The cleanup (1m) Utility (and other HP-UX patch oddities)

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The cleanup (1m) Utility (and other HP-UX patch oddities)

- Overview of Software Distributor (SD) concepts
 - Products, Filesets, and Patches, Oh my!
- The cleanup utility
 - Everything that SD left out
- Hunting patches and their bundles in the ITRC
 - Standard patch bundles and the Patch Database
- Advanced SD patch tricks
 - Using tags and attributes for fun and profit



The Bundle



- the glamour & function of a paper sack
- includes contents by reference
- optional for SD, but required by IUX
- cannot be empty



The Product



- may exist within bundles or solo
- contains filesets and scripts
- required object



The Fileset



- must exist within products
- contains files and scripts
- multi-streaming
- all SD really cares
 about



The Patch



- an SD product
- is_patch/is_sparse attributes set to true
- found in the wild as a shell archive (shar)
- they're different!



swlist of a bundle

```
# swlist -1 bundle QPK1100
# Initializing...
# Contacting target "banba"...
#
# Target: banba:/
#
```

QPK1100 B.11.00.54.7 Quality Pack for HP-UX 11.00, September 2001



swlist of products (patches)

swlist -l product QPK1100

# QPK1100	B.11.00.54.7	Quality Pack for HP-UX 11.00,
September 2001		
QPK1100.PHCO_12555	1.0	ioinit patch
QPK1100.PHSS_24206	1.0	11.00 and 11.10 libm patch
QPK1100.PHSS_24105	1.0	C3X00/J5X00/J6000/J7000 5.0 FW
QPK1100.PHSS_23904	1.0	XClients JUNE2001 Periodic Patch
QPK1100.PHSS_23823	1.0	X/Motif 32bit Runtime APR2001



swlist of filesets

swlist -l fileset QPK1100

# QPK1100	B.11.00.54.7	Quality Pack for HP-UX 11.00,
September 2001		
# QPK1100.PHCO_12555	1.0	ioinit patch
QPK1100.PHCO_12555.UX-CORE	1.0	OS-Core.UX-CORE
# QPK1100.PHSS_24206	1.0	11.00 and 11.10 libm patch
QPK1100.PHSS_24206.C-INC	1.0	B.11.X
QPK1100.PHSS_24206.C-MIN	1.0	B.11.X



swlist of files

swlist -1 file QPK1100

# QPK1100	B.11.00.54.	7 Quality Pack for HP-UX 11.00,
September 2001		
# QPK1100.PHCO_12555	1.0	ioinit patch
# QPK1100.PHCO_12555.UX-CORE	1.0	OS-Core.UX-CORE

QPK1100.PHCO_12555.UX-CORE: /sbin/ioinit



Products use Versioning



Ideally, version 1.0 of MyProd is completely erased from the system when revision 2.0 is loaded



Patches use supersession



Supersession operates at the fileset level, but the policy of cumulative patching enforces it at the product level



Supersession can be complex



Sparseness allows multiple patches to modify one base fileset at the same time, and distinct chains can "bubble" together





The files modified when a patch is installed are saved so during patch removal the system will return to the prior state



The cleanup family

• cleanup(1m)

Patch maintenance that SD forgot

- check_patches (1m) Searches for all known patch problems
- show_patches(1)

A swlist that does not get confused



The cleanup family

Always delivered in patches:

- PHCO_24630 (11.11)
- PHCO_24347 (11.00)
- PHCO_20824 (all 10.X)*

*While all of these patches are similar in form and function, the world of 10.X patches are very different! Check the 10.X documentation or past Interex proceedings for more information.



cleanup(1m)

Provides four basic operations:

- patch commitment (-c level)
- depot cleaning (-d depot)
- IPD cleaning (-i)
- repair patch_state (-s)



cleanup -c level

- commits patches that have been superseded at least *level* times
- actual work performed using swmodify(1m)
- full commitment (-F) no longer supported, instead use swmodify:

```
swmodify -x patch_commit=true *.*,c=patch
```



cleanup -c 2



After commitment, at most two patches in any supersession chain can be removed. Beyond that either product installation or system backup must be used to recover state.

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Example: cleanup -c 2

The following patches superseded at least 2 time(s) can be committed:

Superseded	<pre># Times Superseded</pre>	Disk Space in /var/adm/sw/save	Superseded By
=========	========================	=======================================	=============
PHKL_23291	2	22528 bytes	PHKL_23204
PHKL_23313	2	66560 bytes	PHKL_25165
PHKL 23389	2	227328 bytes	PHKL 24408

WARNING: When a patch is committed, the files saved to /var/adm/sw/save during the installation of the patch are removed. If these saved files are not present, then the patch cannot be removed from the system via swremove(1M).

If these files in /var/adm/sw/save must be removed, HP recommends that the /var/adm/sw/save directory first be backed up. If it should become necessary to remove the patch in the future, the files must be recovered from the backup prior to removing the patch.

If you have not already created a backup of /var/adm/sw/save, you may wish to do so before proceeding with the patch commit operation.

Would you still like to commit these patches?



cleanup -d depot

- removes superseded patches from depots
- supports 10.X and 11.X depots. Must be indicated using the –o option
- also removes patches with requisites against superseded patches this can be disabled with -e false option.



Example: cleanup -d

```
# cleanup -d /var/tmp/depot -o 11
### Cleanup program started at 07/21/02 02:08:57
Cleanup of depot '/var/tmp/depot'.
Obtaining the list of patches in the depot: /var/tmp/depot ...done.
Obtaining the list of superseded 11.X patches in the depot:
    /var/tmp/depot ... The following superseded patches exist in the depot:
_____
PHCO 23004 superseded by PHCO 25870
PHCO 23150 superseded by PHCO 25311
PHKL 24022 superseded by PHKL 24854
PHKL 24031 superseded by PHKL 25218
PHKL 24219 superseded by PHKL 24824
PHKL 24283 superseded by PHKL 26410
PHSS 21816 superseded by PHSS 25288
PHSS 24106 superseded by PHSS 25983
Please be patient; this may take several minutes.
Removing superseded 11.X patches from depot: /var/tmp/depot ...done.
The superseded 11.X patches have been removed from the depot:
    /var/tmp/depot.
All information has been logged to /var/adm/cleanup.log.
### Cleanup program completed at 07/21/02 02:08:57
```



cleanup -i

- removes HP-UX 10.X patch data from the Installed Products Database (IPD)
- HP-UX 11.X patches are managed by swinstall(1m) & swremove(1m)
- for HP-UX 11i, update-ux(1m) should do this for you automatically
- NEVER use swremove (1m) !!!!



Other cleanup options

- **-p** Preview
 Run without making any changes
- -n Notify

Confirmation needed for all changes

-s patch State Modifies the patch_state attribute to match the actual state



check_patches(1m)

- a scanner to detect any known issues with the patch infrastructure
- the 11.X version delivered in PHCO_24630 has 7 distinct checks
- the utility identifies problems, but will not modify the system



check_patches -i

The invalid patch attributes check.

- attributes defining a patch on 11.X releases can be lost or corrupt
- usually from residing in 10.X-style depots
- should be considered a severe issue when encountered



check_patches -m

The missing filesets check

- patches are considered atomic, but may include many filesets for multiple ancestors
- the latest versions of swinstall verify that all filesets of a patch that can install are included when any fileset is installed
- multi-ancestor patches are still at risk



How to lose a fileset



If a patch for 2 products is loaded when only 1 is present, any filesets intended for the uninstalled product cannot load. If that product is installed later, a **split patch** condition may exist.



check_patches -o

The relocatable object check

- products deliver full libraries (.a) but a patch will deliver individual objects (.o)
- once put in place into a library, the object is no longer verifiable by SD
- check_patches compares the cksum values of object files to the expected values listed in the IPD



check_patches -p

The patch_state fileset attribute check

- **patch_state** defines where a patch is in relation to its supersession chain
- filesets have been left in the applied state when they have been superseded or committed
- when detected, may be fixed with cleanup -s



check_patches -s

The **state** fileset attribute check

- all filesets should be configured
- multi-depot installs may leave filesets in the installed state, but same as configured if no configure scripts exist
- a transient or corrupt state may indicate a serious installation error



check_patches -v

Runs swverify(1m) against all patches

- compares IPD values to actual
- values checked include owner, mode, cksum, and modification time
- each HP-UX release has been held to higher standards, errors should not be expected
- if problems are seen, review SD scripts



check_patches (1 more)

Check for required SD patch (11.11 only)

- PHCO_23578 (or later) is a required patch and included in BUNDLE11i
- delivers version of swconfig required for enforced patch dependency support
- no option defined, this test is always run



show_patches(1)

- lists active (-a) or superseded (-s) patches or filesets (-1 fileset)
- obsolete on HP-UX 11.11 (11i) and later releases due to the support for show_superseded_patches=true
- kept due to customer requests



Example: show_patches -1 fileset

show_patches -l fileset

PHCO_22958set_parmsPHCO_22958.FIRST-BOOTappliedPHCO_23263HP AutoRAID Manager cumulative patchPHCO_23263.ADMN-ENG-A-MANappliedPHCO_23263.ARRAY-MGMTapplied	Active Patch	Patch Description and State
PHCO_23333LVM Virtual Array supportPHCO_23333.LVM-RUNappliedPHCO_23510gsp parser & dimm labelsPHCO_23510.CORE-SHLIBSappliedPHCO_23578Software Distributor Cumulative PatchPHCO_23578.SD-AGENTappliedPHCO_23578.SD-CMDSappliedPHCO_23578.SD-HELPappliedPHCO_23774Partition Commands cumulative patchPHCO_23774.CORE-ENG-A-MANappliedPHCO_23774.SYS-ADMINapplied	PHCO_22958.FIRST-BOOT PHCO_23263 PHCO_23263.ADMN-ENG-A-MAN PHCO_23263.ARRAY-MGMT PHCO_23333 PHCO_23333.LVM-RUN PHCO_23510 PHCO_23510.CORE-SHLIBS PHCO_23578 PHCO_23578.SD-AGENT PHCO_23578.SD-CMDS PHCO_23578.SD-HELP PHCO_23774 PHCO_23774.CORE-ENG-A-MAN	applied HP AutoRAID Manager cumulative patch applied applied LVM Virtual Array support applied gsp parser & dimm labels applied Software Distributor Cumulative Patch applied applied Partition Commands cumulative patch applied



Into the IT Resource Center

- the one-stop support shop located on the web at <u>http://itrc.hp.com</u>
- everything seen here is free, but registration is required in some areas
- much more for those with support contracts!


IT resource center

- ⇒search
- → online help
- → contact hp

IT resource center home

- ⇒my profile
- ⇒login
- → maintenance and
- support
- → forums
- → training and education
- → planning, design, and implementation

⇒site map

→ go to the european site

maintenance and support

Comprehensive software, hardware, and network support information and tools to help you manage your multivendor computing environment. Americas/Asia-Pacific support customers should use our Americas/Asia-Pacific site.

- search technical knowledge base
- navigate knowledge trees and response center FAQs.
- browse support information by product
- → individual patches
- → software update manager (SUM)
- → software call manager
- → hardware call manager
- → more... 🧹

→ forums

Talk with other IT professionals on a wide variety of topics. Ask a question or earn points helping your peers solve their technical problems in this unique discussion area.

training and education

Our extensive library of high-quality online courses makes it easy to continuously learn new skills and stay up to date on ever-evolving technology. Select from more than 2000 self-paced web-based trainings and live instructor-led online seminars to efficiently train employees and reduce overall training costs.

select language:

→ register now!

tools

translation tools.

highlights

- → you can still compete in the forums contest
- hp world special event for ITRC members
- new functionality from software update manager
- → ITRC forums unveils new enhancements
- brand-rex: always running with hp isee
- supply chain solutions from hp
- openview operations
 7.0 course updates
- web collaboration takes off

useful links

- → introducing the ITRC.
- customer success stories
- review, renew, revise support contracts online
- → hp openview consultant





- → search
- → online help
- → contact hp

→ IT resource center home

- ⇒my profile
- → login

maintenance and support

- → technical knowledge base
- → support info by product.
- → knowledge trees
- → individual patches
- ⇒more...
- → forums
- → training and education
- → planning, design, and implementation

maintenance and support

Please Note:

Attention all China ITRC Hardware Call Manager (HWCM) users. Please note that you will not be able to access the HWCM service from Saturday, 20th July 5:00 PM (GMT+8) to Sunday, 21st July 11:00 AM (GMT+8) due to a software upgrade. We apologise for the inconvenience caused.

self-solve tools

- i 🔿 search technical knowledge base 🕕
- browse support information by product 10 •••

patching

- 🔿 individual patches 🕕
- standard patch bundles (support plus)
- customized patch bundles (custom patch manager) ••• \$
- 🔿 custom patch notification 🕕 🕶

downloads / licensing

- 🔿 individual patches 🕕
- 🕈 standard patch bundles (support plus) 🕕
- 🔿 updates (software update manager) 🕕 🕶
- 🔿 software licensing (codewords, passwords, FAQs) 🛈

legend

- requires additional authorization like a certain level of support agreement or online purchase.
- 5 can be purchased online if you are not already entitled to it.

in the news

- → you can still compete in the forums contest
- → hp world special event for ITRC members
- new functionality from software update manager
- → ITRC forums unveils new enhancements
- brand-rex: always running with hp isee
- → web collaboration takes off

instant support

about hp instant support and isee support support







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standard patch bundles

HP-UX Support Plus is a new product designed to improve the usability of software updates and enhancements. It replaces the Extension Software and Independent Product Release (IPR) products. HP-UX Support Plus contains diagnostic tools and tested General Release, Quality Pack, and Hardware Enablement patch bundles.

legend

- requires additional authorization like a certain level of support agreement or online purchase.
 can be purchased
- online if you are not already entitled to it.

Obtain Support Plus Bundles from HP Software Depot

Download Support Plus patch bundles and support tools, or review the Support Plus bundle types in the HP Software Depot.

🔿 Obtain Support Plus from Software Update Manager 👔 🛶

Go to the latest Support Plus page in Software Update Manager (based on the default System Handle linked to your User ID). There you may request shipment of Support Plus CD-ROMs, or download Support Plus immediately.

→ View Support Plus Releases



Review patch bundle contents in recent Support Plus Releases, with links to full patch text descriptions and download options.





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Welcome, HP ESC Demo User! (ESCDEMO)

support plus release index

Support Plus contains bundles of patches for the core HP-UX operating system that have received additional testing as a group. Patches on Support Plus are considered <u>Recommended</u> patches. The current bundles for all currently supported HP-UX releases are placed onto CD-ROM every three months and are made available to those with HP Software Support Agreements.

This page lists the bundles contained in recent releases of the Support Plus media. Clicking on a bundle will take you to a page listing the contents of the bundle, including the patch descriptions. Each patch in the bundle contents page is linked to its entry in the Patch Database for additional information and download options.

Support Plus is identified by a Release Date, OS, and by an HP Part Number. The Release Date and HP Part Number refer to a specific version of the Support Plus media, and each are printed on the CD-ROM and packaging.

index of support plus media

release date	release number	hp part number
Jun '02 (Support Plus 11.00)	SP-0206	5012-0095
Jun '02 (Support Plus 11.11)	SP-0206	5012-0096
<u>Mar '02 (Support Plus</u> <u>11.00)</u>	SP-0203	5012-0049
<u>Mar '02 (Support Plus</u> <u>11.11)</u>	SP-0203	5012-0050
<u>Dec '01 (Support Plus</u> <u>10.20-700)</u>	SP-0112	5012-0012



June 2002 SP-0206 (Part Number: 5012-0095)

Please note: Beginning with the December 2001, 11.00 Support Plus media, the XSWHWCR1100 bundle is replaced with the HWE1100 bundle. Critical patches previously found in the XSWHWCR1100 bundle are available in the QPK1100 bundle.

release	bundle/ version	description
	B9073AA B.04.01	HP-UX iCOD-purchase (Instant Capacity on Demand - purchase)
HP-UX 11.00	OnlineDiag B.11.00.21.10	HPUX 11.0 Support Tools Bundle, Jun 2002
NP-0X 11.00	<u>QPK1100</u> B.11.00.56.5	Quality Pack for HP-UX 11.00 (March 2002)
	<u>HWE1100</u> B.11.00.0206.5	Hardware Enablement Patches for HP-UX 11.00, (June 2002)

June 2002 SP-0206 (Part Number: 5012-0096)

Please note: Both the GOLDBASE11i and GOLDAPPS11i bundles including their respective patches are delivered within the same depot. The depot name on the Support Plus media is GOLDOPK11i.

release bundle/ version		description	
	B9073AA B.04.01	HPUX iCOD-purchase (Instant Capacity on Demand - purchase)	
	OnlineDiag B.11.11.07.11	HPUX 11.11 Support Tools Bundle, Jun 2002	
HP-UX 11.11	<u>GOLDAPPS11i</u> B.11.11.0206.4	Gold Applications Patches for HP-UX 11i, June 2002	
	<u>GOLDBASE11i</u> B.11.11.0206.4	Gold Base Patches for HP-UX 11i, June 2001	





contents of QPK1100 (SP-0206)

HP-UX 11.00 Quality Pack Patch Bundle

 The first column lists the patches contained in the bundle. Some issues with patches may have come up after the bundle was released. These patches are labeled with the word "warning" in red.

To view a patch's entry in the Patch Database, click on the Patch Name. This lets you view more detailed information about the patch, including patch warning information.

- The second column lists the <u>Recommended</u> patch for patches with warnings. When this field is blank, no older or newer patch meets "recommended" criteria. To determine your next course of action, click on the Patch Name and read the patch warning information. The warning information will give a recommended course of action.
- The third column contains the patch description.

patch	recommended patch	description
PHC0 12555		ioinit patch
PHCO 13205		dd(1) patch for block/unblock conversion
PHCO 13349		XCurses header patch.
PHC0 13719		comsec (ttsyncd) patch
PHC0 13812		fixes dump(1M) handling of active files

InterWorks 2002

IT resource center

⇒search

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- → contact hp

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maintenance and support

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Welcome, HP ESC Demo User! (ESCDEMO)

PHCO 21602	audisp(1m) memory leak patches
<u>PHCO_21854</u>	HPDPS cumulative patch
PHCO 21894	vmstat(1) patch
PHCO 21901	fuser(1M) cumulative patch
PHC0 21927	iostat(1) patch
PHC0 22020	ksh(1) cumulative patch
PHC0 22035	sysdef(1) patch
PHCO 22096 PHCO 26235 warning	cumulative newgrp(1) patch
PHC0 22229	ex(1),vi(1) cumulative patch.
PHC0 22263	XCurses cumulative patch
PHCO 22500	m4(1) patch
PHC0 22592	pipcs(1) and pipcrm(1) patch
PHCO 22664	cumulative patch for /sbin/init
PHC0 22665	kermit(1) patch.





patch details: PHCO_22096

→ view selected patch list

IT resource center	The recommended patch is: <u>PHCO_26235</u> The most recent patch is: <u>PHCO_26235</u>
→ search → online help → contact hp	→ ADD TO SELECTED PATCH LIST
 → IT resource center home → my profile → logout 	Patch Name Patch Description Creation Date Post Date <u>Hardware Platforms - OS Releases</u> Products Filesets Automatic Reboot? <u>Status</u> <u>Critical</u> <u>Category Tags</u> <u>Path Name</u> <u>Symptoms</u> <u>Defect Description SR Patch Files what(1) Output</u> <u>cksum(1) Output</u> <u>Patch Conflicts</u> <u>Patch Dependencies</u> <u>Hardware Dependencies</u> <u>Other Dependencies</u> <u>Supersedes</u> <u>Equivalent Patches</u> <u>Patch Package Size</u> <u>Installation Instructions</u> <u>Special Installation Instructions</u>
 → maintenance and support → technical knowledge base 	Patch Name: <u>PHCO_22096</u>
 → support info by product → knowledge trees individual patches 	Patch Description: s700_800 11.00 cumulative newgrp(1) patch
 → more → training and education → forums 	Creation Date: 00/08/03
⇒site map	Post Date: 00/08/09 Warning: 02/04/16 - This Non-Critical Warning has been issued by HP.
Welcome, HP ESC Demo User! (ESCDEMO)	 <u>PHCO 22021</u> introduced behavior that prohibits any process executed by a user after executing the newgrp(1) command from creating a core file. When newgrp(1) is used the resource limit RLIMIT_CORE is set to 0, effectively prohibiting core dump files from being created. Unless the user is 'root',
	InterWorks 2002

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<u>Sep '01 (Support Plus</u> <u>11.11)</u>	SP-0109	5012-7961
<u>Jun '01 (Support Plus 10.20-</u> 700)	SP-0106	5012-7929
<u>Jun '01 (Support Plus 10.20-</u> 800)	SP-0106	5012-7930
Jun '01 (Support Plus 11.00)	SP-0106	5012-7931
Jun '01 (Support Plus 11.11)	SP-0106	5012-7932

Find recent Support Plus bundles that contain a patch (lookups by patch

number only): PHCO_24630 → FIND BUNDLES

June 2002 SP-0206 (Part Number: 5012-0095)

Please note: Beginning with the December 2001, 11.00 Support Plus media, the XSWHWCR1100 bundle is replaced with the HWE1100 bundle. Critical patches previously found in the XSWHWCR1100 bundle are available in the QPK1100 bundle.

release bundle/ version		description	
	B9073AA B.04.01	HP-UX iCOD-purchase (Instant Capacity on Demand - purchase)	
HP-UX 11.00	OnlineDiag B.11.00.21.10	HPUX 11.0 Support Tools Bundle, Jun 2002	
11-07 11:00	<u>QPK1100</u> B.11.00.56.5	Quality Pack for HP-UX 11.00 (March 2002)	





support plus patch/bundle finder results

PHCO_24630: "HP-UX Patch Tools" was found on the following media:

HP Part Number: 5012-0096 (SP-0206)

GOLDBASE11i

→ IT resource center home

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→ logout

⇒search ⇒online help

maintenance and support

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→ knowledge trees

 \rightarrow individual patches

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→ forums

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Welcome, HP ESC Demo User! (ESCDEMO) HP Part Number: 5012-0050 (SP-0203)

GOLDBASE11i

HP Part Number: 5012-0015 (SP-0112)

GOLDBASE11i



FTP Listing of Root at us-ffs.external.hp.com

Welcome to the IT Resource Center ftp server

You are user 20, and there is a limit of 400 simultaneous accesses.

Log in as user "anonymous" (using your e-mail address as your password) to retrieve available patches for HP-UX, MPE/iX, and other platforms.

If you are a user of other HP ITRC services, log in with your HP ITRC User ID and password to deposit or retrieve your files.

If you have questions, send email to:

support_feedback@us-ffs.external.hp.com

<u>.archive</u>	Sep 30 1998 00:00 Directory	
<u>bin</u>	May 22 2002 11:40 Directory	
domain_patches	May 15 2002 22:05 Directory	
export	Sep 30 1998 00:00 Directory	
<u>firmware_patches</u>	Jul 17 2002 20:12 Directory	
hp-ux_patches	Jul 17 2002 20:15 Directory	
linux	Apr 10 2001 00:00 Directory	
<u>mailx</u>	0 May 02 2002 11:28	
<u>mpe-ix_patches</u>	Jul 18 2002 03:07 Directory	
mv_patches	Jul 17 2002 20:33 Directory	
<pre>patch_bundles</pre>	Apr 13 1999 00:00 Directory	
<u>patches_with_warnings</u>	May 15 2002 03:03 Directory	
recalled_patches	Oct 16 2001 00:00	
superseded_patches	May 15 2002 03:09 Directory	
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		-

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Home of useful files

FTP Listing of /export/patches/ at us-ffs.external.hp.com

Up to higher level directory

bundles.xml	2,016 Jul 22 2002 03:07 Extensible Markup Language
<u>catalogkeys.xml</u>	4,266 May 15 2002 16:25 Extensible Markup Language
context.xml	36,056 Jul 22 2002 03:07 Extensible Markup Language
document.xml	1,188 Jul 22 2002 03:08 Extensible Markup Language
<u>escpatch.dir</u>	4,096 Jul 22 2002 03:05
escpatch.pag	15,799,296 Jul 22 2002 03:05
hp-ux.catalog.1020.gz	3,310,748 Jul 20 2002 03:09 GNU Zip Compressed Data
<u>hp-ux.catalog.1100.gz</u>	2,578,231 Jul 20 2002 03:09 GNU Zip Compressed Data
<u>hp-ux.catalog.readme</u>	1,027 Jul 20 2002 03:09
<u>hp-ux_obs_patch_list</u>	263,036 Jul 20 2002 03:09
<u>hp-ux_patch_matrix</u>	408,640 Jul 20 2002 03:09
<u>hp-ux_patch_sums</u>	5,187,649 Jul 20 2002 03:09
<u>hp-ux_patch_sums.gz</u>	1,847,041 Jul 20 2002 03:09 GNU Zip Compressed Data
<u>mpe-ix_obs_patch_list</u>	33,386 Jul 22 2002 03:08
patches.xml	11,666,552 Jul 22 2002 03:08 Extensible Markup Language
<u>remtxt.d</u>	0 Jul 22 2002 03:05
<u>security_catalog</u>	959,567 Jul 20 2002 03:09
<u>security_catalog.gz</u>	180,049 Jul 20 2002 03:09 GNU Zip Compressed Data
<pre>security_catalog.sync</pre>	79 Jul 20 2002 03:09
slxrept.d	1,576,112 Jul 22 2002 03:08
webpatches.xml	289 Jul 22 2002 03:08 Extensible Markup Language



hp-ux_patch_matrix

lists security patches by release

s800 11.11:PHCO 23492 s700 800 11.11 Kernsymtab Patch

PHCO_23909 8700	0_800 11.11	. cu(1) patch
PHCO_24839 s700	0_800 11.11	libpam_unix cumulative patch
PHCO_25111 s700	0_800 11.11	lpspool subsystem cumulative patch
PHCO_25526 s700	0_800 11.11	login cumulative patch
PHCO_25887 s700	0_800 11.11	. Software Distributor Cumulative Patch
PHCO_26061 s700	0_800 11.11	. Kernel configuration commands patch
PHKL 23335 s700	0 800 11.11	solve inode deadlock with mmap and pagefault

lists all patches by bulletin

s800 11.00:	None	s800	11.00:	None
s800 11.04:	None	s800	11.04:	None
s800 11.10:	None	s800	11.10:	None
s800 11.11:	PHCO_23492	s800	11.11:	PHCO_23492
s800 11.20:	None	s800	11.20:	None

Security Bulletin 160: Security Vulnerability in login (rev.01)

Current	Original
s300 8.00: None	s300 8.00: None
s300 9.00: None	s300 9.00: None





... any time left?

If so then let's try getting SD to jump through some hoops!



Tip 1: Manual Dependencies

- on HP-UX 11.11 and later releases, patches can enforce dependencies with SD requisites
- some patches remain unable to use this mechanism
- when building a depot, or picking and choosing single patches you need to know what to review



manual_dependencies tag

```
# swlist -d -l product *,c=manual_dependencies @ patchsvr:/depots/myDepot
# Initializing...
# Contacting target "patchsvr"...
#
# Target: patchsvr:/depots/myDepot
#
```

PHCO_23774	1.0	Partition Commands cumulative patch
PHCO_24198	1.0	ioscan(1M) patch
PHCO_24504	1.0	audisp patch for IPv6 and unix sockets
PHKL_23203	1.0	Invalid I/O blocks moved to iospace.
PHKL_24163	1.0	Kernel Patch For "ioscan -k" Performance
PHKL_24253	1.0	thread nostop patch supporting NFS
PHKL_24254	1.0	thread nostop patch supporting NFS
PHKL_24255	1.0	thread nostop patch supporting NFS
PHKL_24256	1.0	signal race condition patch/threads
PHKL_24551	1.0	thread nostop, vPar, Psets, load averages
PHNE_24035	1.0	ONC/NFS General Release/Performance Patch
PHSS_23557	1.0	PEX 5.1/Starbase/Hardcopy Run (PA2.0 only)
PHSS_23558	1.0	DDA Run (PA2.0 only)



readme attribute

```
# swlist -d -l product -a readme *, c=manual dependencies @ /depots/myDepot
# Initializing...
# Contacting target "patchsvr"...
#
# Target: patchsvr:/depots/SP55/GOLDQPK11i
#
  PHCO 23774
Patch Name: PHCO 23774
Patch Description: s700 800 11.11 Partition Commands cumulative patch
Creation Date: 01/04/13
Post Date: 01/04/13
Hardware Platforms - OS Releases:
        s700: 11.11
        s800: 11.11
```



More fun with category tags

- a number of tags are predefined
 special_release, enhancement, critical
- if filtering installation or removal, be alert for manual dependencies
- if desired, custom tags can be created



Creating category tags

swlist -d -l product -a category_tag PHCO_23492 @ /var/tmp/bob_depot
Target: housesvr:/var/tmp/myDepot
#
PHCO 23492 patch defect repair general release

swmodify -d -a category tag=security patch PHCO 23492 @ /var/tmp/myDepot

swlist -d -l product -a category_tag PHCO_23492 @ /var/tmp/bob_depot

Target: housesvr:/var/tmp/myDepot
#

PHCO_23492 patch defect_repair general_release security_patch



Filtering with custom tags

```
# swlist -d -l product *,c=security_patch @ /var/tmp/myDepot
# Initializing...
# Contacting target "housesvr"...
#
# Target: housesvr:/var/tmp/myDepot
#
```

1.0	Kernsymtab Patch
1.0	libpam_unix cumulative patch
1.0	solve deadlock with mmap and pagefault
1.0	improper core dump msg
1.0	NTP timeservices utilities
1.0	Bind 8.1.2 Patch
1.0	ftpd(1M) patch
	1.0 1.0 1.0 1.0 1.0

