

# 11.11 and 11.23 Operating Environments.

**Joe Lucas**

Software Design Engineer  
HP



# What does all this mean

**11.11**

**11.20**

**11.22**

**11.23**

**11i**

**11iv1.5**

**11iv1.6**

**11iv2.0**

# HP-UX 11i Operating Environments benefits.



## greatly simplified software deployment

- Only one reboot needed to install the Operating Environment (OE) of your choice
- No codewords are necessary to access any of the functionality/application products resident on the OE media
- Comprehensive offering of Network, Mass Storage, and I/O Drivers available during install process
- Online Diagnostics loaded during cold install

## simple to purchase license

- Each OE license product contains licensing for the base HP-UX O/S and all of the included HP applications

## simple to purchase software support

- Simplification in Software Support ordering and contract administration has been achieved in parallel with the introduction of HP-UX 11i Operating Environments

# Simplifying sales orders and support contract



One example using the Mission Critical OE; note the vast reduction in the number of individually listed line items.

before oes (prior to 12/01/00)...

## HP-UX 11.00 Operating System and Mission Critical Applications

B3919EA HP-UX License to Use, Servers  
B3919EA-AGS Unlimited User License  
B3920EA HP-UX Media, Servers  
B3920EA-UM4 Version 11.00  
B5139DA ECM Toolkit  
B3935DA MC/ServiceGuard (v11.09)  
B5140BA ServiceGuard NFS  
B8843CA Workload Manager  
B5736DA EMS HA Monitors  
B2491BA MirrorDisk/UX  
B3929CA Online JFS (v3.3)  
B6133AA OV GlancePlus Pak 2000, Tier 3 Server, LTU  
B3701AA OV GlancePlus Pak (English)  
B3835DA Process Resource Manager  
B8725AA CIFS/9000 Server  
B8724AA CIFS/9000 Client  
B8111AA Java Runtime Env (v1.2)  
J4258BA Netscape Directory Server  
J4274AA WebQoS Peak Package Edition

...after oes (beginning 12/01/00)

## HP-UX 11i Mission Critical Operating Environment

B9092AA HP-UX Mission Critical OE LTU (w/system)  
B7994AA HP-UX Mission Critical OE Media for Servers  
B7994AA-UM9 Version 11.11

# Getting to know hp-ux Operating Environments for 11i v1(11.11)



## design overview

- Five OEs exist for the two HP-UX Platforms: Three OEs are available for Commercial Servers; two alternate OEs are available for Technical Systems
- For each specific platform, all Operating Environment license and media products are designed to be supersets of one another
- Base HP-UX and Application content common across all five OEs is synchronized with the same revision level

## commercial servers

**Applications specific to the Mission Critical OE**

**Applications specific to the Enterprise OE**

**Applications specific to the 11i OE**

**Customer Selectable Software for Commercial Server OEs**

**Functionality in Base HP-UX (version B.11.11)**

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## technical servers and workstations

**Applications specific to the Technical Computing OE**

**11i Technical  
Computing  
Operating  
Environment**

**11i Minimal  
Technical  
Operating  
Environment**

**Functionality in Base HP-UX (version B.11.11)**

# Contents of 11.11 OE PA only

## Mission Critical Operating Environment

ECM Toolkit  
MC/ServiceGuard  
ServiceGuard NFS  
Cluster Object Mgr  
Workload Manager  
Workload Manager Toolkit

## Enterprise Operating Environment

EMS HA Monitors  
MirrorDisk/UX  
Online JFS (v3.3)  
OV GlancePlus Pak  
Process Resource Manager

## Foundation Operating Environment

CIFS/9000 Server  
CIFS/9000 Client  
Netscape Com  
Service Control Manager  
MySQL  
PAM Kerberos

Base OE Install

Base OS Install

Customer Selectable Stand Alone Software

ATM	PayPerUse
HyperFabric	JavaOOB
MUX TokenRing	IDS 9000
100Base-T	IP Filter
FDDI	HP-UX Install Utilities

Default Installed Stand Alone Software

Perl	Java JPI v1.2
GNOME 1.4 GTK+ Lib	Java JPI v1.3
Mozilla	Java JPI v1.4
Mozilla Source	HPUX Apache
Java JRE v1.2	webserver
Java JRE v1.3	HPUX TOMCAT
Java JRE v1.4	HPUX Webmin
	HPUX XML

Always -Installed Stand Alone Software

Online Diagnostics	Base-VXVM
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Always -Installed Stand Alone NW Drivers

FDDI (PCI)	Gigabit Ethernet (PCI,NextGen PCI)
FibreChannel (PCI)	SCSI RAID
IEther (PCI)	

### Base Aux bundle Contents

EMS Framework	Partition Manager
Obam5	Software
Judy Libraries	Distributor
	Update UX
	EMS Framework

HP-UX 11i Core Functionality

HPUXBaseOS (64-bit)
HPUXBase OS (32-it)

## Technical Computing Operating Environment

CIFS/9000 Server  
CIFS/9000 Client  
Java 3D for MLIB  
MPI  
PAM Kerberos  
Visualize Conference

## Minimal Technical Operating Environment

3D Graphics DK and RTE  
TechSysConf  
Netscape Communicator

- HPUXBase OS (64-bit)
- HPUXBase OS (32-bit)



- EMS Framework
- Obam5
- Judy Libraries
- Partition Manger
- Software Distributor
- Update-UX
- EMS Framework

- FDDI (PCI)
- Fibre Channel (PCI)
- IEther (PCI)
- Gigabit Ethernet (PCI, NextGen PCI)
- SCSI RAID

- Online Diagnostics
- Base-VXVM

- Perl
- GNOME 1.4 GTK+ Lib
- Mozilla
- Mozilla Source
- Java JRE v1.2
- Java JRE v1.3
- Java JRE v1.4
- Java JPI v1.2
- Java JPI v1.3
- HPUX TOMCAT
- HPUX Webmin
- Java JPI v1.4
- HPUX Apache webserver
- HPUX XML

- ATM
- HyperFabric
- MUX TokenRing
- 100Base-T
- FDDI
- PayPerUse
- JavaOOB
- IDS 9000
- IP Filter
- HP-UX Install Utilities

- CIFS/9000 Server
- CIFS/9000 Client
- Netscape Communicator
- Service Control Manager
- MySQL
- PAM Kerberos

- EMS HA Monitors
- MirrorDisk/UX
- Online JFS (v3.3)
- OV GlancePlus Pak
- Process Resource Manager

- ECM Toolkit
- MC/ServiceGuard
- ServiceGuard NFS
- Cluster Object Mgr
- Workload Manager
- Workload Manager Toolkit



- 3D Graphics DK and RTE
- TechSysConf
- Netscape Communicator

- CIFS/9000 Server
- CIFS/9000 Client
- Java 3D for
- MLIB
- MPI
- PAM Kerberos
- Visualize Conference

# Hp-ux Operating Environment media information



- LIF Header is unique on each OE 1st CD-ROM
- OE Bundles:
  - Internet SW Grouping = HPUX11i-OE bundle
  - Internet SW Grouping + Enterprise SW Grouping = HPUX11i-OE-Ent Bundle
  - Internet SW Grouping + Enterprise SW Grouping + Mission Critical SW Grouping = HPUX11i-OE-MC Bundle
  - Minimal Technical SW Grouping = HPUX11i-MTOE Bundle
  - Minimal Technical SW Grouping + Technical Computing SW Grouping = HPUX11i-TCOE Bundle
- A minimum of 4GB disk is required to install an Operating Environment
- A minimum of 128MB RAM is required to install 11i; however, 256MB is recommended (especially for full Enterprise and Mission Critical OE installations).
- Online Diagnostics are always installed. Online Diagnostics will appear on the SupportPlus media, which will also include SCAN tools. SCAN tools will not be on OE media.
- All factory ignited systems will be loaded with the Minimum OE Install (that correlates to the highest media product purchased)

# Hp-ux Operating Environment media information (pag2/2)



- There is no easy way to select individual products within OE bundles to load or remove; this ability is under review
- All OE CD-ROMs/DVD (for any given OE) are required for any installation or update.
- Upgrading of the OE is supported
- Commercial Server OEs are not supported on Technical Systems; Technical Computing OE is supported on ALL systems, Minimal Technical OE is supported on Workstations ONLY
- There are two patch bundles (Hardware Enablement and Bundle11i) on each OE First CD-ROM, and these patch bundles are always installed from media.

# Mapping Sample



- Mapping will be given for each OE bundle such that customers can identify individual applications' product.fileset content
- This highly customized, customer-specific method of installation or removal of OE bundle components is not guaranteed to meet all required software dependencies

#####

#Description: Java 2 RTE for HP-UX (700/800), PA1.1 + PA2.0 Add On

Java2RTE\_base.JAVA2-JRE-BASE,r=1.2.2.04.02,a=HP-UX\_B.11.11\_32/64,v=HP  
Java2RTE\_doc.JAVA2-JRE-DOC,r=1.2.2.04.02,a=HP-UX\_B.11.11\_32/64,v=HP  
Java2RTE\_perf.JAVA2-JRE,r=1.2.2.04.02,a=HP-UX\_B.11.11\_32/64,v=HP

#####

#Description: HP-UX ServiceControl Manager

ServControlMgr.MX-AGENT,r=A.01.01.01,a=HP-UX\_B.11.00\_32/64,v=HP  
ServControlMgr.MX-CMS,r=A.01.01.01,a=HP-UX\_B.11.00\_32/64,v=HP  
ServControlMgr.MX-ENG-MAN,r=A.01.01.01,a=HP-UX\_B.11.00\_32/64,v=HP  
ServControlMgr.MX-TOOLS,r=A.01.01.01,a=HP-UX\_B.11.00\_32/64,v=HP

# 11i media kit solution (release stream specific)

## operating environment media & rbi (3 for each of the five OE's)

- Global Solution (no localized media)
- 1st CD-ROMs differ primarily by LIF header (OE-specific configuration files and menus for unique 2<sup>nd</sup> & 3<sup>rd</sup> CD-ROMs)



## Additional media: (each has own rbi)

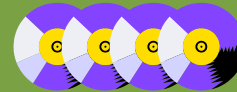
- ServiceGuard GUI (Multi-OS) In the MCOE only

## Additional documentation, besides rbi's:

- Install/Update Manual
- Brochure for obtaining BEA, Oracle and IONA
- Periodically, letters may be added to the kit regarding specific problems found for a production issue

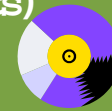
## application media (4)

- for Servers and Workstations
- AR (enterprise release or quarterly)



## instant info & rbi (one for English kits & one for Japanese kits)

- Both Servers and Workstations



## support plus & rbi (1)

- Both Servers and Workstations
- Online/Offline Diagnostics
- H W Monitors
- Patch Bundles:
  - H W Enablement11i
- Quality Packs:
  - GOLDBASE11I (core plus OE network drivers)
  - GOLDAPPS11I (currently OE applications)
- iCOD & utility
- Support Plus docs



## software pack & rbi (1) (includes patches)

- (new core functionality)
- Delivered via SW Depot also



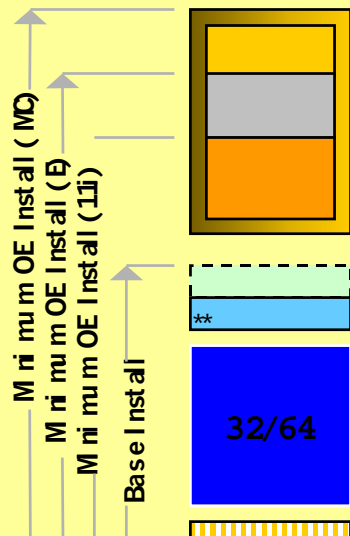
# HP-UX 11i OE - 1st CD for all OEs

## Installing the OE

Customer Selectable

Always Installed

Default Installed



## 1st CD-ROM

- HP-UX 11.11 Only
- Servers Only
- Unencrypted
- Size Statistics:  
- Actual (from CD): 509 MB

\*\*Action required if you do not want the Default Installed products. See glossary for Default Installed

**FEATURE11-11 Patch Bundle (VxVm Rootability)**

HWE & 11i Patch Bundles

HPUXBaseAux Bundle

SD  
Update-UX  
OBAM  
DMI/SCR  
ParMgr  
EMS Framework  
Judy Libraries

**Global HPUXBase32**

**Global HPUXBase64**

**LIF Header (for cold install)**

- **Mission Critical Specific**
- **Install Kernel and File System**
- **Configuration File Information**

# Network Drivers For All OEs



## 1st CD-ROM

Always Installed

HSC Gigabit A4924A/A4925A  
GigEther-00

PCI Gigabit 100B-SX A4926A  
GigEther-00

PCI Gigabit A6794A/A6825A/  
A6847A/A9782A/A9784A/  
A7109A  
GigEther-01

PCI FDDI A3739A/B  
FDDI-00

PCI TachyonTL A5158A/  
A6684A/A6685A/A6795A  
FibrChanl-00

HSC EISA Gigabit A4925A  
GigEther-00

PCI Gigabit A4929A  
GigEther-00

PCI RAID A5856A  
RAID-00

Ethernet HBA A6974A  
IEther-00



# Network Drivers For All OEs

**1st CD-ROM**

**Customer Selectable**

**HSC FDDI  
A3722A/A3723A  
FDDI-01**

**EISA 100BT A4308B  
100BaseT-00**

**PCI HyperFab V  
A4919A  
HyperFab-00**

**NIO FDDI J2157B  
FDDI-02**

**NIO 100BT A3495A  
100BaseT-01**

**HSC HyperFabric K  
A4920A  
HyperFab-00**

**EISA FDDI  
A3659A/B5502BA  
FDDI-03**

**EISA TokenRing  
J2165B  
TokenRing-02**

**HSC HyperFabric  
L/N A6092A/A6386A  
HyperFab-00**

**PCI MUX  
J3592A/J3593A/A67  
48A/ A6749A  
TermIO-00**

**NIO TokenRing  
J2166B  
TokenRing-01**

**HSC HyperFabric  
D/R A4921A  
HyperFab-00**

**EISA MUX  
J2482A/J2483A  
TermIO-01**

**PCI TokenRing  
A5783A  
A4930A TokenRing-  
00**

**HSC ATM J2468A/J2469A/  
J2499A/J3420B/J3573A  
ATM-01**

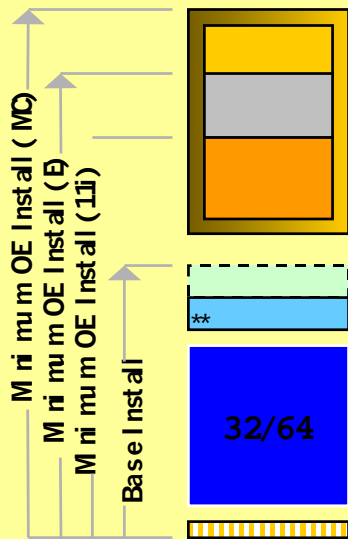
**PCI ATM  
A5483A/A5513A/  
A5515A/J3557A  
ATM-00**

## Installing the OE

Customer Selectable

Always Installed

Default Installed



## 2nd CD-ROM

- HP-UX 11.11 Only
- Servers Only
- Unencrypted
- Size Statistics:

**Mission Critical:**  
Actual (from CD) 429MB

**Enterprise:**  
Actual (from CD) 408MB

**11i OE:**  
Actual (from CD) 343 MB

### Mission Critical Grouping

- \*MC/ServiceGuard
- Cluster Object Manager
- ServiceGuard NFS
- ECM Toolkit
- Workload Manager
- WLM-Oracle Database Toolkit

### Enterprise Grouping

- EMS HA Monitors
- Online JFS 800 (version 3.3)
- OV GlancePlus Pak (English)
- OV GlancePlus Pak (Japan.)
- MirrorDisk/UX
- \*Process Resource Manager

### 11i Software Grouping

- ServiceControl Manager
- MySQL
- CIFS/9000 Client for Servers
- CIFS/9000 Server for Servers
- PAM Kerberos
- Netscape Communicator

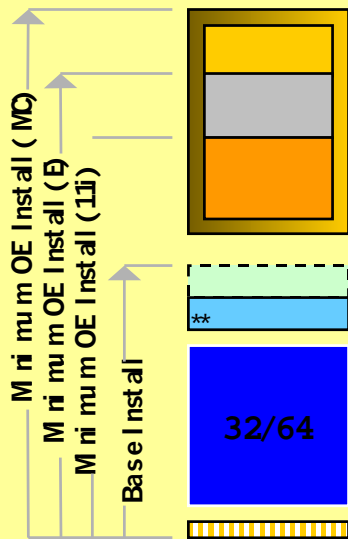
# HP-UX 11i Server OE's

## Installing the OE

Customer Selectable

Always Installed

Default Installed



## 2nd CD-ROM

- HP-UX 11.11 Only
- Servers Only
- Unencrypted
- Size Statistics:

**Mission Critical:**  
Actual (from CD) 429MB

**Enterprise:**  
Actual (from CD) 408MB

**11i OE:**  
Actual (from CD) 343 MB

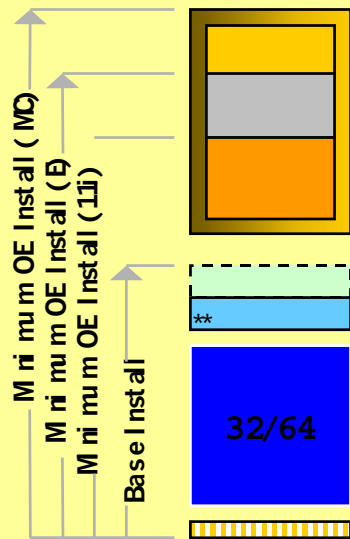
CDE English*	CDE Japanese
CDE S-Chinese	CDE T-Chinese
CDE Korean	CDE German
CDE French	CDE Italian
CDE Spanish	CDE Swedish
IPFilter	
Intrusion Detection	
Mozilla	
Mozilla Source	
GTK	

## Installing the OE

Customer Selectable

Always Installed

Default Installed



## 2nd CD-ROM

- HP-UX 11.11 Only
- Unencrypted
- Workstations and Tech Servers
- Size Statistics:

### Technical Computing:

-Actual (from CD): 499 MB

Minimal Technical:Actual (from CD):  
334 MB

### Technical Computing Bundle (HPUX11i-TCOE)

### Technical Computing Grouping

CIFS/9000 Client for Servers

CIFS/9000 Server for Servers

Java 3D (v 1.3 & 1.4)

PAM Kerberos

Visualize Conference

MPI

MLIB

### Minimal Technical Computing Grouping

3D Graphics Dev Kit and RTE

Netscape Communicator

TechSysConf

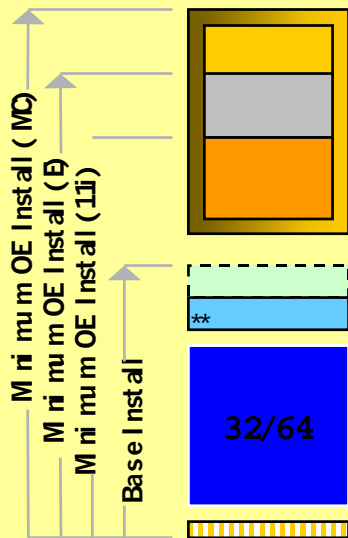
NOTE: When you load the TCOE, you will not see a separate bundle for the MTOE. All products from the MTOE are loaded via the TCOE bundle

## Installing the OE

Customer Selectable

Always Installed

Default Installed



## 2nd CD-ROM

- HP-UX 11.11 Only
- Unencrypted
- Workstations and Tech Servers
- Size Statistics:

### Technical Computing:

-Actual (from CD): 499 MB

Minimal Technical:Actual (from CD):  
334 MB

NOTE: When you load the TCOE, you will not see a separate bundle for the MTOE. All products from the MTOE are loaded via the TCOE bundle

CDE English, Japanese, S-Chinese, T-Chinese, Korean, French, Spanish, German, Swedish, Italian

Mozilla

Mozilla Source

Gnome GTK 1.4

# HP-UX 11i Server and Workstation OE's

Customer  
Selectable

Always  
Installed

Default  
Installed

## 3rd CD-ROM

- HP-UX 11.11 Only
- Servers Only
- Unencrypted
- Size Statistics:

11i OE:  
Actual (from CD) 474 MB

Apache Bundles:  
HPUX Apache  
HPUX TOMCAT  
HPUX Webmin  
HPUX XML

Java JRE 1.2, 1.3

Java JPI 1.2, 1.3

\*perl

Base-VxVM

HP-UX Support Tool  
Bundle  
(Diagnostics)

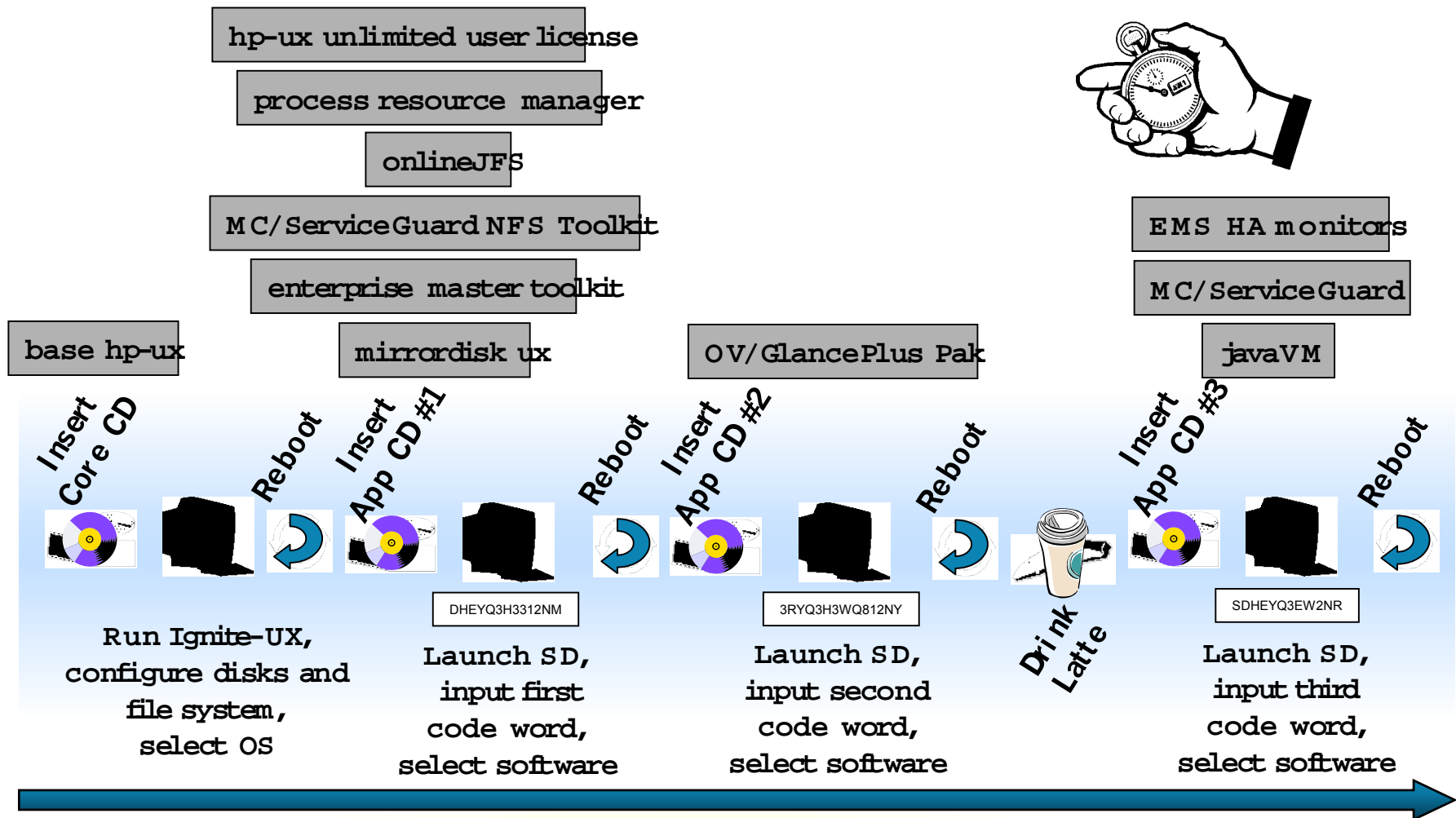
PayPerUse

Java OOB

HP-UX Install Utilities  
for 11.11  
(IUX)

Netscape Directory  
Services  
(LDAP)

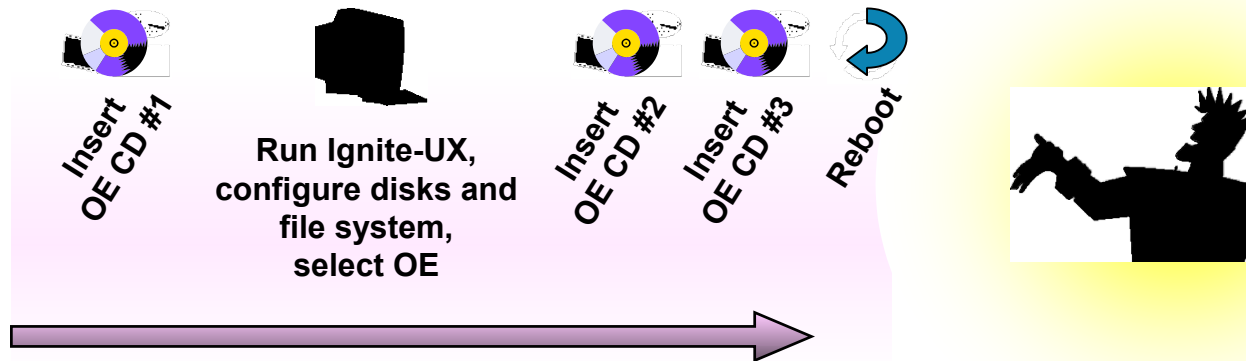
# Software deployment before Operating Environments



Too many CD-ROMs, code words, and reboots

# Software Deployment with Operating Environments on 11.11

## hp-ux 11i Missioncritical OE



*Mission Critical OE Install Time Reduced by 50%*

- *Comprehensive list of drivers available during cold install*
- *New media structure (see media structure slides for details)*
- *Reduced number of CD-ROMs required during installation*
- *Just one reboot to install all OE software!*
- *Online Diagnostics loaded during cold install*
- *Nuisance messages greatly reduced*
- *Significantly improved update experience with new Update-UX*



- Update-ux
  - f option
  - Select bitness
  - Select OE
  - Interactive
  - x option values.
- Valid paths
  - 10.20
  - 11.0
  - 11.11

- update-ux [update-ux options] -s source\_depot [swinstall\_options] [Bundle\_Name]
  - update-ux options:
    - -?
    - -a bits
    - -n
    - -y
  - Source depot specification:
    - -s source\_depot
  - swinstall\_options
    - -i
    - -x option=value
    - -f software\_file
  - Bundle\_Name

# Getting to know hp-ux Operating Environments for 11i v2 (11.23)



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**Applications specific to the Enterprise OE**

**Applications specific to the 11i OE**

**Customer Selectable Software for Commercial Server OEs**

**Functionality in Base HP-UX (version B.11.23)**

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## technical servers and workstations

**Applications specific to the Technical Computing OE**

**11i Technical  
Computing  
Operating  
Environment**

**11i Minimal  
Technical  
Operating  
Environment**

**Functionality in Base HP-UX (version B.11.23)**

# Supported machines for 11.23



- Hitachi ha8500 (Hitachi server)
- HP Integrity rx1600 (HP server)
- HP Integrity cx2600 (HP server)
- HP Integrity rx2600 (HP server)
- HP Integrity rx4640 (HP server)
- HP Integrity rx5670 (HP server)
- HP Integrity rx7620 (HP server)
- HP Integrity rx8620 (HP server)
- HP Integrity Superdome (HP servers: 16-, 32-, and 64-way))
- U32000 (NEC server)
- zx2000 (HP workstation)
- zx6000 (HP workstation)

# Contents of 11.23 OE IPF only



**Mission Critical Operating Environment**

- ECM Toolkit
- MC/ServiceGuard
- ServiceGuard NFS
- Cluster Object Mgr
- Workload Manager
- Workload Manager Toolkit

**Enterprise Operating Environment**

- EMS HA Monitors
- MirrorDisk/UX
- Online JFS (v3.3)
- OV GlancePlus Pak
- Process Resource Manager

**Foundation Operating Environment**

- CIFS/9000 Server
- CIFS/9000 Client
- Java JPI v1.3
- Java JPI v1.4
- PAM Kerberos

**Base OE Install**

**Base OS Install**

<b><u>Customer Selectable Stand Alone Software</u></b>	ATM (PCI) HyperFabric (PCI) MUX (PCI) TokenRing (PCI) HP-UX Install Utilities IDS 9000 (Servers only)	PkgBuilder PayPerUse JavaOOB Security Level 10 Security Level 20 Security Level 30
--	--	---

<b><u>Default Installed Stand Alone Software</u></b>	Perl MySQL Security Tools ServiceControl Mgr Judy Libraries Netscape Suite 7.0 GNOME 1.4 GTK+ Lib Bastille Secure Shell Mozilla Mozilla Source	IP Filter Secure Patch Check ParManager Java JRE v1.3 Java JRE v1.4 Java SDK v1.3 Java JDK v1.4 HPUX Apache webserver HPUX TOMCAT HPUX Webmin HPUX XML
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<b><u>Always -Installed Stand Alone Software</u></b>	
Online Diagnostics iCOD WBEM Services	Base-VXVM nPartition Provider
<b><u>Always -Installed Stand Alone NW Drivers</u></b>	
FDDI (PCI) FibreChannel (PCI) IEther (PCI) USB	Gigabit Ethernet (PCI, NextGen PCI) scsiU320-00

<b><u>Base Aux bundle Contents</u></b>	
Casey EMS Framework ONC SWGETTOOLS	Peripheral Device Tool Software Distributor Update UX

<b><u>HP-UX 11i Core Functionality</u></b> HPUXBaseOS (64-bit)
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**Minimal Technical Operating Environment**

- 3D Graphics DK and RTE
- TechSysConf

**Technical Computing Operating Environment**

- CIFS/9000 Server
- CIFS/9000 Client
- Java JPI v1.3
- Java JPI v1.4
- Java 3D for 1.3
- Java 3D for 1.4
- MLIB
- MPI
- PAM Kerberos

# HP-UX 11i V2 (11.23) Core Functionality



- HPUXBaseOS (64-bit)

- Casey
- EMS Framework
- ONC
- SWGETTOOLS
- Peripheral Device Tool
- Software Distributor
- Update UX



- FDDI (PCI)
- FibreChannel (PCI)
- IEther (PCI)
- USB
- Gigabit Ethernet (PCI, NextGen PCI)
- scsiU320-00

- Online Diagnostics
- iCOD
- WBEM Services
- Base-VXVM
- nPartition Provider

- Perl
- MySQL
- Security Tools
- ServiceControl Mgr
- Judy Libraries
- Netscape Suite 7.0
- GNOME 1.4 GTK+ Lib
- Bastille
- Secure Shell
- Mozilla
- Mozilla Source
- IP Filter
- Secure Patch Check
- ParManager
- Java JRE v1.3
- Java JRE v1.4
- Java SDK v1.3
- Java JDK v1.4
- HPUX Apache
- webserver
- XML

- HPUX TOMCAT
- HPUX Webmin

- ATM (PCI,)
- HyperFabric (PCI)
- MUX (PCI)
- TokenRing (PCI)
- HP-UX Install Utilities
- IDS 9000 (Servers only)
- PkgBuilder
- PayPerUse
- JavaOOB
- Security Level 10
- Security Level 20
- Security Level 30

- CIFS/9000 Server
- CIFS/9000 Client
- Java JPI v1.3
- Java JPI v1.4
- PAM Kerberos

- EMS HA Monitors
- MirrorDisk/UX
- Online JFS (v3.3)
- OV GlancePlus Pak
- Process Resource Manager

- ECM Toolkit
- MC/ServiceGuard
- ServiceGuard NFS
- Cluster Object Mgr
- Workload Manager
- Workload Manager Toolkit



- 3D Graphics DK and RTE
- TechSysConf

- CIFS/9000 Server
- CIFS/9000 Client
- Java JPI v1.3
- Java JPI v1.4
- Java 3D for 1.3
- Java 3D for 1.4
- MLIB
- MPI
- PAM Kerberos

# Why Install-Time Security?

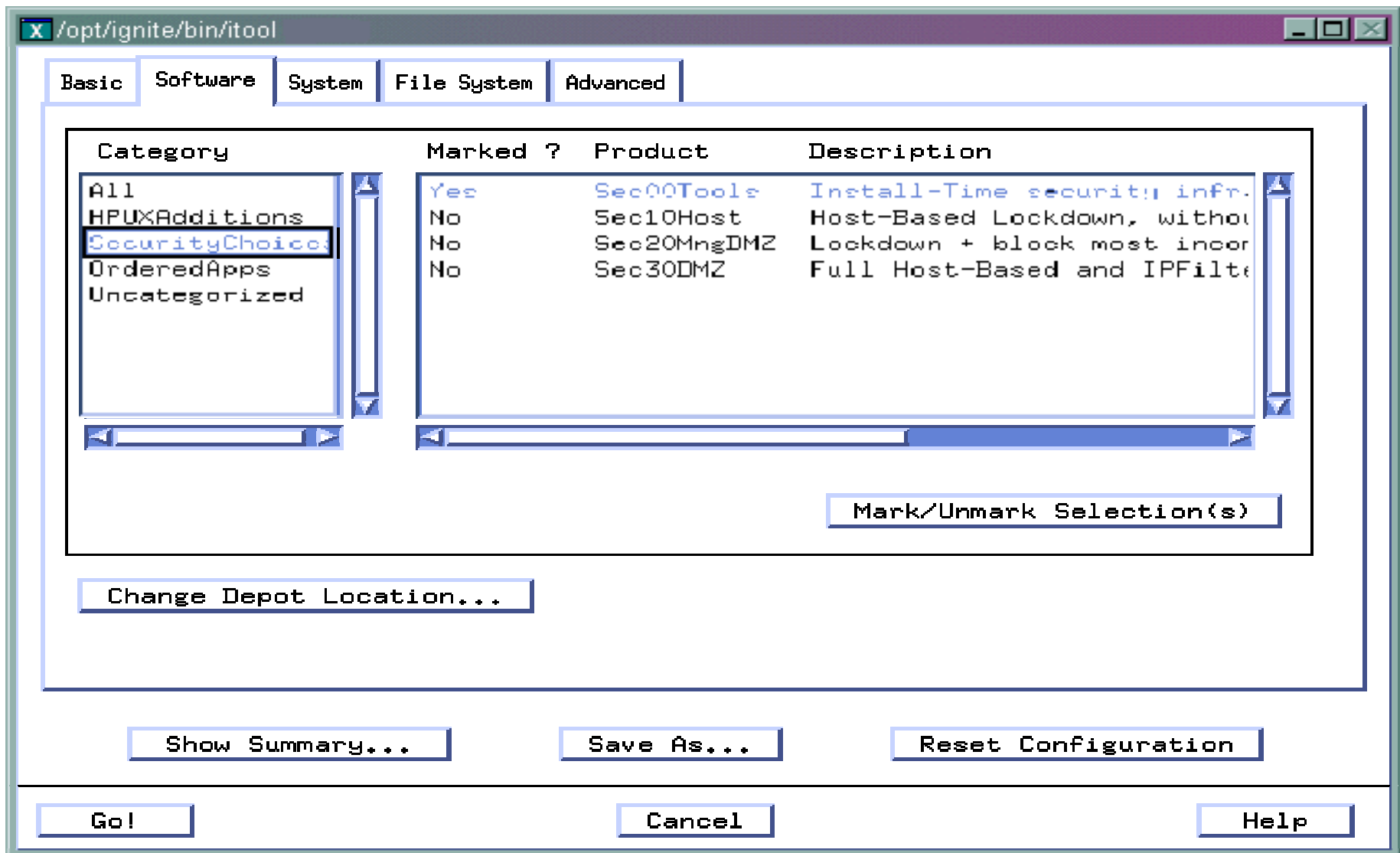


- Deploy HP-UX into high threat environments quickly
  - make security or compatibility decisions suited to your needs
  - security tradeoffs no longer configured for the “generic user”
- Customers can be “secure-by-default,” at installation,
  - Can later revise settings with Bastille

# Install-Time Security Options

Security Level	Description
Sec00Tools	The install-time security infrastructure; no security changes
Sec10Host	Host-based lockdown: no firewall; networking runs normally, including non-root Telnet and FTP
Sec20MngDMZ	Lockdown uses IPFilter firewall to block incoming connections except common, secured, management protocols
Sec30DMZ	DMZ Lockdown: IPFilter blocks all incoming connections except SecureShell

# Four Ways to Use Install-Time Security



# Four Ways to Use Install-Time Security

The screenshot shows a window titled "SD Install - Software Selection (pinta)". The window has a menu bar with "File", "View", "Options", "Actions", and "Help". Below the menu bar, the source and target are listed: "Source: hpfc1c1:/release/HPUX11i-OE-MC.DVD.PA" and "Target: pinta:/". A message states: "Only software compatible with the target is available for selection." Below this, a summary line reads: "Top (Bundles and Products) 60 Objects 56 Filtered 0 of 4 selected". A table with four columns is displayed: "Marked?", "Name", "Revision", and "Information". The table contains four rows of data, each representing a different security bundle.

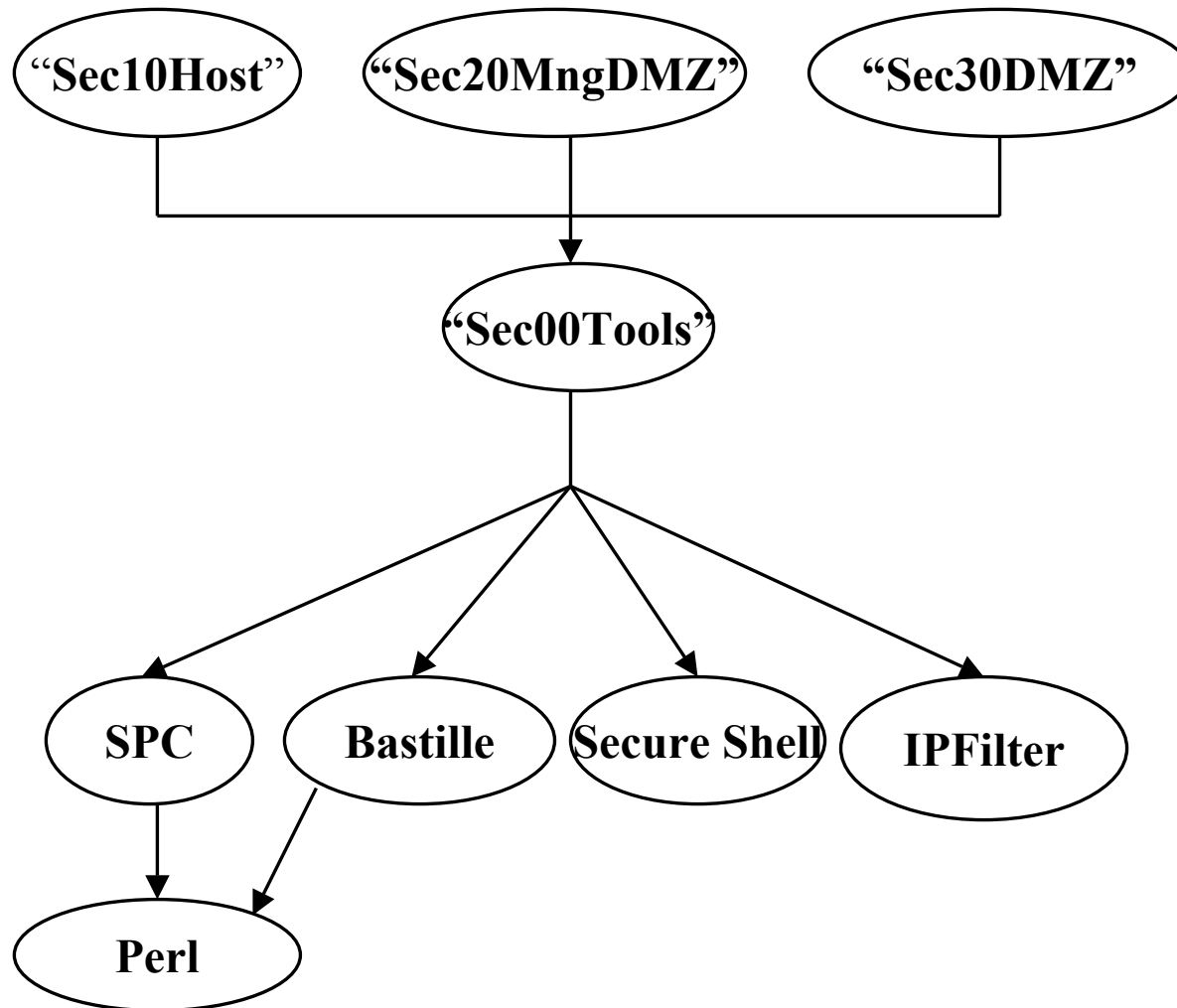
Marked?	Name	Revision	Information
	Sec00Tools	-> B,01,00,00,%1	Install-Time security infrastructure,
	Sec10Host	-> B,01,00,00,%1	Host-Based Lockdown, without IPfilter configurati
	Sec20MngDMZ	-> B,01,00,00,%1	Lockdown + block most incoming traffic with IPfil
	Sec30DMZ	-> B,01,00,00,%1	Full Host-Based and IPfilter Network Lockdown

## Manual

```
# swinstall -s <depot> -x autoreboot=true <level>
```

## Update/Ux

```
# update-ux -s <depot> <OE> <level>
```





- Configures system daemons, settings, and software, such as sendmail to be more secure
- Turns off unneeded services, such as echo and finger
- Helps create chroot “jails”
  - Additional security layer for Internet services such as web and Domain Name Service (DNS)

- Educational administrator interface
- Bastille configuration can revert to the Pre-Bastille state
- Configures conversion to Trusted Systems or Password Shadowing
- Security Patch Check can run automatically
- Configures the IPFilter firewall

- Security Patch Check (SPC)
  - ensures security patches are current on a server
  - Bastille sets SPC to run regularly
- IPFilter
  - Host Firewall filters TCP, UDP and ICMP
  - Bastille configures to protect in two “DMZ” levels
- HP-UX Secure Shell
  - Log in securely to a locked-down system
  - Use as a secure substitute for rcp, ftp, remsh, and telnet

# 11i media kit solution (release stream specific - DVD)



## operating environment media & rbi (1 for each of the seven OE's)

-Global Solution (no localized media)



NOTE: Post SR release - this media will contain Patch bundles previously delivered on SupportPlus

## Additional media: (each has own rbi)

-ServiceGuard GUI (Multi-OS) In the MCOE only (may be on CD)

## Additional documentation, besides rbi's:

-Install/Update Manual  
-Periodically, letters may be added to the kit regarding specific problems found for a production issue

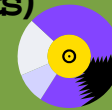
## application media (1)

- for Servers and Workstations  
- AR (enterprise release or quarterly)



## instant info & rbi (one for English kits & one for Japanese kits)

- Both Servers and Workstations



## support plus & rbi

-No longer delivered with 11.23. All software moved to OE media

User Guide documentation is incorporated into the Install/Update Guide

Offline Diagnostics is delivered on a separate CD with the hardware

## software pack & rbi (1) (Post SR)

(new core functionality)

Delivered via S W Depot also

- Both Servers and Workstations



- Update-ux
  - Select OE
  - Interactive
  - x option values.
- Valid paths
  - 11.22
  - 11.23

- update-ux [update-ux options] -s source\_depot [swinstall\_options] [Bundle\_Name]
  - update-ux options:
    - -?
    - -n
    - -y
  - Source depot specification:
    - -s source\_depot
  - swinstall\_options
    - -i
    - -x option=value
  - Bundle\_Name

- Testing

- Various labs will use different OEs all OEs are tested
- Reliability
- Product testing
- Functionality
- System Solution testing.



- Install, remove and reinstall testing
  - Install selected OE
  - Install/Remove/Reinstall of products not in the OE based on dependencies
- Update testing.
  - Select validate starting points.
  - Include all the products that in the update depot
  - Use update-ux to update machine
  - Swverify the machine

- Rc.log
- Swagent.log
- Swagentd.log
- Swconfig.log
- Swinstall.log
- Swmodify.log
- Syslog.log
- Swlist output
- Dmesg
- Swagent.log.ver
- Swagent.log.ver
- Swconfig.log
- Swcopy.log
- Swlist.fs\_state
- Update-ux.log

# What we look for

- Errors
- Warnings
- Unclassified
- Unclear
- Confusing

[Operating Environment \(OE\)](#) An integrated and tested software solution containing HP-UX Operating system software and selected applications that are marketed and supported via OE-specific license and media product(s)

[HP-UX 11i Mission Critical OE](#) An Operating Environment marketed and supported only for Commercial Servers containing HP U X Base, HP U X Base Aux Bundle, Mission Critical Software Bundle, Always-Installed Network Drivers, Customer Selectable Software

[HP-UX 11i Enterprise OE](#) An Operating Environment marketed and supported only for Commercial Servers containing HP U X Base, HP U X Base Aux Bundle, Enterprise Software Bundle, Always-Installed Network Drivers, Customer Selectable Software

[HP-UX 11i OE](#) An Operating Environment marketed and supported only for Commercial Servers containing HP U X Base, HP U X Base Aux Bundle, 11i Software Bundle, Always-Installed Network Drivers, Customer Selectable Software

# Glossary of Terms



[HP-UX 11i Technical Computing OE](#) An Operating Environment marketed and supported on Technical Computing Servers and Workstations containing HPUXBase, HPUXBaseAux Bundle, Technical Computing Software Bundle, Always-Installed Network Drivers, Customer Selectable Software

[HP-UX 11i Minimal Technical OE](#) An Operating Environment marketed and supported on Technical Computing Workstations containing HPUXBase, HPUXBaseAux Bundle, Minimal Technical Software Bundle, Always-Installed Network Drivers, Customer Selectable Software

[Internet Grouping](#) Group of applications that comprise the definitive list of what is in the 11i OE (Commercial Servers only); this term synonymous with "11i Software Bundle"

[Enterprise Grouping](#) Group of applications that comprise the definitive list of what is in the Enterprise OE (Commercial Servers only)

[Mission Critical Grouping](#) Group of applications that comprise the definitive list of what is in the Mission Critical OE (Commercial Servers only)

# Glossary of Terms



Minimal Technical Grouping Group of applications that comprise the definitive list of what is in the Minimal Technical OE (Workstations only)

Technical Computing Grouping Group of applications that comprise the definitive list of what is in the Technical Computing OE (Technical Systems only)

11i Software Bundle A bundle of product.filesets that comprise the applications included in the 11i Grouping; this term synonymous with "11i Software Grouping". SD Bundle Tag: HP UX11i-OE

Enterprise Software Bundle A bundle of product.filesets that comprise the applications included in the 11i and Enterprise Groupings  
SD Bundle Tag: HP UX11i-OE-Ent

Mission Critical Software Bundle A bundle of product.filesets that comprise the applications included in the 11i, Enterprise, and Mission Critical Groupings. SD Bundle Tag: HP UX11i-OE-MC

Minimal Technical Software Bundle A bundle of product.filesets that comprise the applications included in the Minimal Technical Computing Grouping. SD Bundle Tag: HP UX11i-MTOE

# Glossary of Terms



[Tech Computing Software Bundle](#) A bundle of product filesets that comprise the applications included in the Minimal Technical and Technical Computing Groupings. SD Bundle Tag: HPUX11i-TCOE

[HPUXBase](#) Base HP-UX "core" Operating system software that includes, at a minimum, 32 and 64 bit versions of the kernel and the LIF header. Relevant SD Bundle Tags: HPUXBase64 HPUXBase32

[HPUXBaseAux Bundle](#) A bundle that contains software components and Applications that complement functionality in HPUXBase and will always be loaded onto systems during cold install and factory ignition process.

[Base OS Install](#) Install of a combination of HPUXBase, HPUXBaseAux, Always-Installed Network Drivers, ACE Patch Bundle, and CDE (English only for Commercial Servers, all localized CDE bundles for Technical Systems)

[Minimum OE Install](#) Install of a combination of HPUXBase64 or HPUXBase32 (dependent upon HW), HPUXBaseAux, Always-Installed Network Drivers, CDE (English only for Commercial Servers, All for Technical Systems), and the highest content OE Software Bundle designated by the IUX Menu Selector.

1st CD-ROM CD-ROM that contains, at a minimum, HPUXBase64, HPUXBase 32, HPUXBaseAux, and Always-Installed Network Drivers.

2nd CD-ROM CD-ROM that contains, at a minimum, CDE and the OE Software Bundle.

Customer Selectable Referring to the install process, applications optionally selected and loaded by the customer

Always-Installed NW Drivers Network Drivers that are always installed during the cold install and factory ignition processes.