Creating Printing Presets for iPhoto

Apple Applications > iPhoto

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Contents

Chapter 1 **Creating Printing Presets for iPhoto 7**

Printing Presets File Format 8
Installing a Printing Presets File 10
Sample Printing Presets File 10

Document Revision History 13

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Listings

Chapter 1 **Creating Printing Presets for iPhoto 7**

Listing 1-1 A sample printing presets file. 10

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Creating Printing Presets for iPhoto

This document shows you how to create a printing presets file that can be used with the iPhoto application. **Printing presets** are printer-specific collections of settings which have associated metadata. The metadata describes the situation in which the printer settings should be applied by the printing system. For example, a given preset might be appropriate when printing high-resolution photo images to glossy paper. The **metadata** describes this situation in a general manner, while the printer specific settings describe which key-value pairs achieve the desired effect on a given printer.

If you are a printer vendor who wants to support printing presets you should read this document. This document

- gives an overview of printing presets files
- describes the format of a printing presets file
- tells you where to install a printing preset file for a printer module
- provides an example of a printing presets file

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Apple's iPhoto application helps users to save, organize, and share photos by simplifying the user experience. Before iPhoto, users needed to understand the interrelationships between paper type and other print settings to get the best printing results. With iPhoto, this is no longer true. The simplified Print dialog in iPhoto presents users with a Presets pop-up menu. The Presets setting determines which set of printing presets are used for the print job. This saves the user from the need to navigate to different panes in the Print dialog to make settings for paper type, resolution, and so forth.

When iPhoto was introduced, Apple supplied printing presets files for many printer models. Developers can provide a printing presets file for a printer by creating a file whose contents follow the format specified in the next section. The Apple-supplied printing presets file is used only if a printer module does not have a printing presets files supplied by the printer vendor.

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Note: Printing presets differ from custom settings. Printing presets are defined by a developer for printer module and include metadata which allows the settings to be applied across different printers. In the implementation, the preset metadata allows the printing system to apply a preset across printers. For example the printer preset for "Photo on Photo Paper" can be applied either to an Epson or an HP printer and the correct settings are enforced.

Printing Presets File Format

The printing presets file uses XML format and can be viewed by using the PropertyListEditor application provided in the `/Developer/Applications` directory. Printing presets files are named using printer module's ID with the `.xml` extension. For example:

```
com.abccompany.printer.ZQ3700.xml
```

where `com.abccompany.printer.ZQ3700` is the printer module ID.

A printing presets file describes an array of dictionaries. Each dictionary is a collection of key-value pairs that describes a single preset value—a combination of general metadata and printer specific settings.

The preset dictionary can have the following keys:

- `com.apple.print.preset.id` The id of the preset. The value of this key is used to look up a localized name for the setting. The id must match an Apple-defined id. If the key does not match an Apple-defined key then the preset specified by the key will not be made available in the application's Print dialog. The set of Apple defined keys is located in:

  `/System/Library/Frameworks/ApplicationServices.framework/Frameworks/PrintCore.framework/Resources/KnownPresets.xml`

  The following lists the current Apple-defined preset ids. Apple is in the process of defining additional preset ids.

  - Photo with Paper Auto-Detect

    graphicsType - Photo
    quality - mid
    media-front-coating - autodetect

  - Photo with Paper Auto-Detect - Fine

    graphicsType - Photo
    quality - high
    media-front-coating - autodetect

  - Photo on Plain Paper

    graphicsType - Photo
    quality - mid
    media-front-coating - none

  - Photo on Plain Paper - Fine

    graphicsType - Photo
    quality - high

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media-front-coating - none

- Photo on Photo Paper

  graphicsType - Photo
  quality - mid
  media-front-coating - glossy

- Photo on Photo Paper - Fine

  graphicsType - Photo
  quality - high
  media-front-coating - glossy

- Photo on Matte Paper

  graphicsType - Photo
  quality - mid
  media-front-coating - matte

- Photo on Matte Paper - Fine

  graphicsType - Photo
  quality - high
  media-front-coating - matte

- `com.apple.print.preset.graphicsType` The type of graphics for which this preset is tuned. The only currently defined value for this key is "Photo". The list of values for this key could expand in the near future.
- `com.apple.print.preset.quality` If this key is present it specifies the relative output quality of his preset. The values are "low", "mid", and "high". This is a new key and it is not used in the Apple supplied preset files in 10.1.2. In 10.1.2 this quality setting is implied by the preset id. Apple recommends that printer manufacturers include this key in their presets where appropriate.
- `com.apple.print.preset.media-front-coating` If present the value of this key value specifies the media coating to be used with the associated settings. Defined values include "none" (plain), "glossy", "high-gloss", "semi-gloss", "satin", "matte", and "autodetect". This is a new key and it is not used in the Apple supplied preset files in Mac OS X version 10.1.2. In version 10.1.2 the quality setting is implied by the preset id. Apple recommends that printer manufacturers include this key in their presets where appropriate.
- `com.apple.print.preset.model` This key is only needed by printer modules that support multiple printers where the printers have different settings; that is where a single preset can not satisfy all of the printer modules. In this case each preset can include this key to differentiate the presets for each supported printer model. If this key exists, then the preset will only be used if the value of this key matches the current printer's model.
- `com.apple.print.preset.settings` A dictionary containing a set of printer specific settings. When this preset is activated the key-value pairs from this dictionary are added to the current job's print settings (`PMPrintSettings`). The print settings are added to a default print settings ticket. Because a printer module should treat a missing key as having a default value, the presets do not need to contain key-value pairs for default settings. You can reduce the size of the presets file by not including entries for values that are the same as printer module default values.

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Installing a Printing Presets File

After you create a printing presets file for your printer module, you need to name the file `Presets.xml` and put it in the Resources directory of the printer module. The XML file is not localizable so you must put the printing presets file at the top level of the Resources directory; do not put the file in any of the language (`.lproj`) sub-directories.

The complete path for your printing presets file must be:

```
/Library/Printers/vendor/.../vendorPM.plugin/Contents/Resources/Presets.xml
```

For example, the location of ABC printer company's printing presets file for the SpiffyPrint model BL2300 printer would be:

```
/Library/Printers/ABC/SpiffyPrint/BL2300PM.plugin/Contents/Resources/Presets.xml
```

As long as your file is installed in the correct location, the printing systems uses your printing presets file even if Apple provides a file for your printer module. In other words, your printing presets file takes precedence over a file supplied by Apple.

Apple-supplied printing presets files are located in this directory:

```
/System/Library/Frameworks/ApplicationServices.framework/Frameworks/PrintCore.framework/Resources/
```

Sample Printing Presets File

Listing 1-1 shows a sample printing presets file. You can find other examples of properly formatted printing preset files in the this directory:

```
/System/Library/Frameworks/ApplicationServices.framework/Frameworks/PrintCore.framework/Resources/
```

You can use the PropertyListEditor application to view the files.

Listing 1-1 A sample printing presets file.

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist SYSTEM "file://localhost/System/Library/DTDs/PropertyList.dtd">
<plist version="0.9">
<array>

    <dict>
        <key>com.apple.print.preset.id</key>
        <string>Photo on Plain Paper</string>
        <key>com.apple.print.preset.graphicsType</key>
        <string>Photo</string>
        <key>com.apple.print.preset.quality</key>
        <string>mid</string>
        <key> media-front-coating </key>
        <string>none</string>
        <key>com.apple.print.preset.settings</key>
        <dict>
            <key>com.xx.setting.A1</key>
```


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```
            <integer>0</integer>
            <key>com.xx.setting.A2</key>
            <string>plain-12bond</string>
        </dict>
    </dict>

    <dict>
        <key>com.apple.print.preset.id</key>
        <string>Photo on Matte Paper</string>
        <key>com.apple.print.preset.graphicsType</key>
        <string>Photo</string>
         <key>com.apple.print.preset.quality</key>
            <string>mid</string>
         <key> media-front-coating </key>
         <string>matte</string>
        <key>com.apple.print.preset.settings</key>
        <dict>
            <key>com.xx.setting.A1</key>
            <integer>21</integer>
            <key>com.xx.setting.A2</key>
            <string>32 bump</string>
        </dict>
    </dict>

</array>
</plist>
```


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Document Revision History

This table describes the changes to *Creating Printing Presets for iPhoto*.

Date	Notes
2005-07-07	Fixed broken links.
2003-02-01	Updated formatting to improve appearance and searching capability.
2002-02-01	First release of this document.

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Document Revision History

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