought back to the Deployment Checklist where you left off

| Progress | Step | Checklist where you left off | | | | |
|----------|--|------------------------------|--|--|--|--|
| ~ | Specify the properties for this decomposition. | | | | | |
| ~ | 2. Select the software instr | ωρίοy. | | | | |
| ~ | 3. Select the object on the | is deployment. | | | | |
| 1 | 4. Check a missing SYSMODs. view missing SYSMOD reports. | | | | | |
| 4 | 5. Configure this deploymen | Configure this deployment. | | | | |
| | Define the job settings. z/o View the deployment s View the deployment job | | | | | |
| | 7. Specify the properties for the target software instance. | | | | | |

Close

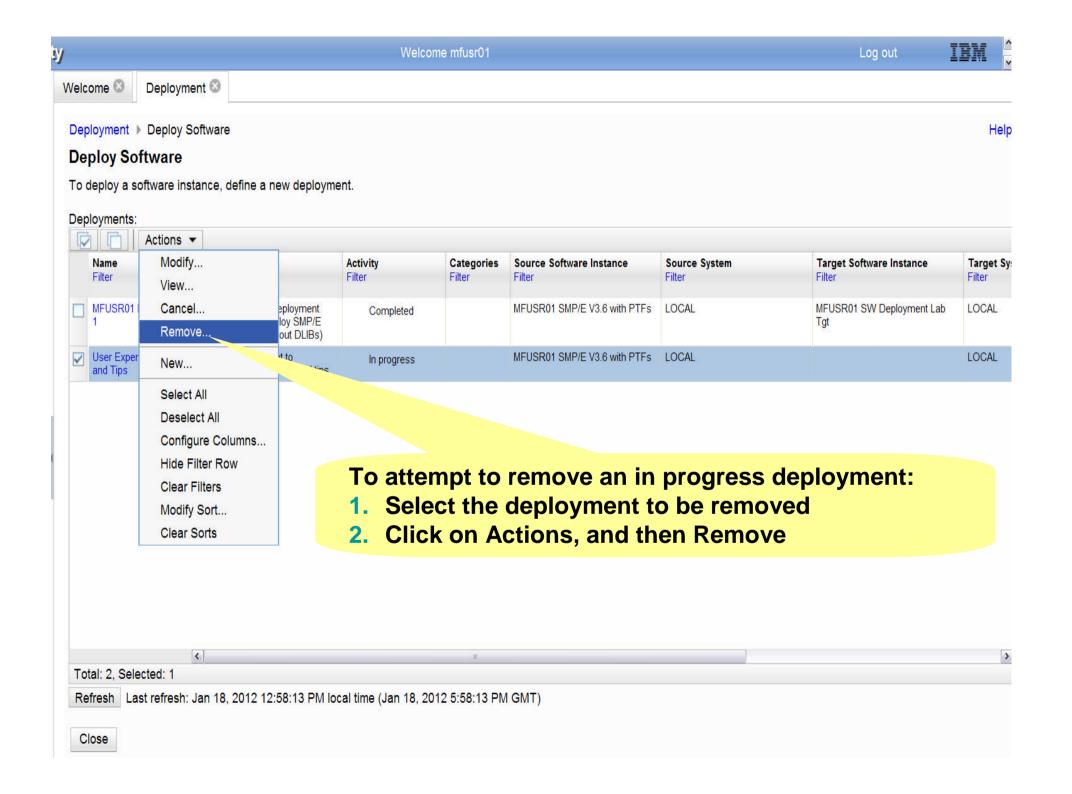


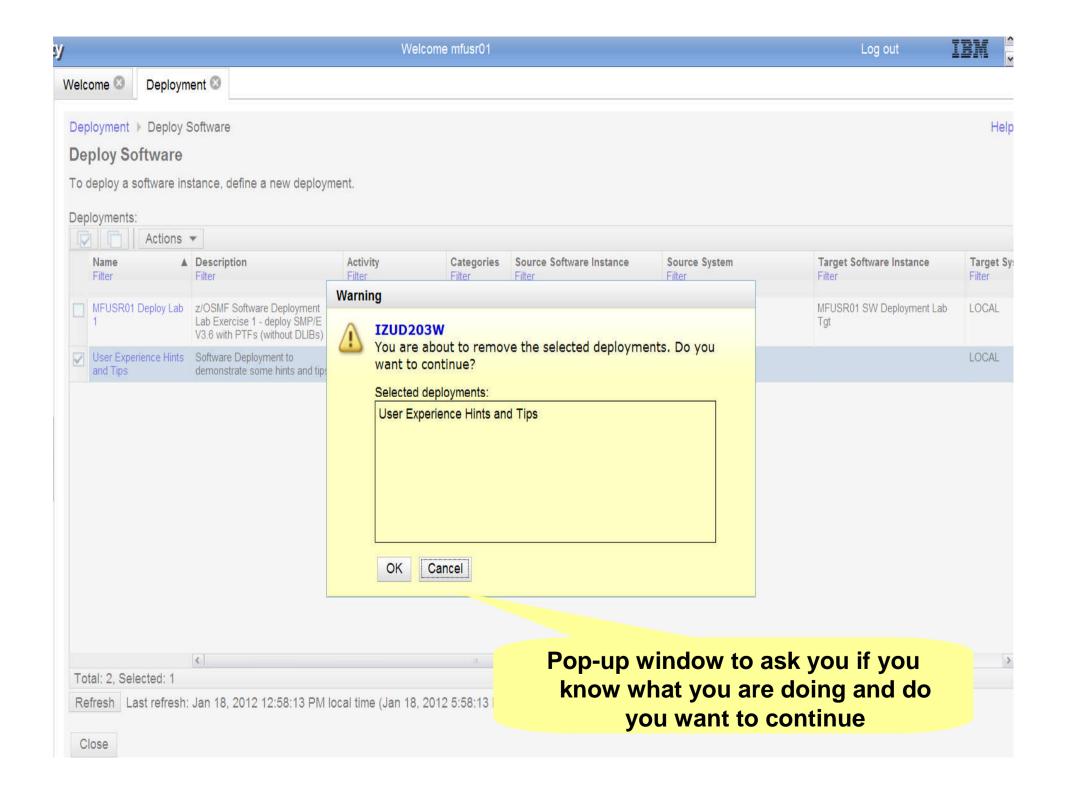
Software Deployment Hints and Tips

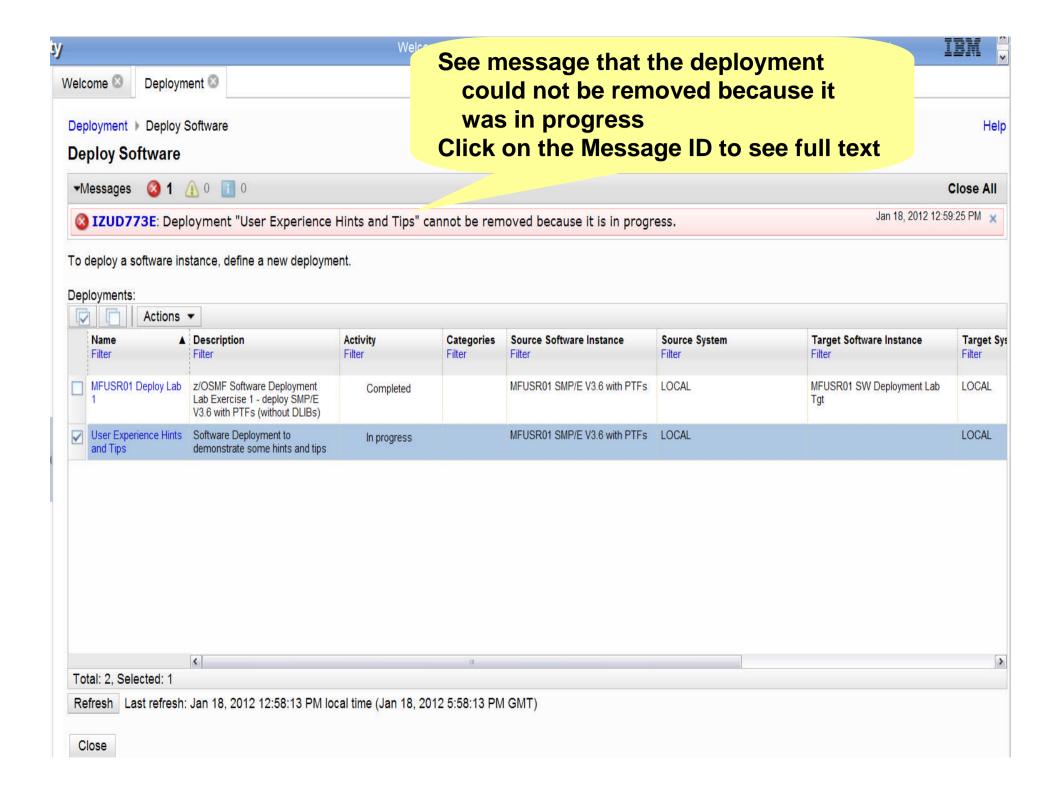
Cancelling and Removing Deployments

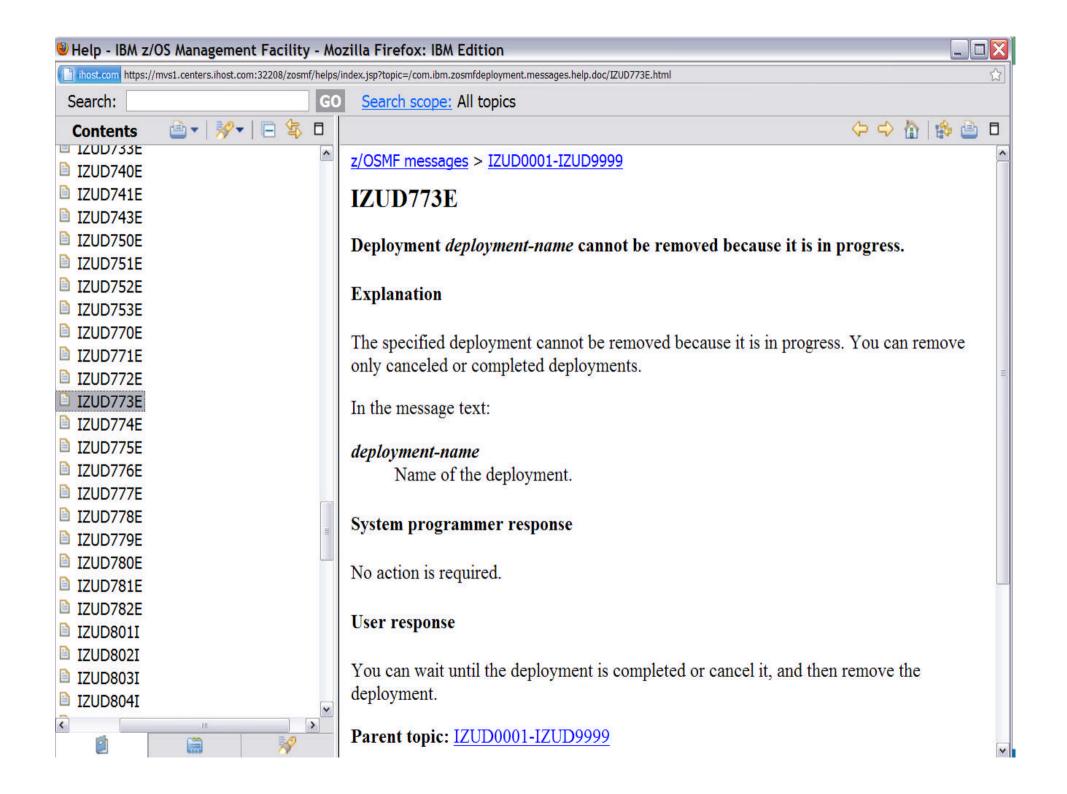
- Only canceled or completed deployments can be removed
- –You can't remove (delete) deployments that are in progress
- –If you want to remove a deployment that is in progress, you will have to cancel it first

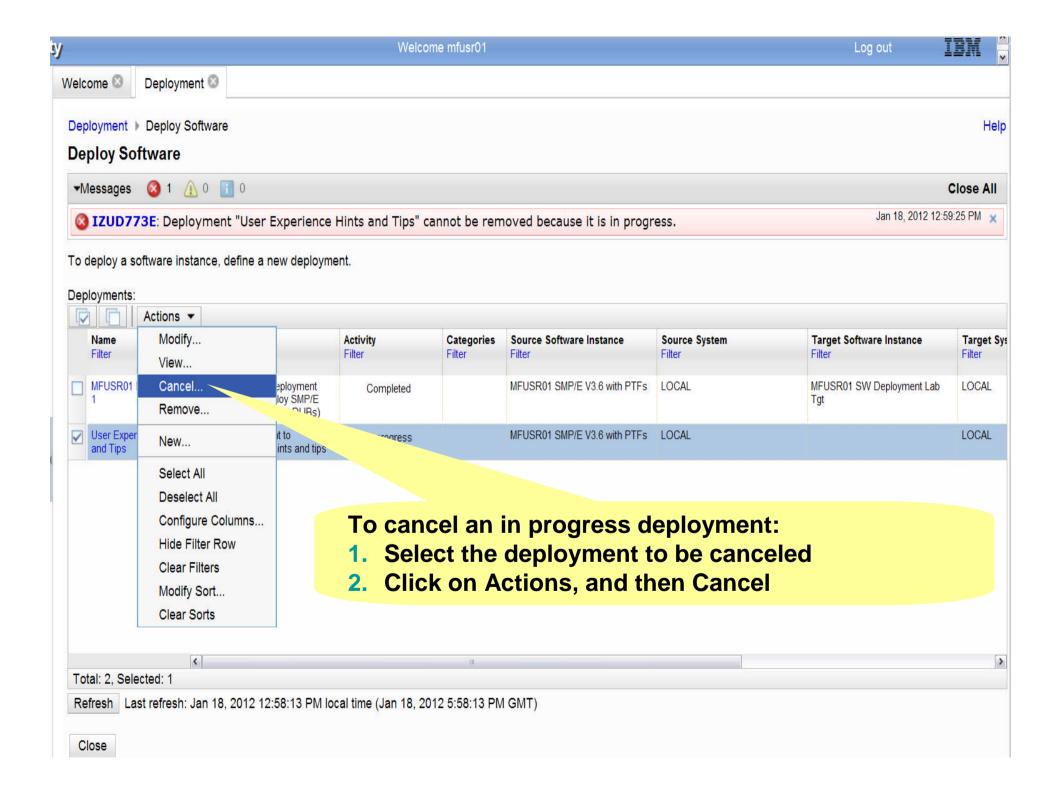


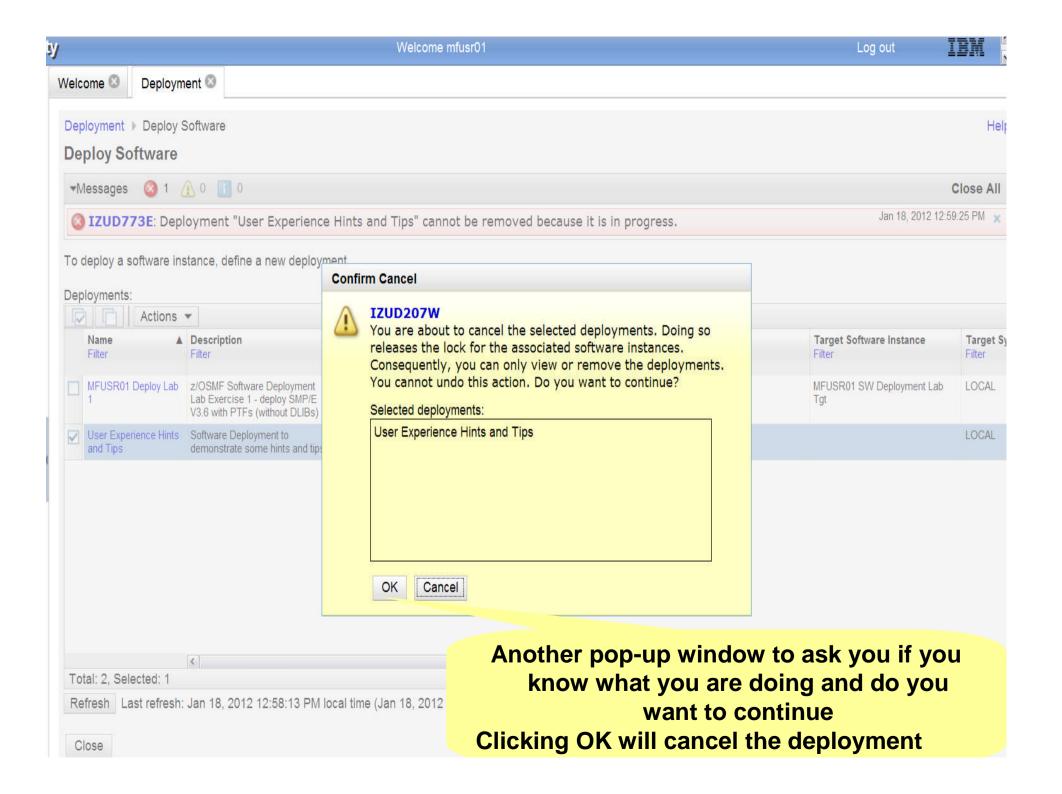


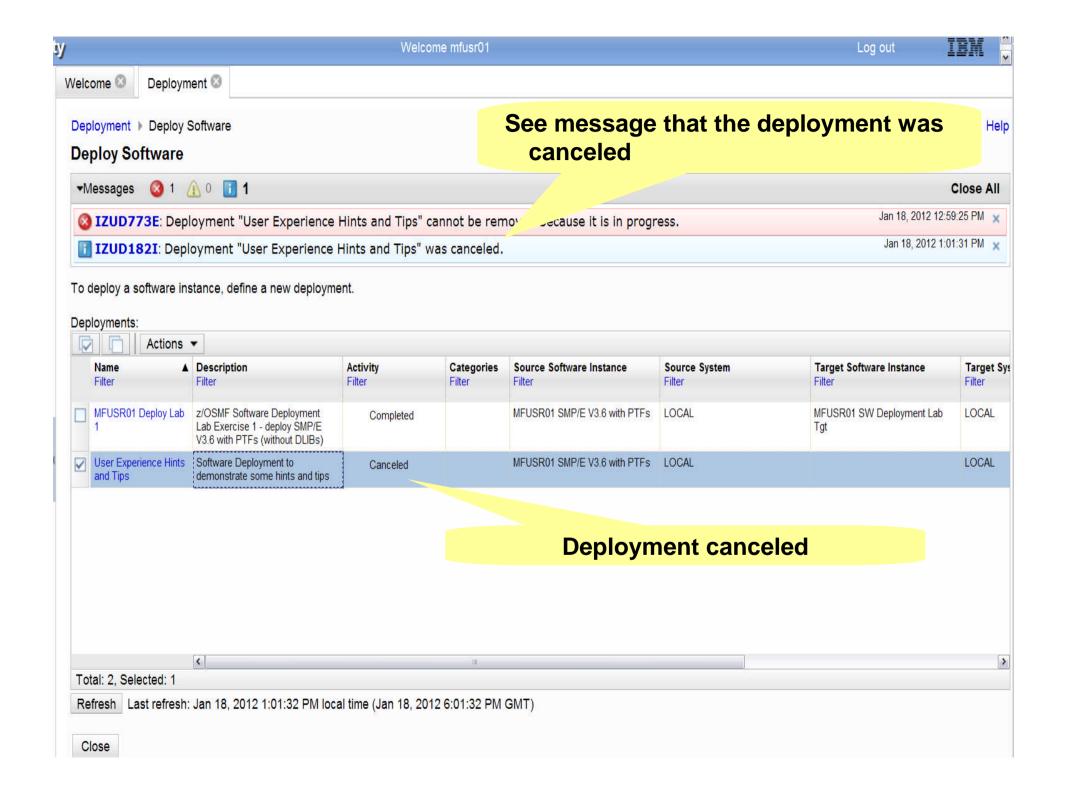


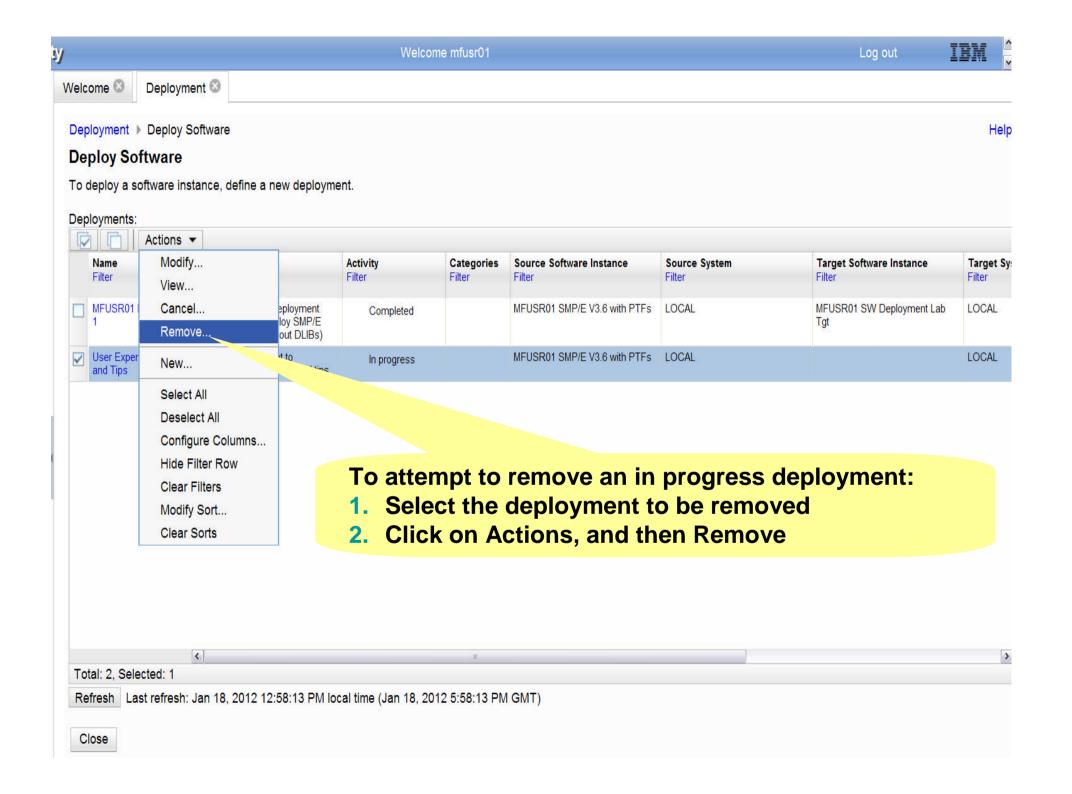


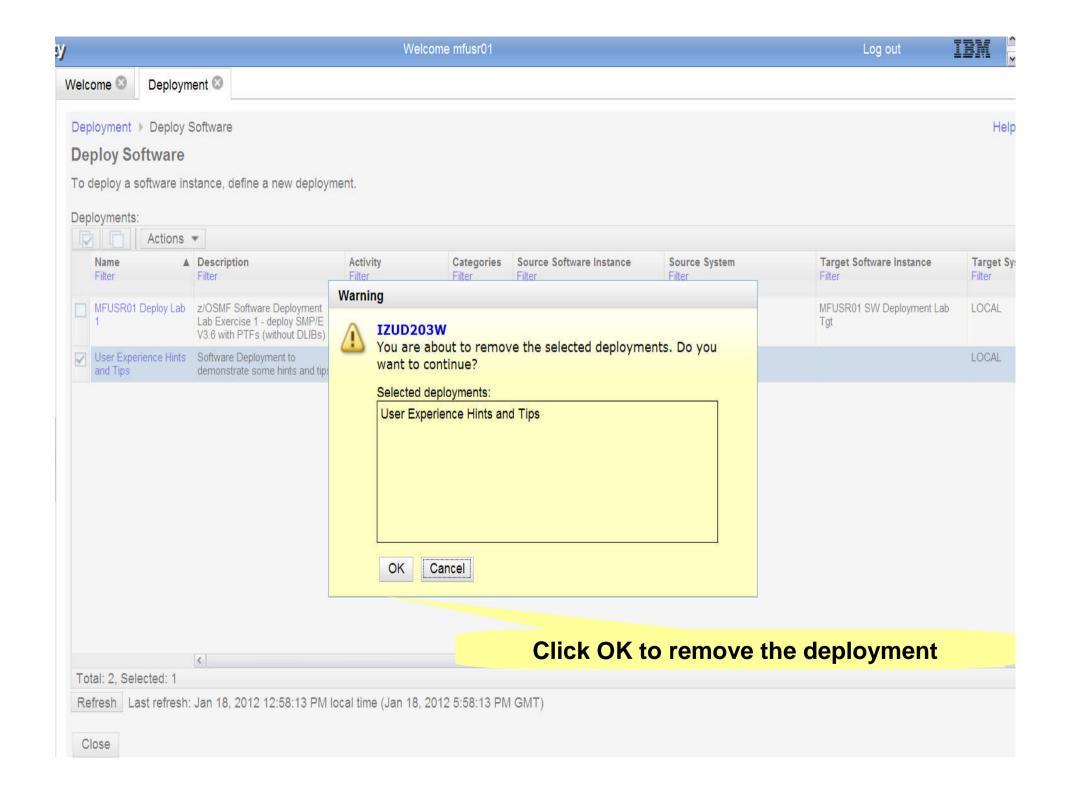


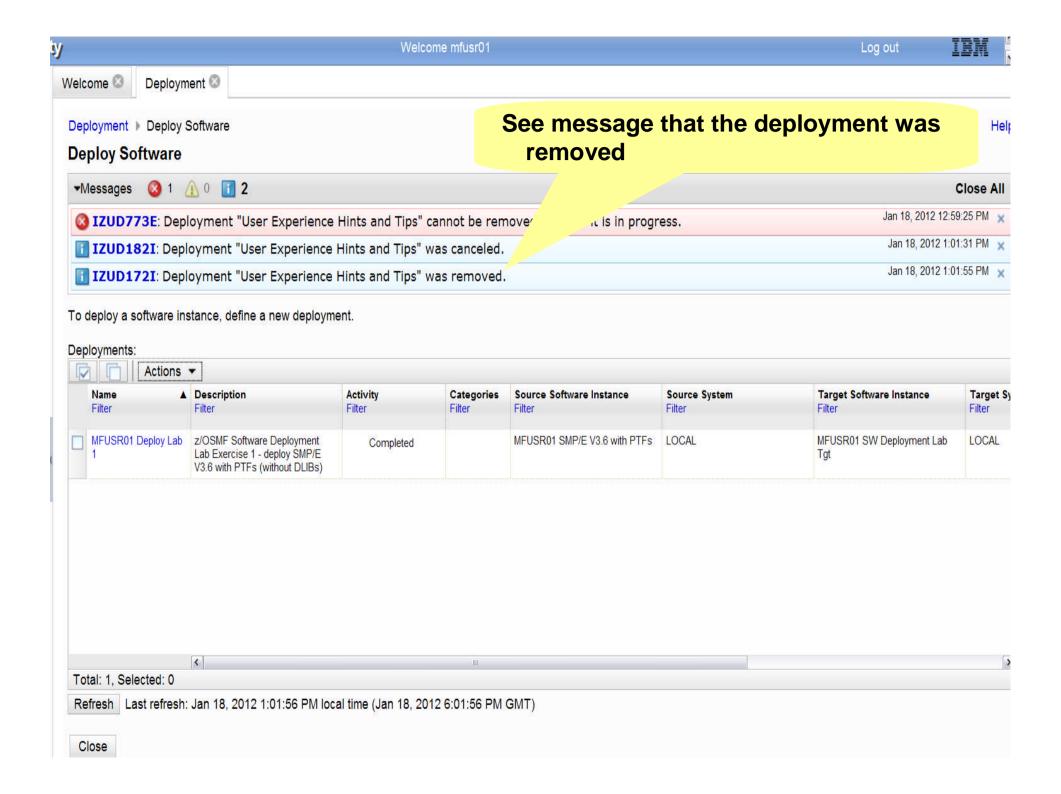














Software Deployment Hints and Tips

- Submitting Deployment jobs
 - -Do **NOT** edit the generated jobs
 - You should make your changes using the dialog to configure your deployment
 - Editing the copy job will cause it to fail

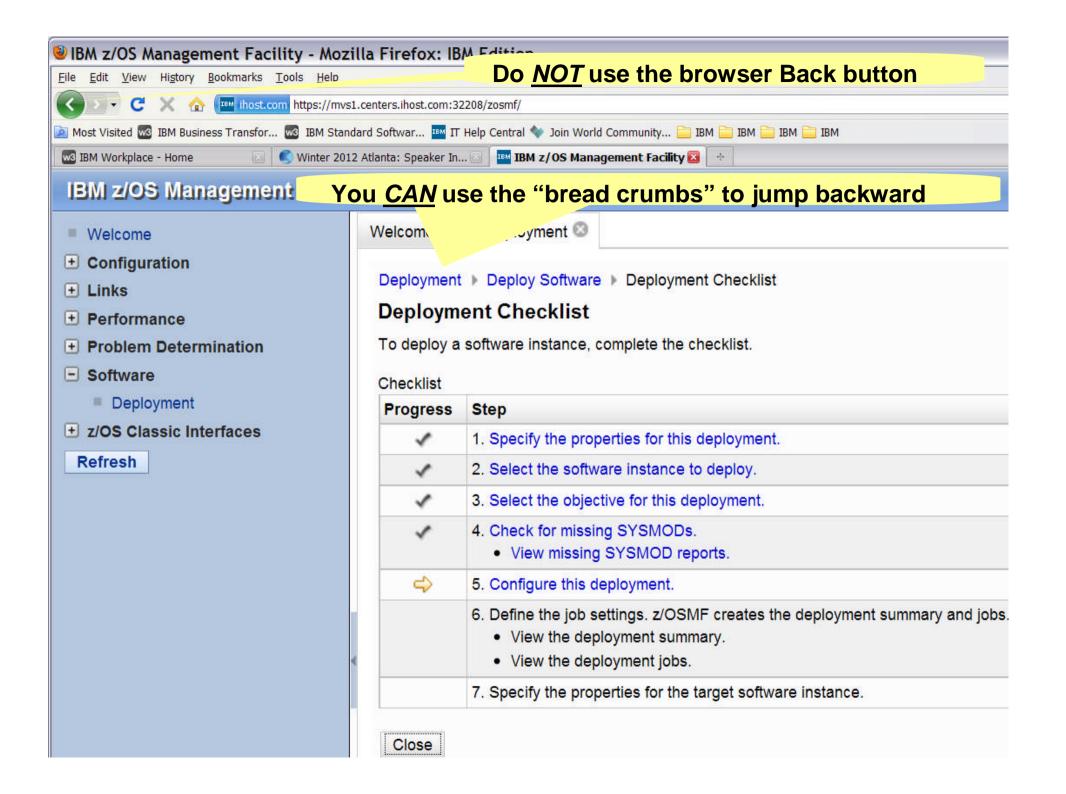




Navigation Hints and Tips

- Never use the Browser Back button
 - -Use the "bread crumbs" instead
- In general, the Enter key doesn't advance the dialog
 - -You need to click on links or action buttons to advance
- Never use blanks in software instance, deployment, or category names
 - -You can use national characters, or underscores ("_")
 - Software instance, deployment, and an category names (if used) will be resource names for security
 - The security profile resource names can't contain blanks



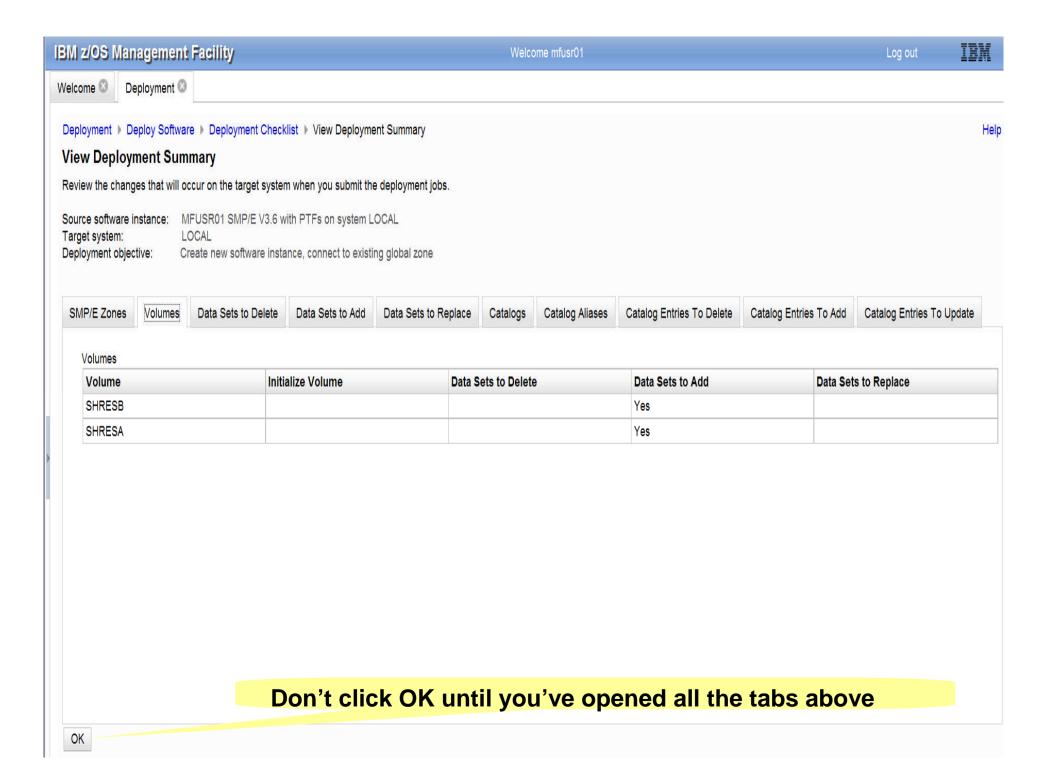


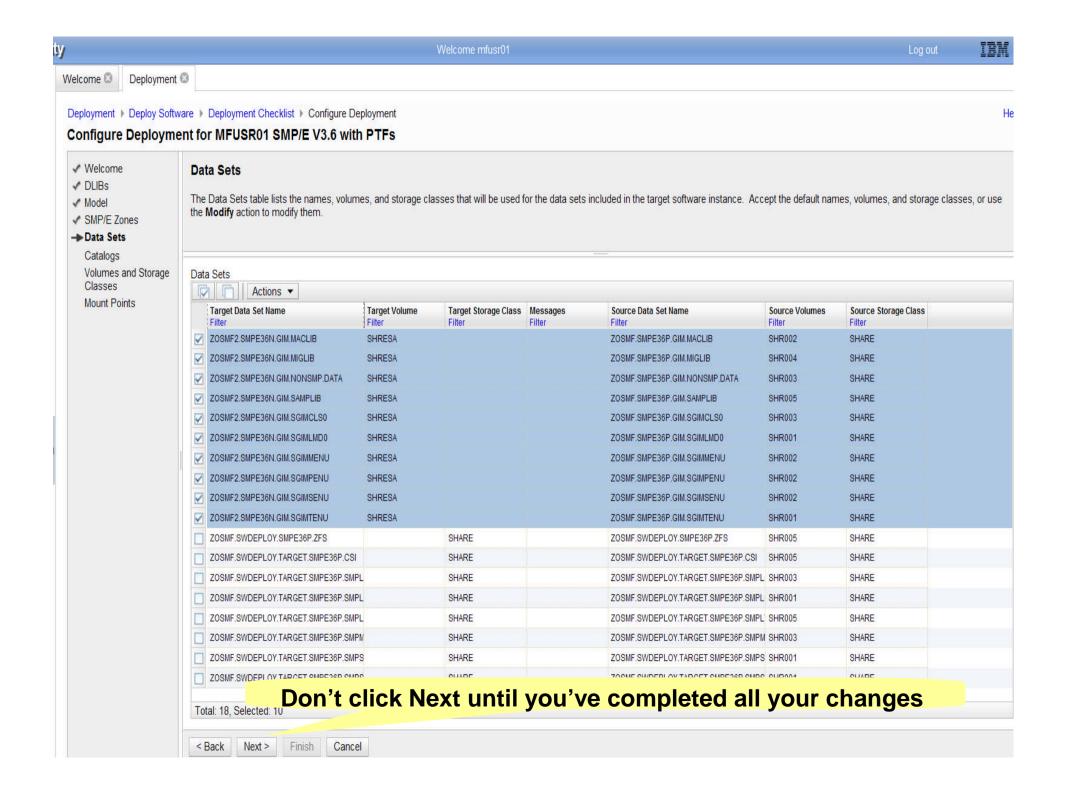


Navigation Hints and Tips ...

- In multi-tab summary displays, don't click OK until you've viewed all tabs
 - -If you do you may want to close the current window and select the link for the summary display to see any remaining tabs.
- In table displays where you want to perform multiple actions, don't click OK (or Next) until all your updates have been made
 - —If you do you may get error or warning messages if additional changes are required







Summary



Recent Enhancements

- -Support for unmounted z/OS UNIX file system data sets
- Support for deployment configuration copy
- Support for granular control over which users can view and modify deployment task artifacts

Software Deployment Hints and Tips

- Deploying volumes
- -Resuming deployments
- Cancelling and removing deployments
- -Submitting the deployment jobs

Navigation Hints and Tips

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 - Use Action Buttons and links instead
- Never use blanks in software instance, deployment, or category names
- In multi-tab summary displays, don't click OK until you've viewed all tabs



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Additional Information

- z/OS Management Facility website
 - http://ibm.com/systems/z/os/zos/zosmf/
- IBM z/OS Management Facility education modules in IBM Education Assistant
 - http://publib.boulder.ibm.com/infocenter/ieduasst/stgv1r0/index.jsp
 - Scroll down to z/OS Management Facility
- z/OS Hot Topics, Issue 21 and 23:
 - http://ibm.com/systems/z/os/zos/bkserv/hot_topics.html
- IBM z/OS Management Facility Configuration Guide (SA38-0652)
 - Renamed from IBM z/OS Management Facility User's Guide in z/OSMF V1.12
- IBM WebSphere Application Server OEM Edition for z/OS Configuration Guide, Version 7.0 (GA32-0631)
- Program Directory for z/OS Management Facility (GI11-2886)
- IBM z/OS Management Facility License Information (GC52-1263)



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