Dell Technologies Ready Image Specifications

Abstract
This document outlines the technical specifications around the Dell Technologies Ready Image.

September 2022
Revisions

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 2022</td>
<td>Initial release</td>
</tr>
</tbody>
</table>

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Other:

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The Dell Ready Image is an alternative to Dell's Factory 'FIDA' image and works across Dell's business client systems.

This image does not contain Dell value added software, excess applets, or trial software. It is designed for those Customers who want the OS, drivers, and a browser without those Dell 'extras'.

The pre-engineered Ready Images are built and maintained by the Configuration Service's IMS team which moves the burden of the OS from the Customer to Dell.

The Ready Image is perfect for Customers looking to provision using VMware Workspace ONE or Microsoft Windows Autopilot.

In summary, the Dell Ready Image specifications are:

- Clean Windows Pro OEM image with no added software or trialware
- Will run the first startup experience (OOBE) on first boot
- Dell Configuration Services Created and Maintained (IMS)
- Powered by Dell Image Assist (DIAx)
  - Same model support as DIAx (Client Systems Only)
- Ready Images are not patched on any cadence.
- Version Support
  - Ready Image support attempts to align to Microsoft OS support and follows the Microsoft Modern Lifecycle Policy for Windows.

- Language options:
  - 13 individual single language builds
  - 4 European regional builds, each with specific set of language packs

- Compatible:
  - As a standalone image
  - With Microsoft Windows Autopilot deployments
  - With Provisioning for Workspace ONE (Online and Offline)
  - ProDeploy for Client
  - Connected Provisioning
1 Ready Image

The following are the specific details of Dell’s implementation of a “Ready Image”.

1.1 Windows Media and Operating System

- Windows 10 or Windows 11
- Microsoft OEM Professional 64-bit media
- Dell is not removing any of the Microsoft preloaded Windows applications
  - System apps installed with the Windows client OS: Get the system apps on Windows client operating system - Windows Application Management | Microsoft Docs
  - Provisioned apps installed with the Windows client OS: Get the provisioned apps on Windows client operating system - Windows Application Management | Microsoft Docs

- No additional third-party applications or software is loaded/Installed onto the image by Dell
- No Dell applications/applets or software is loaded/Installed onto the image by Dell

Note: that other Dell services, if ordered in combination with Ready Image, may add applications or software

1.2 Language Availability

Dell maintains the following language builds:

Note: that language options cannot be modified or combined as they are separate and distinct builds

<table>
<thead>
<tr>
<th>Single Language Build</th>
<th>Details</th>
</tr>
</thead>
</table>
| Chinese (PRC)         | • Created with Chinese (Simplified) media  
                        | • Installed Language Packs: NONE           |
| Chinese (Taiwan)      | • Created with Chinese (Traditional) media  
                        | • Installed Language Packs: NONE           |
| English (UK)          | • Created with English (Great Britain) media 
                        | • Installed Language Packs: NONE           |
| English (US)          | • Created with English (United States) media 
                        | • Installed Language Packs: NONE           |
| French (Canada)       | • Created with French (Canada) media       
                        | • Installed Language Packs: NONE           |
| French (France)       | • Created with French (France) media       
<pre><code>                    | • Installed Language Packs: NONE           |
</code></pre>
<table>
<thead>
<tr>
<th>Regional multi-language build</th>
<th>Details</th>
</tr>
</thead>
</table>
| Central and Eastern Europe (CEE) | • Created with English (United States) media  
  • Installed Language Packs: Bulgarian (Bulgaria), Croatian (Croatia), Czech (Czech Republic), English (United States), Estonian (Estonia), Greek (Greece), Hungarian (Hungary), Latvian (Latvia), Lithuanian (Lithuania), Polish (Poland), Romanian (Romania), Serbian (Latin, Serbia), Slovak (Slovakia), Slovenian (Slovenia), Ukrainian (Ukraine) |
| Central and Northern Europe (CNE) | • Created with English (United States) media  
  • Installed Language Packs: Danish (Denmark), English (United States), Finnish (Finland), French (France), German (Germany), Italian (Italy), Norwegian (Norway), Swedish (Sweden) |
| Middle East, Russia, Africa, Turkey (MERAT) | • Created with English (United States) media  
  • Installed Language Packs: Arabic (Saudi Arabia), English (United Kingdom), English (United States), French (France), Hebrew (Israel), Russian (Russia), Turkish (Turkey) |
| Western Europe Region | • Created with English (United States) media |
### 1.3 Windows Version Support

Ready Image support attempts to align to Microsoft OS support and follows the Microsoft Modern Lifecycle Policy for Windows. For more information see:

- [Windows 11 - release information | Microsoft Docs](#)
- [Windows 10 - release information | Microsoft Docs](#)
- [Modern Lifecycle Policy - Microsoft Lifecycle | Microsoft Docs](#)

Ready Image Windows version options will be available for any currently supported Microsoft Windows version based on Professional edition support.

**Note:** There may be a delay between Microsoft release date and the availability of the correlating Ready Image version.

In some exception cases, Ready Image may continue to be available for a Windows version that has reached end of servicing. In these cases, the Ready Image and the available driver packs will be locked, meaning no additional updates.

**Note:** Ready Image Windows versions may not support certain models as drivers may be unavailable. For example, many of the newly released models only support Windows 11.

<table>
<thead>
<tr>
<th>Windows</th>
<th>Supported Versions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows 11</td>
<td>• 21H2</td>
</tr>
<tr>
<td>Windows 10</td>
<td>• 21H2</td>
</tr>
<tr>
<td></td>
<td>• 21H1</td>
</tr>
<tr>
<td></td>
<td>• 20H2</td>
</tr>
</tbody>
</table>

### 1.4 Patching

Ready Images are not patched on any cadence. Customers have different patching requirements that make it difficult to agree on a set patching strategy. Not patching the Ready Image after initial release allows for Customers’ update policies to be applied.

- Ready Image releases at least 1 month after the initial version’s release. This allows for at least 1 months’ worth of Servicing Stack Updates and the Latest Cumulative Update to be applied.
- Out of cycle patches may be applied to address Windows Autopilot issues based upon Microsoft’s input.
As of September 2022, the build patch level of the Ready Images:

<table>
<thead>
<tr>
<th>Version</th>
<th>Build</th>
</tr>
</thead>
<tbody>
<tr>
<td>20H2</td>
<td>19042.1466</td>
</tr>
<tr>
<td>21H1</td>
<td>19043.1466</td>
</tr>
<tr>
<td>21H2</td>
<td>19044.1766</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Version</th>
<th>Build</th>
</tr>
</thead>
<tbody>
<tr>
<td>21H2</td>
<td>22000.739</td>
</tr>
</tbody>
</table>

Note: For more information on Windows releases see:
Windows 11 - release information | Microsoft Docs
Windows 10 - release information | Microsoft Docs

1.5 Partitioning

Ready Image follows the Microsoft recommendation for partition layout: UEFI/GPT-based hard drive partitions | Microsoft Docs

“The default partition layout for UEFI-based PCs is: a system partition, an MSR, a Windows partition, and a recovery tools partition.”

### Disk 0 default partition layout (UEFI-based PCs)

- System
- MSR
- Windows
- Recovery

“This layout lets you use Windows BitLocker Drive Encryption through both Windows and through the Windows Recovery Environment.”

<table>
<thead>
<tr>
<th>Partition</th>
<th>Type</th>
<th>Approximate Size in MBs</th>
<th>Format</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>EFI</td>
<td>1500</td>
<td>FAT32</td>
<td>ESP</td>
</tr>
<tr>
<td>2</td>
<td>MSR</td>
<td>128</td>
<td>-</td>
<td>Microsoft reserved partition</td>
</tr>
<tr>
<td>3</td>
<td>Primary</td>
<td>Remainder of drive</td>
<td>NTFS</td>
<td>OS</td>
</tr>
<tr>
<td>4</td>
<td>Recovery</td>
<td>1000</td>
<td>NTFS</td>
<td>WINRETOOLS</td>
</tr>
</tbody>
</table>

Note: Partitioning cannot be modified
1.6 Ready Image Flag File
Dell adds a flag file to the image to easily identify the Ready Image.

Table 7 Ready Image flag file information

| Name of flag file: | • Ready Image = RI.flg  
|                   | • Legacy “Generic Image” = GI.flg |
| Locations:        | • C:\Recovery\OEM – this is hidden path by default  
|                   | • C:\Windows\Panther\DTR\Logs |
| Information in file: | {version} {language} {patch level} {Application method} {WinRE Mass Storage PE driver pack version} |
|                   | Example: 21H2 en us 1185 Factory pe24 |

1.7 Info Folder and Oobe.xml
Per Microsoft best practice Dell adds an Oobe.xml populated Info folder to C:\Windows\System32\oobe to help address default time zones based on region selection. For example, the presence of the Info folder ensures that if the customer chooses English in the UK the default time zone gets set to London.

Note: for more information on Oobe.xml see: How Oobe.xml Works | Microsoft Docs

1.8 Layout Modification File (applies to Windows 10 only)
On Windows 10 versions of the Dell Ready Image, Dell uses LayoutModification.xml to customize the Start layout for all users. Using this specified layout provides visual consistency to end users as well as the ability to block unwanted Microsoft cloud content such as Candy Crush. For more information on the LayoutModification.xml: Customize the Start layout | Microsoft Docs

- Location of LayoutModification.xml files:
  - C:\Users\Default\AppData\Local\Microsoft\Windows\Shell\LayoutModification.xml
Ready Image

- C:\Recovery\AutoApply\LayoutModification.xml

- **Special cases:**
  - Orders placed with Windows Education Licenses will have the LayoutModification.xml removed as Windows Education versions have an Education specific Start layout.
  - Orders placed with the legacy service of Dell Provisioning for Workspace ONE (factory applied Customer WS1 ppkg) will not have this layout modification file.

- **Customer Modification:**
  - Customers can overwrite or delete the LayoutModification.xml file prior to deployment to remove the Ready Image layout, if desired, using policies or scripts.

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**Note:** For Windows 11, the legacy method of a LayoutModification.xml file is not supported. Windows 11 uses a pinned list managed by a JSON file that can be created and managed by Customers through policies or scripts.
2 Drivers

The following section details the information on the driver packs used for the Dell Ready Image.

2.1 Windows Recovery Environment drivers

The only drivers added to the Ready Image at time of image creation are added to the Windows Recovery Environment to ensure functionality for supported Dell client devices.

At time of Ready Image creation, the latest available Dell WinPE driver pack is applied, mainly the Mass Storage drivers.

The Windows RE drivers are only updated during image creation; WinRE drivers are not updated during the factory process.

To determine the Win PE driver pack that was applied to the WinRE, please reference the Ready Image flag file found in the image: C:\Windows\Panther\DTR\Logs

2.2 Dell Factory drivers

Ready Images applied during the Dell factory process will utilize the latest factory approved Dell family driver packs: Dell Family Driver Packs | Dell US

- Dell Family Driver Packs are dynamic; as new packs are created and approved, they get promoted for factory use.
- The factory process does not support the “freezing” of drivers, so the latest approved factory family packs will be used.
- Single model driver packs are not supported as part of the factory process.
- Individual driver installations are not used; this process only utilizes the Dell Family Driver Packs.
- Drivers in the Family Packs may not be as current as available individual driver releases.

2.3 Recovery (outside of factory process)

Self-Healing Image Recovery enables you to remotely manage the recovery preferences for individual PCs or for your PC fleet. The recovery environment consists of tools to diagnose and troubleshoot issues that may occur before the PC boots to the operating system.

To use Self-Healing Image Recovery, you must have purchased the Ready Image or Generic Image imaging solution. For more information on Self-Healing Image Recovery see: Support for Self Healing Image Recovery | Documentation | Dell US
Appendix: Frequently Asked Questions

A.1 Can the Ready Image be customized/modified?

No, Ready Image is a Standard offer. Dell will not make customizations to the image itself on a per customer basis. Customer can and should make modifications to the Operating System using their device management solution.

A.2 What Editions of Windows are supported?

The Dell Ready Image is built using Window OEM Professional; however, it is possible for Customers to upgrade to other editions. For upgrade paths and how to upgrade the edition, refer to these Microsoft links:

- [Windows 10 edition upgrade (Windows 10) - Windows Deployment | Microsoft Docs](#)
- [Upgrade Windows 10/11 edition or switch S mode in Microsoft Intune | Microsoft Docs](#)

A.3 How can I manage the Recovery Image/Partition?

Recovery Image or Recovery Partitions do not need to be managed and should not be modified from the standard 3-partition layout for UEFI BIOS (EFI, Recovery, and Data partitions). The Dell Ready Image follows Microsoft Standards and includes the Recovery Partition.

With Windows 7, the Recovery Partition included an OS image that could be used to restore a machine; however, that scenario no longer applies with Windows 10 or 11.

Windows 10 and 11 use a "Recovery Environment", which is an interface used during OS Reset such as "Reset my PC", or by Autopilot Reset.

Windows 10 and 11 reset works by constructing a new copy of the OS using runtime system files located in the Windows Component Store (C:\Windows\WinSxS). This allows recovery to be possible even without a separate recovery image containing a backup copy of all system files.

Both the Recovery Environment Partition and the Windows Component Store files are updated with various patch rollups or feature upgrades as needed automatically. This technique ensures that when a reset does occur, it will restore with the latest patches applied for the currently installed Windows 10 or 11 version.

A.4 How can I restore the Ready Image?

Self-Healing Image Recovery enables you to remotely manage the recovery preferences for individual PCs or for your PC fleet. The recovery environment consists of tools to diagnose and troubleshoot issues that may occur before the PC boots to the operating system.

To use Self-Healing Image Recovery, you must have purchased the Ready Image or Generic Image imaging solution. For more information on Self-Healing Image Recovery see: [Support for Self Healing Image Recovery Documentation | Dell US](#)
B Technical support and resources

Dell.com/support is focused on meeting customer needs with proven services and support.

Dell Ready Image information: Ready Image | Dell USA

B.1 Related resources

Dell Family Driver Packs: Dell Family Driver Packs | Dell US