Konica Minolta
Universal Printer Driver (UPD)

July 2009
PCL (Version 1.0.0.0) and PS (1.0.1.0)
Agenda

- Universal Printer Driver Concept
- Key Features
- How it Works
- Performance
- Supported O/S
- Customer Applications
- Client & Server Installation Scenarios
- Advantages
Concept

- A single Universal Printer Driver for multiple devices
- Available for Konica Minolta bizhub MFPs/printers and also third-party brands of PCL/PostScript devices (GDI devices are not supported)
- Common user interface for all devices
- Automatically detects devices and easy to configure

- Simplified management for IT administrator
- Powerful print driver for users utilizing multiple devices
Concept

- **Multiple Print Drivers in One**
  - The UPD contains multiple printer drivers:
    - **Individual Child Drivers** to connect to model specific Konica Minolta MFPs
    - **Common Child Drivers** to connect to other Konica Minolta devices and third-party brands.

<table>
<thead>
<tr>
<th>Individual Child Drivers (supported models)</th>
<th>Common Child Drivers (supported models)</th>
<th>PS / PCL-XL (Up to 11x17)</th>
</tr>
</thead>
<tbody>
<tr>
<td>bizhub 350/250/200</td>
<td>bizhub 350/250/200</td>
<td>magicolor 1650EN</td>
</tr>
<tr>
<td>bizhub 362/282/222</td>
<td>bizhub C353/253/203</td>
<td>magicolor 5550/5570</td>
</tr>
<tr>
<td>bizhub 500/420/360</td>
<td>bizhub C450/450/351</td>
<td>magicolor 5650/5670</td>
</tr>
<tr>
<td>bizhub 501/421/361</td>
<td>bizhub C450/450/351</td>
<td>magicolor 4695MF</td>
</tr>
<tr>
<td>bizhub 750/600</td>
<td>bizhub C450/450/351</td>
<td>pagepro 4650/5650</td>
</tr>
<tr>
<td>bizhub 751/601</td>
<td>bizhub 450/450/351</td>
<td>pagepro 4650/5650</td>
</tr>
<tr>
<td>bizhub C250/C250P</td>
<td>bizhub 450/450/351</td>
<td>pagepro 9100</td>
</tr>
<tr>
<td>bizhub C252/C252P</td>
<td>bizhub 450/450/351</td>
<td>pagepro 9100</td>
</tr>
<tr>
<td>bizhub C352/C352P/C300</td>
<td>bizhub 450/450/351</td>
<td>pagepro 9100</td>
</tr>
<tr>
<td>bizhub C450/C450P/C351</td>
<td>bizhub 450/450/351</td>
<td>pagepro 9100</td>
</tr>
<tr>
<td>bizhub C650/C550/C451 (Vista supported version)</td>
<td>bizhub 450/450/351</td>
<td>pagepro 9100</td>
</tr>
<tr>
<td>bizhub C353/C253/C203</td>
<td>bizhub 450/450/351</td>
<td>pagepro 9100</td>
</tr>
<tr>
<td>bizhub C652/C552 (1st version)</td>
<td>bizhub 450/450/351</td>
<td>pagepro 9100</td>
</tr>
<tr>
<td>bizhub C20P</td>
<td>bizhub 450/450/351</td>
<td>pagepro 9100</td>
</tr>
<tr>
<td>bizhub C30P</td>
<td>bizhub 450/450/351</td>
<td>pagepro 9100</td>
</tr>
<tr>
<td>bizhub C31P</td>
<td>bizhub 450/450/351</td>
<td>pagepro 9100</td>
</tr>
<tr>
<td>bizhub 40P</td>
<td>bizhub 450/450/351</td>
<td>pagepro 9100</td>
</tr>
<tr>
<td>All magicolor PS/PCL models except 11x17</td>
<td>bizhub 450/450/351</td>
<td>pagepro 9100</td>
</tr>
<tr>
<td>Third-party vendors</td>
<td>bizhub 450/450/351</td>
<td>pagepro 9100</td>
</tr>
<tr>
<td>PS/PCL devices (up to 11x17)</td>
<td>bizhub 450/450/351</td>
<td>pagepro 9100</td>
</tr>
</tbody>
</table>
Key Features

- **Installation Program is quick and easy**
  - Installation program automatically installs the appropriate drivers based on 32-bit or 64-bit Windows operating system
  - Automatically adds **KONICA MINOLTA Universal Printer Driver** into Printers and Faxes List
  - No need to configure or add a port during installation
  - Ability to uninstall driver through Add or Remove Programs
Key Features

- **A single print driver for multiple printers**
  - Pre-installed printer drivers included with UPD:
    - **Individual child drivers** for specific Konica Minolta models that have the same functionality as the stand alone driver version
    - **bizhub series common child driver** with Emperon (PCL/PS)
    - **magicolor/pagepro series common child driver** with Emperon (PCL/PS)
  - Also includes a **common child driver** for third-party brands (PCL/PS):
    - PCL6/ PCL-XL (2.1 or later) compatible printers
    - PostScript (level 3) compatible printers
Key Features

- Automatically detects network printer and MFP devices
Key Features

- Search Filter of listed printer and MFP devices
  - Search by feature set
    - 2 side output capability
    - 11” x 17” capability
    - MFP or Printer
    - Color capability
Key Features

- Connect to detailed Printer Information

- Click on Printer Information to open web page of the selected device
Key Features

- Displays Printer/MFP's detail information in search result

- Device Name
- Location
- Speed
- Port (IP Address)
- MAC Address
- Model Name
- Color / Black and White
- Supported PDL

How it works:
The UPD gets the MIB information from the device
Key Features

- **Icons at a glance**

![Image of KONICA MINOLTA Universal PS interface]

**Meanings of Icons**

<table>
<thead>
<tr>
<th>Konica Minolta products</th>
<th>PDL Support</th>
<th>PDL Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>B&amp;W</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third-Party Products</th>
<th>Color</th>
<th>B&amp;W</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes to be taken while in use**

- Icon displays if device name listed is supported by Universal Printer Driver.
Key Features

- Display History of recently connected to Printer/MFP on top screen

Edit Memo information for each printer in your History to add location, department, description, etc.
Key Features

- Manual Connection – allows you to select the individual or common child driver and connect via IP address, existing port already created, or shared printer.

1. Select child driver from list on the left

2. Specify the output port of the target Printer/MFP on the right

Administrator Benefit:
Quickly assign child drivers to devices on network
Key Features

- **Automatically connects last used Printer/MFP**
  - This eliminates the need to search for a printer/MFP every time you print
Key Features

- Create Printer Icon

Create Printer Icon

The Printer Icon will be added to the printer folder.

Printer Icon Name

KONICA MINOLTA Universal PS - KONICA MINOLTA mc8650 (10.15.212.247)

Set as Default Printer

Device Information

- Model Name: KONICA MINOLTA mc8650
- Device Name: KONICA MINOLTA mc8650
- Port: 10.15.212.247
- Location:
- MAC Address:

Add | Cancel | Help
Key Features

- Common User Interface for all printers
  - Individual child driver

- bizhub common child driver

Full function is supported

Limited function is supported
Key Features

- Common User Interface for all printers
  - magicolor & pagepro series common child driver
  - PS / PCL-XL common child driver

Limited function is supported

Only basic functions is supported
<table>
<thead>
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<th>Individual Child Drivers (supported models)</th>
<th>Common Child Drivers (supported models)</th>
</tr>
</thead>
<tbody>
<tr>
<td>bizhub 350/250/200</td>
<td>bizhub 350/250/200 (early FW)</td>
</tr>
<tr>
<td>bizhub 362/282/222</td>
<td>bizhub C650/C550/C451 (before Vista)</td>
</tr>
<tr>
<td>bizhub 500/420/360</td>
<td>bizhub C353P</td>
</tr>
<tr>
<td>bizhub 501/421/361</td>
<td>magicolor 8650DN</td>
</tr>
<tr>
<td>bizhub 750/600</td>
<td>bizhub C200</td>
</tr>
<tr>
<td>bizhub 751/601</td>
<td>magicolor 4650EN/DM</td>
</tr>
<tr>
<td>bizhub C250/C250P</td>
<td>magicolor 5550/5570</td>
</tr>
<tr>
<td>bizhub C252/C252P</td>
<td>magicolor 5650/5670</td>
</tr>
<tr>
<td>bizhub C352/C352P/C300</td>
<td>magicolor 4695MF</td>
</tr>
<tr>
<td>bizhub C450/C450P/C351</td>
<td>pagepro 4650/5650</td>
</tr>
<tr>
<td>bizhub C650/C550/C451 (Vista supported version)</td>
<td>bizhub C20P</td>
</tr>
<tr>
<td>bizhub C353/C253/C203</td>
<td>bizhub C30P</td>
</tr>
<tr>
<td>bizhub C652/C552</td>
<td>bizhub C31P</td>
</tr>
<tr>
<td></td>
<td>bizhub 40P</td>
</tr>
<tr>
<td></td>
<td>All magicolor PS/PCL models except 11”x 17” capable devices</td>
</tr>
<tr>
<td></td>
<td>magicolor 1650EN</td>
</tr>
<tr>
<td></td>
<td>magicolor 2550</td>
</tr>
<tr>
<td></td>
<td>magicolor 7440</td>
</tr>
<tr>
<td></td>
<td>magicolor 7450</td>
</tr>
<tr>
<td></td>
<td>magicolor 7450 II</td>
</tr>
<tr>
<td></td>
<td>pagepro 9100</td>
</tr>
<tr>
<td></td>
<td>Third-party vendors PS/PCL devices</td>
</tr>
<tr>
<td></td>
<td>(up to 11”x 17” paper support)</td>
</tr>
</tbody>
</table>

**Future Products**

Future products models are temporarily connected to the common child driver then later the individual child driver will be provided for full functionality within the UPD.

**Note:**
Older and New Konica Minolta compatible devices are supported as well through the common child drivers.
<table>
<thead>
<tr>
<th>Functions by Child Driver</th>
<th>Individual</th>
<th>bizhub series</th>
<th>magicolor &amp; pagepro series</th>
<th>PS / PCL-XL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper size</td>
<td>Y</td>
<td>Y</td>
<td>Y (Up to Letter / Legal)</td>
<td>Y (Up to 11 x 17)</td>
</tr>
<tr>
<td>Paper Tray</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Paper Type</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Output Method</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Authentication/Account Track</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Collate</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Offset</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Print Type, Combination</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Binding Position</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
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<tr>
<td>Image Shift</td>
<td>Y</td>
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<td>Y</td>
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<tr>
<td>Staple</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
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<tr>
<td>Fold</td>
<td>Y</td>
<td>N</td>
<td>-</td>
<td>N</td>
</tr>
<tr>
<td>Output Tray</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Front &amp; Back Cover</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Watermark</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Overlay</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Select Color</td>
<td>Color / Gray scale</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Quality Adjustment</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Acquire Device information</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>
How it works: Client Installation

- After installing the UPD, the first time you click on the driver properties in the Printers and Fax list it will perform the network search to build a list of printers and MFPs devices to connect to.
How it works: Client Installation

- Select a device to connect to from the list and click OK.
How it works: Client Installation

- The UPD will then prompt you it is going to connect to the device, click OK. It may take 10 seconds or more before the Property Dialog opens.

- Why does it take 10 seconds or more to connect? The UPD is determining what the device is on the network and then loading the appropriate child driver for the device.

- Remember, the UPD is many drivers in one. So it needs to determine which child driver will be best for the Konica Minolta device or third-party device.

- After you have connected to the that specific device and the child driver has been loaded, you will not have to wait again for the device properties during that session.
How it works: Client Installation

- From the Properties you can select the Printing Preferences of the driver and set the default setting for the driver. Click OK and your driver is now set.
How it works: Client Installation

- The UPD will always print to the last device connected to.
- Now, when you bring up the properties of the UPD it will show a History of the devices you have connected to.
Performance

- Timing tests were completed to compare the UPD vs. the Konica Minolta out of the box drivers. There is virtually no speed differences between the two.
- Timing tests were printed on a bizhub C650 using Adobe Acrobat and Microsoft Word

<table>
<thead>
<tr>
<th>File Type</th>
<th>Standard PCL bizhub C650 Driver</th>
<th>Universal PCL Driver</th>
<th>Standard PS bizhub C650 Driver</th>
<th>Universal PS Driver</th>
</tr>
</thead>
<tbody>
<tr>
<td>68 MB PDF File</td>
<td>13 seconds</td>
<td>13 seconds</td>
<td>13 seconds</td>
<td>12 seconds</td>
</tr>
<tr>
<td>4.1 MB PDF File</td>
<td>12 seconds</td>
<td>13 seconds</td>
<td>13 seconds</td>
<td>15 seconds</td>
</tr>
<tr>
<td>987kb .doc File</td>
<td>11 seconds</td>
<td>13 seconds</td>
<td>14 seconds</td>
<td>12 seconds</td>
</tr>
</tbody>
</table>
Operating Systems Supported

- This UPD is WHQL Certified (also known as digitally signed drivers) with the following O/S:
  - Windows 2000 Professional (SP4 or later)
  - Windows XP Professional (SP1 or later)
  - Windows XP Professional x64 Edition
  - Windows Server 2003
  - Windows Server 2003 x64 Edition
  - Windows Server 2003 R2, Standard x64 Edition
  - Windows Server 2003 R2, Enterprise x64 Edition
  - Windows Vista
  - Windows Server 2008 Standard
  - Windows Server 2008 Enterprise

- This guarantees driver compatibility from Microsoft
Benefits

- **IT Administrators**
  - Reduce administration cost
  - Do not need to install drivers for each product
  - Do not need testing all functions for each product, driver core is same
  - Basic functions can be used without installing specific out of the box driver

- **Users**
  - A single printer driver is sufficient
  - Do not need to learn several UI for operation
  - Easy to find/configure new printers
From Many Print Drivers to One

Simply your Printers and Faxes – eliminate unnecessary print drivers and just use the Konica Minolta Universal Printer Driver!

Many Printer Icons  One Printer Icon
Customer Applications

- Great for mobile users that frequently travel from office to office
  - Sales & Service Representatives / Learning Instructors / Regional Managers
  - No more wasting time searching for IP addresses, contacting IT when visiting an office or downloading printer drivers
  - Save your commonly printed to devices in your Printers and Fax list with Add Printer Icon feature, instead of searching the network every time you move locations
Customer Applications

- Major Account & Key Account Customers with Konica Minolta MFPs and third-party printers
  - Using the Universal Printer Driver creates a simplified driver to support all the necessary MFP and printer functions in the office
  - Less driver management for IT to reduce time, support and administration costs
Client Installation Scenario

- UPD is installed by user, assuming local Admin rights
  - User Benefit: Can select which device they find on the network

- Client can connect and print to any compatible printers found on the network, create manual printers connected to devices found with the UPD
Server Installation Scenario

- **UPD** is installed by Admin, but UPD itself cannot be shared to clients.
  
  ![Konica Minolta Universal P5 - Driver](image)

  **Size:** 0.95MB
  **Used:** occasionally
  **Last Used On:** 7/30/2009
  **Remove**

  To remove this program from your computer, click Remove.

- Instead Individual Printers can be created by **UPD** by “Create a Printer Icon” and then Shared to Users.
Server Installation Scenario

- UPD supports “Point & Print”, although the device selector on the client side will not be available. This is to protect from the clients trying to connect to different devices. This is the same type of design on HP’s UPD.

- 32-bit and 64-bit UPD driver files can be loaded on the server to support mixed client environments.

Admin Tip: 32-bit and 64-bit UPD drivers are loaded at server.
Server Installation Scenario

- Two-way driver communication (to get device options installed on device) is the same with UPD Individual Child Drivers, as with out of the box drivers. Communication to the device is done through the server, not directly from the client to the device.
Advantages

- **Common Interface** - The UPD interface is the same as out of the box drivers, no need to learn a new driver interface.
  - Client or Server installation, have the same interface for both users

- **Network Search** - Search the network for all compatible devices allows the admin or user to select the device without entering in any extra data (like an IP address)

- **Manually Create** - Printers created manually use less network traffic compared to searching the network with the UPD.

- **Secure** - When the UPD is installed on a server and the driver is shared. The admin is the only one who can create the printers. Only the printers that are created with the driver are available for the clients. They are not able to connect to the UPD and browse and create their own printer.

- **Icons at a glance** - While searching the network it’s easy to distinguish between the Color and B&W MFPs/Printers by an icon.

- **Individual Child Drivers** - Automatically acquire the device information and configure the options for the driver (out of the box drivers do the same)