

# CONFLICT CHECKER GUIDE



VERSION 8

**Prism Suite Quick Start Guide** published June, 2007

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Prism Suite is protected under US patent number 6,564,369

### **Additional Notes**

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## Getting Started

### Introducing Conflict Checker Professional

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Welcome to Conflict Checker Professional, an easy-to-use tool for finding conflicts in Prism files. Conflict Checker compares the contents of Prism files and reports the potential conflicts.

There are four simple steps to follow in using Conflict Checker:

1. *Load the desired Prism files* into Conflict Checker.
2. *Set conflict checking options.*
3. *Start the Conflict Checker.*
4. *View the report* of conflicts found (if any).

Conflict Checker runs on the Microsoft Windows 2000/XP and higher operating systems. Conflict Checker is a 32-bit application.

See the New Boundary Technologies Web site at [www.newboundary.com](http://www.newboundary.com) for more information on Conflict Checker.

### What Conflict Checker Can Do

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- Quickly and easily detect conflicts within one Prism file or between two or more files.
- Check for file conflicts in the **Deleted Items**.
- *Generate a conflict report.*
- *Save the conflict report to a file or print the report* to the default printer.
- Help you understand the computer's configuration and how applications' setup programs affect the computer's configuration.
- Evaluate the contents of Prism files before distribution to prevent distribution of conflicts and to ensure that Prism files are installed correctly.

### What Conflict Checker Cannot Do

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Conflict Checker:

- Cannot detect initialization (INI) file settings conflicts.
- Cannot modify Prism files.
- Cannot resolve any conflicts detected—you must evaluate the conflicts and decide on appropriate corrective action, if any.
- Cannot determine the "correct" version of a file (for version conflicts).
- Cannot determine the "correct" folder for a file (for folder conflicts).

### Understanding Prism Files

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In order to understand Conflict Checker, you must first have a basic understanding of Prism Deploy and the files it creates. The types of Prism files are:

#### Picture

Prism Deploy records the settings on the computer and refers to this record as a Picture. A Picture is a collection of Windows registry settings, initialization (INI) files, directories, shortcuts, and so on.

## Conflict Checking Guide

Prism Deploy makes an image of each item, collects them all into one Picture, and stores the file in a compressed format. You can edit these files directly from the Editor.

### Package

You can change the computer's settings and then use the Editor to compare the changes with a Picture. Prism Deploy stores the changes found during the comparison in a Prism file called a Package. A Package is used to install changes on another computer.

### Prism Self-Installing Files

A Package can be saved as a Prism Self-Installing file. A Prism Self-Installing file has an .EXE extension. It contains the files, registry keys, INI file lines, shortcuts, or text file sections that were added, changed, or deleted.

The Prism Self-Installing file differs from a Package in that the Client is not needed on the target machine in order to install the file. Prism Self-Installing files are most useful when for providing updates for a computer at a remote site or users who are not part of your company.

## System Requirements

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<b>Operating System:</b>	Windows 2000, Windows XP, or Windows Server 2003
<b>Browser:</b>	Internet Explorer version 5 or higher
<b>Processor</b>	Pentium or equivalent
<b>RAM</b>	32 MB minimum
<b>Hard disk space</b>	4 MB

**Note:** You must be an administrator-equivalent user to install Conflict Checker.

**Note:** To view the *Conflict Checking Guide* you must have Adobe Reader installed. All of the information in this guide is also available through the online Help.

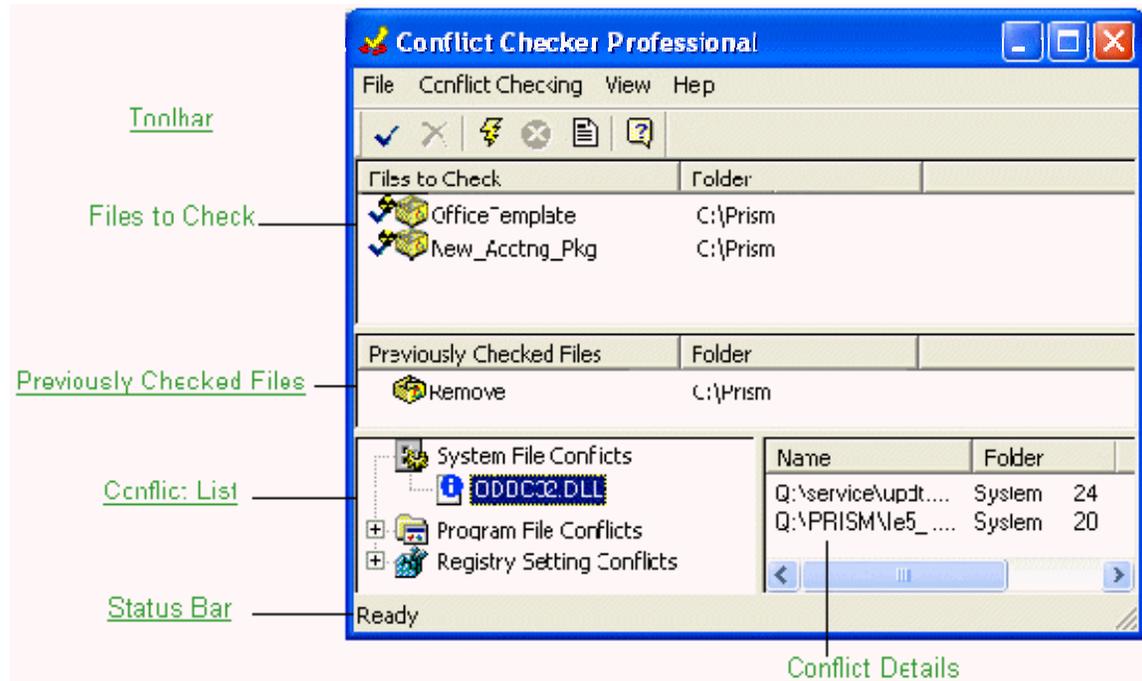
# Working with Conflict Checker

## The Main Window

### Conflict Checker Main Window

From the Conflict Checker main window, you *manage the list of files* to be checked, *start and stop conflict checking*, *view conflicts*, and *generate conflict reports*.

The Conflict Checker main window includes the following features:



### Toolbar

The toolbar in Conflict Checker is detachable. To move the toolbar, place the pointer on the toolbar away from the buttons and drag the toolbar to another location.

Toolbar icons include:

- ✓ Add files to the Files to Check List
- ✗ Remove files from the Files to Check List
- ⚡ Start checking for conflicts
- ⊗ Stop checking for conflicts
- 📄 Report on conflicts
- 🗉 Open the About Conflict Checker dialog box

### Prism Files to Check List

The Files to Check list at the top of the Conflict Checker window displays a list of the Prism files to be checked for conflicts.

- The **File to Check** column shows the name of the file without its extension.
- The **Folder** column shows the location of the file.

The type of file is indicated by the icon displayed to the left of the file's name:



At the far-left side of the panel, a Conflict Checker icon displays information about the status of conflict checking for the file:

- Blank (no icon):** The file has not been checked for conflicts.
-  The file has been checked for conflicts and none were found.
-  The file has been checked for conflicts and conflicts were found.
-  Conflict checking was attempted for the file, but an error occurred. For example, the file may be in use by another application, such as Prism Deploy.
-  The file is currently being checked for conflicts. The progress meter in the *Status Bar* indicates the conflict checking progress.

In the file list, you can right-click on a file to display a pop-up menu of options. You can also select multiple files by pressing the <Ctrl> or <Shift> key while clicking on the files.

When you exit Conflict Checker, the files in the file list are stored so that the next time you start Conflict Checker, the most recent file list is automatically loaded.

### Previously Checked Prism Files List

The **Previously Checked Files** list is only visible when you have moved files to the list. When the list is empty, only the *Files to Check list* is visible. Once you have moved one or more Prism files to the Previously Checked Files list, Conflict Checker automatically displays the window, in a new row immediately below the **Files to Check** window.

The information displayed for each file in the Previously Checked Files list is identical to the Files to Check list. Use the list exactly as you would the Files to Check list, with one exception. For obvious reasons, the **Move to Previously Checked Files** option is not available. (See *Working with the Files to Check List*.)

**Hint:** If you make a mistake, and accidentally move a file to the Previously Checked Files list, you cannot move it back to the Files to Check list. Instead, you must delete the file from the Previously Checked list, then add it to the Files to Check list.

### Conflict List

The conflict list at bottom left of the Conflict Checker window displays the three categories of conflicts:



## Registry Settings

After conflicts have been checked, the number of conflicts found in each category is shown in parentheses.

You can *expand the conflict list* to view the *file entries* that have conflicts in each category. The conflict details are displayed in the *conflict details* area of the window.

## Status Bar

At the bottom of Conflict Checker is the status bar.



In its normal state, the status bar displays information about the current status of Conflict Checker. On the far left of the status bar, a message indicates whether Conflict Checker is ready for your commands. This space also shows a brief description of a command when the pointer is directly over a *Toolbar* button or a menu option.

When you start conflict checking, the status bar displays information about the progress of the conflict checking. The overall progress is indicated by a message such as "Checking Prism file 1 of 2."

## Conflict Details

The conflict details for the selected *file entry* in the *conflict list* are displayed at bottom right of the Conflict Checker window.

Conflict details display the information for each conflict in five sizable columns:

- **Name:** Displays the names of all the Prism files that contain conflicts for the currently selected entry. It is possible for a file to be displayed more than once in this list, since several folder conflicts can occur within a single file.
- **Folder:** Shows the folder location within the Prism file for the currently selected entry.
- **Size (bytes):** Shows the file size stored in the Prism file for the currently selected entry.
- **Modified:** Shows the date and time stamp stored in the Prism file for the currently selected entry.
- **File Version:** Shows the version information stored in the Prism file for the currently selected entry. In some cases, this column may be empty for a particular conflict. This can occur for several reasons:
  - The file does not contain version information. For example, MS-DOS applications or older Windows programs may not include version information.
  - For performance reasons, Conflict Checker only accesses version information when it is necessary to determine whether an apparent discrepancy between files is a true conflict.
  - Conflict Checker uses Prism file data to determine version information for an entry. For some file entries, the contents of the files are not stored in the Prism file, so it is not possible to obtain the file's version information.

To view the *version properties* of a file listed in the conflict details section, right-click to bring up all available details about the file.

## Customizing Conflict Checker

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### Setting Conflict Checker Options

The **Options** dialog box configures how Conflict Checker looks for conflicts. To open the **Options** dialog box, select **Conflict Checking | Options**.

Tabs on this dialog box include:

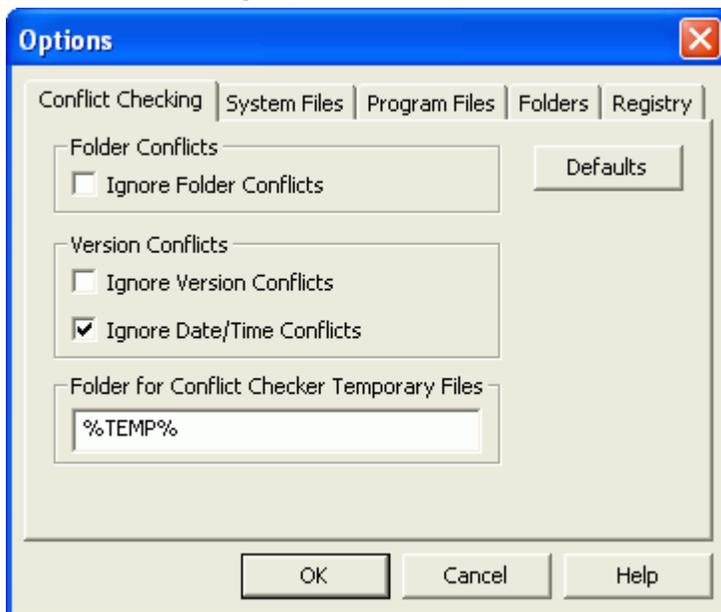
- *Conflict Checking*
- *Folders*
- *Program Files*
- *Registry*
- *System Files*

If the current *Files to Check list* has been checked for conflicts, when you change the conflict checking options Conflict Checker re-checks the file list according to the new preferences.

### Restoring Conflict Checker Options to Their Default Values

The **Defaults** button on each tab restores all settings to Conflict Checker's default values. The settings are restored individually on each tab, so if you want to restore all settings, you must click the **Defaults** button on each tab.

### Conflict Checking Options tab



Use the **Options | Conflict Checking** tab to customize how conflicts are evaluated.

#### **Folder Conflicts**

Select the **Ignore Folder Conflicts** check box to have Conflict Checker ignore *folder conflicts* when it evaluates conflicts.

#### **Version Conflicts**

Select the **Ignore Version Conflicts** check box to have Conflict Checker ignore *version conflicts* when it evaluates conflicts.

### Date and Time Conflicts

By default, Conflict Checker ignores date and time conflicts. This behavior helps to prevent reporting of false version conflicts.

Here is how Conflict Checker uses the date/time information when determining if a true version conflict exists between two files:

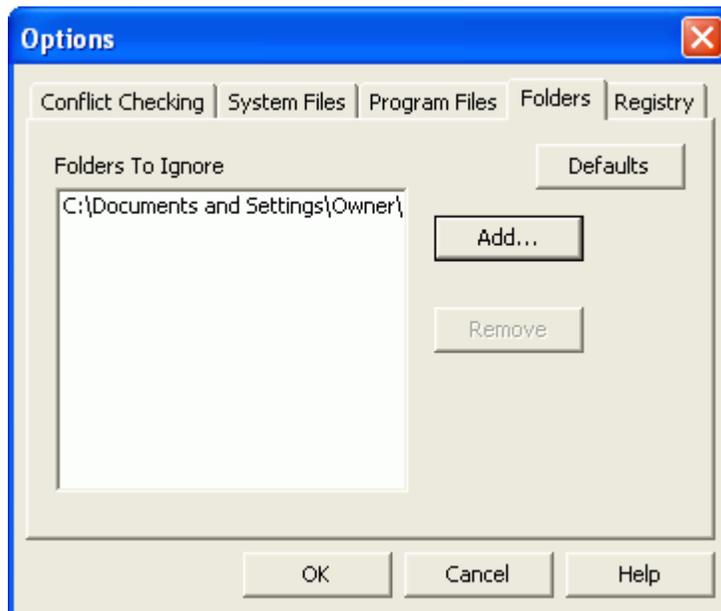
- If the size and version information is the same but the date and time information is different, it is not considered a version conflict if the **Ignore Date/Time Conflicts** option is selected.
- If the contents of the files are stored in the Prism files, Conflict Checker compares the contents using a CRC computation.
- If the file contents are equivalent, then the date and time discrepancy is not considered a version conflict.

If you prefer that all date and time discrepancies are reported as version conflicts, regardless of file contents, then uncheck the **Ignore Date/Time Conflicts** box.

### Folder for Conflict Checker Temporary Files

In some cases, Conflict Checker temporarily extracts the contents of a file from a Prism file to determine if there is a version conflict. When creating temporary files, Conflict Checker uses the folder defined in the **Folder for Conflict Checker Temporary Files** text box. The default value is %TEMP%. (%TEMP% is the variable for the Windows TEMP directory.) Conflict Checker always removes files it has placed in the TEMP directory, so you are not left with unneeded temp files.

### Folder Options tab



The **Options | Folders** tab defines a list of folders to be ignored when checking for conflicts. When you configure Conflict Checker to ignore a folder, the *file entries* in that folder are not reported, even if there is a conflict. The folder's subdirectories are ignored as well.

For example, an application might back up system files and place the backup in the SYSBACKUP subdirectory of the WINDOWS directory or C:\WINDOWS\SYSBACKUP. If this folder is subsequently included in the Prism files, Conflict Checker will detect folder conflicts for the system files that occur in the WINDOWS directory and the SYSBACKUP subdirectory. If you decide that these conflicts are harmless and you do not want to include them in future conflict evaluations, add C:\WINDOWS\SYSBACKUP to the list of folders to ignore.

## Conflict Checking Guide

To specify a folder to ignore (including its subdirectories) click the **Add** button. The *Folder to ignore* dialog box opens.

### Select the Folder to Ignore dialog

The **Folder to Ignore** dialog box opens when you click the **Add** button in the *Options | Folders* dialog box.

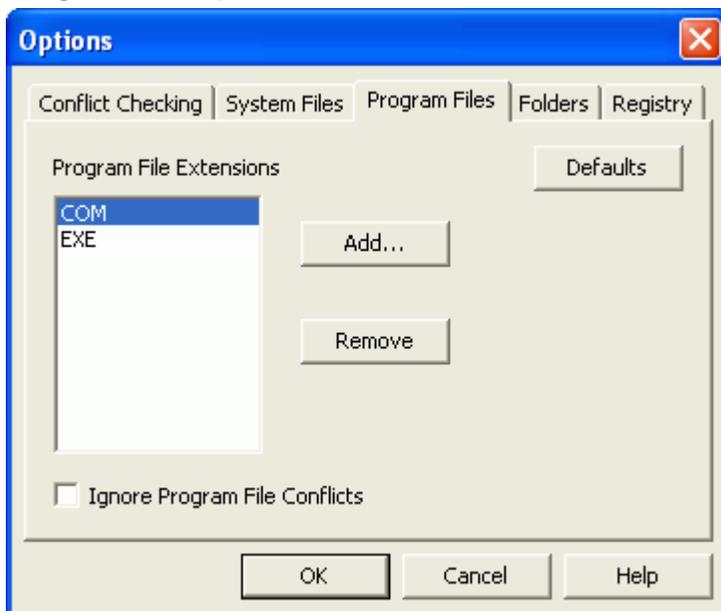
Specify a folder (and sub-folders) to ignore when checking for folder and version conflicts. There are several ways to specify a folder to ignore:

- Type the full path of the folder, for example **c:\windows\system**.
- Click on the drop-down list, and select one of the pre-defined variable folder names, for example **System**.
- Click on the drop-down list, select one of the pre-defined variable folder names, for example **Windows**, then type in a subfolder.

For example, after selecting the Windows folder from the drop-down list, you could type \System to specify the WINDOWS\SYSTEM folder.

- Click the browse button  to open the **Browse for Folder** dialog box.

### Program File Options tab



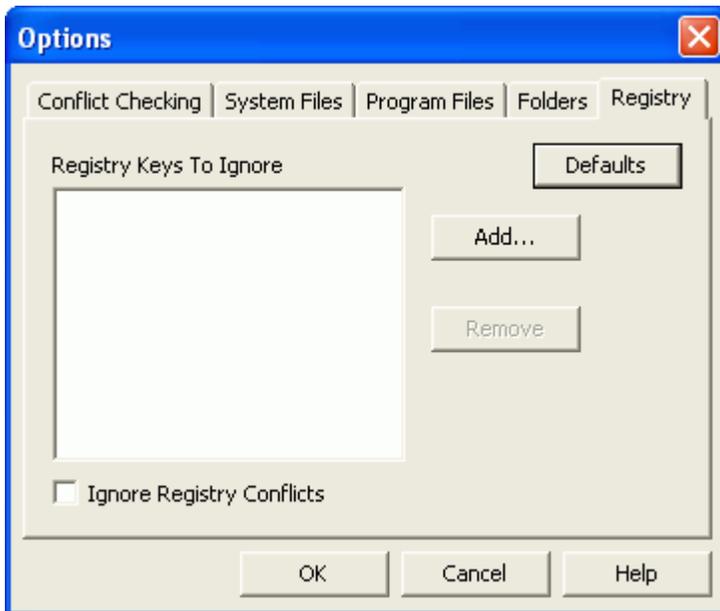
The **Options | Program Files** tab defines the settings that Conflict Checker uses for evaluating program file conflicts.

The program file extensions that Conflict Checker evaluates are listed on this tab. Conflict Checker filters out file extensions that are not included in this list. When a file extension is encountered that is included in the list, Conflict Checker examines the entry for conflicts against other entries.

Use the **Add** and **Remove** buttons to manage the list of file extensions that Conflict Checker uses when looking for program file conflicts.

To ignore all program file conflicts select the **Ignore Program File Conflicts** checkbox. It is not necessary to individually remove all of the extensions from the list of program file extensions.

## Registry Options tab

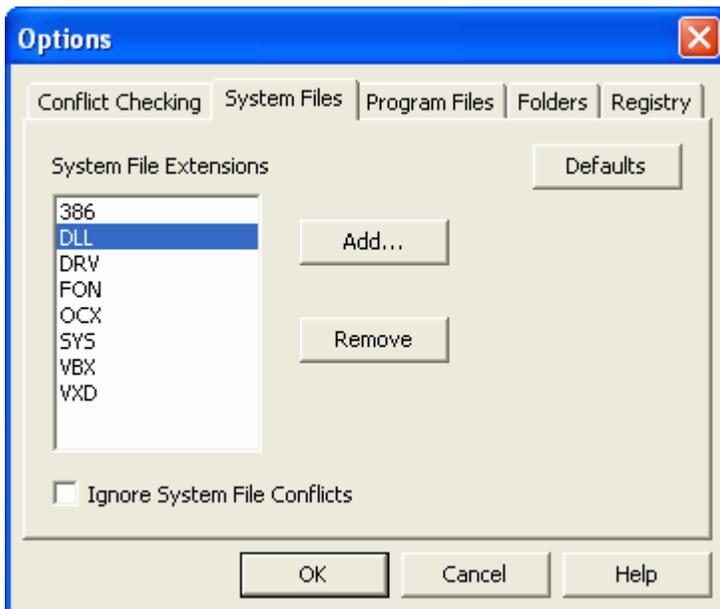


The **Options | Registry** tab defines a list of registry keys to be ignored when checking for conflicts.

To add a registry key to the list, click the **Add** button and type the name of the registry key in the **Registry key to ignore** dialog box.

Select the **Ignore Registry Conflicts** check box to have Conflict Checker ignore *registry conflicts* when it evaluates conflicts.

## System File Options tab



The **Options | System Files** tab defines the settings that Conflict Checker uses for evaluating system file conflicts.

The system file extensions that Conflict Checker evaluates are listed on this tab. Conflict Checker filters out file extensions that are not included in this list. When a file extension is encountered that is included in the list, Conflict Checker examines the entry for conflicts against other entries.

Use the **Add** and **Remove** buttons to manage the list of file extensions that you want Conflict Checker to use when looking for system file conflicts.

If you want to ignore system file conflicts altogether, you do not need to remove all the extensions from the system file extensions list. Instead, check the **Ignore System File Conflicts** checkbox.

## Finding Conflicts

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### Working with the Files to Check List

#### ***Adding a File to the File List***

To add a Prism file to the *file list*:

1. Select **File | Add** or click  in the *toolbar*.

The **Select file to check for conflicts** dialog box displays.

2. From the **Look in:** drop-down list, select the folder where the Prism file is located.
3. Select the file that you want to add to the file list. Click **Open**.
4. Conflict Checker adds the file you selected to the file list:

If the file you selected is already in the file list, Conflict Checker does not add a second instance of the file to the list.

When you add files to the file list, conflicts are not checked until you *start conflict checking*.

#### ***Removing a File from the File List***

To remove a file from the file list:

1. Select a file in the file list.
2. You now can:
  - Select **File | Remove**.
  - Click  in the toolbar.
  - Right-click on a file and choose **Remove** from the pop-up menu.

The selected file is removed from the file list. If conflicts were checked for the list before you removed the file, Conflict Checker automatically updates the *conflict list*.

#### ***Moving a File to the Previously Checked Files List***

To move a file to the Previously Check Files list:

1. Select a file in the **Files to Check** list. To select more than one file, hold the <Shift> or <Ctrl> key down while clicking on another file.
2. Select **File | Move to Previously Checked Files** or right-click on a file and choose **Move to Previously Checked Files** from the pop-up menu.

The selected file or files are moved from the **Files to Check** list to the *Previously Checked Files list*. If you checked the files for conflicts before moving them, Conflict Checker automatically updates the list of conflicts.

**Note:** When you move one or more unchecked files from the **Files to Check** list to the Previously Checked list, a confirmation message displays. Click **Yes** to move the files or **No** to cancel the move.

### **Clearing the File Lists**

To quickly remove all the files from the lists, select **File | New**.

## **Starting and Stopping Conflict Checking**

### **Starting Conflict Checking**

Once you have *added the file(s)* to the *Files to Check list*, you can check conflicts by choosing **Conflict Checking | Start** or clicking  in the *toolbar*.

When the file has been checked, Conflict Checker displays a message indicating the number of potential conflicts found, and the number of Prism files checked.

### **Stop Conflict Checking**

To stop conflict checking before it is completed, you can either choose **Conflict Checking | Stop** or click  in the toolbar.

## **Expanding and Collapsing the Conflict List**

In the *conflict list*, a plus sign (+) or a minus sign (-) is displayed to the left of each conflict category to indicate there are conflicts in the category. A plus sign indicates that the category contains conflicts that are not displayed. A minus sign indicates that a category has been expanded and the conflicts are displayed.

### **To expand a conflict category**

Click on the plus sign (or double-click on the name) for a category to select and expand it.

### **To collapse a conflict category**

Click on the minus sign (or double-click on the name) for a category to select and collapse it.

## **Working with Conflict Checker Configuration Files**

You can save the current lists of Prism files you are working on as a *Conflict Checker configuration (CCC) file*, whether it is a new CCC file or it existed previously. You can save a copy of the current lists of Prism files with a different name or in a different location.

### **Saving a New Configuration File**

To save a new Configuration file:

1. Select **File | Save**. The **Save As** dialog box opens.
2. From the **Look in:** drop-down list, select the folder where you wish to save the new CCC file.
3. In the **File name** box, type a name for the CCC file. Click **Save**.

This saves the configuration file. Notice the Conflict Checker caption is updated to indicate the currently active configuration file.

### **Saving an Existing Configuration File**

To save an existing Conflict Checker configuration (CCC) file containing the current lists of Prism files, select **File | Save**.

### **Saving a Copy of an Existing Configuration File**

To save a copy of a Configuration file:

1. Select **File | Save**. The **Save As** dialog box opens.
2. From the **Look in:** drop-down list, select the folder where you want to save a copy of the CCC file.
3. In the **File name** box, type a name for the CCC file. Click **Save**.

### **Loading Previously Saved Lists from a Configuration File**

To restore previously saved lists of Prism files by opening an existing Conflict Checker configuration (CCC) file:

1. Select **File | Open**. The **Select a configuration file** dialog box opens.
2. From the **Look in:** drop-down list, select the folder where the CCC file is located.
3. Select the configuration file that you want to load. Click **Open**.

Conflict Checker clears the current file lists, and loads the lists stored in the configuration file. If the lists include files in the Previously Checked Files list, then Conflict Checker displays the *Previously Checked Files list*.

## Viewing Conflict Details

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### **Viewing Entry Properties**

To view the properties for a *file entry*, right-click on a row in the *conflict details* and select **Properties** from the pop-up menu. You cannot change any settings or attributes for the file entry, but they may help you understand the nature of the conflict.

### **Viewing Version Properties**

To view version properties for a *file entry*, right-click on the entry in the *conflict details*. The information displayed is similar to the Version Properties tab in Windows Explorer.

The **Item name** list in the **Version Properties** dialog box includes the CRC32. This is a 32-bit cyclical redundancy check (CRC32) value computed by Conflict Checker. The value is displayed in hexadecimal notation. You do not need to understand the basis for the CRC32 computation. However, it is helpful to know that the CRC32 value represents the contents of a file in a way that can be used to compare two files. If the CRC32 values differ, the two files do not have the same content.

In some cases, it is not possible for Conflict Checker to report version properties for a file entry. For example, if the file contents were not stored in a Picture, you may see a message such as:

Other version and copyright information is not available.  
File contents were not stored in the Prism file.

## Reporting Conflicts

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### **Conflict Reports**

You can generate reports of the conflicts found by Conflict Checker. There are several ways to generate conflict reports:

#### **All Conflicts**

To report all conflicts:

- Select Conflict Checking | Report.
- Click  in the toolbar.

### **Conflicts by Prism File**

To report conflicts by *Prism file*:

- Right-click on a file in the *Files to Check list* and select **Report** from the pop-up menu. Or double-click on the file.

### **Conflicts by Entry**

To report conflicts by entry:

- Right-click on an entry in the *conflicts list* and select **Report** from the pop-up menu. Or double-click on the entry.

### **Viewing the Report**

In each case, the conflict information is presented in a format similar to the *conflict list* and *conflict details*, except that the report may be *printed* or *saved as a text file*.

The conflict details information is comma-delimited in the following order:

Size (bytes)  
 Last Modified Date and Time  
 Version  
 Folder  
 Prism file

#### **For example:**

449296,11/17/04 16:41,4.72.2106.4,"System","E:\pictures\Picture 1.PWF"

### **Report All Conflicts**

Use any of the following options to report all conflicts:

- Choose **Conflict Checking | Report**.
- Click  in the *toolbar*.
- Run Conflict Checker from the command line. (See *Generating a Conflict Report from the Command Line*.)

All conflicts are included in the report. The following is an example of a Conflict Checker report of all conflicts:

#### **System file conflicts**

AVICAP.DLL

72272,08/24/04 11:11,4.0.0.950,"System","E:\pictures\Picture 1.PWF"

72272,08/24/04 11:11,4.0.0.950,"Windows\sysbckup","E:\pictures\Picture 1.PWF"

AVIFILE.DLL

109424,08/24/04 11:11,4.0.0.950,"System","E:\pictures\Picture 1.PWF"

109424,08/24/04 11:11,4.0.0.950,"Windows\sysbckup","E:\pictures\Picture 1.PWF"

COMMCTRL.DLL

154880,07/16/04 21:39,4.0.0.950,"System","E:\pictures\Picture 1.PWF"

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154880,07/16/04 21:39,4.0.0.950,"Windows\sysbckup","E:\pictures\Picture 1.PWF"

COMCTL32.DLL

449296,11/17/04 16:41,4.72.2106.4,"System","E:\pictures\Picture 1.PWF"

182272,07/11/02 09:50,4.0.0.950,"System","E:\pictures\Picture 2.pwf"

### Program file conflicts

No conflicts found

Registry setting conflict

No conflicts found

**Note:** In the above example, the first three entries are examples of folder conflicts and the last (COMCTL32.DLL) is an example of a version conflict.

## Report Conflicts by Prism File

To generate a conflict report by Prism files, right-click on a file or files in the *Files to Check list* and select **Report** from the pop-up menu. You can also double-click on a file. Only the conflicts for the selected Prism file(s) are included in the report.

The following is an example of a Conflict Checker report by Prism file:

### System file conflicts

E:\pictures\Picture 1.PWF

COMCTL32.DLL

449296,11/17/04 16:41,4.72.2106.4,"System","E:\pictures\Picture 1.PWF"

182272,07/11/03 09:50,4.0.0.950,"System","E:\pictures\Picture 2.pwf"

COMPOBJ.DLL

31120,08/24/04 11:11,2.20.44,"System","E:\pictures\Picture 1.PWF"

31120,08/24/04 11:11,2.20.44,"Windows\sysbckup","E:\pictures\Picture 1.PWF"

30976,07/11/02 09:50,2.20.40,"System","E:\Pictures\Picture 2.pwf"

OLEAUT32.DLL

491792,06/04/04 10:51,2.20.4054.1,"System","E:\pictures\Picture 1.PWF"

490256,09/18/04 00:00,2.20.4122.1,"System","E:\Pictures\Picture 2.pwf"

E:\Pictures\Picture 2.pwf

COMCTL32.DLL

449296,11/17/04 16:41,4.72.2106.4,"System","E:\pictures\Picture 1.PWF"

182272,07/11/03 09:50,4.0.0.950,"System","E:\Pictures\Picture 2.pwf"

COMPOBJ.DLL

31120,08/24/03 11:11,2.20.44,"System","E:\pictures\Picture 1.PWF"

31120,08/24/03 11:11,2.20.44,"Windows\sysbckup","E:\pictures\Picture 1.PWF"

30976,07/11/02 09:50,2.20.40,"System","E:\pictures\Picture 2.pwf"

OLEAUT32.DLL

491792,06/04/04 10:51,2.20.4054.1,"System","E:\pictures\Picture 1.PWF"

490256,09/18/04 00:00,2.20.4122.1,"System","E:\pictures\Picture 2.pwf"

**Program file conflicts**

E:\pictures\Picture 1.PWF

No conflicts found

E:\Pictures\Picture 2.pwf

No conflicts found

**Registry setting conflict**

E:\pictures\Picture 1.PWF

No conflicts found

E:\Pictures\Picture 2.pwf

No conflicts found

**Note:** In this example, conflicts for two Prism files were reported.

**Printing a Conflict Report**

To print a *conflict report*, click the **Print** button in the **Conflicts Report** dialog box. The report is sent to the default printer.

**Saving a Conflict Report to a File**

You can save a conflict report to a file. There are many things you can do with a conflicts report file, including:

- Import the file into a spreadsheet or database application for additional tracking or analysis.
- Save it in an archive.
- E-mail it to a colleague for evaluation.

To save a conflict report to a file:

1. Click the **Save As** button in the Conflicts Report dialog box.

The **Enter a name for the report document** dialog box displays.

2. Enter a file name and choose **Save**.

Conflict Checker saves the conflict report in ASCII format.

**Generating a Conflict Report from the Command Line**

Conflict Checker reports can be generated through the graphical interface or by executing a command from a command line. When you run Conflict Checker from the command line, you get the same results as using  in the toolbar. The Conflict Checker command:

1. Checks for conflicts in the specified files
2. Displays a report on all conflicts

**Syntax**

```
"c:\Program Files\Prism Suite\ccpro.exe" [filename1] [filename2]...[filename_n]
```

The syntax above assumes that the Conflict Checker executable is installed in the C:\PROGRAM FILES\PRISM SUITE directory. If you installed the executable in another directory, replace the path shown here with the appropriate path.

**[filename]**

The name of a Prism file to check for potential conflicts.

**Note:** The [ ] indicate optional information. Do not type the bracket symbols when using the command.

**Example**

Suppose you plan to roll out two Prism files—one for a new application and one for a major update of an existing application. Before you install these programs on hundreds of computers, you want to compare the two Prism files for potential conflicts. To use the Conflict Checker command-line feature for this task, run the following command:

```
"C:\Program Files\Prism Suite\ccpro.exe" C:\packages\new_app.pwc C:\packages\new_app.pwc  
update_app.pwc
```

# Conflict Checker Definitions

## Prism File Entries

---

The items in a Prism file are entries. Entries include registry settings, folders, shortcuts, and files. Conflict Checker considers only **registry settings** and **file** entries when checking for potential conflicts.

In Conflict Checker, a file entry is identified by its file name, without the path; for example, URL.DLL. When a Prism file has been checked for conflicts, the *conflict details* show the Prism file in which the entry was stored, among other information.

## What Is a Conflict?

---

A conflict occurs when one or more Prism files include two or more *file entries* that are not consistent. Conflicts detected by Conflict Checker should be considered **potential** conflicts. It is up to you to determine whether the conflicts found by Conflict Checker may have an adverse effect on a PC's configuration.

Conflict Checker detects three types of conflicts:

- *version conflicts*
- *folder conflicts*
- *registry conflicts*

Conflict Checker also categorizes conflicts into three groups: system file conflicts, program file conflicts, or registry setting conflicts.

## Program File

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 A program file is an executable application file. Examples of program files include WIN.COM and EXPLORER.EXE.

## Registry Setting

---

 The registry is where Windows stores information about a user's desktop configuration; hardware-specific information; and software information, including information such as OLE (object linking and embedding) and file associations that support drag-and-drop operations and shortcuts.

## System File

---

 A system file is a file used by the Windows operating system or a particular application. Examples of system files include drivers (for example, DRV, VDX extensions), and dynamic link libraries (DLL extension).

## What Is a Folder Conflict?

---

A folder conflict occurs when one or more Prism files contain two or more instances of a *file entry* that specifies more than one folder location for the file.

Conflict Checker does not evaluate program files for folder conflicts. This is because finding multiple locations for an executable file is not considered a conflict. Only system files are evaluated for folder conflicts.

Folder conflicts are significant because:

- You can conserve disk space by reducing or eliminating replicated system files on your hard drive.
- You can gain control of which instance of a system file is used by applications. Since system files are often shared among two or more applications, eliminating replicated system files helps you control which instance is loaded when an application program or programs are invoked.

### Example of a Folder Conflict

You are running low on disk space on your **C:** drive. Use Prism Deploy to take a Picture of your **C:** drive. Then use Conflict Checker to find folder conflicts within this Picture. (You do not have to compare two Pictures. It is possible to have conflicts within a single Picture.) You discover that there are 38 folder conflicts on your **C:** drive, most of them are backups of system DLLs that were copied to a folder by the installation program of an application you installed six months ago. Since you have not experienced any problems, you decide that you can recover some disk space by moving the file backups from your **C:** drive to a Zip® disk.

## What is a Registry Conflict?

---

A registry conflict may occur in the following circumstances:

- Registry values with the same name, but different types, occur in the same registry key in two or more Prism files.
- Registry values with the same name and unequal data are located in the same registry key in two or more Prism files.

**Note:** Conflict Checker identifies a conflict between registry items if they are being added or changed. It will not check deleted registry items for conflicts.

### Example of a Registry Conflict

You have two Prism Self-Installing files, one containing an audio file player and one containing a video file player. In both Prism Self-Installing files there is a registry setting which designates the default player for MP3 files. This setting is stored as the data for the default registry value in the key "HKEY\_CLASSES\_ROOT\m3uFile\shell\open\command". Each Prism Self-Installing file has detected that this registry value should point to (such as, contain the path to) its application's executable file. When Conflict Checker finds this registry conflict, you decide that you want the audio player to be the default MP3 player.

## What Is a Version Conflict?

---

A version conflict occurs when multiple Prism files contain two or more *file entries* with different versions in the same folder.

To determine whether two or more file entries have different versions, Conflict Checker compares the file attributes such as:

- File size, in bytes
- File version information stored in the file, if available
- The file's last modified time and date

In some cases, Conflict Checker may even compare the file contents at the byte level to determine whether there is a true version conflict. In this case, a 32-bit cyclical redundancy check (CRC) algorithm is used to compare the file contents.

Conflict Checker can often prevent detection of false version conflicts. For example, if two apparently different versions of a file (because of inconsistent time and date attributes) have the same size in bytes, then the file contents are compared. If no difference is detected, then this discrepancy is not flagged as a conflict. If you want Conflict Checker to report time and date discrepancies, use the *Conflict Checking Options* to include date and time conflicts.

Version conflicts are significant because applications may require a particular version of a system file. Applications can also be incompatible with certain versions.

### Example of a Version Conflict

You have created a Prism file to distribute an office suite application, and another Prism file to distribute an Internet browser application. In both cases, Prism Deploy detected that the OLE2.DLL system file was installed to the WINDOWS/SYSTEM folder, and this entry is included in the Prism files. Unfortunately, the setup programs for the office suite and browser install different versions of this file. Not only are the date and time attributes for the file different, but the sizes of the file in bytes are different. Clearly, there are different versions of this file contained in the Prism files.

You decide that before distributing the applications to the 500 users on the network, and risk inadvertently distributing an incompatible version of the DLL, you will perform some compatibility testing.

## What Is a Previously Checked Prism File?

---

As you check the Prism files for conflicts, Conflict Checker lets you move the files to a list of previously checked files. Files in the *Previously Checked list* are checked for conflicts against the *Files to Check list*, but not against each other.

### Example

For example, suppose you have Conflict Checker configured with the following file lists:

#### Files to Check

Picture 3

Picture 4

#### Previously Checked Files

Picture 1

Picture 2

Package 1

Package 2

In this example, Picture 3 will be checked for conflicts against Picture 4, and against the four Prism files in the Previously Checked Files list. This is the **only** conflict checking that will be done. So if there are any conflicts between Picture 1 and Picture 2, for example, these will **not** be reported.

### Using the Previously Checked Files List

You move Prism files to the Previously Checked list to reduce the number of conflicts you must evaluate as you check new Prism files for conflicts.

Some of the conflicts you find in the Prism files are benign. For instance, you may have a backup directory of system DLLs that are reported as *folder conflicts* with the actual system folder DLLs.

You might evaluate these folder conflicts, and determine that they are unimportant for the purpose of distributing software packages.

Without the previously checked files list, each time you added a new file to the list of files to be checked for conflicts, these folder conflicts would be detected and reported. You could use the Conflict Checker options settings to ignore folder conflicts, but you would then risk missing folder conflicts that **are** significant.

To avoid re-evaluating the folder conflicts you are not concerned about every time you check for conflicts, move the file(s) to the **Previously Checked** list. Now, when you check for conflicts, any conflicts found between the files in the Previously Checked list are not reported.

Do not worry if this is a bit confusing at first. After checking some files for conflicts, move one or more files to the Previously Checked files list and watch what happens to the conflicts list. As you gain experience, you will find that this feature is valuable for detecting and preventing the conflicts that you want to correct before distributing the files.

## Conflict Checker Configuration Files

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The most recently used file lists are automatically stored when you exit Conflict Checker. The next time you start Conflict Checker, the most recently used file lists are automatically loaded. Often, this does not provide the flexibility that you need for managing the lists of *Files to Check* and *Previously Checked Files*. Conflict Checker offers the ability to save file list configurations (called a Conflict Checker configuration file). The file lists can be recalled and loaded from this configuration file at any time.

By default, Conflict Checker assigns the extension "CCC" (for Conflict Checker Configuration) to the configuration files.

**Note:** When a configuration file is open, the name of the file is displayed in the Conflict Checker caption. For example, when the file c:\Prism files\Master Package List.CCC is loaded, the caption reads:

Conflict Checker Professional- [c:\Prism files\Master Package List.CCC]

When a configuration file is not loaded, the caption indicated simply "Untitled":

Conflict Checker Professional - [Untitled]

### When to Use a Conflict Checker Configuration File

Use configuration files whenever you have a list of files to check and/or previously checked that would be time consuming and tedious to re-create.

For example, you have an extensive library of Prism files containing software updates and changes. You continuously add Prism files to the master list of files to be checked for conflicts, and eventually move them to the Previously Checked Files list. The Prism files are located in several different directories on the network. In this case, it is a good idea to save a record of your file lists in the form of a Conflict Checker configuration file. That way, you would not need to manually re-create your lists in the event of a system crash.

Or perhaps you want to do a special study and check for conflicts between just two of your Prism files. You can clear the file lists easily enough (select **File | New**), and then add the two Prism files to the **Files to Check** list. However, it would be difficult to re-populate your master lists. Since you can save your configurations, this task is minor.

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