

Parallels[®] Pro Control Panel

Parallels Pro Control Panel 10.3.4 for Windows 2003 Power Tools Developer Guide

Legal and Copyright Notice

ISBN: N/A

Parallels

660 SW 39th Street

Suite 205

Renton, Washington 98057

USA

Phone: +1 (425) 282 6400

Fax: +1 (425) 282 6444

© Copyright 2007 Ensim Corporation. All rights reserved.

© Copyright 2009 Parallels, Inc. All rights reserved.

Distribution of this work or derivative of this work in any form is prohibited unless prior written permission is obtained from the copyright holder.

Product and service names mentioned herein are the trademarks of their respective owners.

Contents

Preface	4
Typographical Conventions	4
Feedback	5
About This Guide	6
Intended Audience and Required Skills.....	6
Related Documentation	6
Preparing for the Integration	7
Overview of the Integration Process.....	8
Software Requirements	8
Integrating Web Applications with Parallels Pro Control Panel	10
Creating the Web Application Directory Structure	11
Creating the DSP.xml File	11
Generating the DSP2.xml File	12
Creating the DAPI.cs File	12
Copying Files to the Parallels Pro Control Panel Server	13
Registering the Web Application with Parallels Pro Control Panel	14
Verifying the Success of the Integration	15
Contents of a Sample DSP.xml File	16
Contents of a Sample DAPI.cs File	18
Appendix A. Troubleshooting Integration Issues	22
Compilation Errors	22
Runtime Issues	24
Glossary	26

Preface

In this chapter:

Typographical Conventions	4
Feedback	5

Typographical Conventions

Before you start using this guide, it is important to understand the documentation conventions used in it.

The following kinds of formatting in the text identify special information.

<u>Formatting convention</u>	<u>Type of Information</u>	<u>Example</u>
Special Bold	Items you must select, such as menu options, command buttons, or items in a list.	Go to the System tab.
	Titles of chapters, sections, and subsections.	Read the Basic Administration chapter.
<i>Italics</i>	Used to emphasize the importance of a point, to introduce a term or to designate a command line placeholder, which is to be replaced with a real name or value.	The system supports the so called <i>wildcard character</i> search.
Monospace	The names of commands, files, directories, and domain names.	The license file is located in the <code>http://docs/common/licenses</code> directory.

Preformatted	On-screen computer output in your command-line sessions; source code in XML, C++, or other programming languages.	<pre># ls -al /files total 14470</pre>
Preformatted Bold	What you type, contrasted with on-screen computer output.	<pre># cd /root/rpms/php</pre>
CAPITALS	Names of keys on the keyboard.	SHIFT, CTRL, ALT
KEY+KEY	Key combinations for which the user must press and hold down one key and then press another.	CTRL+P, ALT+F4

Feedback

If you have found a mistake in this guide, or if you have suggestions or ideas on how to improve this guide, please send your feedback using the online form at <http://www.parallels.com/en/support/usersdoc/>. Please include in your report the guide's title, chapter and section titles, and the fragment of text in which you have found an error.

About This Guide

This guide provides instructions for integrating custom Web applications with Parallels® Pro Control Panel 10.3.4 for Windows® 2003.

Note: For simplicity, Parallels Pro Control Panel 10.3.4 for Windows is referred to as “Parallels Pro Control Panel” throughout this document.

In this section:

Intended Audience and Required Skills	6
Related Documentation	6

Intended Audience and Required Skills

This guide is intended for developers who want to integrate custom Web applications with Parallels Pro Control Panel. To use this document, you need to be familiar with Microsoft® Windows Server™ 2003, Parallels Pro Control Panel, and C#.

Related Documentation

For a list of related documentation, see the Parallels Pro Control Panel for Windows Release Notes. Documentation is also available in the Parallels Pro Control Panel for Windows documentation page at <http://www.parallels.com/en/support/pro/docs>.

Preparing for the Integration

This section provides an overview of integrating custom Web applications with Parallels Pro Control Panel and the software requirements.

In this chapter:

Overview of the Integration Process	8
Software Requirements	8

Overview of the Integration Process

Parallels Pro Control Panel provides a collection of Web applications with Parallels Pro Control Panel. These Web applications are called **Power Tools**. Some of these applications are packaged by Parallels Pro Control Panel and are automatically installed and configured during the installation of Parallels Pro Control Panel. The existing Web applications packaged with Parallels Pro Control Panel include:

- Gallery (a tool to create and maintain photo albums)
- PHPBB (a discussion/bulletin board)
- WordPress (a news and Web log tool)
- DotNetNuke (a content management system)
- Community Server (a knowledge management and collaboration platform)

In addition to these Web applications, you can integrate custom Web applications with Parallels Pro Control Panel by following the instructions given in this guide. Integrating a custom Web application with Parallels Pro Control Panel involves:

- 1 Creating the Web application directory structure on the development server
- 2 Creating the `DSP.xml` file
- 3 Generating the `DSP2.xml` file
- 4 Creating the `DAPI.cs` file
- 5 Copying files from the Web application directory on the development server to the Parallels Pro Control Panel server
- 6 Registering the Web application on Parallels Pro Control Panel as a Power Tool

For detailed instructions, see *Integrating Web Applications with Parallels Pro Control Panel* (on page 10).

Software Requirements

You need the following software for integrating custom Web applications with Parallels Pro Control Panel:

- **Power Tools Developer Kit.** The Power Tools Developer Kit comprises the following files: `PreprocessDspXML.exe`, `dsp_options.xsl`, `DSP.xml`, and `DAPI.cs`. You **must** download these files from Parallels Pro Control Panel's FTP server.
- **Parallels Pro Control Panel 10.x.x for Windows 2003.** The Power Tools Developer Kit requires version 10.x.x of Parallels Pro Control Panel on the Windows 2003 server.
- **Custom Web application files.** These files are used by the Power Tools Developer Kit for integrating the Web application with Parallels Pro Control Panel.

- **Third-party applications and their add-ons.** Certain Web applications require third-party applications for successful implementation. Some of the third-party applications required include MySQL, ColdFusion, Urchin. For such Web applications, you **must** install the third-party applications and their corresponding add-ons on the Parallels Pro Control Panel server.
- **Scripting languages.** Parallels Pro Control Panel provides default support for ActivPerl 5.61 and PHP 4.0.23. Ensure that a compatible version of Perl and PHP required by the Web application is installed on the Parallels Pro Control Panel server.
- **Microsoft .NET.** Parallels Pro Control Panel provides default support for .NET 1.1. For the Web applications requiring .NET 2.0, you need to install .NET 2.0 on the Parallels Pro Control Panel server.
- **Development environment for creating C# files.** To integrate custom Web applications, you must set up a development environment for creating C# files. Parallels Pro Control Panel recommends Microsoft Visual Studio.NET for creating C# files.

Integrating Web Applications with Parallels Pro Control Panel

This section provides instructions for integrating a custom Web application with Parallels Pro Control Panel.

In this chapter:

Creating the Web Application Directory Structure.....	11
Creating the DSP.xml File	11
Generating the DSP2.xml File	12
Creating the DAPI.cs File	12
Copying Files to the Parallels Pro Control Panel Server	13
Registering the Web Application with Parallels Pro Control Panel	14
Verifying the Success of the Integration	15

Creating the Web Application Directory Structure

This section describes the directory structure you need to create on the development server for storing the Web application files.

➤ **To create the directory structure for the Web application files:**

- 1 Log in to the development server as the administrator.
- 2 Create a directory `<powertool_name>` on this server, where `<powertool_name>` is the name of the Web application, for example, `C:\mypowertool`.
- 3 Browse to this directory `<powertool_name>` and perform the following steps:
 - a Create a .gif file of size 150 x 50 pixels and save it in the directory as `<powertool_name>.gif`, for example, `C:\mypowertool\mypowertool.gif`. This image identifies the Web application and is displayed on the *List Power Tools* page in the site administrator control panel.
 - b Create another sub-directory `<powertool_name>` in the `<powertool_name>` directory. For example, `C:\mypowertool\mypowertool`.
 - c Save all the Web application files in the sub-directory `<powertool_name>`.
 - d Save the sub-directory `<powertool_name>` as a zip archive `<powertool_name>_<powertool_version>.zip`, for example, `C:\mypowertool\mypowertool_1.0.zip`. Ensure that you extract the files in the parent directory `<powertool_name>`.

Important: If you have archived the files in any other format such as .tar, .tar.gz, make sure you convert it to a .zip archive.

The Web application directory structure is created.

Creating the DSP.xml File

The `DSP.xml` file contains the configuration information required to integrate a Web application with Parallels Pro Control Panel. It also contains certain preprocessor instructions, which are used to create the final .xml configuration file for the Power Tool.

Download the sample `DSP.xml` file from the Power Tools Developer Kit available on Parallels Pro Control Panel's FTP server. For a complete definition of the `DSP.xml` file, see Contents of a sample `DSP.xml` file (on page 16).

Generating the DSP2.xml File

After creating the `DSP.xml` file, generate the `DSP2.xml` file from the `DSP.xml` file using the pre-processor file `PreprocessDspXML.exe`. This is required to consolidate the installation and configuration information into a single output file.

➤ **To generate the `DSP2.xml` file from `DSP.xml` file:**

- 1 Open a command window and change to the directory where the file `PreprocessDspXML.exe` is located.
- 2 Run the following command:

```
PreprocessDspXML.exe <path_DSP_options.xml> <path_DSP.xml> > <path_DSP2.xml>
```

where

`<path_DSP.xml>` is the complete path where you have saved the `DSP.xml` file

`<path_DSP_options.xml>` is the complete path of the XSL file used with the preprocessor file `PreprocessDspXML.exe`

`<path_DSP2.xml>` is the complete path where you want to save the `DSP2.xml` file.

The `DSP2.xml` file is now generated.

Creating the DAPI.cs File

The `DAPI.cs` file contains the implementation required to install, remove, import and export a Power Tool instance. To include any other custom operations, you need to add the corresponding code in the `DAPI.cs` file. This file uses data from the `DSP.xml` and `DSP2.xml` files.

Download the sample `DAPI.cs` file from the Power Tools Developer Kit available on Parallels Pro Control Panel's FTP server. For complete definition of the `DAPI.cs` file, see Contents of a Sample `DAPI.cs` File (on page 18).

Copying Files to the Parallels Pro Control Panel Server

This section provides instructions for copying the Web application files from the development server to the Parallels Pro Control Panel server. Before copying the files, ensure that you have downloaded the Web application files on the development server.

➤ **To copy the Web application files to the Parallels Pro Control Panel server:**

- 1 Log in to the Parallels Pro Control Panel server as the administrator.
- 2 Copy the Web application files from the development server to the Parallels Pro Control Panel server as follows:
 - a Browse to the directory `<install_dir>\pe\PowerTools`, where `<install_dir>` is the complete path where you installed Parallels Pro Control Panel. If the default settings were used during the Parallels Pro Control Panel installation, the directory path is `C:\Program Files\Ensim\WEBpliance\pe\PowerTools`.
 - b Create a directory `<powertool_shortcode>` in the directory `<install_dir>\pe\PowerTools`, where `<powertool_shortcode>` is the short name of the Web application specified in the `DSP.xml` file. For example, `C:\Program Files\Ensim\WEBpliance\pe\PowerTools\mypowertool`.
 - c Create a directory `<powertool_version>` in the directory `<install_dir>\pe\PowerTools\<powertool_shortcode>`, where `<powertool_version>` is the version of the Web application specified in the `DSP.xml` file. For example, `C:\Program Files\Ensim\WEBpliance\pe\PowerTools\mypowertool\1.0`.
 - d Log in to the development server, and copy the following files located in the parent directory `<powertool_name>` to the directory `<install_dir>\pe\PowerTools\<powertool_shortcode>\<powertool_version>` on the Parallels Pro Control Panel server:
 - `<powertool_name>.gif`
 - `<powertool_name>_<powertool_version>.zip`
 - `DSP.xml`
 - `DSP2.xml`
 - `DAPI.cs`

The Web application files are now available on the Parallels Pro Control Panel server.

Registering the Web Application with Parallels Pro Control Panel

This section provides instructions for registering the Web application with Parallels Pro Control Panel.

Important: Registry entries are case-sensitive. **Ensure that you use lower-case characters for registry variables.**

➤ **To register the Web application:**

- 1 Log in to the Parallels Pro Control Panel server as the administrator.
- 2 Open the registry editor and expand `My Computer > HKEY_LOCAL_MACHINE > SOFTWARE > Ensim > WEBppliance > serviceComponents > powertools > tools`.
- 3 Right-click `tools`, select **New**, then click **Key**.
- 4 Rename the existing key entry as `<powertool_shortname>`. For example, `mypowertool`.
- 5 Right-click `<powertool_shortname>`, select **New**, then click **String Value**. This is a registry variable of type `REG_SZ`.
- 6 Rename this registry variable as `name`.
- 7 Double-click `name`, type `<powertool_shortname>` in the **Value data** text box, then click **OK**.
- 8 Right-click `<powertool_shortname>`, select **New**, then click **String Value**.
- 9 Rename this registry variable as `version`.
- 10 Double-click `version`, type `<powertool_version>` in the **Value data** text box, then click **OK**.
- 11 Register the Web application with Parallels Pro Control Panel as follows:
 - a Open a command window and go to the directory `<install_dir>\pe\PowerTools`.
Run the following command:

```
cscript registerTool.vbs
<install_dir>\pe\PowerTools\<powertool_shortname>\<powertool_version>\dsp2.xml
```

The Web application is registered with Parallels Pro Control Panel.

Verifying the Success of the Integration

Verify that the Web application is successfully integrated with Parallels Pro Control Panel.

➤ *To verify the integration:*

- 1 Log in to the Parallels Pro Control Panel control panel as the administrator.
- 2 Add a site with the Web application.
- 3 In the **Services** page, expand the **power tools** icon. The newly registered application should now be visible in the list of Power Tools.
- 4 Log in to this site as the site administrator and install an instance of this Power Tool.
- 5 On the **List Installations** page, click the URL for the instance that you installed. The browser should display the Web site for the Web application.

The Web application is successfully integrated with Parallels Pro Control Panel.

Contents of a Sample DSP.xml File

This section describes the contents of a sample DSP.xml file:

```
<?xml version="1.0" encoding="UTF-8"?>
<dsp>
  <dspDescription>
    <shortname>DomsDWiz</shortname>
    <longname>DomsDWiz</longname>
    <version>3.0.0</version>
    <url></url>
    <type>Portal</type>
    <shortDescription>DomsDWiz is a content management system for
creating commercial web sites.</shortDescription>
    <icon>
      <filename>ddw.gif</filename>
      <mimeType>image/gif</mimeType>
    </icon>
    <!--
Change the dapiversion if user intervention is needed
during the upgrade, or if the upgrade should be performed
at the user's convenience (e.g. it will cause downtime).
Change the dapirelease if the upgrade does not require user
intervention.
-->

    <dapiversion>1.0</dapiversion>
    <dapirelease>1</dapirelease>
    <upgrades>
      <oldversion>
        <shortname>DomsDWiz</shortname>
        <version>3.0.0</version>
        <dapiversion>1.0</dapiversion>
        <dapirelease>1</dapirelease>
      </oldversion>
    </upgrades>
  </dspDescription>
</dsp>
```



```

</upgrades>
<dependinglist>
  <servicecomponent name="w3svc">
    <config name="EnableDotNet" value="true"></config>
  </servicecomponent>
  <servicecomponent name="mssql"></servicecomponent>

```

</dependinglist>

```

  <commonOption name="domain_to_path"></commonOption>
  <commonOption name="url_net_required"
required="yes"></commonOption>
  <commonOption name="url_path" required="yes"></commonOption>
  <commonOption name="url_loc"></commonOption>
  <commonOption name="install_loc"></commonOption>
  <commonOption name="dbname" required="yes"></commonOption>
  <commonOption name="sqldbuser" required="yes"></commonOption>
  <commonOption name="sqldbpass" required="yes"></commonOption>
  <commonOption name="username"></commonOption>
  <commonOption name="instance_admin"
required="yes"></commonOption>
  <commonOption name="instance_pass1"
required="yes"></commonOption>
  <commonOption name="instance_pass2"
required="yes"></commonOption>
  <commonOption name="instance_admin_email"></commonOption>
  <commonOption name="syncfs"></commonOption>
  <commonOption name="overwritefiles"></commonOption>
  <commonOption name="applypatches"></commonOption>
  <commonOption name="archive_name"
file="DomsDWiz_3.0.0.zip"></commonOption>
  <commonOption name="archive_target" dir=""></commonOption>
  <commonOption name="archive_type" type="zip"></commonOption>
</dspDescription>
</dsp>

```

Contents of a Sample DAPI.cs File

This section describes the contents of a sample `DAPI.cs` file:

```
using System;
using System.Collections;
using System.Collections.Specialized;
using Ensim.WVH;
using Ensim.Services.PowerTools;
using EnsimBackendLib;

namespace Ensim.Services.PowerTools {
    /// <summary>
    /// Summary description for Class1.
    /// </summary>
    public class DomsDWiz : PowerTool, IDAPIInterface{
        public DomsDWiz(SiteInfo site, PowerToolXMLData data) :
            base(site, data) {}

        public DomsDWiz(SiteInfo site, PowerToolXMLData data,
            IDictionary instanceData) : base(site, data, instanceData)
        {}

        public void Install() {
            instanceData.Add("dbuser", dbuser);
            ActionCollection actions = new ActionCollection();
            actions += new CreateMSSQLDB();
            actions += new UnpackArchive();
            PermissionsInfo[] pi = new PermissionsInfo[1];
            pi[0] = new PermissionsInfo(this.anonUser, AccessMask.Write
                | AccessMask.Read | AccessMask.Modify);
            actions += new
                SetPermission(instanceData["install_loc"].ToString(), pi,
                    PermissionActionType.ADD, true);
            actions += new CreateWebDir(
                instanceData["url_path"].ToString(), true,
                (string)instanceData["ASPNetVersion"] );
        }
    }
}
```

```

    ///actions += new
    MoveFile(instanceData["install_loc"].ToString() +
    "\\release.config", instanceData["install_loc"].ToString()
    + "\\web.config");

    ///string origKey, newKey;

    ///Hashtable ht = new Hashtable();

    ///origKey = "<add key=\"SiteSqlServer\"
    value=\"Server=(local);Database=DomsDWiz;uid=;pwd=;\" />";

    /*newKey = "<add key=\"SiteSqlServer\"
    value=\"Server=(local);Database="+ instanceData["dbname"]
    +";uid="+ instanceData["sqldbuser"]
    +";pwd="+instanceData["sqldbpass"]+";\" />";

    ht.Add(origKey, newKey);

    actions += new UpdateFileContent("Web.Config", ht);

    ht = null;

    ht = new Hashtable();

    ht.Add("<username>admin</username>", "<username>" +
    instanceData["instance_admin"] + "</username>");

    ht.Add("<password>admin</password>", "<password>" +
    instanceData["instance_pass1"] + "</password>");

    ht.Add("Info@Acme.com</email>", "Info@Acme.com" +
    instanceData["instance_admin_email"] + "</email>");

    actions += new
    UpdateFileContent(instanceData["install_loc"].ToString() +
    "\\Install\\DomsDWiz.install.resources", ht);

    Hashtable appendProperties = new Hashtable();

    appendProperties.Add("DefaultDoc", ",default.aspx");*/

    ///actions += new
    SetDefaultProperties(instanceData["url_path"].ToString(),
    appendProperties, null);

    actions += new RemoveFiles(@"Installer\",
    @"App_GlobalResources\Locales.Portal.xml.resources",
    @"App_GlobalResources\Locales.xml.resources");
    ExecuteActions(actions, ActionType.INSTALL, true);

    }

public void ChangePassword(string username, string newPassword)
{

    }

public void Reconfigure() {

```

```
    }

    public void Upgrade() {
        }

    public void Remove() {
        ActionCollection actions = new ActionCollection();
        actions += new RemoveWebDir( instanceData["url_path"] );
        actions += new RemoveToolFiles();
        actions += new RemoveMSSQLDB();
        ExecuteActions(actions, ActionType.REMOVE, false);
    }

    public IDictionary GetInstanceConfiguration() {
        IDictionary instance_conf = this.DSPFillInstance(new
        string[] {"dbname", "sqldbuser", "sqldbpass", "username",
        "url_net", "url_path", "domain_to_path"} );
        return instance_conf;
    }

    public void Export(string datafolderpath) {
    }

    public void Import(string datafolderpath) {
        ActionCollection actions = new ActionCollection();
        actions += new ImportMSSQLDB( datafolderpath,
        instanceData["sqldbuser"].ToString());
        //Hashtable appendProperties = new Hashtable();
        //appendProperties.Add("DefaultDoc", ",default.aspx");
        //actions += new
        SetDefaultProperties(instanceData["url_path"].ToString(),
        appendProperties, null);
        PermissionsInfo[] pi = new PermissionsInfo[1];
        pi[0] = new PermissionsInfo(this.anonUser, AccessMask.Write |
        AccessMask.Read | AccessMask.Modify);
        actions += new
        SetPermission(instanceData["install_loc"].ToString(), pi,
        PermissionActionType.ADD, true);
    }
}
```

```
ExecuteActions(actions, ActionType.IMPORT, false);
    }

    public void HandleASPNetVersionChange(bool Add) {
        }

    }
}
```

Appendix A. Troubleshooting Integration Issues

This section provides information for troubleshooting issues that you may encounter while integrating custom Web applications with Parallels Pro Control Panel.

In this chapter:

Compilation Errors.....	22
Runtime Issues	24

Compilation Errors

The following table lists the issues that you may encounter while generating the DSP2.xml file from the DSP.xml file.

Error message	Possible cause	Solution
Usage: PreprocessDspXML < stylesheet > < xmlfile >	This error occurs if the command used to generate the DSP2.xml file is incorrect.	Ensure that you have typed the command in the command window, in the directory where the file PreprocessDspXML.exe is located as follows: PreprocessDspXML.exe <path_DSP_options.xml> <path_DSP.xml> > <path_DSP2.xml> For example: PreprocessDspXML.exe dsp_options.xml d:\X3\dsp.xml > d:\x3\dsp2.xml

Error message	Possible cause	Solution
<p>Unhandled Exception: System.Xml.XmlException: This is an invalid comment syntax.</p> <p>Expected '-->'. Line 58, position 58.</p> <p>at System.Xml.XmlScanner. .ScanComment() at System.Xml.XmlScanner. .ScanMarkup()</p>	<p>This error occurs if the DSP.xml file contains a syntax error.</p>	<p>Verify that the XML syntax is correct at the line number specified in the exception for the DSP.xml file.</p>
<p>File .\\X\3.2.1\dsp2.xml does not exist</p>	<p>This error occurs if you have entered an incorrect path in the command while registering the Power Tool with Parallels Pro Control Panel.</p>	<p>Ensure that you have entered the correct path <install_dir>\pe\PowerTools\<powertool_shortname>\<powertool_version>\dsp2.xml for the DSP2.xml file in the command window from the directory <install_dir>\pe\PowerTools</p> <p>For example:</p> <pre>cscript registerTool.vbs .\X\3.2.1\dsp2.xml</pre>

Runtime Issues

The following table lists the issues that you may encounter while provisioning or managing the Power Tool through the Parallels Pro Control Panel control panel.

Description	Possible cause	Solution
Generic exception while creating a Power Tool instance	<ul style="list-style-type: none"> ▪ The registry entries are typed using incorrect case. ▪ The Power Tool short directory name, long directory name, and/or version number are not the same in the <code>DSP.xml</code> and <code>DAPI.cs</code> files, and the registry on the Parallels Pro Control Panel server. 	<p>Ensure that:</p> <ul style="list-style-type: none"> ▪ The registry entries are typed using lower-case characters. ▪ The Power Tool short directory name, long directory name and/or version number are the same in the <code>DSP.xml</code> and <code>DAPI.cs</code> files and the registry on the Parallels Pro Control Panel server.
Exception while provisioning the Power Tool to a site.	Certain applications required by the Power Tool are not provisioned for the site. For example, PHP or Perl required by the Power Tool is not installed.	<p>Ensure that:</p> <ul style="list-style-type: none"> ▪ All dependencies specified in the <code>DSP.xml</code> file are met while provisioning the site with the Power Tool. ▪ Interdependencies between other service components should also be also satisfied.
Unable to delete a site with a Power Tool instance.	The <code>Remove()</code> method in the <code>DAPI.cs</code> file is marked as a comment.	Ensure that the <code>Remove()</code> method is not marked as a comment in the <code>DAPI.cs</code> file.
Unable to delete a Power Tool instance from a site.	The <code>Remove()</code> method in the <code>DAPI.cs</code> file is marked as a comment.	Ensure that the <code>Remove()</code> method is not marked as a comment in the <code>DAPI.cs</code> file.
The Power Tool is provisioned more than once on a site.	The command for registering the Power Tool with Parallels Pro Control Panel has been executed more than once.	<p>Ensure that you run the following command only once in the command window from the directory <code><install_dir>\pe\PowerTools</code> on the Parallels Pro Control Panel server.</p> <p>For example:</p> <pre>cscript registerTool.vbs .\X3\3.2.1\dsp2.xml</pre>

Description	Possible cause	Solution
<p>Multiple default.aspx entries in the site configuration file on the IIS server.</p>	<p>The following code is executed for every Power Tool instance and adds the default.aspx entry in the default document list each time:</p> <pre> Hashtable appendProperties = new Hashtable(); appendProperties.Add("DefaultDoc", "default.aspx"); actions += new SetDefaultProperties(instanceData["url_path"].ToString(), appendProperties, null); </pre>	<p>Ensure that the following lines in the <code>DAPI.cs</code> file are marked as a comment:</p> <pre> Hashtable appendProperties = new Hashtable(); appendProperties.Add("DefaultDoc", "default.aspx"); actions += new SetDefaultProperties(instanceData["url_path"].ToString(), appendProperties, null); </pre>
<p>Mandatory database-specific fields for provisioning the Power Tool for a site</p>	<p>The following XML options have the required attribute value as "yes" in the <code>DSP.xml</code> file:</p> <pre> "dbname" "sqldbuser sqldbpass "username" "instance_admin" "instance_pass1" "instance_pass2" </pre>	<p>Remove the required attribute from the following XML options in the <code>DSP.xml</code> file:</p> <pre> "dbname" "sqldbuser sqldbpass "username" "instance_admin" "instance_pass1" "instance_pass2" </pre>

Glossary

A

action log

A record of the actions performed on the system by administrators. To access the action log, log in to the control panel, then click **reports** on the top navigation bar.

application programming interface

An XML-based or Web services based application programming interface (API). Service providers and resellers use the API to streamline common tasks and to integrate third-party systems.

B

bandwidth

The amount of network capacity assigned to a user on a server.

C

control panels

Graphical user interfaces that enable users to manage system settings, services, and accounts. Control panels are provided for service providers, resellers, site administrators, and users.

D

database server

A server, or a cluster of servers, that manages the database functions of Parallels Pro Control Panel. This server, or server cluster, requires the Microsoft Windows Server 2003 R2 operating system and the Microsoft SQL Server™ software.

F

File Transfer Protocol (FTP)

A protocol used to transfer files over the Internet. FTP includes functions to log on to the network, list directories, and copy files. FTP operations can be performed by typing commands in a command line or by using an FTP utility running under a graphical interface. Anonymous FTP allows you to use an FTP site without a password and without creating a user account.

filter

A pattern or mask through which only selected data is passed. Common filters include spam filters, which block email sent from specified domains.

firewall

A method for keeping a network secure.

FTP

File Transfer Protocol. A protocol used to transfer files over the Internet. FTP includes functions to log on to the network, list directories, and copy files. FTP operations can be performed by typing commands in a command line or by using an FTP utility running under a graphical interface. Anonymous FTP allows you to use an FTP site without a password and without creating a user account.

G

graphical user interface (GUI)

An interface between a user and a computer that is graphics-based and incorporates icons, menus, and a mouse.

GUI

Graphical user interface. An interface between a user and a computer that is graphics-based and incorporates icons, menus, and a mouse.

H

host name

The fully qualified host name used to identify the server. For example:
`server1.bigtimehosting.com.`

hosting server

Servers on which services, such as Hosted Exchange 2003 and Windows Web Hosting, are installed and hosted. These servers are also known as resources. When a service is sold to an organization, the disk space and other resources required for providing the service are allocated from a hosting server. Parallels Pro Control Panel strongly recommends that each hosting server have only one service installed on it. Depending on the number of services offered, and customers provisioned in a system, you might have more than one hosting server for each service. Resellers who purchase these hosting servers can manage them through the reseller control panel.

I

IMAP

Internet Messaging Access Protocol.

IMAP mail server

A common mail server used for Internet email, similar to POP3, but in addition to holding incoming email messages until a user logs in to the email account and downloads the messages, it allows users to archive email messages into folders, share mailboxes with other users, access multiple mail servers at once, and more efficiently access mail attachments.

IP

Internet Protocol. The protocol used to format packets and rules of transmission and reception over the Internet.

IP address

The numeric identifier of a computer or device on the Internet. The format of an IP address is a 32-bit numeric address written as four numbers separated by periods. Each number can be zero to 255.

IP-based domain

A domain with a unique IP address. Compare to **name-based domain**.

L

license

An official agreement between a user and a corporation on the use and support of its products.

log

A detailed history of actions that have been performed on a system.

M

mailbox

A directory on a server that contains a user's email.

mailbox capacity

The maximum number of mailboxes that can be created on a server.

mailing lists

Email distribution lists commonly used to circulate topic discussions. A mailing list includes a set of list members. Whenever a list member posts an email message to the mailing list email address, that email message is distributed to all list members.

N

name-based domain

A domain with a unique host name that shares an IP address with another server. Compare to **IP-based domain**.

NAS server

A type of server used with Windows Web Hosting. If you are using the Windows Web Hosting service, you can use servers acting as NAS (network attached storage) devices. NAS servers make stored files, applications, and other network resources available to Windows Web Hosting using a UNC (Universal Naming Convention) path name.

netmask

A bit-mask that identifies the network number and host number components of an IP address.

NFS server

Network File System server. A computer with file sharing capabilities.

NS (Name Server) record

A record that specifies the host name of a DNS server that is authoritative for the domain. A DNS zone requires at least one NS record. If there is only one NS record in a zone, it cannot be removed.

P

plugin

A modular software program that can be plugged in to a system to expand functionality. Parallels Pro Control Panel services have plugins that are installed on provisioning engine and CP servers to enable service providers to sell services to customers.

POP3 mail server

Post Office Protocol, version 3. A common mail server used for Internet email. It holds the incoming email messages until you log in to the email account and download the messages. All stored email messages and attachments are downloaded at the same time.

primary name server

The main Domain Name System (DNS) server that translates alphabetic domain names into numeric IP addresses.

properties

Settings that determine the characteristics of an account or a server.

provisioning

Selling a service to an organization.

Q

queue

A temporary holding place for data.

R

record

A record contains specific DNS zone information.

reseller

The individuals or companies who purchase resources and services from service providers or resellers and offer those resources or services for sale to others.

resource

A term used to describe a server's disk space or processing capacity which are used by services.

resource type

The type of service or a service component that requires resources. Resource types include bandwidth, number of mailboxes, and disk space.

restore

To completely or partially return your system to a previous file configuration state by uploading backup files from an archive.

reverse record

A record that associates an IP address with a canonical or alias name. PTR records are used to convert IP addresses to host names. This is known as reverse lookup.

S

scope

Logical groupings of IP addresses associated with a specific subnet mask.

secondary name server

The backup Domain Name System (DNS) server that translates alphabetic domain names into numeric IP addresses.

Secure Socket Layer (SSL)

An Internet security protocol that encrypts data when it is transferred over the Internet. Enabling SSL allows you to transfer data securely between your Web server and your visitor's Internet browser.

sendmail server

An SMTP (Simple Mail Transfer Protocol) mail server that routes SMTP email messages through the Internet to be stored on a mail server, such as POP3 or IMAP. SMTP is the most widely used email protocol on the Internet.

server

A computer and other device that allocates and manages the sharing of resources for a network. A server provides information or other services to its clients. While a server usually refers to an entire machine, it can also refer to a particular daemon on that machine.

service

The applications and components sold to resellers and organizations. Each service is installed on a service-specific hosting server or resource.

service component

The software elements that compose a service.

service provider

An entity that sells services, such as Internet access or Windows Web Hosting, to resellers, organizations, and individuals.

shared server or shared resource

A hosting server or resource, such as a mailbox store, that has been or can only be sold to multiple organizations. Some resources, such as mailbox stores, are identified as shared resources when they are registered with the system. These resources can be sold to multiple organizations. By contrast, resources that are registered as dedicated resources can be sold to only one organization.

Note that the term shared resource differs from the status of a resource, which can be Shared, Dedicated, or Free. For example, a shared mailbox store could have the status Dedicated if it has been sold to a single organization. A dedicated mailbox store, however, could only be listed as Free, if it was not in use, or Dedicated if it had been sold. A dedicated mailbox store could never have the status Shared.

Simple Mail Transfer Protocol (SMTP)

The most widely used email protocol on the Internet.

Simple Network Management Protocol (SNMP)

A network management protocol used for configuring and monitoring devices on IP networks.

site

A group of individuals, usually collected into a company or business unit, that contracts with a service provider for its services.

site administrator

Administrators who belong to sites and use the site administrator control panel to manage site services, resources, and users. Site users can be given site administrator privileges.

site user

Users who belong to a site and use the user administrator control panel to manage their own accounts and services.

SMTP

Simple Mail Transfer Protocol. The most widely used email protocol on the Internet.

SNMP

Simple Network Management Protocol. A network management protocol used for configuring and monitoring devices on IP networks.

SOA record

The Start of Authority (SOA) record contains information about the DNS zone and its records. Each zone contains a single SOA record. When you add a zone for a domain, an SOA record is automatically created.

The SOA record:

- Designates the start of the zone and specifies where in the domain name space the name server has authority.
- Specifies that the primary server should notify the secondary server when changes are made to the zone database.
- Provides contact information for a zone. Every zone's SOA record contains the email address of the zone's technical contact.

specification file

A file that contains details about an object.

SSL

Secure Socket Layer. An Internet security protocol that encrypts data when it is transferred over the Internet. Enabling SSL allows you to transfer data securely between your Web server and your visitor's Internet browser.

subnet

A portion of a network that shares a common address component. On TCP/IP networks, subnets are defined as all devices whose IP addresses have the same prefix. For example, all devices with IP addresses that start with 100.100.100. would be part of the same subnet. Dividing a network into subnets is useful for both security and performance reasons. IP networks are divided using a subnet mask.

subnet mask

A mask, or filter, used to determine to what subnet an IP address belongs. An IP address has two components, the network address and the host address. The mask is a binary pattern that is matched up with the IP address to turn part of the host ID address field into a field for subnets. For example, consider the IP address 150.215.017.009. Assuming this is part of a Class B network, the first two numbers (150.215) represent the Class B network address, and the second two numbers (017.009) identify a particular host on this network. Subnetting enables the network administrator to further divide the host part of the address into two or more subnets. In this case, a part of the host address is reserved to identify the particular subnet.

T

template

A guide you can use to pre-fill information on forms when creating entities such as resellers, organizations, and email messages.

threshold

The percentage of the resource that, when assigned, triggers an alert. When the resource allocation reaches the threshold, email is sent to the specified address stating that resources are low. This allows an administrator to take action before resources are exhausted.

U

URL

Uniform Resource Locator. The address that defines the route to a file on the Web or any other Internet facility. The URL contains the protocol prefix, port number, domain name, subdirectory names, and file name.

usage monitoring

Reports that enable service providers and resellers to view (and eventually bill for) application usage by resellers and organizations.

V

vacation message

A mail utility that automatically sends a standard reply message to an email message.

Z

Zone

A unit of domain name space managed by one DNS server.