Dell Technologies Ready Image Specifications

Abstract

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

August 2023

Revisions

Date	Description
September 2022	Initial release
April 2023	Added info on M365, updated doc with link to Ready Image website
August 2023	Added/updated info on keyboard layered driver, start menu, patching and drive formatting

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Executive summary

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 patched on a quarterly basis.
- 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
    – 6 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

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1   Ready Image

The following are the specific details of Dell's implementation of a "Ready Image".

For additional Ready Image information please see:

- [Dell Ready Image Technical Specifications | Dell US](#)
- [Ready Image | Dell USA](#)

1.1   Windows Media and Operating System

Dell uses the following OS media to create the Ready Images:

- Windows 10 or Windows 11
- Microsoft OEM Professional 64-bit media
- Language specific media for language specific Ready Image versions

1.1.1   Applications

- No additional third-party applications or software is loaded/Installed onto the image by Dell
- Aside from Dell driver application/applets, no Dell applications/applets or software is loaded/Installed onto the image by Dell

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

1.1.2   Windows 11 Ready Image Start Menu

For Windows 11 Dell is NOT able to manage the Start Menu via Microsoft supported methods. Customers who are not managing the Start Menu will see application links such LinkedIn, Instagram, Spotify, etc.
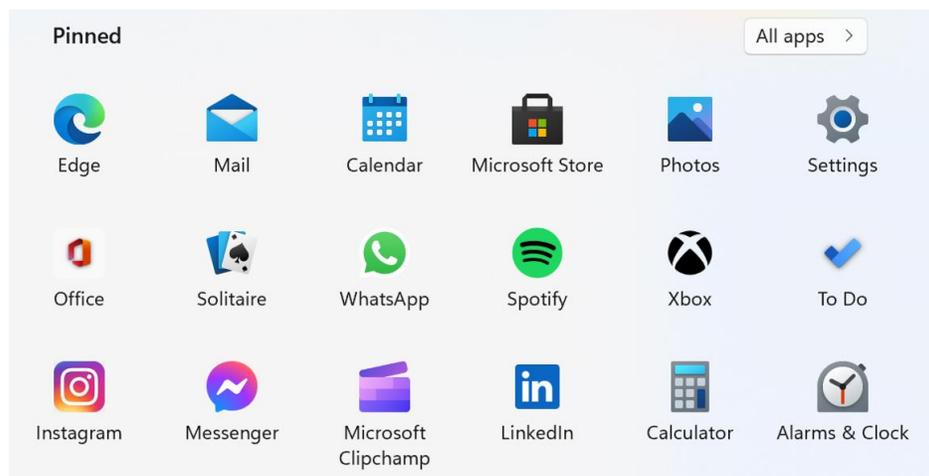
Microsoft provides customers various methods of managing the Start Menu.

- Customers who upgrade the Windows edition from Professional to Education or Enterprise will not see the application links for LinkedIn, Instagram, Spotify, etc.
- Customers who elect to stay with the Professional edition can manage the Start Menu through policies or scripts. One such way is via a JSON file that can be created and managed by Customers: [Add or remove pinned apps on the Start menu in Windows 11 - Configure Windows | Microsoft Learn](#)

1.1.3   Windows 10 Ready Image Layout Modification File

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 LayoutModifcation.xml: <u>Customize the Start layout | Microsoft Docs</u>
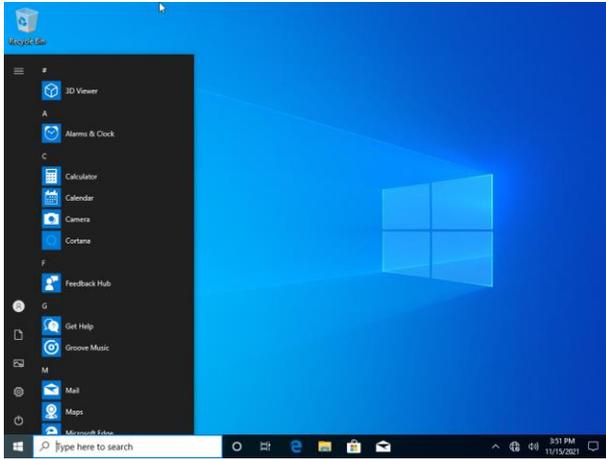
- Location of LayoutModification.xml files:

    - C:\Users\Default\AppData\Local\Microsoft\Windows\Shell\LayoutModification.xml
    - 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.

1.2   Language Availability

Dell maintains the following language builds: <u>Dell Ready Image Technical Specifications | Dell US</u>

Note: Language options cannot be modified or combined as they are separate and distinct image builds

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:

- <u>Modern Lifecycle Policy - Microsoft Lifecycle | Microsoft Docs</u>

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Ready Image Windows version options will be available for any currently supported Microsoft Windows version based on **Professional edition support**. Currently this works out to latest release and previous year release, otherwise known as "N-1".

- Windows 11 - release information | Microsoft Docs
- Windows 10 - release information | Microsoft Docs

To see what versions are currently supported please visit: Dell Ready Image Technical Specifications | Dell US

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

1.4   Patching

All Ready Images are updated on a quarterly basis.

- 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.
- Patching support is based on availability of Microsoft Updates for the supported Windows Professional OS Editions.

To view the currently supported build patch level of the Ready Images please visit: Dell Ready Image Technical Specifications | Dell US

1.5   Partitioning

For the primary drive, 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.*"

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

Table 1   Ready Image Primary Drive Partition Specifications

Partition	Type	Approximate Size in MBs	Format	Label
1	EFI	1500	FAT32	ESP
2	MSR	128	-	Microsoft reserved partition
3	Primary	Remainder of drive	NTFS	OS

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4	Recovery	1000		NTFS	WINRETOOLS

The second and third logical drives will each be fully NTFS formatted. All other logical drives beyond the third will not be formatted.

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 2   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\DTRI\Logs
Information in file:	{version} {language} {patch level} {Application method} {WinRE Mass Storage PE driver pack version} Example: 22621 en us 1555 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 Keyboard Layout Setting

Dell Ready Image versions that are built with Japanese language-based media require functionality with devices that have 106-key keyboards; Dell sets the LayeredDriver setting to a value of 6 on these images.

All other Ready Images are left to the default LayeredDriver settings to support 101-key keyboards. Korean Ready Images default to a value of 2. All other Ready Images, including images with added language packs default to a value of 1.

For more information on the setting: LayeredDriver | Microsoft Learn

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2   Drivers

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

2.1   Windows Recovery Environment drivers

Dell adds Windows Recovery Environment drivers to ensure functionality for supported Dell client devices.

The most recent Dell factory approved Dell WinPE driver pack is applied, primarily for the Mass Storage driver support required for WinRE functionality.

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\DTRI\Logs

2.2   Dell Factory drivers

Ready Images applied during the Dell factory process will utilize the **latest factory approved Dell family driver packs**. To view the latest approved Dell family driver packs and to see what models are supported by Ready Image please visit: 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.

Note: Ready Image Windows OS versions may not support certain models as drivers may be unavailable for the OS. For example, many of the newly released models only support Windows 11. Please check the Dell Family Driver Packs link to verify OS/model support.

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

3 Microsoft 365 Option

Please note, Microsoft 365 option is <u>not available</u> with the following Dell Services:

- Connected Provisioning
- Self-Healing Image Recovery
- Recovery media

Volume licensing for M365 must be provided and used by the customer for activation.

OEM licensing for the M365 option is not available.

M365 language support is based on the Ready Image language option ordered. For example, the Americas multi-language Ready Image option includes en-us, fr-ca, es-mx, pt-br; when M365 option is added, matching language support is installed.

The M365 installation includes support for a Windows PC Reset, when Windows PC Reset is used, M365 is re-installed.

Note: The M365 factory install cannot be customized but customer can manage and update configurations post deployment.

3.1 Microsoft 365 Configuration File

Microsoft 365 installation bits are sourced from the Office Deployment Toolkit using the following configuration file:

```
<Configuration>
<Add SourcePath="c:\temp\office" OfficeClientEdition="64" Channel="MonthlyEnterprise">
<Product ID="O365ProPlusRetail">
   <Language ID="en-us"/>
   <ExcludeApp ID="Lync" />
   <ExcludeApp ID="Groove" />
 </Product>
 </Add>
   <Display Level="None" AcceptEULA="FALSE" />
 </Configuration>
```

3.2 Installed Microsoft 365 Applications

The following is a list of installed Microsoft 365 applications:

- Access
- Excel
- OneNote

- Outlook
- Power Point
- Publisher

- Teams
- Word

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A   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

Dell Ready Image Technical Specifications: Dell Ready Image Technical Specifications | Dell US

B.1   Related resources

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

Self-Healing Image Recovery: Support for Self Healing Image Recovery | Documentation | Dell US

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