

How to Select the Best Xerox® Global Print Driver® for Your Environment



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Introduction

It has been nearly a decade since Xerox introduced its original Global Print Driver® V3. This revolutionary offering provides a single “universal” driver, dramatically simplifying enterprise printer management. It allows IT managers to quickly and easily add and update printers without reinstalling and re-qualifying individual print drivers.

Starting with Windows Server® 2012/Windows® 8, Microsoft introduced a new V4 print driver model. According to Microsoft’s own **V4 Printer Driver** documentation, this new model was also “designed to improve driver development, reduce IT management costs, and support new scenarios”. With the addition of an all new Xerox® Global Print Driver V4, Xerox has fully embraced this new V4 print driver model. In fact, the features and functionality of our latest V4 driver offerings now closely align to our world-class V3 drivers.

While Xerox continues to recommend the Xerox® Global Print Driver V3 PostScript by default, we have also created this new Global Print Driver V4 option to assist current V3 users wanting to migrate to the V4 model while leveraging the deployment and support processes they already have in place. It is worth noting here that many customers may find that the new V4 printer model (using our traditional V4 drivers and their common apps) alone provides a suitable universal solution even without the Global Print Driver V4.

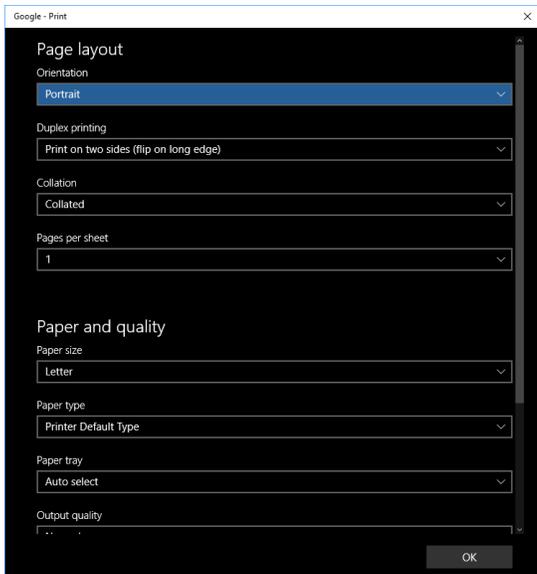
The intent of this document is to provide information to help IT administrators decide how to choose between the original Xerox® Global Print Driver V3 and the new Xerox® Global Print Driver V4.

Overview of V4 Drivers

Unlike the monolithic model used by V3 print drivers, the V4 print driver model is broken up into several separate but interrelated components, which all need to get installed to ensure full and proper functionality of the V4 drivers.

- Xerox® Print Driver V4—Consists of data files defining the device’s specifications and requirements, plus basic rendering software used when the Xerox® Print Experience App–Desktop Version is not installed. With the V4 architecture, the user interface is packaged and deployed outside the driver. The Xerox® Global Print Driver V4 is available in two PDL (page description language) types—Adobe® PostScript® (PS) and PCL®6 (Printer Command Language).
- Xerox® Print Experience Application–Desktop Version—Provides the customized print preferences UI from Windows Desktop applications and fully featured rendering capabilities for all applications. It also includes components for job status, notification and configuration. This common software serves all printer models supported by the Global Print Driver V4. Unlike Microsoft’s V3 architecture, this is packaged as a separate shared component rather than being part of the driver itself.
- Xerox® Print Experience App—This is the Windows Store Device App (WSDA). It enables customized print preferences at print time (‘More settings’) from Universal Windows Platform (UWP) Windows Store apps. It can also operate as a standalone app to provide job status and configuration for printers using a V4 Xerox® driver.

One of the most notable feature advantages of the V4 print driver model is realized when printing from **Microsoft® UWP (Universal Windows Platform) Apps**, available from the Microsoft Store. An example of one of the more popular UWP apps currently in use is the **Microsoft Edge®** browser, included with Windows 10. This difference is illustrated below in screenshots of the “More settings” user interfaces presented to the user at print time. Note that Microsoft only supports vendor-customized “More settings” GUIs from V4 drivers. Also note that with V3 drivers, Microsoft’s generalized ‘print settings’ does not provide a way to enable ‘PIN protected printing’.



V3 driver's "More settings" from UWP app



V4 driver's "More Settings" from UWP app

Xerox now offers both V3 and V4 traditional print drivers for most of our supported office products. These traditional drivers are device-specific and, as such, intended to manage a single make/model device (or family of related models).

By contrast, our Global Print Drivers, also now available as both V3 and V4 types, are intended to be used as a universal driver. These drivers can provide users and network administrators with a single print driver that communicates with multiple printers, both Xerox® and non-Xerox®. The next two sections provide an overview of how the original Xerox® Global Print Driver® V3 and new Xerox® Global Print Driver® V4 compare and contrast.

Similarities Between Xerox® Global Print Drivers® V3 and V4

To assist users wanting to migrate from the Microsoft® Type 3 (V3) to Type 4 (V4) printer driver model, Xerox has attempted to make the functionality of our offerings as similar as possible. This section is intended to review the most valued Xerox® Global Print Driver V3 features that are preserved in the Global Print Driver V4 offering. The next section will provide a summary of the major differences.

Overall, there are many more similarities between the original Xerox® Global Print Driver V3 and the new V4 model than there are differences. The following is a list of just a few of the advantages of the Global Print Drivers we offer.

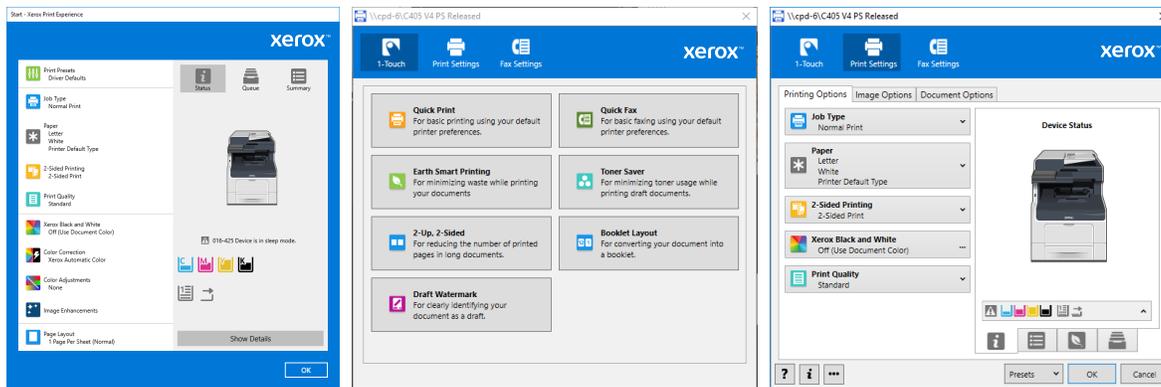
- Enables IT managers to qualify, deploy and manage their print devices on the network using a single driver.
- Greatly simplifies replacing or updating network print devices. Just plug in the new device and give it the same IP address as the old printer (or redirect the port). The Global Print Driver automatically discovers the device and updates users' feature options. No re-qualification or reinstallation necessary.
- Truly universal: supports Xerox® and non-Xerox® printers, PCL®6 and PostScript®.
- Forward compatibility with future Xerox® products, meaning you don't need to upgrade your drivers when you add new equipment to your fleet.
- Dynamic pre-configuration allows IT administrators to change pushed driver settings without reinstalling drivers or breaking certification.

These are just a few of the many advantages of using one of our Global Print Drivers. Refer to the [Xerox® Global Print Driver informational webpage](#) for a complete description of the key features and additional documentation.

Differences Between Xerox® Global Print Drivers® V3 and V4

With release of the new Global Print Driver V4, Xerox is very close to achieving feature parity with its established V3 driver offerings. However, because of inherent differences in Microsoft’s printer models, these two driver classes will technically never be able to achieve an exact, one-for-one feature/functionality match. The following is a list of some of the most notable differences between the Global Print Driver V3 and V4 solutions:

- Because of Microsoft’s new V4 printing model, legacy V3 drivers (including the Xerox® Global Print Driver V3) are not able to present their custom WSDA print preferences when selecting ‘more settings’ at print time in UWP apps (like Microsoft Edge®). This has the additional drawback of not being able to switch to secure PIN printing from UWP apps using the V3 driver (but it can be set by default for all jobs).
- The Xerox® Global Print Driver V4 takes full advantage of new Xerox® V4 user interfaces. This provides a refreshed, more modern look and feel in all the Xerox®-supplied user interfaces.



- Microsoft does not support V4 drivers on Windows® 7 directly. However, starting with Server 2012, Microsoft does provide an ‘enhanced Point and Print’ solution that enables Windows 7 clients to connect to shared print queues on servers that use a V4 print driver.
- Because of enhanced security constraints in the new V4 print architecture, there are no DCPs (Device Compatibility Packs) for the Xerox® Global Print Driver V4. However, the V4 print driver does offer alternative ways to support forward compatibility for new devices while preserving a stable driver deployment.
 - Updates for the Xerox® Print Experience App are managed automatically by the Microsoft Store App.
 - Xerox® Print Experience Application–Desktop Version does not currently support any form of automatic update feature. This can be advantageous in managed environments where a particular release may be internally qualified and remotely deployed, helping to ensure uniform behavior and consistent support models.
 - The Global Print Driver V4 provides two “enhanced” device modes to support forward compatibility with new Xerox® devices (prior to updating the Global Print Driver V4).
- The PostScript® version of the Global Print Driver V3 supports a PostScript pass-through mode by default. The Microsoft V4 printer driver model does not allow for this pass-through functionality. This may be an important consideration to users in environments where desktop publishing and graphic design applications are in heavy use.
- The V3 driver provides a control to manually switch the display language of the Xerox® print driver user interfaces. The V4 driver’s display language is automatically set based solely on the client operating system’s region settings and cannot be manually switched.

- The Microsoft® V4 driver model does not support third-party port monitors used by some pull-print and accounting solutions.
- The Xerox® Global Print Driver® V3 provides product-specific support for a variety of Fuji Xerox devices, which are not formally supported in the V4 driver. Note these printers will work with V4, but only by use of one of the 'Basic' or 'Enhanced' fallback printer modes.
- While both the Global Print Driver V3 and V4 can utilize the XML Configuration tool to enable system administrators to pre-configure user's driver settings, the V4 Xerox® driver solution has enhanced the management of these settings by leveraging an existing background service to automatically monitor for and propagate any configuration changes. There are also a few other feature-dependent differences between V3 and V4 for pre-configuration functionally/behavior. Refer to the [XML Configuration Editor for Print Drivers](#) for complete details.
- The architectural differences between Microsoft's V3 and V4 printer models make it difficult to summarize a comparison of their respective print quality and print performance tradeoffs. Depending on your particular printing requirements and job characteristics, there will be varying pros and cons to each. One of the driving factors of the V4 architecture was Microsoft's objective to provide optimal printing from UWP apps. To achieve this, they leveraged their [XPS Print Path](#), which yields noticeably faster print times from most UWP apps but can adversely affect printing from desktop applications.

Choosing Between Xerox® Global Print Driver® Types

For some customers, the right choice will be to use the new Global Print Driver V4, while for others the original V3 driver may be the better fit. What's more, there could even be cases where it makes sense to deploy both the V3 and V4 drivers to meet the diverse needs of all your end users in a large organization. Knowing your specific requirements can help you make this decision. The previous sections are intended to help provide insight into some of the important factors you may want to consider in making your decision.

As mentioned at the beginning of this document, Xerox recommends the V3 PostScript® print driver for the best all-around Global Print Driver solution. This is because it is currently our most mature, field-proven and widely supported offering. However, there are a number of compelling reasons a given customer might choose the new Global Print Driver V4 over the original Global Print Driver V3. Here are just a few of the most notable reasons:

- The ability to have a fully featured print experience at print time from UWP (Store) apps, like Microsoft Edge®.
- A requirement to fully support secure PIN printing from all applications, including Microsoft® UWP Store Apps.
- If you are already planning to upgrade your users to Windows® 10 clients and want to take advantage of the new V4 model, but also would like to preserve the deployment and support processes you have developed around the Global Print Driver V3.
- Prefer to use the latest technology to get the Xerox newer look and feel, improved operability and enhanced features like Job Summary and One-Touch.
- Want to take advantage of Microsoft's more stable V4 printer driver model. <https://docs.microsoft.com/en-us/windows-hardware/drivers/print/v4-printer-driver>

In summary, Xerox has created the new Global Print Driver V4 to give our customers the flexibility and autonomy to choose the solution that is right for each of them. We are committed to continuing the delivery and support of world-class, award-winning products, and that includes keeping up with the latest technology and offerings from our partners.