FUJITSU

FUJITSU Software
ServerView Resource Orchestrator V3.4.0

Windows PE Creation Script Guide

Windows/Linux

J2X1-8136-02ENZ0(03)
October 2020

Preface

Purpose of This Document

This manual explains the functional overview and operation methods for the Windows PE creation script provided with FUJITSU Software ServerView Resource Orchestrator (hereinafter Resource Orchestrator).

Intended Readers

This manual is written for infrastructure administrators who will use Resource Orchestrator to backup and restore physical servers and physical L-Servers, and use the Resource Orchestrator cloning functions.

Structure of This Document

This manual is composed as follows:

Chapter 1 Overview of the Windows PE Creation Script

Explains the overview of the Windows PE creation script.

Chapter 2 Flow of Operations Using Resource Orchestrator

Explains the flow of operations when using the Windows PE creation script.

Chapter 3 Creation Procedure for Windows PE 5.1 (amd64)

Explains the creation procedure for Windows PE 5.1 (amd64).

Chapter 4 Messages

Explains the messages that are output when using this function.

Chapter 5 Troubleshooting

Explains the method for performing troubleshooting when using the Windows PE creation script.

Appendix A Creation Procedure for Windows PE 3.1 (amd64)

Explains the creation procedure for Windows PE 3.1 (amd64).

Appendix B Creation Procedure for Windows PE 3.1 (x86)

Explains the creation procedure for Windows PE 3.1 (x86).

Appendix C batch_path_design.ini

Explains batch_path_design.ini.

Web Site URLs

URLs provided as reference sources within the main text are correct as of October 2020.

Document Conventions

The notation in this manual conforms to the following conventions.

- When there is different information for the different versions of Resource Orchestrator, it is indicated as follows.

[All Editions]	Sections relevant for all editions
[Cloud Edition]	Sections related to Cloud Edition
[Virtual Edition]	Sections related to Virtual Edition

- When using Resource Orchestrator and the functions necessary differ due to the necessary basic software (OS), it is indicated as follows:

  [Windows Manager]

  Sections related to Windows manager

  [Linux Manager]

  Sections related to Linux manager

[Windows]

Sections related to Windows

[Linux]

Sections related to Linux

[Red Hat Enterprise Linux]

Sections related to Red Hat Enterprise Linux

[Solaris]

Sections related to Solaris

[VMware]

Sections related to VMware

[Horizon View]

Sections related to VMware Horizon View

[Hyper-V]

Sections related to Hyper-V

[Xen]

Sections related to RHEL5-Xen

[KVM]

Sections related to RHEL-KVM

[Solaris Zones]

Sections related to Solaris Zones (Solaris 10) and Solaris Zones (Solaris 11)

[Solaris Zones (Solaris 10)]

Sections related to Solaris Zones with Solaris 10 VM hosts

[Solaris Zones (Solaris 11)]

Sections related to Solaris Zones with Solaris 11 VM hosts

[OVM for x86]

Sections related to Oracle VM Server for x86 2.2 and Oracle VM Server for x86 3.x

[OVM for x86 2.2]

Sections related to Oracle VM Server for x86 2.2

[OVM for x86 3.x]

Sections related to Oracle VM Server for x86 3.2 and Oracle VM Server for x86 3.3

[OVM for SPARC]

Sections related to Oracle VM Server for SPARC

[Citrix Xen]

Sections related to Citrix XenServer

[Physical Servers]

Sections related to physical servers

[Trend Micro OfficeScan]

Sections related to Trend Micro OfficeScan

[Symantec]

Sections related to Symantec Endpoint Protection

[McAfee]

Sections related to McAfee ePolicy Orchestrator

- Unless specified otherwise, the blade servers mentioned in this manual refer to PRIMERGY BX servers.
- Oracle Solaris may also be indicated as Solaris, Solaris Operating System, or Solaris OS.
- Oracle Solaris Zones may also be indicated as Solaris Containers or Solaris Container.
- Oracle VM Server for x86 may also be indicated as Oracle VM.
- In Resource Orchestrator, the following servers are referred to as SPARC Enterprise.
  - SPARC Enterprise M3000/M4000/M5000/M8000/M9000
  - SPARC Enterprise T5120/T5140/T5220/T5240/T5440
- In Resource Orchestrator, the following servers are referred to as SPARC M12.
  - SPARC M12-1/M12-2/M12-2S
- In Resource Orchestrator, the following servers are referred to as SPARC M10.
  - SPARC M10-1/M10-4/M10-4S
- Fujitsu SPARC M12 is the product name used for SPARC M12 when they are sold outside Japan.
- Fujitsu M10 is the product name used for SPARC M10 when they are sold outside Japan.
- In this manual, Fujitsu SPARC M12 is referred to as SPARC M12.
- In this manual, Fujitsu M10 is referred to as SPARC M10.
- In this manual, Fujitsu SPARC M12 and Fujitsu M10 are collectively referred to as SPARC M10/M12.
- In Resource Orchestrator, the following software is referred to as GLS.
  - PRIMECLUSTER GLS 4.4 or earlier
- In Resource Orchestrator, the following software is referred to as GDS.
  - PRIMECLUSTER GDS 4.4 or earlier
- References and character strings or values requiring emphasis are indicated using double quotes (").
- GUI items are shown enclosed by brackets ([ ]).
- The order of selecting menus is indicated using [ ]-[ ].
- Text to be entered by the user is indicated using bold text.
- Variables are indicated using italic text and underscores.
- The ellipses ("...") in menu names, indicating settings and operation window startup, are not shown.
- The ">" used in Windows is included in usage examples. When using Linux, read ">" as meaning "#".
- When using Resource Orchestrator on Windows 8 and Windows Server 2012, please note the following. When OS operations are explained in this manual, the examples assume OSs up to Windows 7 and Windows Server 2008. When using Resource Orchestrator on Windows 8 or Windows Server 2012, take explanations regarding the [Start] menu as indicating the [Apps] screen. The [Apps] screen can be displayed by right-clicking on the [Start] screen and then right-clicking [All apps].
- When using Resource Orchestrator on Windows 8.1 and Windows Server 2012 R2, please note the following. When OS operations are explained in this manual, the examples assume OSs up to Windows 7 and Windows Server 2008. When using Resource Orchestrator on Windows 8.1 or Windows Server 2012 R2, take explanations regarding the [Start] menu as indicating the [Apps] screen. The [Apps] screen can be displayed by swiping the [Start] screen from bottom to top, or clicking the downward facing arrow on the lower-left of the [Start] screen.

Menus in the ROR console

Operations on the ROR console can be performed using either the menu bar or pop-up menus.

By convention, procedures described in this manual only refer to pop-up menus.

Regarding Installation Folder Paths

The installation folder path may be given as C:\Fujitsu\ROR in this manual.

Replace it as shown below.

[Virtual Edition]

- When using Windows 64-bit (x64)

  C:\Program Files (x86)\Resource Orchestrator

- When using Windows 32-bit (x86)

  C:\Program Files\Resource Orchestrator

[Cloud Edition]

C:\Program Files (x86)\Resource Orchestrator

Command Examples

The paths used in command examples may be abbreviated. When using commands, execute them using the paths in the "Name" column in the "Reference Guide (Command) VE" and the "Reference Guide (Command/XML) CE".

Abbreviations

The following abbreviations are use in this manual.

Category

Abbreviation

- Products

Windows

Windows

- Microsoft(R) Windows Server(R) 2012 Standard
- Microsoft(R) Windows Server(R) 2012 Datacenter
- Microsoft(R) Windows Server(R) 2012 R2 Essentials
- Microsoft(R) Windows Server(R) 2012 R2 Standard
- Microsoft(R) Windows Server(R) 2012 R2 Datacenter
- Microsoft(R) Windows Server(R) 2016 Standard
- Microsoft(R) Windows Server(R) 2016 Datacenter
- Microsoft(R) Windows Server(R) 2019 Standard
- Microsoft(R) Windows Server(R) 2019 Datacenter
- Windows(R) 7 Professional
- Windows(R) 7 Ultimate
- Windows(R) 8.1 Pro
- Windows(R) 8.1 Enterprise
- Windows(R) 10 Pro
- Windows(R) 10 Enterprise

Windows Server 2012

- Microsoft(R) Windows Server(R) 2012 Standard
- Microsoft(R) Windows Server(R) 2012 Datacenter
- Microsoft(R) Windows Server(R) 2012 R2 Essentials

- Microsoft(R) Windows Server(R) 2012 R2 Standard
- Microsoft(R) Windows Server(R) 2012 R2 Datacenter

Windows Server 2016

- Microsoft(R) Windows Server(R) 2016 Standard
- Microsoft(R) Windows Server(R) 2016 Datacenter

Windows Server 2019

- Microsoft(R) Windows Server(R) 2019 Standard
- Microsoft(R) Windows Server(R) 2019 Datacenter

Windows PE

- Microsoft(R) Windows(R) Preinstallation Environment

Windows 7

- Windows(R) 7 Professional
- Windows(R) 7 Ultimate

Windows 8.1

- Windows(R) 8.1 Pro
- Windows(R) 8.1 Enterprise

Windows 10

- Windows(R) 10 Pro
- Windows(R) 10 Enterprise

DOS

- Microsoft(R) MS-DOS(R) operating system, DR DOS(R)

MSFC

- Microsoft(R) Windows Server(R) 2012 Standard Failover Cluster
- Microsoft(R) Windows Server(R) 2012 Datacenter Failover Cluster

SCVMM

- Microsoft(R) System Center 2012 Virtual Machine Manager
- Microsoft(R) System Center 2012 R2 Virtual Machine Manager
- Microsoft(R) System Center 2016 Virtual Machine Manager

Linux

Linux

- Red Hat(R) Enterprise Linux(R) 6.0 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.0 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 6.1 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.1 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 6.2 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.2 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 6.3 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.3 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 6.4 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.4 (for Intel64)

- Red Hat(R) Enterprise Linux(R) 6.5 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.5 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 6.6 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.6 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 6.7 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.7 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 6.8 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.8 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 6.9 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.9 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 6.10 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.10 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 7.0 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 7.1 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 7.2 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 7.4 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 7.5 (for Intel64)
- SUSE(R) Linux Enterprise Server 10 Service Pack 2 for x86
- SUSE(R) Linux Enterprise Server 10 Service Pack 2 for AMD64 & Intel64
- SUSE(R) Linux Enterprise Server 10 Service Pack 3 for x86
- SUSE(R) Linux Enterprise Server 10 Service Pack 3 for AMD64 & Intel64
- SUSE(R) Linux Enterprise Server 11 for x86
- SUSE(R) Linux Enterprise Server 11 for AMD64 & Intel64
- SUSE(R) Linux Enterprise Server 11 Service Pack 1 for x86
- SUSE(R) Linux Enterprise Server 11 Service Pack 1 for AMD64 & Intel64
- Oracle Enterprise Linux Release 6.7 for x86 (32-bit)
- Oracle Enterprise Linux Release 7.2 for x86_64 (64-bit)
- Oracle Enterprise Linux Release 7.2 for x86 (32-bit)
- Oracle Enterprise Linux Release 7.2 for x86_64 (64-bit)

Red Hat Enterprise Linux

- Red Hat(R) Enterprise Linux(R) 6.0 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.0 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 6.1 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.1 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 6.2 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.2 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 6.3 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.3 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 6.4 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.4 (for Intel64)

- Red Hat(R) Enterprise Linux(R) 6.5 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.5 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 6.6 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.6 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 6.7 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.7 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 6.8 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.8 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 6.9 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.9 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 6.10 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.10 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 7.0 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 7.1 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 7.2 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 7.4 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 7.5 (for Intel64)

Red Hat Enterprise Linux 6

- Red Hat(R) Enterprise Linux(R) 6.0 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.0 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 6.1 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.1 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 6.2 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.2 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 6.3 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.3 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 6.4 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.4 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 6.5 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.5 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 6.6 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.6 (for Intel64)
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- Red Hat(R) Enterprise Linux(R) 6.7 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 6.8 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.8 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 6.9 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.9 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 6.10 (for x86)
- Red Hat(R) Enterprise Linux(R) 6.10 (for Intel64)

Red Hat Enterprise Linux 7

- Red Hat(R) Enterprise Linux(R) 7.0 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 7.1 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 7.2 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 7.4 (for Intel64)
- Red Hat(R) Enterprise Linux(R) 7.5 (for Intel64)

SUSE Linux Enterprise Server

- SUSE(R) Linux Enterprise Server 10 Service Pack 2 for x86
- SUSE(R) Linux Enterprise Server 10 Service Pack 2 for AMD64 & Intel64
- SUSE(R) Linux Enterprise Server 10 Service Pack 3 for x86
- SUSE(R) Linux Enterprise Server 10 Service Pack 3 for AMD64 & Intel64
- SUSE(R) Linux Enterprise Server 11 for x86
- SUSE(R) Linux Enterprise Server 11 for AMD64 & Intel64
- SUSE(R) Linux Enterprise Server 11 Service Pack 1 for x86
- SUSE(R) Linux Enterprise Server 11 Service Pack 1 for AMD64 & Intel64

Oracle Enterprise Linux

- Oracle Enterprise Linux Release 6.7 for x86 (32-bit)
- Oracle Enterprise Linux Release 6.7 for x86_64 (64-bit)
- Oracle Enterprise Linux Release 7.2 for x86 (32-bit)
- Oracle Enterprise Linux Release 7.2 for x86_64 (64-bit)

KVM

RHEL-KVM

- Red Hat(R) Enterprise Linux(R) 6.1 (for x86) Virtual Machine Function
- Red Hat(R) Enterprise Linux(R) 6.1 (for Intel64) Virtual Machine Function
- Red Hat(R) Enterprise Linux(R) 6.2 (for x86) Virtual Machine Function
- Red Hat(R) Enterprise Linux(R) 6.2 (for Intel64) Virtual Machine Function
- Red Hat(R) Enterprise Linux(R) 6.3 (for x86) Virtual Machine Function
- Red Hat(R) Enterprise Linux(R) 6.3 (for Intel64) Virtual Machine Function
- Red Hat(R) Enterprise Linux(R) 6.4 (for x86) Virtual Machine Function
- Red Hat(R) Enterprise Linux(R) 6.4 (for Intel64) Virtual Machine Function
- Red Hat(R) Enterprise Linux(R) 6.5 (for x86) Virtual Machine Function
- Red Hat(R) Enterprise Linux(R) 6.5 (for Intel64) Virtual Machine Function
- Red Hat(R) Enterprise Linux(R) 6.6 (for x86) Virtual Machine Function
- Red Hat(R) Enterprise Linux(R) 6.6 (for Intel64) Virtual Machine Function
- Red Hat(R) Enterprise Linux(R) 6.7 (for x86) Virtual Machine Function
- Red Hat(R) Enterprise Linux(R) 6.7 (for Intel64) Virtual Machine Function
- Red Hat(R) Enterprise Linux(R) 6.8 (for x86) Virtual Machine Function
- Red Hat(R) Enterprise Linux(R) 6.8 (for Intel64) Virtual Machine Function

Xen

Xen

- Citrix XenServer(R) 5.5
- Citrix Essentials(TM) for XenServer 5.5, Enterprise Edition
- Citrix XenServer(R) 6.0
- Citrix Essentials(TM) for XenServer 6.0, Enterprise Edition

Citrix

Citrix XenServer

- Citrix XenServer(R) 6.0
- Citrix XenServer(R) 6.0.2
- Citrix XenServer(R) 6.1.0
- Citrix XenServer(R) 6.2.0
- Citrix XenServer(R) 7.1 LTSR
- Citrix XenServer(R) 7.2
- Citrix Hypervisor(R)

XenServer 6

- Citrix XenServer(R) 6.0
- Citrix Essentials(TM) for XenServer 6.0, Enterprise Edition

Citrix XenApp

- Citrix XenApp(R)
- Citrix Virtual Apps(R)

Citrix XenDesktop

- Citrix XenDesktop(R)
- Citrix Virtual Apps and Desktops(R)

Oracle Solaris

Solaris

- Oracle Solaris 10 05/09 (Update7)
- Oracle Solaris 11 11/11
- Oracle Solaris 11.1
- Oracle Solaris 11.2
- Oracle Solaris 11.3

Oracle VM

OVM for x86 2.2

- Oracle(R) VM Server for x86 2.2

OVM for x86 3.x

OVM for x86 3.2

- Oracle VM Server for x86 v3.2.x

OVM for x86 3.3

- Oracle VM Server for x86 v3.3.x

OVM for SPARC

- Oracle(R) VM Server for SPARC

Oracle VM Manager

- Oracle(R) VM Manager

EMC

Navisphere

- EMC Navisphere Manager

Solutions Enabler

- EMC Solutions Enabler

VMware

VMware vSphere or vSphere

- VMware vSphere(R) 4
- VMware vSphere(R) 4.1
- VMware vSphere(R) 5
- VMware vSphere(R) 5.1
- VMware vSphere(R) 5.5
- VMware vSphere(R) 6
- VMware vSphere(R) 6.5
- VMware vSphere(R) 6.7

VMware ESX

- VMware(R) ESX(R)

VMware ESX 4

- VMware(R) ESX(R) 4

VMware ESXi

- VMware(R) ESXi(TM)

VMware ESXi 5.0

- VMware(R) ESXi(TM) 5.0

VMware ESXi 5.1

- VMware(R) ESXi(TM) 5.1

VMware ESXi 5.5

- VMware(R) ESXi(TM) 5.5

VMware ESXi 6.0

- VMware(R) ESXi(TM) 6.0

VMware ESXi 6.5

- VMware(R) ESXi(TM) 6.5

VMware ESXi 6.7

- VMware(R) ESXi(TM) 6.7

VMware Infrastructure Client

- VMware(R) Infrastructure Client

VMware Tools

- VMware(R) Tools

VMware vSphere 4.0 or vSphere 4.0

- VMware vSphere(R) 4.0

VMware vSphere 4.1 or vSphere 4.1

- VMware vSphere(R) 4.1

VMware vSphere 5 or vSphere 5

- VMware vSphere(R) 5

VMware vSphere 5.1 or vSphere 5.1

- VMware vSphere(R) 5.1

VMware vSphere 5.5 or vSphere 5.5

- VMware vSphere(R) 5.5

VMware vSphere 6.0 or vSphere 6.0

- VMware vSphere(R) 6.0

VMware vSphere 6.5 or vSphere 6.5

- VMware vSphere(R) 6.5

VMware vSphere 6.7 or vSphere 6.7

- VMware vSphere(R) 6.7

VMware vSphere Client or vSphere Client

- VMware vSphere(R) Client

VMware vCenter Server or vCenter Server

- VMware(R) vCenter(TM) Server

VMware vCenter Server Appliance or vCenter Server Appliance

- VMware(R) vCenter(TM) Server Appliance(TM)

VMware vClient

- VMware(R) vClient(TM)

VMware FT

- VMware(R) Fault Tolerance

VMware DRS

- VMware(R) Distributed Resource Scheduler

VMware DPM

- VMware(R) Distributed Power Management

VMware Storage VMotion

- VMware(R) Storage VMotion

VMware vDS

- VMware(R) vNetwork Distributed Switch

VMware Horizon View

- VMware Horizon View 5.2.x
- VMware Horizon View 5.3.x
- VMware Horizon 6.0 (with View)

VMware VSAN or VSAN

- VMware(R) Virtual SAN(TM)

VMware vSphere Web Client or vSphere Web Client

- VMware vSphere(R) Web Client

VMware NSX

- VMware NSX(R)
- VMware NSX(R) for vSphere(R)
- VMware NSX(R) for vSphere(R) 6.3

VMware NSX Controller or NSX Controller

- VMware NSX(R) Controller(TM)

VMware NSX Edge or NSX Edge

- VMware NSX(R) Edge(TM)

VMware NSX Manager or NSX Manager

- VMware NSX(R) Manager(TM)

Excel

Excel

- Microsoft(R) Office Excel(R) 2007
- Microsoft(R) Office Excel(R) 2010
- Microsoft(R) Office Excel(R) 2013

Excel 2007

- Microsoft(R) Office Excel(R) 2007

Excel 2010

- Microsoft(R) Office Excel(R) 2010

Excel 2013

- Microsoft(R) Office Excel(R) 2013

Browsers

Internet Explorer

- Windows(R) Internet Explorer(R) 9
- Internet Explorer(R) 10
- Internet Explorer(R) 11

Firefox

- Firefox(R)

Antivirus Software

OfficeScan

- Trend Micro OfficeScan

McAfee ePolicy Orchestrator

- McAfee(R) ePolicy Orchestrator(R)

McAfee ePO

- McAfee(R) ePolicy Orchestrator(R)

McAfee Agent

- McAfee(R) Agent

McAfee Endpoint Security

- McAfee(R) Endpoint Security

Symantec Endpoint Protection

- Symantec(TM) Endpoint Protection

Symantec Endpoint Protection Manager

- Symantec(TM) Endpoint Protection Manager

BMC

BladeLogic

- BMC BladeLogic Server Automation

ETERNUS

ESC

- ETERNUS SF Storage Cruiser

ServerView

ServerView Agent

- ServerView SNMP Agents for MS Windows (32-bit and 64-bit)
- ServerView Agents Linux
- ServerView Agents VMware for VMware ESX Server

VIOM

- ServerView Virtual-IO Manager

ISM

- ServerView Infrastructure Manager
- Infrastructure Manager

SVOM

- ServerView Operations Manager

SVFAB

- ServerView Fabric Manager

RCVE

- ServerView Resource Coordinator VE

ROR

- FUJITSU Software ServerView Resource Orchestrator

ROR VE

- FUJITSU Software ServerView Resource Orchestrator Virtual Edition

ROR CE

- FUJITSU Software ServerView Resource Orchestrator Cloud Edition

Resource Coordinator

- Systemwalker Resource Coordinator
- Systemwalker Resource Coordinator Virtual server Edition

Resource Coordinator VE

- ServerView Resource Coordinator VE
- Systemwalker Resource Coordinator Virtual server Edition

Resource Orchestrator

- FUJITSU Software ServerView Resource Orchestrator

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Revision History

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October 2018, Edition 2.0	J2X1-8136-02ENZ0(00)

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December 2018, Edition 2.2	J2X1-8136-02ENZ0(02)
October 2020, Edition 2.3	J2X1-8136-02ENZ0(03)

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Chapter 1 Overview of the Windows PE Creation Script

This chapter explains an overview of the Windows PE creation script.

1.1 What is Windows PE?

Windows PE is the abbreviation of "Windows Preinstallation Environment", and it is an OS that provides use of the minimum Windows services.

When using the following functions of Resource Orchestrator it is necessary to place Windows PE on the Resource Orchestrator manager.

Table 1.1 Resource Orchestrator Functions that Require Windows PE

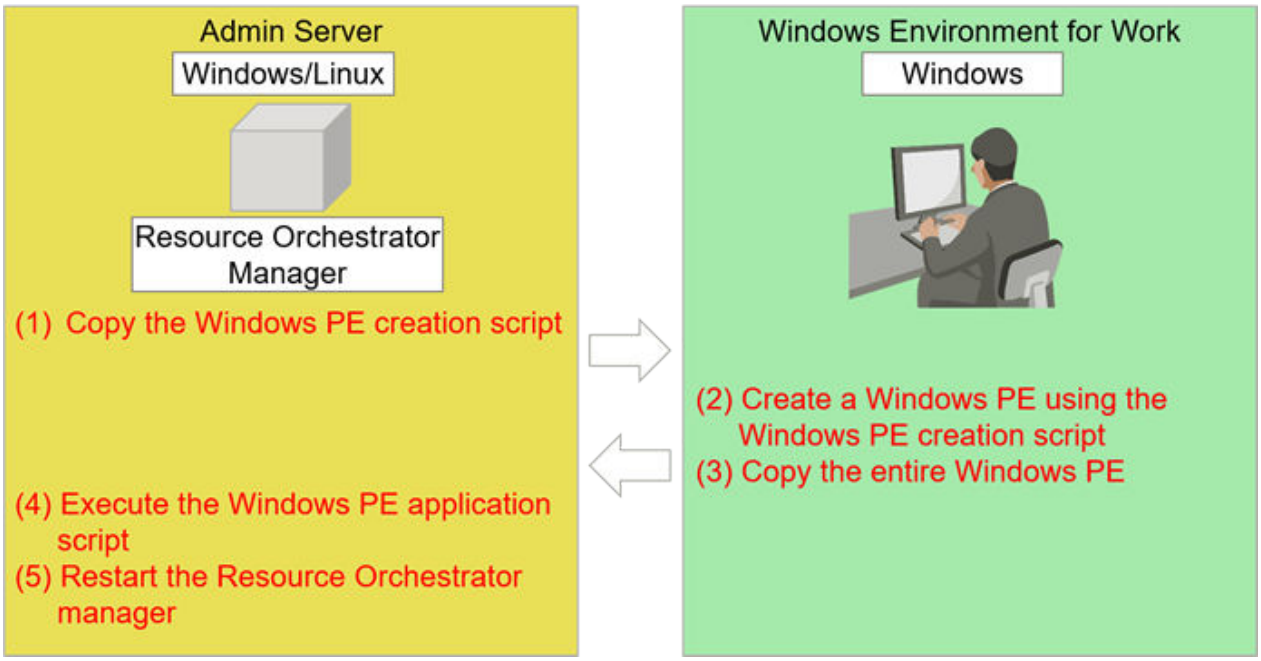
Functions	Virtual Edition	Cloud Edition
Backup and restore of physical servers	Yes	Yes
Collection and distribution of physical server cloning images	Yes	Yes
Server switchover of physical servers (backup and restore method)	Yes	Yes
Collection of information of disks of managed servers on which image operations can be performed	Yes	Yes
Creation of physical L-Servers (with image distribution)	-	Yes
Backup and restore of physical L-Servers	-	Yes
Collection and distribution of physical L-Server cloning images	-	Yes
Powering ON of defined physical L-Servers (with image distribution)	-	Yes
Creation of L-Platforms including physical L-Servers	-	Yes
Addition of physical L-Servers using reconfiguration of L-Platforms	-	Yes

1.2 Flow Up to Placing a Windows PE on a Resource Orchestrator Manager

In order to place a Windows PE on a Resource Orchestrator manager it is necessary to perform the following procedure.

1. Copy the Windows PE creation script enclosed with the Resource Orchestrator manager to the Windows environment for work and deploy it.
2. On the Windows environment for work, create a Windows PE.
3. Copy the created Windows PE to the Resource Orchestrator manager.
4. On the Resource Orchestrator manager, execute the Windows PE application script.
5. Restart the Resource Orchestrator manager.

Figure 1.1 Flow Up to Placing a Windows PE on a Resource Orchestrator Manager



1.3 Windows PE Versions Supported by the Windows PE Creation Script

The versions of Windows PE supported by the Windows PE creation script are shown below.

- Windows PE 5.1 (amd64)
- Windows PE 3.1 (amd64)
- Windows PE 3.1 (x86)

Note

When using the following version of Windows PE, additional modules are necessary in order to create a Windows PE. Please contact Fujitsu technical staff for more information.

- Windows PE 3.1 (amd64)
- Windows PE 3.1 (x86)

1.4 Compatibility Relationships Between Models of Managed Servers of Resource Orchestrator and Versions of Windows PE

The compatibility relationships between the models of managed servers of Resource Orchestrator listed in "Table 1.1 Resource Orchestrator Functions that Require Windows PE" and versions of Windows PE are as follows.

For Windows PE 5.1 (amd64)

When Using PRIMERGY

- PRIMERGY RX2520 M4, PRIMERGY RX2530 M4, RX2540 M4, RX4770 M4
- PRIMERGY CX2550 M4, CX2560 M4, CX2570 M4
- PRIMERGY RX1330 M3, RX4770 M3
- PRIMERGY BX2580 M2, BX2560 M2

- PRIMERGY CX2550 M2, CX2570 M2
- PRIMERGY RX2510 M2, RX2530 M2, RX2540 M2, RX2560 M2, TX2560M2
- PRIMERGY RX4770 M2, CX2570 M1
- PRIMERGY RX2520 M1, RX2530 M1, RX2540 M1
- PRIMERGY RX4770 M1
- PRIMERGY TX1310 M1
- PRIMERGY TX2540 M1
- PRIMERGY BX2580 M1, BX2560 M1

When Using PRIMEQUEST

- PRIMEQUEST 2800L
- PRIMEQUEST 2800E
- PRIMEQUEST 2400L
- PRIMEQUEST 2400E
- PRIMEQUEST 2400S
- PRIMEQUEST 2400S Lite

For Windows PE 3.1 (amd64)

When Using PRIMEQUEST

- PRIMEQUEST 1800L
- PRIMEQUEST 1800E
- PRIMEQUEST 1800L2
- PRIMEQUEST 1800E2
- PRIMEQUEST 1400L
- PRIMEQUEST 1400E
- PRIMEQUEST 1400S
- PRIMEQUEST 1400L2
- PRIMEQUEST 1400E2
- PRIMEQUEST 1400S2
- PRIMEQUEST 1400S2 Lite

For Windows PE 3.1 (x86)

When Using PRIMERGY

- PRIMERGY TS120, TS125, TS220, TS225
- PRIMERGY L100, L100E, L200, L250
- PRIMERGY P200, P250
- PRIMERGY C150, C150E, C200, F250, H250, H450, R450, T850, N400
- PRIMERGY ES320, MS610
- PRIMERGY RX100, RX100 S2, RX100 S3, RX100 S4, RX100 S5, RX100 S6, RX100 S7
- PRIMERGY RX200, RX200 S2, RX200 S3, RX200 S4, RX200 S5, RX200 S6, RX200 S7
- PRIMERGY RX200 S8
- PRIMERGY RX300, RX300 S2, RX300 S3, RX300 S4, RX300 S5, RX300 S6, RX300 S7

- PRIMERGY RX300 S8
- PRIMERGY RX350 S7, RX500 S7
- PRIMERGY RX600 S2, RX600 S3, RX600 S4, RX600 S5, RX600 S6, RX800
- PRIMERGY TX100 S1, TX100 S2, TX100 S3, TX120, TX120 S2, TX120 S3
- PRIMERGY TX140 S1, TX140 S2
- PRIMERGY TX150, TX150 S2, TX150 S4, TX150 S5, TX150 S6, TX150 S7, TX150 S8
- PRIMERGY TX200, TX200 S2, TX200 S3, TX200 S5, TX200 S6, TX200 S7
- PRIMERGY TX300 S4, TX300 S5, TX300 S6, TX300 S7, TX300 S8
- PRIMERGY TX600
- PRIMERGY BX300, BX600, BX660
- PRIMERGY BX620 S2, BX620 S3, BX620 S4, BX620 S5, BX620 S6
- PRIMERGY BX920 S1, BX920 S2, BX920 S3, BX920 S4
- PRIMERGY BX922 S2, BX924 S2, BX924 S3
- PRIMERGY BX924 S4, BX960 S1
- PRIMERGY TX200FT, TX200FT S2, TX150FT S2, TX150FT S4
- PRIMERGY ECONEL 30, ECONEL 40, ECONEL 100 S2
- PRIMERGY MX130 S2
- PRIMERGY CX122 S1, CX250 S1, CX250 S2, CX270 S1, CX270 S2

1.5 Environment for Windows PE Creation Script Operation

OS for Windows PE Creation Script Operation

Windows PE creation scripts can be operated in the following Windows environments.

- Windows 7
- Windows 8
- Windows 8.1
- Windows 10
- Windows Server 2008 R2
- Windows Server 2012
- Windows Server 2012 R2
- Windows Server 2016

Point

As it is necessary to download materials necessary to create a Windows PE, such as Windows update programs and the Windows PE creation program (Windows ADK), an environment that can connect to the Internet is required.

An email address is necessary to enable download of some materials.

Disk Capacity Necessary for Execution of a Windows PE Creation Script

The amount of available disk capacity necessary for execution of a Windows PE creation script is shown below.

Table 1.2 Available Disk Capacity Necessary for Execution of a Windows PE Creation Script

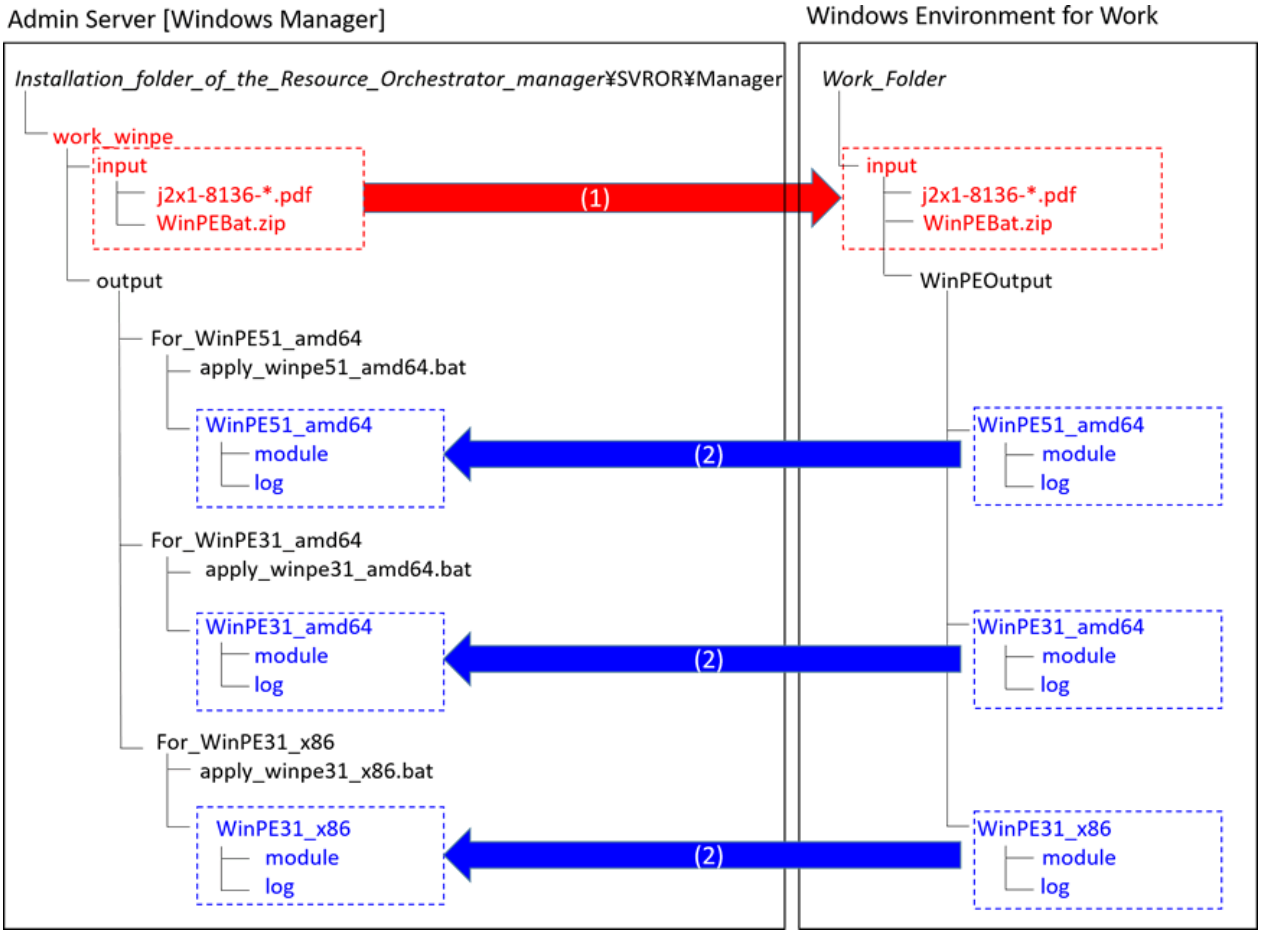
Target Operation	Necessary available disk capacity
When downloading the Windows PE creation program or update programs	25.0GB or more
When executing a Windows PE creation script	8.0 GB or more

1.6 Folder Configuration of the Windows PE Creation Script

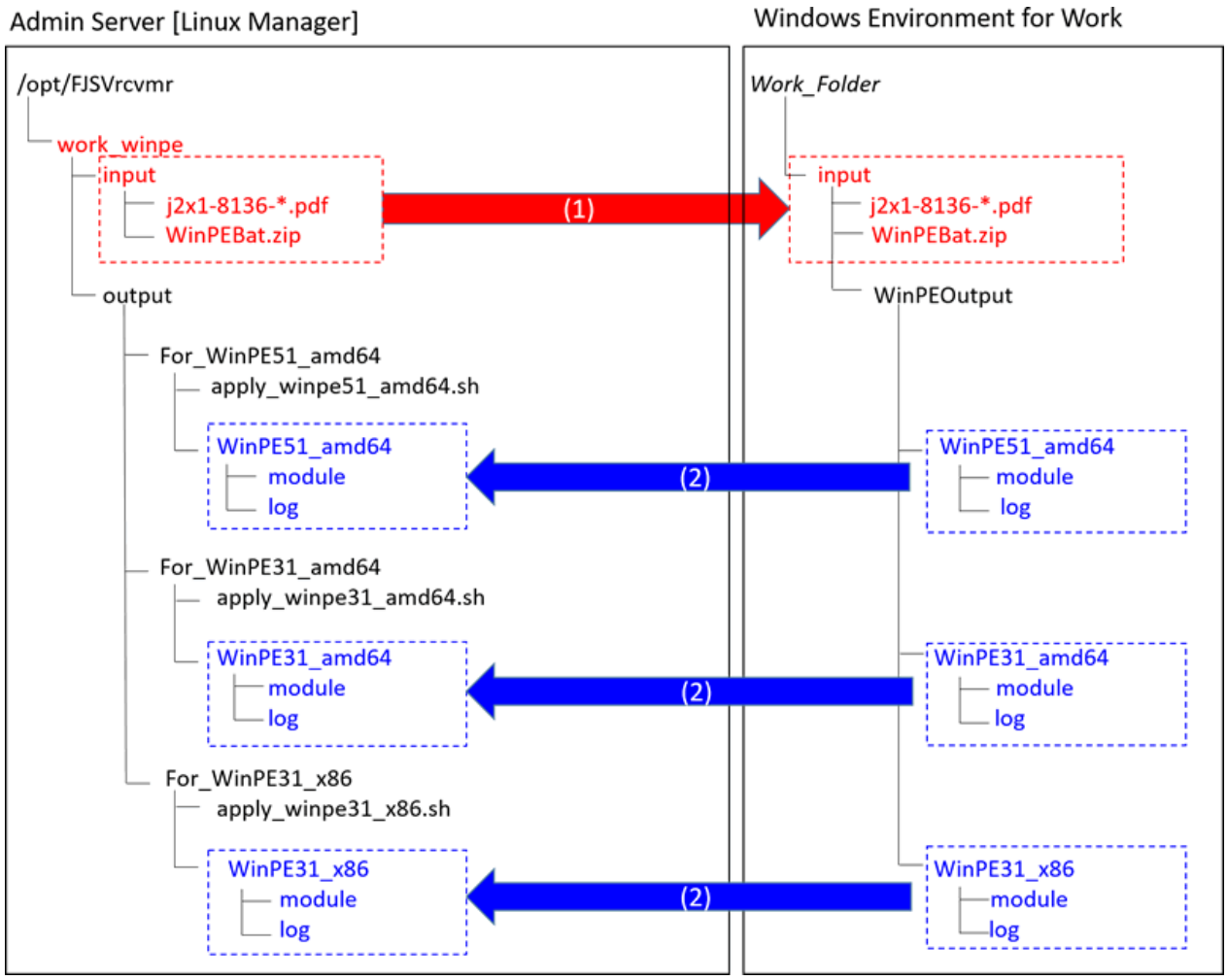
The folder configuration of the Windows PE creation script for the Resource Orchestrator manager is shown below.

[Windows Manager]Folder Structure of the Windows PE Creation Script

Figure 1.2 Folder Structure of the Windows PE Creation Script



[Linux Manager]Folder Structure of the Windows PE Creation Script



(1)Copy the Windows PE creation script enclosed with the Resource Orchestrator manager to the Windows environment for work and deploy it.

(2)Copy the created Windows PE to the Resource Orchestrator manager.

Folder Structure after WinPEBat.zip is Extracted

```
WinPEBat.zip\
    +--WinPEBat\
        +--WinADK\
        +--WinAIK\
        +--WinPEModule\
        |  |  winpeshl_base.ini
        |  |  winpeshl_base.txt
        |  |
        |  +--drivers\
        |  |  +--amd64\
        |  |  |      winpe30_drv.exe
        |  |  |      winpe50_drv.exe
        |  |  |
        |  |  +--x86\
        |  |          winpe30_drv.exe.ror
        |  |
        |  +--scwmodule\
        |      +--amd64\
```

```
|      |  +--3.1\
|      |  |      getduidmac.exe
|      |  |      getipinfo.vbs
|      |  |      pwrset.exe
|      |  |      scwstart.cmd
|      |  |      setclientip.vbs
|      |  |      sleep.exe
|      |  |      startnet.cmd
|      |  |      tftp.exe
|      |  |
|      |  +--5.0\
|      |          getduidmac.exe
|      |          getipinfo.vbs
|      |          pwrset.exe
|      |          scwstart.cmd
|      |          setclientip.vbs
|      |          sleep.exe
|      |          startnet.cmd
|      |          tftp.exe
|      |
|      +--x86\
|          +--3.1\
|                  getduidmac.exe
|                  getipinfo.vbs
|                  pwrset.exe
|                  scwstart.cmd
|                  setclientip.vbs
|                  sleep.exe
|                  startnet.cmd
|                  tftp.exe
|
+--WinPEOutput\
|  +--WinPE31_amd64\
|  |  +--log\
|  |  +--module\
|  +--WinPE31_x86\
|  |  +--log\
|  |  +--module\
|  +--WinPE51_amd64\
|      +--log\
|      +--module\
|
+--winpe_batch-ROR\
|      batch_path_design.ini
|      check.bat
|      check_adk_aik.bat
|      check_adk_aik_drive.js
|      check_drive.vbs
|      check_path.js
|      copy_contents.bat
|      echoEx.bat
|      error_management.ini
|      error_output.bat
|      fix_reg.bat
|      get_value.bat
|      log_path.ini
|      make_bcd.bat
|      make_log.vbs
|      pe30.bat
|      pe50.bat
|      setenv.bat
|      set_path.bat
|      update_file.ini
```

```
|      winpe_update.bat
|
+--winpe_make_script\
|      error_recovery.bat
|      make_winpe.bat
|
+--WinUpdate\
    +--WinPE31_amd64
    +--WinPE31_x86
    +--WinPE51_amd64
```

1.7 Advisory Notes for When Executing a Windows PE Creation Script

The advisory notes for when executing a Windows PE creation script are as follows.

- Execute the script using administrator privileges.
- Do not close the command prompt while executing a Windows PE creation script. There is a chance that the Windows PE will not be created correctly and none of the logs will be output.
- Do not perform a forced termination while executing the Windows PE creation script. There is a chance that the Windows PE will not be created correctly and none of the logs will be output.
- Do not use a single Windows PE creation script to create multiple Windows PEs at the same time. If a single script is executed simultaneously, it may not operate properly.
- If files required for Windows PE creation are not found in the specified locations, an error will occur. It is possible to change the reference path used for the Windows PE creation program in "batch_path_design.ini", but the Windows PE creation script and the Windows PE creation program must be on the same drive. For details on "batch_path_design.ini", refer to "Appendix C batch_path_design.ini".
- Use the default values for all of the file names and folder names used in the Windows PE creation script. If a name is changed, the Windows PE creation script will not operate correctly.
- Do not change the paths of files and folders that exist in WinPEBat. If they are changed, the Windows PE creation script will not operate correctly.
- When copying a Windows PE that was created in a Windows environment for work to a Linux manager, the necessary access privileges are given below.

  Confirm the access privileges after copying the Windows PE to the Linux manager using OS administrator privileges (root).

  - Access Privileges: -rwx------

Chapter 2 Flow of Operations Using Resource Orchestrator

This section explains the flow of operations for using Resource Orchestrator.

Before you begin

Installing the Resource Orchestrator Manager

When Using Cloud Edition

Refer to steps 1 - 2 in "1.1 Preparations" in the "Quick Start Guide CE".

When Using Virtual Edition

Refer to steps 1 - 4 in "Chapter 1 Flow of Setup for Resource Orchestrator" in the "Setup Guide VE".

Confirm the Existence of a Windows PE

Confirm the existence of a Windows PE on the Resource Orchestrator manager.

Refer to "3.1 Confirming the Existence of a Windows PE".

Procedure

- Create a Windows PE

  Create a Windows PE in the Windows environment for work and place it on the Resource Orchestrator manager.

  The flow of Windows PE creation is given below.

Figure 2.1 Flow Up to Placing a Windows PE on a Resource Orchestrator Manager

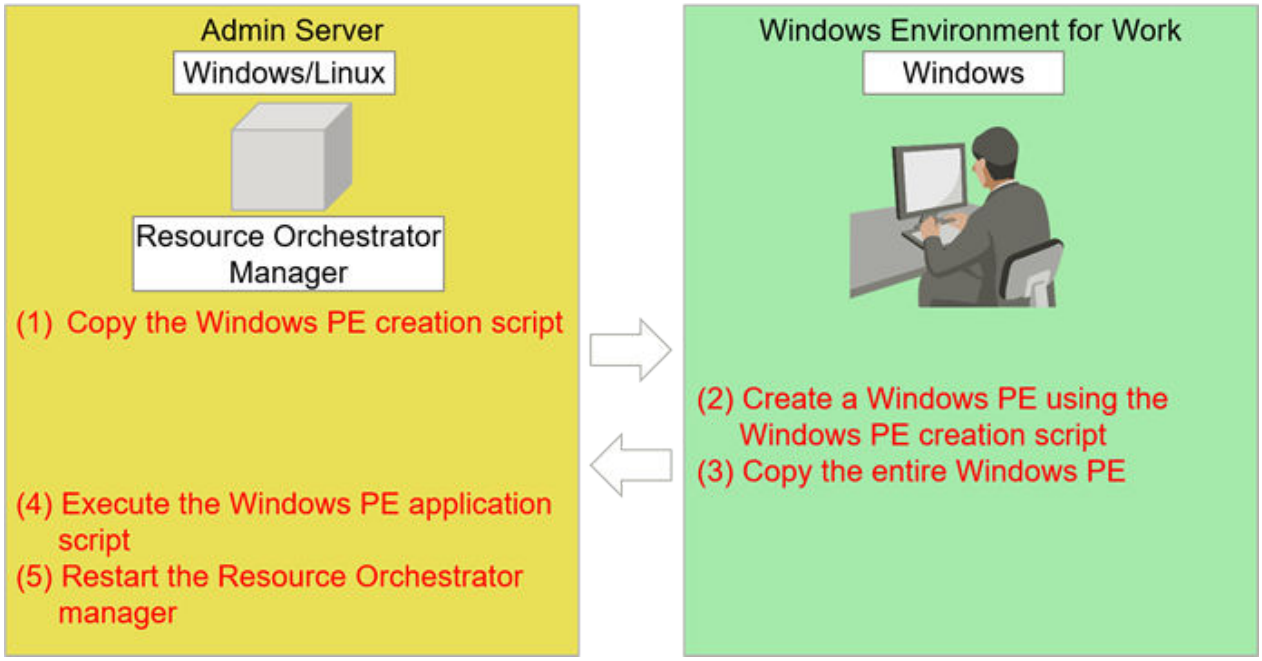


Table 2.1 Flow when Creating Windows PE 5.1 (amd64)

Main Item	Details of Work	Server Used for Work
(1) Copy the Windows PE creation script	"3.2 Copying the Windows PE 5.1 (amd64) Creation Script"	Resource Orchestrator Manager -> Windows Environment for Work

Main Item	Details of Work	Server Used for Work
(2) Create a Windows PE using the Windows PE creation script	"3.3 Download Windows Update Programs"	Windows Environment for Work
	"3.4 Download the Windows PE Creation Program (Windows ADK)"	Windows Environment for Work
	"3.5 Install the Windows PE 5.1 (amd64) Creation Program (Windows ADK)"	Windows Environment for Work
	"3.6 Executing the Windows PE 5.1 (amd64) Creation Script"	Windows Environment for Work
	"3.7 Confirming the Execution Results of the Windows PE 5.1 (amd64) Creation Script"	Windows Environment for Work
(3) Copy the entire Windows PE	"3.8 Copying Windows PE 5.1 (amd64)"	Windows Environment for Work -> Resource Orchestrator Manager
(4) Execute the Windows PE application script	"3.9 Executing the Script for Applying Windows PE 5.1 (amd64)"	Resource Orchestrator Manager
	"3.10 Confirming the Execution Results of the Script for Applying Windows PE 5.1 (amd64)"	Resource Orchestrator Manager
(5) Restart the Resource Orchestrator manager	"3.11 Restart the Resource Orchestrator Manager"	Resource Orchestrator Manager

Information

- When managing servers that do not support Windows PE 5.1 (amd64), refer to the creation procedures in "Appendix A Creation Procedure for Windows PE 3.1 (amd64)" or "Appendix B Creation Procedure for Windows PE 3.1 (x86)".
- A general estimate of the execution time for a Windows PE creation script is 60 minutes. This time is only a general estimate, and the actual time will vary depending on the execution environment and servers involved.

What to do next

Register Managed Servers with Resource Orchestrator

When Using Cloud Edition

Refer to step 3 and later in "Chapter 1 Resource Orchestrator Setup Procedure" in the "Quick Start Guide CE".

When Using Virtual Edition

Refer to step 5 and later in "Chapter 1 Flow of Setup for Resource Orchestrator" in the "Setup Guide VE".

Chapter 3 Creation Procedure for Windows PE 5.1 (amd64)

This appendix provides an overview of the creation procedure for Windows PE 5.1 (amd64).

3.1 Confirming the Existence of a Windows PE

Confirm the existence of a Windows PE on the Resource Orchestrator manager.

Procedure

- Execute the following command:

  [Windows Manager]

  ```
  Installation_folder\SVROR\Manager\bin\rcxadm image list -winpe
  ```

  [Linux Manager]

  ```
  /opt/FJSVrcvmr/bin/rcxadm image list -winpe
  ```

  See

  For details on the rcxadm image command, refer to the following:

  - When Using Cloud Edition

    "4.1 rcxadm image" in the "Reference Guide (Command/XML) CE"

  - When Using Virtual Edition

    "4.1 rcxadm image" in the "Reference Guide (Command) VE"

Results

When Windows PEs do exist on the Resource Orchestrator manager, the versions of the Windows PEs are displayed.

When the Windows PE to use does not exist, perform the following work.

Example

```
rcxadm image list -winpe
VERSION              STATUS
--------------       -----------
Windows PE 5(amd64)  Exist
Windows PE 3(amd64)  None
Windows PE 3(x86)    None
```

3.2 Copying the Windows PE 5.1 (amd64) Creation Script

Copy the Windows PE creation script to the Windows environment for work and deploy it.

Procedure

1. Copy the Windows PE 5.1 (amd64) creation script

   Copy the Windows PE 5.1 (amd64) creation script installed on the Resource Orchestrator manager to the Windows environment for work.

   Copy to a path that uses only single-byte alphanumeric characters and underscores.

   Copy Source Folder

   - [Windows Manager]

     Under *Installation_folder_of_the_Resource_Orchestrator_manager*\SVROR\Manager\work_winpe\input

Copy Source Directory

- [Linux Manager]

  Under /opt/FJSVrcvmr/work_winpe/input

Copy Destination Folder

- Windows Environment for Work

  Work Folder

2. Deploy the Windows PE 5.1 (amd64) Creation Script

   Extract the archive (zip) file copied to the work folder.

3.3 Download Windows Update Programs

Download Windows update programs and apply them.

Procedure

- Download Windows update programs and store them in the following location.

  WinPEBat\WinUpdate\WinPE51_amd64

Table 3.1 Update program for Windows 8.1 for x64-Based Systems (KB2919442)

Necessary Update Program	Download Link
Windows8.1-KB2919442-x64.msu	https://www.microsoft.com/en-US/download/details.aspx?id=42162

Table 3.2 Windows 8.1 Update for x64-based Systems (KB2919355)

Necessary Update Program	Download Link
Windows8.1-KB2919355-x64.msu	https://www.microsoft.com/en-US/download/details.aspx?id=42335
Windows8.1-KB2932046-x64.msu	
Windows8.1-KB2934018-x64.msu	
Windows8.1-KB2937592-x64.msu	
Windows8.1-KB2938439-x64.msu	
Windows8.1-KB2959977-x64.msu	

Table 3.3 Update program for Windows Server 2012 R2 (KB2966870)

Necessary Update Program	Download Link
Windows8.1-KB2966870-x64.msu	https://www.microsoft.com/en-US/download/details.aspx?id=43257

Table 3.4 "0x0000007E" Stop error on a multiple sockets server that is running Windows Server 2012 R2

Necessary Update Program	Download Link
Windows8.1-KB3032331-v2-x64.msu	https://support.microsoft.com/en-US/kb/3032331

Procedure to Obtain

1. Specify the URL above.
2. Click "Hotfix Download Available".
3. In "Select hotfix", select the hotfix below.

   Product Name

   Windows 8.1 x64 Edition or Windows Server 2012 R2 x64 Edition

   Language

   All(Global)

Environment

x64

Note

Change the name of the downloaded file to "Windows8.1-KB3032331-v2-x64.msu".

Table 3.5 Update program for Windows 8.1 for x64-Based Systems (KB2938322)

Necessary Update Program	Download Link
Windows8.1-KB2938322-x64.msu	https://www.microsoft.com/en-US/download/details.aspx?id=43022

3.4 Download the Windows PE Creation Program (Windows ADK)

Download the Windows PE creation program (Windows ADK).

Procedure

- Download the Windows PE creation program (Windows ADK).

Table 3.6 Windows PE Creation Program (Windows ADK)

Necessary Windows ADK Program	Download Link
Windows Assessment and Deployment Kit (Windows ADK) for Windows 8.1 Update	https://www.microsoft.com/en-us/download/details.aspx?id=39982

3.5 Install the Windows PE 5.1 (amd64) Creation Program (Windows ADK)

Install the Windows PE 5.1 (amd64) creation program (Windows ADK).

Procedure

- Install the Windows PE 5.1 (amd64) Creation Program (Windows ADK)

  Specify "WinPEBat\WinADK" as the installation path for adksetup.exe.

  When executing adksetup.exe, select Deployment Tool and Windows PE from the Windows ADK.

3.6 Executing the Windows PE 5.1 (amd64) Creation Script

Execute the Windows PE 5.1 (amd64) creation script, and create Windows PE 5.1 (amd64).

Procedure

1. Using the command prompt, move to WinPEBat\winpe_make_script.
2. Execute the following command:

```
make_winpe.bat amd64 pe51
```

Note

The advisory notes for when executing a Windows PE creation script are as follows.

- Execute the script using administrator privileges.
- Do not close the command prompt while executing a Windows PE creation script. There is a chance that the Windows PE will not be created correctly and none of the logs will be output.

- Do not perform a forced termination while executing the Windows PE creation script. There is a chance that the Windows PE will not be created correctly and none of the logs will be output.
- Do not use a single Windows PE creation script to create multiple Windows PEs at the same time. If a single script is executed simultaneously, it may not operate properly.
- If files required for Windows PE creation are not found in the specified locations, an error will occur. It is possible to change the reference path used for the Windows PE creation program in "batch_path_design.ini", but the Windows PE creation script and the Windows PE creation program must be on the same drive. For details on "batch_path_design.ini", refer to "Appendix C batch_path_design.ini".
- Use the default values for all of the file names and folder names used in the Windows PE creation script. If a name is changed, the Windows PE creation script will not operate correctly.
- Do not change the paths of files and folders that exist in WinPEBat. If they are changed, the Windows PE creation script will not operate correctly.

Information

- A general estimate of the execution time for a Windows PE creation script is 60 minutes. This time is only a general estimate, and the actual time will vary depending on the execution environment and servers involved.

3.7 Confirming the Execution Results of the Windows PE 5.1 (amd64) Creation Script

Confirm that the Windows PE 5.1 (amd64) creation script completed normally.

Procedure

1. Confirm Output on the Command Prompt Used to Execute make_winpe.bat

   When the make_winpe.bat command was executed successfully, confirm that the message "Execution of make_winpe.bat successfully." has been output.

2. Confirm Output of the Specified File

   After executing the Windows PE 5.1 (amd64) creation script, confirm that the specified file has been output in the output destination folder.

   Output Destination Folder

   WinPEBat\WinPEOutput\WinPE51_amd64\module\output\WPA002

   Output Files

   - boot.sdi
   - bootmgfw.efi
   - bootmgr.exe
   - pxeboot.n12
   - winpe.bcd
   - winpe.wim

Note

When execution of the make_winpe.bat command is not successful, an error number and an error message are output in the command prompt. Refer to "Chapter 4 Messages" and "Chapter 5 Troubleshooting" and take corrective action.

3.8 Copying Windows PE 5.1 (amd64)

Copy the Windows PE to the Resource Orchestrator manager.

Procedure

- Copy the Windows PE created in the Windows environment for work to the Resource Orchestrator manager.

  Copy Source Folder

  - Windows Environment for Work

    Work Folder\WinPEBat\WinPEOutput\WinPE51_amd64

  Copy Destination Folder

  - [Windows Manager]

    Installation_folder_of_the_Resource_Orchestrator_manager\SVROR\Manager\work_winpe\output\For_WinPE51_amd64

  Copy Destination Folder

  - [Linux Manager]

    /opt/FJSVrcvmr/work_winpe/output/For_WinPE51_amd64

- When copying a Windows PE that was created in a Windows environment for work to a Linux manager, the necessary access privileges are given below.

  Confirm the access privileges after copying the Windows PE to the Linux manager using OS administrator privileges (root).

  - Access Privileges: -rwx------

3.9 Executing the Script for Applying Windows PE 5.1 (amd64)

Apply Windows PE 5.1 (amd64) to the Resource Orchestrator manager.

Procedure

- Execute the following command:

  [Windows Manager]

```
cd Installation_folder_of_the_Resource_Orchestrator_manager\SVROR\Manager\work_winpe\output
\For_WinPE51_amd64
apply_winpe51_amd64.bat
```

  [Linux Manager]

```
cd /opt/FJSVrcvmr/work_winpe/output/For_WinPE51_amd64
./apply_winpe51_amd64.sh
```

3.10 Confirming the Execution Results of the Script for Applying Windows PE 5.1 (amd64)

Confirm that the script for applying Windows PE 5.1 (amd64) completed normally.

Procedure

- Confirm the Output Results

  Check the following file.

Output Destination Folder

[Windows Manager]

Installation_folder_of_the_Resource_Orchestrator_manager\SVROR\Manager\work_winpe\output\For_WinPE51_amd64

Output Destination Folder

[Linux Manager]

/opt/FJSVrcvmr/work_winpe/output/For_WinPE51_amd64/

Output Files

Result.txt

Output Results

When the script for application succeeded

A message like the following is displayed:

```
YYYY/MM/DD mm:hh:ss Successfully.
```

When the script for application failed

A message like the following is displayed:

```
YYYY/MM/DD mm:hh:ss Failed.
```

3.11 Restart the Resource Orchestrator Manager

Restart the Resource Orchestrator manager.

Procedure

- Execute the following command:

  [Windows Manager]

  - When Using Cloud Edition

    ```
    Installation_folder\SVROR\Manager\bin\rcxmgrctl stop
    Installation_folder\SVROR\Manager\bin\rcxmgrctl start
    ```

  - When Using Virtual Edition

    ```
    Installation_folder\SVROR\Manager\bin\rcxadm mgrctl stop
    Installation_folder\SVROR\Manager\bin\rcxadm mgrctl start
    ```

  [Linux Manager]

  - When Using Cloud Edition

    ```
    /opt/FJSVrcvmr/bin/rcxmgrctl stop
    /opt/FJSVrcvmr/bin/rcxmgrctl start
    ```

  - When Using Virtual Edition

    ```
    /opt/FJSVrcvmr/bin/rcxadm mgrctl stop
    /opt/FJSVrcvmr/bin/rcxadm mgrctl start
    ```

See

- When Using Cloud Edition

  For details on the rcxmgrctl command, refer to the following.

  "5.19 rcxmgrctl" in the "Reference Guide (Command/XML) CE"

- When Using Virtual Edition

  For details on the rcxadm mgrctl command, refer to the following.

  "5.11 rcxadm mgrctl" in the "Reference Guide (Command) VE"

Chapter 4 Messages

This chapter explains the messages that may be output by this function.

4.1 Error 10XX Series Messages

This section explains the Error 10XX series messages.

Table 4.1 Error 10XX Series Messages

Error Number	Message	Meaning	Corrective Action
Error 1001	Because multi byte character was used for the path, this batch was not able to be executed.	Something other than a single-byte character has been specifed in the path of the WinPEBat folder.	Change the path of the WinPEBat folder to one that only uses single-byte characters.
Error 1002	Because the following characters were used for the path, this batch was not able to be executed. (# ; , = + % ^ & ` ! ( ) space)	A character other than the following has been used in the path of the WinPEBat folder. (# ; , = + % ^ & ` ! ( ) and single-byte blank spaces)	Change the path of the WinPEBat folder to one that does not use characters other than: # ; , = + % ^ & ` ! ( ) and single-byte blank spaces.
Error 1003	Because this Command Prompt does not have administrator rights, this batch could not be executed.	The command prompt was not executed with administrator privileges.	Execute the command prompt using administrator privileges, and then execute "make_WinPE.bat" again
Error 1004	Could not find the [WinPEBat \winpe_batch-ROR] folder.	The "winpe_batch-ROR" folder was not found.	The folder may have been moved. Confirm the existence of WinPEBat\winpe_batch-ROR. If it does not exist, download and deploy WinPEBat.zip again.
Error 1005	Could not find the [WinPEBat \WinPEModule] folder.	The "WinPEModule" folder was not found in WinPEBat.	Deploy the "WinPEModule" folder in WinPEBat.
Error 1006	The disk free space should be 8.0GB or more.	Execution of the batch file requires 8.0 GB or more of available disk capacity.	After ensuring that the drive where the batch file is being executed has 8.0 GB or more of available disk capacity, execute the batch file again.
Error 1007	Could not use the [WinPEBat \WinPEOutput \WinPE51_amd64\module] folder. Please use error_recovery.bat.	There are files inside the "WinPE51_amd64\module" folder.	WinPEBat\WinPEOutput \WinPE51_amd64\module is not empty. Empty it and then perform the operation again. (If a folder remains in the output destination due to the error, execute error_recovery.bat.)
Error 1008	Could not use the [WinPEBat \WinPEOutput \WinPE31_amd64\module] folder. Please use error_recovery.bat.	There are files inside the "WinPE31_amd64\module" folder.	WinPEBat\WinPEOutput \WinPE31_amd64\module is not empty. Empty it and then perform the operation again. (If a folder remains in the output destination due to the error, execute error_recovery.bat.)

Error Number	Message	Meaning	Corrective Action
Error 1009	Could not use the [WinPEBat \WinPEOutput \WinPE31_x86\module] folder. Please use error_recovery.bat.	There are files inside the "WinPE31_x86\module" folder.	WinPEBat\WinPEOutput \WinPE31_x86\module is not empty. Empty it and then perform the operation again. (If a folder remains in the output destination due to the error, execute error_recovery.bat.)
Error 1010	Please use x86 or amd64 for the first argument, and pe51 or pe31 for the second argument.	The argument for execution is incorrect. The following arguments can be used. {x86 ^| amd64} {pe31 ^| pe51}	The argument for execution is incorrect. The following arguments can be used. {x86 ^| amd64} {pe31 ^| pe51} Arguments other than these will result in errors.
Error 1011	Failed to execute the batch file. Execution by double click is not supported.	The batch file may have been executed by being double-clicked.	It is not expected that the Windows PE creation script will be executed using double-clicking. In addition, it is possible that make_winpe.bat or error-recovery.bat was only invoked, and another patch is available for execution.
Error 1012	Could not find the batch_path_design.ini file.	The "batch_path_design.ini" file was not found in WinPEBat.	Place the "batch_path_design.ini" file in WinPEBat
Error 1013	Could not find the Windows ADK.	The Windows ADK could not be confirmed.	Confirm the existence of the Windows ADK in WinPEBat \WinADK. When the Windows ADK has been installed using a path other than the default, change the settings in batch_path_design.ini to change the reference location for the Windows PE creation program. For details on "batch_path_design.ini", refer to "Appendix C batch_path_design.ini".
Error 1014	Could not find the Windows AIK.	The Windows AIK could not be confirmed.	Confirm the existence of the Windows AIK in WinPEBat \WinAIK. When the Windows AIK has been installed using a path other than the default, change the settings in batch_path_design.ini to change the reference location for the Windows PE creation program.

Error Number	Message	Meaning	Corrective Action
			For details on "batch_path_design.ini", refer to "Appendix C batch_path_design.ini".
Error 1015	Windows ADK exists in a different drive from the execution batch.	The Windows ADK is located in a different drive to the current directory (WinPEBat \winpe_batch-ROR).	The Windows ADK must be located in the same drive as the current directory (WinPEBat \winpe_batch-ROR). There are the two following corrective actions. - Move the entire WinPEBat folder to the drive where the Windows ADK is located. After that, describe WinPEBat\winpe_batch-ROR \batch_path_design.ini as the Windows ADK installation path. - Uninstall the Windows ADK, and install it again using the specified path (WinPEBat\WinADK).
Error 1016	Windows AIK exists in a different drive from the execution batch.	The Windows AIK is located in a different drive to the current directory (WinPEBat \winpe_batch-ROR).	The Windows AIK must be located in the same drive as the current directory (WinPEBat \winpe_batch-ROR). There are the two following corrective actions. - Move the entire WinPEBat folder to the drive where the Windows AIK is located. After that, describe WinPEBat\winpe_batch-ROR \batch_path_design.ini as the Windows AIK installation path. - Uninstall the Windows AIK, and install it again using the specified path (WinPEBat\WinAIK).
Error 1017	Could not change to folder of execution batch.	It was not possible to move to the folder where the batch file exists.	Collect the log files in WinPEBat\WinPEOutput and contact Fujitsu technical staff. For details, refer to "Chapter 5 Troubleshooting".
Error 1018	Could not read the path of [update program].	The path for the storage location of the update program could not be obtained.	The file configuration may have been changed. Confirm the existence of update_file.ini. (Check the winpe_update inside the folder of

Error Number	Message	Meaning	Corrective Action
			update_file.ini. Check that the paths set for each version are correct and there are no mistakes.)
Error 1019	Could not read the number of [update program].	The number of update programs could not be obtained.	The file configuration may have been changed. Confirm the existence of update_file.ini. (Check the winpe_update inside the folder of update_file.ini. Check that the numbers of update programs set for each version are correct and there are no mistakes.)
Error 1020	Could not read the start number for the error of [update program].	The error number at the start of the update program could not be obtained.	The file configuration may have been changed. Confirm the existence of update_file.ini. (Check the winpe_update inside the folder of update_file.ini. Check that the numbers at the start of each error number set for each version are correct and there are no mistakes.)
Error 1021	Could not get the name of [update program].	The update program could not be obtained.	The file configuration may have been changed. Confirm the existence of update_file.ini. (Check the winpe_update inside the folder of update_file.ini. Check that the names of the update programs set for each version are correct and there are no mistakes.)
Error 1023	Failed to output execution result to the screen.	Screen output failed.	There is a possibility that the variable being used for screen output is empty.
Error 1024	The execution result could not be written to the logfile.	Adding of the description to the log file failed.	Redirection of the screen output failed. There is a possibility that the output destination of the log file does not exist.
Error 1025	Could not change to directory of WinPEBat\WinPEOutput \WinPE51_amd64\module.	It was not possible to move to the output folder for Windows PE 5.1 (amd64).	It was not possible to move to the output destination folder (WinPEBat\WinPEOutput \WinPE51_amd64\module). Confirm the existence of WinPEBat\WinPEOutput \WinPE51_amd64\module. If it does, delete it and perform the operation again. If it does not, and performing the

Error Number	Message	Meaning	Corrective Action
			operation again still fails, contact Fujitsu technical staff.
Error 1026	Could not change to directory of WinPEBat\WinPEOutput \WinPE31_amd64\module.	It was not possible to move to the output folder for Windows PE 3.1 (amd64).	It was not possible to move to the output destination folder (WinPEBat\WinPEOutput \WinPE31_amd64\module). Confirm the existence of WinPEBat\WinPEOutput \WinPE31_amd64\module. If it does, delete it and perform the operation again. If it does not, and performing the operation again still fails, contact Fujitsu technical staff.
Error 1027	Could not change to directory of WinPEBat\WinPEOutput \WinPE31_x86\module.	It was not possible to move to the output destination folder for Windows PE 3.1 (x86).	It was not possible to move to the output destination folder (WinPEBat\WinPEOutput \WinPE31_x86\module). Confirm the existence of WinPEBat\WinPEOutput \WinPE31_x86\module. If it does, delete it and perform the operation again. If it does not, and performing the operation again still fails, contact Fujitsu technical staff.
Error 1028	Failed in execution because the specified argument is not one of the expected values.[check.bat]	The argument sent to check.bat was not the necessary one.	Collect the log files in WinPEBat\WinPEOutput and contact Fujitsu technical staff. For details, refer to "Chapter 5 Troubleshooting".
Error 1029	Failed in execution because the specified argument is not one of the expected values. [echoEx.bat]	The argument sent to echoEx.bat was not the necessary one.	Collect the log files in WinPEBat\WinPEOutput and contact Fujitsu technical staff. For details, refer to "Chapter 5 Troubleshooting".
Error 1030	Could not change to directory of WinPEBat\WinPEOutput \WinPE51_amd64\log.	It was not possible to move to the log output folder for Windows PE 5.1 (amd64).	It was not possible to move to the output destination folder (WinPEBat\WinPEOutput \WinPE51_amd64\log). Confirm the existence of WinPEBat\WinPEOutput \WinPE51_amd64\log. If it does, delete it and perform the operation again. If it does not, and performing the operation again still fails, contact Fujitsu technical staff.
Error 1031	Could not change to directory of WinPEBat\WinPEOutput \WinPE31_amd64\log.	It was not possible to move to the log output folder for Windows PE 3.1 (amd64).	It was not possible to move to the output destination folder

Error Number	Message	Meaning	Corrective Action
			(WinPEBat\WinPEOutput \WinPE31_amd64\log). Confirm the existence of WinPEBat\WinPEOutput \WinPE31_amd64\log. If it does, delete it and perform the operation again. If it does not, and performing the operation again still fails, contact Fujitsu technical staff.
Error 1032	Could not change to directory of WinPEBat\WinPEOutput \WinPE31_x86\log.	It was not possible to move to the log output folder for Windows PE 3.1 (x86).	It was not possible to move to the output destination folder (WinPEBat\WinPEOutput \WinPE31_x86\log). Confirm the existence of WinPEBat\WinPEOutput \WinPE31_x86\log. If it does, delete it and perform the operation again. If it does not, and performing the operation again still fails, contact Fujitsu technical staff.
Error 1033	Failed in execution because the specified argument is not one of the expected values. [check_adk_aik.bat]	The argument sent to check_adk_aik.bat was not the necessary one.	Collect the log files in WinPEBat\WinPEOutput and contact Fujitsu technical staff. For details, refer to "Chapter 5 Troubleshooting".
Error 1034	Could not find the error_management.ini file.	The "error_managment.ini" file was not found in WinPEBat \winpe_batch-ROR.	Place the "error_management.ini" file in WinPEBat\winpe_batch-ROR. Or, deploy WinPEBat.zip again.
Error 1035	Could not find the log_path.ini file.	The "log_path.ini" file was not found in WinPEBat \winpe_batch-ROR.	Place the "log_path.ini" file in WinPEBat\winpe_batch-ROR. Or, deploy WinPEBat.zip again.
Error 1036	Could not find the winpe_update.ini file.	The "winpe_update.ini" file was not found in WinPEBat \winpe_batch-ROR.	Place the "winpe_update.ini" file in WinPEBat \winpe_batch-ROR. Or, obtain WinPEBat again. (There is also a possibility some other section has been changed.)
Error 1037	Please use x86 or amd64 for the first argument, use pe51 or pe31 for the second argument, and either use del_log for the third argument or leave it unspecified.	The number of arguments to send to error_recovery.bat differs from the required number.	The argument for execution is incorrect. The following arguments can be used. {x86 ^| amd64} {pe31 ^| pe51} {log_del | ^ } Arguments other than these will result in errors.
Error 1038	Failed to unmount the WIM image.	Dismounting of the Windows PE image failed.	Collect the log files in WinPEBat\WinPEOutput and

Error Number	Message	Meaning	Corrective Action
			contact Fujitsu technical staff. For details, refer to "Chapter 5 Troubleshooting".
Error 1039	Failed to delete folder.	Deletion of the folder failed.	Collect the log files in WinPEBat\WinPEOutput and contact Fujitsu technical staff. For details, refer to "Chapter 5 Troubleshooting".
Error 1040	Failed to delete logfile.	Deletion of the specified log file failed.	If the log file remains in the specified location, please delete it manually. If manual deletion fails,Collect the log files in WinPEBat \WinPEOutput and contact Fujitsu technical staff. For details, refer to "Chapter 5 Troubleshooting".
Error 1041	Could not find the unmounted folder.	Deletion of the folder for which mounting has been released, failed.	Collect the log files in WinPEBat\WinPEOutput and contact Fujitsu technical staff. For details, refer to "Chapter 5 Troubleshooting".

4.2 Error 11XX Series Messages

This section explains the Error 11XX series messages.

Table 4.2 Error 11XX Series Messages

Error Number	Message	Meaning	Corrective Action
Error 1101	Could not find Windows8.1-KB2919442-x64.msu.	Windows8.1-KB2919442-x64.msu was not found in WinPEBat\WinUpdate \WinPE51_amd64.	Confirm that Windows8.1-KB2919442-x64.msu has been placed in WinPEBat \WinUpdate \WinPE51_amd64. If it does not exist, download the .msu file indicated in the error message from the following URL. After that, place the downloaded .msu file in the folder indicated for the message. https:// www.microsoft.com/en-US/ download/details.aspx? id=42162
Error 1102	Could not find Windows8.1-KB2919355-x64.msu.	Windows 8.1-KB2919355-x64.msu was not found in WinPEBat\WinUpdate \WinPE51_amd64.	Confirm that Windows 8.1-KB2919355-x64.msu has been placed in WinPEBat \WinUpdate \WinPE51_amd64. If it does not exist, download the .msu file indicated in the

Error Number	Message	Meaning	Corrective Action
			error message from the following URL. After that, place the downloaded .msu file in the folder indicated for the message. https://www.microsoft.com/en-US/download/details.aspx?id=42335
Error 1103	Could not find Windows8.1-KB2932046-x64.msu.	Windows 8.1-KB2932046-x64.msu was not found in WinPEBat\WinUpdate\WinPE51_amd64.	Confirm that Windows 8.1-KB2932046-x64.msu has been placed in WinPEBat\WinUpdate\WinPE51_amd64. If it does not exist, download the .msu file indicated in the error message from the following URL. After that, place the downloaded .msu file in the folder indicated for the message. https://www.microsoft.com/en-US/download/details.aspx?id=42335
Error 1104	Could not find Windows8.1-KB2934018-x64.msu.	Windows 8.1-KB2934018-x64.msu was not found in WinPEBat\WinUpdate\WinPE51_amd64.	Confirm that Windows 8.1-KB2934018-x64.msu has been placed in WinPEBat\WinUpdate\WinPE51_amd64. If it does not exist, download the .msu file indicated in the error message from the following URL. After that, place the downloaded .msu file in the folder indicated for the message. https://www.microsoft.com/en-US/download/details.aspx?id=42335
Error 1105	Could not find Windows8.1-KB2937592-x64.msu.	Windows 8.1-KB2937592-x64.msu was not found in WinPEBat\WinUpdate\WinPE51_amd64.	Confirm that Windows 8.1-KB2937592-x64.msu has been placed in WinPEBat\WinUpdate\WinPE51_amd64. If it does not exist, download the .msu file indicated in the error message from the following URL. After that, place the downloaded .msu file

Error Number	Message	Meaning	Corrective Action
			in the folder indicated for the message. https://www.microsoft.com/en-US/download/details.aspx?id=42335
Error 1106	Could not find Windows8.1-KB2938439-x64.msu.	Windows 8.1-KB2938439-x64.msu was not found in WinPEBat\WinUpdate\WinPE51_amd64.	Confirm that Windows 8.1-KB2938439-x64.msu has been placed in WinPEBat\WinUpdate\WinPE51_amd64. If it does not exist, download the .msu file indicated in the error message from the following URL. After that, place the downloaded .msu file in the folder indicated for the message. https://www.microsoft.com/en-US/download/details.aspx?id=42335
Error 1107	Could not find Windows8.1-KB2959977-x64.msu.	Windows 8.1-KB2959977-x64.msu was not found in WinPEBat\WinUpdate\WinPE51_amd64.	Confirm that Windows 8.1-KB2959977-x64.msu has been placed in WinPEBat\WinUpdate\WinPE51_amd64. If it does not exist, download the .msu file indicated in the error message from the following URL. After that, place the downloaded .msu file in the folder indicated for the message. https://www.microsoft.com/en-US/download/details.aspx?id=42335
Error 1108	Could not find Windows8.1-KB2966870-x64.msu.	Windows 8.1-KB2966870-x64.msu was not found in WinPEBat\WinUpdate\WinPE51_amd64.	Confirm that Windows 8.1-KB2966870-x64.msu has been placed in WinPEBat\WinUpdate\WinPE51_amd64. If it does not exist, download the .msu file indicated in the error message from the following URL. After that, place the downloaded .msu file in the folder indicated for the message. https://www.microsoft.com/en-US/

Error Number	Message	Meaning	Corrective Action
			download/details.aspx?id=43257
Error 1109	Could not find Windows8.1-KB2938322-x64.msu.	Windows 8.1-KB2938322-x64.msu was not found in WinPEBat\WinUpdate\WinPE51_amd64.	Confirm that Windows 8.1-KB2938322-x64.msu has been placed in WinPEBat\WinUpdate\WinPE51_amd64. If it does not exist, download the .msu file indicated in the error message from the following URL. After that, place the downloaded .msu file in the folder indicated for the message. https://www.microsoft.com/en-us/download/details.aspx?id=43022
Error 1110	Could not find Windows8.1-KB3032331-v2-x64.msu.	Windows 8.1-KB3032331-v2-x64.msu was not found in WinPEBat\WinUpdate\WinPE51_amd64.	Confirm that Windows 8.1-KB3032331-v2x64.msu has been placed in WinPEBat\WinUpdate\WinPE51_amd64. If it does not exist, download the .msu file indicated in the error message from the following URL. After that, place the downloaded .msu file in the folder indicated for the message. https://support.microsoft.com/en-us/kb/3032331

4.3 Error 12XX Series Messages

This section explains the Error 12XX series messages.

Table 4.3 Error 12XX Series Messages

Error Number	Message	Meaning	Corrective Action
Error 1201	Could not find Windows6.1-KB981208-v2-x64.msu.	Windows6.1-KB981208-v2-x64.msu was not found in WinPEBat\WinUpdate\WinPE31_amd64.	Confirm that Windows6.1-KB981208v2-x64.msu has been placed in WinPEBat\WinUpdate\WinPE31_amd64. If it does not exist, download the .msu file indicated in the error message from the following URL. After that, place the downloaded .msu file in the folder indicated for the message.

Error Number	Message	Meaning	Corrective Action
			For details, refer to "Table A.2 When transferring many small files on computers using Windows 7 or Windows Server 2008 R2, performance decreases".
Error 1202	Could not find Windows6.1-KB982018-v3-x64.msu.	Windows6.1-KB982018-v3-x64.msu was not found in WinPEBat\WinUpdate\WinPE31_amd64.	Confirm that Windows6.1-KB982018-v3-x64.msu has been placed in WinPEBat\WinUpdate\WinPE31_amd64. If it does not exist, download the .msu file indicated in the error message from the following URL. After that, place the downloaded .msu file in the folder indicated for the message. https://www.microsoft.com/en-US/download/details.aspx?id=12248

4.4 Error 13XX Series Messages

This section explains the Error 13XX series messages.

Table 4.4 Error 13XX Series Messages

Error Number	Message	Meaning	Corrective Action
Error 1301	Could not find Windows6.1-KB981208-v2-x86.msu.	Windows6.1-KB981208-v2-x86.msu was not found in WinPEBat\WinUpdate\WinPE31_x86.	Confirm that Windows6.1-KB981208-v2-x86.msu has been placed in WinPEBat\WinUpdate\WinPE31_x86. If it does not exist, download the .msu file indicated in the error message from the following URL. After that, place the downloaded .msu file in the folder indicated for the message. For details, refer to "Table B.2 When transferring many small files on computers using Windows 7 or Windows Server 2008 R2, performance decreases".
Error 1302	Could not find Windows6.1-KB982018-v3-x86.msu.	Windows6.1-KB982018-v3-x86.msu was not found in WinPEBat\WinUpdate\WinPE31_x86.	Confirm that Windows6.1-KB982018-v3-x86.msu has been placed in WinPEBat\WinUpdate\WinPE31_x86. If it does not exist, download the .msu file indicated in the error message from the

Error Number	Message	Meaning	Corrective Action
			following URL. After that, place the downloaded .msu file in the folder indicated for the message. https://www.microsoft.com/en-us/download/details.aspx?id=8903

4.5 Messages that Require You to Contact Fujitsu Technical Staff

This section explains the messages that require you to contact Fujitsu technical staff to enable resolution.

When the Following Messages Are Displayed

Collect the log files in WinPEBat\WinPEOutput and contact Fujitsu technical staff. For details, refer to "Chapter 5 Troubleshooting".

- 4.5.1 Error 20XX Series Messages
- 4.5.2 Error 30XX Series Messages
- 4.5.3 Error 40XX Series Messages
- 4.5.4 Error 50XX Series Messages
- 4.5.5 Error 60XX Series Messages
- 4.5.6 Error 70XX Series Messages
- 4.5.7 Error 80XX Series Messages
- 4.5.8 Error 85XX Series Messages
- 4.5.9 Error 90XX Series Messages
- 4.5.10 Error 95XX Series Messages

4.5.1 Error 20XX Series Messages

This section explains the Error 20XX series messages.

Table 4.5 Error 20XX Series Messages

Error Number	Message	Meaning
Error 2001	Failed in execution because the specified argument is not one of the expected values.	The argument specified for execution of pe30.bat is incorrect.
Error 2002	Failed to copy.	Copying of files by the "copy" command in pe30.bat failed.
Error 2003	Failed to copy.	Copying (overwriting) of files by the "copy" command in pe30.bat failed.
Error 2004	Failed to execute command [imagex].	Execution of the "imegex" command in pe30.bat failed.
Error 2005	Failed to mount the WIM image.	Mounting using the "dism" command in pe30.bat failed.
Error 2006	Failed to execute command [dism /Set-ScratchSpace].	Setting of the scratch area using the "dism" command in pe30.bat failed.
Error 2007	Failed to execute command [dism /Add-Package].	Package addition using the "dism" command in pe30.bat failed.

Error Number	Message	Meaning
Error 2008	Failed to execute command [dism Set-SKUIntlDefaults].	Locale setting using the "dism" command in pe30.bat failed.
Error 2009	Failed to unmount the WIM image.	Releasing of mounting using the "dism" command in pe30.bat failed.
Error 2011	Unknown WindowsPE Version.	It has been determined that the version of the Windows PE creation kit (Windows AIK) in pe30.bat is wrong, or the kit is not included.
Error 2012	Failed to delete file.	Deletion of files in pe30.bat failed.
Error 2013	Failed to delete folder.	Deletion of folders in pe30.bat failed.

4.5.2 Error 30XX Series Messages

This section explains the Error 30XX series messages.

Table 4.6 Error 30XX Series Messages

Error Number	Message	Meaning
Error 3001	Failed in execution because the specified argument is not one of the expected values.	The argument sent to pe50.bat was not the expected one.
Error 3002	Failed to copy.	Copying of files by the "copy" command in pe50.bat failed.
Error 3003	Failed to copy.	Copying (overwriting) of files by the "copy" command in pe50.bat failed.
Error 3004	Failed to execute command [imagex].	Execution of the "imegex" command in pe50.bat failed.
Error 3005	Failed to mount of the WIM image.	Mounting using the "dism" command in pe50.bat failed.
Error 3006	Failed to execute command [dism /Set-ScratchSpace].	Setting of the scratch area using the "dism" command in pe50.bat failed.
Error 3007	Failed to execute command [dism /Add-Package].	Package addition using the "dism" command in pe50.bat failed.
Error 3008	Failed to execute command [dism Set-SKUIntlDefaults].	Locale setting using the "dism" command in pe50.bat failed.
Error 3009	Failed to unmount of the WIM image.	Releasing of mounting using the "dism" command in pe50.bat failed.
Error 3011	Unknown WindowsPE Version.	It has been determined that the version of the Windows PE creation kit (Windows AIK) in pe50.bat is wrong, or the kit is not included.
Error 3012	Failed to delete file.	Deletion of files in pe50.bat failed.
Error 3013	Failed to delete folder.	Deletion of folders in pe50.bat failed.

4.5.3 Error 40XX Series Messages

This section explains the Error 40XX series messages.

Table 4.7 Error 40XX Series Messages

Error Number	Message	Meaning
Error 4001	Could not find the file.	Execution failed as files required by copy_contents.bat were not found.

Error Number	Message	Meaning
Error 4002	Could not the winpeshl_base.ini.	The attempt to configure winpeshl.ini of copy_contents.bat failed.
Error 4003	Failed to execute command [dism /Add-Driver].	Addition of the package by the "dism" command in copy_contents.bat failed.
Error 4005	Failed to execute file [winpe30_drv.exe].	Execution of winpe30_drv.exe in copy_contents.bat failed.
Error 4006	Failed to execute file [winpe50_drv.exe].	Execution of winpe50_drv.exe in copy_contents.bat failed.
Error 4007	Failed to copy.	Copying of files by the "copy" command in copy_contents.bat failed.

4.5.4 Error 50XX Series Messages

This section explains the Error 50XX series messages.

Table 4.8 Error 50XX Series Messages

Error Number	Message	Meaning
Error 5001	Failed in execution because the specified argument is not one of the expected values.	The argument specified for execution of setenv.bat is incorrect.

4.5.5 Error 60XX Series Messages

This section explains the Error 60XX series messages.

Table 4.9 Error 60XX Series Messages

Error Number	Message	Meaning
Error 6001	Failed to execute command [reg load].	Loading of the registry in fix_reg.bat failed.
Error 6002	Failed to execute command [reg add].	Addition of the key and value to the registry in fix_reg.bat failed.
Error 6003	Failed to execute command [reg unload].	Saving of the registry in fix_reg.bat failed.
Error 6004	Failed in execution because the specified argument is not one of the expected values.	The argument specified for execution of fix_reg.bat is incorrect.

4.5.6 Error 70XX Series Messages

This section explains the Error 70XX series messages.

Table 4.10 Error 70XX Series Messages

Error Number	Message	Meaning
Error 7001	Failed to execute file [bcdedit.exe -createstore].	Failed to create a new, blank boot configuration datastore in make_bcd.bat.
Error 7002	Failed to execute file [bcdedit.exe -create].	Failed to create a new entry in the boot configuration datastore in make_bcd.bat.
Error 7003	Failed to execute file [bcdedit.exe -set].	Failed to set an entry option value in make_bcd.bat.
Error 7004	Failed to execute file [bcdedit.exe -enum].	Failed to display a list of the entries in the store in make_bcd.bat.
Error 7005	Could not the bcdedit.exe.	bcdedit.exe could not be confirmed in make_bcd.bat.

Error Number	Message	Meaning
Error 7007	Failed to delete file.	Failed to delete hidden files in make_bcd.bat.
Error 7008	Failed in execution because the specified argument is not one of the expected values.	The argument specified for execution of make.bcd.bat is incorrect.

4.5.7 Error 80XX Series Messages

This section explains the Error 80XX series messages.

Table 4.11 Error 80XX Series Messages

Error Number	Message	Meaning
Error 8001	Failed to delete file.	The specified value could not be obtained from get_value.bat.
Error 8002	Failed in execution because the specified argument is not one of the expected values.	The argument specified for execution of get.value.bat is incorrect.

4.5.8 Error 85XX Series Messages

This section explains the Error 85XX series messages.

Table 4.12 Error 85XX Series Messages

Error Number	Message	Meaning
Error 8501	Could not change to folder.	It was not possible to move to the specified path in set_path.bat.
Error 8502	Could not change to folder.	It was not possible to return to the invoker inside set_path.bat.
Error 8503	Failed in execution because the specified argument is not one of the expected values.	The number of arguments to send to set_path.bat differs from the required number.

4.5.9 Error 90XX Series Messages

This section explains the Error 90XX series messages.

Table 4.13 Error 90XX Series Messages

Error Number	Message	Meaning
Error 9001	Failed in execution because the specified argument is not one of the expected values.	The number of arguments to send to winpe_update.bat differs from the required number.
Error 9002	Failed to execute command [dism /Add-Package].	The update program could not be loaded.

4.5.10 Error 95XX Series Messages

This section explains the Error 95XX series messages.

Table 4.14 Error 95XX Series Messages

Error Number	Message	Meaning
Error 9501	Could not find the error message.	The error message could not be obtained.
Error 9502	Failed in execution because the specified argument is not one of the expected values.	The number of arguments to send to error_output.bat differs from the required number.

4.5.11 Error 9999 Message

This section explains the Error 9999 message.

Table 4.15 Error 9999 Message

Error Number	Message	Meaning	Corrective Action
Error 9999	Unknown ERROR. Please check logfile.	An error occurred due to an unknown cause.	Check the log file. There is a possibility that a specific Windows PE creation script file was not found. Store the files of the Windows PE creation script to be used, and perform the operation again. If that does not resolve the problem,Collect the log files in WinPEBat\WinPEOutput and contact Fujitsu technical staff. For details, refer to "Chapter 5 Troubleshooting".

Point

If an error message that is not described in this guide is displayed, perform the corrective action for Error 9999.

Chapter 5 Troubleshooting

This chapter explains the troubleshooting procedures for when executing a Windows PE creation script.

Collecting Troubleshooting Data

When an error has occurred while executing a Windows PE creation script

When an error has occurred while executing a Windows PE creation script, collect the following troubleshooting data, and send it to Fujitsu technical staff.

- Log file for the Windows PE creation script
- Log file of the DISM file inside the Windows ADK/AIK

When an error has occurred during operation after a Windows PE creation script was executed

When an error has occurred during operation after a Windows PE creation script was executed, collect the following troubleshooting data, and send it to Fujitsu technical staff.

- When Using Cloud Edition

  "1.3 Collecting Investigation Data (Cloud Edition)" in "Troubleshooting"

- When Using Virtual Edition

  "1.2 Collecting Investigation Data (Virtual Edition)" in "Troubleshooting"

Format of the Windows PE Creation Script Log File

Log file name

yyyymmddhhmmss.log (*yyyymmddhhmmss* indicates the date and time)

Log File Storage Folder

Version of the Windows PE	Log File Storage Folder Name
Windows PE 5.1 (amd64)	WinPEBat\WinPEOutput\WinPE51_amd64\log
Windows PE 3.1 (amd64)	WinPEBat\WinPEOutput\WinPE31_amd64\log
Windows PE 3.1 (x86)	WinPEBat\WinPEOutput\WinPE31_x86\log

Format of Log Files

Execution Status	Description
When starting	Time of starting
	Executed OS
When executed	Command prompt output details
When an error occurs	Error code
	Cause
When stopping	Time of stopping
	Determination of success of Windows PE creation

Regarding error_recovery.bat

Overview of error_recovery.bat

error_recovery.bat is the batch file for deleting any remaining files or mounts that were being executed when a Windows PE creation script ended abnormally.

These files and mounts remain in the output destination folder (WinPEBat\WinPEOutput) for the version of Windows PE that was being created.

Execution Procedure for error_recovery.bat

By specifying the version of Windows PE, it is possible to empty the Windows PE output destination folder to delete.

Arguments of error_recovery.bat	Output Destination Folder of the Windows PE to Delete
amd64 pe51	WinPEBat\WinPEOutput\WinPE51_amd64\module
amd64 pe31	WinPEBat\WinPEOutput\WinPE31_amd64\module
x86 pe31	WinPEBat\WinPEOutput\WinPE31_x86\module

Deletion of the Log File Output When Executing make_winpe.bat

When deleting log files, add del_log as the third argument and then execute.

Arguments of error_recovery.bat	Log Files for Deletion
amd64 pe51 del_log	WinPEBat\WinPEOutput\WinPE51_amd64\log*.log
amd64 pe31 del_log	WinPEBat\WinPEOutput\WinPE31_amd64\log*.log
x86 pe31 del_log	WinPEBat\WinPEOutput\WinPE31_x86\log*.log

Appendix A Creation Procedure for Windows PE 3.1 (amd64)

This section provides an overview of the creation procedure for Windows PE 3.1 (amd64).

A.1 Confirming the Existence of a Windows PE

Confirm the existence of a Windows PE on the Resource Orchestrator manager.

Procedure

- Execute the following command:

  [Windows Manager]

  ```
  Installation_folder\SVROR\Manager\bin\rcxadm image list -winpe
  ```

  [Linux Manager]

  ```
  /opt/FJSVrcvmr/bin/rcxadm image list -winpe
  ```

  See

  For details on the rcxadm image command, refer to the following:

  - When Using Cloud Edition

    "4.1 rcxadm image" in the "Reference Guide (Command/XML) CE"

  - When Using Virtual Edition

    "4.1 rcxadm image" in the "Reference Guide (Command) VE"

Results

When Windows PEs do exist on the Resource Orchestrator manager, the versions of the Windows PEs are displayed.

When the Windows PE to use does not exist, perform the following work.

Example

```
rcxadm image list -winpe
VERSION              STATUS
--------------       -----------
Windows PE 5(amd64)  Exist
Windows PE 3(amd64)  None
Windows PE 3(x86)    None
```

A.2 Copying the Windows PE 3.1 (amd64) Creation Script

Copy the Windows PE creation script to the Windows environment for work and deploy it.

Procedure

1. Copying the Windows PE 3.1 (amd64) Creation Script

   Copy the Windows PE 3.1 (amd64) creation script installed on the Resource Orchestrator manager to the Windows environment for work.

   Copy to a path that uses only single-byte alphanumeric characters and underscores.

Copy Source Folder

- [Windows Manager]

  Under *Installation_folder_of_the_Resource_Orchestrator_manager*\SVROR\Manager\work_winpe\input

Copy Source Directory

- [Linux Manager]

  Under /opt/FJSVrcvmr/work_winpe/input

Copy Destination Folder

- Windows Environment for Work

  Work Folder

2. Deploy the Windows PE 3.1 (amd64) Creation Script

   Extract the archive (zip) file copied to the work folder.

A.3 Download Windows Update Programs

Download Windows update programs and apply them.

Procedure

- Download Windows update programs and store them in the following location.

  WinPEBat\WinUpdate\WinPE31_amd64

Table A.1 Update program for Windows 7 for x64-Based Systems (KB982018)

Necessary Update Program	Download Link
Windows6.1-KB982018-v3-x64.msu	https://www.microsoft.com/en-US/download/details.aspx?id=12248

Table A.2 When transferring many small files on computers using Windows 7 or Windows Server 2008 R2, performance decreases

Necessary Update Program	Download Link
Windows6.1-KB981208-v2-x64.msu	Contact Fujitsu technical staff for the method for obtaining the program.

A.4 Downloading the Windows PE 3.1 (amd64) Creation Program (Windows AIK)

Download the Windows PE creation program (Windows AIK).

Procedure

- Download the Windows PE 3.1 (amd64) creation program (Windows AIK).

Table A.3 Windows PE 3.1 (amd64) creation program (Windows AIK)

Necessary Windows AIK Program	Download Link
Windows Automatic Installation Kit (Windows AIK) for Windows 7	https://www.microsoft.com/en-US/download/details.aspx?id=5753
Windows Automatic Installation Kit (Windows AIK) Supplement for Windows 7	https://www.microsoft.com/en-US/download/details.aspx?id=5188

A.5 Installing the Windows PE 3.1 (amd64) Creation Program (Windows AIK)

Install the Windows PE 3.1 (amd64) creation program (Windows AIK).

Procedure

- Install the Windows PE 3.1 (amd64) creation program (Windows AIK)
  - Execute from the Windows Automatic Installation Kit (AIK) for Windows 7.
  - Specify "WinPEBat\WinAIK" for the installation path for the Windows Automatic Installation Kit (AIK) for Windows 7.
  - After executing the Windows Automatic Installation Kit (AIK) for Windows 7, apply the Windows Automatic Installation Kit (Windows AIK) supplement for Windows 7.

A.6 Executing the Windows PE 3.1 (amd64) Creation Script

Execute the Windows PE 3.1 (amd64) creation script, and create Windows PE 3.1 (amd64).

Procedure

1. Using the command prompt, move to WinPEBat\winpe_make_script.
2. Execute the following command:

```
make_winpe.bat amd64 pe31
```

Note

The advisory notes for when executing a Windows PE creation script are as follows.

- Execute the script using administrator privileges.
- Do not close the command prompt while executing a Windows PE creation script. There is a chance that the Windows PE will not be created correctly and none of the logs will be output.
- Do not perform a forced termination while executing the Windows PE creation script. There is a chance that the Windows PE will not be created correctly and none of the logs will be output.
- Do not use a single Windows PE creation script to create multiple Windows PEs at the same time. If a single script is executed simultaneously, it may not operate properly.
- If files required for Windows PE creation are not found in the specified locations, an error will occur. It is possible to change the reference path used for the Windows PE creation program in "batch_path_design.ini", but the Windows PE creation script and the Windows PE creation program must be on the same drive. For details on "batch_path_design.ini", refer to "Appendix C batch_path_design.ini".
- Use the default values for all of the file names and folder names used in the Windows PE creation script. If a name is changed, the Windows PE creation script will not operate correctly.
- Do not change the paths of files and folders that exist in WinPEBat. If they are changed, the Windows PE creation script will not operate correctly.

Information

- A general estimate of the execution time for a Windows PE creation script is 60 minutes. This time is only a general estimate, and the actual time will vary depending on the execution environment and servers involved.

A.7 Confirming the Execution Results of the Windows PE 3.1 (amd64) Creation Script

Confirm that the Windows PE 3.1 (amd64) creation script completed normally.

Procedure

1. Confirm Output on the Command Prompt Used to Execute make_winpe.bat

   When the make_winpe.bat command was executed successfully, confirm that the message "Execution of make_winpe.bat successfully." has been output.

2. Confirm Output of the Specified File

   After executing the Windows PE 3.1 (amd64) creation script, confirm that the specified file has been output in the output destination folder.

   Output Destination Folder

   WinPEBat\WinPEOutput\WinPE31_amd64\module\output\WPA001

   Output Files

   - boot.sdi
   - bootmgfw.efi
   - bootmgr.exe
   - pxeboot.n12
   - winpe.bcd
   - winpe.wim

   Note

   When execution of the make_winpe.bat command is not successful, an error number and an error message are output in the command prompt. Refer to "Chapter 4 Messages" and "Chapter 5 Troubleshooting" and take corrective action.

A.8 Copying Windows PE 3.1 (amd64)

Copy the Windows PE to the Resource Orchestrator manager.

Procedure

- Copy the Windows PE created in the Windows environment for work to the Resource Orchestrator manager.

  Copy Source Folder

  - Windows Environment for Work

    Work Folder\WinPEBat\WinPEOutput\WinPE31_amd64

  Copy Destination Folder

  - [Windows Manager]

    Installation_folder_of_the_Resource_Orchestrator_manager\SVROR\Manager\work_winpe\output\For_WinPE31_amd64

  Copy Destination Folder

  - [Linux Manager]

    /opt/FJSVrcvmr/work_winpe/output/For_WinPE31_amd64

Note

- When copying a Windows PE that was created in a Windows environment for work to a Linux manager, the necessary access privileges are given below.

  Confirm the access privileges after copying the Windows PE to the Linux manager using OS administrator privileges (root).

  - Access Privileges: -rwx------

A.9 Executing the Script for Applying Windows PE 3.1 (amd64)

Apply Windows PE 3.1 (amd64) to the Resource Orchestrator manager.

Procedure

- Execute the following command:

  [Windows Manager]

```
cd Installation_folder_of_the_Resource_Orchestrator_manager\SVROR\Manager\work_winpe\output\
For_WinPE31_amd64
apply_winpe31_amd64.bat
```

  [Linux Manager]

```
cd /opt/FJSVrcvmr/work_winpe/output/For_WinPE31_amd64
./apply_winpe31_amd64.sh
```

A.10 Confirming the Execution Results of the Script for Applying Windows PE 3.1 (amd64)

Confirm that the script for applying Windows PE 3.1 (amd64) completed normally.

Procedure

- Confirm the Output Results

  Check the following file.

  Output Destination Folder

  [Windows Manager]

  Installation_folder_of_the_Resource_Orchestrator_manager\SVROR\Manager\work_winpe\output\For_WinPE31_amd64

  Output Destination Folder

  [Linux Manager]

  /opt/FJSVrcvmr/work_winpe/output/For_WinPE31_amd64/

  Output Files

  Result.txt

  Output Results

  When the script for application succeeded

  A message like the following is displayed:

```
YYYY/MM/DD mm:hh:ss Successfully.
```

  When the script for application failed

  A message like the following is displayed:

```
YYYY/MM/DD mm:hh:ss Failed.
```

A.11 Restart the Resource Orchestrator Manager

Restart the Resource Orchestrator manager.

Procedure

- Execute the following command:

  [Windows Manager]

  - When Using Cloud Edition

    ```
    Installation_folder\SVROR\Manager\bin\rcxmgrctl stop
    Installation_folder\SVROR\Manager\bin\rcxmgrctl start
    ```

  - When Using Virtual Edition

    ```
    Installation_folder\SVROR\Manager\bin\rcxadm mgrctl stop
    Installation_folder\SVROR\Manager\bin\rcxadm mgrctl start
    ```

  [Linux Manager]

  - When Using Cloud Edition

    ```
    /opt/FJSVrcvmr/bin/rcxmgrctl stop
    /opt/FJSVrcvmr/bin/rcxmgrctl start
    ```

  - When Using Virtual Edition

    ```
    /opt/FJSVrcvmr/bin/rcxadm mgrctl stop
    /opt/FJSVrcvmr/bin/rcxadm mgrctl start
    ```

See

- When Using Cloud Edition

  For details on the rcxmgrctl command, refer to the following.

  "5.19 rcxmgrctl" in the "Reference Guide (Command/XML) CE"

- When Using Virtual Edition

  For details on the rcxadm mgrctl command, refer to the following.

  "5.11 rcxadm mgrctl" in the "Reference Guide (Command) VE"

Appendix B Creation Procedure for Windows PE 3.1 (x86)

This section provides an overview of the creation procedure for Windows PE 3.1 (x86).

B.1 Confirming the Existence of a Windows PE

Confirm the existence of a Windows PE on the Resource Orchestrator manager.

Procedure

- Execute the following command:

  [Windows Manager]

  ```
  Installation_folder\SVROR\Manager\bin\rcxadm image list -winpe
  ```

  [Linux Manager]

  ```
  /opt/FJSVrcvmr/bin/rcxadm image list -winpe
  ```

  See

  For details on the rcxadm image command, refer to the following:

  - When Using Cloud Edition

    "4.1 rcxadm image" in the "Reference Guide (Command/XML) CE"

  - When Using Virtual Edition

    "4.1 rcxadm image" in the "Reference Guide (Command) VE"

Results

When Windows PEs do exist on the Resource Orchestrator manager, the versions of the Windows PEs are displayed.

When the Windows PE to use does not exist, perform the following work.

Example

```
rcxadm image list -winpe
VERSION              STATUS
--------------       -----------
Windows PE 5(amd64)  None
Windows PE 3(amd64)  None
Windows PE 3(x86)    Exist
```

B.2 Copy the Windows PE 3.1 (x86) Creation Script

Copy the Windows PE creation script to the Windows environment for work and deploy it.

Procedure

1. Copy the Windows PE 3.1 (x86) Creation Script

   Copy the Windows PE 3.1 (x86) creation script installed on the Resource Orchestrator manager to the Windows environment for work.

   Copy to a path that uses only single-byte alphanumeric characters and underscores.

   #### Copy Source Folder

   - [Windows Manager]

     Under *Installation_folder_of_the_Resource_Orchestrator_manager*\SVROR\Manager\work_winpe\input

Copy Source Directory

- [Linux Manager]

  Under /opt/FJSVrcvmr/work_winpe/input

Copy Destination Folder

- Windows Environment for Work

  Work Folder

2. Deploy the Windows PE 3.1 (x86) Creation Script

   Extract the archive (zip) file copied to the work folder.

B.3 Download Windows Update Programs

Download Windows update programs and apply them.

Procedure

- Download Windows update programs and store them in the following location.

  WinPEBat\WinUpdate\WinPE31_x86

Table B.1 Update program for Windows 7 for x64-Based Systems (KB982018)

Necessary Update Program	Download Link
Windows6.1-KB982018-v3-x86.msu	https://www.microsoft.com/en-US/download/details.aspx?id=8903

Table B.2 When transferring many small files on computers using Windows 7 or Windows Server 2008 R2, performance decreases

Necessary Update Program	Download Link
Windows6.1-KB981208-v2-x86.msu	Contact Fujitsu technical staff for the method for obtaining the program.

B.4 Downloading the Windows PE 3.1 (x86) Creation Program (Windows AIK)

Download the Windows PE creation program (Windows AIK).

Procedure

- Download the Windows PE 3.1 (x86) creation program (Windows AIK).

Table B.3 Windows PE 3.1 (x86) creation program (Windows AIK)

Necessary Windows AIK Program	Download Link
Windows Automatic Installation Kit (Windows AIK) for Windows 7	https://www.microsoft.com/en-US/download/details.aspx?id=5753
Windows Automatic Installation Kit (Windows AIK) Supplement for Windows 7	https://www.microsoft.com/en-US/download/details.aspx?id=5188

B.5 Installing the Windows PE 3.1 (x86) Creation Program (Windows AIK)

Install the Windows PE 3.1 (x86) creation program (Windows AIK).

Procedure

- Install the Windows PE 3.1 (x86) creation program (Windows AIK)

- Execute from the Windows Automatic Installation Kit (AIK) for Windows 7.
- Specify "WinPEBat\WinAIK" for the installation path for the Windows Automatic Installation Kit (AIK) for Windows 7.
- After executing the Windows Automatic Installation Kit (AIK) for Windows 7, apply the Windows Automatic Installation Kit (Windows AIK) supplement for Windows 7.

B.6 Executing the Windows PE 3.1 (x86) Creation Script

Execute the Windows PE 3.1 (x86) creation script, and create Windows PE 3.1 (x86).

Procedure

1. Using the command prompt, move to WinPEBat\winpe_make_script.
2. Execute the following command:

```
make_winpe.bat x86 pe31
```

Note

The advisory notes for when executing a Windows PE creation script are as follows.

- Execute the script using administrator privileges.
- Do not close the command prompt while executing a Windows PE creation script. There is a chance that the Windows PE will not be created correctly and none of the logs will be output.
- Do not perform a forced termination while executing the Windows PE creation script. There is a chance that the Windows PE will not be created correctly and none of the logs will be output.
- Do not use a single Windows PE creation script to create multiple Windows PEs at the same time. If a single script is executed simultaneously, it may not operate properly.
- If files required for Windows PE creation are not found in the specified locations, an error will occur. It is possible to change the reference path used for the Windows PE creation program in "batch_path_design.ini", but the Windows PE creation script and the Windows PE creation program must be on the same drive. For details on "batch_path_design.ini", refer to "Appendix C batch_path_design.ini".
- Use the default values for all of the file names and folder names used in the Windows PE creation script. If a name is changed, the Windows PE creation script will not operate correctly.
- Do not change the paths of files and folders that exist in WinPEBat. If they are changed, the Windows PE creation script will not operate correctly.

Information

- A general estimate of the execution time for a Windows PE creation script is 60 minutes. This time is only a general estimate, and the actual time will vary depending on the execution environment and servers involved.

B.7 Confirming the Execution Results of the Windows PE 3.1 (x86) Creation Script

Confirm that the Windows PE 3.1 (x86) creation script completed normally.

Procedure

1. Confirm Output on the Command Prompt Used to Execute make_winpe.bat

   When the make_winpe.bat command was executed successfully, confirm that the message "Execution of make_winpe.bat successfully." has been output.

2. Confirm Output of the Specified File

After executing the Windows PE 3.1 (x86) creation script, confirm that the specified file has been output in the output destination folder.

Output Destination Folder

WinPEBat\WinPEOutput\WinPE31_x86\module\output\WPC001

Output Files

- boot.sdi
- bootmgr.exe
- pxeboot.n12
- winpe.bcd
- winpe.wim

Note

When execution of the make_winpe.bat command is not successful, an error number and an error message are output in the command prompt. Refer to "Chapter 4 Messages" and "Chapter 5 Troubleshooting" and take corrective action.

B.8 Copying Windows PE 3.1 (x86)

Copy the Windows PE to the Resource Orchestrator manager.

Procedure

- Copy the Windows PE created in the Windows environment for work to the Resource Orchestrator manager.

Copy Source Folder

- Windows Environment for Work

  Work Folder\WinPEBat\WinPEOutput\WinPE31_x86

Copy Destination Folder

- [Windows Manager]

  Installation_folder_of_the_Resource_Orchestrator_manager\SVROR\Manager\work_winpe\output\For_WinPE31_x86

Copy Destination Folder

- [Linux Manager]

  /opt/FJSVrcvmr/work_winpe/output/For_WinPE31_x86

Note

- When copying a Windows PE that was created in a Windows environment for work to a Linux manager, the necessary access privileges are given below.

  Confirm the access privileges after copying the Windows PE to the Linux manager using OS administrator privileges (root).

  - Access Privileges: -rwx------

B.9 Executing the Script for Applying Windows PE 3.1 (x86)

Apply Windows PE 3.1 (x86) to the Resource Orchestrator manager.

Procedure

- Execute the following command:

  [Windows Manager]

```
cd Installation_folder_of_the_Resource_Orchestrator_manager\SVROR\Manager\work_winpe\output
\For_WinPE31_x86
apply_winpe31_x86.bat
```

[Linux Manager]

```
cd /opt/FJSVrcvmr/work_winpe/output/For_WinPE31_x86
./apply_winpe31_x86.sh
```

B.10 Confirming the Execution Results of the Script for Applying Windows PE 3.1 (x86)

Confirm that the Windows PE 3.1 (x86) application script completed normally.

Procedure

- Confirm the Output Results

  Check the following file.

  Output Destination Folder

  [Windows Manager]

  Installation_folder_of_the_Resource_Orchestrator_manager\SVROR\Manager\work_winpe\output\For_WinPE31_x86

  Output Destination Folder

  [Linux Manager]

  /opt/FJSVrcvmr/work_winpe/output/For_WinPE31_x86/

  Output Files

  Result.txt

  Output Results

  When the script for application succeeded

  A message like the following is displayed:

  ```
  YYYY/MM/DD mm:hh:ss Successfully.
  ```

  When the script for application failed

  A message like the following is displayed:

  ```
  YYYY/MM/DD mm:hh:ss Failed.
  ```

B.11 Restart the Resource Orchestrator Manager

Restart the Resource Orchestrator manager.

Procedure

- Execute the following command:

  [Windows Manager]

  - When Using Cloud Edition

    ```
    Installation_folder\SVROR\Manager\bin\rcxmgrctl stop
    Installation_folder\SVROR\Manager\bin\rcxmgrctl start
    ```

  - When Using Virtual Edition

```
Installation_folder\SVROR\Manager\bin\rcxadm mgrctl stop
Installation_folder\SVROR\Manager\bin\rcxadm mgrctl start
```

[Linux Manager]

- When Using Cloud Edition

```
/opt/FJSVrcvmr/bin/rcxmgrctl stop
/opt/FJSVrcvmr/bin/rcxmgrctl start
```

- When Using Virtual Edition

```
/opt/FJSVrcvmr/bin/rcxadm mgrctl stop
/opt/FJSVrcvmr/bin/rcxadm mgrctl start
```

See

- When Using Cloud Edition

  For details on the rcxmgrctl command, refer to the following.

  "5.19 rcxmgrctl" in the "Reference Guide (Command/XML) CE"

- When Using Virtual Edition

  For details on the rcxadm mgrctl command, refer to the following.

  "5.11 rcxadm mgrctl" in the "Reference Guide (Command) VE"

Appendix C batch_path_design.ini

"batch_path_design.ini" is the definition file used to manage the path for the Windows PE creation program necessary when executing the Windows PE creation script.

When the Windows PE creation program has been installed to a location other than WinPEBat, configure the installation path to change the reference location for the Windows PE creation program.

A relative path is specified by default, but it is also possible to specify an absolute path. Note, however, that the Windows PE creation script and the Windows PE creation program must be on the same drive.

Table C.1 Description Content of batch_path_design.ini

Windows PE Creation Program	Installation Path	Description Content
Windows ADK	WinPEBat\WinADK	win_adk_path=..\WinADK
Windows AIK	WinPEBat\WinAIK	Win_aik_path=..\WinAIK

Note

When specifying paths in batch_path_design.ini, only alphanumeric characters can be used.