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# PDEPlugIn Protocol Reference

[Printing > Carbon](#)



2007-12-11



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# Contents

---

## **PDEPlugin Protocol Reference 5**

---

Overview 5

Tasks 6

    Initialization 6

    Pane Instantiation 6

Instance Methods 6

    initWithBundle: 6

    PDEPanelsForType:withHostInfo: 6

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## **Document Revision History 9**

---

## **Index 11**

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# PDEPlugin Protocol Reference

(informal protocol)

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<b>Adopted by</b>	NSObject
<b>Framework</b>	/System/Library/Frameworks/Carbon.framework
<b>Declared in</b>	PDEPluginInterface.h

## Overview

The `PDEPlugin` informal protocol defines methods that a Cocoa printing dialog extension plug-in (Cocoa PDE) must implement to add one or more custom panes to a printing dialog. The printing system provides the type of pane needed (Page Setup or Print dialog) as well as information about the print job. A Cocoa PDE can use this information to determine which panes should be created. Each pane must conform to the `PDEPanel` informal protocol. Both applications and printer drivers can use PDEs to add panes to printing dialogs.

The name of the class that implements the `PDEPlugin` protocol must be declared in the Cocoa PDE's `Info.plist` file. The key for this class name is the string `NSPrincipalClass`. For example, if the PDE uses a class named `OutputBinsPDEPlugin` to implement this protocol, the `Info.plist` file in the PDE should contain this entry:

```
<key>NSPrincipalClass</key>
<string>OutputBinsPDEPlugin</string>
```

An application can host one or more Cocoa PDEs. An application PDE should be stored in the `Plugins` directory inside the application bundle. To declare application PDEs to the printing system, you should add an array containing their names to the `Info.plist` file for the application. The key for this array is the string `PrintDialogExtensions`. For example, if an application contains a PDE named `AppCustomPDE.bundle`, the application's `Info.plist` file should contain this entry:

```
<key>PrintDialogExtensions</key>
<array>
  <string>AppCustomPDE.bundle</string>
</array>
```

A printer driver can host one or more Cocoa PDEs. A printer driver PDE is typically stored somewhere inside a vendor directory located in `/Library/Printers/`. The path to each PDE should be declared in the printer driver's PPD file using the `APDialogExtension` keyword. For example, if a printer driver has an associated PDE named `OutputBinsPDE.bundle`, the PPD file should contain an entry that looks something like this:

```
*APDialogExtension: "/Library/Printers/MyCompany/PDEs/OutputBinsPDE.bundle"
```

## Tasks

### Initialization

- [initWithBundle:](#) (page 6)  
Initializes the plug-in.

### Pane Instantiation

- [PDEPanelsForType:withHostInfo:](#) (page 6)  
Returns an array of panes to be added to a printing dialog.

## Instance Methods

### **initWithBundle:**

Initializes the plug-in.

```
- (BOOL)initWithBundle:(NSBundle *)theBundle
```

#### **Parameters**

*theBundle*

The plug-in bundle.

#### **Return Value**

YES if initialization succeeded; otherwise, NO.

#### **Discussion**

In this required method, you can perform PDE initialization tasks when the user displays the Page Setup or Print dialog and the PDE is being loaded. For example, you could retain the PDE bundle for later use.

If you return NO or do not implement this method, the printing system does not load the PDE and send it the [PDEPanelsForType:withHostInfo:](#) (page 6) message.

#### **Availability**

Available in Mac OS X v10.4 and later.

#### **Declared In**

PDEPlugInInterface.h

### **PDEPanelsForType:withHostInfo:**

Returns an array of panes to be added to a printing dialog.

```
- (NSArray *)PDEPanelsForType:(NSString *)pdeType withHostInfo:(id)host
```

**Parameters***pdeType*

A constant, provided by the printing system, that indicates the type of panes this method should return. The constants are defined in `PMPrintingDialogExtensions.h`. There are three possible values:

`kAppPageSetupDialogTypeIDStr`

This an application plug-in and the panes you return are added to the Page Setup dialog.

`kAppPrintDialogTypeIDStr`

This an application plug-in and the panes you return are added to the Print dialog.

`kPrinterModuleTypeIDStr`

This is a printer driver plug-in and the panes you return are added to the Print dialog.

*host*

An object, provided by the printing system, that implements the methods in the `PDEPluginCallbackProtocol` informal protocol. A Cocoa PDE can use the host to obtain information about the current print job. For example:

- Your PDE can use the host to obtain the `PMPrintSettings` or `PMPageFormat` object to save a custom pane's settings.
- If your PDE has printer-specific panes, the PDE can use the host to obtain the `PMPrinter` object to aid in determining the panes that should be available.

**Return Value**

An array of objects conforming to the `PDEPanel` informal protocol. Each object represents a pane to be added to the dialog. You may return either `nil` or an empty array if no panes should be used.

**Discussion**

In this required method, your PDE should use the information provided in the parameters to determine which pane objects, if any, should be created and returned to the printing system. Your PDE should also retain the host object for later use.

**Availability**

Available in Mac OS X v10.4 and later.

**Declared In**

`PDEPluginInterface.h`





# Document Revision History

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This table describes the changes to *PDEPlugin Protocol Reference*.

Date	Notes
2007-12-11	A new document that describes the informal protocol used to add custom panes to a printing dialog.

## REVISION HISTORY

### Document Revision History

# Index

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## I

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`initWithBundle:` [protocol instance method 6](#)

## P

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`PDEPanelsForType:withHostInfo:` [protocol instance method 6](#)