

Technical Note

Providing Limited Control Panel Access with the CPALaunch

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powerbroker[®] desktops

Windows[®] Edition

Table of Contents

Introduction.....	3
How the Utility Works.....	3
General Software Requirements.....	4
Supported Control Panel Operations.....	5
Using CPALaunch.....	6
Working within an Applet Window.....	7
Windows Platforms Notes.....	8
Windows 7 Notes.....	8
Windows XP Notes.....	9
Troubleshooting.....	9
Desktop Shortcut Issues.....	9
Command Line Issues.....	9



Providing Limited Control Panel Access with the CPALaunch

This document describes how to use CPALaunch (Control Panel Applet Launcher). This utility is part of PowerBroker Desktops Windows Edition (PowerBroker Desktops). When the CPALaunch executable is elevated by a PowerBroker Desktops rule, it provides a standard user with limited access to several Windows control panel functions.

Introduction

In many enterprise settings, it is useful to allow standard (non-administrative) users to manage some aspects of their environment. While PowerBroker Desktop template rules can be used to manage access to many Windows Control Panel functions, it is often desirable to use CPALaunch to manage access to specific control panel functions.

The CPALaunch utility, in unison with one or more PowerBroker Desktop elevation rules, enables a standard user to change several areas of their system configuration. CPALaunch provides access to the following Windows control panel functions:

- **Printers** – To support adding, removing, and configuring printers.
- **Programs and Features** – To support the uninstall and repair of programs.
- **Network Configuration** – To support adding, removing, and configuring network connections.

When a standard user accesses these functions through CPALaunch, a subset of control panel applet options are available. Because not all options are available, security is maintained and the user cannot make unauthorized changes.

How the Utility Works

The CPALaunch utility is provided as part of the PowerBroker Desktops client software (pbwdc132 or pbwdc164). When the PowerBroker Desktops client is running, the utility is available to the standard user.

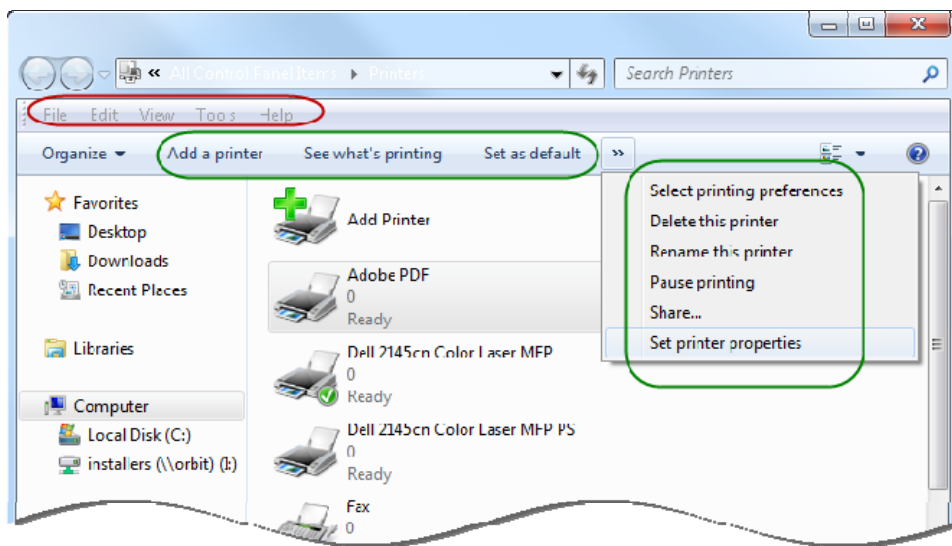
By creating a PowerBroker Desktops rule that automatically elevates CPALaunch, the administrator can provide a standard user with temporary administrative credentials. This allows the user to bypass Windows UAC warnings triggered by many control panel operations. A single rule can be created

that applies to all CPALaunch functionality or multiple rules can be created that apply to specific areas of CPALaunch functionality (Printers, Programs, or Networks).

A standard user can start CPALaunch in two ways:

- **Desktop shortcuts** – If the administrator creates and publishes one or more shortcuts
- **Command prompt** – Using a Windows command session

After CPALaunch starts, it opens a Windows control panel applet on the desktop. For example, the Printers applet looks similar to the following:



Note that not all functionality within the applet is provided. The menu bar, outlined in red, cannot be used. Only functions shown in green are available to a standard user.

Alternately, the same result can be achieved by starting the utility from a Windows command prompt. In this case, the user enters the following command: `cpalaunch.exe printers`

General Software Requirements

The CPALaunch utility requires the following software:

- PowerBroker for Desktops Windows Edition
- Microsoft .NET Framework V2.0



Supported Control Panel Operations

The CPALaunch utility provides access to three areas of Windows control panel functionality. The following table describes the CPALaunch command arguments:

Command Argument	Description
Printers	Opens the control panel Devices and Printers applet. Provides a standard user with access to the following operations: <ul style="list-style-type: none">• Add, delete, and rename a printer.• Set a default printer.• See what is printing.• Set printer properties.• Select printing preferences.• Share a printer.• Pause printing
Programs	Opens the control panel Programs and Features applet. Provides a standard user with access to the following operations: <ul style="list-style-type: none">• Uninstall a program.• Change an installation.• Repair an installation.
Networks	Opens the control panel Change Adapter Settings applet. Provides a standard user with access to the following operations: <ul style="list-style-type: none">• Disable a network device.• Diagnose a connection.• Rename a connection.• View status of a connection.• Change connection settings.

Using CPALaunch

To use the utility, do the following:

1. On a client machine, install a version of the PowerBroker Desktops client that supports the utility. (See the *PowerBroker Desktops Installation Guide* for details about installing the PowerBroker Desktops client.)
2. Restart the client computer.
3. To enable a standard user to perform these operations, create CPALaunch rules with the following parameters:

Path: `c:\windows\system32\cpalaunch.exe`

Arguments:

To change network settings: `networks`

To work with local printers: `printers`

To remove programs: `programs`

Enable the option: "Apply rule to all processes launched by the targeted application."

4. Start CPALaunch on the client machine in one of the following ways:
 - (Optional) Create and publish desktop shortcuts for your users. The following paths are required for the shortcuts:

Network Shortcut: `C:\Windows\System32\cpalaunch.exe networks`

Printers Shortcut: `C:\Windows\System32\cpalaunch.exe printers`

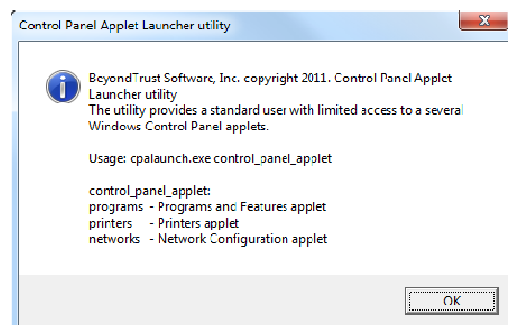
Programs Shortcut: `C:\Windows\System32\cpalaunch.exe programs`

Users can double-click a shortcut to start CPALaunch.

- At a Windows command prompt, enter:

`cpalaunch.exe command_argument`

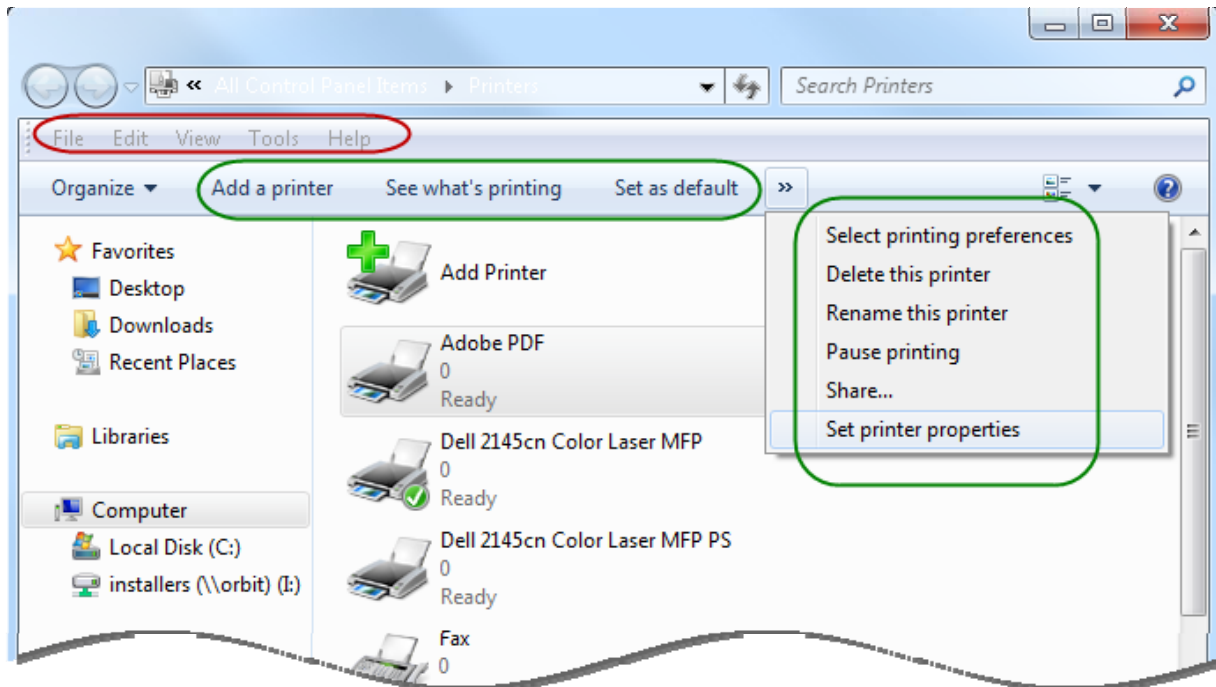
Note: If an incorrect or incomplete argument is provided (`printer` rather than `printers`), CPALaunch opens the a message box illustrating correct syntax:



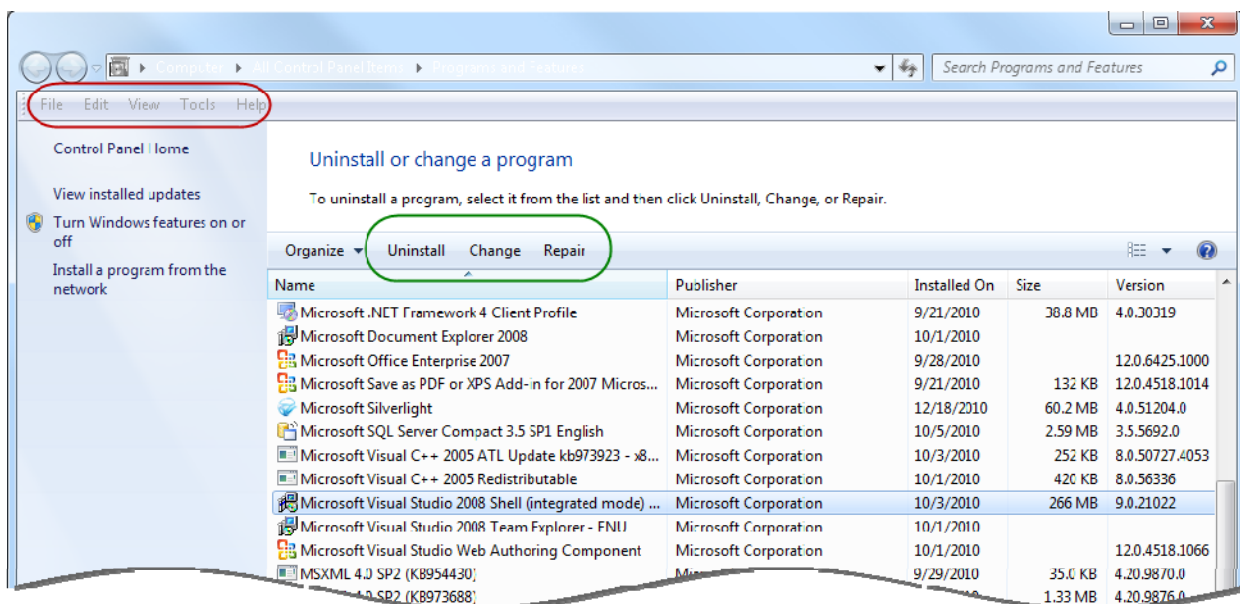
Working within an Applet Window

In the following screens, areas outlined in green highlight the functions available to a standard user. Areas outlined in red indicate the disabled features.

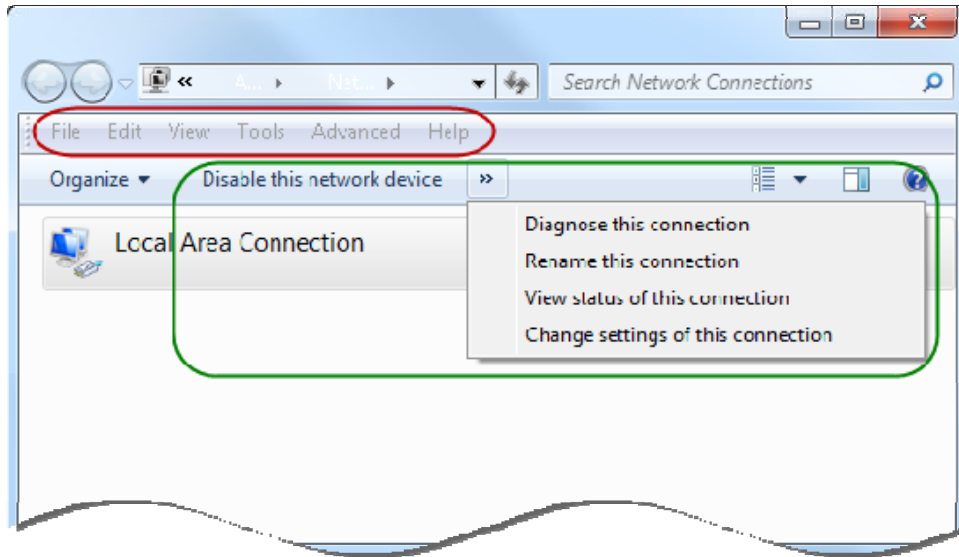
The **Printers** shortcut opens the following applet window:



The **Programs** shortcut opens the following applet window:



The **Networks** shortcut opens the following applet window:

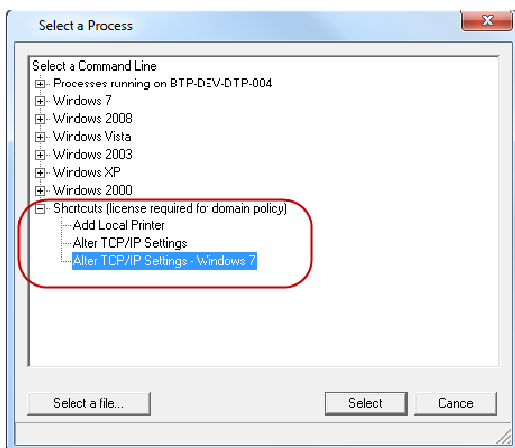


Windows Platforms Notes

The following sections describe the constraints apply when CPALaunch is used on Windows.

Windows 7 Notes

A template rule is available in Windows 7 that is not compatible with CPALaunch. This rule enables the user to change TCP/IP settings, and it conflicts with CPALaunch functionality. The rule is named **Alter TCP/IP Settings** and is available in the Shortcuts section of operating systems list.



If you plan to use the CPALaunch utility in a Windows 7 enterprise, you must disable all instances of the **Alter TCP/IP Settings** rule.

Windows XP Notes

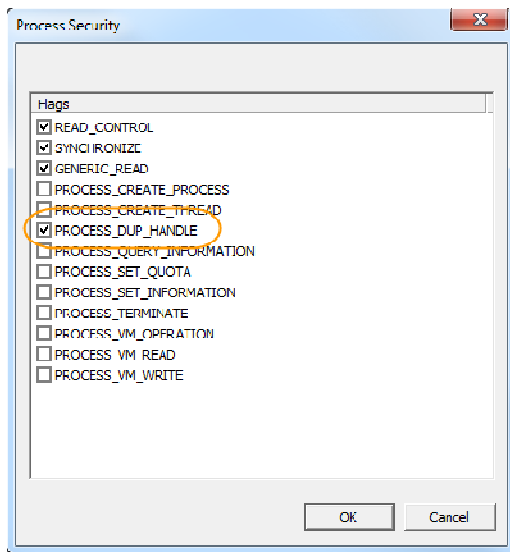
To use the Printers component of CPALaunch on Windows XP, the CPALaunch rule requires the following additional parameters:

Application Tab, Security: PROCESS_DUP_HANDLE: Enable this check box

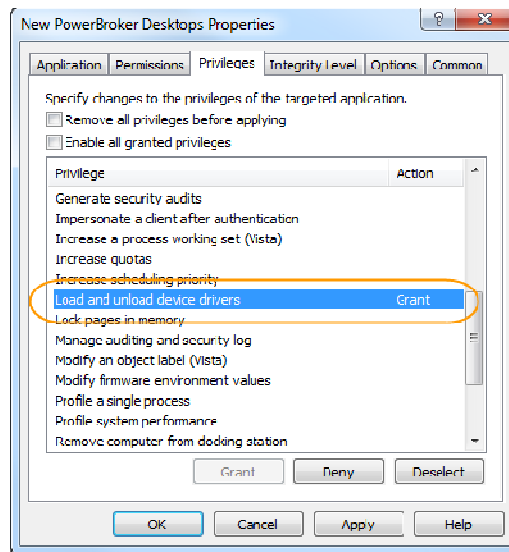
Privileges Tab: Load and unload device drivers: Grant this privilege.

These settings are established in the following locations of the rule property sheet:

On the Application tab, Security, ...



On the Privileges tab



Troubleshooting

The following sections describe common problems that can occur when using CPALaunch.

Desktop Shortcut Issues

If no action occurs when a shortcut is used, it is possible that the Powerbroker Desktops client is not running or has not been restarted. Use the Policy Monitor (`polmon.exe`) program on the client computer to check the status of the PowerBroker Desktops client. At a command prompt, enter `polmon.exe` and determine if the status of the client software is loaded and is operational

Command Line Issues

The most common problem encountered when using CPALaunch from the command line is the specification of an incomplete or incorrect argument. Arguments must be plural and require the



letter “s” at the end of each word. Failure to specify a correct argument will result in the display of a message illustrating correct command syntax.

If no action occurs when a command is entered, it is possible that the Powerbroker Desktops client is not running or has not been restarted. Use the Policy Monitor (`polmon.exe`) program on the client computer to check the status of the PowerBroker Desktops client.