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PCL6/PS Universal Print Driver v4.x: "Model-specific mode" and "Generic Model mode" in a network environment

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Our PCL6 Universal Print Driver and PS Universal Print Driver (referred to as "Universal Drivers" in this document) will work either in "Model-specific" mode or in "Generic Model" mode. As of v4.0.0.0, the mode that the driver is operating in can be seen in "Current Model", which is explicitly displayed in the driver user interface (UI). However, a network connection failure or an operation mistake can cause some cases where "Current Model" indicates an incorrect model or the opposite mode. This FAQ will describe how those two modes should work in v4.x of the Universal Drivers, how to find problematic cases, and how to solve them. Note that this document will focus on the drivers being used in a network environment.

Note: For supported models and modes, please see the readme of the version that is being used or the white papers linked at the top of this FAQ. Supported models and modes will be updated with almost every version.

1) "Model-specific" mode

Universal Drivers will enter "**Model-specific**" mode if the user opens **Printer Properties**, navigates to the **Accessories** tab, selects **auto** or a specific model in the "**Select Model**" drop-down menu, presses **Update Now**, and succeeds in connecting to a model that the drivers support for model-specific functionality.

The following attributes will appear when Universal Driver v4.x has successfully entered

"**Model-specific**" mode, as shown in Figure 1:

- The connected model is displayed as **Current Model** in the UI.

- The model-specific options and input trays are displayed in the UI and are updated to the latest configuration.

- The model-specific settings, which have almost equal functionality to model-specific PCL6 and PS drivers, are displayed in the UI and function properly.
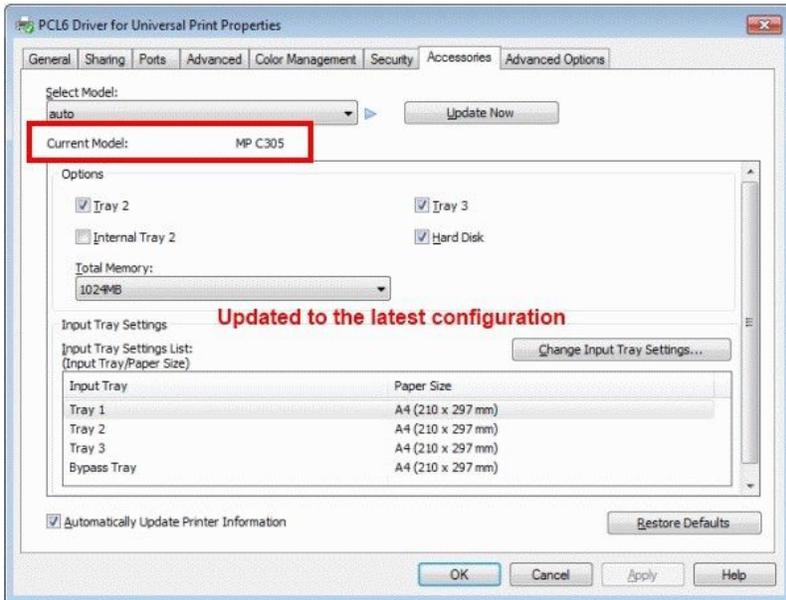

Figure 1. An example of PCL6 Universal Driver v4.0.0.0 displaying "**Model-specific**" mode in the **Accessories** tab of **Printer Properties**.

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2) "Generic Model" mode

Universal Drivers will enter "**Generic Model**" mode if the user opens **Printer Properties**, navigates to the **Accessories** tab, selects **auto** or **Generic Model** in the **Select Model** drop-down menu, presses **Update Now**, and succeeds in connecting to a model that the drivers support for generic functionality.

Users can set **Select Model** to **auto** to connect to a model that the Universal Driver only supports for generic functionality. The driver will detect the model and will **auto**matically set up the "**Generic Model**" mode UI.

Users can set **Select Model** to **Generic Model** if the intent is to use "**Generic Model**" mode for a model that the Universal Driver supports in both "**Model-specific**" mode and "**Generic Model**" mode.

The following attributes will appear when Universal Driver v4.x has successfully entered "**Generic Model**" mode, as shown in Figure 2:

- **Generic Model** is displayed as **Current Model** in the UI.

- Three generic options—Duplex, Staple, and Punch—are displayed in the UI and their availabilities are updated.

- All input trays are shown in the UI and are updated to the latest configuration.

- The generic driver settings, which have limited functionality when compared to the model-specific PCL6 and PS drivers or to the model-specific mode of the Universal Drivers, are displayed in the UI and function properly.
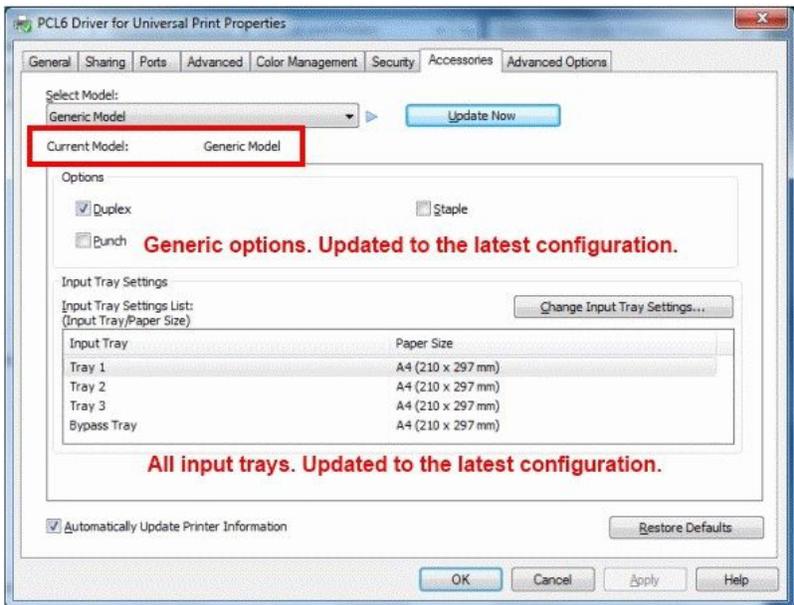

Figure 2. An example of PCL6 Universal Driver v4.0.0.0 displaying "**Generic Model**" mode in the **Accessories** tab of **Printer Properties**

Note: The following are some examples of driver settings that are excluded from "**Generic Model**" mode as of v4.0.0.0:

- Classification code

- Functional sheets, such as cover pages, slip sheets, and chaptering

- Edge to Edge

- Output Tray settings other than Printer Default

- Collate types other than regular collate, such as Rotating Collate and Shift Collate

- Resolutions other than 600 x 600 dpi

- Various print quality settings, such as Gradation, Print Priority, Color Option, and Toner Saving

- Unauthorized Copy Prevention

For the complete list of driver settings that are included in "**Generic Model**" mode, please refer to the PCL6 Universal Driver white paper or PS Universal Driver white paper linked at the top of this FAQ.

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3) Problematic cases

This section will list some most common connection problems or operation mistakes, and explain their effects and solutions.

Case 1: The PC is not connected to the device.

> **Effect:** A previous configuration of options or paper trays is displayed in the UI. This might result in some functions being unavailable or cancelled.
>
> **Solution:** Restore the connection and update.

Case 2: To switch to a new device, the user selected **auto** in the **Select Model** drop-down menu, applied the new port, and pressed **Update Now**, but the driver failed to connect to the new device.

> **Effect:** The previous device's model-specific UI and the previous configuration will be retained. (Note: This is because the driver does not know if the port is being occupied by a new address of the same device or a new device)
>
> Users might not notice it and it might cause some settings to not function properly or cancel some print jobs.
>
> **Solution:** Restore the connection and update.

Case 3: To switch to a new device, the user selected "**Generic Model**" in the **Select Model** drop-down menu, applied the new port, and pressed **Update Now**, but the driver failed to connect to the new device.

> **Effect:**
>
> - "**Generic Model**" is displayed as **Current Model** in the UI.
>
> - Three generic options—Duplex, Staple, and Punch—are displayed in the UI and become available regardless of their actual availabilities. (Note: This is intended to help users who operate models that include model-specific-functionality support in v3.13.0.0 but only generic-functionality support in v4.0.0.0.)
>
> Solution: Restore the connection and update.

Case 4: The user explicitly selected Model A for the **Select Model** setting and pressed **Update Now**, but the driver connected to a different machine, Model B.

> **Effects:** This will result in the following configurations in the **Accessories** tab of **Printer Properties**, as shown in Figure 3:
>
> - Model A will be displayed as **Current Model**.
>
> - Model A's UI will be applied.
>
> - Installed options are unchecked.

- The input trays' paper sizes are labeled as **Unspecified**.

Those effects indicate an error has occurred. However, users might not notice it and some settings might not function properly or some print jobs might be cancelled.

Note: Those effects will be the same regardless of the device that the driver is actually connected to.

Solution:

- Select the correct port for Model A. Model A's UI will be updated to the latest configuration.

- Set **Select Model** to **auto** or select Model B, which is connected. The UI will change to that of Model B and the configurations will be updated.

Note: We recommend setting **Select Model** to **auto** in a network environment. Selecting a model explicitly for the **Select Model** setting is only necessary if the device is used in a non-network environment where users have to manually configure device options.
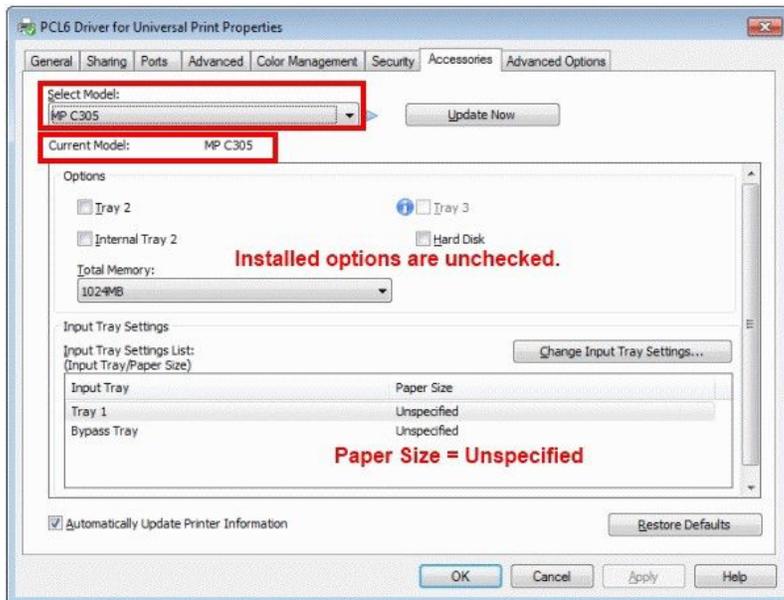

Figure 3. An example of PCL6 Universal Driver v4.0.0.0 when selecting the wrong model in the **Accessories** tab of **Printer Properties**.

Case 5: The user selected **auto** in the **Select Model** drop-down menu and the driver connected to an unsupported model or a nonprinting device.

Effects: This results in **Generic Model** being displayed as **Current Model** in the UI. Users can still submit print jobs by using the generic driver settings, but the accuracy of the printouts is not guaranteed. Functionality will be even more limited than in "**Generic Model**" mode. For example, because input tray information cannot be obtained, only **Auto Tray Selection** can be used.

As of v4.0.0.0, the Universal Driver will detect an unsupported model and will

automatically enter this state if users have selected **auto** from the **Select Model** drop-down menu.

The following attributes will appear when connected to an unsupported mode, as shown in Figure 4:

- **Generic Model** is displayed as **Current Model** in the UI.

- Three generic options—Duplex, Staple, and Punch—are displayed in the UI but all options are unchecked.

- No input trays are displayed in the UI.

- The generic driver settings are displayed in the UI but each function might or might not be supported.

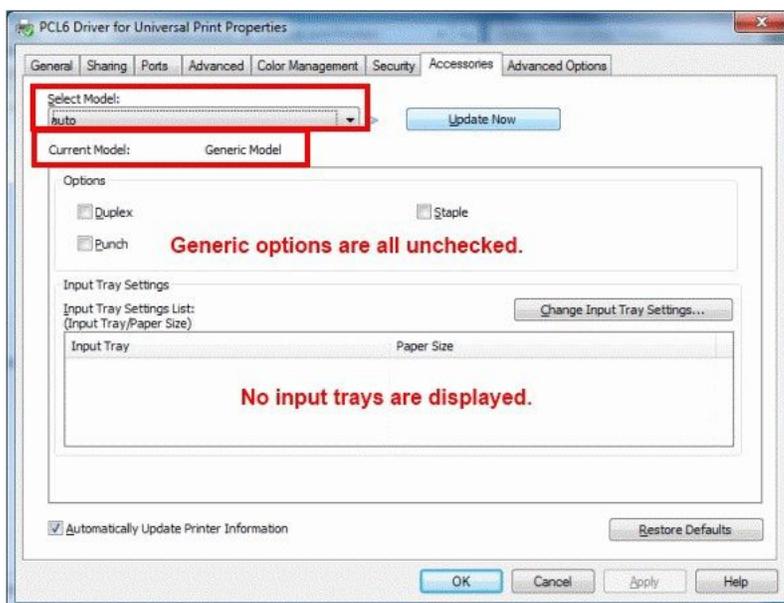**Solution:** Connect to a supported model.

Figure 4. An example of PCL6 Universal Driver v4.0.0.0 when connected to an unsupported model or a nonprinting device in the **Accessories** tab of **Printer Properties**.

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4) Major changes from Universal Driver v3.13.0.0 to v4.0.0.0 regarding operation mode

1) **Current Model** is explicitly displayed in the UI as of Universal Driver v4.0.0.0.

2) **Custom Paper Sizes** are supported by "**Generic Model**" mode as of Universal Driver v4.0.0.0.

3) In cases where the driver is connected to an unsupported model, Universal Driver v4.0.0.0 will always default to **Generic Model**, as in Case 5 above, and Universal Driver v3.13.0.0 will retain the current UI and configuration, as in Case 2 above.

4) For many 2004 to 2006 models and wide-format models, Universal Driver v4.0.0.0 only

supports "**Generic Model**" mode.

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5) About [Aficio SP 4400S, 4410SF, 4420SF],[SP 4400S, 4410SF, 4420SF]

Note: Only PCL6 Universal Driver supports those models.

1) The driver only supports "**Model-specific**" mode. "**Generic Model**" mode is not supported.

2) Users must select the specific model in the **Select Model** drop-down menu to enter "**Model-specific**" mode. Users cannot select **auto**.

Note: These models have even more limited functionalities than "**Generic Model**" mode.

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