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CA Chorus Software Manager: User Experience and Update

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CSC – Global Outsourcing Services

August 15, 2013
Session 13837

SHARE in Boston

Agenda

- Environment overview
- CSM installation history and issues
- CSM users
- CSM features used
- Migrating CSIs into CSM
- Acquiring and maintaining software
- Installing software with CSM
- Deploying software with CSM
- CSM Hints and Tips

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Client Environment

- Two companies supported. Consolidated into a single datacenter in LA in 2003. Moved to Chicago in 2011.
- 5 CPCs: 4 z196 + 1 zEC12 (one z196 is a SA CF)
- About 54,000 MIPs installed (including zAAPs and zIIPs)
- 3 prod parallel sysplexes with 3/6/9 LPARs, 1 basic prod sysplex with 2 LPARs, 1 devl parallel sysplex with 2 LPARs, 2 sandbox parallel sysplexes with 2 LPARs, 3 monoplex prod LPARs. 1 monoplex sandbox LPAR.
- About 180 TB of DASD, 125TB replicated to DR site
- About 800TB of virtual tape (after compression, ~ 3.2PB uncompressed), 100% replicated to DR site (tapeless environment).

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Client Environment

- GRS used for integrity for most of the shop
- All sharing is sysplex in scope except in one case where MIM is used in place of GRS to facilitate sharing a subset of catalogs and DASD and tape between a prod / devl sysplex.
- Shared DASD string for common install libraries between the companies and sysplexes.
- ISV products installed on secondary / tertiary sysres volume and indirectly cataloged with symbollics, i.e. “&ISV01”.

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Client Environment

- Over 75 ISV program products supported by the OS team. Closer to 100 if IBM products are included.
- About 30 CA products currently in use. May be more in the near future as a cost cutting measure for the account.

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CSM History at Client Site

- First installed MSM R2 in December 2009
  - I became interested after seeing MSM at SHARE in Denver
  - CA wanted to come on-site to do the install with me, but I installed it on my own
  - Install was on a z/OS 1.10 RACF system
    - Initially had a problem with unix program control attributes after unwinding pre-validation pax file. Fixed via “extattr +p” unix cmd
    - Installation was completed in a couple of days
  - After initial startup of R2 and catalog tree update, I only saw a few products. The problem was related to my account settings on the CA Support web site. Product display options must be set to “Branded Products” & “my products” empty.

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CSM History at Client Site

- Security…
  - Implemented with internal security at first.
  - Enabled external security about one month later after RACF CDT changes were made + IPL (CDT still in asm/lnk lmod format)
  - RACF team implemented definitions per samples in the MSM manual. “MVS” team ADMINS, others are USERS or no access.
  - Easy to switch back and forth if needed via environment variable in hlq.SAMPLIB(MSMLIB)
- Installed in sandbox first, then re-installed in production
  - Sandbox was removed and subsequent upgrades have only been done in production.
  - We run a single CSM instance and install to shared DASD to support the entire shop.

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CSM History at Client Site

- LPAR chosen to run CSM in production was based on:
  - Capacity - largest sysplex in the environment, most DASD.
  - FTP JESINTERFACELEVEL=2 already implemented (install requirement)
  - “Less critical” production online regions + “TSO LPAR” . Same LPAR where we typically logon to TSO and install software in that sysplex.
  - Access to zAAP(s) due to heavy WAS workload on another LPAR on the CPC. Added a single zAAP LP to the LPAR for CSM’s use.
- I check for new CSM maintenance levels regularly, so many different maintenance upgrades to R2 were installed (I still do this with the currently installed release, but not as often).

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CSM History at Client Site

- Shop Uses Sysplex Sharing of Unix File Systems
  - Found I had some performance issues because some of the zFS files CSM used as R/W were not owned by the CSM LPAR. Corrected by adding some SETOMVS FILESYS commands to the MSMTC started task:

```
//MSMTC PROC
//*-------------------------------------------------------------------**
//* Commands to ensure MSM file systems are owned by the LPAR
//* that the tomcat server is running on.
//*
// COMMAND 'SETOMVS FILESYS,FILESYSTEM=''SYSTEMS.OMVS.CA.MSM.R2.ROOT.ZF
//           S'',SYSNAME=&SYSNAME'
// COMMAND 'SETOMVS FILESYS,FILESYSTEM=''SYSI.CA.MSM.R2.MSMINST.ZFS'',S
//           YSNAME=&SYSNAME'
// COMMAND 'SETOMVS FILESYS,FILESYSTEM=''SYSI.CA.MSM.R2.SETUP.ZFS'',SYS
//           NAME=&SYSNAME'
// COMMAND   'SETOMVS FILESYS,FILESYSTEM=''SYSTEMS.OMVS.DOWNLOAD.ZOS.ZF
//           S'',SYSNAME=&SYSNAME'
//*
//*-------------------------------------------------------------------**
```

- Had a long list of issues / suggestions I discussed with development after using the product for a while

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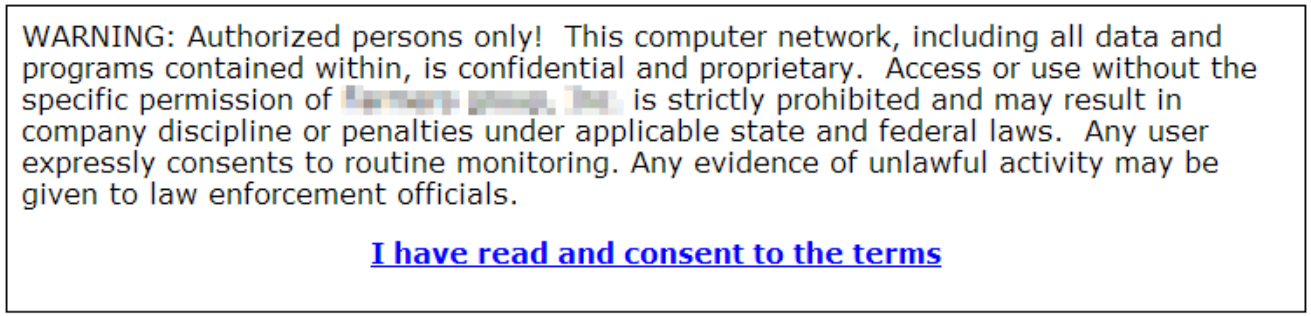
CSM History at Client Site

- Upgraded from R2 to R3 in June 2010
  - Had to download / install Java V6 as a pre-req. CSM still has its own Java V6 zFS today even though it could share.
  - Painless install / migration - done in one day
  - Saw a number of my issues / suggestions implemented in R3
  - Tested deployment function. Not compatible with indirect cataloging (more later on this).
  - Implemented new consent banner with USS MSG10 text



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CSM History at Client Site

- Upgraded from R3 to R4.1 in January 2012
  - Caused a problem with CA-11 due to refreshing MSM's Datacom SVC for a new level of Datacom (R12 vs. R11)
    - Datacom's XCF communications always uses the lowest number SVC at the proper level, so CA-11's Datacom was using MSM's SVC on the MSM LPAR for this function without me knowing it.
    - Upgrade checklist said the same SVC number could be chosen
    - Lesson learned: Always use a new SVC number if the Datacom level changes with an CSM upgrade.
    - I used an SVC number for CSM's Datacom higher than the "product solutions" Datacom for the next install so the other Datacom won't ever use CSM's SVC for XCF when running the same Datacom levels.

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CSM History at Client Site

- Initially installed MSM 4.1 using CCS R11 SP08 + CETN300
- Ambiguous information from release notes and various installation documentation if CETN400 was really required.
- Appeared that CETN400 was only required for Software Configuration Service (SCS) – which was not my main interest in installing R4.1. (deployment with “cat=no” was)
- Tested deployment function again without cataloging output
  - Still didn’t work as advertised
  - PTFs suggested from MSM support, but still didn’t work
  - Eventually needed to upgrade Common Services CETN300 to CETN400, and then it functioned as advertised.
  - Currently running CCS R12 + CETN500

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CSM History at Client Site

- Per recommendation from the best practices guide, I decided to reorg MSM's Datacom database after my 4.1 upgrade:

```
The best practices manual states the following:

After you apply maintenance to your product using CA MSM, we
recommend that you reorganize your database.  Reorganizing your
database improves overall access to data the next time you use
CA MSM. Use the database reorganization backup and load process
to reclaim space and reposition data.

============================================================

Follow these steps:

1. Stop the CA MSM application server (RCF STOP MSMTC)

2. Stop the CA Datacom/MSM server (RCF STOP MSMDBSRV)

3. Verify that your CA MSM multi-user facility (MSMMUF) is active.

4. Submit the JOB B4KBKUP - copied from msmhlq.JCL(B4KBKUP)
     The job B4KBKUP creates a current backup of the CA Datacom/MSM
     database 4000 to a sequential file on the disk.

5. Submit JOB B4KLOAD - copied from msmhlq.JCL(B4KLOAD)
     Important! You must execute the job B4KLOAD immediately
     following the job B4KBKUP.

6. Start the CA Datacom/MSM server (RCF START MSMDBSRV)

7. Start the CA MSM application server (RCF START MSMTC)
```


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CSM History at Client Site

- After I restarted MSM, many functions were broken.
- Luckily I had my own DFDSS logical backup that I took prior to the reorg. I run this job prior to any MSM maintenance - even though CA provides a job to back out a “deploy” (deploy is the method of taking the MSM SMP/E maintained code and copying it to the MSM run-time environment).
- After opening an issue with MSM support, who worked with Datacom support, it was found there were missing “CONFIRM” statements in the Datacom reorg reload job. The required changes were related to 4.1 (and perhaps 4.0 also, I’m not sure) and the sample job was never changed nor tested by CA. A PTF was released to update the samples after I verified the fix worked in my environment.

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CSM History at Client Site

- Upgraded from R4.1 to R5.0 in October 2012
  - No problems with the upgrade. CCS R12 and CETN500 were already installed. Java V6 @ SR10 was already installed (SR9 required). Painless upgrade.
- Upgraded from MSM R5.0 to CSM R5.1 in April 2013
  - Needed some additional RACF profiles for 5.1. They were actually added to MSM in 5.0, but I didn't run into a problem until 5.1 (TM.* access).

```
RDEFINE CAMSM SYSREG.* UACC(NONE)
RDEFINE CAMSM METHOD.* UACC(NONE)
RDEFINE CAMSM DEPLOY.* UACC(NONE)
RDEFINE CAMSM CONFIG.* UACC(NONE)
RDEFINE CAMSM TM.* UACC(NONE)
RDEFINE CAMSM TM.TASK.@SELF.DELETE  UACC(NONE)
```


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CSM History at Client Site

- I Figured out an annoying problem I had with the pre-validation utility once at an earlier release level and also had when I started my 5.1 upgrade. I was not getting the license prompt from the OMVS shell nor the prompts to edit JCL / submit install jobs. I worked with CA support on this in the past and never figured out the problem nor could they figure it out with 5.1. The cause / resolution:

  Both OEDIT and OBROWSE live in hlq.SBPXEXEC.

  I found the problem was that hlq.SBPXEXEC was either not allocated when I invoked "TSO OMVS" or only in the ISPF environment via ALTLIB from an ISHELL invocation (if ISHELL was used prior to invoking "TSO OMVS"). If hlq.SBPXEXEC was allocated to SYSEXEC (as opposed to being allocated via ALTLIB), it worked as expected.

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CSM Users

- Used by the OS team only (“MVS” and “VTAM”)
  - Positioned for use by other teams, but today virtually all CA products are maintained by the MVS team. Comm Server team currently maintains only 2 CA products (CA Spool and CA Netmaster).
  - Myself and one other local person I trained were the only users at first, but I gave several training sessions over the web to the rest of the OS staff supporting the client.
  - Time savings benefit realized immediately via migration of existing SMP/E CSIs into CSM for a number of CA products that we used and were also supported via CSM at the time.

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CSM Users

- Adoption / acceptance immediately from most of the OS staff, especially from a co-worker of mine that is the primary support for installation and maintenance for a majority of the CA products used.
- Some resistance from one team member – until they actually tried it when pressed to get an install done quickly.
- Gave additional training sessions about a year ago to new off shore staff supporting the client. That staff has an average of about 6 years z/OS systems programming experience. The “newbies” seem to like CSM as much as I do.

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CSM Features Used at Client Site

- CSM is only used for software acquisition, installation and maintenance of products. Deployment is not used and I haven't set up nor tested the configuration service.
  - Tried using deployment in R3, but it didn't work due to local requirement of creating uncataloged output data sets on a secondary maintenance sysres that gets cloned with the IBM OS sysres. While testing I found that "live" cataloged data sets could or would be inadvertently updated (ouch!).
  - MSM 4.0 (never installed) + CETN400 resolved this issue.
  - MSM 4.1 was installed in January 2012 and had deployment working for uncataloged data sets, but I haven't trained people on deployment yet.

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CSM Features Used at Client Site

- I'm not sure that I will train / encourage people to use deployment at this site:
  - Since we deploy to shared DASD, sysprogs already have batch FDRCOPY/DFDSS jobs to deploy that are quicker and probably easier than CSM, so this may be a hard sell.
  - With batch jobs, we often deploy a subset of target libraries, not all. For example, samplibs and macro libs may not be deployed as runtime on our ISV sysres since they may only be used for installation and take up unnecessary space on the volume. Data sets can be added with CSM deployment but not omitted.
  - Indirectly cataloging has to be done regardless – although it is a "one time thing" unless new data sets are added with an upgrade or names are changed by CA (there has been a lot of that lately).

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Products Maintained via CSM at Client

- Initially migrated existing CSIs into CSM as maintenance needed to be applied for existing software versions.
- Subsequent CA software installs / upgrades all done via CSM after CSM implementation and training.
- Currently over 20 CA products in CSM (some with multiple versions)
- At this point most CA software “owned” by the OS team is maintained via CSM.
- Most CA software is no longer installed locally, but CSM is still used for maintaining software via CSI migration and software acquisition.

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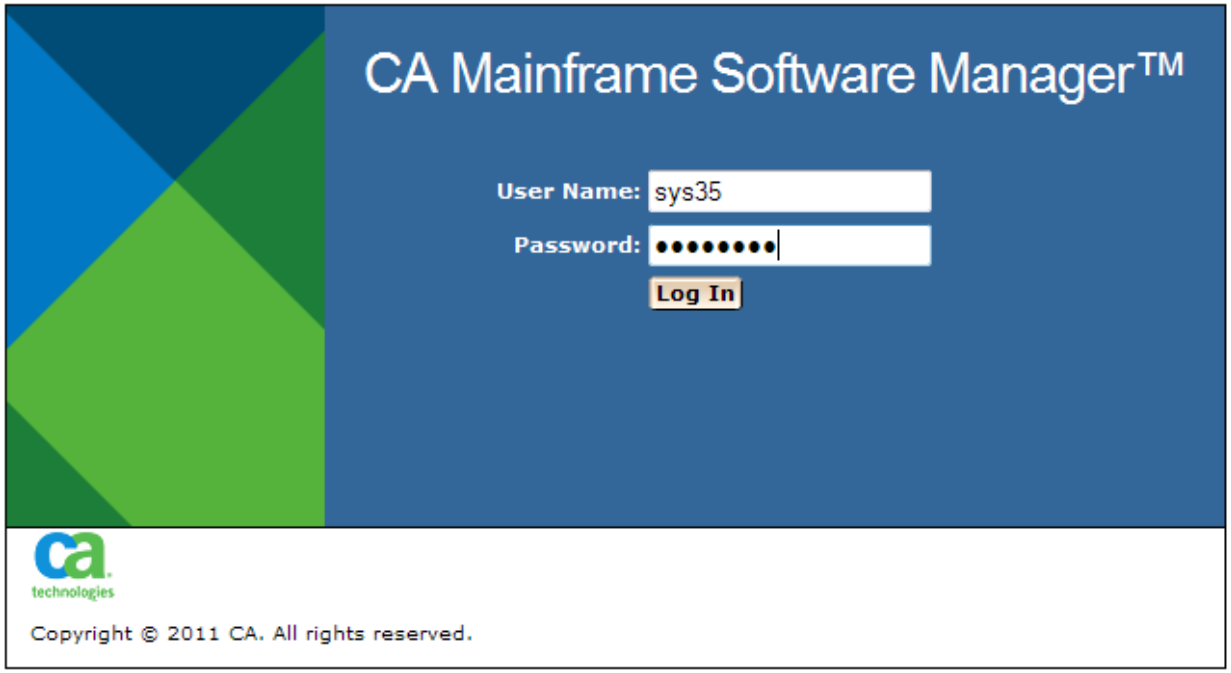

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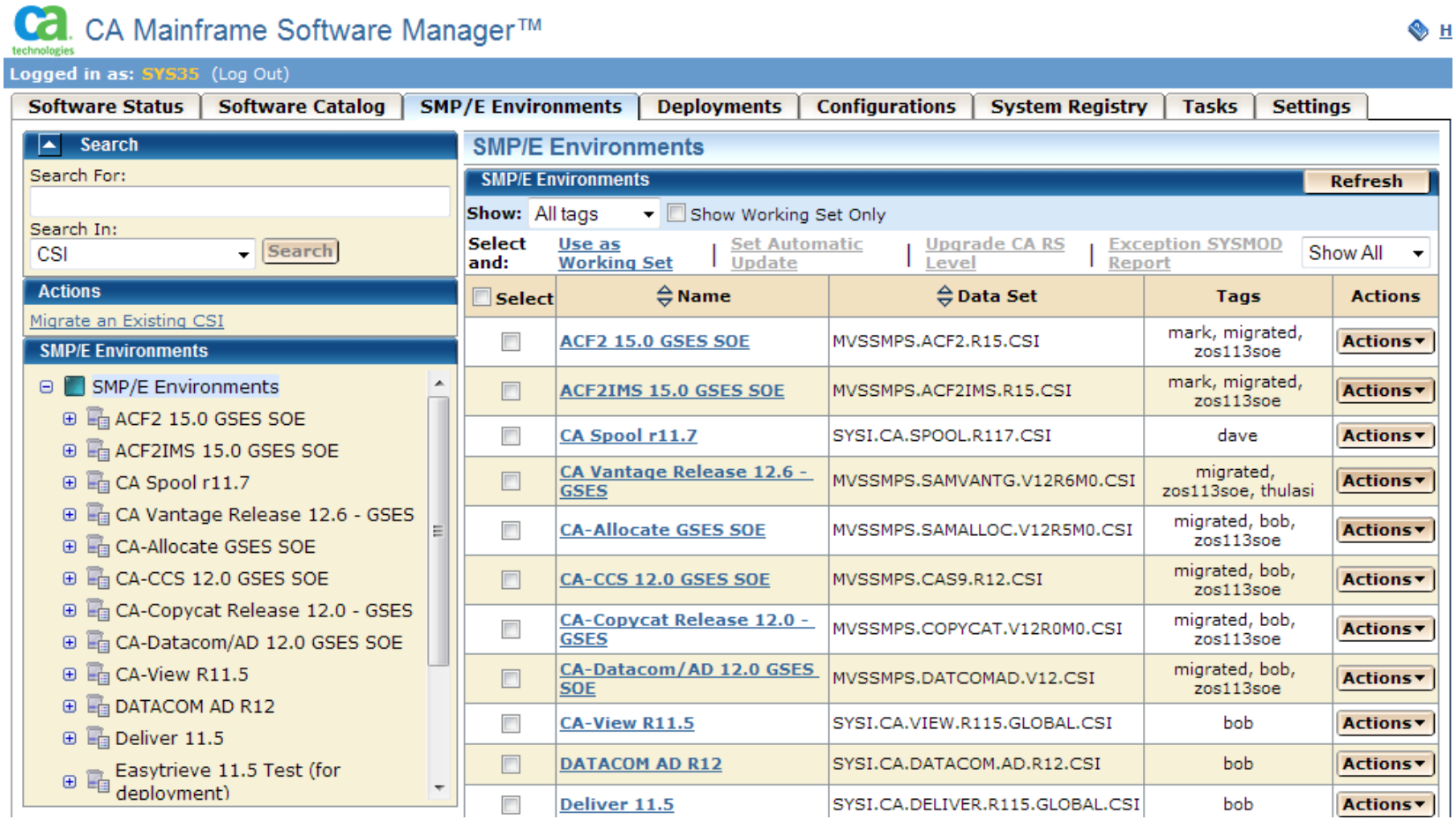

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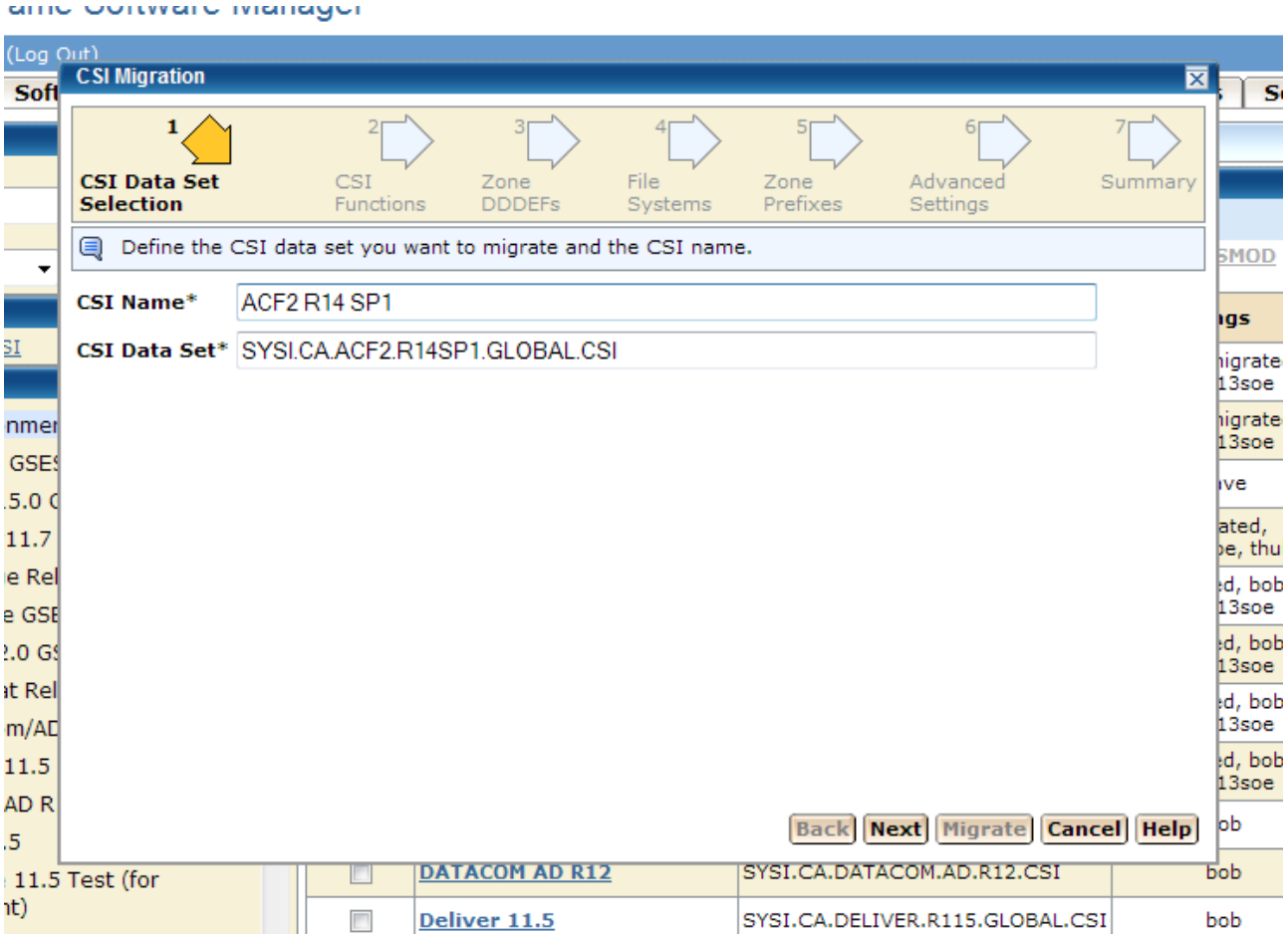

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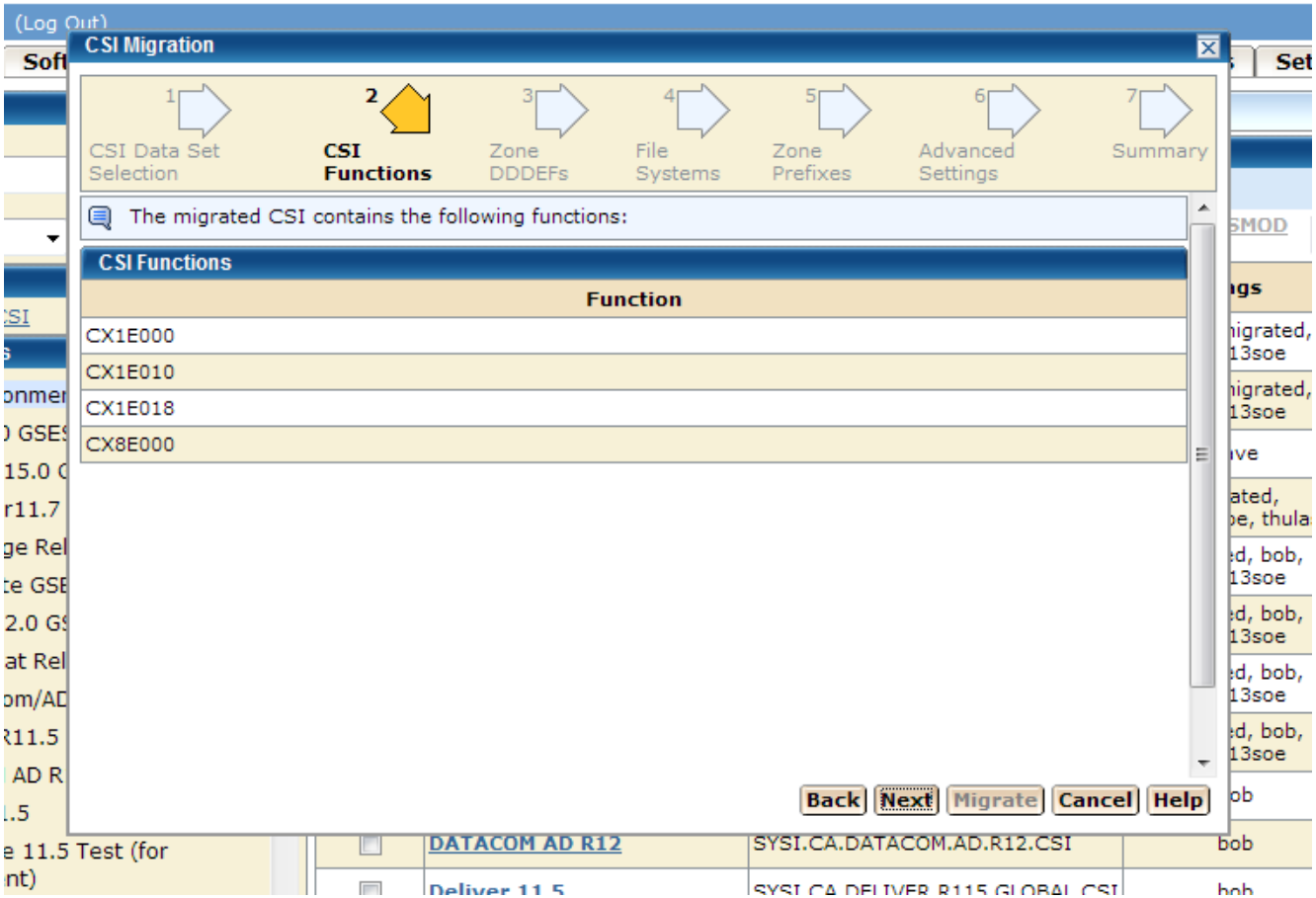

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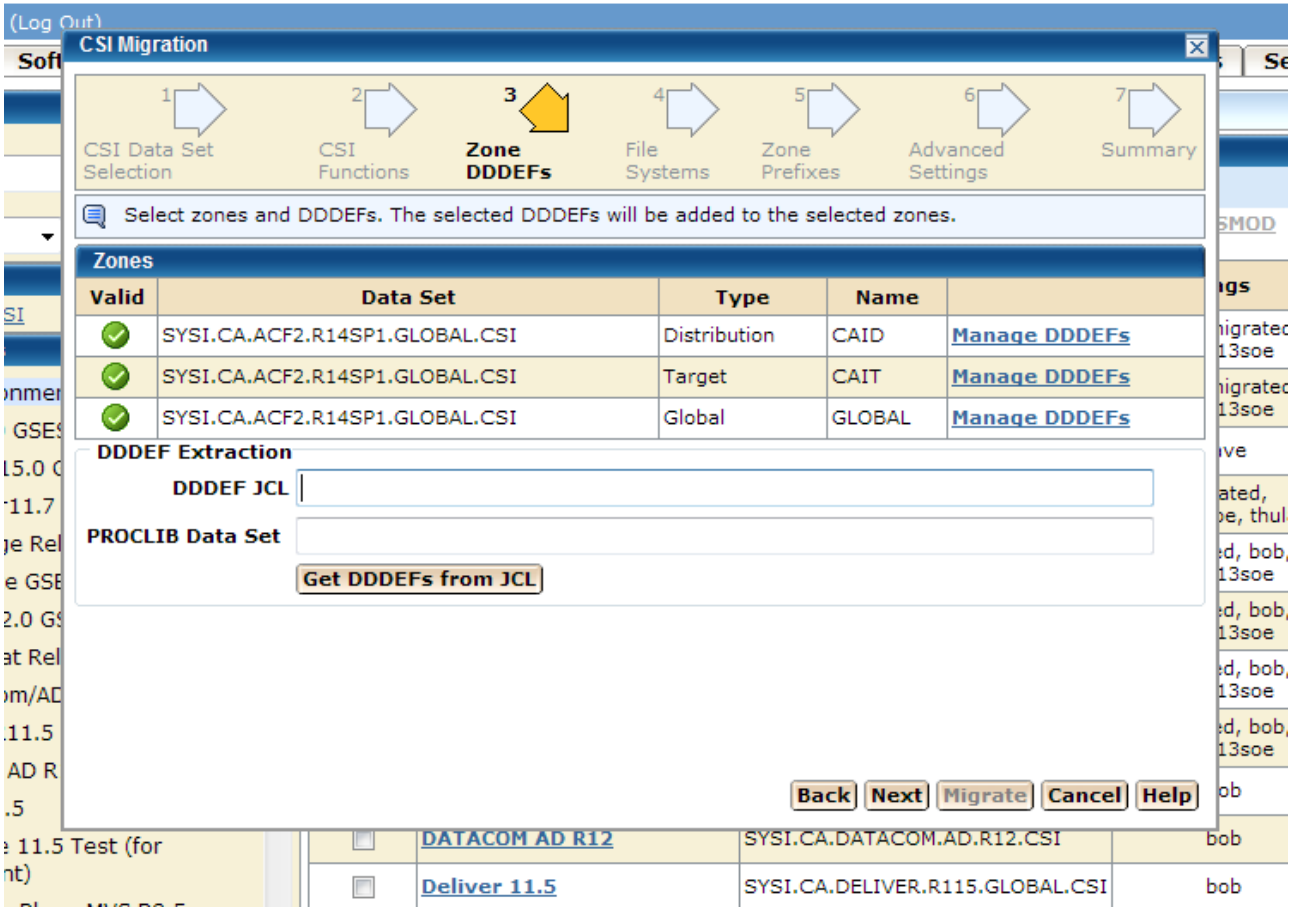

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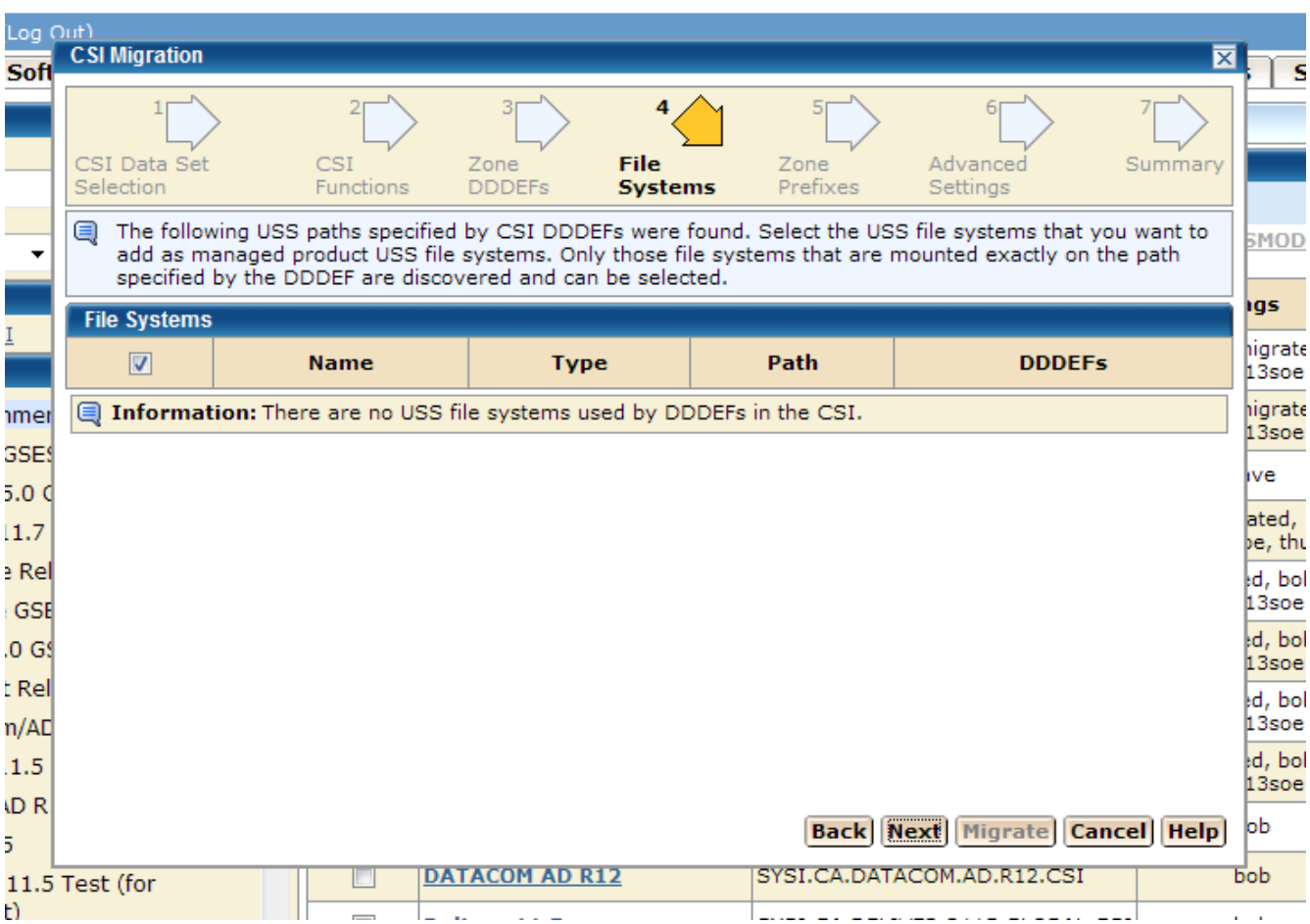

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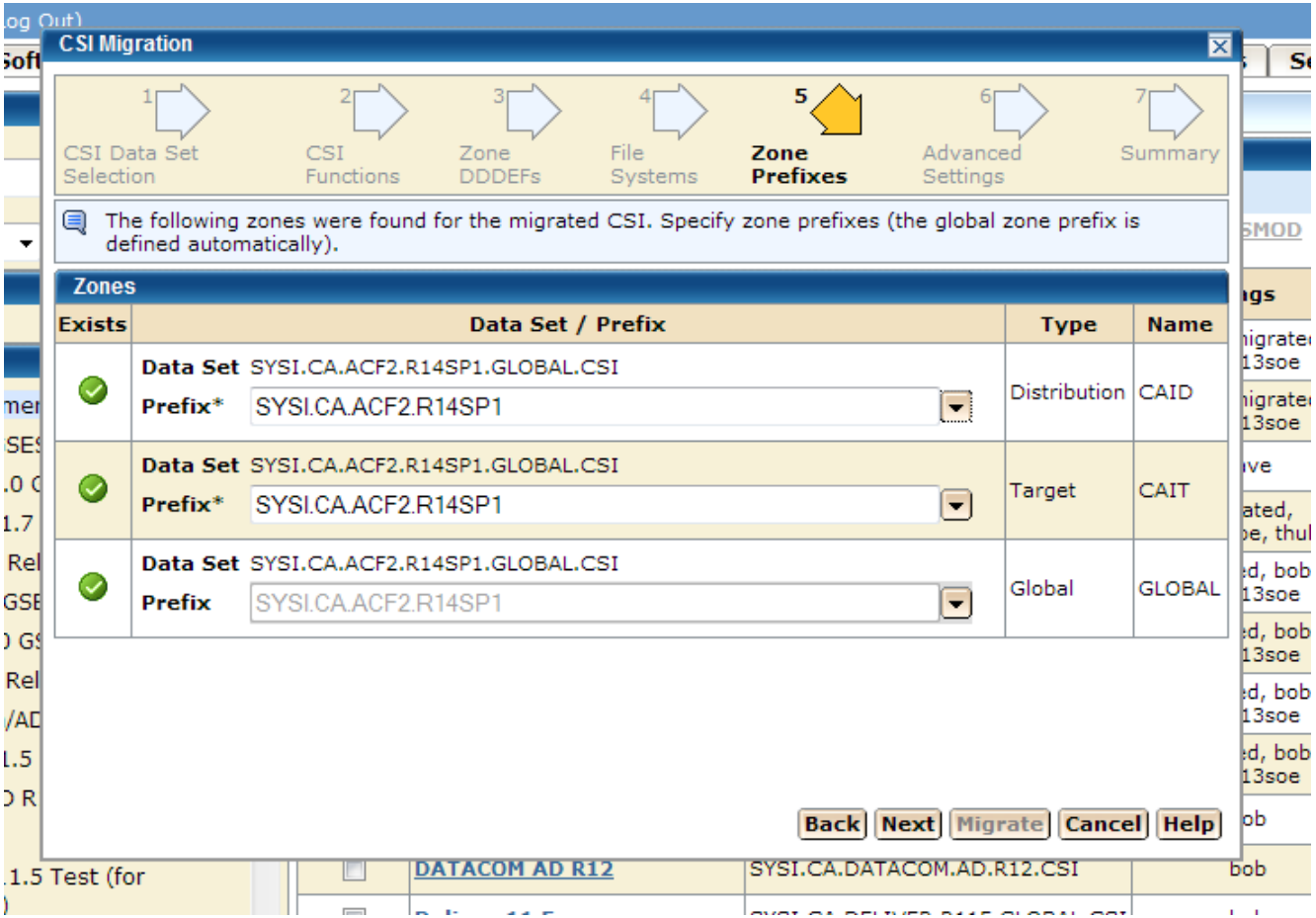

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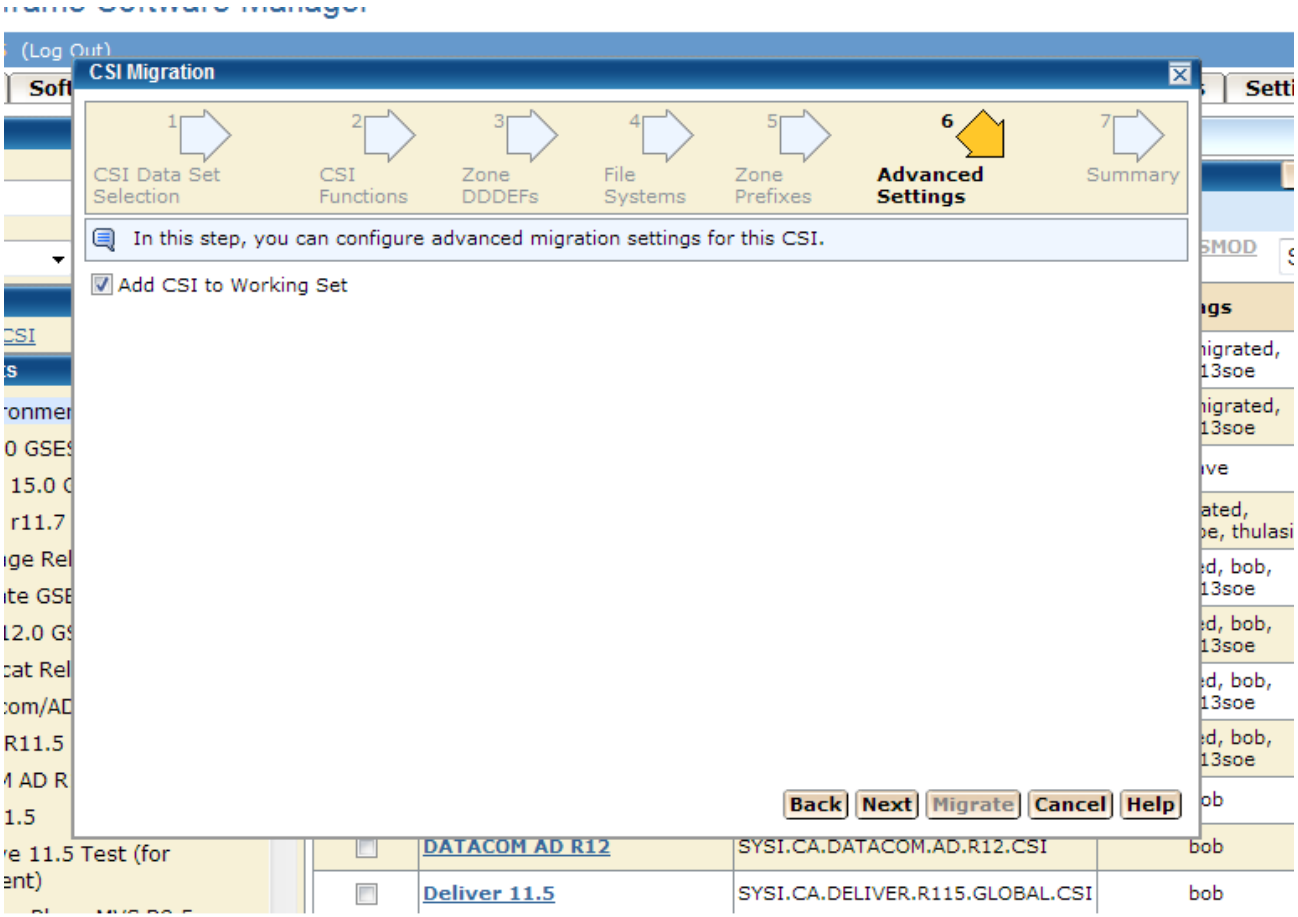

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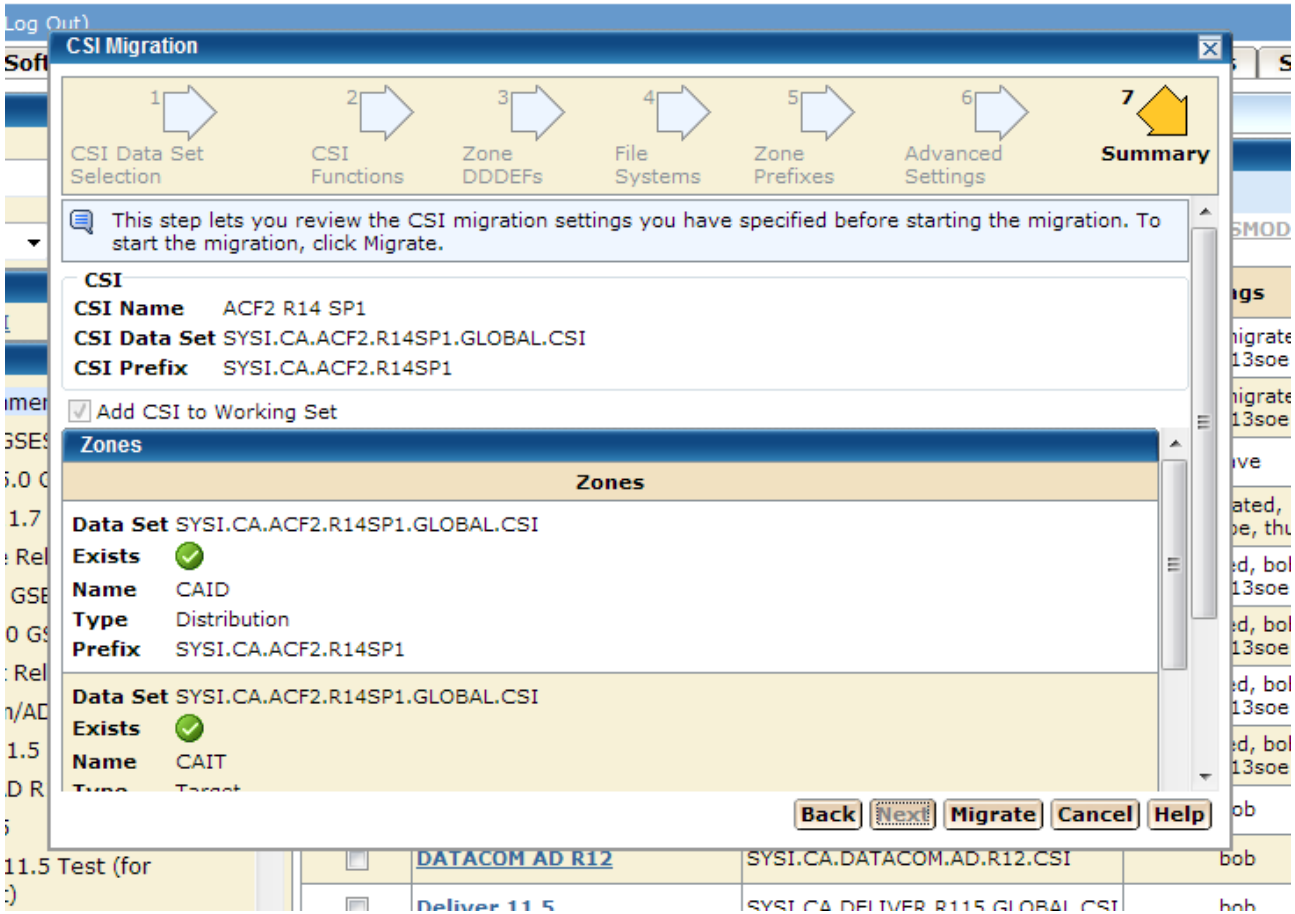

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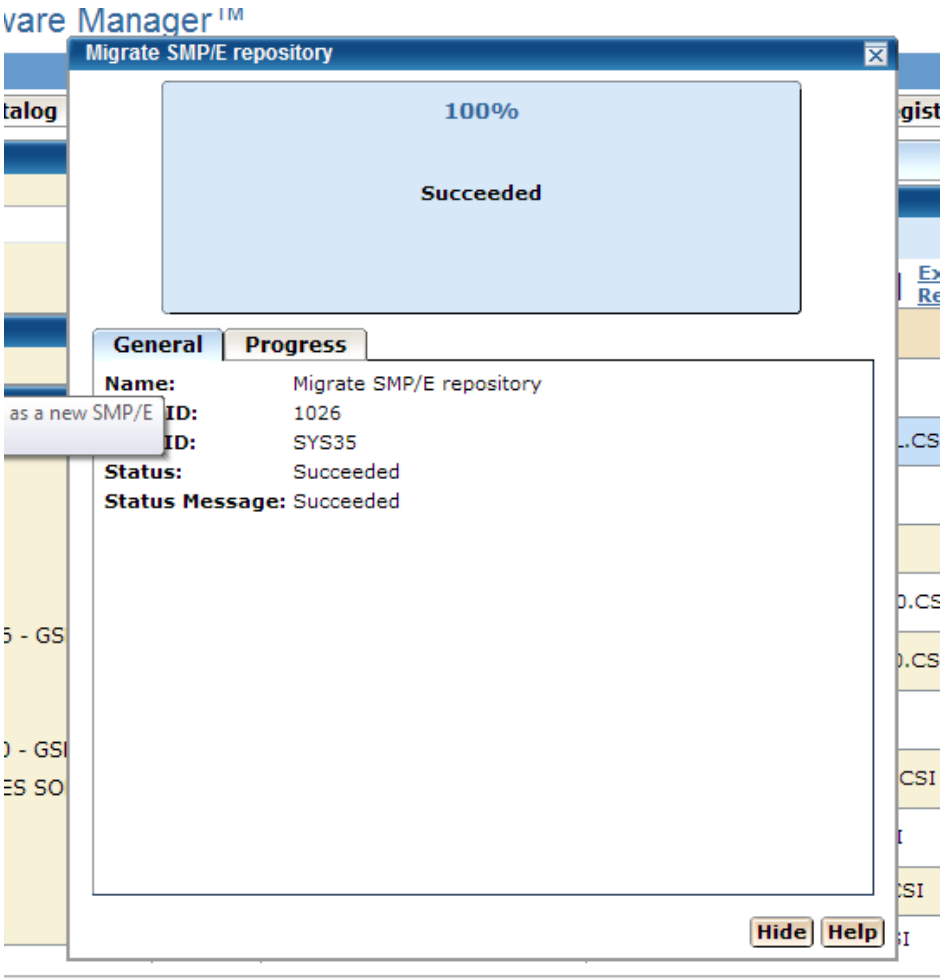

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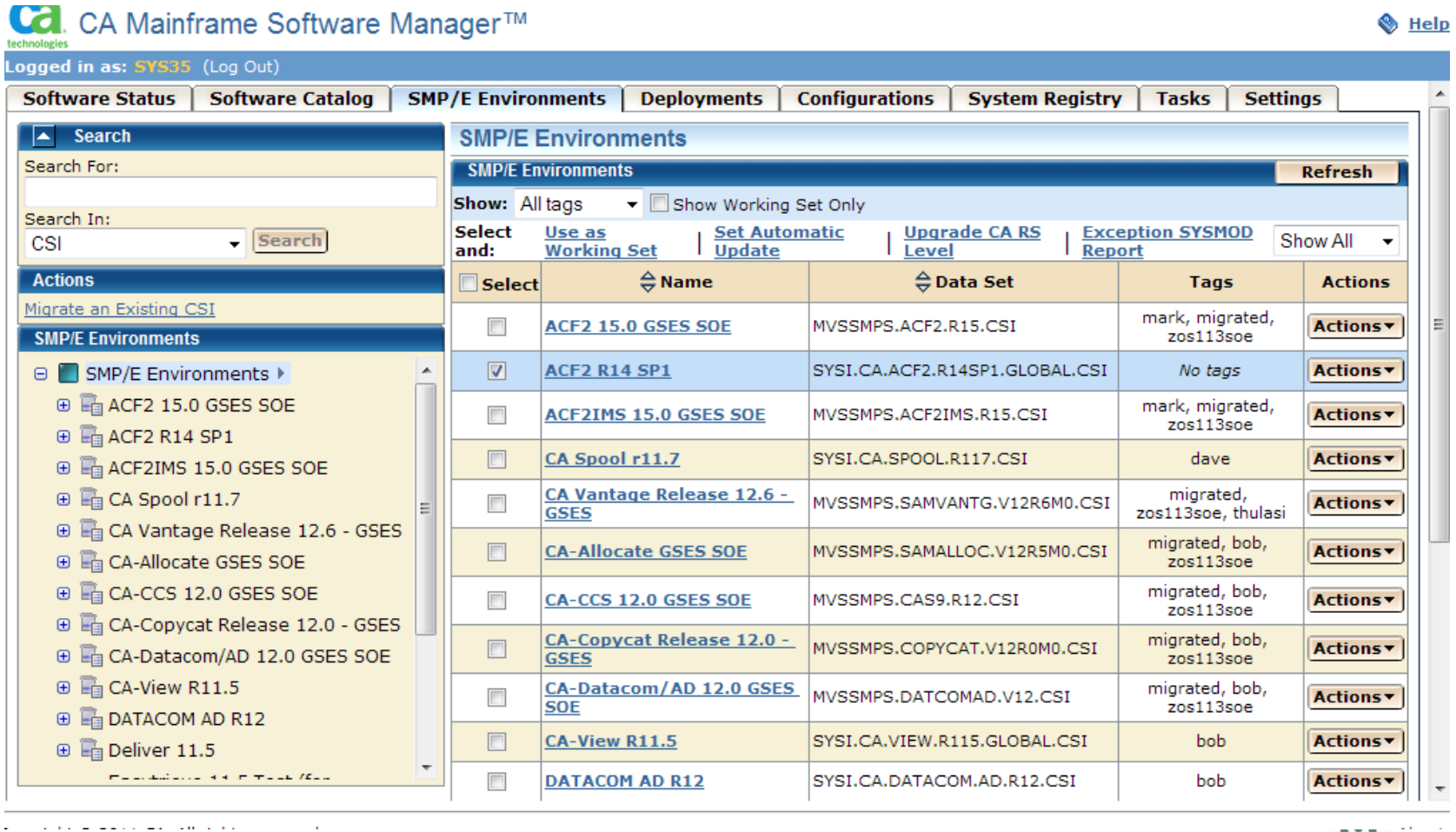

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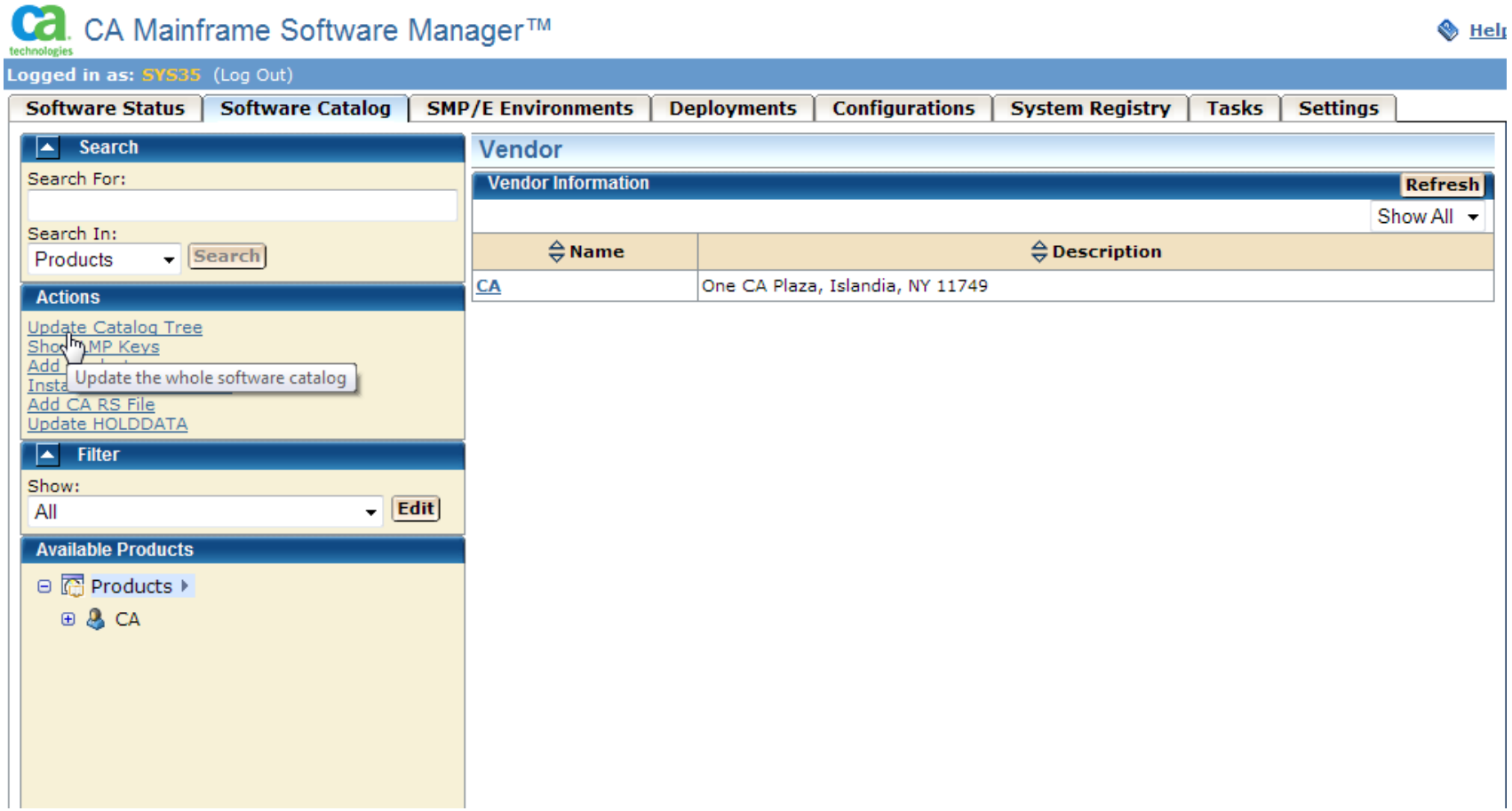

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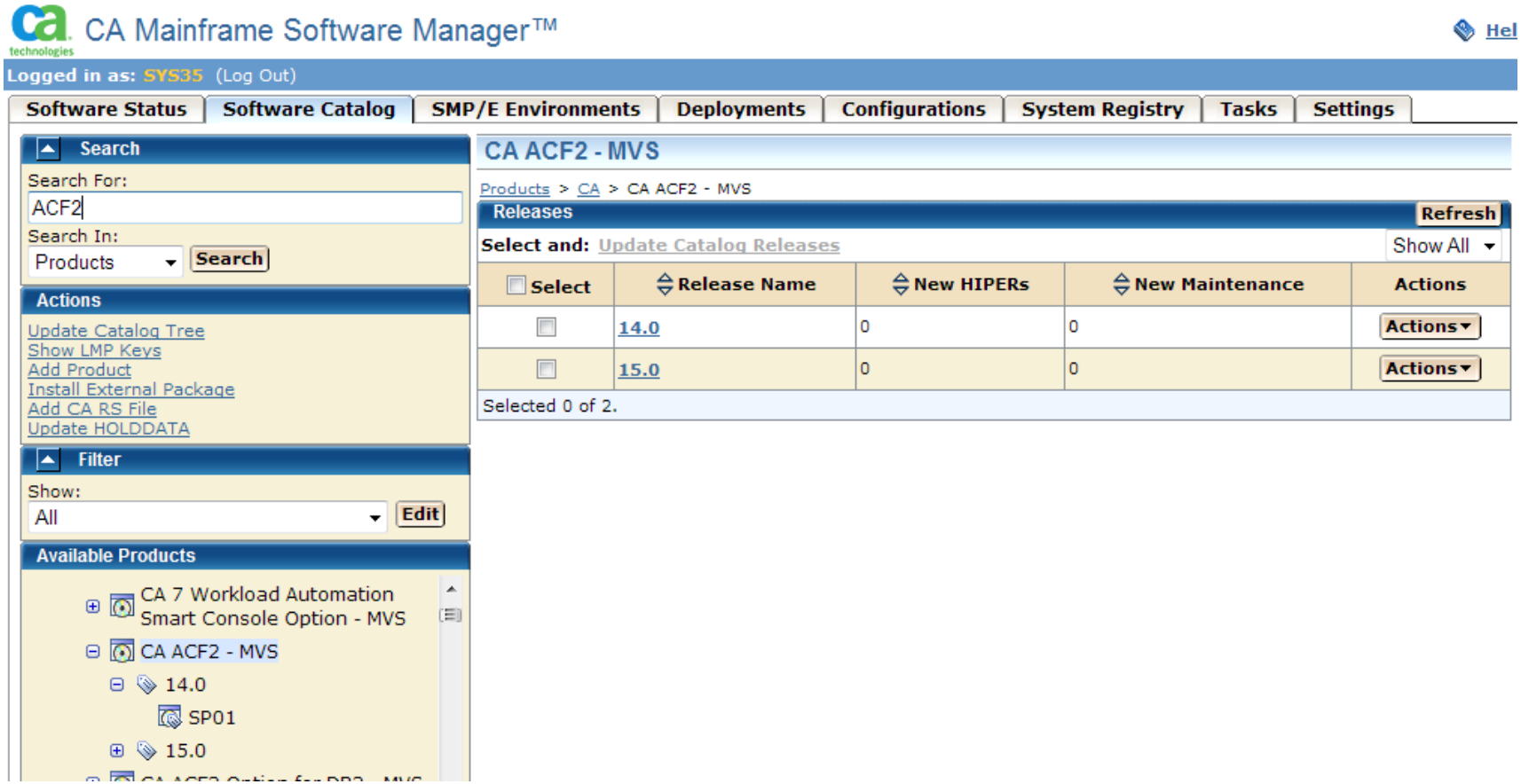

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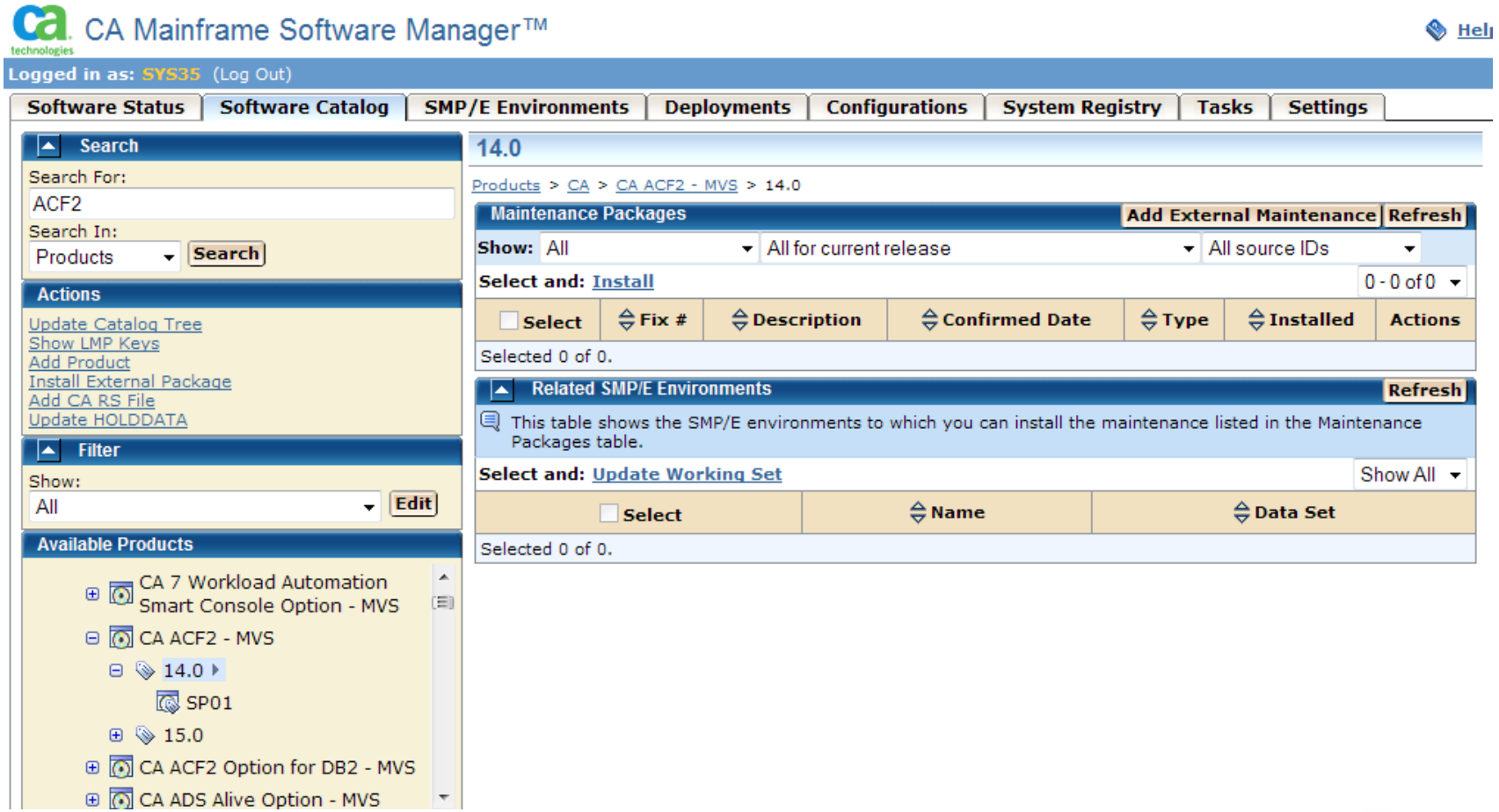

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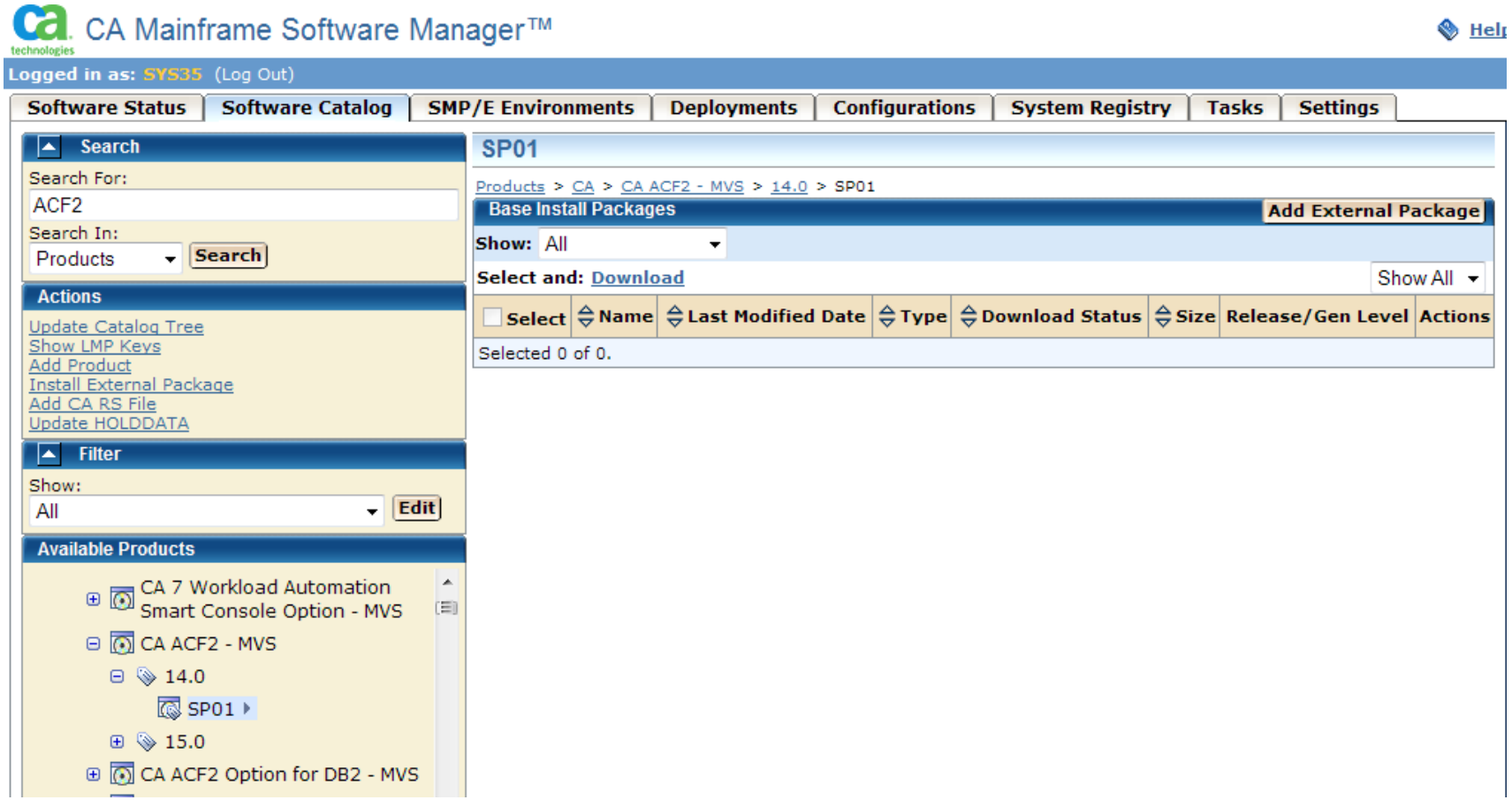

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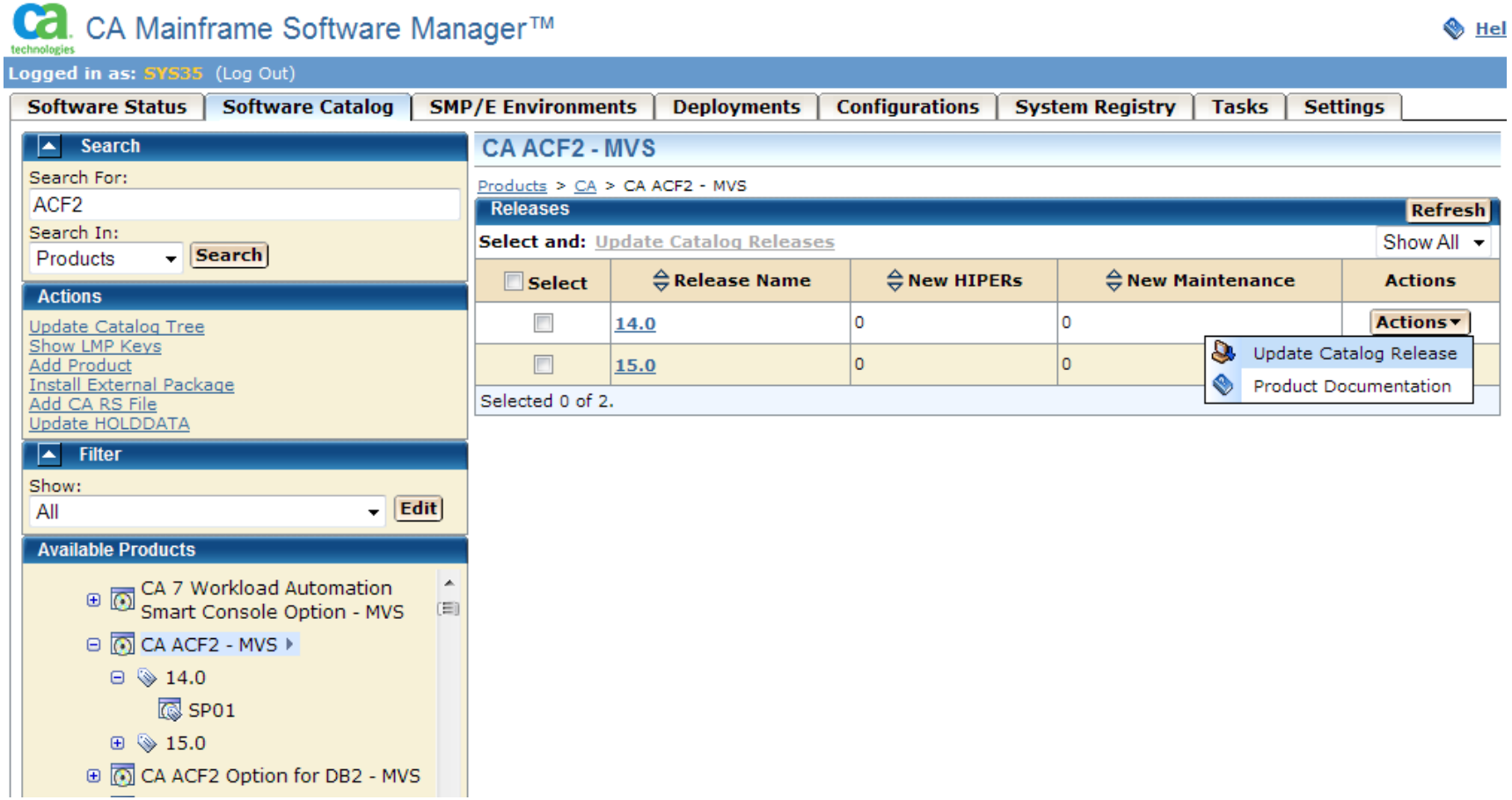

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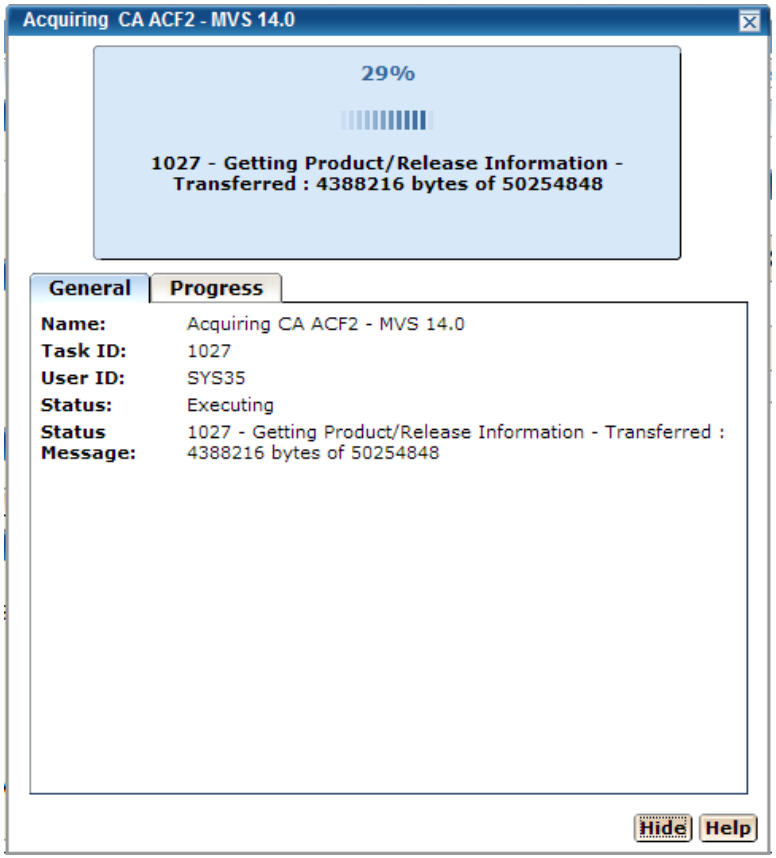

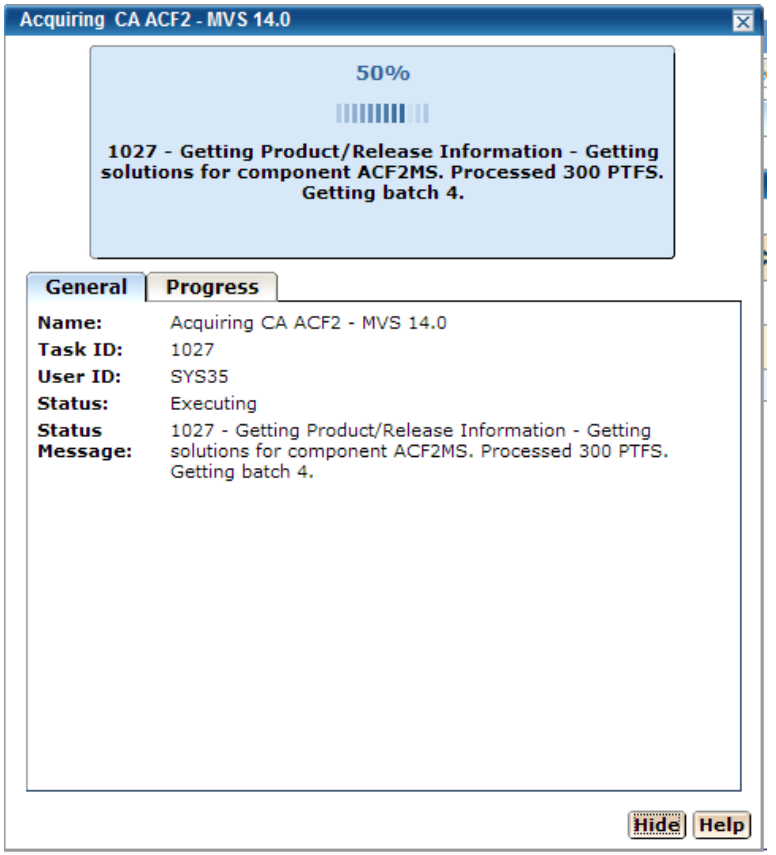

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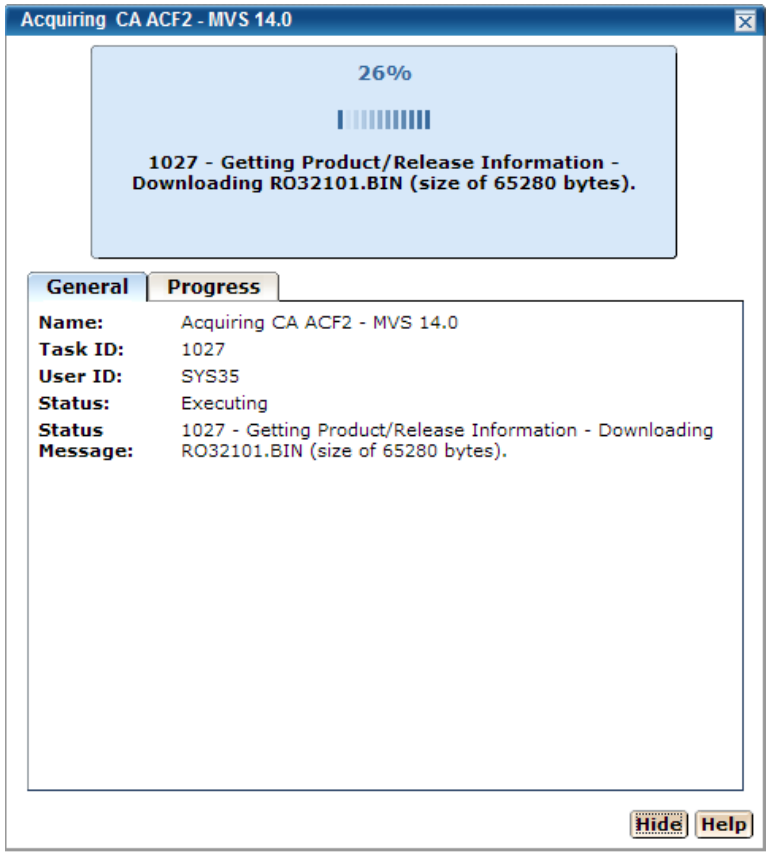

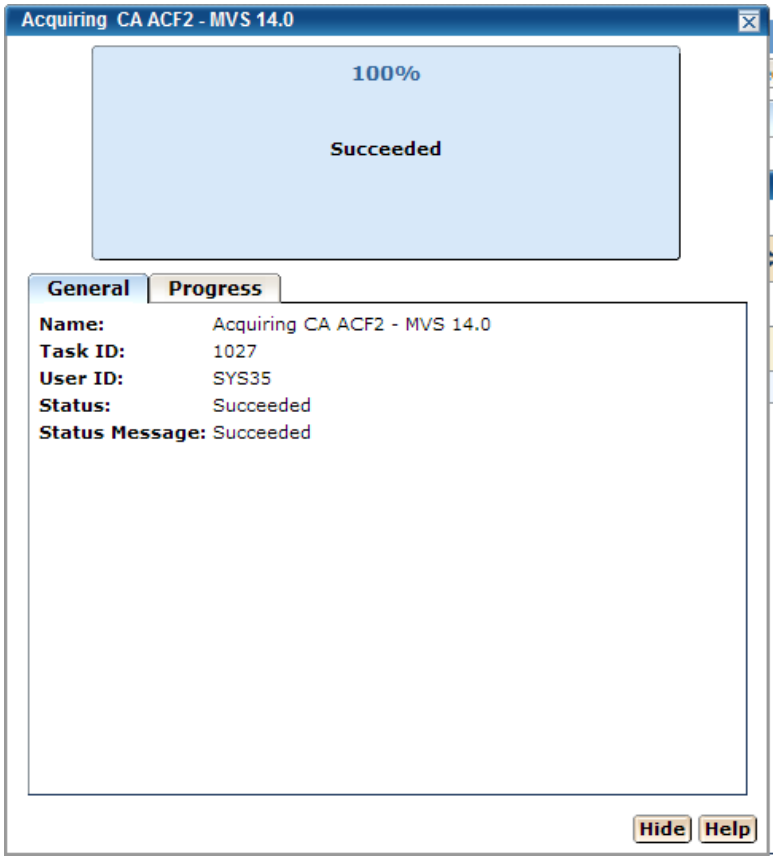

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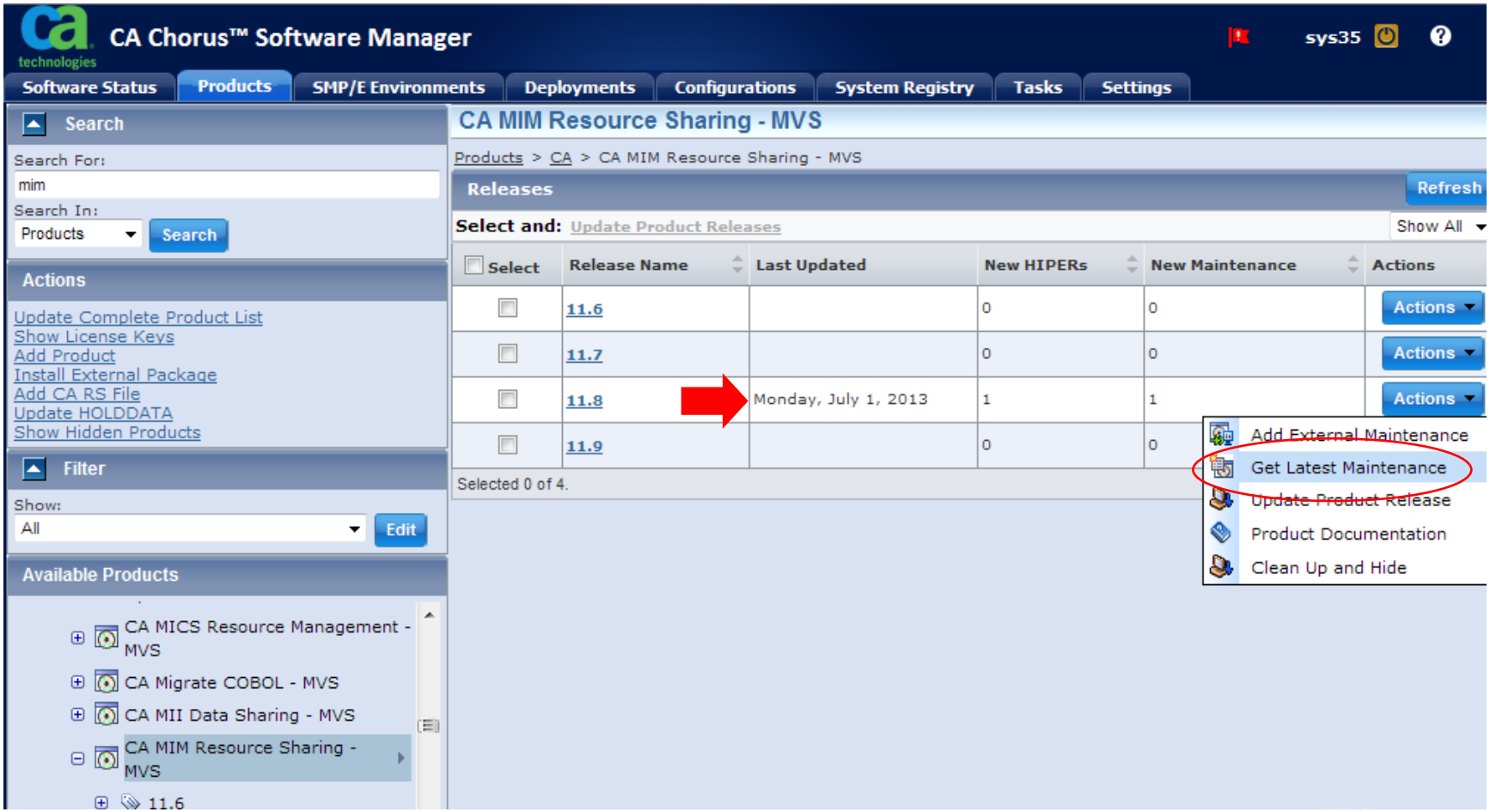
CSM Usage – Acquiring Software

Get Latest Maintenance (added in 5.0)



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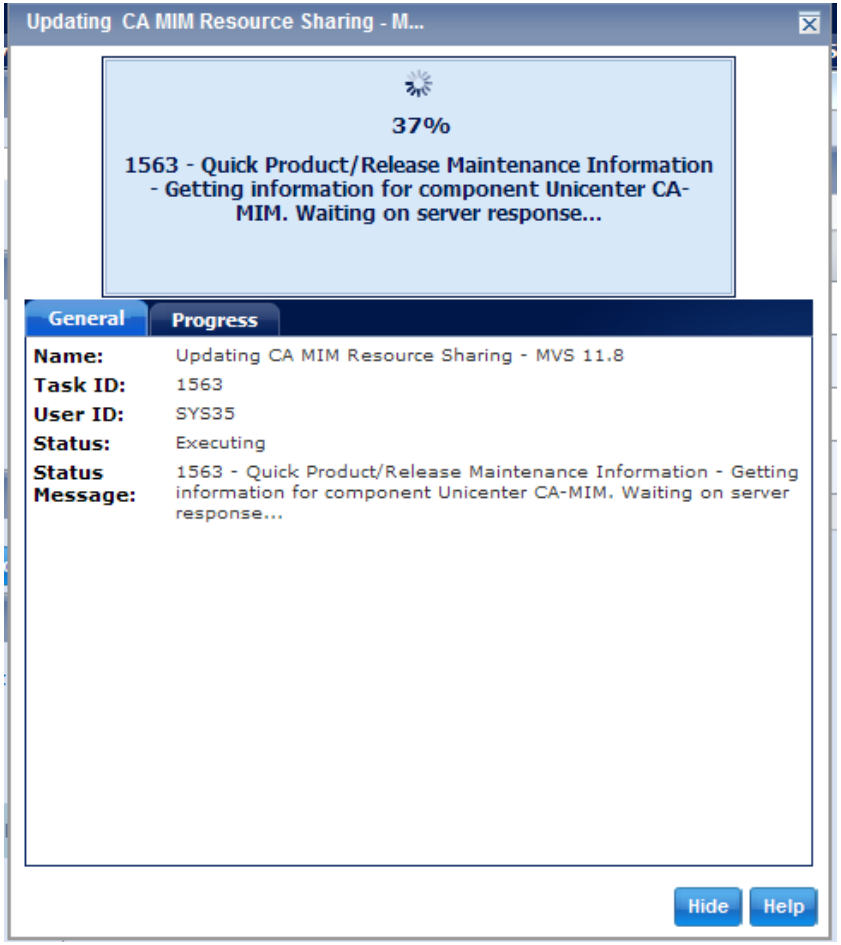
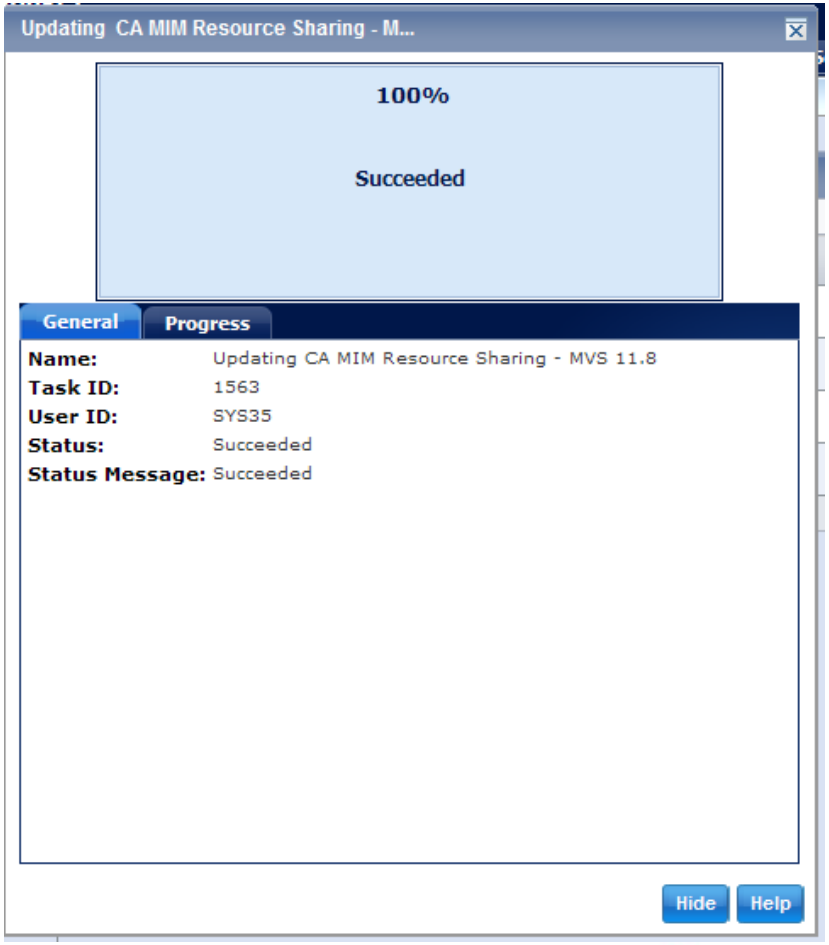
CSM Usage – Acquiring Software

Get Latest Maintenance (added in 5.0)





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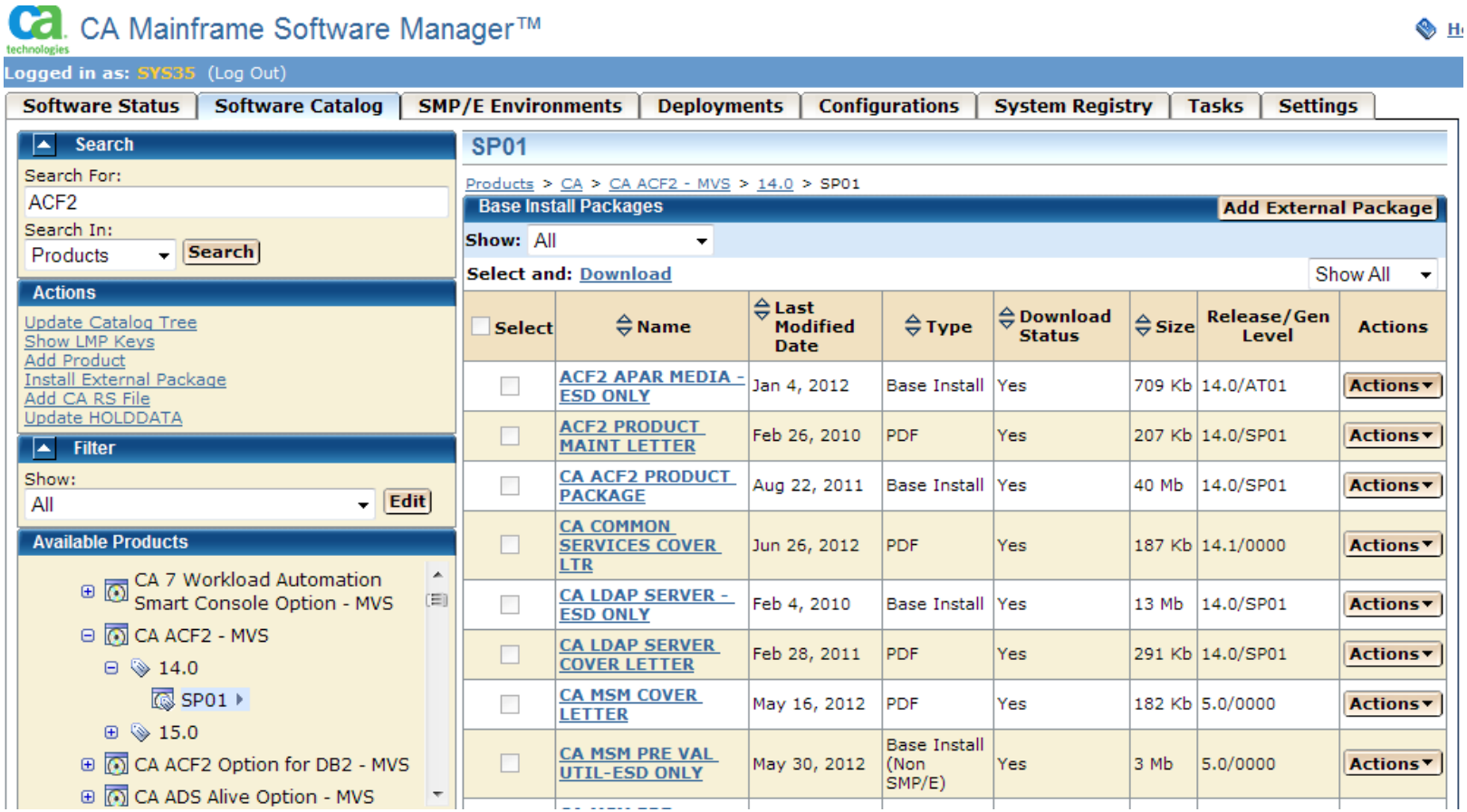
CSM Usage – Maintaining Software



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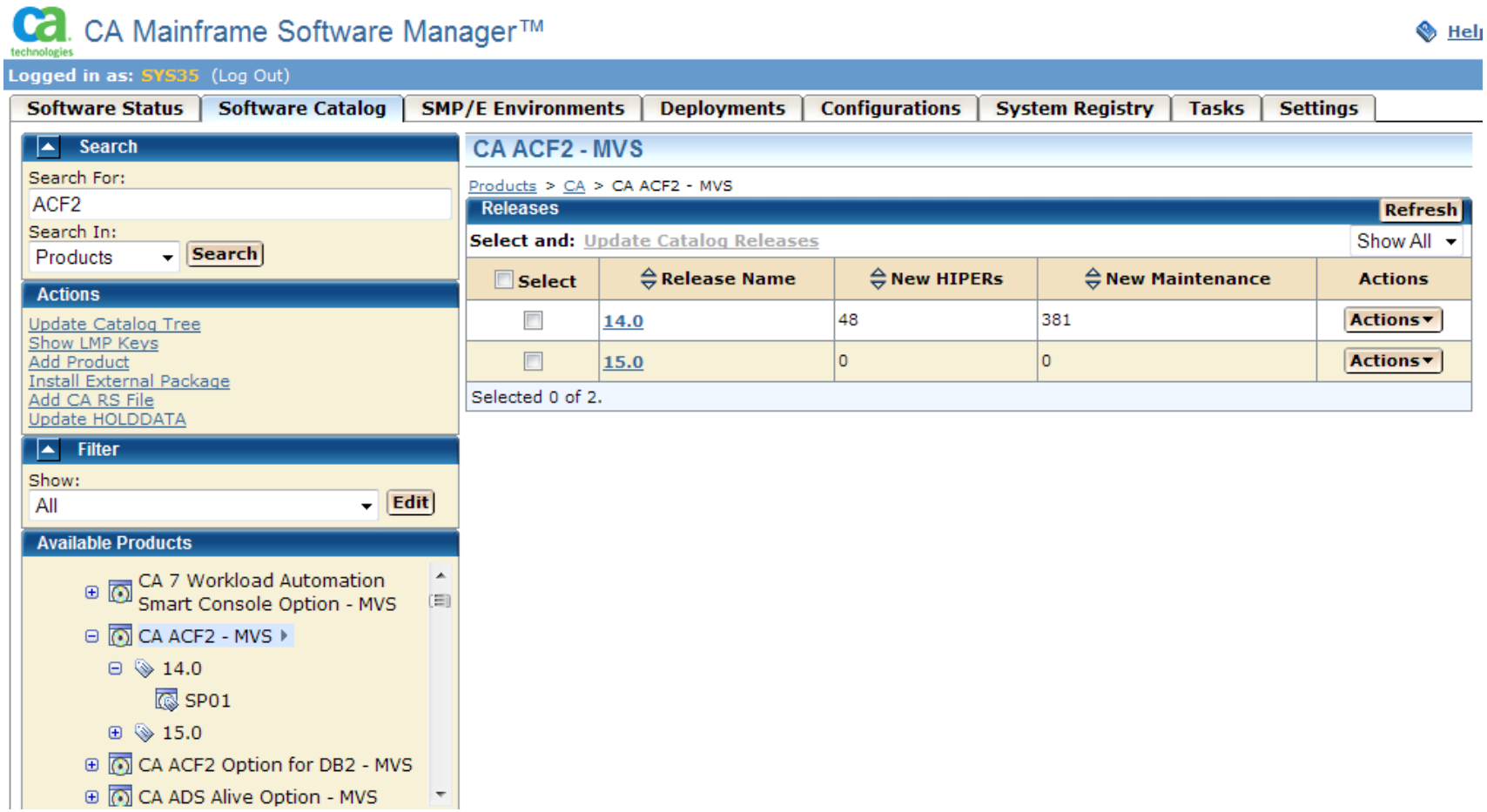
CSM Usage – Maintaining Software



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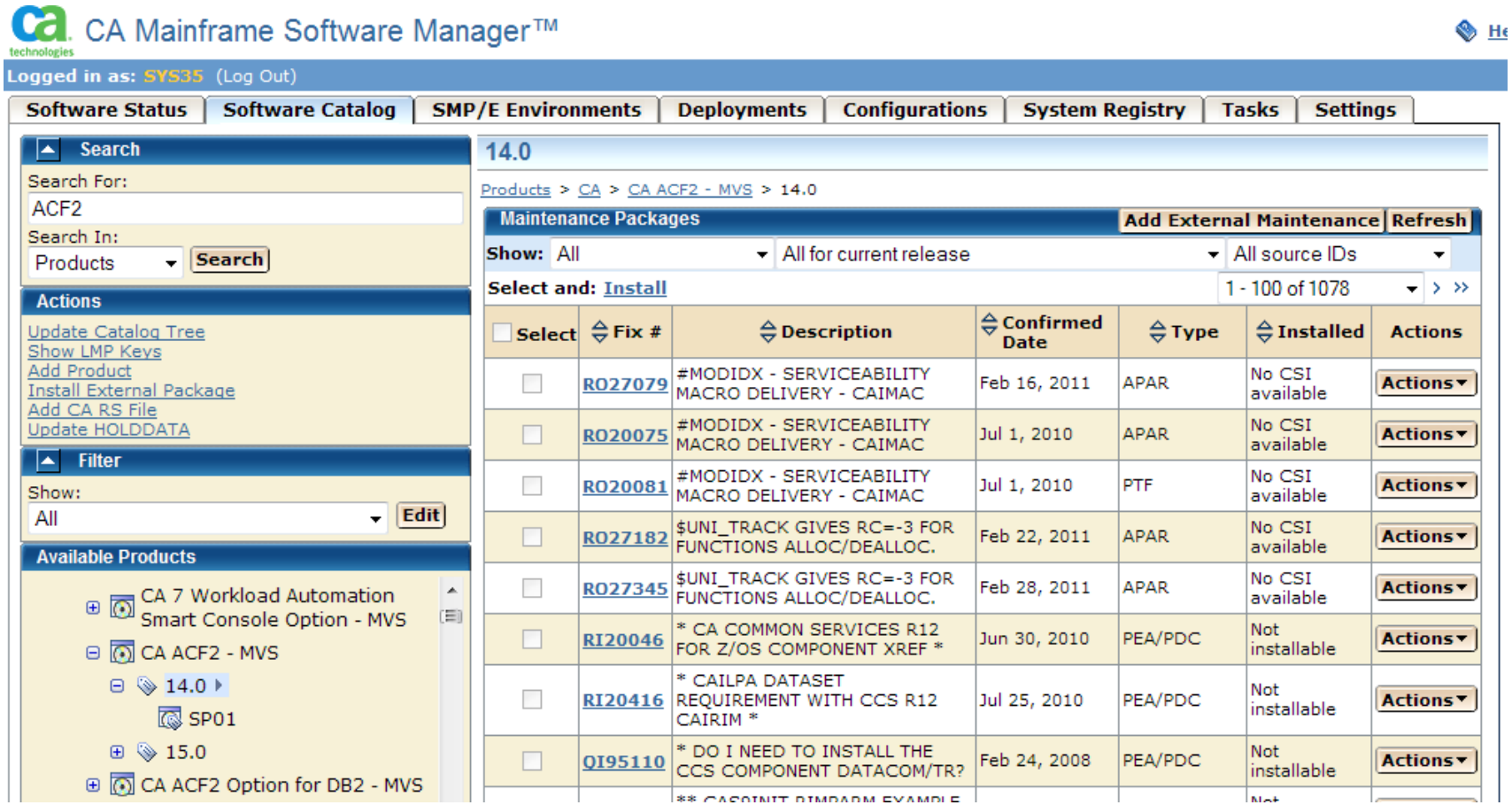
CSM Usage – Maintaining Software



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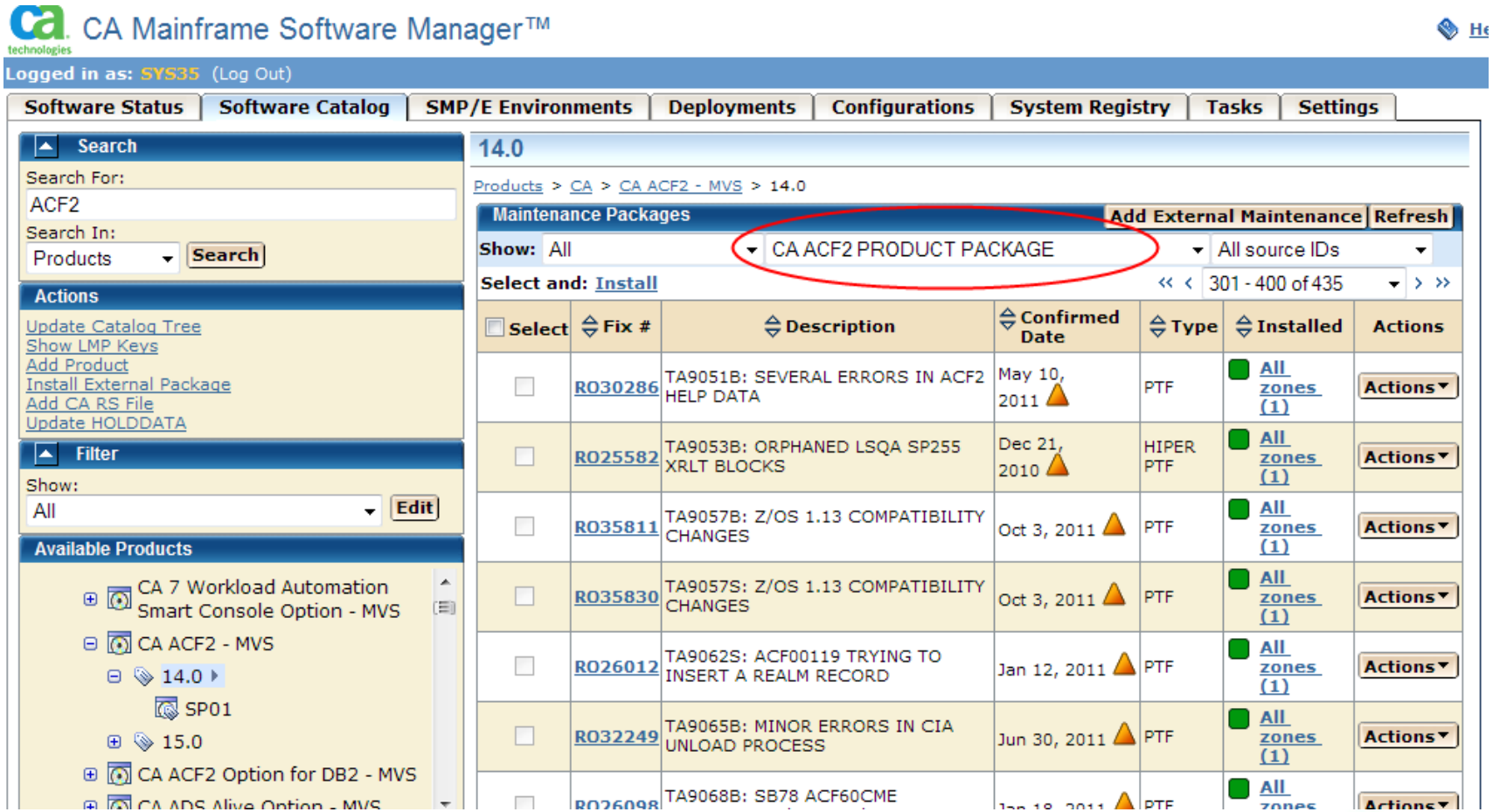
CSM Usage – Maintaining Software



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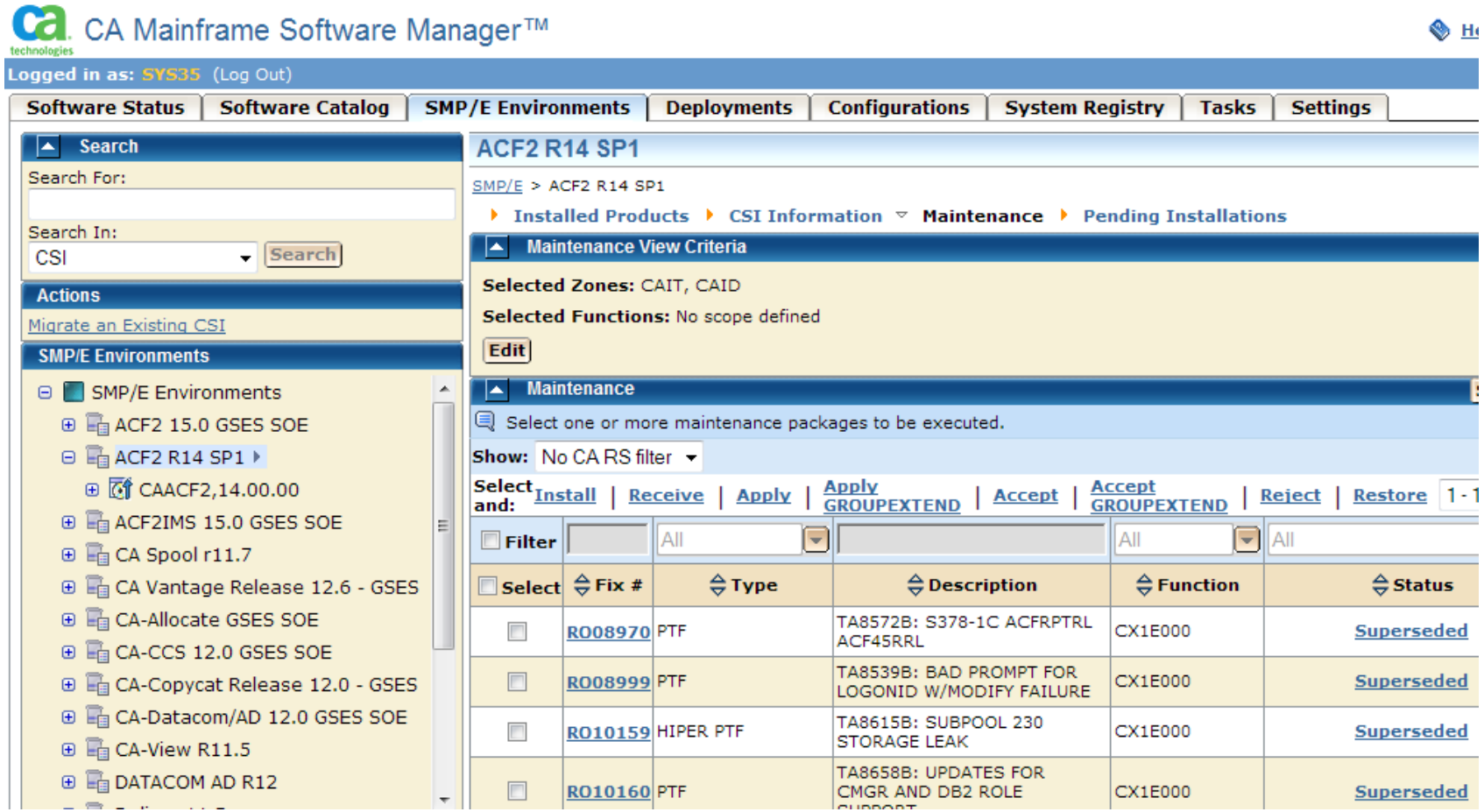
CSM Usage – Maintaining Software



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CSM Usage – Maintaining Software

Select and: Install | Receive | Apply | Apply GROUPEXTEND | Accept | Accept GROUPEXTEND | Reject | Restore | Show All

Filter		All		All	Not received	
Select	Fix #	Type	Description	Function	Status	Actions
	RO40586	PTF	TA9252S: INIT_ACEE RETURN CODE 8/8:4 ON IDID PARM	CX8E000	Not received	Actions
	RO40671	PTF	TA9231S: PKI SERVICES GENCERT NOT BEFORE 12/31	CX8E000	Not received	Actions
	RO40672	PTF	TA8536S: SAFHFACF: SKIP INVALID DIRECTORY NAMES	CX8E000	Not received	Actions
	RO40728	PTF	TA9215S: SAFOESMF S0C4 ON INIT_ACEE WITH IDID_AREA	CX8E000	Not received	Actions
	RO40730	PTF	TA9188B: UNIX DATA SET ACCESS SUPPORT	CX1E000	Not received	Actions
	RO40731	PTF	TA9188S: UNIX DATA SET ACCESS SUPPORT	CX8E000	Not received	Actions
	RO40883	PTF	TA9258S: UNABLE TO CHKCERT/INSERT CERTIFICATE	CX8E000	Not received	Actions
	RO41003	PTF	TA9288S: ENVIRONIN INIT_ACEE SPURIOUS 8/8:4 RETCODE	CX8E000	Not received	Actions

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CSM Usage – Maintaining Software

Select and: Install | Receive | Apply | Apply GROUPEXTEND | Accept | Accept GROUPEXTEND | Reject | Restore | Show All

Filter — Install selected maintenance packages — All — Not received

Select	Fix #	Type	Description	Function	Status	Actions
☑	RO40586	PTF	TA9252S: INIT_ACEE RETURN CODE 8/8:4 ON IDID PARM	CX8E000	Not received	Actions
☑	RO40671	PTF	TA9231S: PKI SERVICES GENCERT NOT BEFORE 12/31	CX8E000	Not received	Actions
☑	RO40672	PTF	TA8536S: SAFHFACF: SKIP INVALID DIRECTORY NAMES	CX8E000	Not received	Actions
☑	RO40728	PTF	TA9215S: SAFOESMF S0C4 ON INIT_ACEE WITH IDID_AREA	CX8E000	Not received	Actions
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☑	RO40731	PTF	TA9188S: UNIX DATA SET ACCESS SUPPORT	CX8E000	Not received	Actions
☑	RO40883	PTF	TA9258S: UNABLE TO CHKCERT/INSERT CERTIFICATE	CX8E000	Not received	Actions
☑	RO41003	PTF	TA9288S: ENVIRONIN INIT_ACEE SPURIOUS 8/8:4 RETCODE	CX8E000	Not received	Actions

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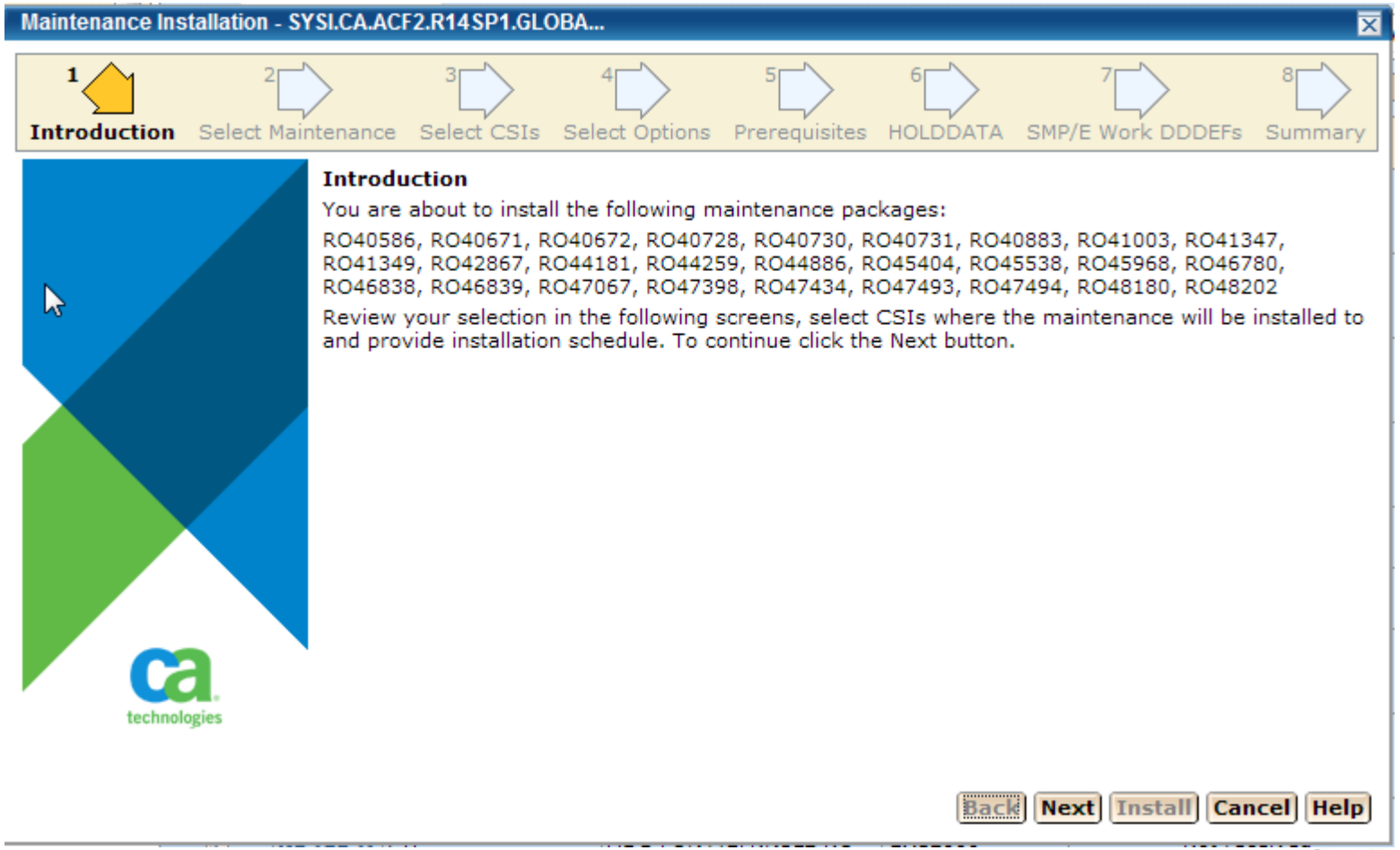
CSM Usage – Maintaining Software



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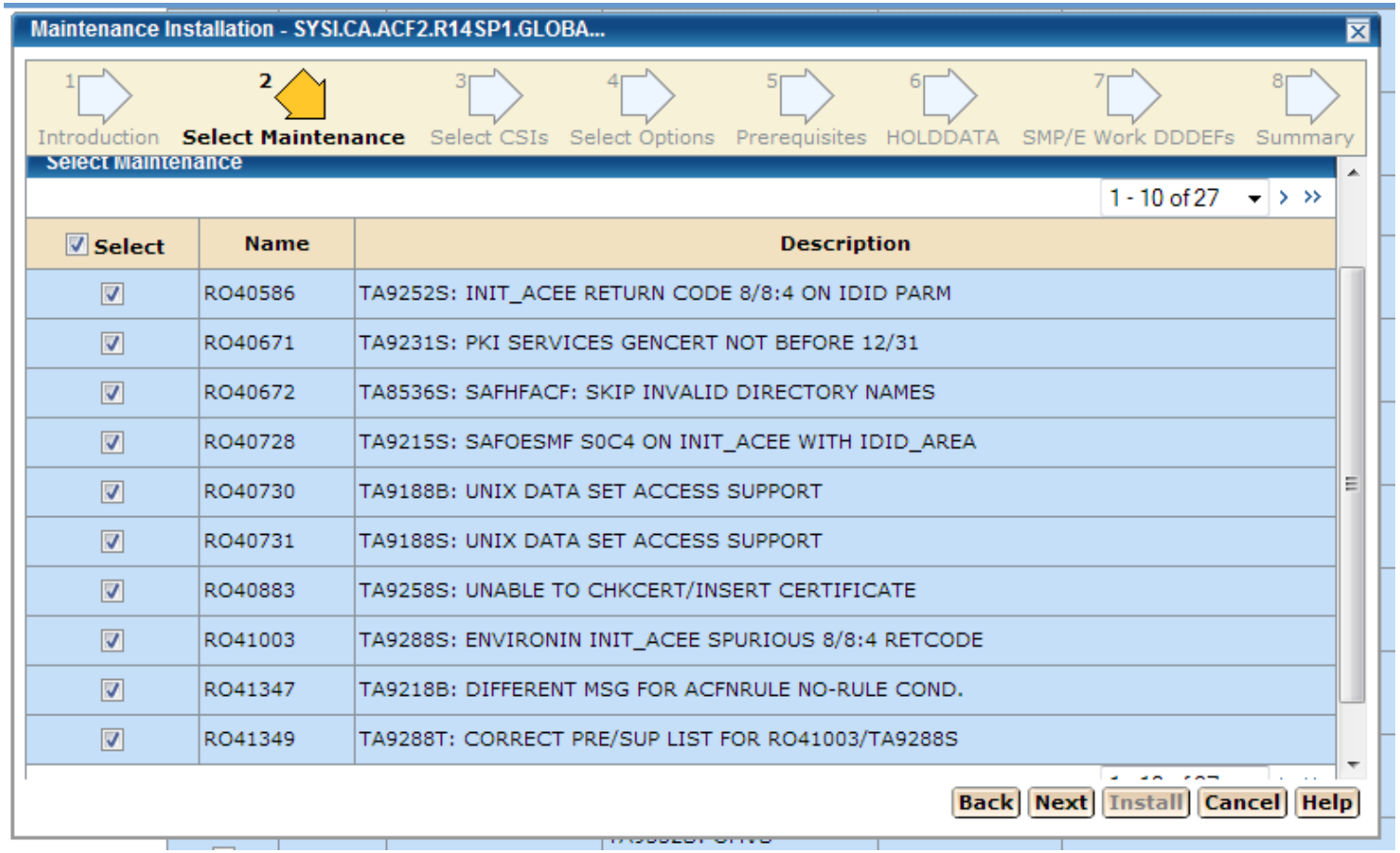
CSM Usage – Maintaining Software



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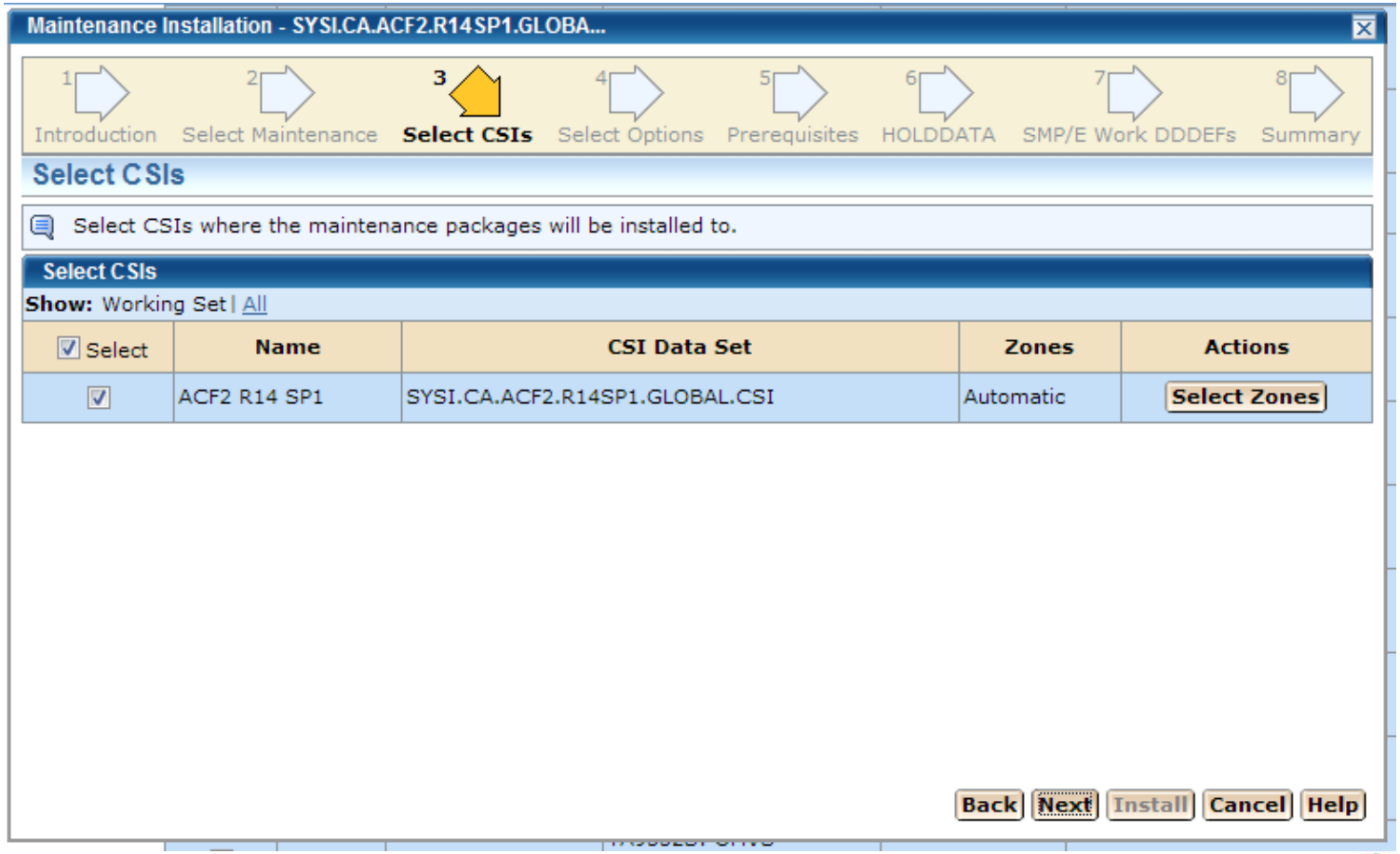
CSM Usage – Maintaining Software



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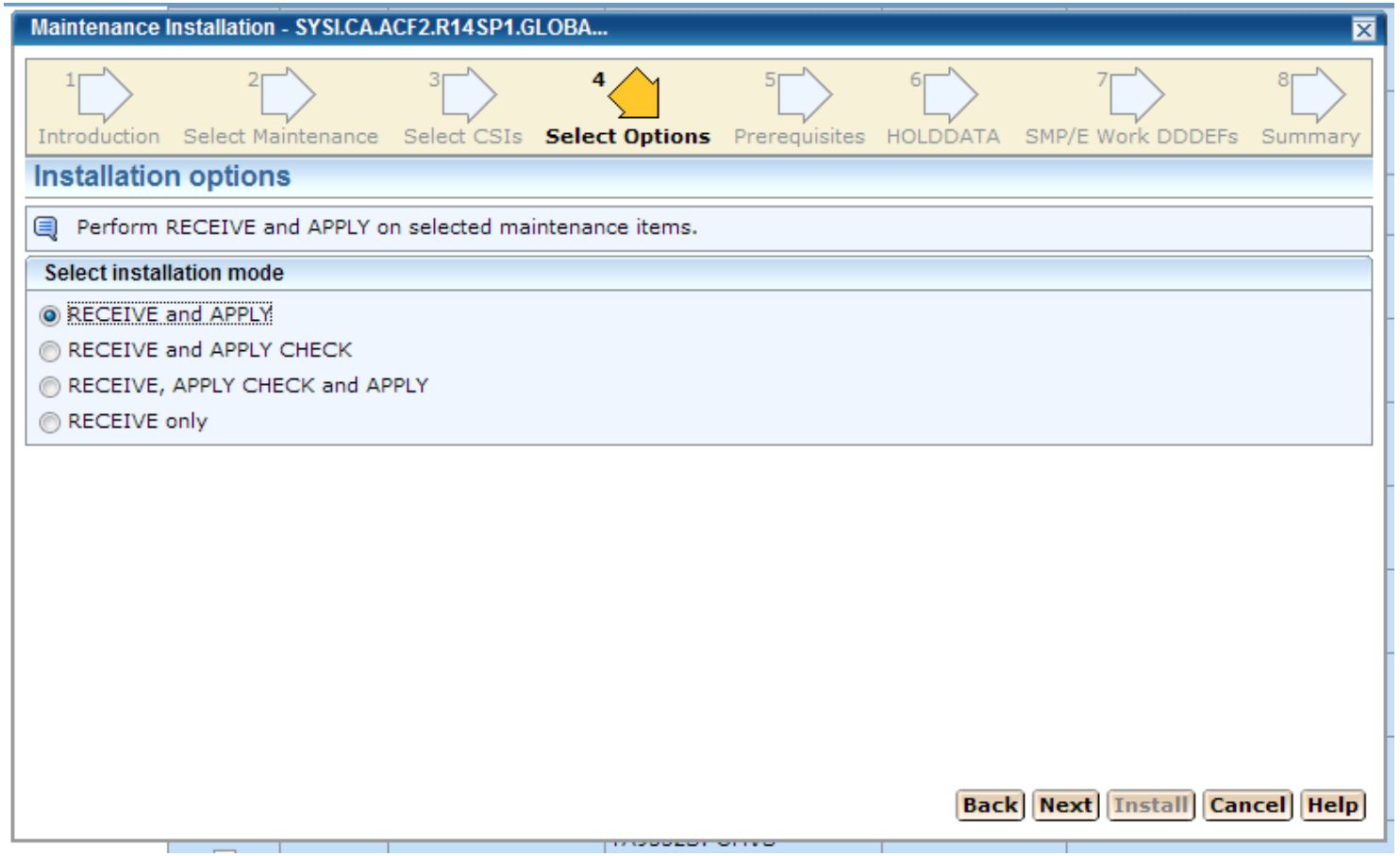
CSM Usage – Maintaining Software



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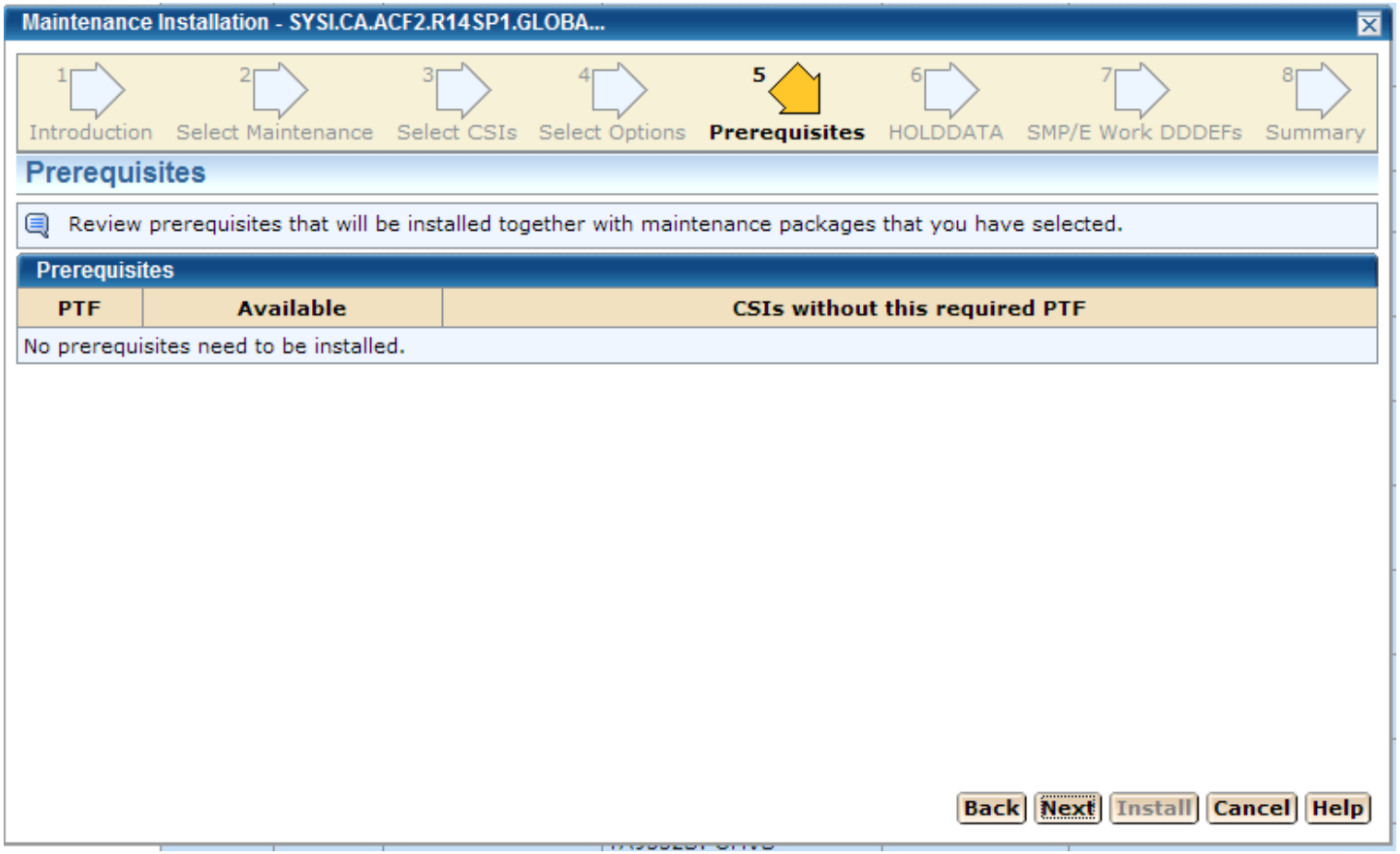
CSM Usage – Maintaining Software



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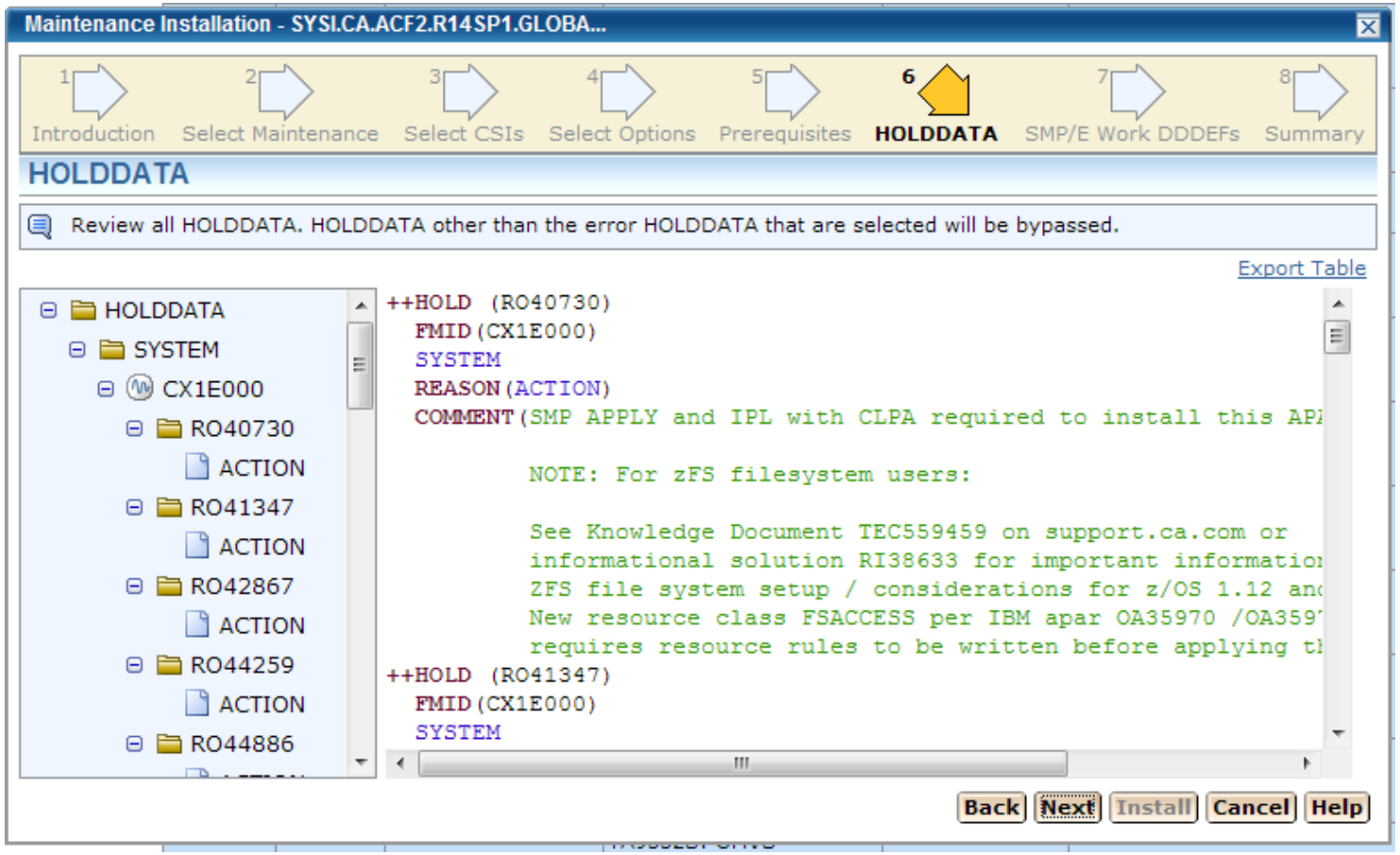
CSM Usage – Maintaining Software



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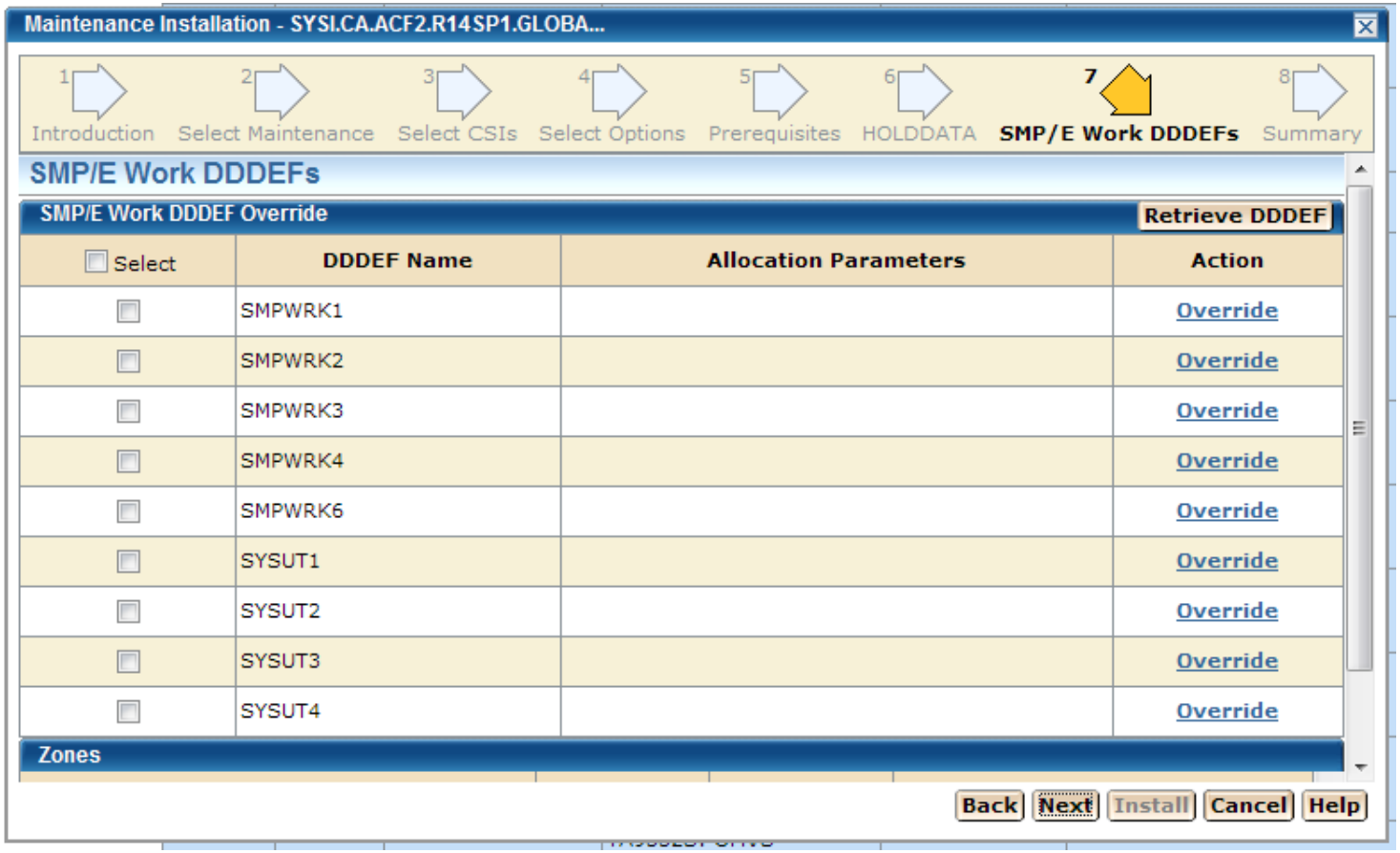
CSM Usage – Maintaining Software



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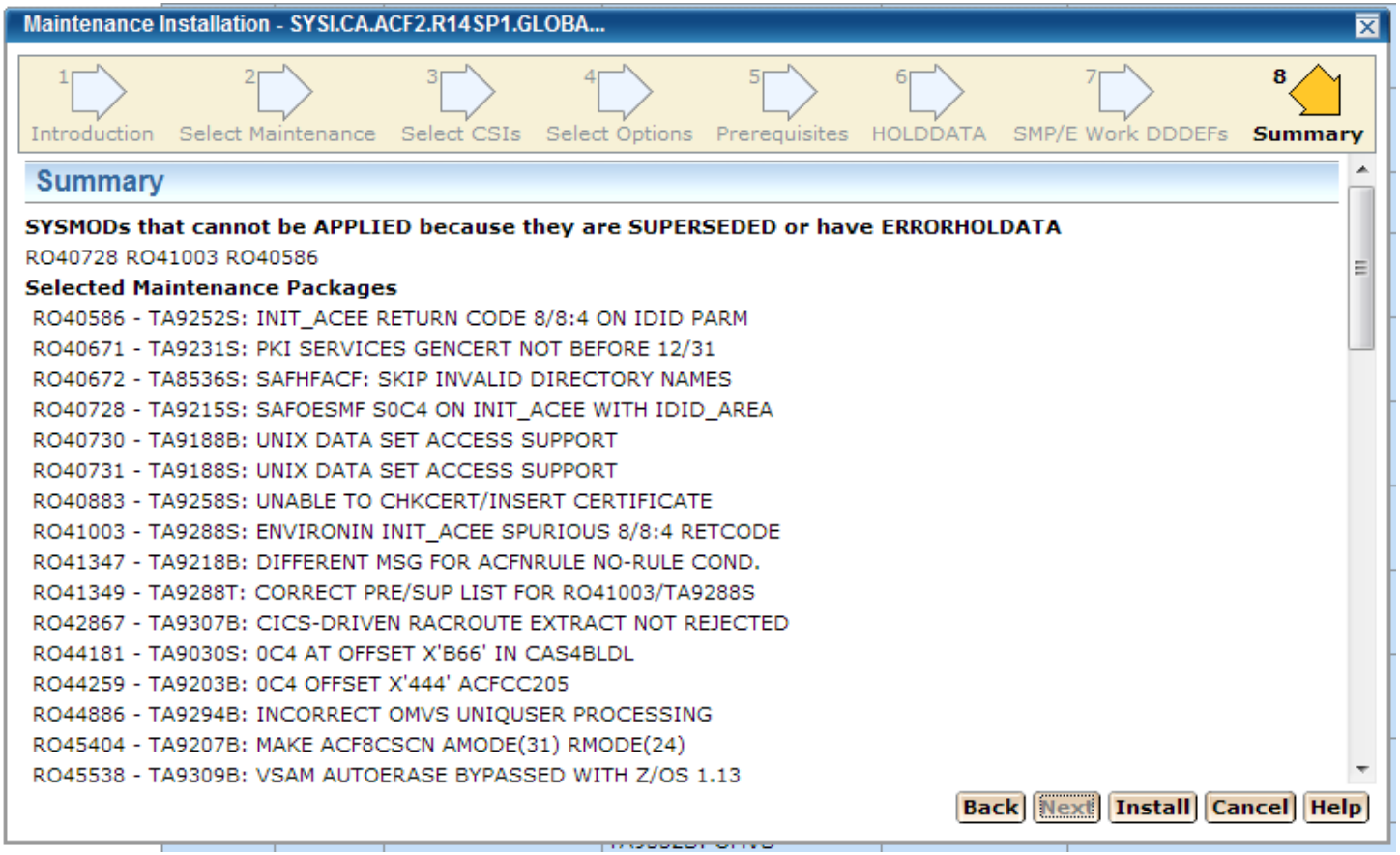
CSM Usage – Maintaining Software



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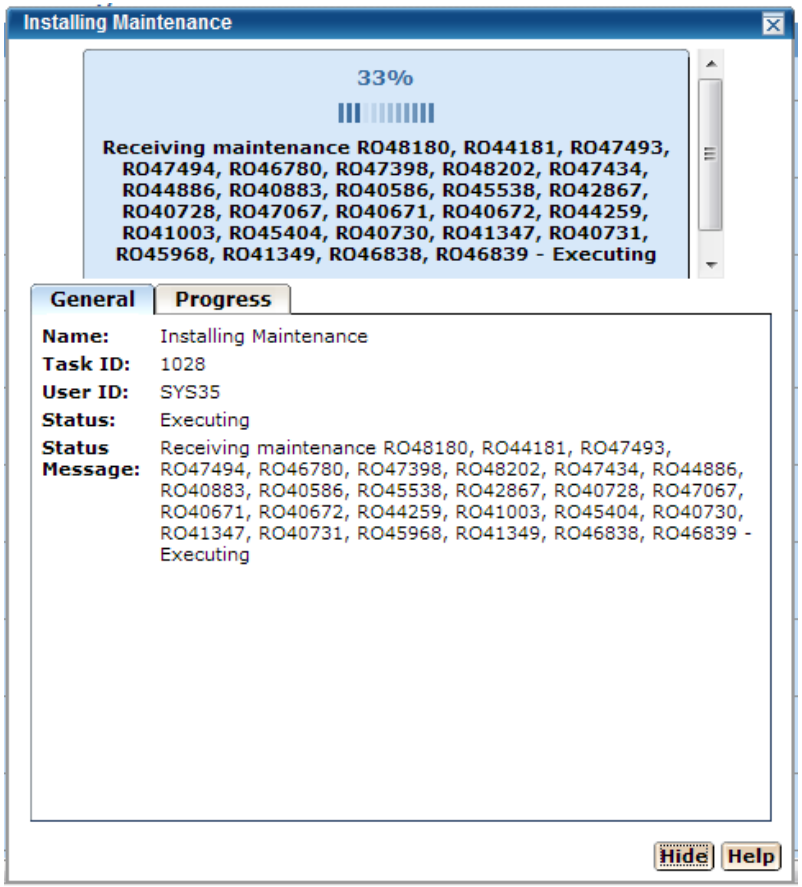
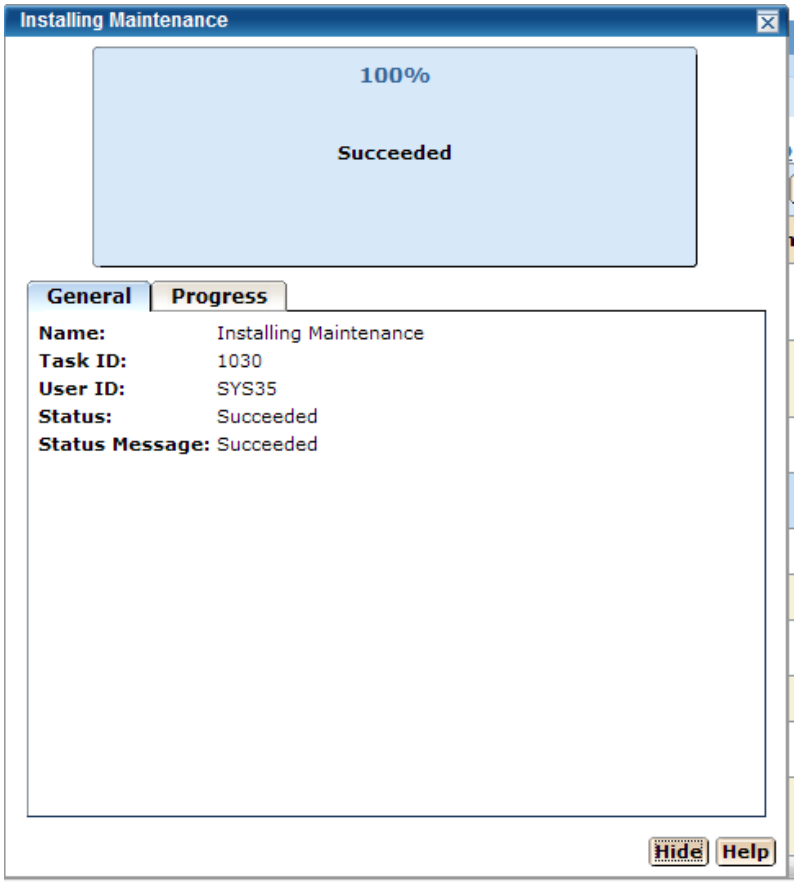
CSM Usage – Maintaining Software





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Agenda

- Environment overview
- CSM installation history and issues
- CSM users
- CSM features used
- Migrating CSIs into CSM
- Acquiring and maintaining software
- **Installing software with CSM**
- Deploying software with CSM
- CSM Hints and Tips

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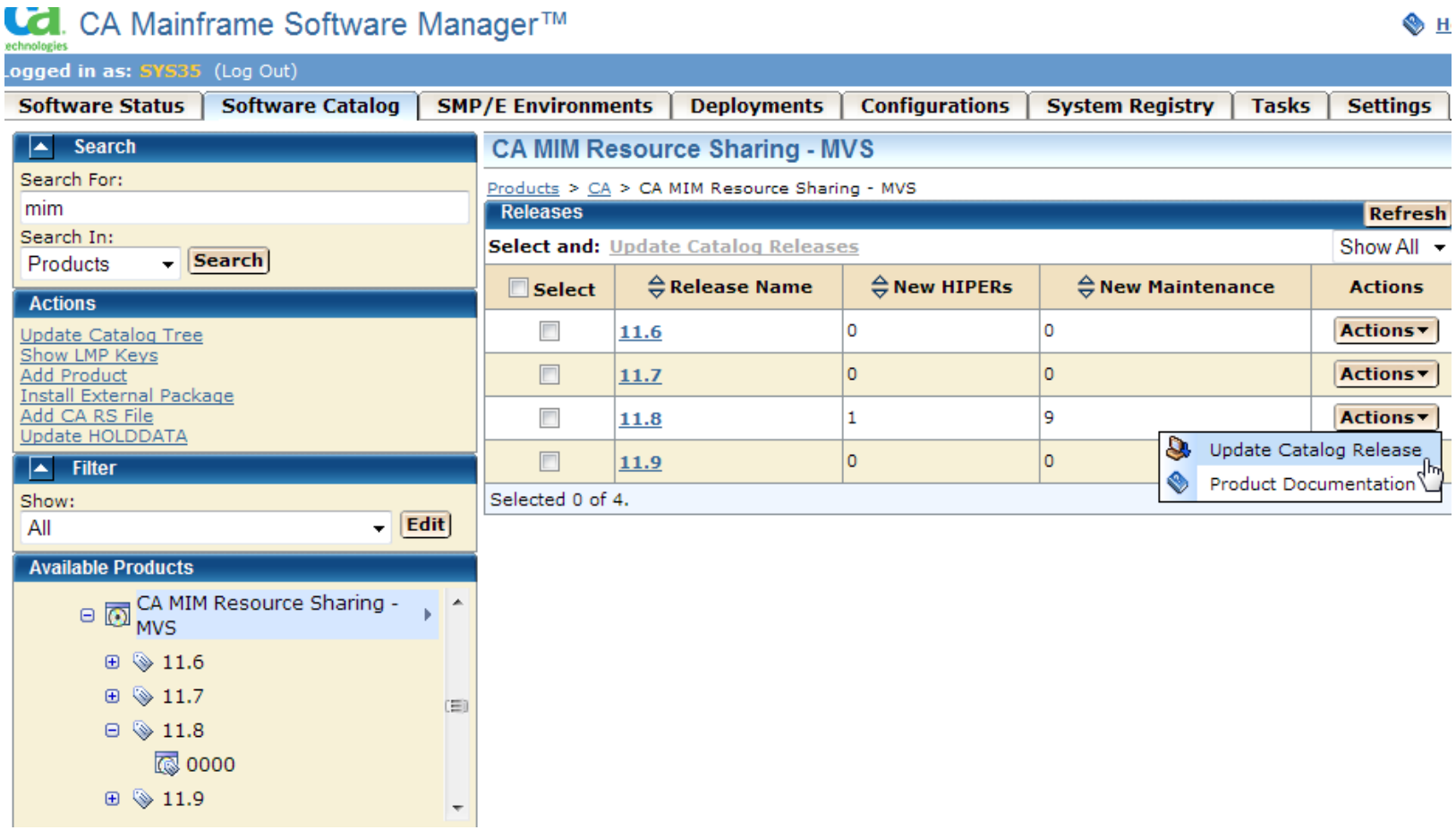
CSM Usage – Installing Software



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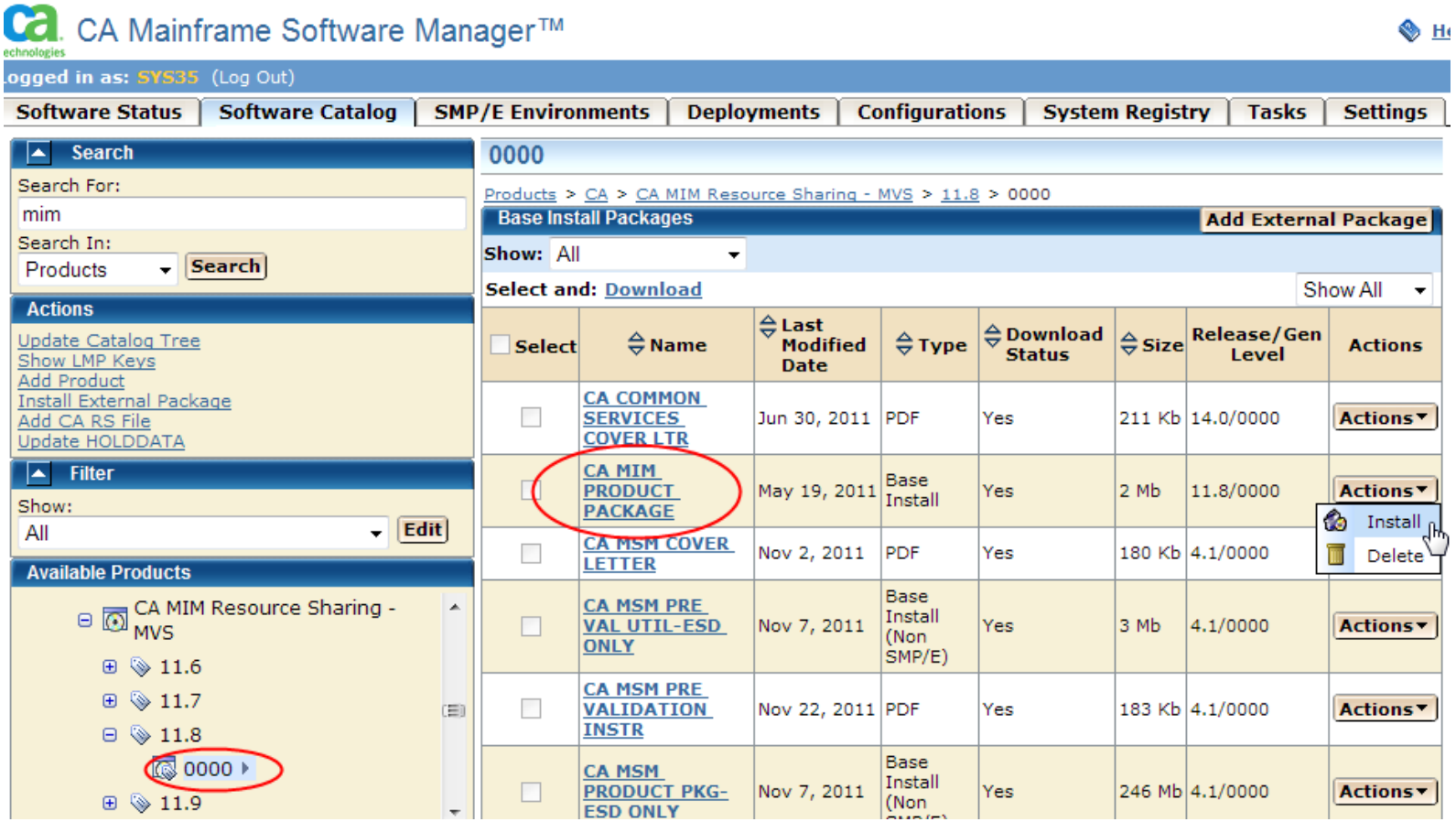
CSM Usage – Installing Software



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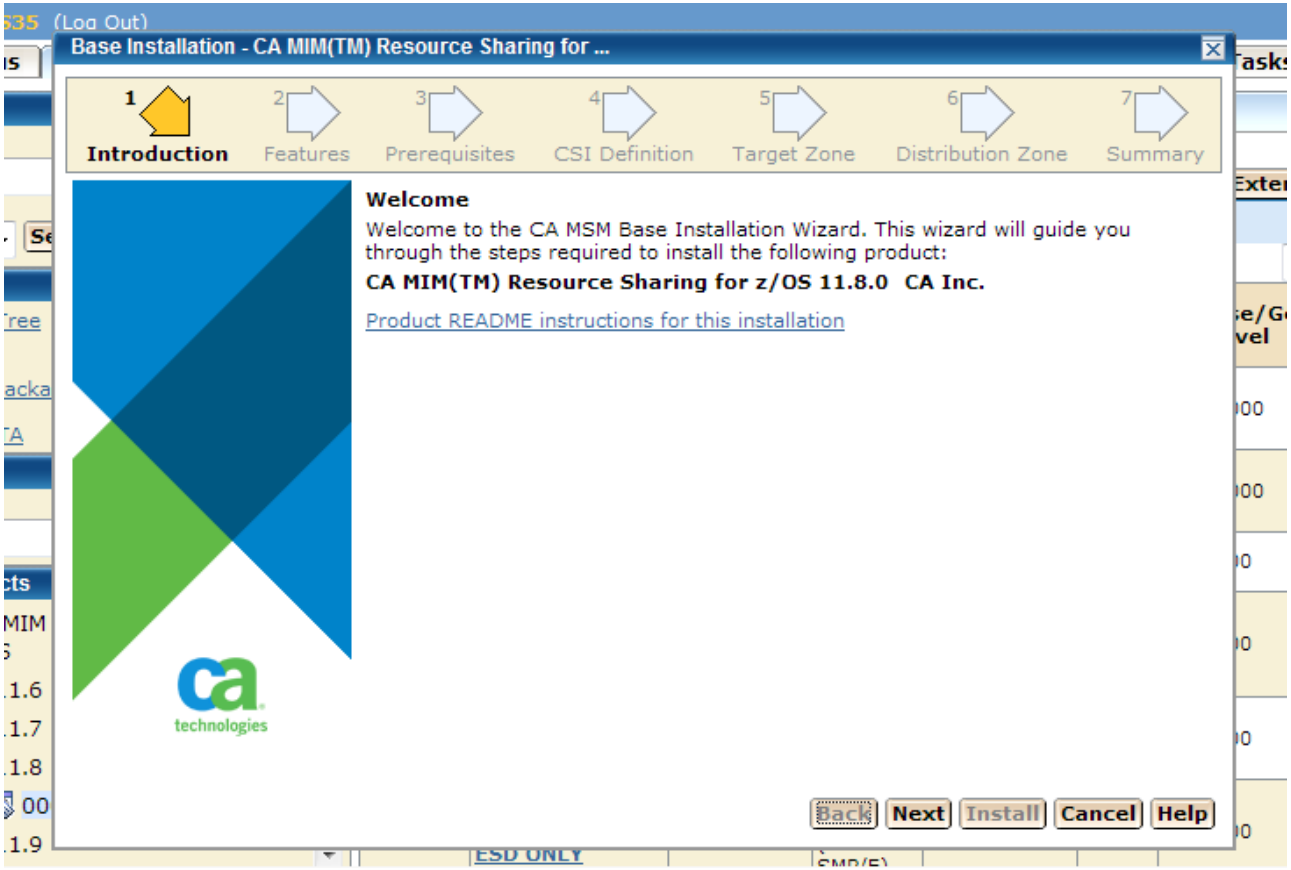
CSM Usage – Installing Software



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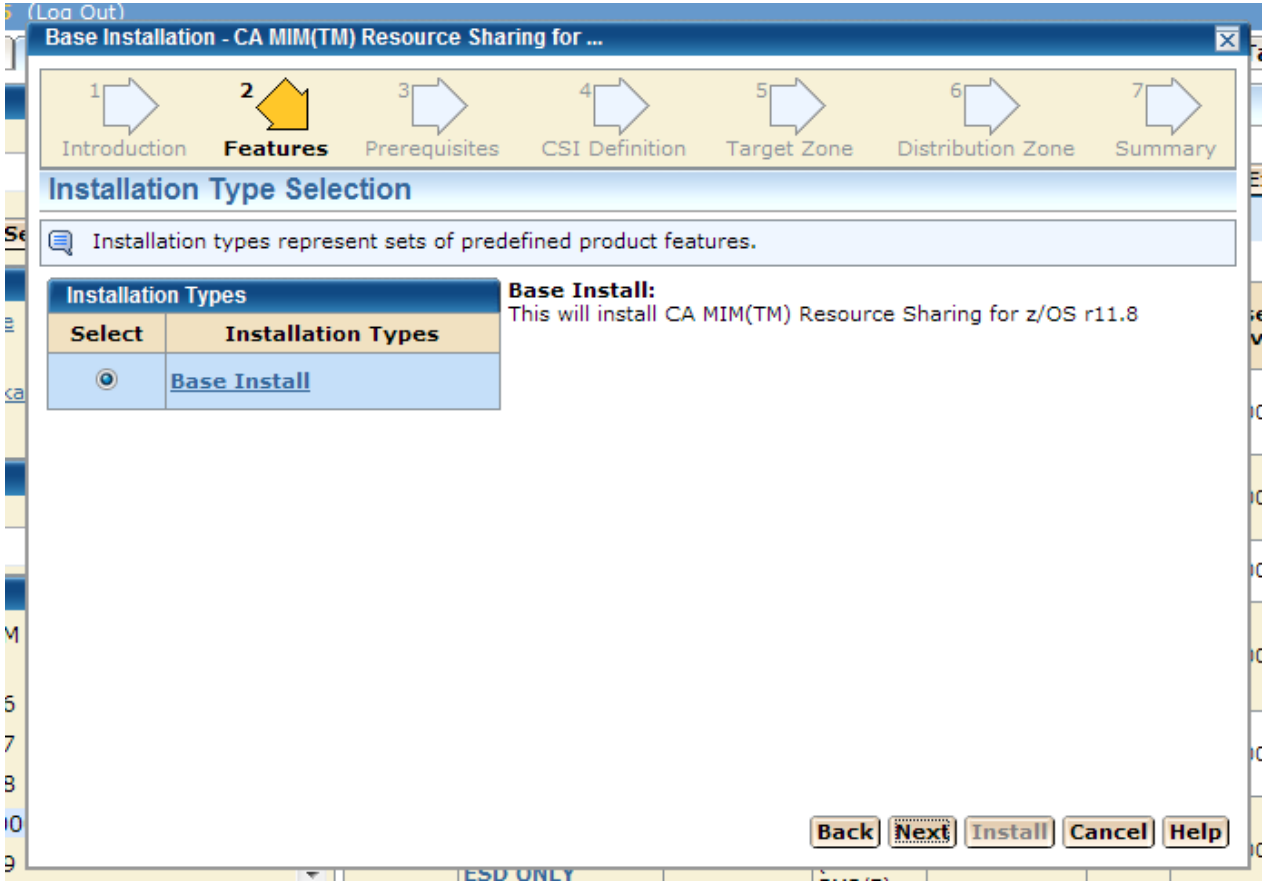

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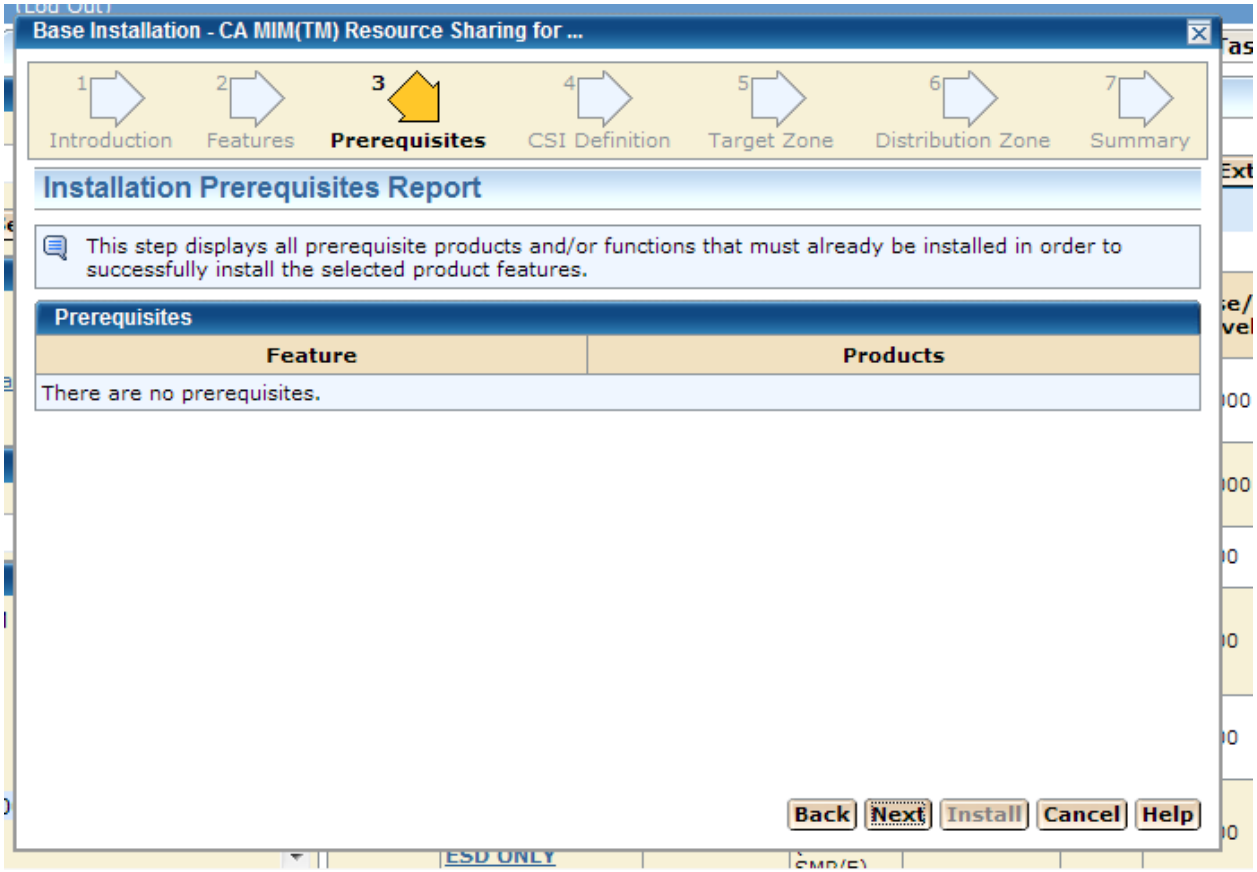

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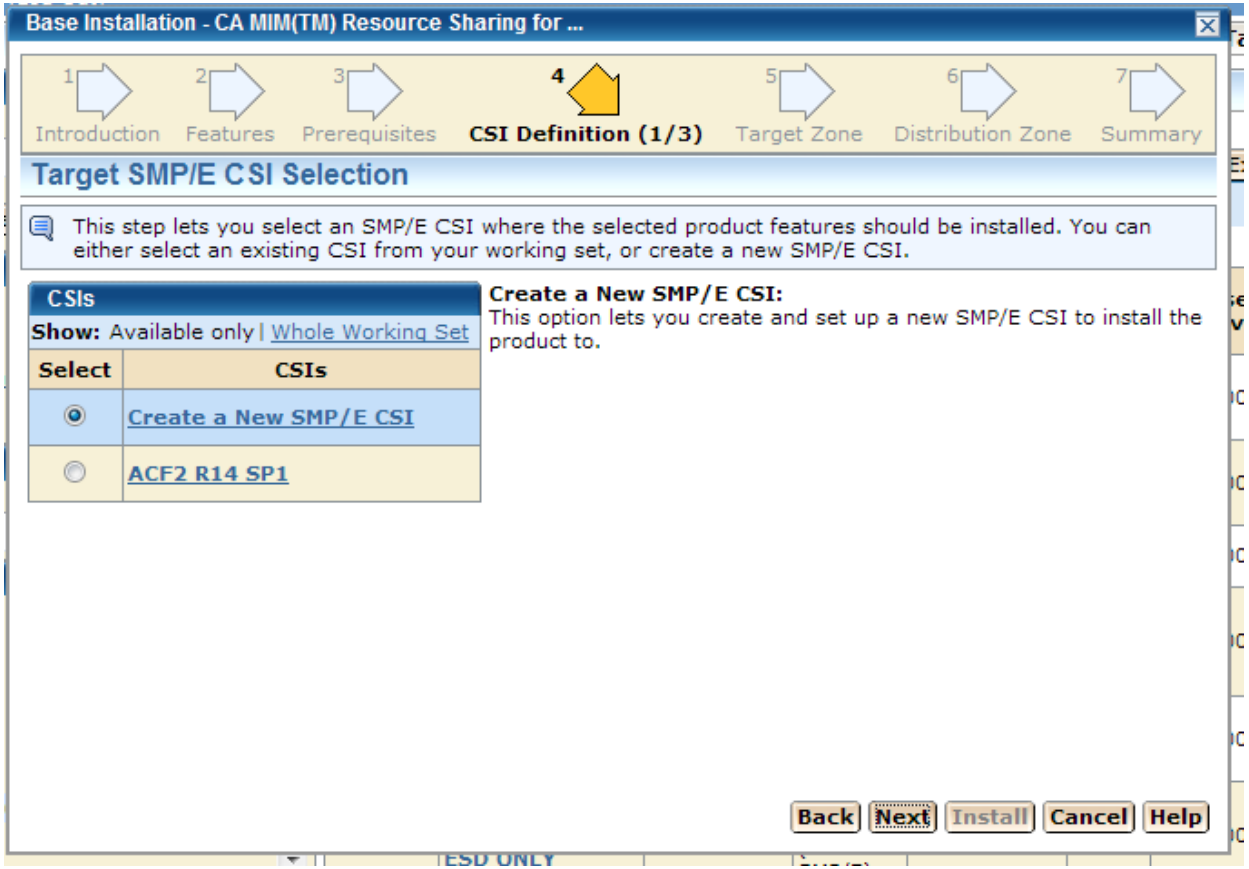
CSM Usage – Installing Software



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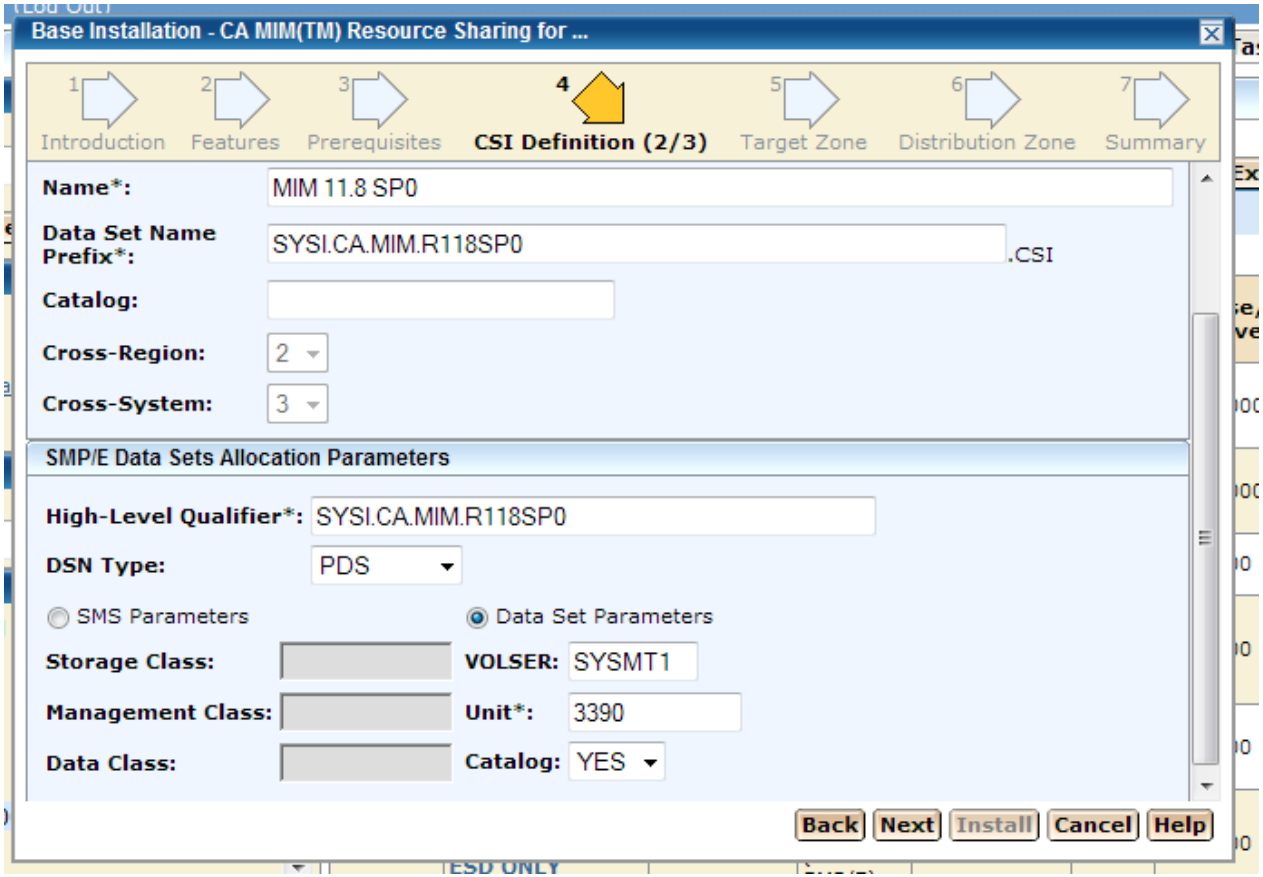

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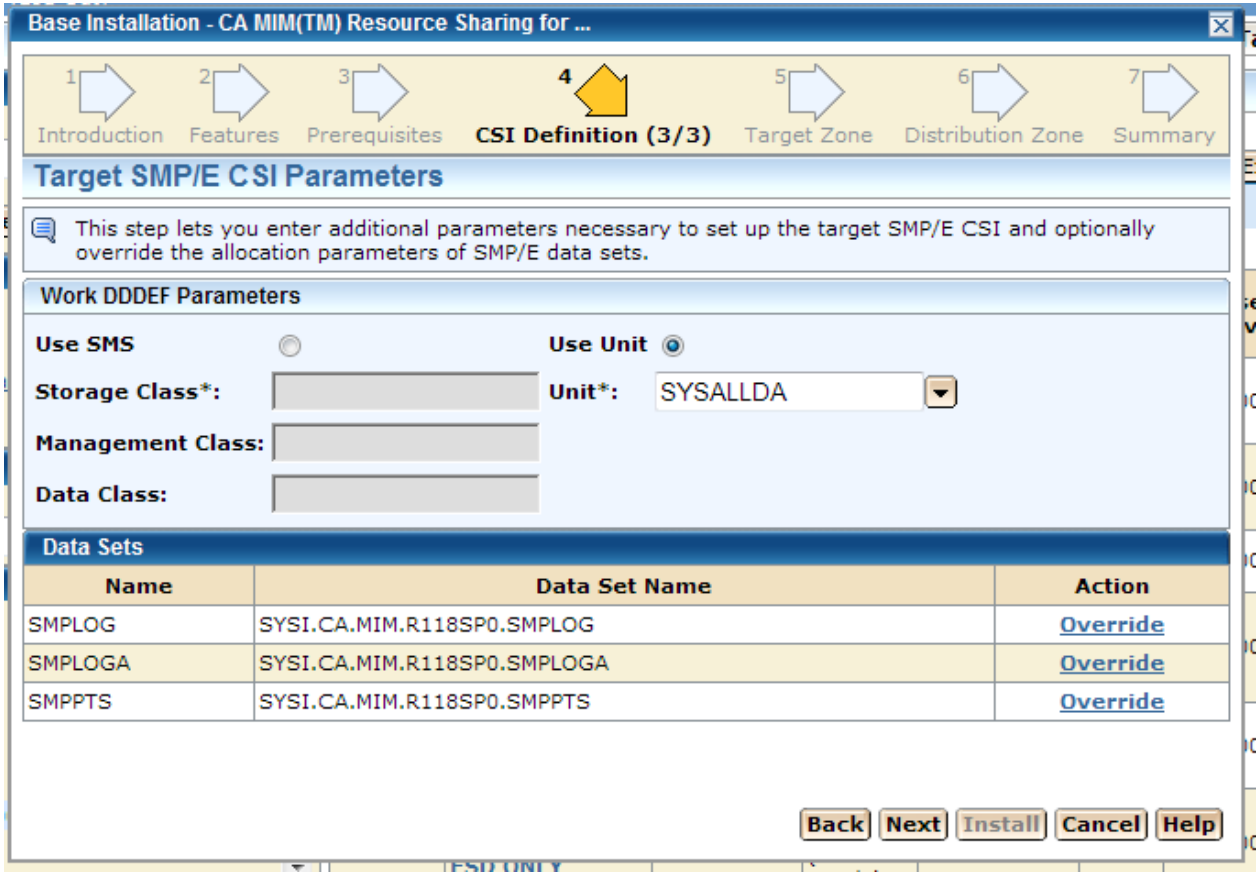

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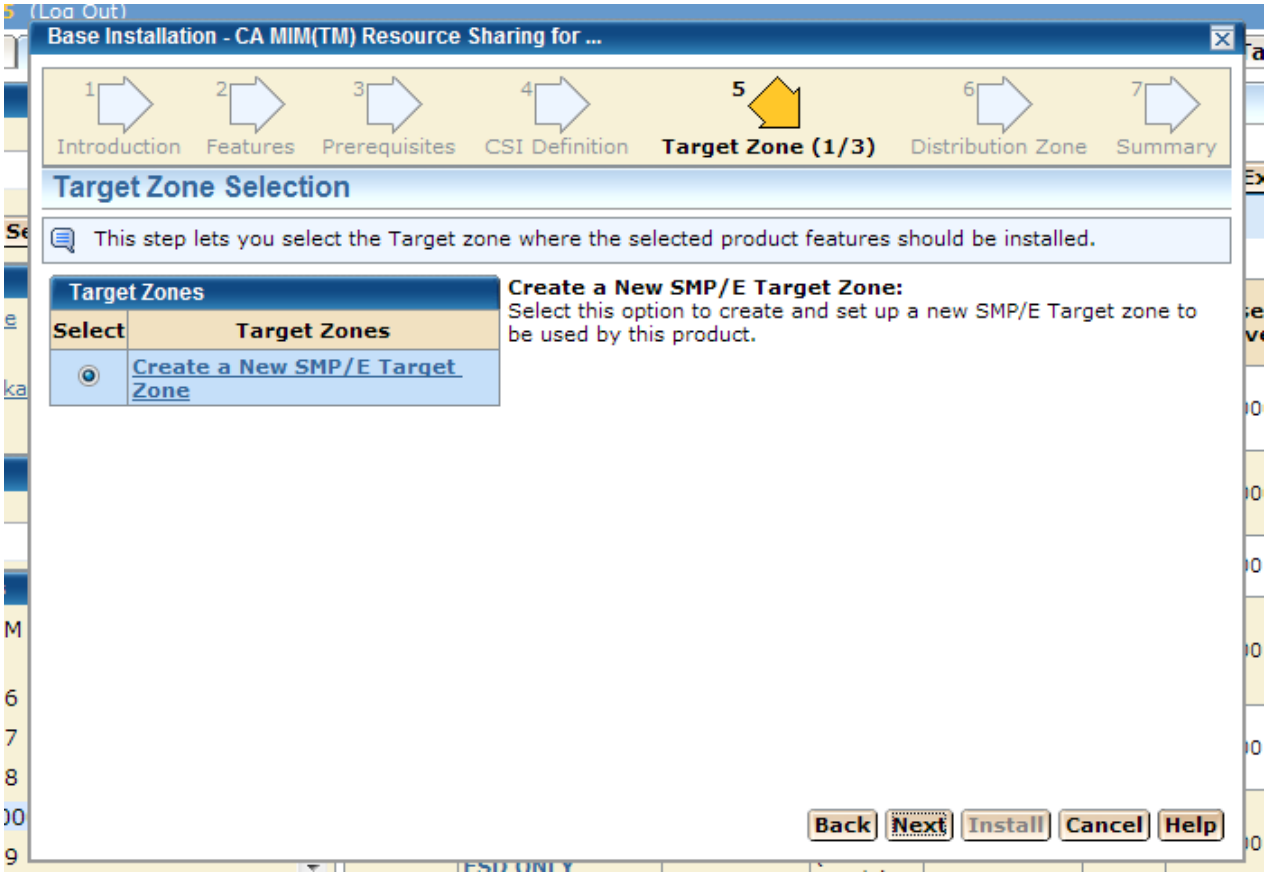

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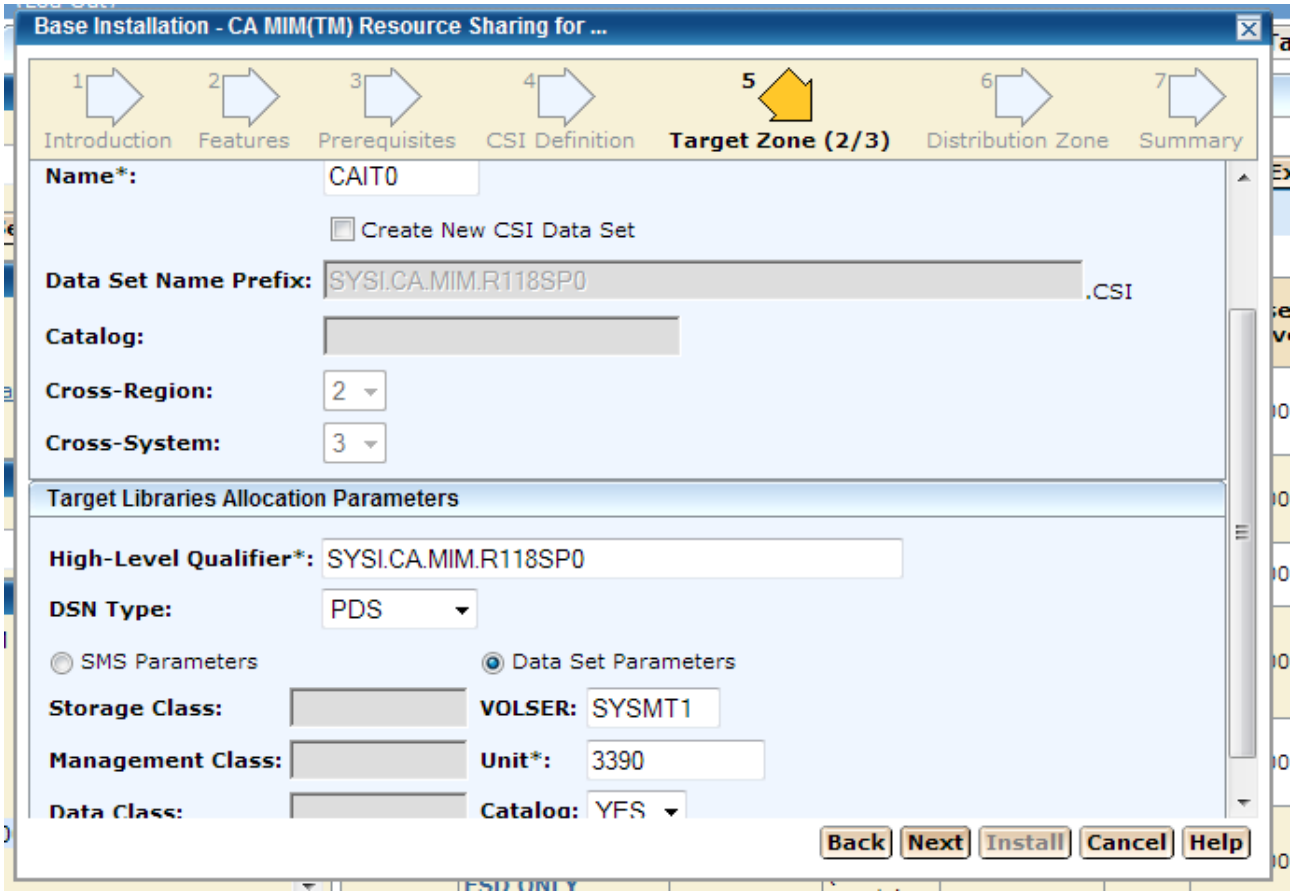

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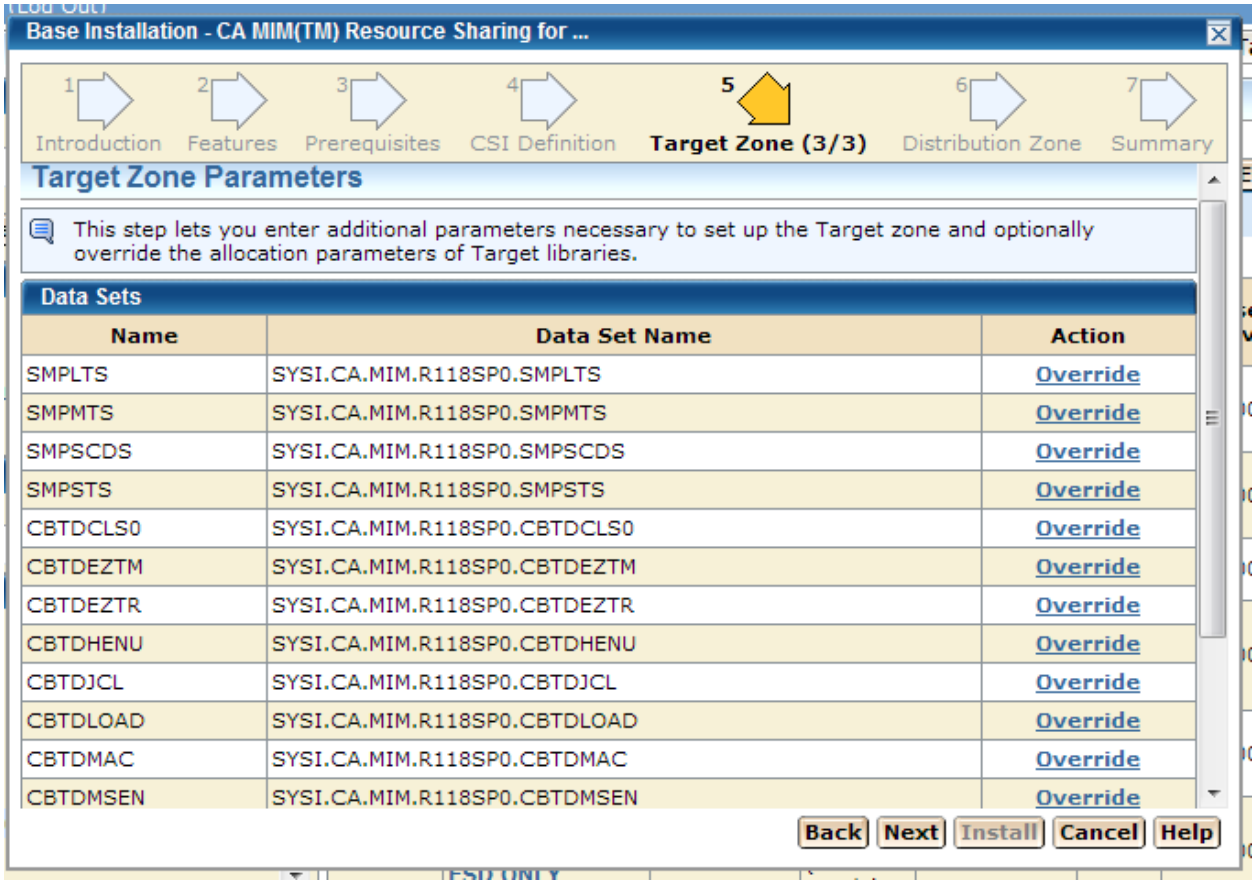

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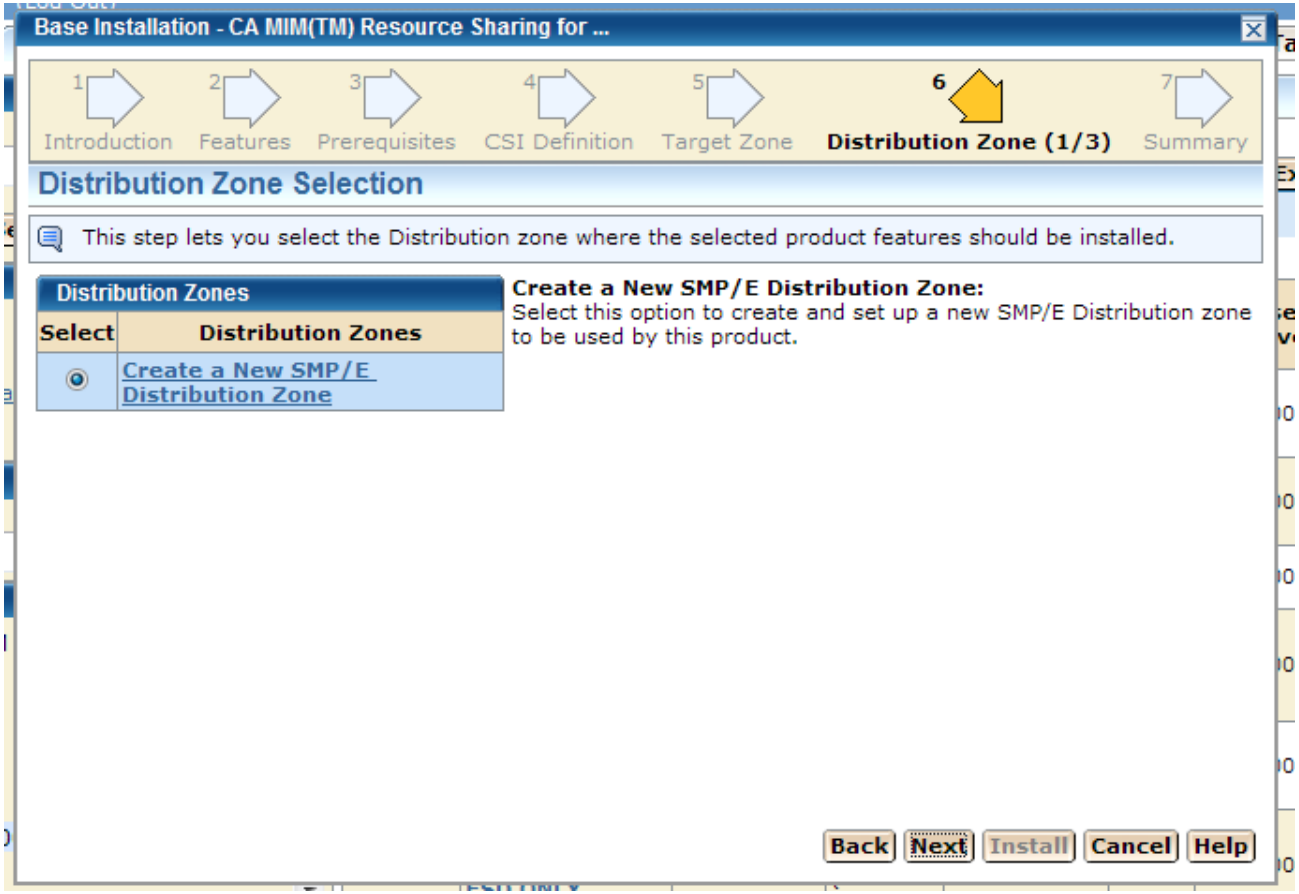

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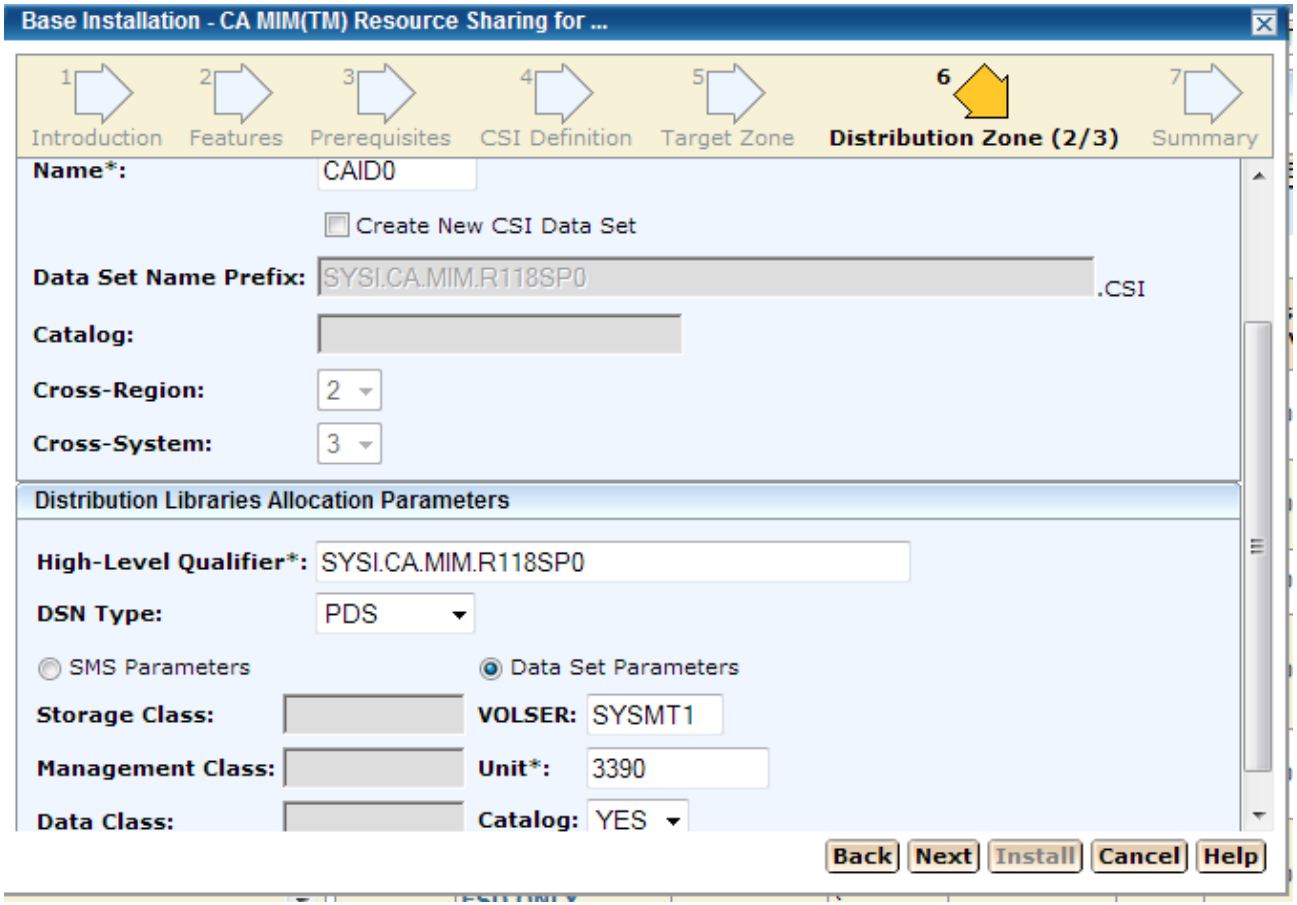
CSM Usage – Installing Software



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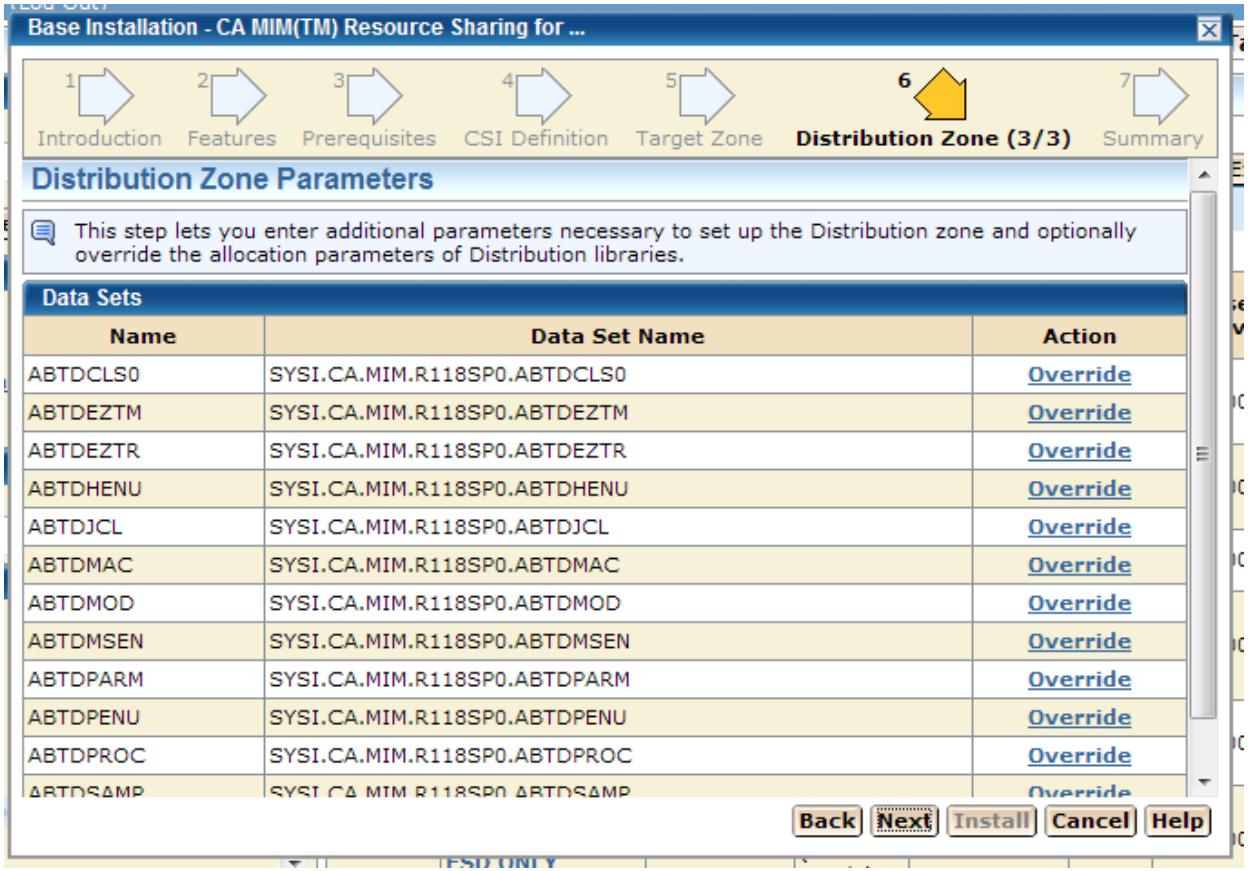

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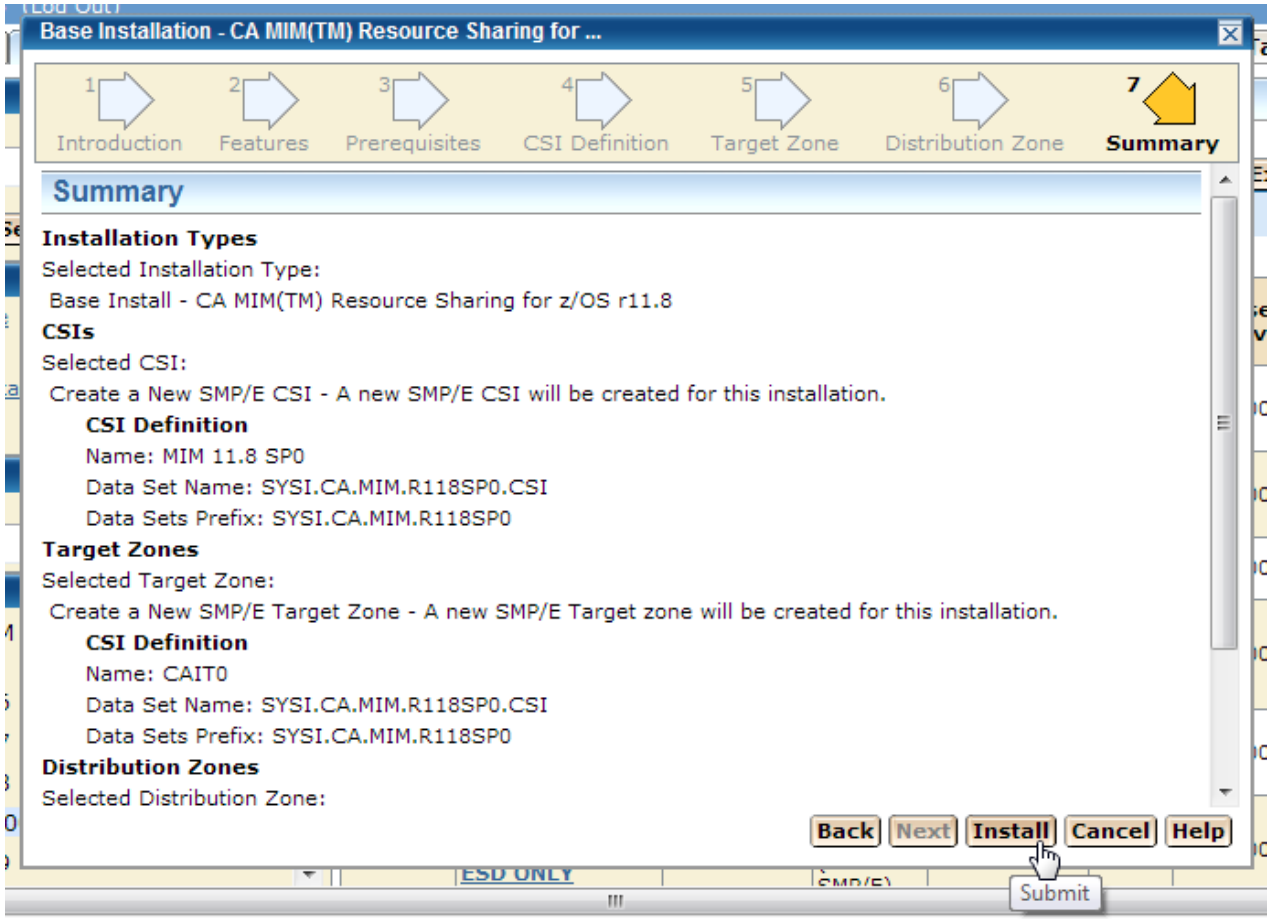

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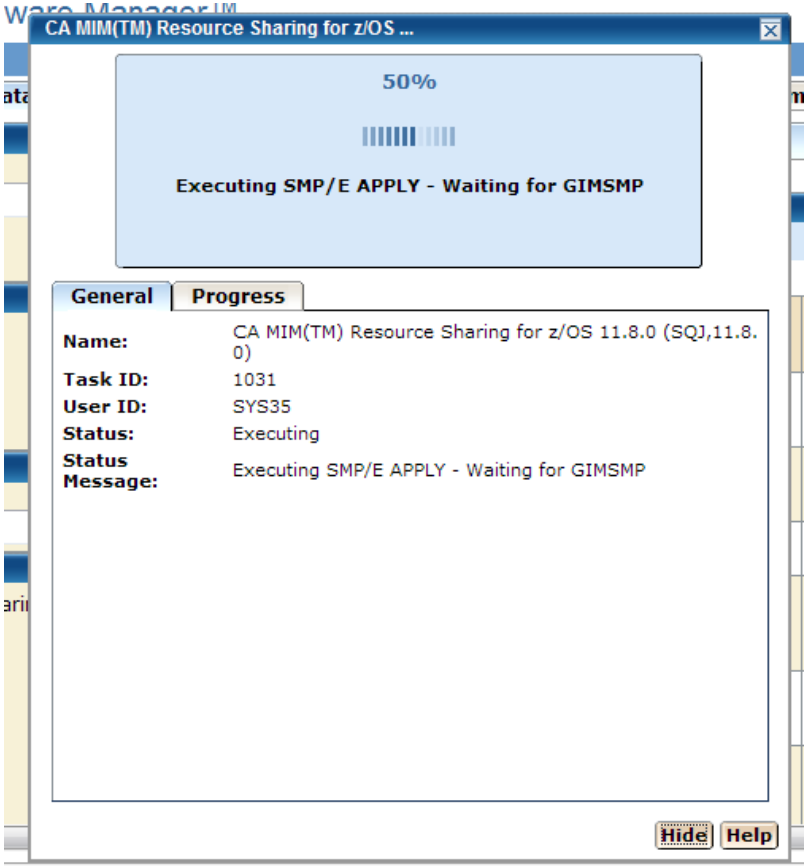

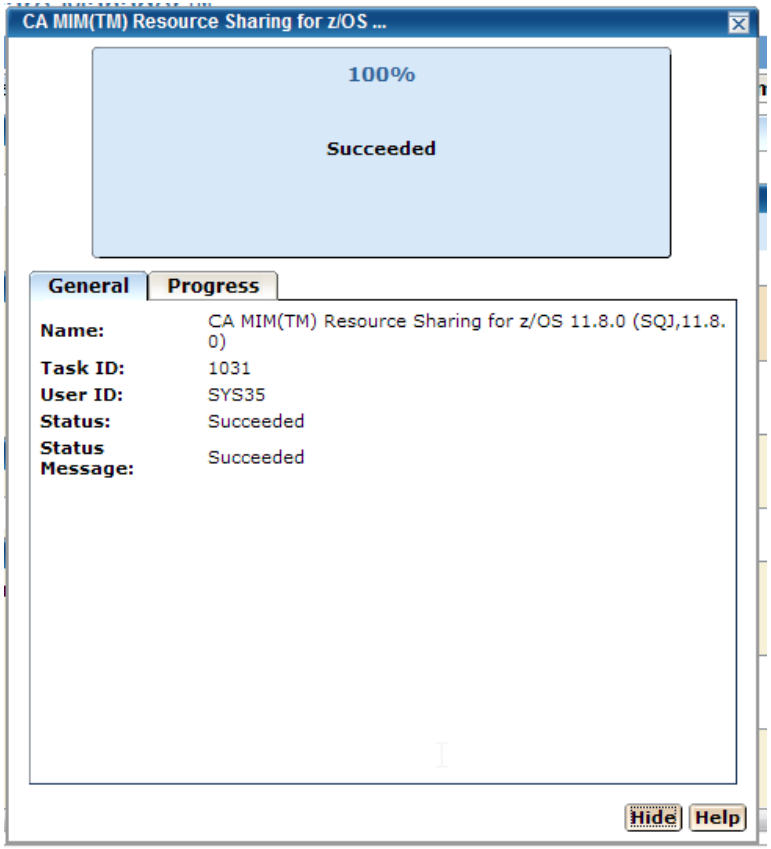

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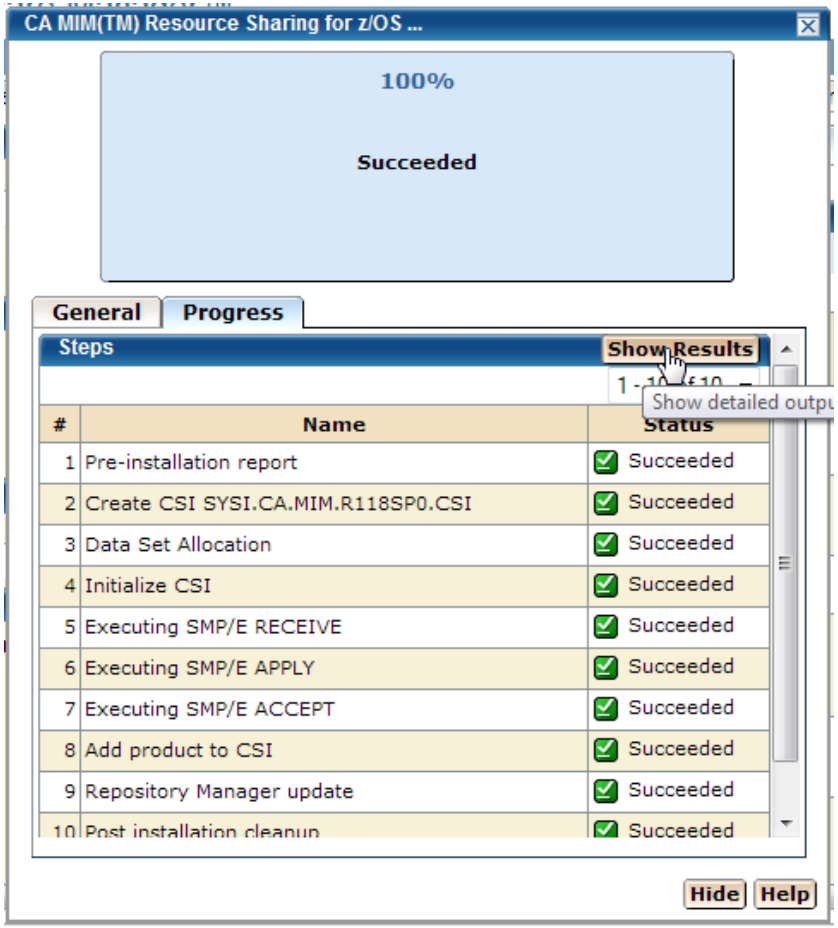
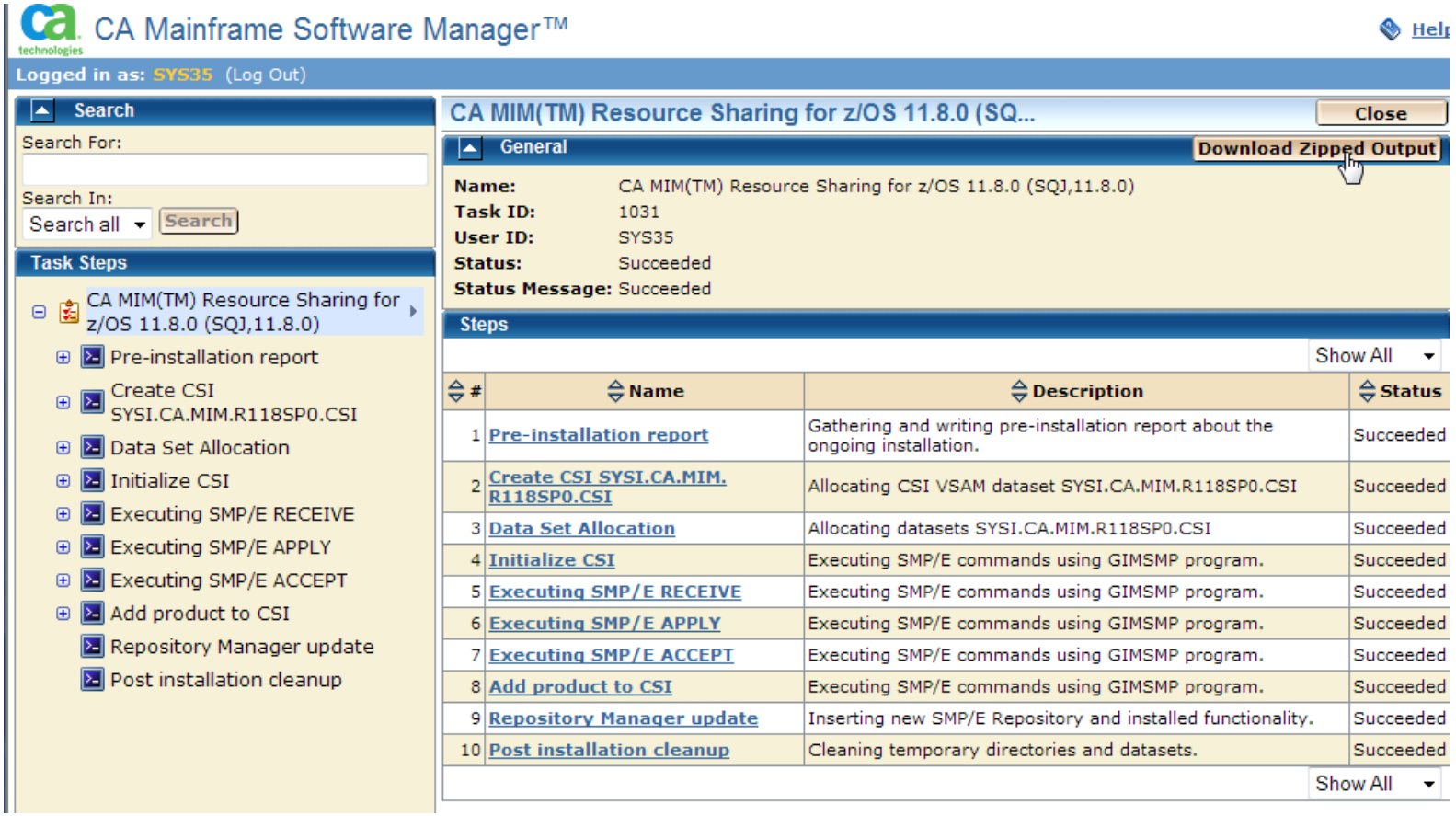
CSM Usage – Installing Software: Output



Complete your sessions evaluation online at SHARE.org/BostonEval

CSM Usage – Installing Software: Output



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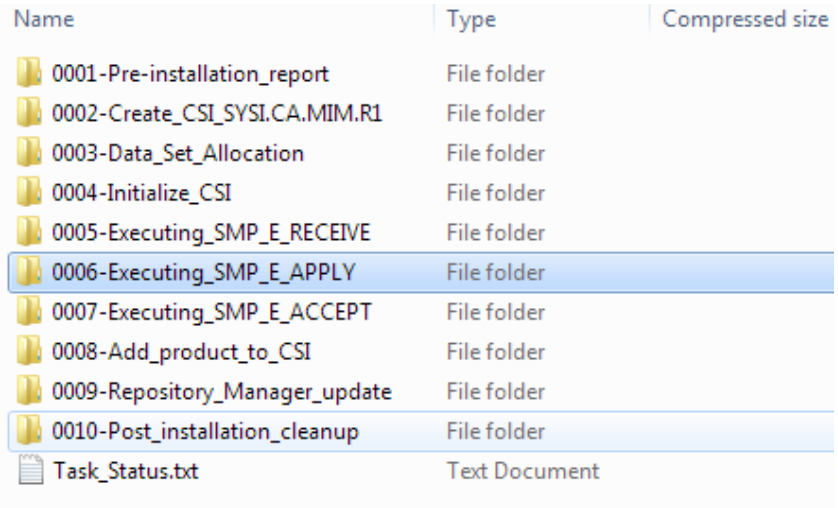
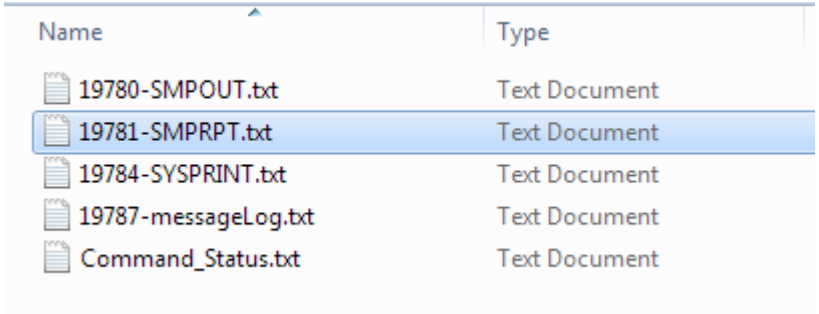
CSM Usage – Installing Software: Output



Name	Type	Compressed size
0001-Pre-installation_report	File folder	
0002-Create_CSI_SYSI.CA.MIM.R1	File folder	
0003-Data_Set_Allocation	File folder	
0004-Initialize_CSI	File folder	
0005-Executing_SMP_E_RECEIVE	File folder	
0006-Executing_SMP_E_APPLY	File folder	
0007-Executing_SMP_E_ACCEPT	File folder	
0008-Add_product_to_CSI	File folder	
0009-Repository_Manager_update	File folder	
0010-Post_installation_cleanup	File folder	
Task_Status.txt	Text Document	



Name	Type
19780-SMPOUT.txt	Text Document
19781-SMPRPT.txt	Text Document
19784-SYSPRINT.txt	Text Document
19787-messageLog.txt	Text Document
Command_Status.txt	Text Document

Complete your sessions evaluation online at SHARE.org/BostonEval

CSM Usage – Installing Software: Output

19781-SMPRPT.txt - Notepad

File Edit Format View Help

```
1PAGE 0001  - NOW SET TO TARGET ZONE CAIT0    DATE 07/20/12  TIME 15:18:23  SMP/E 35.47   SMPRPT   OUTPUT

 APPLY
   SELECT(CBTDB80)
   REDO
   PTFS
   BYPASS(HOLDSYSTEM)
   COMPRESS(ALL)
   GROUPEXTEND(NOUSERMODS,NOAPARS) .
1PAGE 0002  - NOW SET TO TARGET ZONE CAIT0    DATE 07/20/12  TIME 15:18:23  SMP/E 35.47   SMPRPT   OUTPUT


                                  JCLIN SUMMARY REPORT FOR SYSMOD CBTDB80

 ________JCL INFORMATION________  _____________________________________SMP/E ACTION TAKEN_____________________________________

 JOBNAME  STEPNAME UTILITY  TYPE  MEMBER   TYPE     ACTION  CHANGES MADE

 *NONAME* S0000001 IEWL     LKED  MIM@ACE  LMOD     ADDED   SYSLIB=CBTDLOAD, LEPARMS ADDED, LINK-EDIT INPUT ADDED,
                                                             SIDEDECKLIB=SMPDUMMY
                                  MIM@ACE  MOD      ADDED   DISTLIB=ABTDMOD, LMOD=MIM@ACE
          S0000002 IEWL     LKED  MIM@BENQ LMOD     ADDED   SYSLIB=CBTDLOAD, LEPARMS ADDED, LINK-EDIT INPUT ADDED,
                                                             SIDEDECKLIB=SMPDUMMY
                                  MIM@BENQ MOD      ADDED   DISTLIB=ABTDMOD, LMOD=MIM@BENQ
          S0000003 IEWL     LKED  MIM@CDT  LMOD     ADDED   SYSLIB=CBTDLOAD, LEPARMS ADDED, LINK-EDIT INPUT ADDED,
                                                             SIDEDECKLIB=SMPDUMMY
                                  MIM@CDT  MOD      ADDED   DISTLIB=ABTDMOD, LMOD=MIM@CDT
          S0000004 IEWL     LKED  MIM@CDTH LMOD     ADDED   SYSLIB=CBTDLOAD, LEPARMS ADDED, LINK-EDIT INPUT ADDED,
                                                             SIDEDECKLIB=SMPDUMMY
                                  MIM@CDTH MOD      ADDED   DISTLIB=ABTDMOD, LMOD=MIM@CDTH
          S0000005 IEWL     LKED  MIM@DLST LMOD     ADDED   SYSLIB=CBTDLOAD, LEPARMS ADDED, LINK-EDIT INPUT ADDED,
                                                             SIDEDECKLIB=SMPDUMMY
                                  MIM@DLST MOD      ADDED   DISTLIB=ABTDMOD, LMOD=MIM@DLST
          S0000006 IEWL     LKED  MIM@DVE  LMOD     ADDED   SYSLIB=CBTDLOAD, LEPARMS ADDED, LINK-EDIT INPUT ADDED,
```

Ln 1, Col 1

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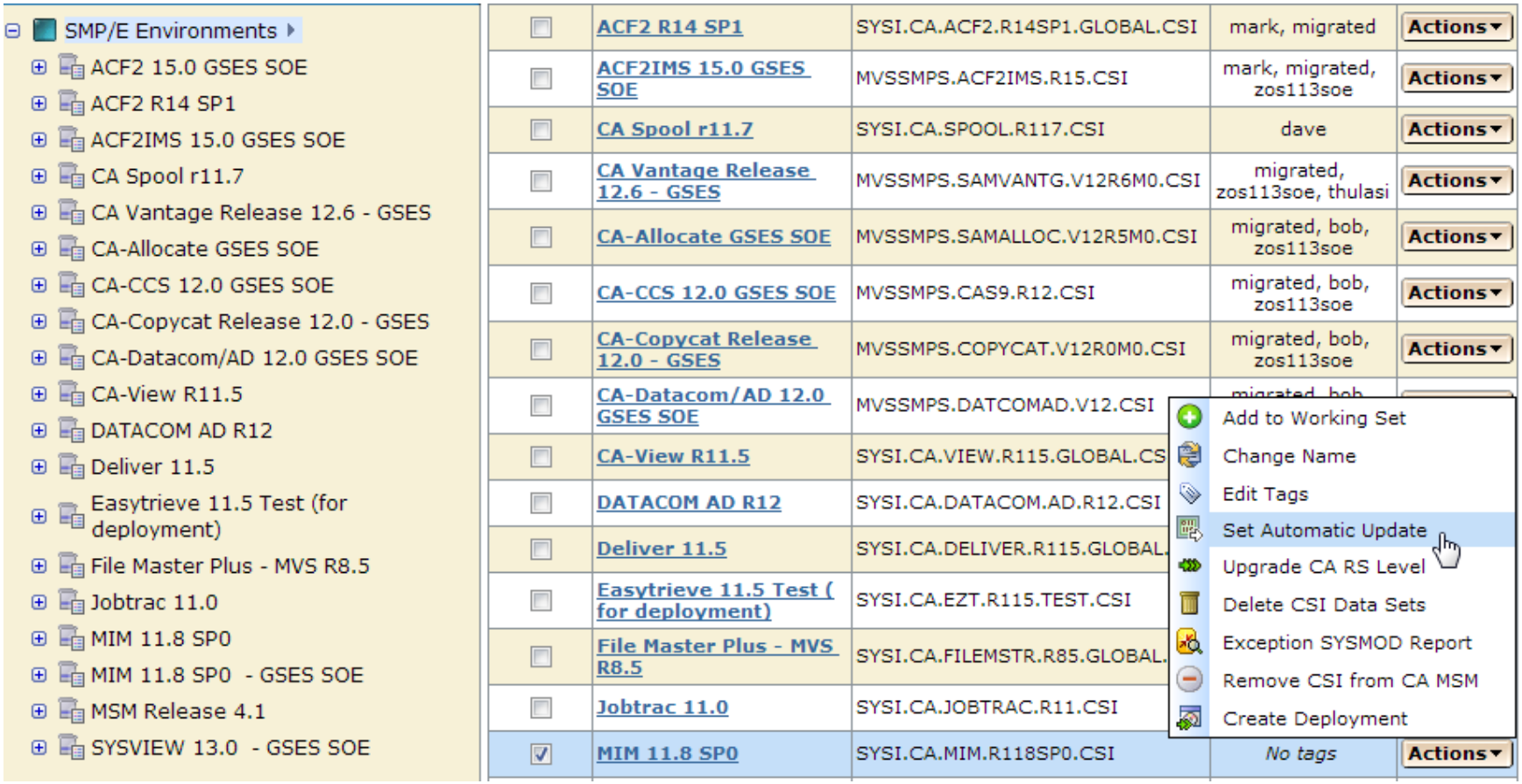
CSM Usage – Installing Software



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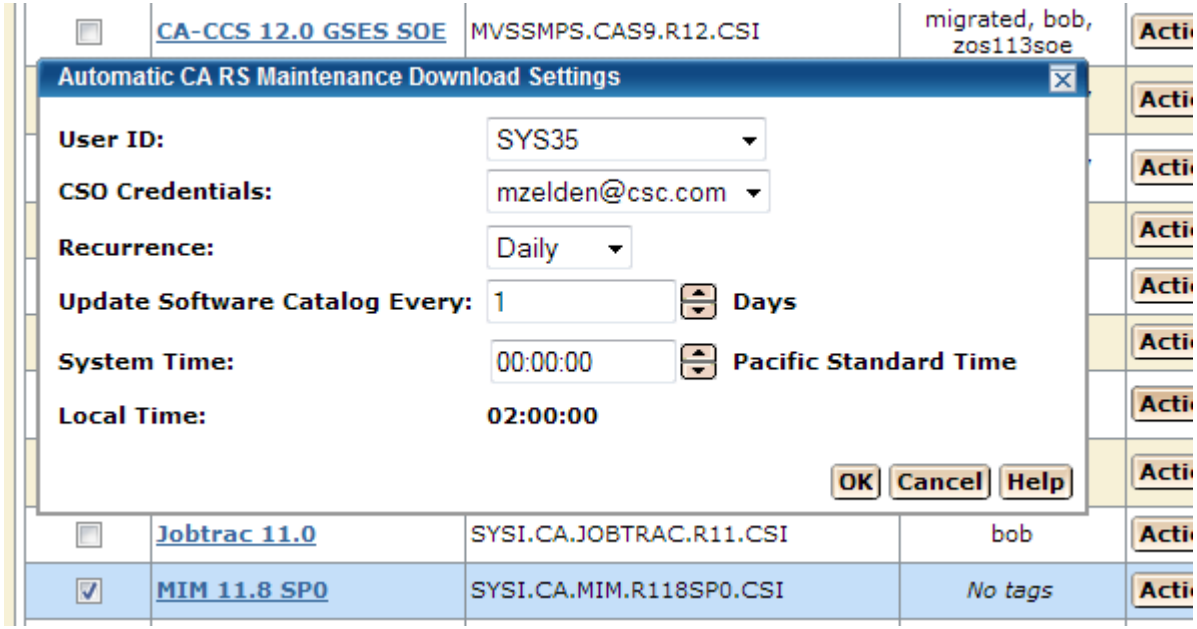
CSM Usage – Installing Software



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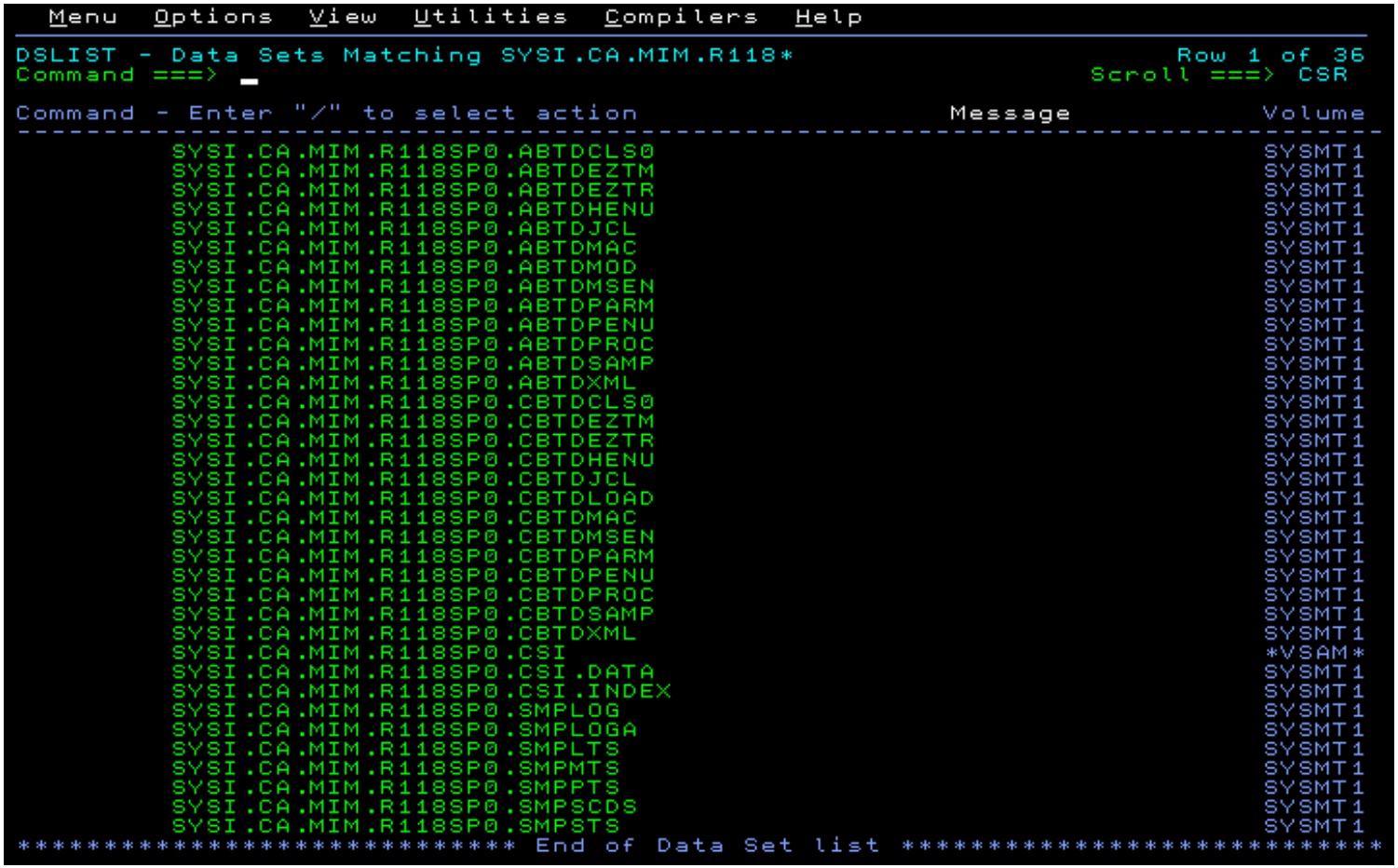
CSM Usage – Installing Software



```
  Menu   Options   View   Utilities   Compilers   Help
DSLIST - Data Sets Matching SYSI.CA.MIM.R118*                  Row 1 of 36
Command ===> _                                                 Scroll ===> CSR

Command - Enter "/" to select action                 Message          Volume
-------------------------------------------------------------------------------
          SYSI.CA.MIM.R118SP0.ABTDCLS0                                 SYSMT1
          SYSI.CA.MIM.R118SP0.ABTDEZTM                                 SYSMT1
          SYSI.CA.MIM.R118SP0.ABTDEZTR                                 SYSMT1
          SYSI.CA.MIM.R118SP0.ABTDHENU                                 SYSMT1
          SYSI.CA.MIM.R118SP0.ABTDJCL                                  SYSMT1
          SYSI.CA.MIM.R118SP0.ABTDMAC                                  SYSMT1
          SYSI.CA.MIM.R118SP0.ABTDMOD                                  SYSMT1
          SYSI.CA.MIM.R118SP0.ABTDMSEN                                 SYSMT1
          SYSI.CA.MIM.R118SP0.ABTDPARM                                 SYSMT1
          SYSI.CA.MIM.R118SP0.ABTDPENU                                 SYSMT1
          SYSI.CA.MIM.R118SP0.ABTDPROC                                 SYSMT1
          SYSI.CA.MIM.R118SP0.ABTDSAMP                                 SYSMT1
          SYSI.CA.MIM.R118SP0.ABTDXML                                  SYSMT1
          SYSI.CA.MIM.R118SP0.CBTDCLS0                                 SYSMT1
          SYSI.CA.MIM.R118SP0.CBTDEZTM                                 SYSMT1
          SYSI.CA.MIM.R118SP0.CBTDEZTR                                 SYSMT1
          SYSI.CA.MIM.R118SP0.CBTDHENU                                 SYSMT1
          SYSI.CA.MIM.R118SP0.CBTDJCL                                  SYSMT1
          SYSI.CA.MIM.R118SP0.CBTDLOAD                                 SYSMT1
          SYSI.CA.MIM.R118SP0.CBTDMAC                                  SYSMT1
          SYSI.CA.MIM.R118SP0.CBTDMSEN                                 SYSMT1
          SYSI.CA.MIM.R118SP0.CBTDPARM                                 SYSMT1
          SYSI.CA.MIM.R118SP0.CBTDPENU                                 SYSMT1
          SYSI.CA.MIM.R118SP0.CBTDPROC                                 SYSMT1
          SYSI.CA.MIM.R118SP0.CBTDSAMP                                 SYSMT1
          SYSI.CA.MIM.R118SP0.CBTDXML                                  SYSMT1
          SYSI.CA.MIM.R118SP0.CSI                                      *VSAM*
          SYSI.CA.MIM.R118SP0.CSI.DATA                                 SYSMT1
          SYSI.CA.MIM.R118SP0.CSI.INDEX                                SYSMT1
          SYSI.CA.MIM.R118SP0.SMPLOG                                   SYSMT1
          SYSI.CA.MIM.R118SP0.SMPLOGA                                  SYSMT1
          SYSI.CA.MIM.R118SP0.SMPLTS                                   SYSMT1
          SYSI.CA.MIM.R118SP0.SMPMTS                                   SYSMT1
          SYSI.CA.MIM.R118SP0.SMPPTS                                   SYSMT1
          SYSI.CA.MIM.R118SP0.SMPSCDS                                  SYSMT1
          SYSI.CA.MIM.R118SP0.SMPSTS                                   SYSMT1
****************************** End of Data Set list ******************************
```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Agenda

- Environment overview
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- CSM features used
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- Installing software with CSM
- **Deploying software with CSM**
- CSM Hints and Tips

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CSM Usage – Deployment

- If you haven't done so already, you need to install Common Services component CETN300 or CETN400. This contains the code for the Software Deployment Service (SDS). CETN400 is included with CCS R14 but needs to be downloaded if you are running R11 or R12.
- Two started task called "CCISPNSV" & "CCIDSCSV" need to be set up on the target LPAR(s) you will deploy to.
- CETN400 needs to be installed to support the creation of output datasets without cataloging
- CETN400 is also required for the Software Configuration Service (SCS).

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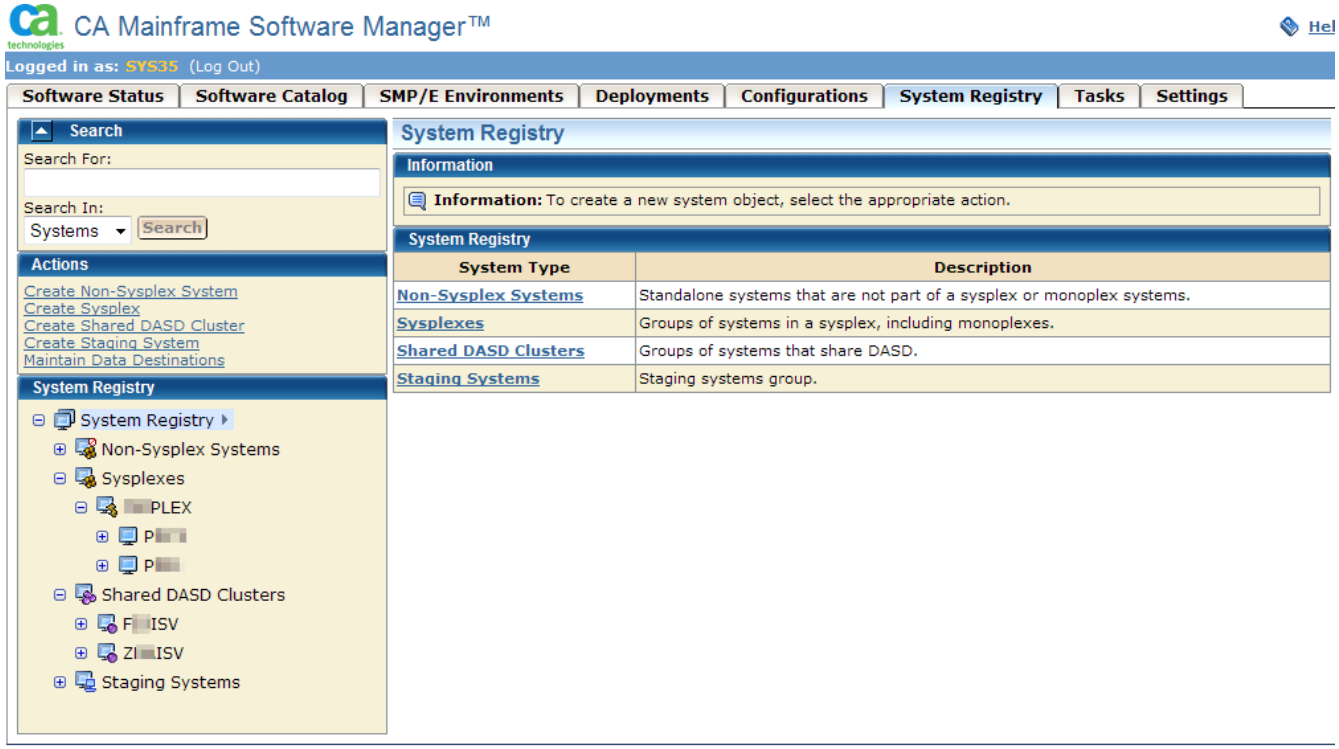
CSM Usage – Deployment

- To start, first set up the system registry and then configure the data destinations.



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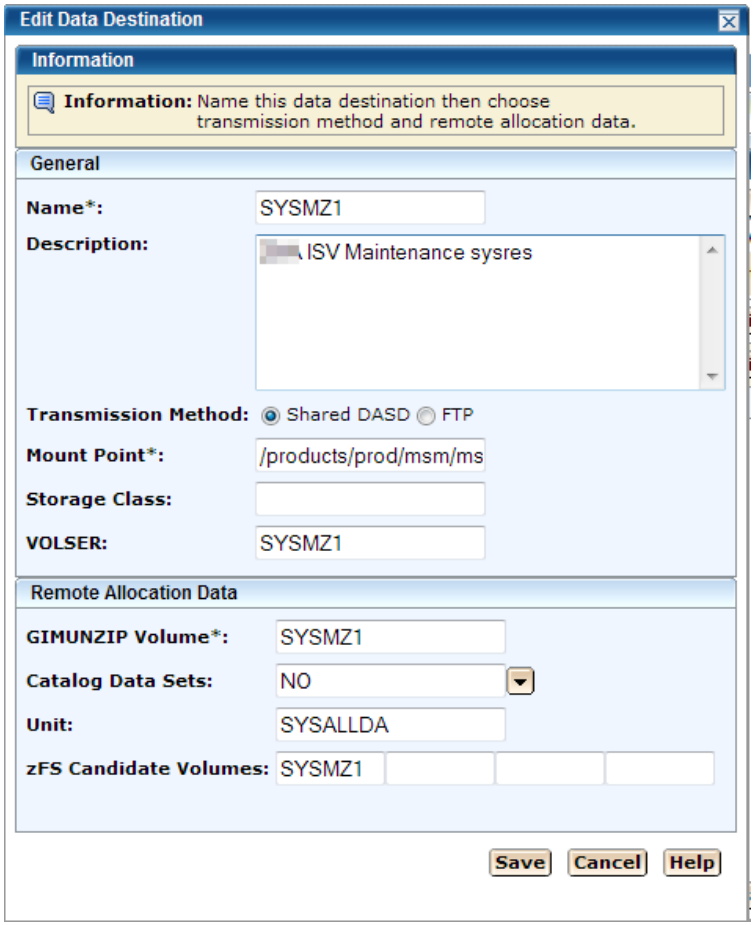
CSM Usage – Deployment



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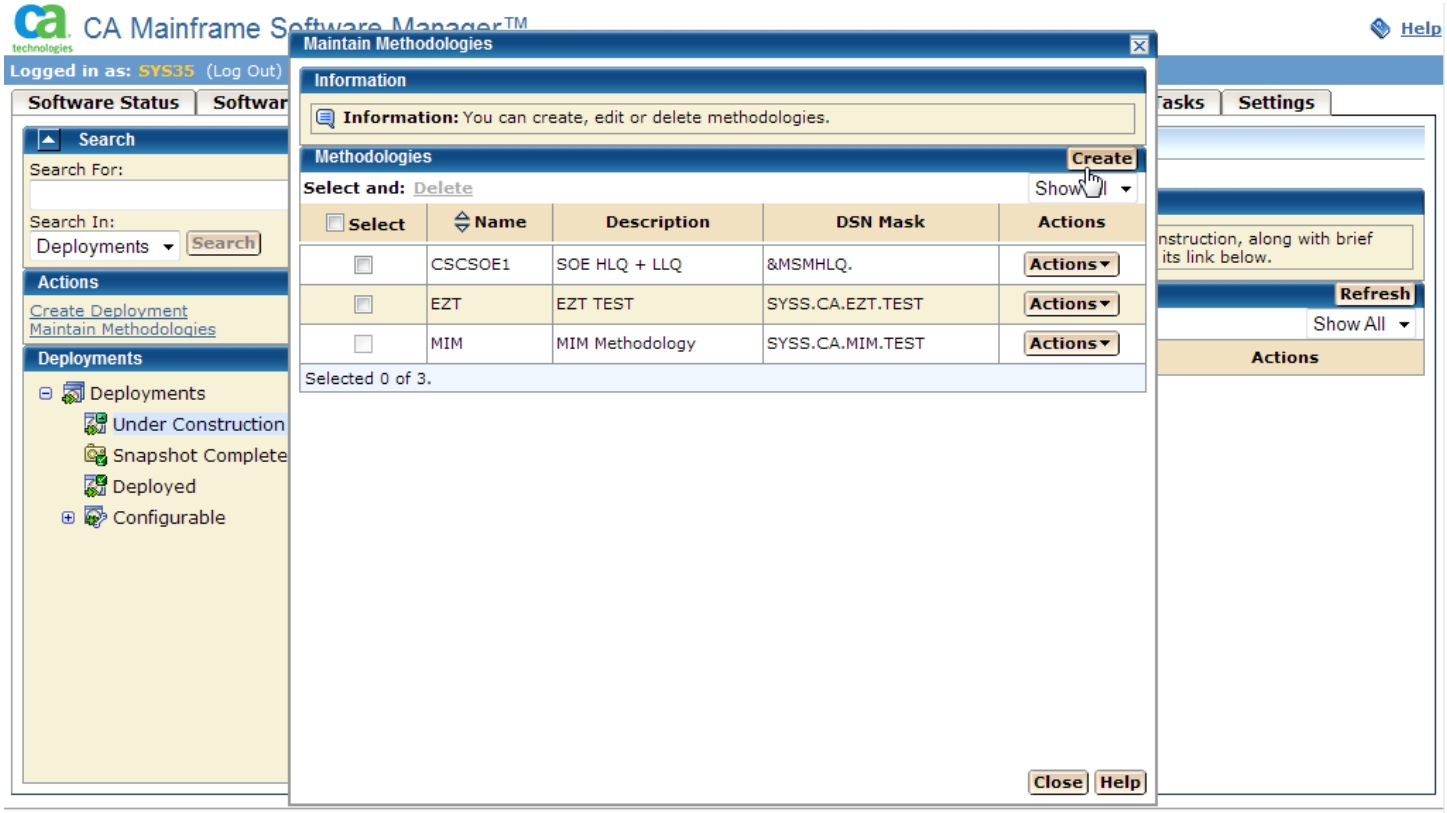
CSM Usage – Deployment

- Maintain / Create a methodology



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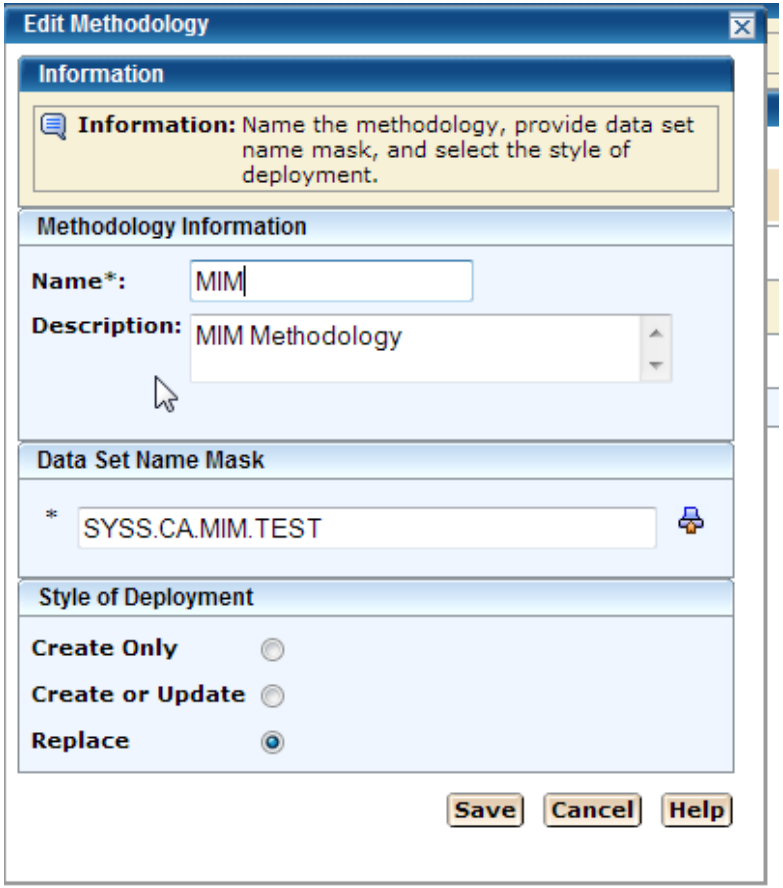
CSM Usage – Deployment



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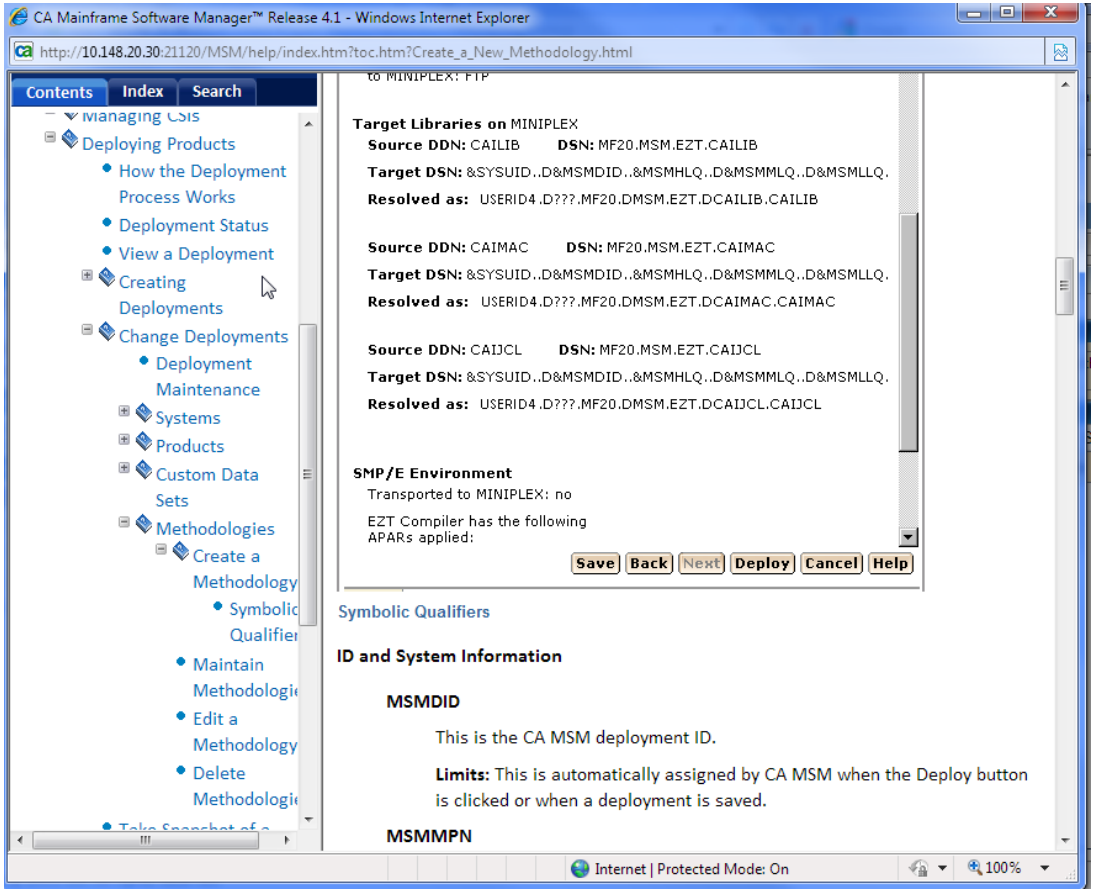
CSM Usage – Deployment



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CSM Usage – Deployment

For those of you familiar with FDR, a nice methodology enhancement would be to enable the use of a PLUS (+), MINUS (-) or PERIOD (.) in the mask to add, subtract or skip levels when creating the mask for the new name. For example, a common naming convention is to change the HLQ for runtime libraries (compared to install) and drop the version number. Here is how FDR does it:

SELECT CATDSN=SYSI.CA.MIM.R118SP0.CBT, NEWI=SYSS...-.**

Output DSNs are created as SYSS.CA.MIM.CBT**

The equivalent CSM mask would be: SYSS...-.

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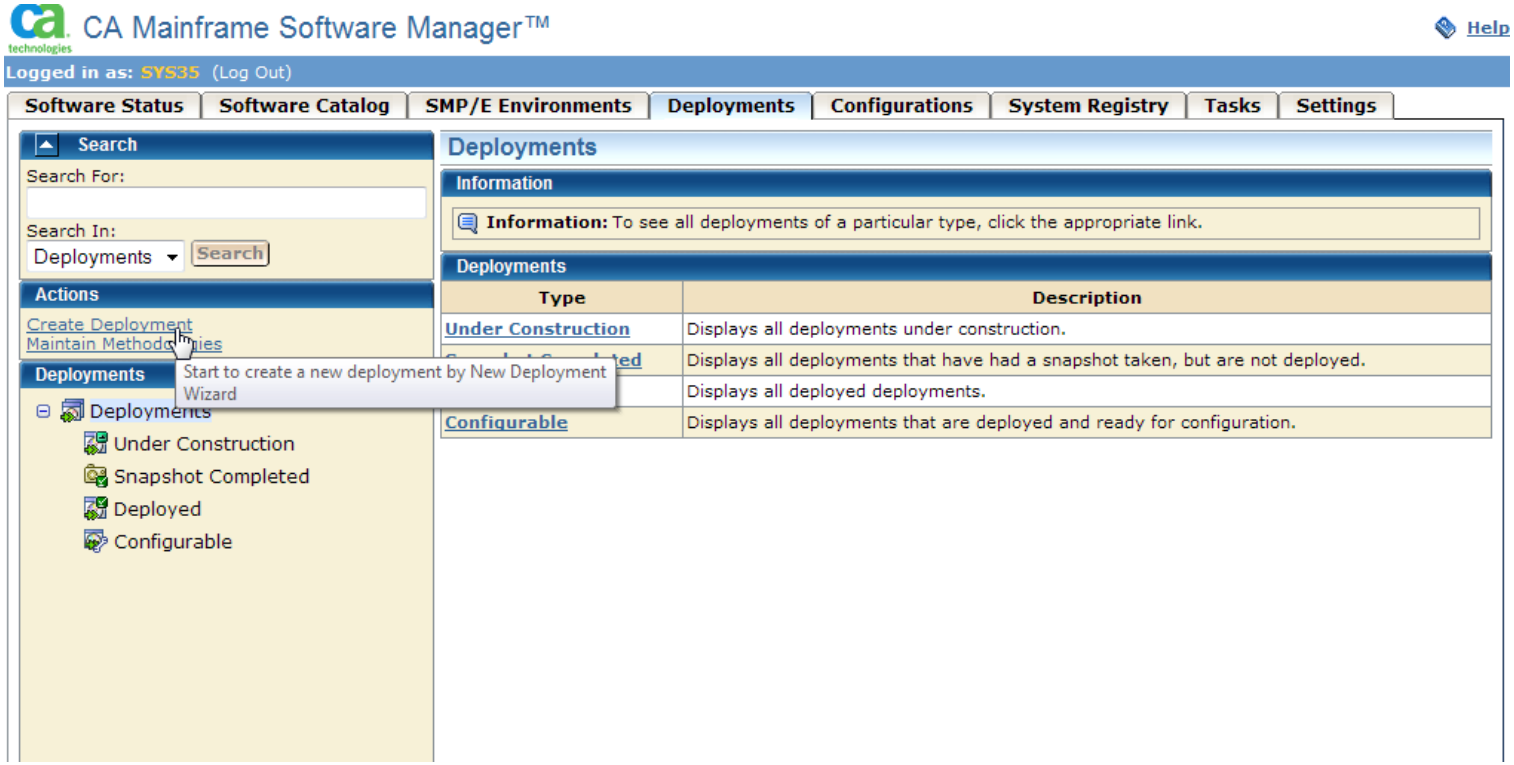
CSM Usage – Deployment

- Create a deployment



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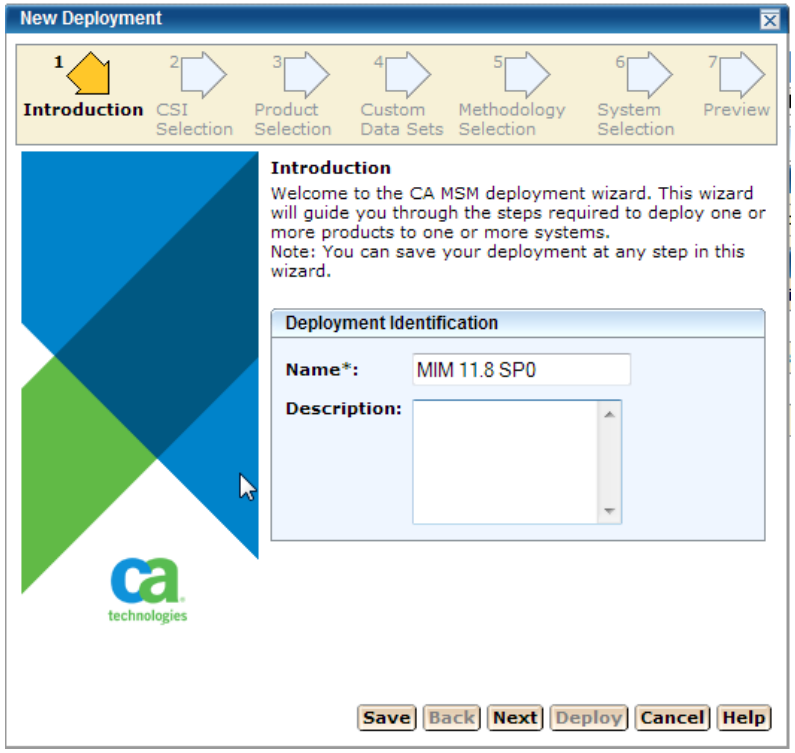
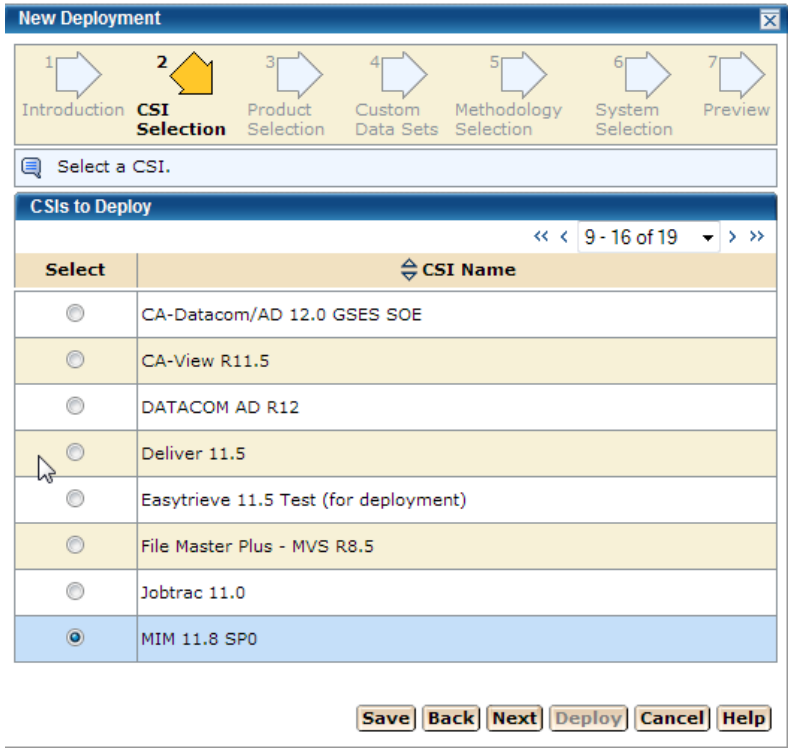
CSM Usage – Deployment





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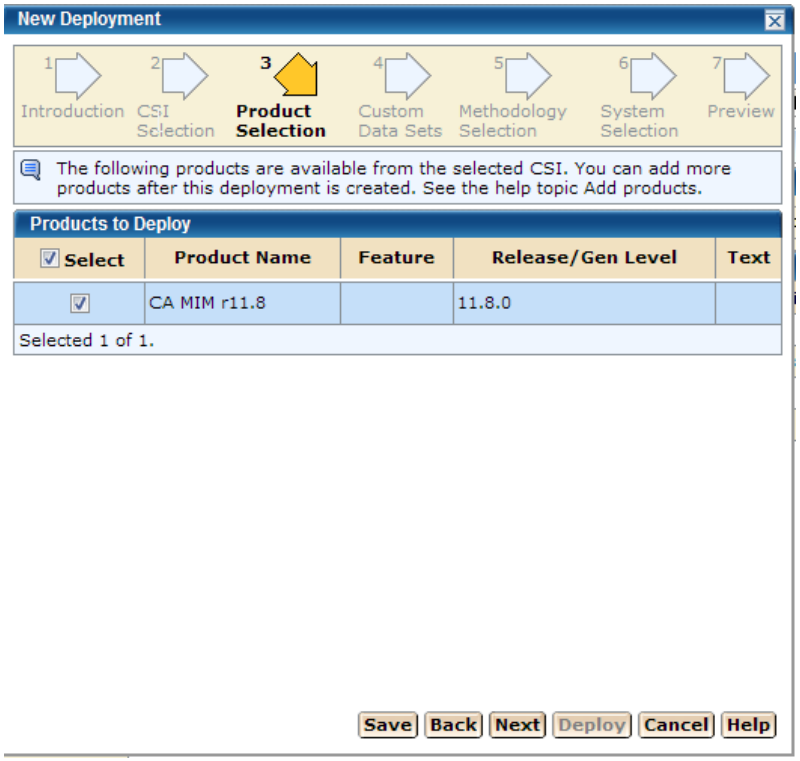
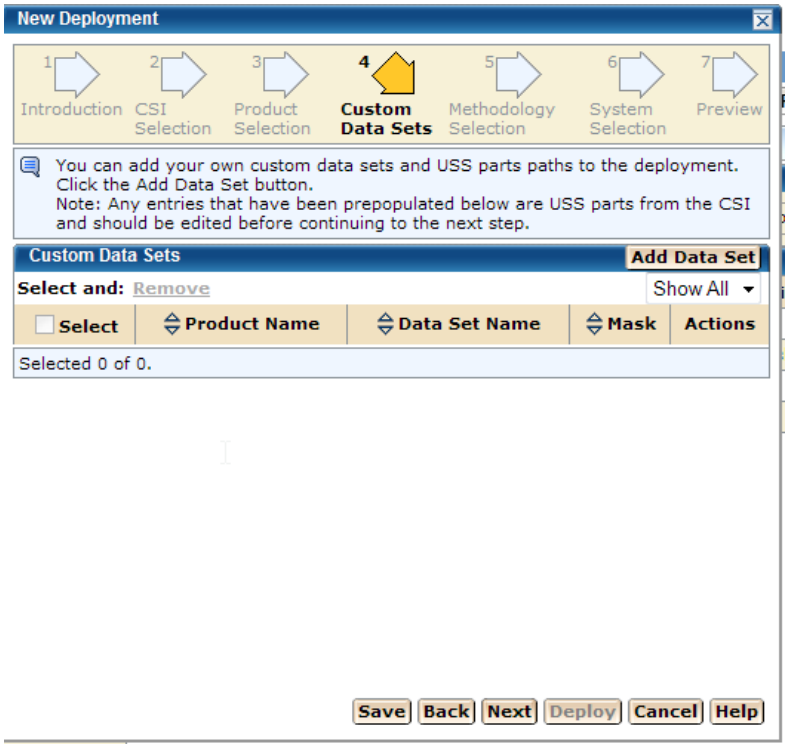
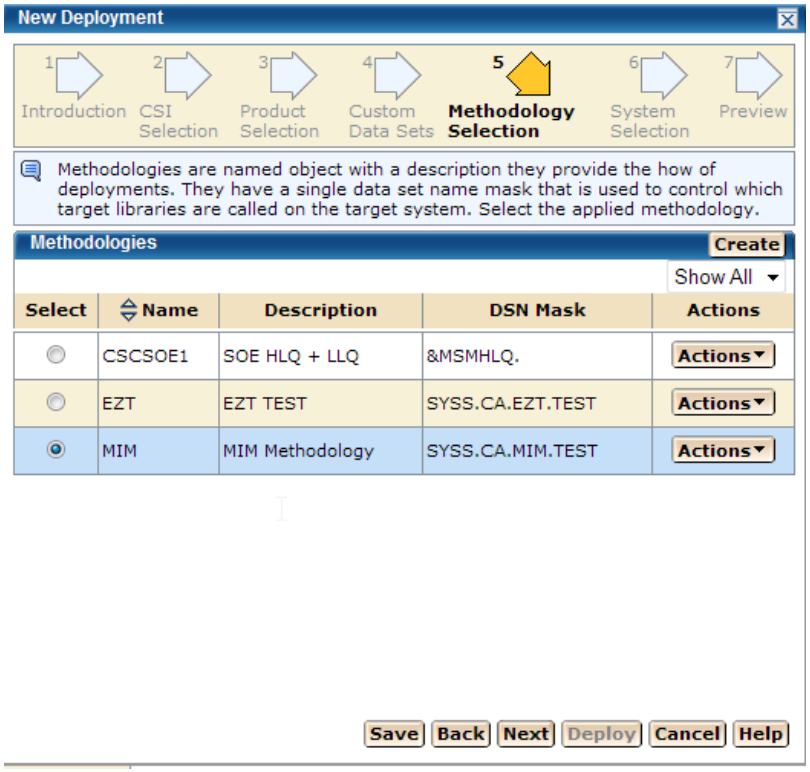
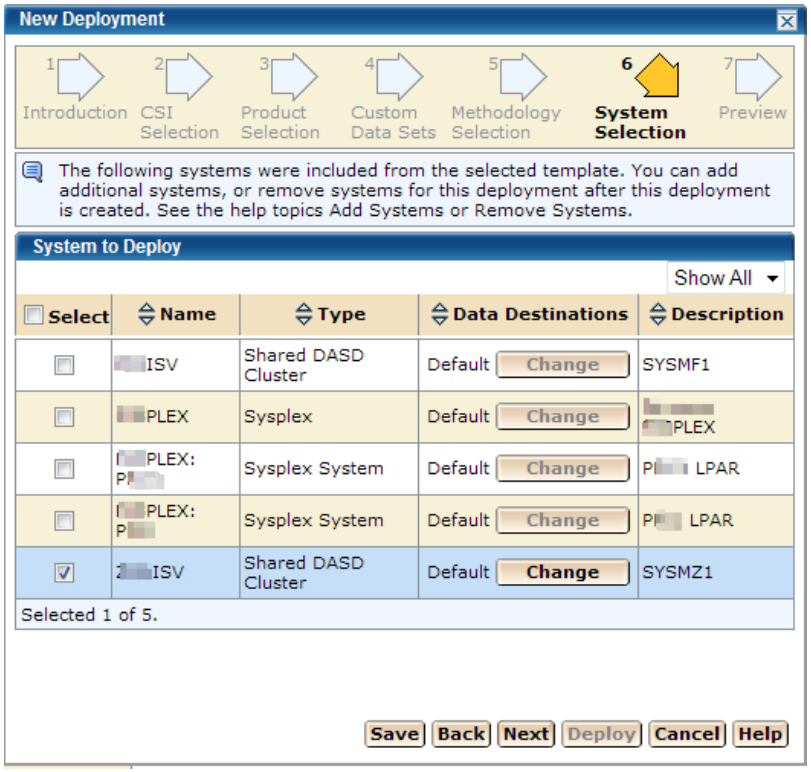
CSM Usage – Deployment





CSM Usage – Deployment





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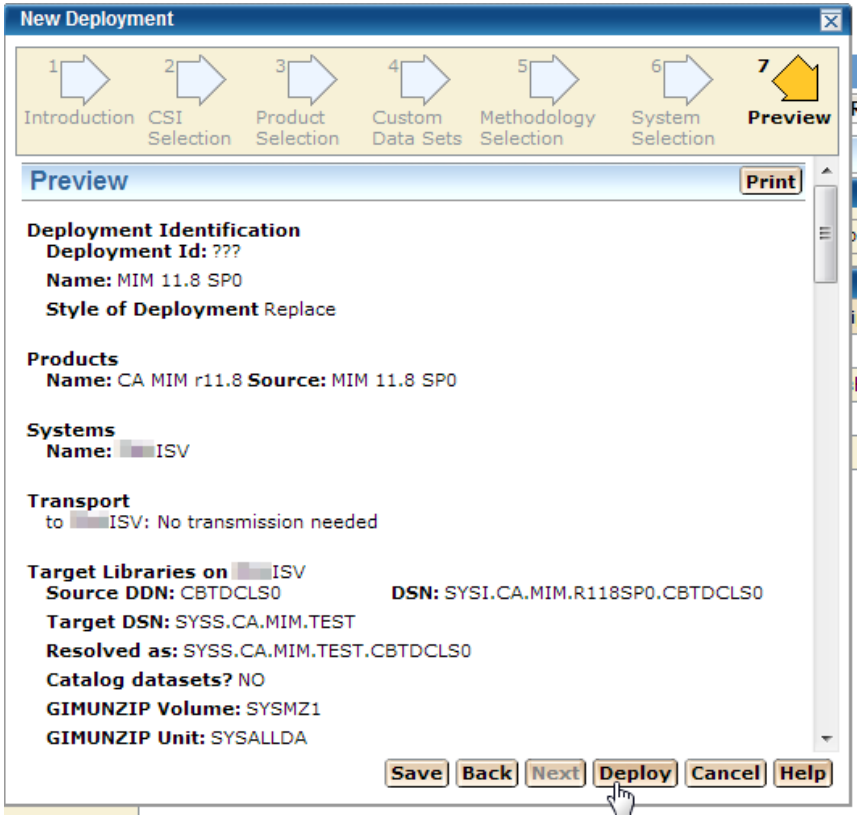
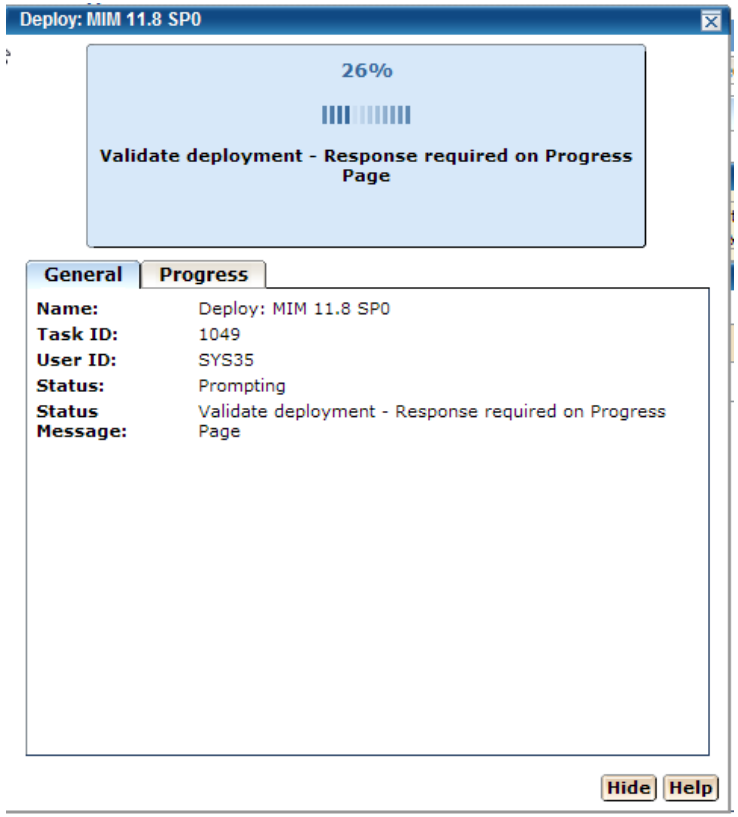
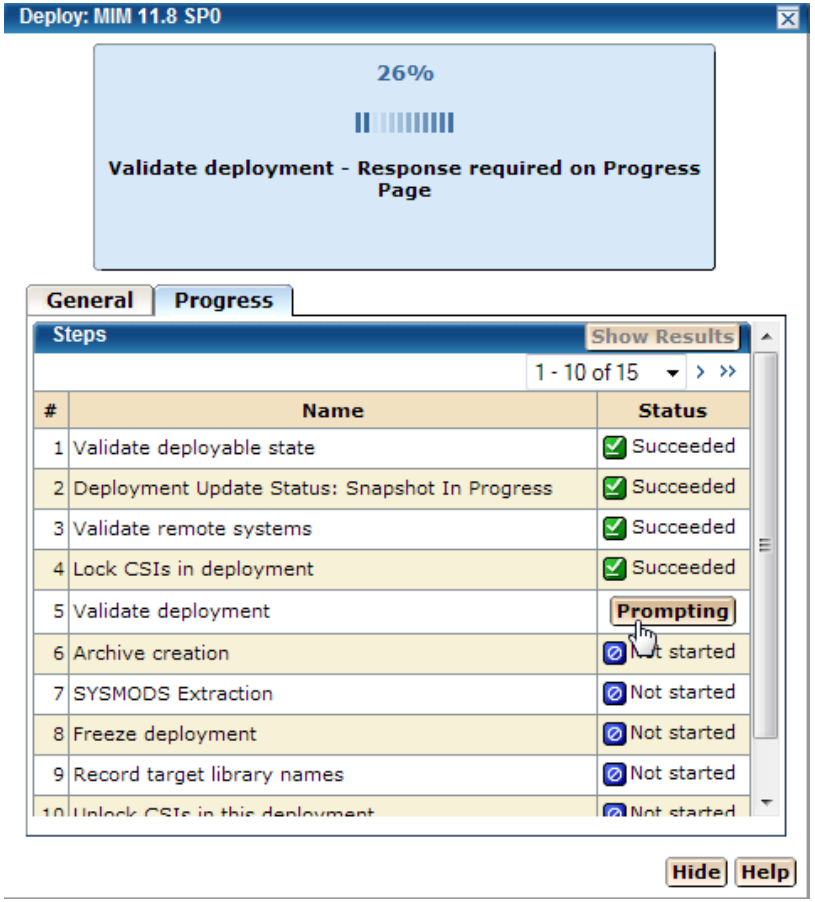
CSM Usage – Deployment

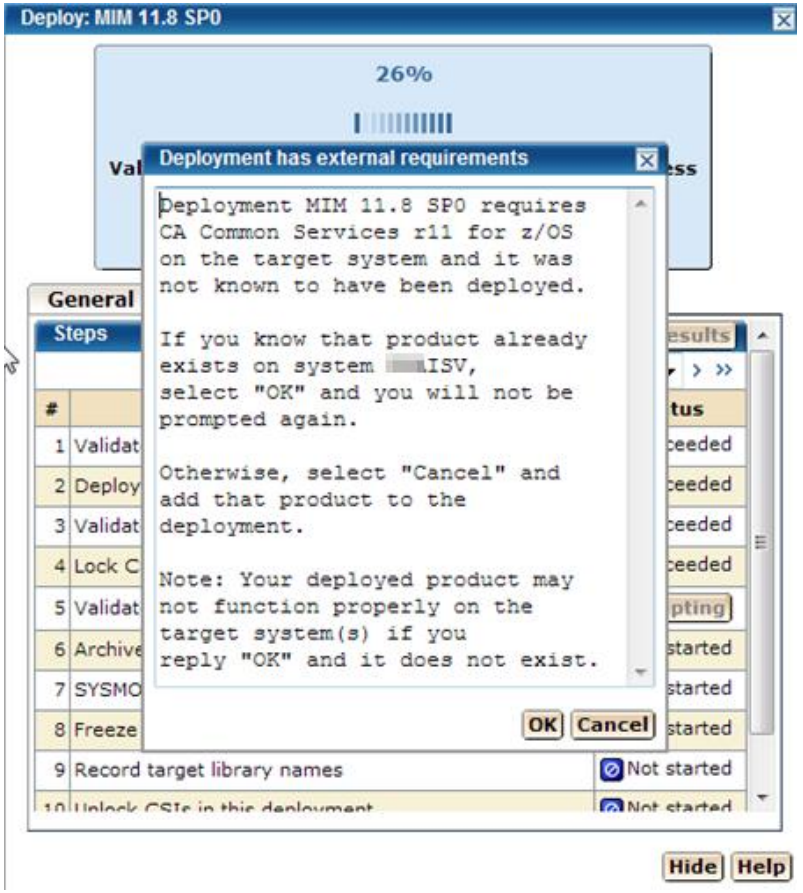




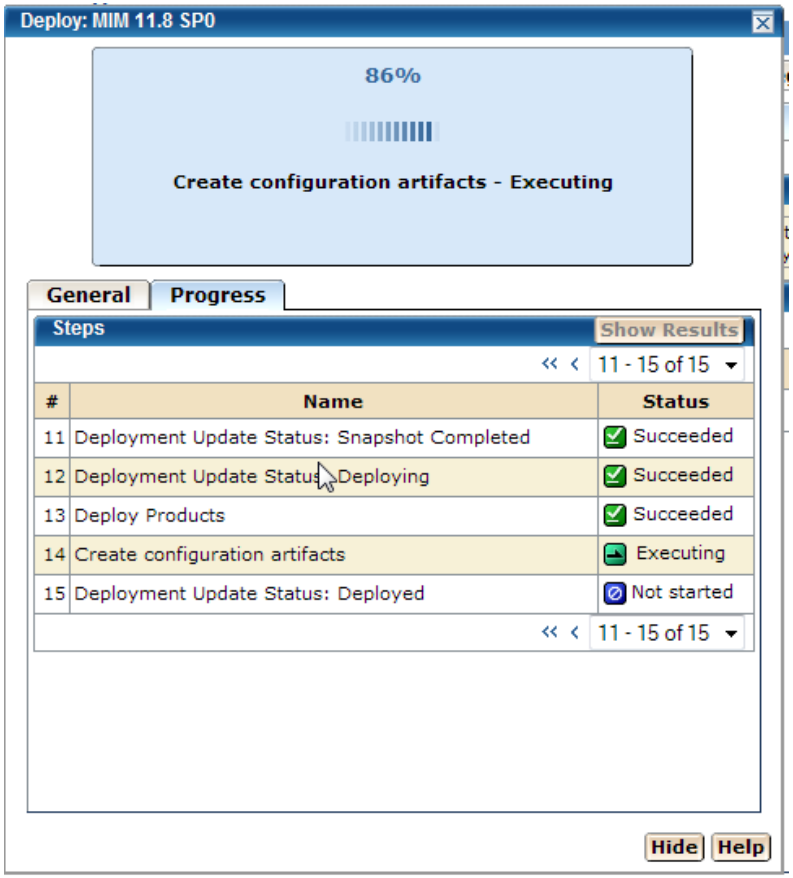
Complete your sessions evaluation online at SHARE.org/BostonEval

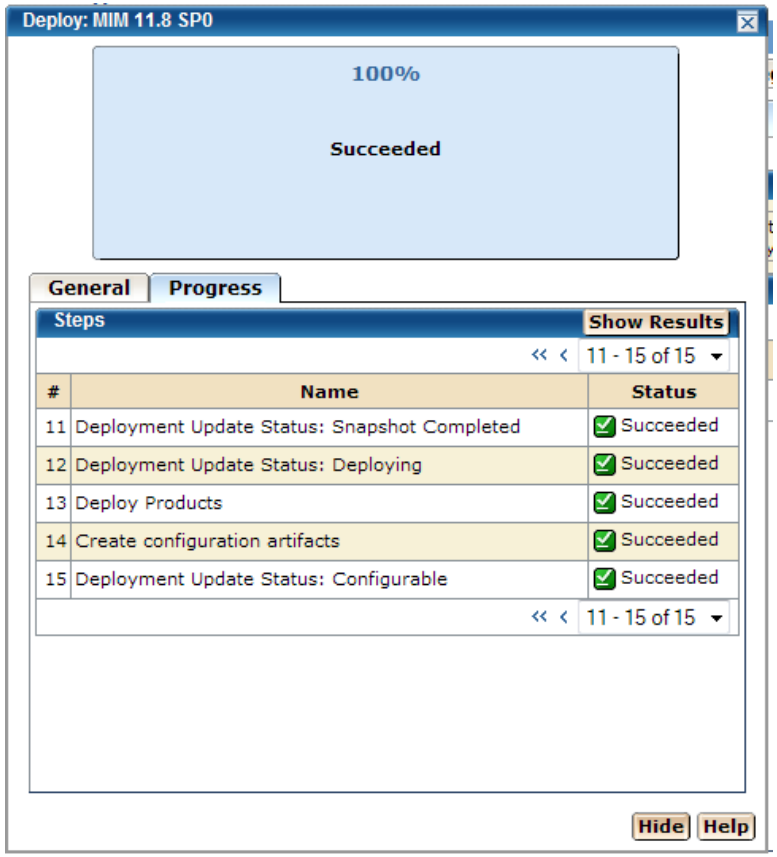
CSM Usage – Deployment





CSM Usage – Deployment





CSM Usage – Deployment

```
 Menu  RefList  RefMode  Utilities  Help
                          Data Set List Utility
Option ===> _

   blank Display data set list              P Print data set list
       V Display VTOC information          PV Print VTOC information

Enter one or both of the parameters below:
   Dsname Level . . . SYSS.CA.MIM
   Volume serial  . . SYSMZ1

Data set list options
   Initial View                 Enter "/" to select option
   1  1. Volume                 /  Confirm Data Set Delete
      2. Space                  /  Confirm Member Delete
      3. Attrib                 /  Include Additional Qualifiers
      4. Total                  /  Display Catalog Name
                                /  Display Total Tracks
                                _  Prefix Dsname Level

When the data set list is displayed, enter either:
  "/" on the data set list command field for the command prompt pop-up,
  an ISPF line command, the name of a TSO command, CLIST, or REXX exec, or
  "=" to execute the previous command.
```

```
 Menu  Options  View  Utilities  Compilers  Help
DSLIST - Data Sets on volume SYSMZ1                        Row 1 of 13
Command ===> _                                  Scroll ===> CSR

Command - Enter "/" to select action             Message          Volume
-------------------------------------------------------------------------
        SYSS.CA.MIM.TEST.CBTDCLS0                                 SYSMZ1
        SYSS.CA.MIM.TEST.CBTDEZTM                                 SYSMZ1
        SYSS.CA.MIM.TEST.CBTDEZTR                                 SYSMZ1
        SYSS.CA.MIM.TEST.CBTDHENU                                 SYSMZ1
        SYSS.CA.MIM.TEST.CBTDJCL                                  SYSMZ1
        SYSS.CA.MIM.TEST.CBTDLOAD                                 SYSMZ1
        SYSS.CA.MIM.TEST.CBTDMAC                                  SYSMZ1
        SYSS.CA.MIM.TEST.CBTDMSEN                                 SYSMZ1
        SYSS.CA.MIM.TEST.CBTDPARM                                 SYSMZ1
        SYSS.CA.MIM.TEST.CBTDPENU                                 SYSMZ1
        SYSS.CA.MIM.TEST.CBTDPROC                                 SYSMZ1
        SYSS.CA.MIM.TEST.CBTDSAMP                                 SYSMZ1
        SYSS.CA.MIM.TEST.CBTDXML                                  SYSMZ1
****************************** End of Data Set list ******************************
```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Hints and Tips

- Have plenty of DASD available. ☺
- Review the Best Practices Guide
- Use Help when needed (upper right hand corner)
- A “fast” PC helps. If the GUI seems slow you may want to set the number of table rows displayed to lower value. Controlled via “Settings → User Preferences”
- Select the option to “Ignore Common Products During Discovery” on the “Settings → Software Acquisition” tab

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Hints and Tips

- Take regular backups

```
//MSMBKUP  JOB (ACCT),CLASS=A,...
//*
//* BACKUP ALL MSM COMPONENTS BUT THE
//* CATALOG/SOFTWARE REPOSITORY
//*
//STEP1  EXEC  PGM=ADRDSSU,REGION=6M
//*
//SYSPRINT DD  SYSOUT=*
//OUT      DD  DSN=hlq.BACKUP.MSM.R41.DYYYYDDD,
//             UNIT=TAPE,DISP=(NEW,CATLG,DELETE),RETPD=180
//*
//*
//FILTERDS DD  *
 EXCLUDE( -
        hlq.CA.MSM.MSMT*.**                -
       ) -
 INCLUDE( -
        hlq.install.CA.MSM.R41.**                    -
        hlq.runtime.CA.MSM.R41.**                    -
        hlq.runtime.OMVS.CA.MSM.**                   -
        )
//SYSIN    DD    *
 DUMP DATASET(FILTERDD(FILTERDS)) -
      OUTDDNAME(OUT) CANCELERROR -
      OPTIMIZE(4) TOLERATE(ENQFAILURE) -
      ALLDATA(*) ALLEXCP
/*
```


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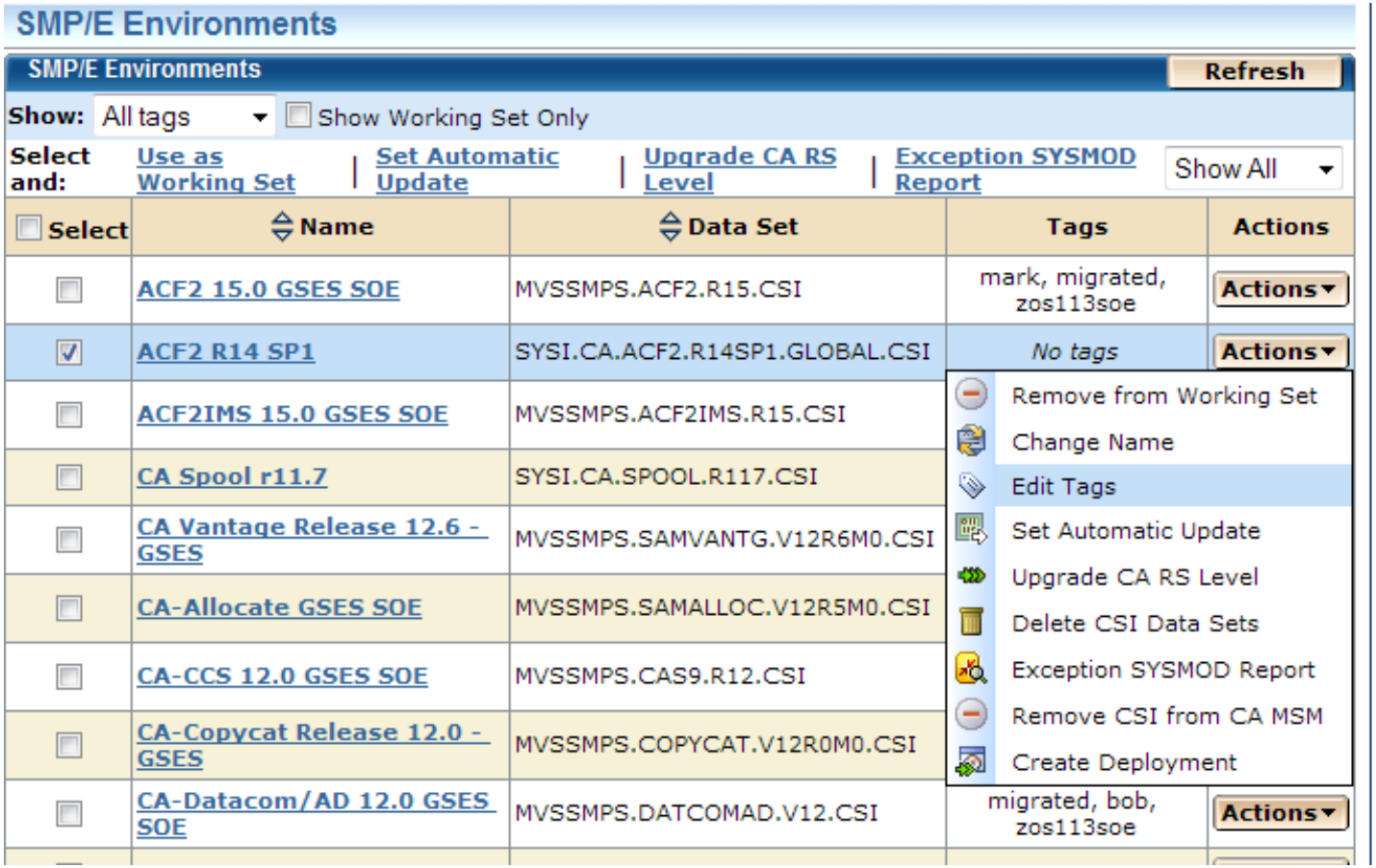
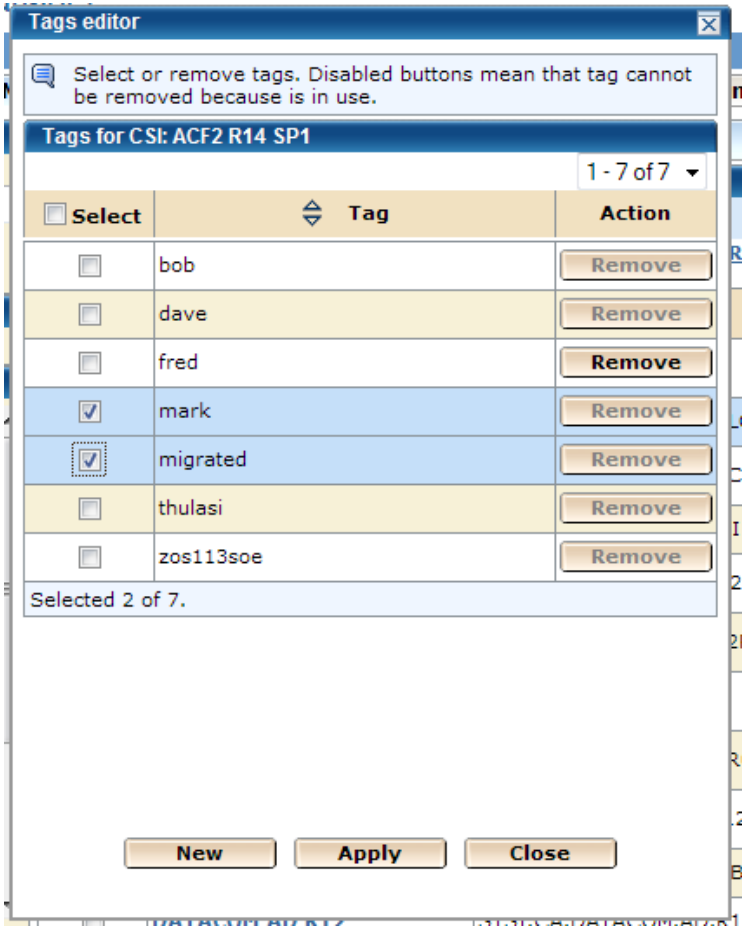
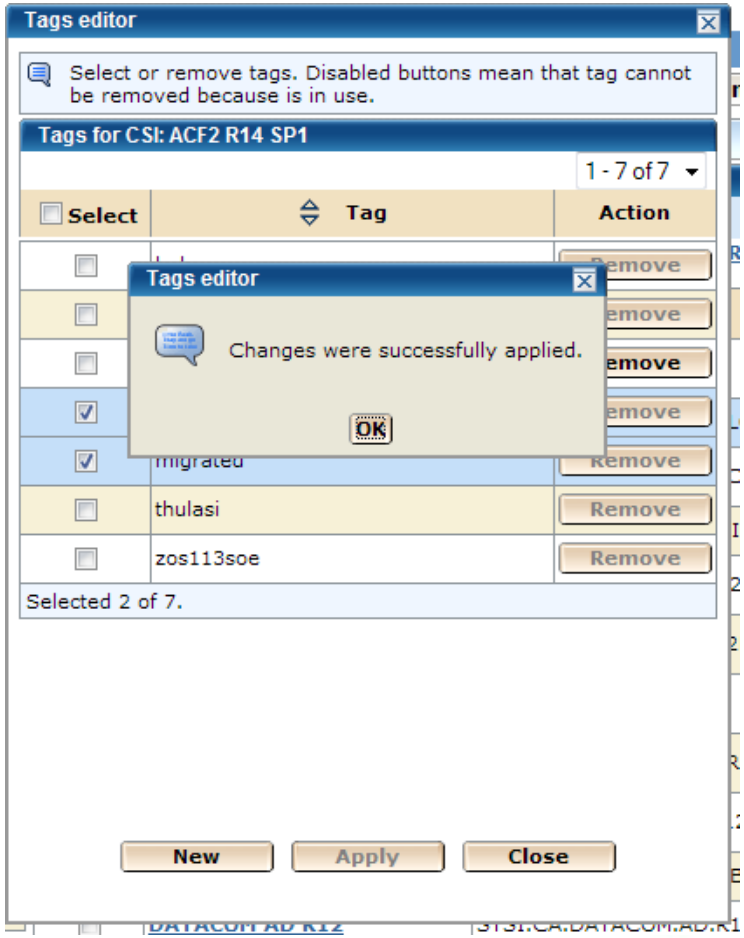
Hints and Tips – Using Tags

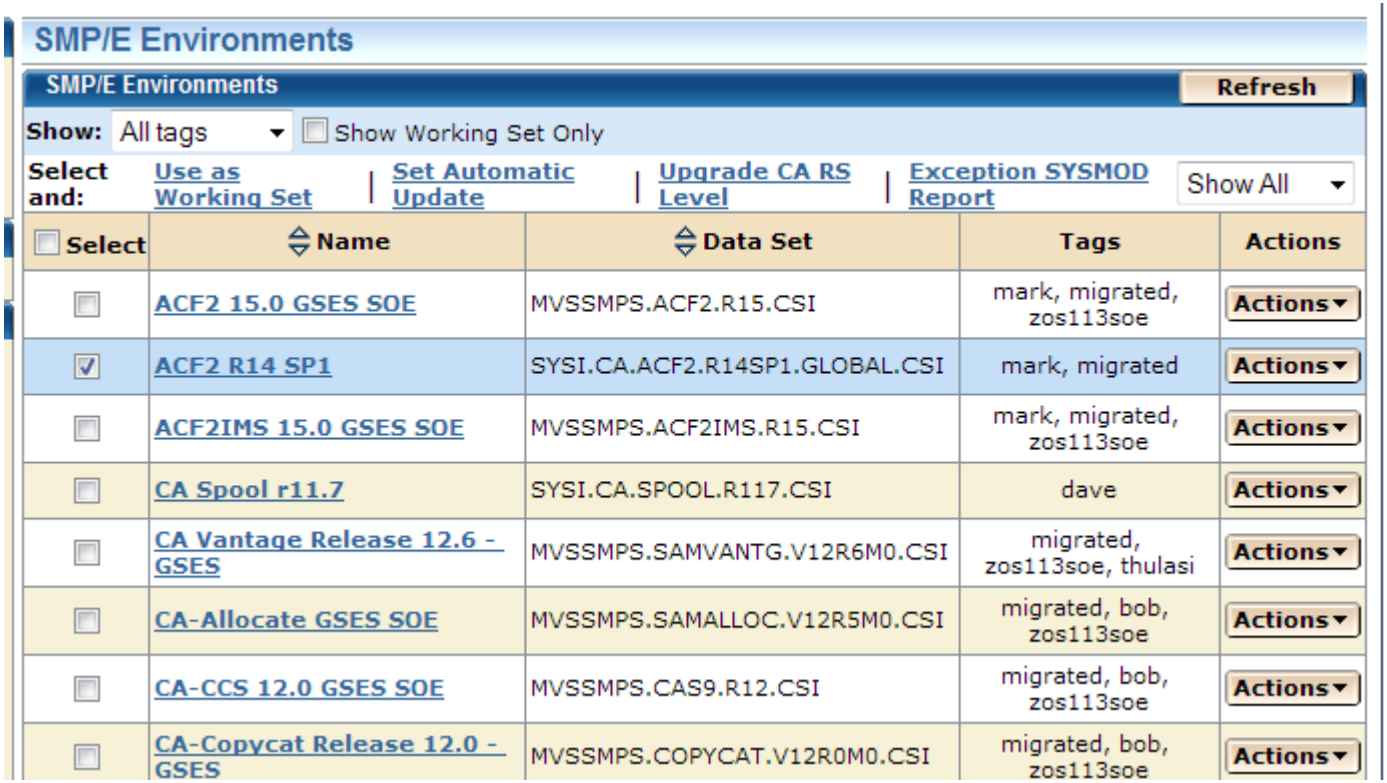


Hints and Tips – Using Tags





Hints and Tips – Using Tags



Hints and Tips – Catalog Cleanup

Delete Unwanted Product Releases from Product List

You should delete a product release from the CA CSM Software Catalog when the product and maintenance files are no longer needed. When you use CA CSM to delete a product release, it deletes all of the USS files, directories, and file systems associated with the release.

Business Value:

When you delete the release from the CA CSM Software Catalog, CA CSM deletes all of the product files and maintenance files that CA CSM has downloaded. This ensures that CA CSM space utilization is kept at a minimum requirement for your environment.

The release will be added back to the Software Catalog on the next execution of the Update Product List task. However, the associated product and maintenance files will only be downloaded again when a CA CSM user initiates an Update Product task for that product or product release.

The SMP/E environment for the product-release is not deleted using this function.

More Information:

For more information, see the *User Guide*.

Hints and Tips – Catalog Cleanup

- The data from products acquired is held in z/OS unix file systems (HFS or zFS).
- Even if you remove a CSI from CSM or delete the CSI and data sets, the base product and all the maintenance packages remain in the CSM catalog.
- If someone removes a product / genlevel from CSM control and you aren't sure they removed the product from the catalog, you have to manually start expanding release and genlevels from the catalog tree and see if there is anything left over to remove.

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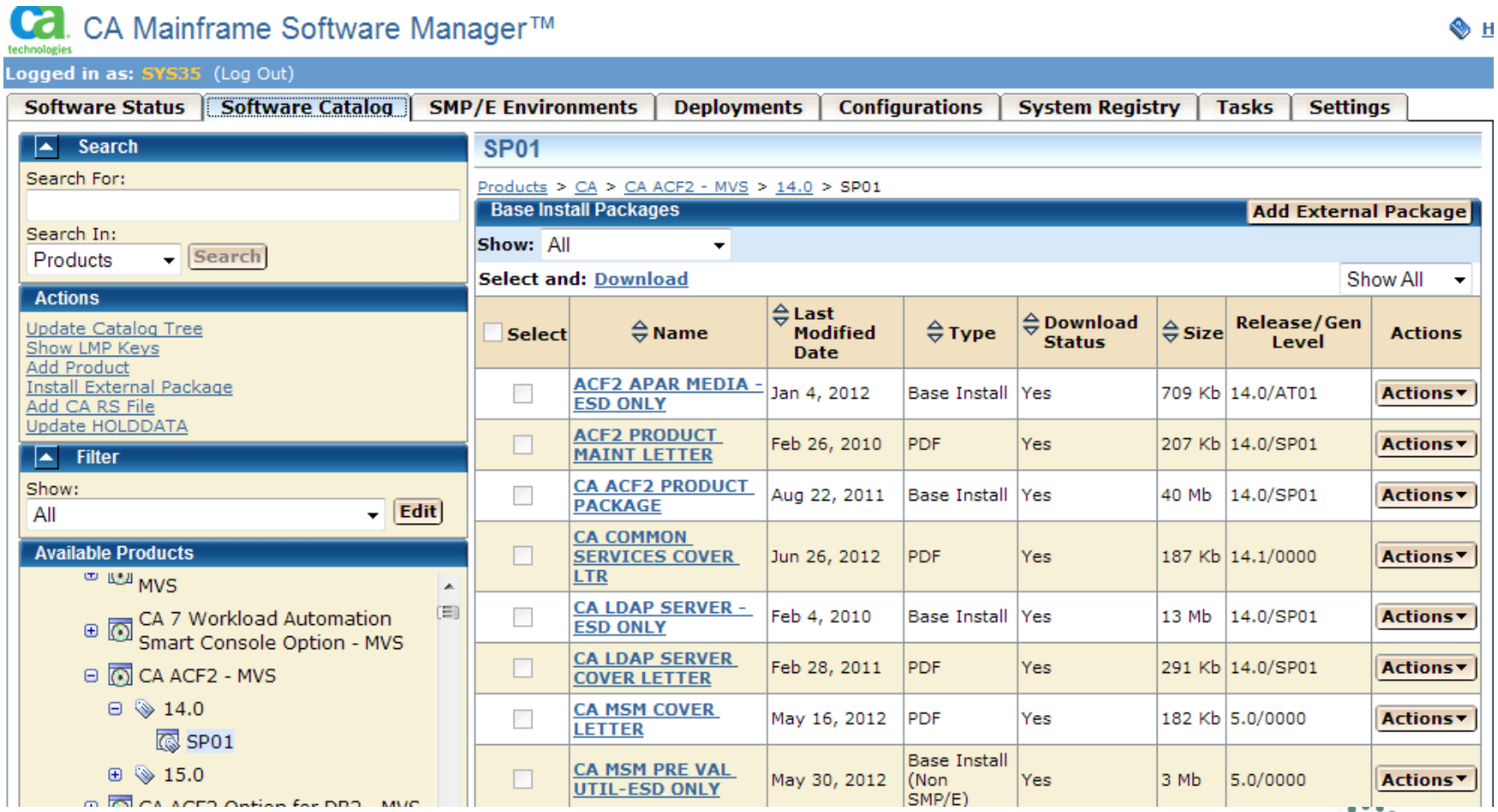
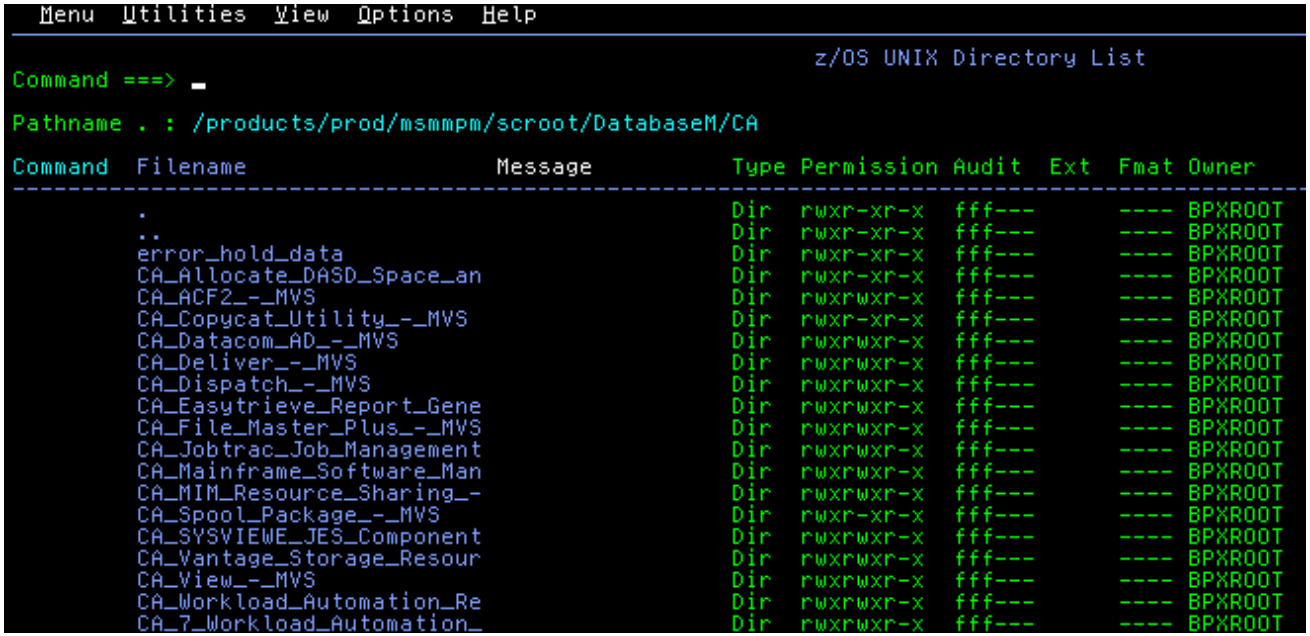
Hints and Tips – Catalog Cleanup



Hints and Tips – Catalog Cleanup

- Instead of expanding all the products from the catalog tree, it may be helpful to look at the mount point manger directory structure as a starting point.



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Hints and Tips – Catalog Cleanup

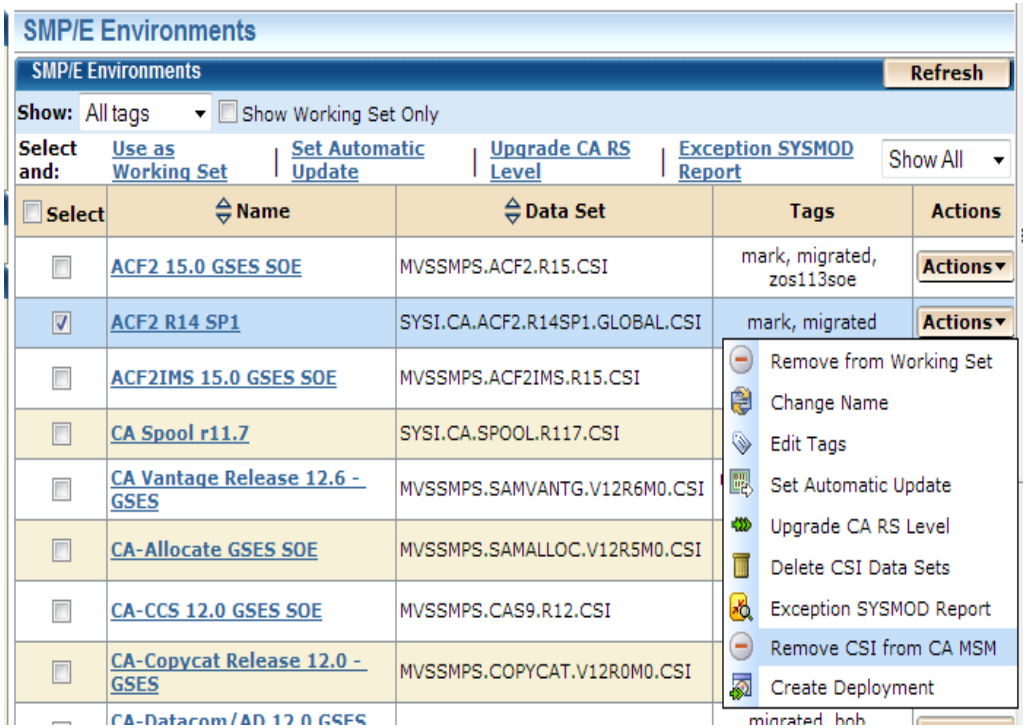
- You can look at what releases / genlevels are below the higher level directory, but it doesn't always mean there is something in the catalog.

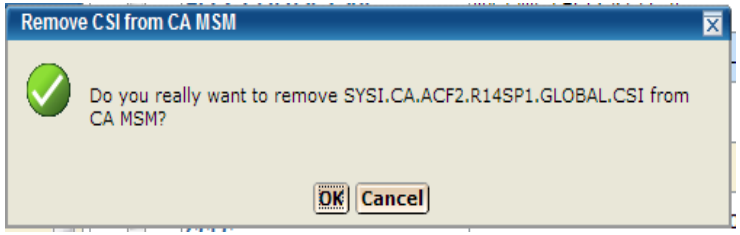
```
 Menu  Utilities  View  Options  Help
                                                  z/OS UNIX Directory List
Command ===> _

Pathname . : /products/prod/msmmpm/scroot/DatabaseM/CA/CA_ACF2_-_MVS

Command  Filename                 Message          Type Permission Audit  Ext  Fmat Owner
---------------------------------------------------------------------------------------
         .                                         Dir  rwxrwxr-x  fff---      ---- BPXROOT
         ..                                        Dir  rwxr-xr-x  fff---      ---- BPXROOT
         14.0                                      Dir  rwxr-xr-x  fff---      ---- BPXROOT
         15.0                                      Dir  rwxr-xr-x  fff---      ---- BPXROOT
****************************************************************** Bottom of data ****************
```

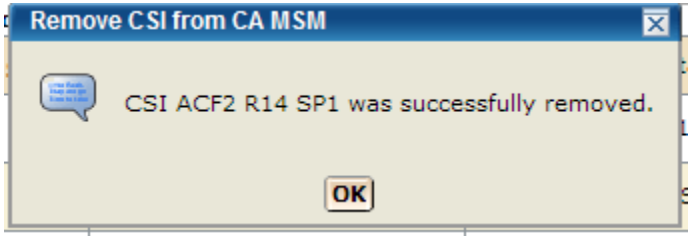
```
 Menu  Utilities  View  Options  Help
                                                  z/OS UNIX Directory List
Command ===> _

Pathname . : /products/prod/msmmpm/scroot/DatabaseM/CA/CA_ACF2_-_MVS/14.0

Command  Filename                 Message          Type Permission Audit  Ext  Fmat Owner
---------------------------------------------------------------------------------------
         .                                         Dir  rwxr-xr-x  fff---      ---- BPXROOT
         ..                                        Dir  rwxrwxr-x  fff---      ---- BPXROOT
         SP01                                      Dir  rwxr-xr-x  fff---      ---- BPXROOT
         0000                                      Dir  rwxr-xr-x  fff---      ---- BPXROOT
****************************************************************** Bottom of data ****************
```

Hints and Tips – Catalog Cleanup

Here I am removing the ACF2 R14 CSI that we migrated earlier.







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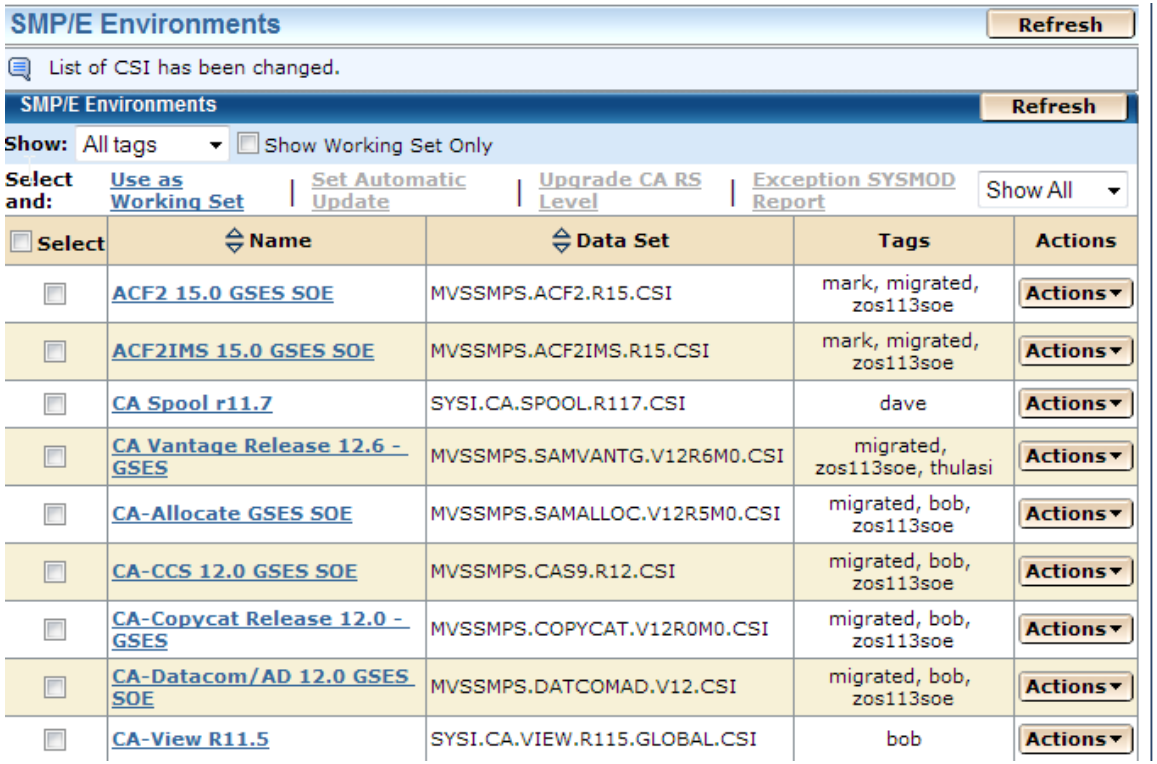
Hints and Tips – Catalog Cleanup

You can see from the SMP/E screen ACF2 R14 is now gone.



SMP/E Environments — Refresh

List of CSI has been changed.

SMP/E Environments — Refresh

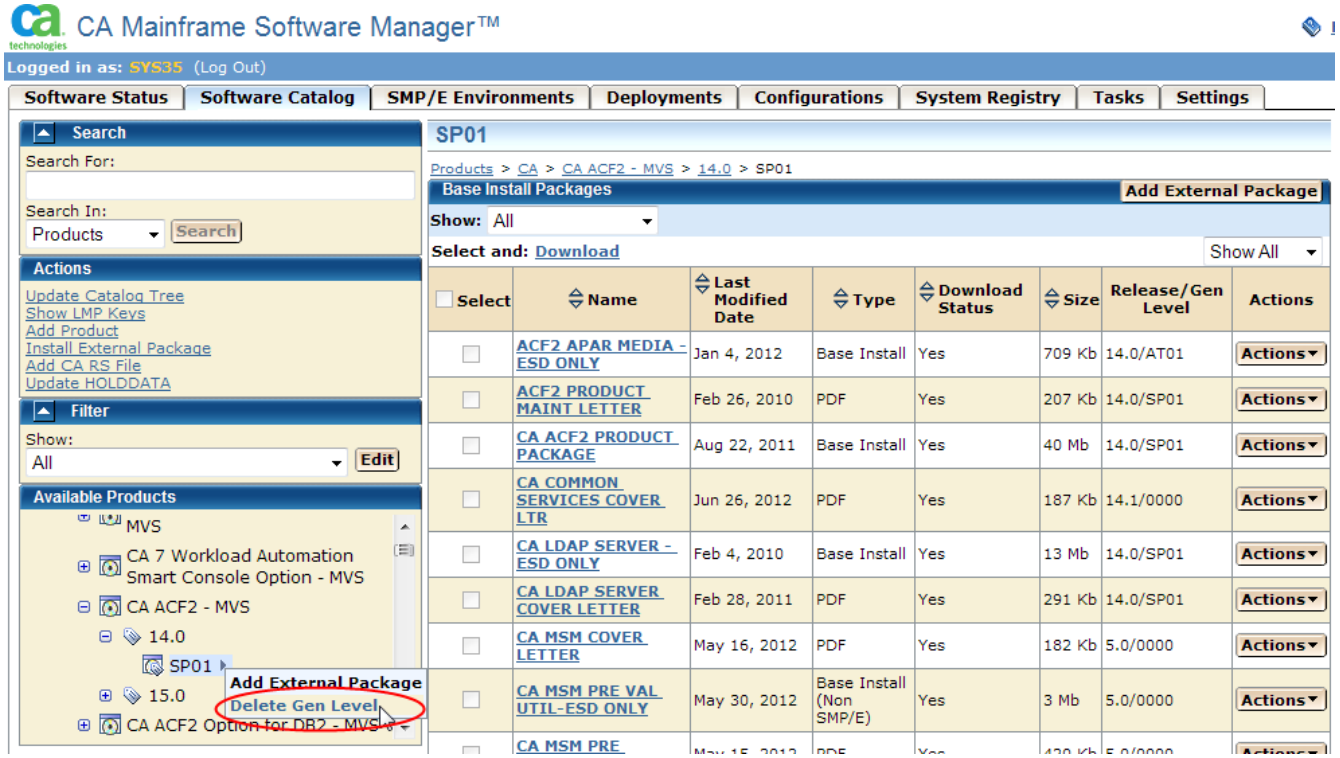
Show: All tags | Show Working Set Only

Select and: Use as Working Set | Set Automatic Update | Upgrade CA RS Level | Exception SYSMOD Report | Show All

Select	Name	Data Set	Tags	Actions
	ACF2 15.0 GSES SOE	MVSSMPS.ACF2.R15.CSI	mark, migrated, zos113soe	Actions
	ACF2IMS 15.0 GSES SOE	MVSSMPS.ACF2IMS.R15.CSI	mark, migrated, zos113soe	Actions
	CA Spool r11.7	SYSI.CA.SPOOL.R117.CSI	dave	Actions
	CA Vantage Release 12.6 - GSES	MVSSMPS.SAMVANTG.V12R6M0.CSI	migrated, zos113soe, thulasi	Actions
	CA-Allocate GSES SOE	MVSSMPS.SAMALLOC.V12R5M0.CSI	migrated, bob, zos113soe	Actions
	CA-CCS 12.0 GSES SOE	MVSSMPS.CAS9.R12.CSI	migrated, bob, zos113soe	Actions
	CA-Copycat Release 12.0 - GSES	MVSSMPS.COPYCAT.V12R0M0.CSI	migrated, bob, zos113soe	Actions
	CA-Datacom/AD 12.0 GSES SOE	MVSSMPS.DATCOMAD.V12.CSI	migrated, bob, zos113soe	Actions
	CA-View R11.5	SYSI.CA.VIEW.R115.GLOBAL.CSI	bob	Actions

Hints and Tips – Catalog Cleanup

To delete the product genlevel, mouseover the genlevel in the catalog tree and right click to select the delete option.



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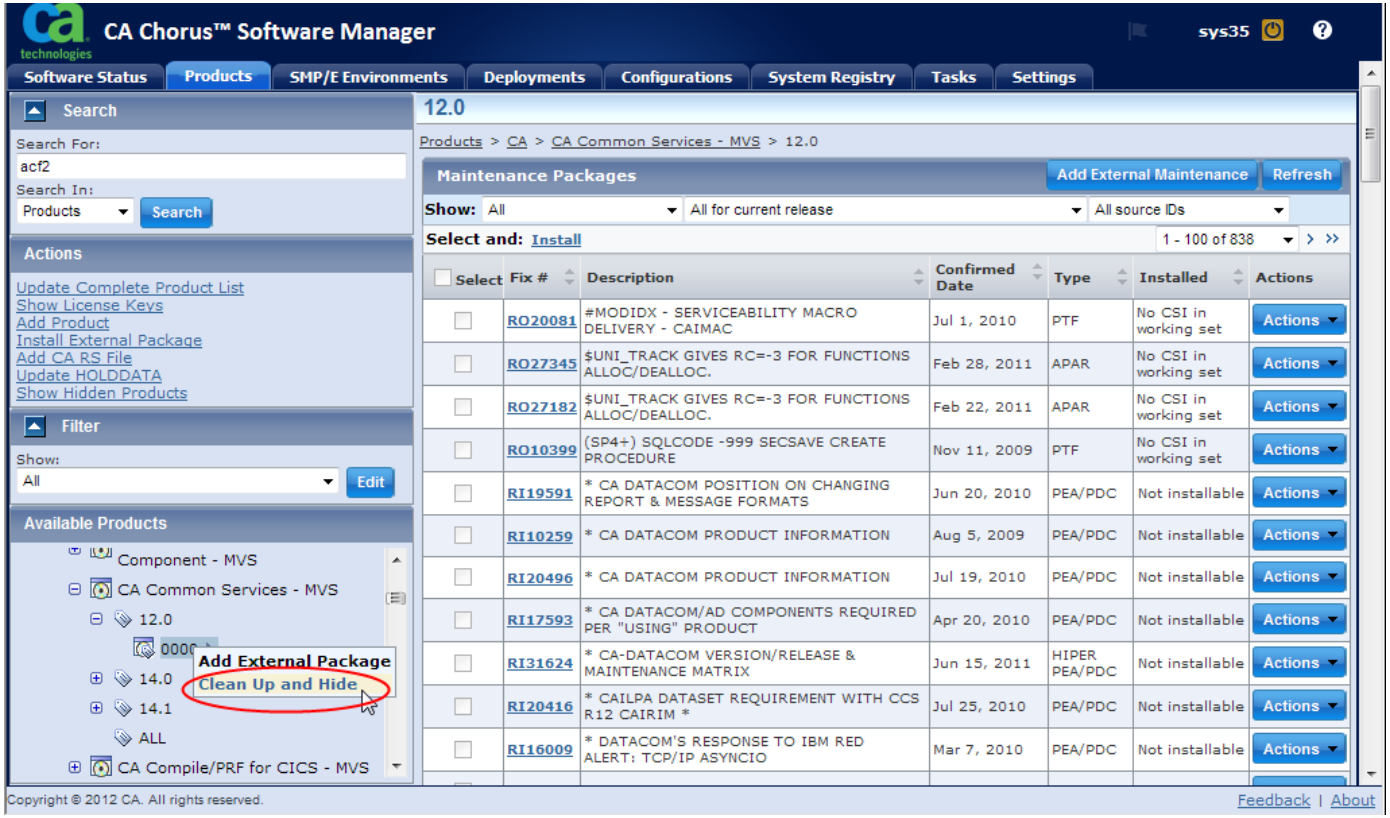
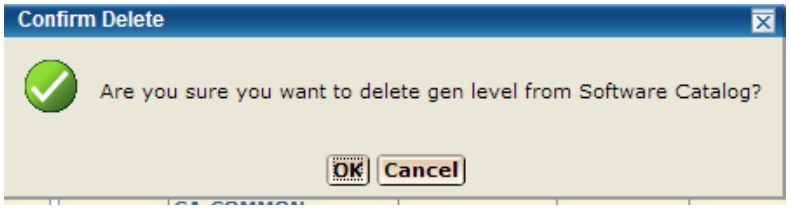
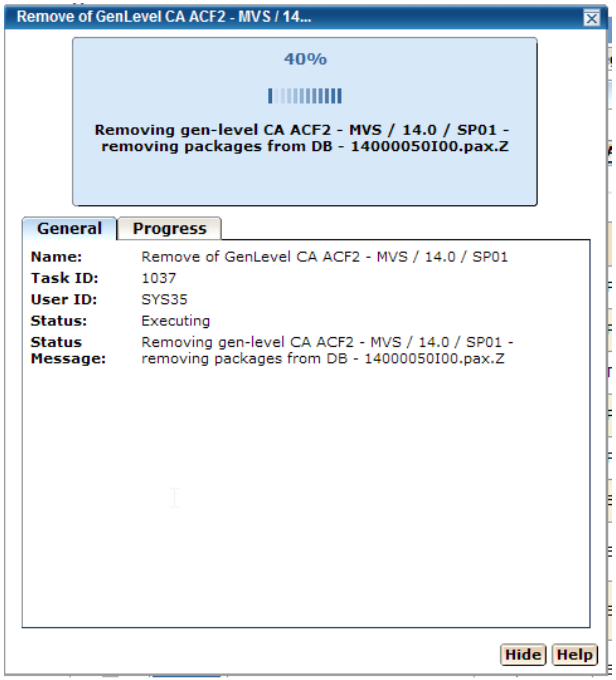
Hints and Tips – Catalog Cleanup

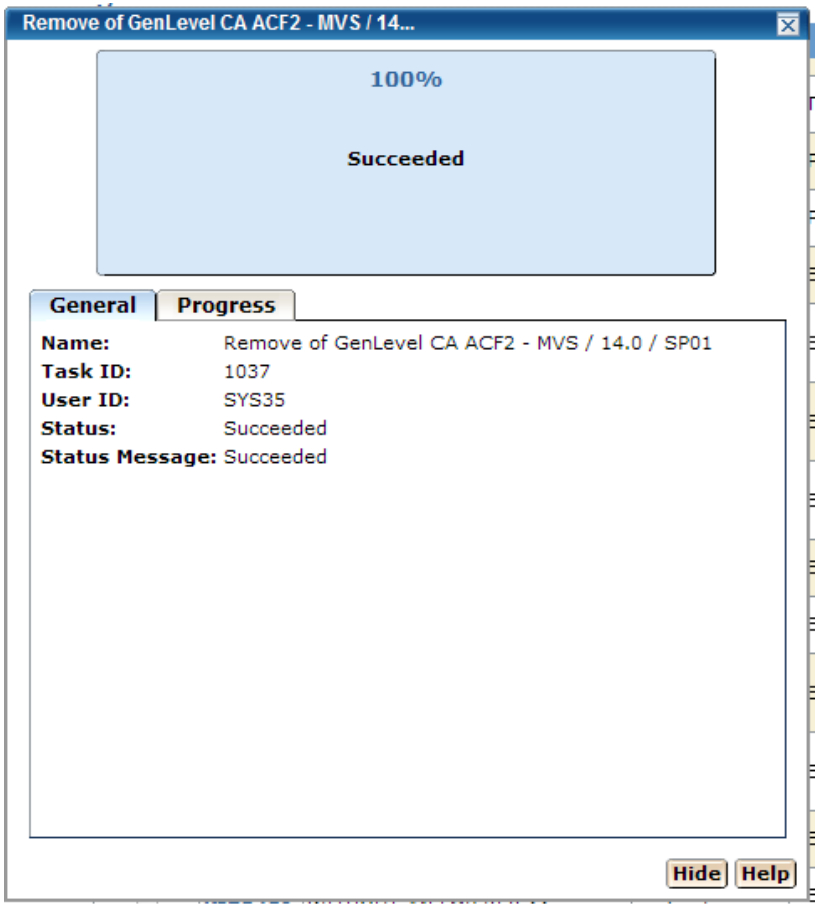
In CSM 5.1 the option is now “Clean Up and Hide”.



Hints and Tips – Catalog Cleanup

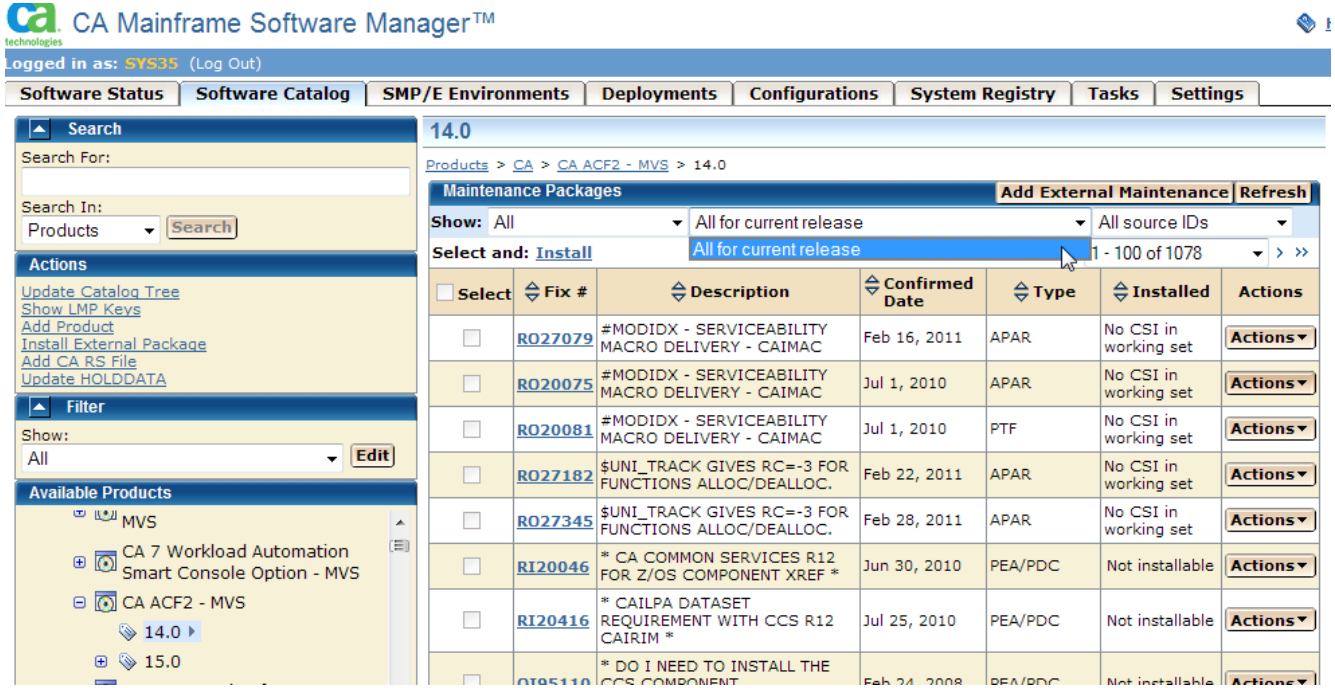






Hints and Tips – Catalog Cleanup

You can see the genlevel is gone, but note that there are still PTFs. These are from common services, which was included with the ACF2 R14 package.



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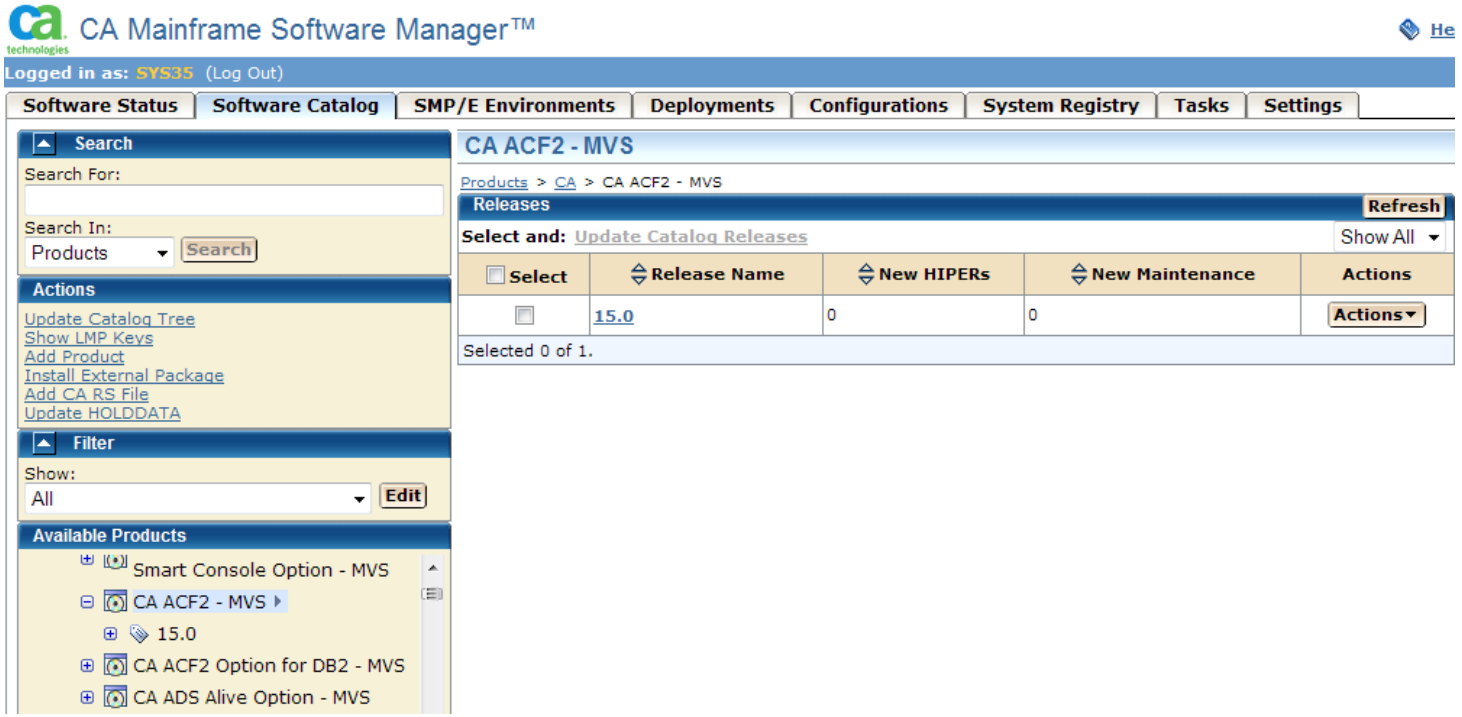
Hints and Tips – Catalog Cleanup

Here is screen shot from after I deleted the entire ACF2 R14 release (not just the genlevel)



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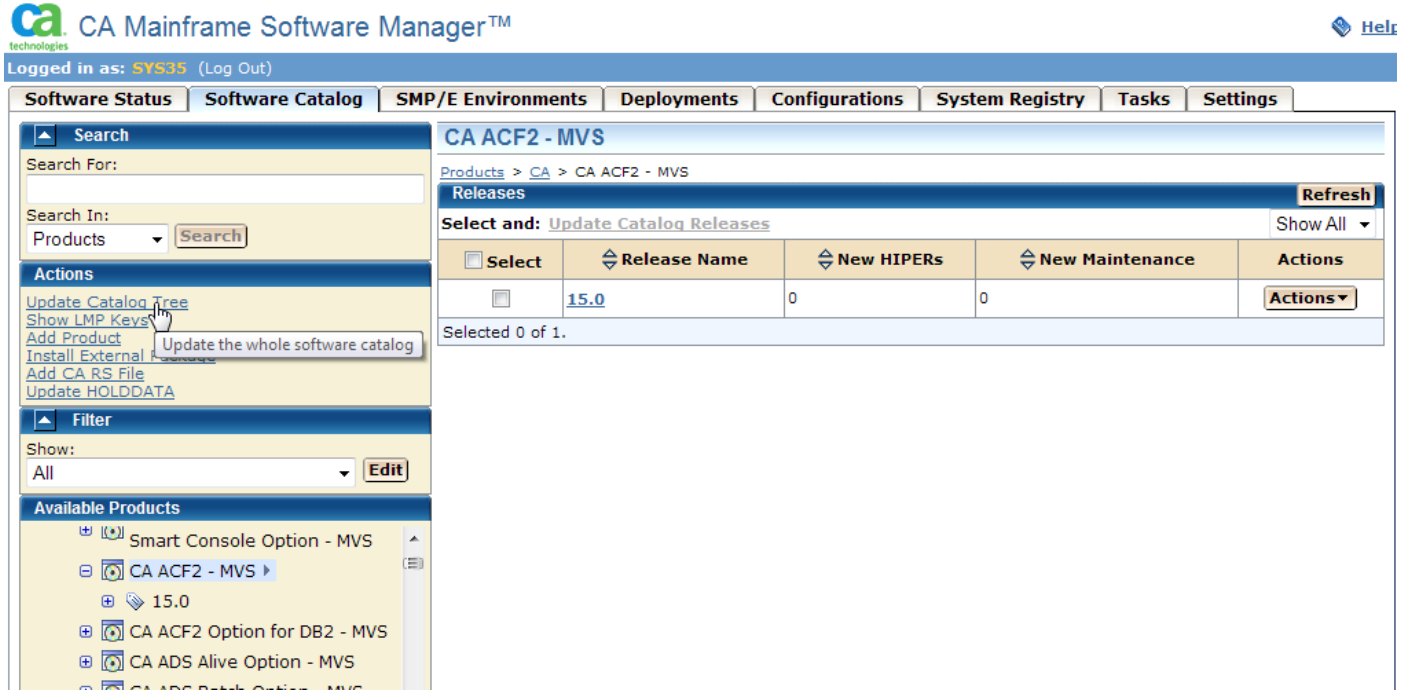
Hints and Tips – Catalog Cleanup

Note that the next time you update the catalog tree, the available releases and genlevels you delete may show up in the tree again.



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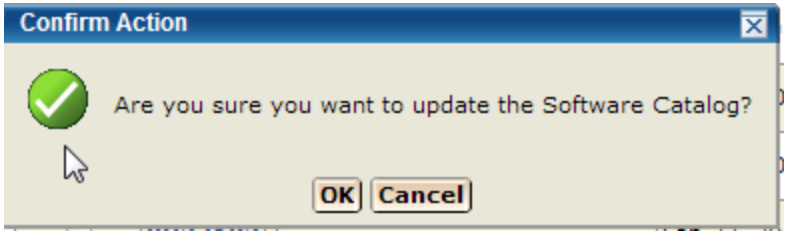
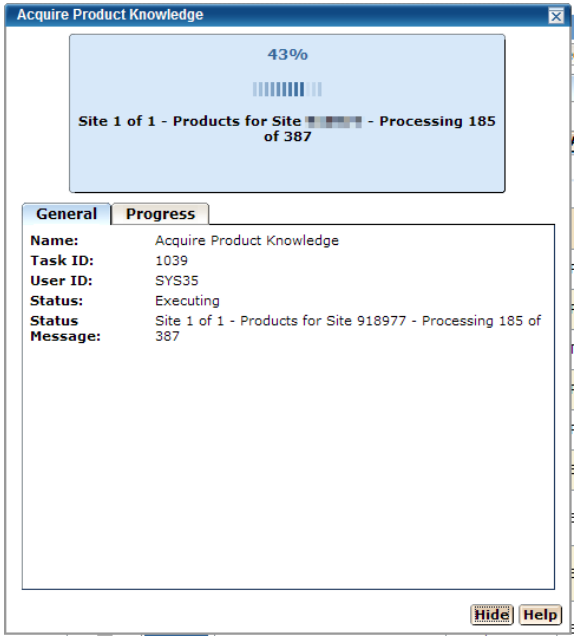
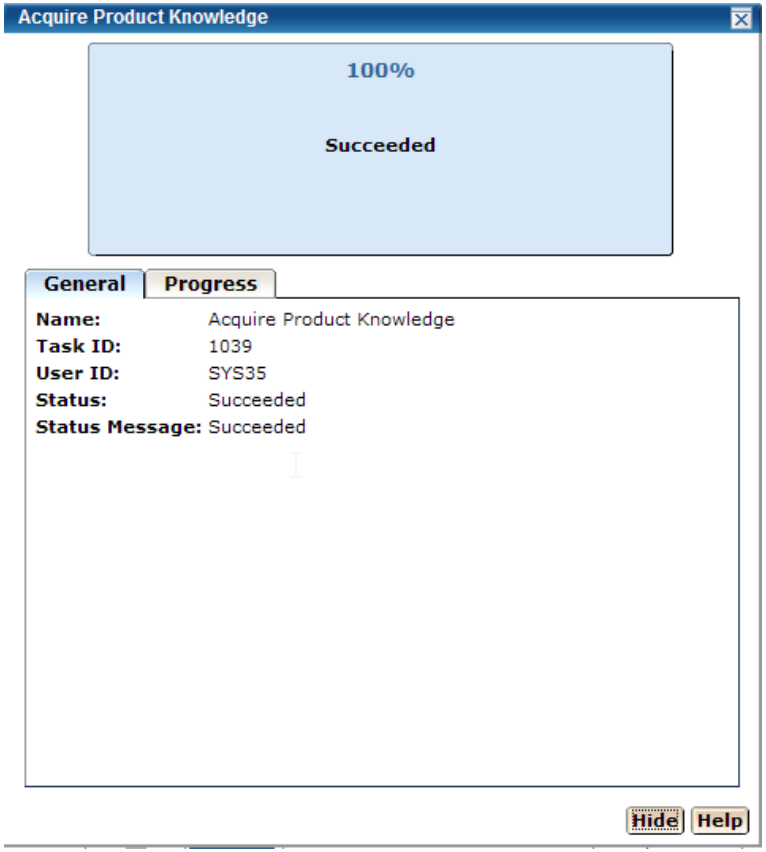
Hints and Tips – Catalog Cleanup

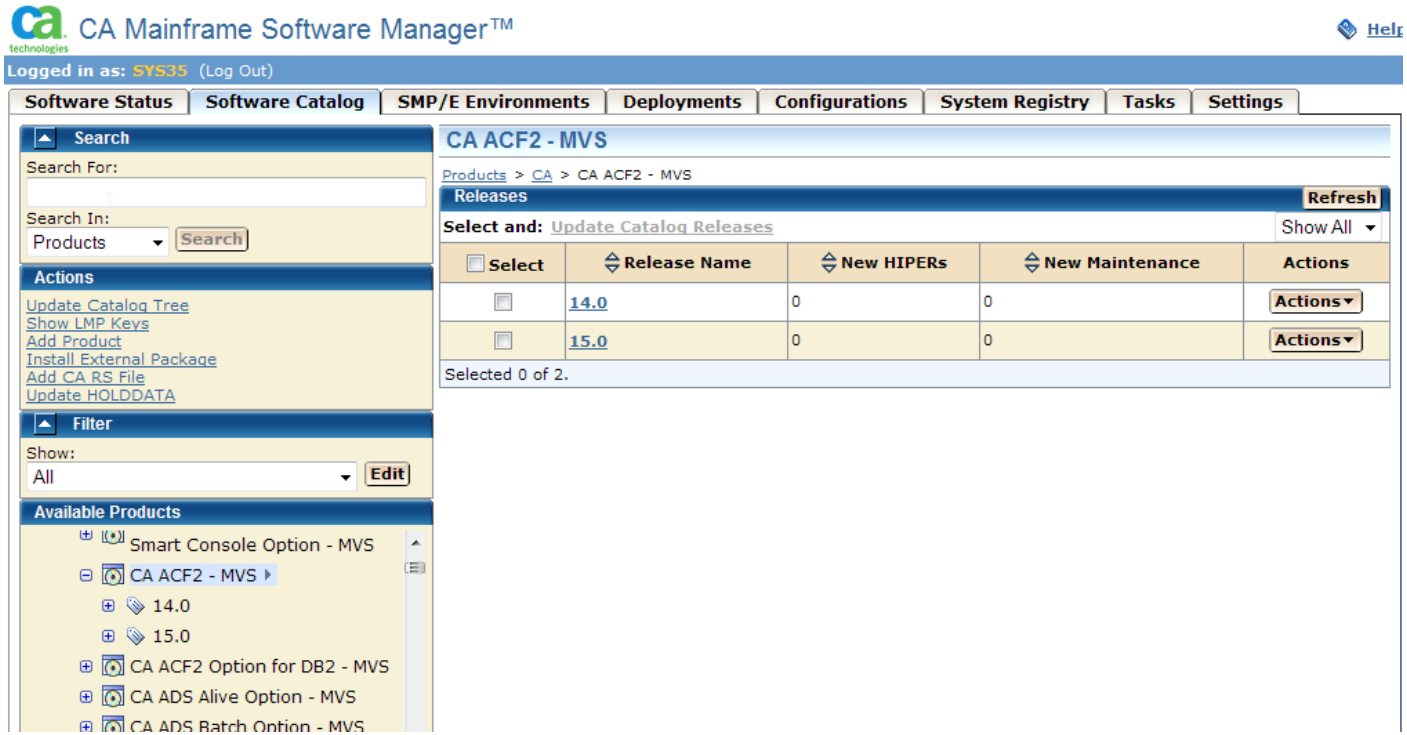






Hints and Tips – Catalog Cleanup

The catalog tree is updated and ACF2 R14 is back! But it is just an entry in the tree.



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Summary

- CSM takes time and effort for the initial installation and configuration, but will more than pay for itself in terms of time saved later on.
- Probably not worth it if you only have a couple of CA products.
- Product is more mature now. CSM installation and usability are much improved over the initial GA release at R2 (plus new features like SDS and SCS).
- Your shop can benefit immediately by migrating existing CSIs into CSM.

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Summary

- Helpful for inexperienced system programmers or those not well versed with SMP/E, but also valuable to the experienced ones as well. You *can* teach an old dog new tricks!
- CSM's development has benefited all CA customers, whether you choose to use CSM or not. SMP/E works the way it was designed to work. No more "BYPASS(ID)" when installing CA maintenance.

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Questions?