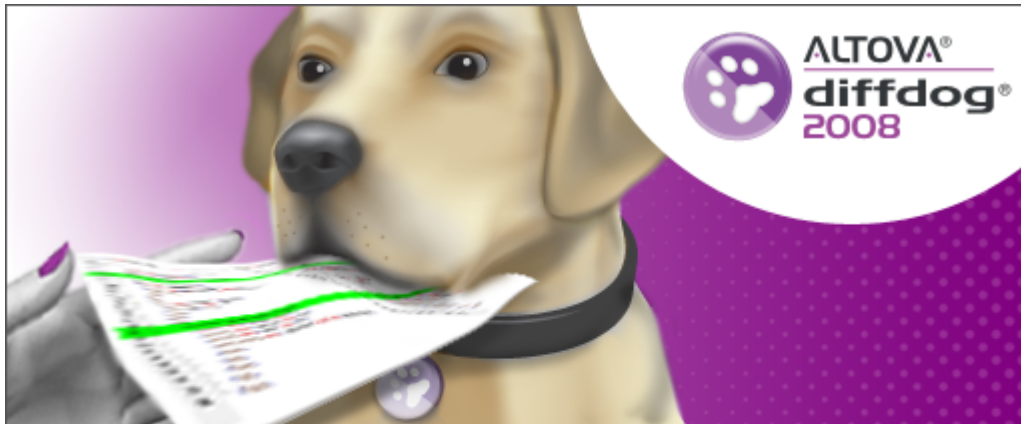


## User and Reference Manual



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## **Altova DiffDog 2008 User & Reference Manual**

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## **Chapter 1**

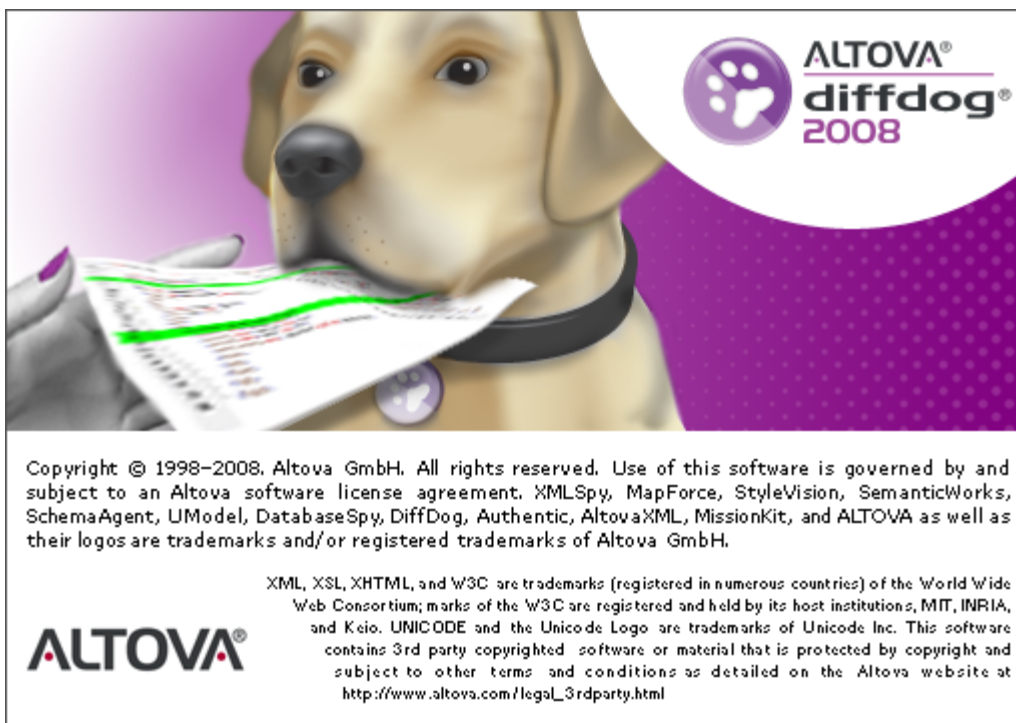
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### **About DiffDog**



# 1 About DiffDog

**Altova® DiffDog® 2008** is a powerful XML differencing application that intelligently finds differences between pairs of directories and between pairs of documents. Directories and files can be compared on different bases and according to a variety of options that you can change quickly in the GUI. The GUI also helps you to quickly spot and analyze differences, edit your documents directly within the interface, merge differences, and instantly re-compare edited documents. Additionally, the directory comparison functionality is linked to the file comparison functionality, thus enabling you to compare directories instantly and then to directly open and compare file pairs from within the directory comparison.





## **Chapter 2**

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### **Introduction**

## 2 Introduction

**Altova® DiffDog® 2008** enables you to intelligently find differences between a pair of directories and between a pair of documents. Directories and files can be compared on different bases and according to a variety of options that you can change quickly in the GUI. In addition, DiffDog allows you to synchronize the content of two directories and copy or delete changed files with a mouse click.

This User Manual describes the interface and the various features of DiffDog, and provides guidance on how to use DiffDog. It consists of the following parts:

- An **Introduction** (this section), which provides an overview of DiffDog features and a description of the interface.
- Guidance on [how to use](#) DiffDog. This section provides an overview of how to use the File Comparison and Directory Comparison features of DiffDog and also introduces you to various ways in which you can put these features to efficient use.
- A [User Reference](#), which contains a description of all the toolbar icons, menu commands, status and results messages, and command line usage of DiffDog.

### How to use this User Manual

We suggest that you read the sections titled [Introduction](#) and [Using DiffDog](#) in order to get an overview of the features of DiffDog and to learn how to use DiffDog. These two sections should give you all the information you need to get started using DiffDog. For subsequent reference, you should look up the [User Reference](#).

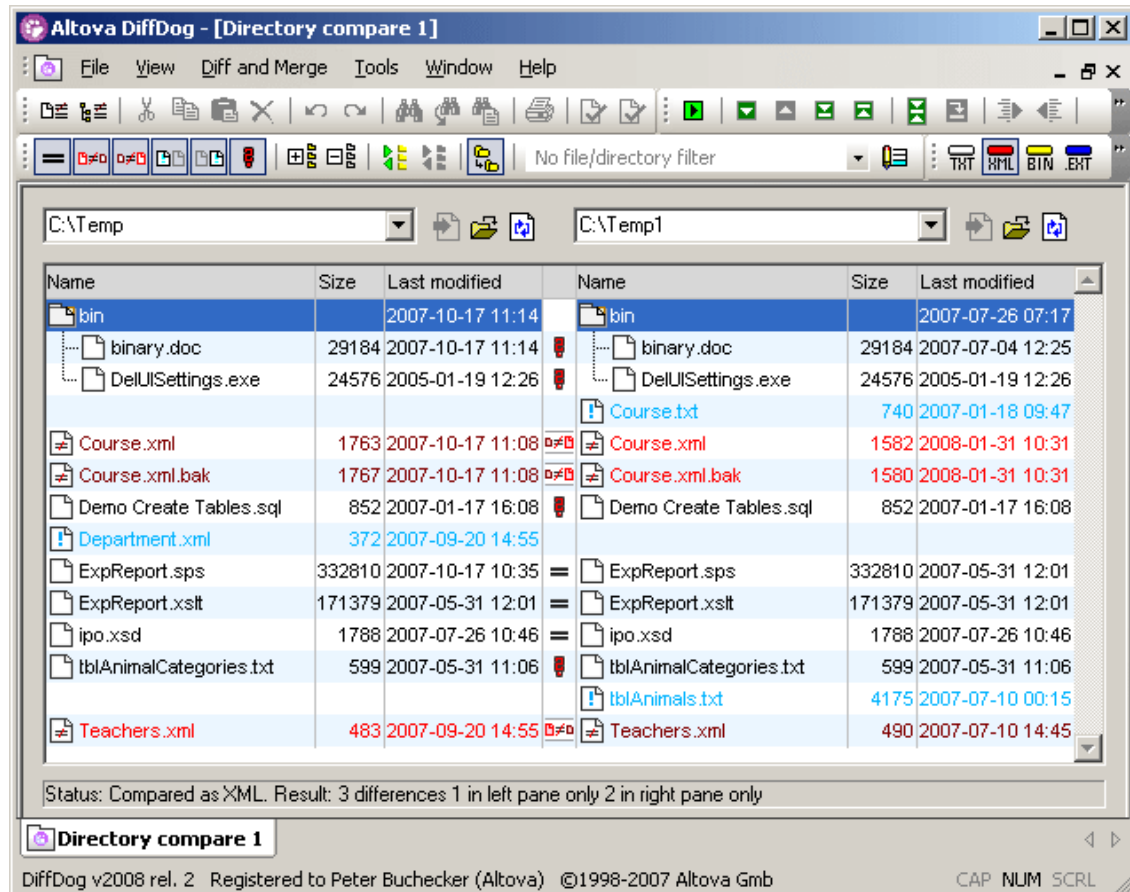
The User Manual is indexed so you can find topics quickly. Additionally, the onscreen Help provides full text search (**Help | Search**): Keying in a search term in the onscreen Help will pop up a list of topics in which the search term appears. This documentation is also available [online](#) and in [PDF format](#) at the [Altova website](#).

## 2.1 Product Features

DiffDog provides the following main features.

### Directory Comparison

A Directory Comparison in DiffDog is made in a Directory Comparison Window (*screenshot below*).

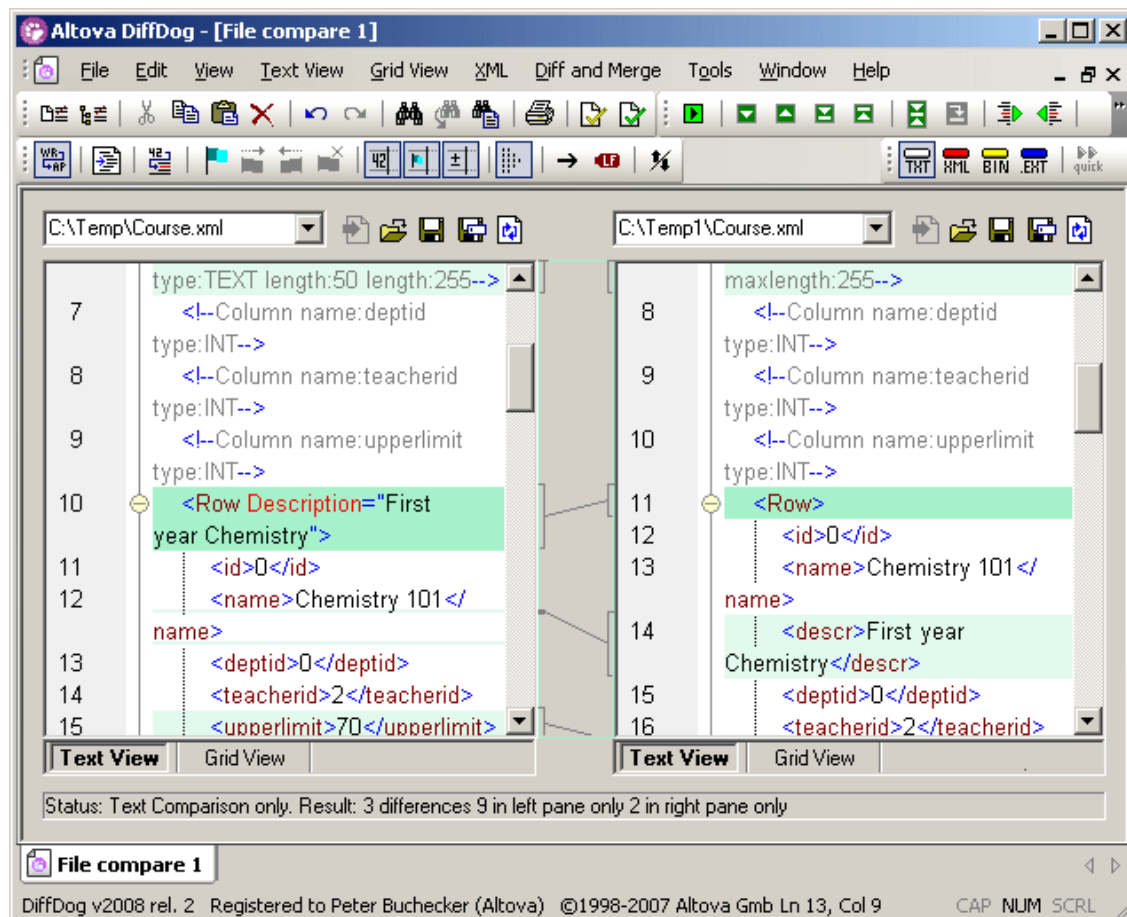


- The directories to be compared are opened in separate panes of a Directory Comparison Window.
- When opening a directory for comparison in a Directory Comparison Window, DiffDog provides a drop-down list of recently compared directories from which to select. Additionally, once a directory is selected to be opened in one pane, DiffDog can provide a list of directories with which that directory was previously compared; as a result previously compared pairs can quickly be opened in a Directory Comparison Window.
- You can specify what file types to compare and what file types to ignore in a Directory Comparison.
- Directories can be compared on the basis of the sizes and timestamps of files within them (Quick Comparison Mode), or on the basis of the contents of files.
- The compared directories are displayed as expandable/collapsible trees and show details such as file size and last modification date.
- The view of the compared directories can be configured on the basis of the comparison results. For example, equal directories and files can be hidden, and only non-equal folders and files shown.
- Differences between directories and files are indicated with color-coding and easy-to-identify icons.

- If a directory is modified outside DiffDog while it is open in a Directory Comparison Window, DiffDog can watch for changes and reload the directory if required.
- Non-equal directories and files can be copied from one pane (directory) to the other.
- You can also synchronize the directories, that is, copy all missing or updated files from one directory to the other or delete unneeded files.
- File comparisons can be started directly from within a Directory Comparison Window by double-clicking a file in a directory.

### File Comparison

A File Comparison in DiffDog is made in a File Comparison Window (*screenshot below*).



- The files to be compared are opened in separate panes of a File Comparison Window.
- Files to be compared are opened by browsing in Windows Explorer-type windows or from drop-down lists of previously opened files.
- DiffDog remembers file comparison pairs, and, when you select a file for comparison, provides a list of files with which the selected file was previously compared.
- Text files of any type can be compared.
- Files can be compared as text or as structured XML. You can also compare binary files, however DiffDog cannot display the changes within binary files, it can only detect whether or not a pair of binary files is equal.
- A wide range of comparison options are available, thus allowing you to define what aspects of files to compare and what aspects to ignore. Comparison options include settings for how whitespace and blank lines should be treated, whether case-sensitivity should be considered or not, whether differences should be indicated by line or

character, whether certain node types, namespaces, and the order of attributes and/or elements should be ignored, whether entities should be resolved, etc.

- If a file is modified outside DiffDog while it is open in a File Comparison Window, DiffDog can watch for changes and reload the file if required.
- Differences within files are indicated with background colors, and corresponding differences in the two panes are joined with lines, thus making visual analysis easier. Note that this does not apply to binary files!
- Vertical and horizontal scrolling of the two files in Comparison Windows can be synchronized. This enables corresponding differences always to be displayed simultaneously.
- A large range of navigation controls enables you to move easily among differences.

### File Editing and Merging in File Comparison Windows

- Files can be edited and saved directly within File Comparison Windows.
- Comparisons can be done dynamically as you edit.
- You can specify whether and how backups of files you edit should be kept.
- DiffDog provides high-level find-and-replace functionality, which also includes support for regular expressions.
- Differences between files can be merged, i.e. a different block in one file can be copied to replace the corresponding block in the other file.
- Editing and merging changes in either file can be undone an unlimited number of times.

### Interface

- Multiple Comparison Windows (Directory and File) can be opened in DiffDog at a time.
- Directory synchronization is done in a dialog that can be opened from the Directory Comparison Window after you have run a directory comparison, and which allows you to customize the default synchronization settings according to your needs.
- The GUI has user-friendly menu layouts, intuitive toolbar icons, right-click quick menus, and a status bar that summarizes the results of comparisons.
- You can customize the look of Directory Comparison Windows and File Comparison Windows, including the background colors that are used to highlight differences.
- The Text View of documents in File Comparison Windows provides line-numbering, source-folding (i.e. expandable and collapsible elements), indentation guides, bookmarking, syntax coloring, and whitespace and linefeed indicators.
- Syntax coloring can be adjusted according to file type.
- Files can be viewed in Text View or Altova's Grid View.
- Grid View displays structured documents, such as XML documents, in a tabular grid. This enables you to carry out large-scale changes easily (for example, inserting a column would insert the node represented by the column in all the nodes represented by the rows of the grid).

### Command Line

- DiffDog can be called from the command line. This feature is described in the section, [DiffDog from the Command Line](#).
- DiffDog can be integrated with any source control system which provides the possibility to set up a path to the DiffDog executable.

### System Requirements

Altova DiffDog runs on Windows Vista, XP, and 2000.

## 2.2 DiffDog Terminology

Terms used in this documentation are defined below.

### Comparisons

DiffDog enables you to make two kinds of comparisons: File Comparisons and Directory Comparisons (*see below*).

### File Comparison and File Comparison Window

A File Comparison is the process of comparing two files. The term is also used to refer to the display of results of the comparison. Each File Comparison is displayed in a File Comparison Window. Multiple File Comparisons can be open in DiffDog at a time, but only one may be active at any given time.

### Directory Comparison and Directory Comparison Window

A Directory Comparison is the process of comparing two directories. The term is also used to refer to the display of the results of the comparison. Each Directory Comparison is displayed in a Directory Comparison Window. Multiple Directory Comparisons can be open in DiffDog at a time, but only one may be active at any given time.

### Directories and Folders

These two terms are used interchangeably.

### Difference

Two types of differences are distinguished: (1) differences between two compared files, and (2) differences between two compared directories.

1. A difference between two files that are compared as text denotes a line of text in a file that is different from the corresponding line (if any) in the compared file. Note that the entire line is considered to be a single difference—even if the option to show differences within lines is selected. (This is significant when merging differences because the entire line will be merged; merges are not carried out at the character level.) A line of text is considered to be different from its corresponding line if one or more characters of text in it are different, if text is missing, or if a line is present for which there is no corresponding line in the compared file.

A difference between two files that are compared as XML denotes a node that is different from the corresponding node in the compared file. In general, nodes are considered different if the corresponding text values do not match. What constitutes a difference can be further refined in the Comparison Options dialog (**Tools | Comparison Options**).

2. Differences between two compared directories are determined by comparing corresponding files within the two compared directories. In Quick Comparison Mode, the file sizes and timestamps of the corresponding files are compared. If one of these is different, the files are said to be different. Alternatively, corresponding files within directories are compared on the basis of their contents. Such comparisons are carried out as normal DiffDog File Comparisons, and a difference causes the files to be flagged as different. *Also see the definition of Equal Files and Non-Equal Files.*

**Equal Files**

In Directory Comparisons, files that are identical according to the comparison options, are said to be equal.

**Non-Equal Files**

In Directory Comparisons, there are two types of non-equal files:

- A different file (*see definition of Difference above*), and
- A file that is present in one directory but not in the other.

Note that a non-equal file is not necessarily a different file.

**Merging**

Differences found in a File Comparison can be merged, that is, copied from one file to the other. The block that is copied overwrites the corresponding block or space in the compared file. Merges are performed for the active (current) difference, and can be performed in either direction.

**Note:** Non-equal files in a Directory Comparison can also be copied from one pane (directory) to the other.

**Synchronizing**

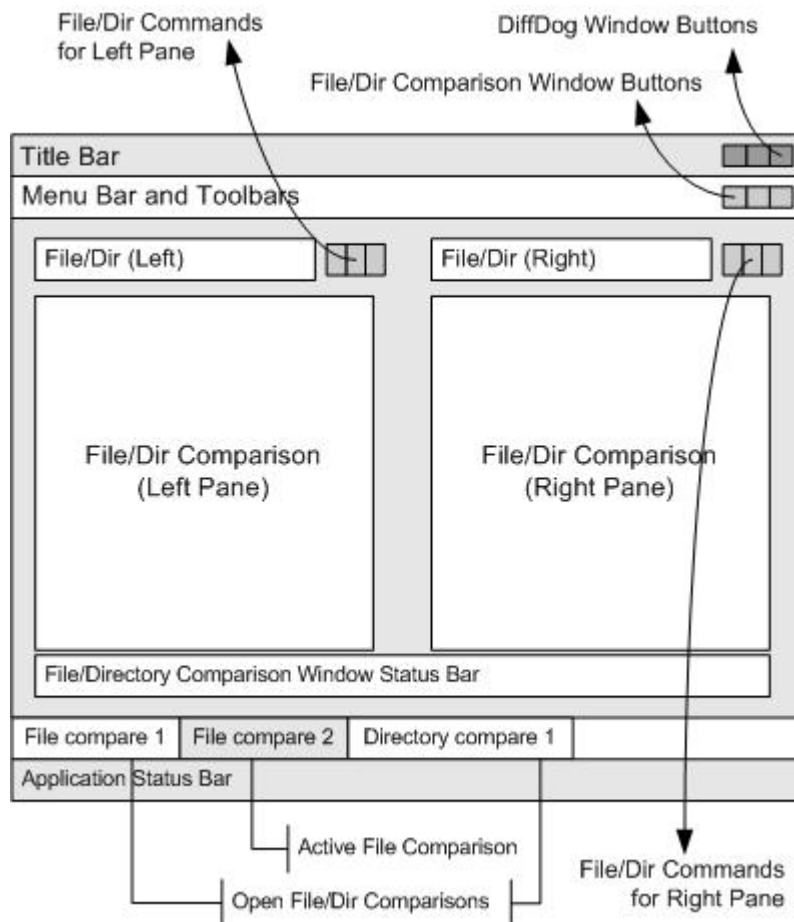
Two directories that are different are synchronized by copying or deleting, respectively, all non-equal files and sub-folders from one directory to the other, or by deleting files that are present in one directory but not in the other. The default synchronization options are displayed in the **Synchronize directories** dialog where they can be changed for the entire directory. Additionally, you can also edit the synchronization actions for individual files or sub-folders.

## 2.3 Interface

The DiffDog interface displays multiple File Comparison Windows and Directory Comparison Windows within the DiffDog application window. The schematic diagram below illustrates the main parts of the interface. It is accompanied by a brief description of the various interface parts.

### Title Bar

The Title Bar displays the application name (i.e. DiffDog) followed by the name of the active File Comparison Window or Directory Comparison Window. At the right-hand side are buttons to minimize, reduce or maximize, and close the DiffDog application window.



### Menu Bar and Toolbars

The Menu Bar displays the menus. Each toolbar displays a group of icons for DiffDog commands. You can reposition the menu bar and toolbars by dragging their handles to the desired locations. At the right-hand side are buttons to minimize, reduce or maximize, and close the active comparison window.

### File/Directory Comparison Window

Multiple File Comparison Windows and/or Directory Comparison Windows can be open at a time, but only one of them is active. The name of the active Comparison Window appears in the

title bar and its name tab (at the bottom of the DiffDog application window) is highlighted and the name itself is displayed in bold; the name tabs of the other open Comparison Windows are grayed out and the names are displayed in normal font. To make another Comparison Window the active Comparison Window, click its name tab.

Each Comparison Window (file or directory) has two panes of equal width arranged side-by-side and a status bar for that Comparison Window below the two panes. Above each pane is a file/directory selection area. This consists of a combo box, where you can enter the name of the file/directory to be compared, or select a previously opened file or directory from the drop-down menu. The buttons to the right of this area allow you to browse for files or directories, and to open files, save files and refresh files. The file and directory that is opened in each pane can therefore be opened independently of the file or directory in the other pane. Once a file/directory has been opened in both panes of a Comparison Window, a comparison can be made.

In Directory Comparison Windows, directories are displayed as trees, the levels of which can be expanded/collapsed by double-clicking on a directory-level. Additionally, the width of individual columns can be adjusted by dragging borders to the desired width. In File Comparison Windows, the view of the document can be customized using commands in the **View** and **Text View** menus.

#### **Comparison Window Status Bar**

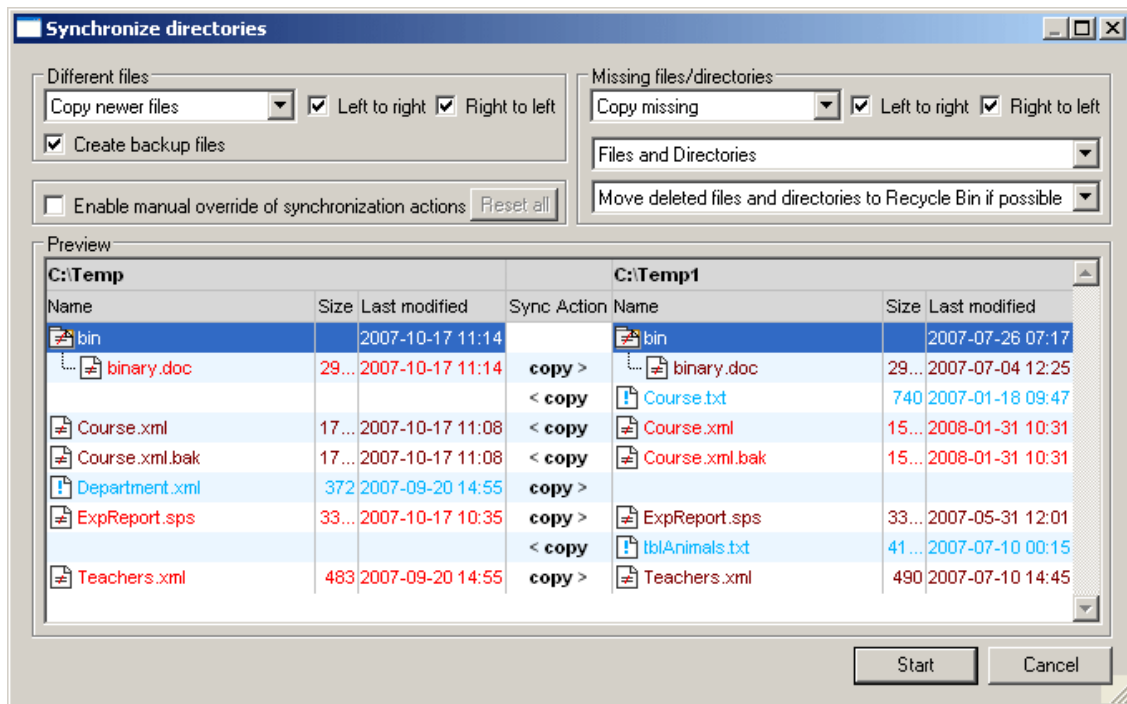
The Status Bar of a Comparison Window indicates the status of that comparison. If files or directories have not been opened, this is indicated. If a comparison has been made, the type of comparison is reported along with the result of the comparison. The Comparison Window Status Bar should not be confused with the Application Status Bar.

#### **Application Status Bar**

The Application Status Bar appears at the bottom of the application window, and shows application-level information. The most useful of this information are the tooltips that are displayed here when you mouseover a toolbar icon. The Application Status Bar should not be confused with the Comparison Window Status Bar.

### **2.3.1 Synchronize Directories Dialog**

DiffDog opens the **Synchronize directories** dialog when you choose one of the synchronization options from the **Diff and Merge** menu or click the corresponding buttons in the toolbar.



### Options

In the upper part of the dialog, the default synchronization options are displayed. Note that you cannot change the default settings but that you can customize the options before starting the actual synchronization. DiffDog provides several drop-down lists and check boxes for this purpose.

### Manual modification

If you wish to override the settings that apply to the directories to be synchronized for a particular file (e.g., because you want to keep an older version of a file), you can activate a check box which enables drop-down lists with the available synchronization options between the two panes of the **Synchronize directories** dialog. To restore the default settings, click the **Reset all** button which is also located in this area.

### Preview

The Preview pane displays the content of the two directories and shows the synchronization action that will occur. When manual modification is enabled, you can change the action for a particular file using the drop-down lists which are then available between the left and the right pane.

### Starting and Cancelling

The two buttons at the bottom right of the **Synchronize directories** dialog are used to start the synchronization when all the settings have been defined accordingly, or to quit the dialog and return to the Directory Comparison Window in DiffDog without synchronizing the directories.

## **Chapter 3**

---

### **Using DiffDog**

## 3 Using DiffDog

DiffDog enables you to compare files and directories quickly. Directories can be compared, non-equal files copied from one directory to another, entire directories can be synchronized, and File Comparisons started from Directory Comparison Windows. Files are compared as text or XML documents, or binaries. You can also edit files, merge differences between a file comparison pair, and save changes to files, all from within DiffDog. You can open multiple File and/or Directory Comparison Windows in the DiffDog application window, run a comparison in one comparison window, then switch to another comparison window, edit or merge files there, save changes, and then switch back to the original comparison window.

### Fundamental usage mechanism

You can make two kinds of comparison in DiffDog: File Comparisons and Directory Comparisons.

- To make a File Comparison, you must open a File Comparison Window (**File | Compare Files**). Within the File Comparison Window, you open the two files to be compared, one in each pane. You then run the comparison. You can also edit and merge the documents in the two panes of the File Comparison Window. See [Comparing Files](#) for a more detailed description of usage.
- To make a Directory Comparison, you must open a Directory Comparison Window (**File | Compare Directories**). Within the Directory Comparison Window, you open the two directories to be compared, one in each pane. You then run the comparison. See [Comparing Directories](#) for a more detailed description of usage. From a Directory Comparison, you can also start a Directory Synchronization of the directories displayed in the Directory Comparison Window. This opens the **Synchronize directories** dialog which is populated with the content of the directories in the Directory Comparison Window.

You can open as many File or Directory Comparison Windows as you like and—provided that no **Synchronize directories** dialog is open—switch among them (by clicking the name tabs at the bottom of the DiffDog application window). You can also change individual files or directories in either pane of the comparison windows (by selecting another file or directory) at any time.

### DiffDog settings

Before you start, you can customize certain application-wide settings. These include options for the following:

- Background colors for different text blocks and merged text blocks, and GUI options.
- Whether and how backup files should be saved.
- What file types should be compared in Directory Comparisons.
- How individual file types should be handled within the application.
- Setting comparison management options and default comparison modes (text, XML, binary, or ZIP) for individual file extensions.
- Specifying whether sub-folders or specific file types are to be included in Directory Comparisons or excluded.

See [DiffDog Options](#) for details about these customization options. Please note that you cannot change the default settings for Directory Synchronization. However, you can change this options in the **Synchronize directories** dialog every time before you start a synchronization.

### File comparison settings

File comparison settings are made in the Comparison Options dialog (**Tools | Comparison Options...**). The current settings (as specified in the Comparison Options dialog) of a Comparison Window apply to that particular Comparison Window. If you wish to see the

settings before starting each comparison, you can switch on the **Show Options Before Comparison** toggle command (in the **Diff and Merge** menu).

In this section, we provide a broad description of how to use DiffDog to compare files and directories. For guidance on the various menu commands, please see the [User Reference](#) section.

## 3.1 Settings in DiffDog

There are five types of settings you make in DiffDog:

- Settings to customize the [interface](#) (**Tools | Customize**)
- Settings for the [application](#) (**Tools | DiffDog Options**)
- Settings for [File Comparisons](#) (**Tools | Comparison Options; Diff and Merge | Comparison Mode**; and **Diff and Merge | Comparison Management Options**)
- Settings for [Directory Comparisons](#) (**Tools | Comparison Options; Diff and Merge | Comparison Mode**; and **Diff and Merge | Comparison Management Options**)
- Settings for [Directory Synchronizations](#) (these are defined in the **Synchronize directories** dialog immediately before starting the synchronization)

Some of the application settings and comparison settings influence each other and significantly affect the result of a comparison. So it is important to understand what these settings do and how they affect comparisons. The most important points relating to these settings are described in this section. For detailed information about these options, see the relevant sections in the User Reference.

### 3.1.1 Setting up the interface

You can customize the interface to specify what commands appear in different menus and toolbars, as well as to specify your own shortcut keys for various commands. Additionally, you can customize the level of detail and location of your toolbars. For details of how to customize the interface, see [Tools | Customize](#).

### 3.1.2 Setting up the Application

Settings for the application are made in the **DiffDog Options** dialog ([Tools | DiffDog Options](#)). Of these settings, the following are particularly important:

- Whether and how backup files should be saved. This is an important setting if you are going to edit files directly in DiffDog.
- Background colors of differences and merged differences. You can assign different colors for all differences in a file comparison, the current difference, and merged differences. These background colors are a valuable visual aid to working more efficiently, and you can customize the colors.
- For directory comparisons, you can select what file types in a directory to compare and what to ignore. The selection is done on the basis of file extensions. This setting directly influences the result of directory comparisons. For example, if you specify that files with extension `. dtd` are to be ignored, then differences in `. dtd` files in the two directories being compared will not be reported. This setting applies to **all** directory comparisons, and cannot be overridden by any other setting.
- The file types setting allows you to specify what type of syntax coloring (XML-conformant, source code-conformant, or none) is used for different file types (defined by file extension). More importantly, the file types extension enables you to specify whether a particular file type is to be considered XML-conformant or not. If you specify that a particular file type is XML-conformant, then, when compared in Extensions Comparison Mode, an instance of that file type is checked for XML conformance and, if it can be parsed as an XML document, is treated as an XML file. This option is useful in the following kinds of situation: You wish to compare a well-formed HTML file as an XML file. To do this, check the XML-conformance option for HTML file types in the **DiffDog Options** dialog and compare the HTML files in Extensions Comparison Mode. If the files are well-formed, they will be compared as XML. Otherwise, they will be compared as text. HTML files that are XML-conformant

can be edited and validated in DiffDog as XML files (including in Grid View).

### 3.1.3 Setting up File Comparisons

Each File Comparison is made on the basis of settings specified in the Comparison Options dialog ([Tools | Comparison Options](#)). Settings apply to individual File Comparison Windows separately, and can be modified for a File Comparison Window by editing the **Comparison Options** dialog when that File Comparison Window is active. If a new File Comparison Window is opened, it takes the comparison options of the last Comparison Window (File or Directory) to have had any of its comparison options modified. The various (file) comparison options are explained in the section [Tools | Comparison Options](#). File comparison options, therefore, can be modified at any time, and do not need to be set up before a Comparison Window is opened.


**Note:** In addition to File Comparison options, the [Comparison Mode](#) and [Comparison Management Options](#) also influence how DiffDog handles file comparisons.

### 3.1.4 Setting up Directory Comparisons

There are two ways in which DiffDog compares directories:

- By comparing the sizes and timestamps of files in the directories. This comparison mode is called Quick Comparison Mode.
- By comparing the contents of files in directories. This comparison mode is Text Comparison Mode, or XML Comparison Mode, or Binary Comparison Mode, or Extensions Comparison Mode.

The following settings influence Directory Comparisons:

- In the Directory Comparison tab of the [DiffDog Options](#) dialog, you can define filters in order to restrict the comparison to certain file types. Different filters can be applied to different Comparison Windows.
- The basic comparison mode switch is the Quick Comparison toggle. In order to access Text Comparison Mode, or XML Comparison Mode, or Binary Comparison Mode, or Extensions Comparison Mode, Quick Comparison **must first be toggled off**. To use Quick Comparison Mode, toggle Quick Comparison on. The Quick Comparison command can be accessed with the **Diff and Merge | Compare only Size and Modification Date** command or the  icon in the toolbar.
- There is no option to be set for Quick Comparison Mode.
- There are a number of options that can be set when directories are compared on the basis of the contents of their files. These options can be set in the **Comparison Options** dialog ([Tools | Comparison Options](#)) for that comparison. A set of comparison options applies to that Directory Comparison Window only, and can be changed at any time. Each Directory Comparison has its own set of comparison options.

**Note:** If a new Directory Comparison Window is opened, it assumes the comparison options of the last Comparison Window (File or Directory) to have had any of its comparison options modified. The various comparison options are explained in the section [Tools | Comparison Options](#).

### 3.1.5 Setting up Directory Synchronizations

The default settings for Directory Synchronization in DiffDog cannot be changed permanently. You can, however, adapt the settings in the [Synchronize directories](#) dialog for the directories

that are to be synchronized. What is more, DiffDog also allows you to override the settings for a particular file.


## 3.2 Opening a Comparison Window

There are two types of comparison windows: File Comparison Windows and Directory Comparison Windows. In File Comparison Windows, documents of various file types can be compared and edited. In Directory Comparison Windows, two directories (and, optionally, their subdirectories) can be compared.

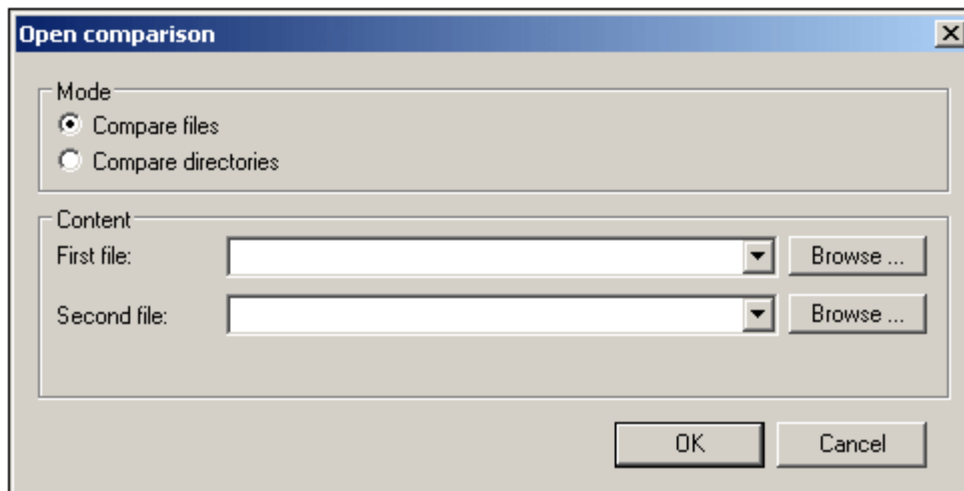
### File Comparison Windows

To open a File Comparison Window, do one of the following:

- Click [File | Compare Files](#). This directly opens an empty File Comparison Window.

Now select a file for each pane. Use the dropdown list or click the  (**Browse**) button to make the selection for each pane. If the [Support Recently Compared Pairs](#) command (**Diff and Merge** menu) is toggled on, then the **Recently Compared Pairs** dialog pops up. This dialog lists the previous 5 files with which the selected file was compared. You can select one of these files to compare with the file being opened. Alternatively, you can drag-and-drop a file from a Windows Explorer window into a pane.


- Click [File | Open](#). This opens the **Open Comparison** dialog.

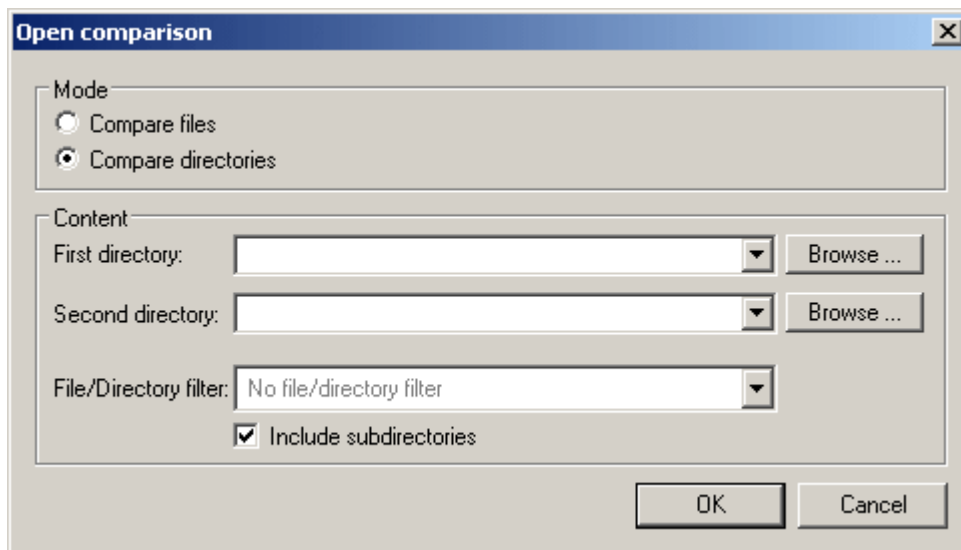


In this dialog, first select `Compare Files` in the Mode pane. Then, in the Content pane, select or enter the files to be compared, and click **OK**.

### Directory Comparison Windows

To open a Directory Comparison Window, do one of the following:

- Click [File | Compare Directories](#). This directly opens an empty Directory Comparison Window. Now select a directory for each pane. Use the dropdown list or click the  (**Browse**) button to make the selection for each pane. If the [Support Recently Compared Pairs](#) command (**Diff and Merge** menu) is toggled on, then the **Recently Compared Pairs** dialog pops up. This dialog lists the previous 5 directories with which the selected directory was compared. You can select one of these directories to compare with the directory being opened. Alternatively, you can drag-and-drop a directory from a Windows Explorer window into either text box where the directory name is entered.
- Click [File | Open](#). This opens the **Open Comparison** dialog.




In this dialog, first select `Compare Directories` in the Mode pane. Then, in the Content pane, select or enter the directories to be compared, optionally select a filter and whether subdirectories are to be included, and click **OK**.


### 3.3 Opening the Synchronization Dialog

In the **Synchronize directories** dialog, you can synchronize the content of two directories that have been compared in a Comparison Window. The **Synchronize directories** dialog cannot be opened directly, you must first [open a Directory Comparison Window](#), which serves as a starting point for Directory Synchronization. Note that you also have to run a directory comparison (or have the Autostart Comparison option activated) so as to be able to open the **Synchronize directories** dialog.

#### To open the Synchronize directories dialog:

1. [Open](#) a Directory Comparison Window and choose the directories to be synchronized.
2. If **Autostart Comparison** is not activated in the **Diff and Merge** menu, [start](#) the comparison.
3. Select the menu option **Diff and Merge | Synchronize directories** or click the

**Synchronize**  button in the Directory content toolbar. Alternatively, if you want to synchronize a sub-directory, select the desired sub-directory in the Directory Comparison Window and choose the menu option **Diff and Merge | Synchronize**

**selected directory** or click the **Synchronize selected**  button in the Directory content toolbar. The menu option as well as the button are only available if a sub-directory is selected.

## 3.4 Comparing Files

The File Comparison process involves the following steps (1 to 3). The results of the comparison are displayed visually in the GUI, enabling you to quickly analyse the points of difference between the two documents. You can then navigate these differences using navigation controls in the GUI, and edit the documents as desired, including copying one block of different text from one file to the other (known as merging differences). You can then save the file under its current name or another name. (These additional steps are steps 4 and 5 below.)

1. [Open the two files](#), one in each pane of a File Comparison Window.
2. [Modify the comparison options](#) if required.
3. [Run the file comparison](#).
4. [Results of file comparisons](#).
5. [Edit the file/s, merge differences if required, and save changes](#).

### 3.4.1 Opening a File Comparison Window

There are two ways to [open a File Comparison Window](#):

1. [File | Compare Files](#), which opens a File Comparison Window directly.
2. [File | Open](#), which opens a dialog that allows you to choose between opening a File Comparison Window or Directory Comparison Window.

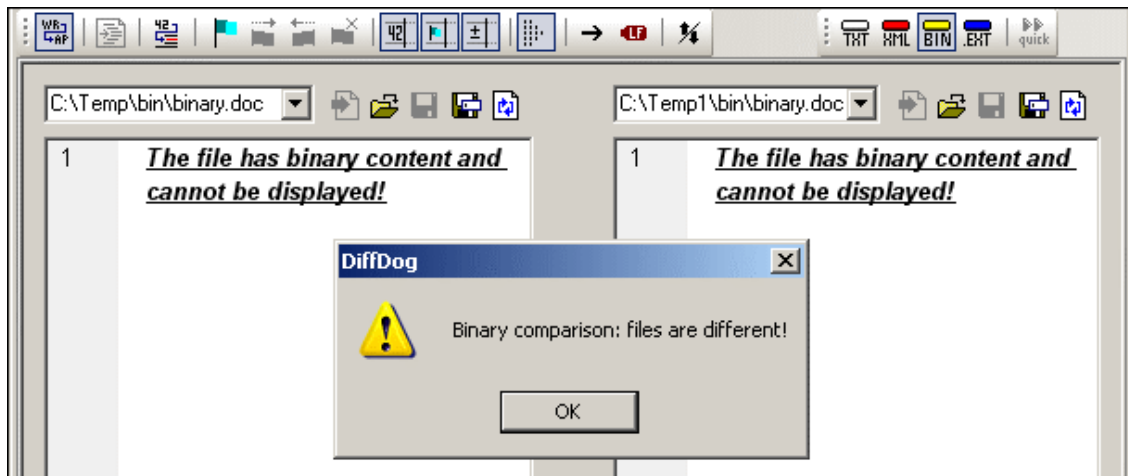
**Note:** If [Autostart Comparison](#) (in the **Diff and Merge** menu) is toggled on, then a comparison is carried out as soon as both files are loaded into the File Comparison Window.

### 3.4.2 Modifying the Comparison Options

When a File Comparison Window is opened, it has the set of File Comparison options specified in the most recently modified [Comparison Options](#) dialog. To modify the options for an active File Comparison Window, click [Tools | Comparison Options](#), and make the necessary changes in the [Comparison Options](#) dialog.

Besides the options available in the **Comparison Options** dialog, there are additional options in the **Diff and Merge** menu that you may wish to change. These are the [Comparison Management Options](#), which are toggle commands that apply to individual File Comparisons. Two useful options among these are the [Compare while Editing](#) command and the [Show Options Before Comparison](#).

The Comparison Mode setting specifies whether the File Comparison treats the documents to be compared as text files, XML files, or binary files. In Text Comparison Mode, the documents are compared as plain text. One important setting is the [Show Differences Within Lines](#) option, which shows differences at the character level if toggled on; otherwise differences are shown at the line level. In XML Comparison Mode, differences are shown at the node level. You can specify what nodes are compared and refine the complexity of the comparison by using the options in the [Comparison Options](#) dialog. In Binary Comparison Mode, a byte-by-byte comparison is used and the file content (of binary files) or the differences (of text-based or XML-based files), respectively, will not be displayed in this mode.



You can directly specify the [Comparison Mode](#) to run (Text, XML, or Binary) in the GUI, or you can have DiffDog determine which of these three Comparison Modes to use from the setting specified in the File Types tab of the [DiffDog Options](#) dialog (the Comparison Mode in this case is [Extensions Comparison Mode](#)). The most important thing to remember is that if you wish to use XML Comparison Mode (whether directly specified or via the Extensions Comparison Mode), both documents in the File Comparison Window must be well-formed. Otherwise, DiffDog can only perform a Text Comparison.

**Please note:** In Text or Extensions Comparison Mode, DiffDog detects binary files and changes to Binary Comparison Mode automatically when at least one binary files is opened in a File Comparison Window. However, if you are in XML Comparison Mode, DiffDog first checks whether the file is XML conformant and, if not, asks whether a text comparison should be performed. If you opt for the Text Comparison Mode in the prompt, the automatic switch to Binary Comparison Mode occurs as described above.

### 3.4.3 Running the File Comparison

File comparisons can be run in three ways:

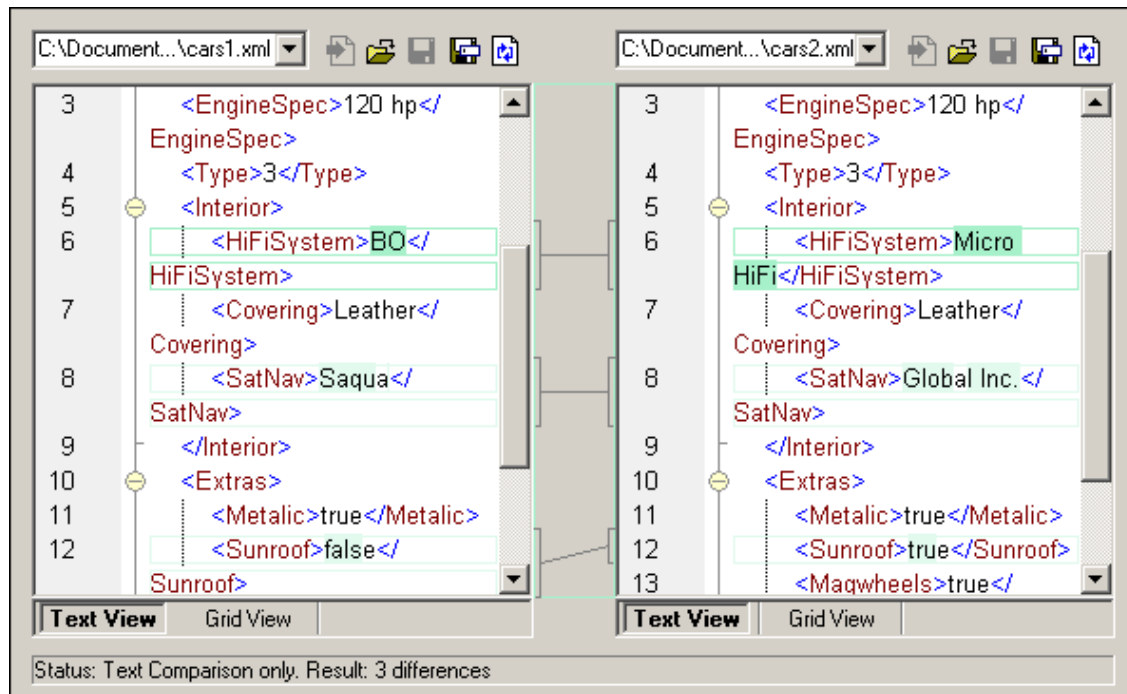
- When the two documents to be compared are loaded into the File Comparison Window, a comparison is automatically carried out if the [Autostart Comparison](#) command is toggled on.
- Comparisons can be explicitly started any number of times with the [Start Comparison](#) command.
- Documents are compared dynamically as you type if the [Compare while Editing](#) command is toggled on.

**Note:**

- You can run file comparisons using all three of the methods listed above; these methods are not mutually exclusive.
- You can select the required Comparison Mode (Text, XML, Binary, or Extensions) by selecting it (in the **Diff and Merge** menu or in the toolbar) before running the comparison. Binary files, however, will always be compared in Binary Mode.
- If the [Show Options Before Comparison](#) command is toggled on, then the [Comparison Options](#) dialog is displayed each time before the comparison is run (except when it is run dynamically by DiffDog while you edit). This is useful if you wish to run comparisons with different options.

### 3.4.4 Results of File Comparisons

After you start a comparison, the differences between the two files are displayed as blocks of highlighted text and the results of the comparison are reported in the Comparison Window Status Bar (see screenshot below). The File Comparison shown in the screenshot below has the Differences Within Lines option toggled on.



Notice that the corresponding differences in the two documents are linked for easier identification and analysis. When [synchronized scrolling](#) is toggled on, both documents scroll so that corresponding differences are always in view simultaneously.

The current difference is highlighted in a different color than the other differences. In the screenshot above the current difference is displayed in a darker green. These colors can be changed in the [DiffDog Options](#) dialog (**Tools | DiffDog Options**). It is important to know which difference is the current difference because merging is always done for the current difference only. You can navigate among the differences with the [navigation commands](#) (**Diff and Merge** menu).

### 3.4.5 Editing Files, Merging Differences, and Saving Files

Text-based as well as XML-based files can be edited and differences can be merged directly in DiffDog's Comparison Window and the changed files can be saved. Naturally, you cannot make any changes to binary files in DiffDog.

#### Editing files and merging differences

- You can edit files by typing in your changes.
- You can edit XML files in the tabular Grid View. This view of the XML document provides a structured view of the XML document and provides some unique and very useful editing functionality. See [Grid View Menu](#) for details.
- Note that DiffDog offers powerful [Find and Replace](#) functionality that can help with

- editing.
- Additionally, DiffDog provides syntax coloring and other visual aids such as line numbering, indentation, and bookmarking.
  - A history of changes is maintained for each file separately, and unlimited Undo's are allowed. To undo changes in a file, place the cursor in the file and click **Edit | Undo** (or **Ctrl+Z**).
  - You can also merge the **current difference**, that is, you can overwrite the current difference in one document with the corresponding text fragment in the other document. The [Merge commands](#) are available in the Diff and Merge menu.

### **Saving files**

To save a document you have edited in DiffDog, use the Save or Save As buttons in the respective panes of the File Comparison Window. Files can also be saved using the [Close](#), [Close All](#), and [Save commands](#) in the **File** menu. Note that the individual files in the File Comparison Window must be saved separately.

### **Exporting differences**

The differences found in a file comparison can be exported to file. How to do this is explained in the section [File Menu | Export Differences](#) in the User Reference section.

**Note:** In the [File Comparison](#) tab of the DiffDog Options dialog, you can also specify whether and how backup files should be saved.

## 3.5 Comparing Directories

The Directory Comparison process involves the following steps (1 to 6). Additionally, you can copy files from one of the compared directories to the next (Step 7 below), and start a File Comparison directly from a Directory Comparison (Step 8), or synchronize the two directories (Step 9).

1. [Open the two directories](#) to be compared, one in each pane of a Directory Comparison Window.
2. [Select a comparison mode](#).
3. [Modify the comparison options](#) if required (required for comparison by file contents only, not for Quick Comparison).
4. Select a filter for the comparison.
5. [Run the Directory Comparison](#).
6. [View the results of the Directory Comparison](#).
7. [Copy files](#) from one of the compared directories to the other.
8. [Open and start a File Comparison](#) directly from the Directory Comparison Window (if required).
9. [Synchronize the two directories](#) or, optionally, one of their sub-directories.

### ZIP file support

ZIP-conformant files are regarded as directories if the `Show content of ZIP conformant files` option is checked on the [File comparison tab](#) of the DiffDog Options dialog (this is the default setting). You can then select a ZIP file as one of the directories in a directory comparison, show the content of a ZIP file if it appears as a file in a directory comparison, and also copy and merge files that are contained in the ZIP file. If you deactivate the `Show content of ZIP conformant files` check box, any ZIP-conformant file that appears in a directory comparison is regarded and compared as binary file.


### 3.5.1 Opening a Directory Comparison Window

There are two ways to [open a Directory Comparison Window](#):

1. [File | Compare Directories](#), which opens a Directory Comparison Window directly.
2. [File | Open](#), which opens a dialog that allows you to choose between opening a File Comparison Window or Directory Comparison Window.

**Note:** If [Autostart Comparison](#) (in the **Diff and Merge** menu) is toggled on, then a comparison is carried out as soon as both directories are loaded into the Directory Comparison Window.

### 3.5.2 Selecting a Comparison Mode

Quick Comparison Mode compares the sizes and timestamps of files in the directories (and, optionally, its subdirectories). To run a Quick Comparison, ensure that Quick Comparison Mode is toggled on. (When toggled on, the  icon in the **Diff and Merge** menu and toolbar will have a border around it.) To run the Directory Comparison in Text Comparison Mode, XML Comparison Mode, Binary Comparison Mode, or Extensions Comparison Mode, you must first toggle Quick Comparison off and then select Text Comparison Mode, XML Comparison Mode, Binary Comparison Mode, or Extensions Comparison Mode from the **Diff and Merge** menu. See [Settings in DiffDog](#) and [Comparison Mode](#) for more details.

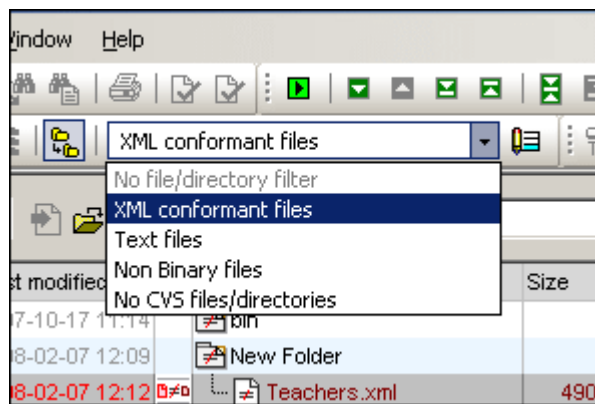
**Note:** When a Directory Comparison is first opened, it has the Comparison Mode of the last Directory Comparison Window to have had its Comparison Mode modified.


### 3.5.3 Modifying the Comparison Options

If Quick Comparison is toggled off, you can use Text Comparison Mode, XML Comparison Mode, Binary Comparison Mode, or Extensions Comparison Mode, in which the contents of files in the two directories are compared. To set (file) comparison options for text and XML comparisons, click [Tools | Comparison Options](#). This pops up the Comparison Options dialog, in which you can set the comparison options as required. Note that these comparison options apply to the active Directory Comparison Window only.

### 3.5.4 Selecting a Filter

You can define filters to use for directory comparison in the [DiffDog options](#). These filters are then available in a drop-down list in the Directory Comparison Window.



The button to the right of the drop-down list takes you to the **Edit Filter** dialog box where you can change the definition of the selected filter. To define a new filter, select "No file/directory filter" and click the **Edit Filter**  button to access the Directory comparison tab of the **DiffDog Options** dialog box.

### 3.5.5 Running the Directory Comparison

Directory comparisons can be run in two ways:

- When the two directories to be compared are loaded into the Directory Comparison Window, a comparison is automatically carried out if the [Autostart Comparison](#) command is toggled on.
- Comparisons can be explicitly started any number of times with the [Start Comparison](#) command.

**Note:**

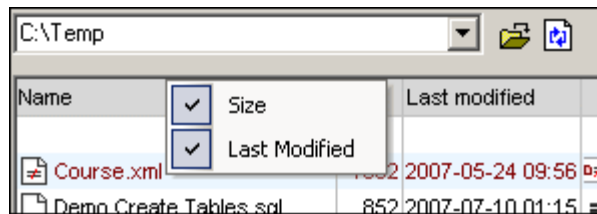
- You can run directory comparisons using both methods listed above; these methods are not mutually exclusive.
- If the [Show Options Before Comparison](#) command is toggled on, then the [Comparison Options](#) dialog is displayed before the comparison is run. This is useful if you wish to run comparisons with different options.
- In the Directory Comparison tab of the [DiffDog Options](#) dialog, you can define what file

types the Directory Comparison should consider and what file types it should ignore, as well as whether subfolders should be included in the comparison.

### 3.5.6 Configuring the View

The following viewing options enable you to configure your view of Directory Comparison results.

- You can expand or collapse subdirectories by double-clicking the folder icon.
- Display of the Size and Last Modified columns can be toggled on and off by right-clicking the Header of either pane and then clicking **Size** and/or **Last Modified**.



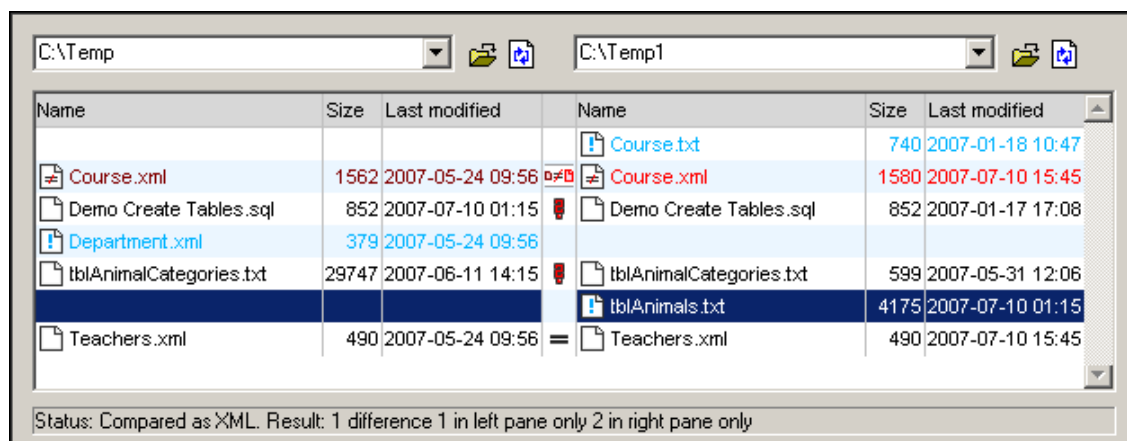
- You can change column widths by dragging column borders.

#### Controlling what files are displayed

You can configure the view of individual Directory Comparison Windows to display files on the basis of their compared status. For example, you can opt to not display all equal files, or to not display non-comparable files, or to display files that are unequal and newer in the left pane but to not display files that are unequal and newer in the right pane. To do this, you use a set of simple toggle commands that are available as toolbar icons. See the [Directory Content Group](#) of toolbar icons for a list of available options. Note that the toggle is on when the icon has a black border around it.

### 3.5.7 Results of Directory Comparisons

The Directory Comparison results are displayed as trees in both panes. If subdirectories are displayed, they can be collapsed and expanded by double-clicking the icons for them. The comparison results are indicated with colors and icons as described below.



#### Colors

The colors in which **file names** are displayed are significant. Sub-directory names are always displayed in black.

*Black:* The file is equal in the selected comparison mode. Names of files that cannot be compared in the selected comparison mode are also displayed in black.

*Blue:* The file is present in the directory in which it is displayed, but not in the other directory.

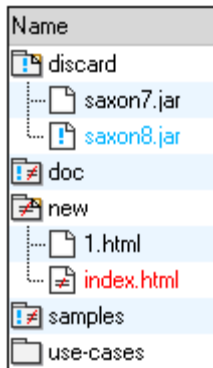
*Red:* The file is present in both directories, but is not equal in the selected comparison mode. Note that the newer file is colored a brighter red.

### Icons and symbols

There are two types of icons/symbols: (i) those that occur next to the directory/file names (we'll call them **icons** to differentiate them from the second type); and (ii) those that occur in the column between the two panes (**symbols**). (*This distinction in terminology applies only to Directory Comparison results.*)

### Icons

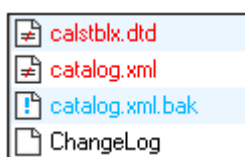
The following **directory icons** are displayed in Directory Comparison Windows (*the screenshot below shows these icons*).



Note the following about the directory icons shown above:

- Expanded directories are shown with their top right corners turned down (`discard` and `new` above).
- Directories that contain files that are equal in the selected comparison mode are indicated with a blank body (`use-cases`).
- Directories that contain files that are not present in the corresponding directory in the other pane are indicated with a blue exclamation mark (`discard` and `doc`; note that `doc` also has a not-equal sign).
- Directories that contain different files in the selected comparison mode are indicated with a not-equal sign (`doc`, `new` and `samples`; note that `doc` and `samples` also have an exclamation mark).
- Directories that have both extra files and different files are indicated with an exclamation mark and a not-equal sign (`doc` and `samples`).

The following **file icons** are displayed in Directory Comparison Windows (*the screenshot below shows these icons*).


























Note the following about the file icons shown above:

- Files that are equal in the selected comparison mode are displayed with a blank body (ChangeLog).
- Files that are not present in the other pane are displayed with a blue exclamation mark (catalog.xml.bak).
- Files that are non-equal in the selected comparison mode are displayed with a not-equal sign (calstblx.dtd and catalog.xml).

### Symbols

The following symbols appear in the column between the two panes and indicate the results of the Directory Comparison, specifically the relationship between the files on either side of the symbol. Note that these symbols are only displayed for files and not for subdirectories.

Name	Size	Last modified		Name	Size	Last modified
 subdir_a		2005-01-05 16:43		 subdir_a		2005-01-05 16:48
 team.xml	291	2005-01-05 16:42		 team.xml	290	2005-01-05 13:57
 subdir_addelem		2005-01-05 16:50		 subdir_addelem		2005-01-05 16:49
				 team.xml	290	2005-01-05 13:57
 1.sps	3339	2005-01-05 14:17		 1.sps	3339	2005-01-05 14:17
 add_element.xsd	1194	2005-01-05 14:05		 add_element.xsd	1194	2005-01-05 14:05
 gen.html	571	2005-01-05 14:15		 gen.html	571	2005-01-05 14:15
 genhtml.xslt	3151	2005-01-05 14:15		 genhtml.xslt	3151	2005-01-05 14:15
 team.xml	291	2005-01-05 16:42		 team.xml	290	2005-01-05 13:57



Files are equal in the selected comparison mode.



Files are different in the selected comparison mode.



Files cannot be compared in the selected comparison mode.

### Note:

- Files that are present in one directory but not in the other do not have any associated symbol.
- Non-comparable files are those that cannot be compared in the selected comparison mode.

### Navigating directory comparison results

You can navigate the results of a Directory Comparison using the [navigation controls](#) in the [Diff and Merge menu](#). All the navigation controls in this menu, except for the **Make Current Difference** command, can be used for navigating the results of Directory Comparisons. These controls enable you to step through all the non-equal files in the Comparison Window (that is, extra files and different files).

### Exporting differences

The differences found in a file comparison can be exported to file. How to do this is explained in the section [File Menu | Export Differences](#) in the User Reference section.

### 3.5.8 Copying Files in Directory Comparison Windows

Non-equal directories and files can be copied from one pane to the other. To do this, select the directory or file to copy and then select either the **Diff and Merge | Copy from Left to Right** or **Diff and Merge | Copy from Right to Left** command as required.

### 3.5.9 File Comparisons from a Directory Comparison

Double-clicking a file in any of the two directories, opens that file and its corresponding file in the other directory in a File Comparison Window. (If a corresponding file does not exist, no file is opened in the second window.)

The following points should be noted:

- If the Comparison Mode of the Directory Comparison is Quick Comparison, then the new File Comparison is opened in the Comparison Mode that was the [current File Comparison Mode](#) (Text, XML, Binary, or Extensions) when the Directory Comparison was opened.
- If the Comparison Mode of the Directory Comparison is not Quick Comparison, then the new File Comparison is opened in the current Comparison Mode of the Directory Comparison.

You can continue to work in the File Comparison Window as in a regular File Comparison session (see [Comparing Files](#) for a description of the process).

### 3.5.10 Synchronizing Directories

The Directory Synchronization process involves the following steps (3 to 6). Note that you always have to open a Directory Comparison first (Step 1), and that you can limit the synchronization to a single sub-directory (Step 2).

1. [Open](#) a Directory Comparison Window and [run](#) the comparison.
2. Optionally select a sub-directory to be synchronized.
3. [Open](#) the Synchronize Directories dialog.
4. [Adapt](#) the default settings on directory level.
5. Optionally, [change](#) the synchronization actions for individual files or sub-directories.
6. [Start](#) the synchronization.

#### Opening the Synchronize Directories Dialog

The **Synchronize directories** dialog can be opened exclusively from a Directory Comparison, that is, there is no independent menu option available and you have to [open a Directory Comparison Window](#) first. After two directories have been compared in a Directory Comparison Window, you have the following options for opening the **Synchronize directories** dialog:

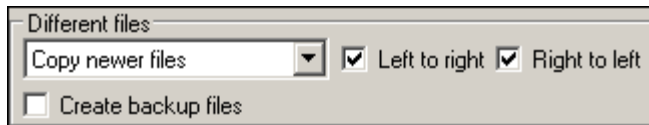
- **Diff and Merge | Synchronize directories**, which synchronizes the currently displayed directories including their sub-directories.
- **Diff and Merge | Synchronize selected directory**, which synchronizes only the sub-directory that is selected in the Directory Comparison Window.

Alternatively, you can also click the corresponding toolbar icons that are available in the Directory content toolbar.

## Adapting the Default Settings

Within a running session of DiffDog, the **Synchronize directories** dialog opens with the previously saved settings for directory synchronization and displays them in the upper part of the dialog. When a new DiffDog instance (or session) is opened, the Synchronize directories dialog opens for the first time with the default settings. Using the drop-down lists and check boxes, you can adapt those settings so as to meet the requirements for synchronizing the currently displayed directories.

### Different files



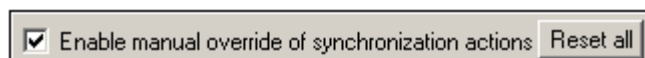
Here you define, which files are to be copied, that is, whether older or newer files are to be kept, and whether they should be copied to the right, or left directory, or to both directories. The default option copies newer files to the opposite side so that only the newer version of the file will be kept.

You can choose from among the following options:

- **No action:** This option ignores different files.
- **Copy newer files:** This option copies the newer version of a file to the opposite directory. You can use the `Left to right` and `Right to left` check boxes to limit the update to one particular directory. Check both boxes to copy the newer files to the opposite directory and thus update both directories.
- **Copy older files:** This option copies the older version of a file to the opposite directory. You can use the `Left to right` and `Right to left` check boxes to limit the update to one particular directory. Check both boxes to copy the older files to the opposite directory and thus update both directories.

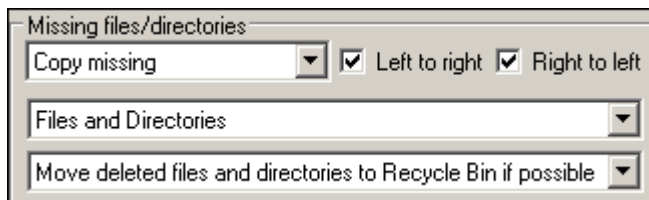
The `Create backup files` check box allows you to keep a backup of a file's previous version in the directory. If activated, the previous version is saved with a `.BAK` extension before the updated version is copied to the directory.

### Modify manually



The `Enable manual override of synchronization actions` check box enables you to [fine-tune](#) your synchronization actions for one or more particular files or sub-directories. If this check box is activated, the Sync Action column provides a drop-down list where you can choose a synchronization action for an individual file or sub-directory and thus override the settings that have been defined on directory level.

### Missing files/directories



This group box determines, how missing files and/or directories are to be handled when directories are synchronized. You can choose, whether these options are to be applied to files and directories or to directories (when copying) or files (when deleting) only. Furthermore, you

can define, whether deleted items should be moved to the Recycle Bin if possible or be deleted permanently.

### Note about Recycle Bin

Windows supports the use of the Recycle Bin only for internal hard drives and some external hard drives. If the Recycle Bin is available, then the files to be deleted are moved to it. If the Recycle Bin is full, then older deleted files are permanently removed from the Recycle Bin to make way for the files you wish to move to the Recycle Bin. (Note that if the data volume of the files you are moving to the Recycle Bin is greater than the capacity of the Recycle Bin, then some of the files being moved to the Recycle Bin could also be permanently deleted.) If the Recycle Bin is not available, then the files are permanently deleted.

The following options are available for missing files and directories:

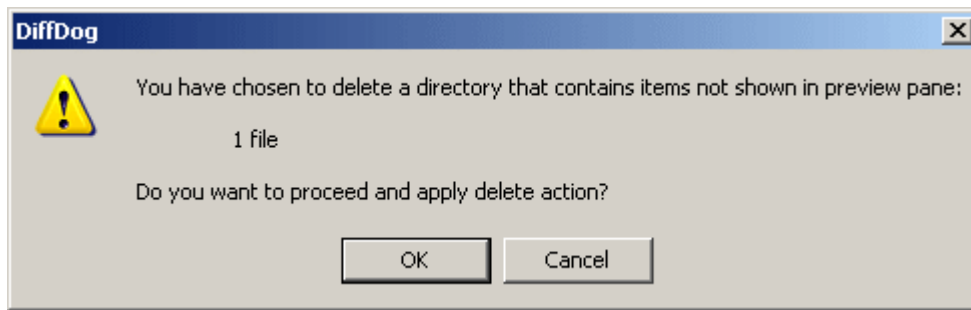
- **No action:** No synchronization for files that are present in only one of the directories.
- **Copy missing:** Missing files are copied to the opposite directory. You can use the `Left to right` and `Right to left` check boxes to limit the update to one particular directory. Check both boxes to copy missing files to the opposite directory and thus update both directories.
- **Delete missing:** Missing files are deleted from the opposite side. You can use the `Left only` and `Right only` check boxes to restrict the deletion to one particular directory. Check both boxes to delete missing files from the opposite directory and thus delete missing files from both directories.

### Changing the Synchronization Actions

Basically, the synchronization options are defined for the directories as a whole. You can, however, change the synchronization actions for one or more individual files or sub-directories manually if the `Enable manual override of synchronization actions` check box is activated.

Name	Size	Last modified	Sync Action	Name	Size	Last modified
bin		2007-07-26 08:16		bin		2007-07-26 08:17
binary.doc	24...	2007-07-04 12:09		binary.doc	29...	2007-07-04 13:25
New Folder		2007-07-27 10:11	< delete >	New Folder		2007-07-27 10:09
Teachers.xml	491	2007-07-27 10:11	< delete >	Teachers.xml	490	2007-05-24 09:56
Teachers.xml.bak	490	2007-07-27 10:11	< delete >			
			< copy >	Course.txt	740	2007-01-18 10:47
Course.xml	15...	2007-05-24 09:56	< copy >	Course.xml	15...	2007-07-10 15:45
Department.xml	379	2007-05-24 09:56	copy >			
ExpReport.sps	33...	2007-01-22 02:24	copy >	ExpReport.sps	33...	2007-05-31 13:01
ipo.xsd	18...	2007-01-22 02:24	< copy >	ipo.xsd	17...	2007-07-26 11:46
tblAnimalCategories.txt	29...	2007-06-11 14:15	delete >	tblAnimalCategories.txt	599	2007-05-31 12:06
			< copy >	tblAnimals.txt	41...	2007-07-10 01:15
			< copy >	Teachers.xml	490	2007-07-10 15:45

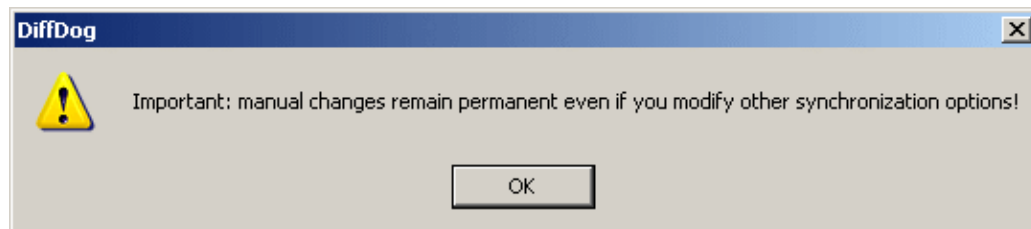
**Warning:** If you apply a delete action to a sub-directory, also all files that are contained in this directory will be deleted on the chosen side. Since equal files are not displayed in the **Synchronize directories** dialog, DiffDog displays a warning so as to alert you to this fact.



To define synchronization actions manually for individual files:

1. Make sure that the `Enable manual override of synchronization actions` check box is activated.
2. Optionally, change the default synchronization option for the directories in the `Different files` and `Missing files/directories` group boxes.
3. To change the pre-selected synchronization action for a particular file, click the drop-down list in the `Sync Action` column between the two directory panes and select one of the following options:
  - `<blank>`: No synchronization for this file.
  - `copy >`: The file will be copied from the left side to the right side without considering which file is newer.
  - `< copy`: The file will be copied from the right side to the left side without considering which file is newer.
  - `delete >`: The file will be deleted on the right side.
  - `< delete`: The file will be deleted on the left side.
  - `< delete >`: The file will be deleted on both sides.
4. If you choose to delete a sub-directory, click **OK** in the warning message informing you that also equal files will be deleted.

A message pops up informing you that manual changes will not be considered when changing the synchronization options.



5. Click **OK**.  
The synchronization action is indicated with a different background color. If you later on change the overall settings for the directories and the settings happen to match the manually changed action, the background color will be removed again.

To reset manual synchronization actions:

1. Do one of the following:
  - Click the **Reset all** button and click **OK** in the message box that appears.
  - Deactivate the `Enable manual override of synchronization actions` check box.
2. Click **OK** in the message box that appears

### Starting a Directory Synchronization

After you have configured the synchronization actions on [directory level](#) and, if applicable, for [individual files](#), you have to start a directory synchronization manually.

To start a directory synchronization:

1. [Open](#) a Directory Comparison Window and [run](#) the comparison.
2. Open the **Synchronize directories** dialog.
3. Optionally, [adapt the default synchronization settings](#) or [change the synchronization action](#) for individual files.
4. To run the directory synchronization, click the **Start** button. If you choose to not run the synchronization and abort the synchronization settings you defined in the **Synchronize directories** dialog, click the **Cancel** button to return to the Directory Comparison Window from where you opened the **Synchronize directories** dialog.



## **Chapter 4**

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### **User Reference**

## 4 User Reference

The **User Reference** section contains a description of all toolbar icons and menu commands, as well as a description of messages displayed in the Status Bar of comparison windows. Additionally, there is a description of how to use DiffDog from the command line.

The User Reference consists of the following sub-sections:

- [Toolbar Icons](#)
- [File Menu](#)
- [Edit Menu](#)
- [View Menu](#)
- [Text View Menu](#)
- [Grid View Menu](#)
- [XML Menu](#)
- [Diff and Merge Menu](#)
- [Window Menu](#)
- [Help Menu](#)
- [Status and Results Messages](#)
- [DiffDog from the command line](#)

The User Reference is intended as a reference section in which you can quickly look up particular commands. For an overview of how to work with DiffDog, see the [Introduction](#) and [Using DiffDog](#) sections.

## 4.1 Toolbar Icons

Icons in the toolbar are shortcuts for various commands, most of which are also available as menu commands. The toolbar icons are organized into the following groups:

- [Standard Group](#) (for managing comparisons, executing common file operations, and editing files)
- [Comparison Mode Group](#) (for selecting comparison modes)
- [Diff and Merge Group](#) (for managing and navigating comparisons, and merging differences)
- [Directory Content Group](#) (for configuring the display of directory comparisons)
- [Grid Group](#) (for configuring Grid View and structurally editing files in Grid View)
- [Grid Edit Group](#) (for structural editing in Grid View)
- [Text Group](#) (for selecting display and editing functions in Text View)
- [Comparison Window Toolbars](#) (for functions pertaining to the individual panes of a comparison window)

You can toggle the display of any group of icons in the toolbar on or off using the [Toolbars tab](#) of the Customize dialog ([Tools | Customize](#)). In the GUI, you can move a toolbar by dragging its handle to the desired location. Toolbar icons are listed by group in the sections that follow.

**Note:** A number of toolbar icons are shortcuts for toggle commands (commands that are on or off). When such a command is toggled on, both the toolbar icon and the corresponding icon in the menu list are displayed with a black border.

### 4.1.1 Standard Group

The Standard Group of icons are shortcuts for file commands and common editing commands that occur in the **File**, **Edit**, and **XML** menus.



**Compare Files (File menu)**

Opens a window with two empty panes for selecting a new pair of files to compare.



**Compare Directories (File menu)**

Opens a window with two empty panes for selecting a new pair of directories to compare.



**Cut (Edit menu, Ctrl+X, Shift+Delete)**

Cuts the selected object from the document and saves it to the clipboard.



**Copy (Edit menu, Ctrl+C)**

Copies the selected object to the clipboard.



**Paste (Edit menu, Ctrl+V)**

Pastes the clipboard object into the active document at the cursor position.



**Erase (Edit menu, Delete)**

Deletes the selected object.



**Redo (Edit menu, Ctrl+Y)**  
Redoes an undo.



**Undo (Edit menu, Ctrl+Z, Alt+Backspace)**  
Undoes an editing change.



**Find (Edit menu, Ctrl+F)**  
Displays the Find dialog (for entering a text string for which to search).



**Find Next (Edit menu, F3)**  
Finds the next occurrence of a search string entered in the Find dialog.



**Replace (Edit menu, Ctrl+H)**  
Displays the Find and Replace dialog (for replacing a search string with another text string).



**Print (File menu, Ctrl+P)**  
Displays the Print dialog (for printing the active document in File Comparison Windows).



**Check Well-Formedness (XML menu, F7)**  
Checks the well-formedness of an XML document that is displayed in a File Comparison Window.



**Validate (XML menu, F8)**  
Validates an XML document that is displayed in a File Comparison Window.

## 4.1.2 Comparison Mode Group

The Comparison Mode Group of icons enables you to select the comparison mode for files and directories. This group of commands is available in the [Diff and Merge Menu](#).



**Text comparison**  
Compares files as text files; compares directories with contents treated as text files.



**XML comparison**  
Compares files as XML files; compares directories with contents treated as XML files.



**Binary comparison**  
Compares files as binary files; compares directories with contents treated as binary files.



**Comparison according to File Extension**  
Compares files as text or XML according to settings for file extensions, which you can make in the File Types tab of the [DiffDog Options](#) dialog (**Tools | DiffDog Options**); compares directories with contents treated as text files, XML files, or binary files

according to file extension.



#### **Quick comparison**

Compares files within directories by size and date modified.

### 4.1.3 Diff and Merge Group

The Diff and Merge Group of icons enables you to start comparisons, navigate through differences between files, merge differences, and set application and comparison options. All these commands are available in the [Diff and Merge Menu](#) (if no menu is specified for them in the list below), and in the [Tools Menu](#) (if the Tools menu is specified in the list below).



#### **Start Comparison (F5)**

Starts comparison for the two open files/directories.



#### **Next Difference (Alt+Down Arrow)**

Highlights the next difference in a File Comparison or next non-equal file in a Directory Comparison.



#### **Previous Difference (Alt+Up Arrow)**

Highlights the previous difference in a File Comparison or previous non-equal file in a Directory Comparison.



#### **Last Difference (Alt+End)**

Highlights the last difference in a File Comparison or the last non-equal file in a Directory Comparison.



#### **First Difference (Alt+Pos1)**

Highlights the first difference in a File Comparison or the first non-equal file in a Directory Comparison.



#### **Display Current Difference (Ctrl+Return)**

Scrolls through the Comparison Window (File or Directory) to display the current difference. Useful if you have scrolled the current difference out of the display area.



#### **Make Current Difference (Alt+Return)**

Causes the difference in which the cursor is placed (in a File Comparison Window) to be the current difference and the base for navigation.



#### **Copy from Left to Right (Alt+Right Arrow)**

For the selected difference in a File Comparison, copies text from document in left pane to document in right pane. For the selected non-equal item (subdirectory or file) in a Directory Comparison, copies from left pane to right pane.



#### **Copy from Right to Left (Alt+Left Arrow)**

For the selected difference in a File Comparison, copies text from document in right pane to document in left pane. For the selected non-equal item (subdirectory or file) in a Directory Comparison, copies from right pane to left pane.

**DiffDog Options (Tools menu)**

Pops up the [DiffDog Options](#) dialog, in which you can make application settings.

**Comparison Options (Tools menu)**

Pops up the [Comparison Options](#) dialog, in which you can make default settings for comparisons.

#### 4.1.4 Directory Content Group

The Directory Content Group of icons enables you to configure the display of Directory Comparison Windows. Note that—except for the directory synchronization commands, which are included in the **Diff and Merge** menu—none of these commands are available as menu commands. Each of these commands applies to the active directory comparison only.

**Show/Hide Equal**

Toggles on and off the display of **subdirectories and files** that are equal.

**Show/Hide Left Newer**

Toggles on and off the display of **files** in the left pane that are unequal and newer.

**Show/Hide Right Newer**

Toggles on and off the display of **files** in the right pane that are unequal and newer.

**Show/Hide Left Only**

Toggles on and off the display of **subdirectories and files** that are present in the left pane only.

**Show/Hide Right Only**

Toggles on and off the display of **subdirectories and files** that are present in the right pane only.

**Show/Hide Not Comparable**

Toggles on and off the display of files that are not comparable. Files are considered to be non-comparable if they cannot be compared in the selected Comparison Mode. For example, in XML Comparison Mode, file types that have been [specified as not being XML-conformant](#) are considered to be not comparable.

**Expand**

Expands all directories that have subdirectories.

**Collapse**

Collapses all directories that have subdirectories.

**Synchronize**

Opens the **Synchronize directories** dialog for the directories in the active Directory Comparison Window.

**Synchronize Selected**

Opens the **Synchronize directories** dialog for the directory that is selected in the active Directory Comparison Window.

**Include Subdirectories**

Toggles on and off the display of subdirectories of the directory to be compared.

For a description of the icons that are displayed next to subdirectory and file names in Directory Comparison Windows, see [Results of Directory Comparisons](#).

### 4.1.5 Grid Group

The Grid Group of icons is enabled in Grid View in File Comparison Windows, and most of these commands are available in the Grid View menu. With the Grid Group commands, you can make structural editing changes and modify the Grid View of your XML document. Grid View is not available for non-XML or non-well-formed documents; that is, for the Grid View of a document to be displayed, the document must be an XML document and be well-formed.

**Display as Table**

Changes the normal Grid View of an element to Table View. See the description at [Display as Table](#).

**Insert Row**

Enabled in [Table View](#) when a row or cell is selected. It inserts a new row before the selected row. The new row corresponds to an occurrence of the table element. Mandatory child elements are created for the new element

**Append Row**

Enabled in [Table View](#) when a row or cell is selected. It appends a new row after the last row of the table. The new row corresponds to an occurrence of the table element. Mandatory child elements are created for the new element

**Ascending Sort**

Enabled in [Table View](#) when a column or cell is selected. It sorts the column in either alphabetic or numeric ascending order. DiffDog tries to automatically determine what kind of data is used in the column, and sorts on alphabetic or numeric order as required.

**Descending Sort**

Enabled in [Table View](#) when a column or cell is selected. It sorts the column in either alphabetic or numeric descending order. DiffDog tries to automatically determine what kind of data is used in the column, and sorts on alphabetic or numeric order as required.

**Expand All Selected**

In Grid View, expands one or more selected nodes.

**Collapse All Selected**

In Grid View, collapses the selected nodes.

**Fully Expand All Selected**

In Grid View, expands all selected nodes and their descendant nodes.

**Collapse Unselected**

In Grid View, collapses all unselected nodes.

**Optimal Widths**

In Grid View, sets columns to optimal widths.

**Move Left**

In Grid View, moves the selected node to the left by one level, thereby changing a child element into a sibling of its parent.

**Move Right**

In Grid View, moves the selected node to the right by one level, thereby turning it into a child element of the preceding sibling element.

#### 4.1.6 Grid Edit Group

Icons in the Grid Edit Group are used for editing in Grid View. These commands are fully described in the [Grid View Menu](#) section.

#### 4.1.7 Text Group

The Text Group of icons enables you to configure the display and navigation features of Text View. Some of these commands apply to the selected file only (that is, the file in which the cursor is). Other commands apply to all open files and subsequently opened files. All these commands are available as Text View menu commands.

**Word Wrap**

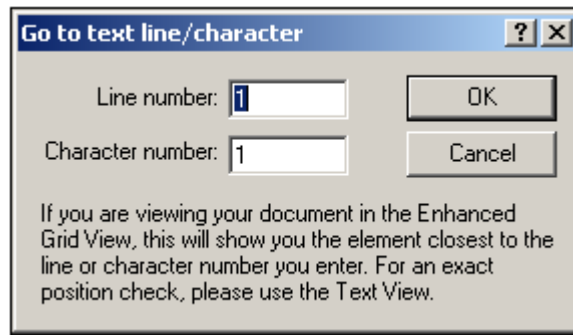
Wraps lines that extend beyond the width of the window pane onto the next line. This is a toggle control that applies to all currently open file comparisons and all subsequently opened file comparisons.

**Pretty-Print**

Indents and aligns text in individual XML files so that the document is formatted on screen and when printed. The setting applies only to the file in which the cursor currently is. The command is not available for non-XML files.

**Go to Line/Character (Ctrl+G)**

Pops up the Go to Line/Character dialog, in which you enter the line number and character number to which you wish to go. Applies to individual files.



### Insert/Remove Bookmark

When no bookmark exists, inserts a bookmark for the line in which the cursor is. If more than one line is highlighted and the icon is clicked, then the last line of the selection is bookmarked. If the Bookmarks Margin is hidden, then the entire line is highlighted with the background-color of the bookmark. This command toggles a bookmark on and off. So if the cursor is in a line that has already been bookmarked, clicking the toolbar icon will cause the bookmark to be removed.



### Next Bookmark

Moves cursor to the start of the next bookmarked line.



### Previous Bookmark

Moves cursor to the start of the previous bookmarked line.



### Remove All Bookmarks

Removes all bookmarks in the selected document.



### Line Numbers Margin

Toggles the Line Numbers Margin on and off. Applies to all currently open file comparisons and all subsequently opened file comparisons.



### Bookmarks Margin

Toggles the Bookmarks Margin on and off. Applies to all currently open file comparisons and all subsequently opened file comparisons.



### Source-Folding Margin

Toggles the Source-Folding Margin on and off. Applies to all currently open file comparisons and all subsequently opened file comparisons.



### Indentation Guides

Toggles the indentation guides on and off. Applies to all currently open file comparisons and all subsequently opened file comparisons.



### Show/Hide Whitespace

Toggles on and off the display of arrows (for tabs) and dots (for space characters). Applies to all currently open file comparisons and all subsequently opened file comparisons.

**Show/Hide End-of-Line Markers**

Toggles the display of end-of-line markers on and off. Applies to all currently open file comparisons and all subsequently opened file comparisons.

**Toggle All Folding Nodes**

Applies to files containing structured markup. Expands/collapses **all** expandable/collapsible nodes in the individual file in which the cursor is. If the source folding margin is toggled on, then the node folding icons are displayed there.

### 4.1.8 Comparison Window Toolbars

Each of the two panes of comparison windows (File Comparison and Directory Comparison) has toolbar icons for commands that apply to that individual pane.

**Apply**

This button is only active if the file or directory name has been changed in the drop-down list of the toolbar. Click this button to display the content represented by the changed file or directory name.

**Browse**

Pops up an Open dialog, to browse for the file or directory to open.

**Save**

Saves the document in the File Comparison pane. Enabled only if the document has been changed.

**Save as**

Saves the document in the File Comparison pane with another name.

**Refresh**

Refreshes the view of the pane (File and Directory Comparison Windows).

## 4.2 File Menu

The **File** menu contains commands to open and close File Comparison and Directory Comparison windows, and to print and save files in File Comparison windows. Note that each of the two panes also has pane-specific icons located near the top of each pane to open and refresh the file/directory in that pane and (for File Comparisons) to save the file in that pane. The following **File** menu commands are described in detail in this section.

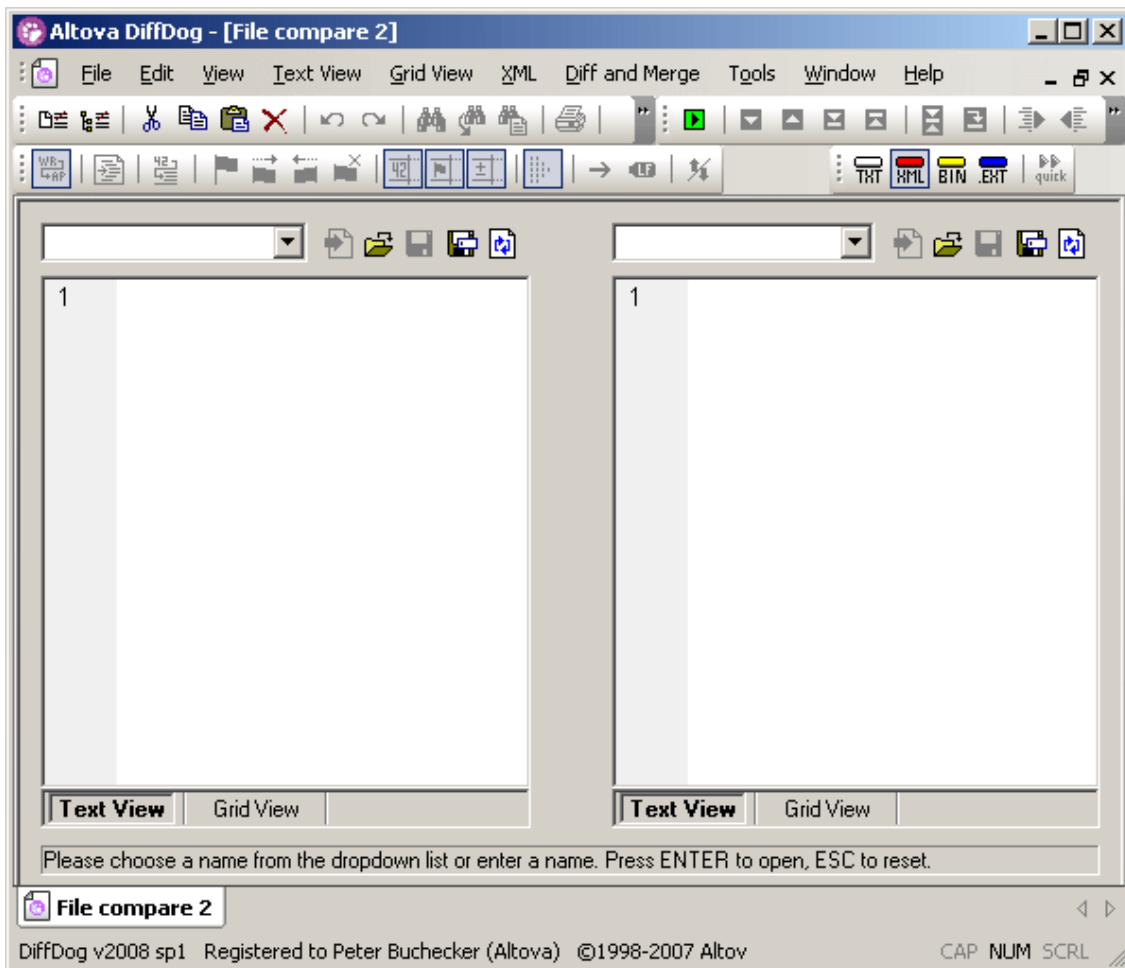
- [Compare Files](#)
- [Compare Directories](#)
- [Open](#)
- [Close, Close All, Save](#)
- [Print, Print Preview, Print Setup](#)
- [Exit](#)

### 4.2.1 Compare Files




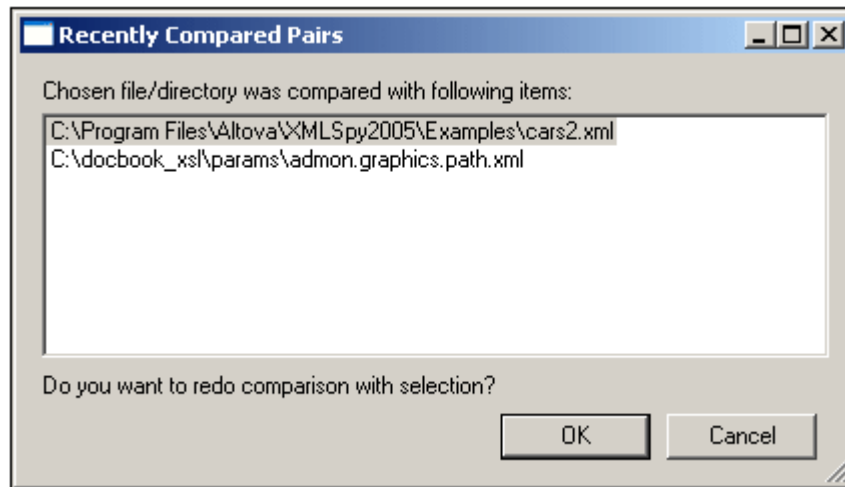
#### Compare Files

The **Compare Files** command opens a new window with two empty panes for file comparison (see *screenshot below*). The File Comparison is given a name of the form `File compare X`, where `X` is an integer indicating that file comparison's position in the sequence of **file comparisons** opened in the current DiffDog session. This name appears in a tab at the bottom of the window.



Note that the **Compare Files** command opens only the File Comparison window; it does not open any file within the window. The two files to be compared must be opened subsequently in the panes of the comparison window, one in each pane. You can use one of the following options:

- Click the **Browse** icon  in a pane and then browse for the required file.
- Drag-and-drop a file from a Windows Explorer window into a pane of the Comparison Window.
- If a file has been opened earlier in DiffDog, it appears in the drop-down list of both panes and can be selected by clicking its name in the drop-down list. The drop-down list contains the 10 most recently opened files.
- If, (i) a file you select for comparison has previously been compared with another file, and (ii) the Support Recently Compared Pairs option (**Diff and Merge | Support Recently Compared Pairs**) has been toggled on, then the Recently Compared Pairs dialog (*shown below*) appears. This dialog contains a list of the 5 files with which the file being opened has most recently been compared.



If you wish to compare the file being opened with one of the files listed in this dialog, select the file from the list in the dialog and click OK. This causes both files to be opened, one in each pane. If you do not wish to select any of the files listed in the dialog, click Cancel. This causes the file to be opened alone; you now have to select the file with which you wish to compare it in the second pane.

**Note:** Clicking Cancel causes the selected file to open in one pane without opening any previously compared file in the other pane. Clicking Cancel **does not** stop the selected file from being opened. If you wish not to have the Recently Compared Pairs dialog appear each time you open a document, then toggle the **Support Recently Compared Pairs** option off.

**Note:**

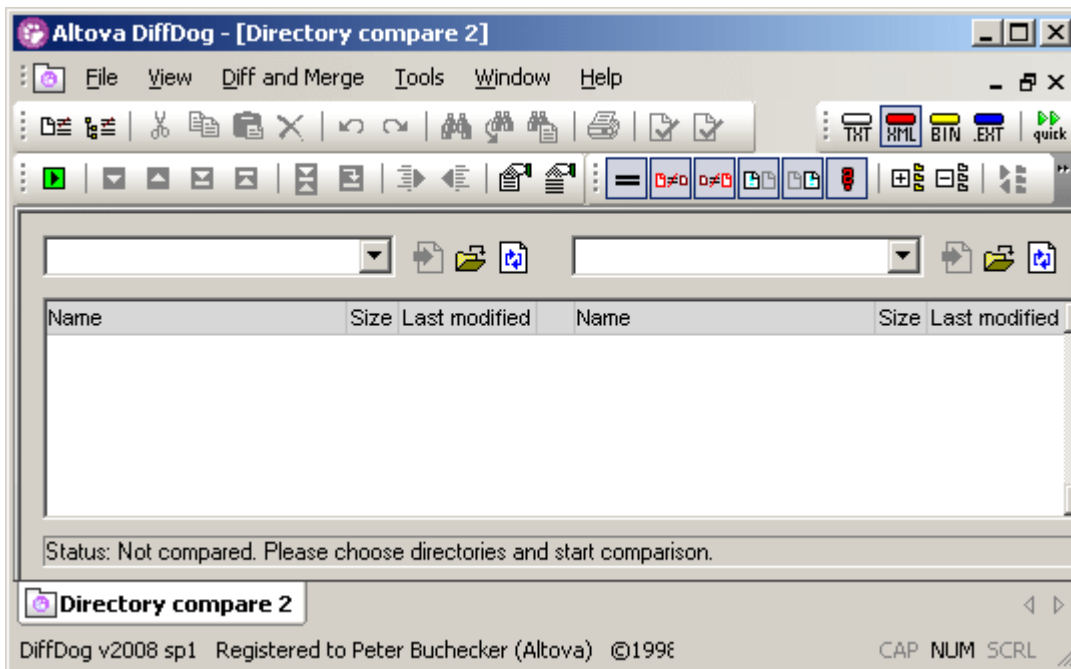
- The file you browsed for is opened in the pane in which you browsed for it. If you selected a file in the Recently Compared Pairs dialog, then that file is opened in the other pane.
- Several file comparisons can be open at a time, but only one is active. To make an open file comparison active, click its tab.

## 4.2.2 Compare Directories




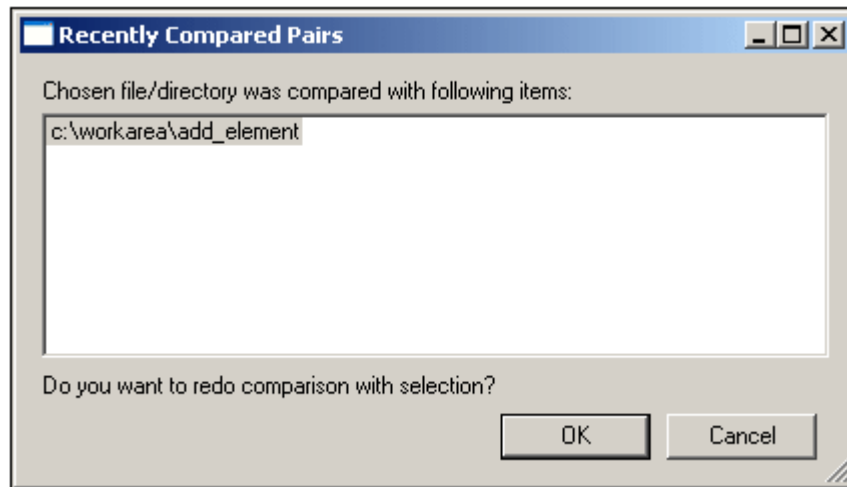
### Compare Directories

The **Compare Directories** command opens a new empty window for directory comparison (see *screenshot below*). The Directory Comparison is given a name of the form `Directory compare X`, where `X` is an integer indicating that directory comparison's position in the sequence of directory comparisons opened in the current DiffDog session. This name appears in a tab at the bottom of the window.



The two directories to be compared must be opened separately in each pane using the **Browse** icons in the respective panes of the Directory Comparison Window. If a directory has been opened earlier in DiffDog, you can select it from either drop-down list. You can use one of the following options:

- Click the **Browse** icon  in a pane and then browse for the required directory.
- Drag-and-drop a directory from a Windows Explorer window into a pane of the Comparison Window.
- If a directory has been compared earlier in a DiffDog directory comparison session, it appears in the drop-down list of both panes and can be selected by clicking its name in the drop-down list. The drop-down list contains the 10 most recently opened directories.
- If, (i) a directory you select for comparison has previously been compared with another directory, and (ii) the Support Recently Compared Pairs option (**Diff and Merge | Support Recently Compared Pairs**) has been toggled on, then the Recently Compared Pairs dialog (*shown below*) appears. This dialog contains a list of the 5 directories with which the directory being opened has been most recently compared.



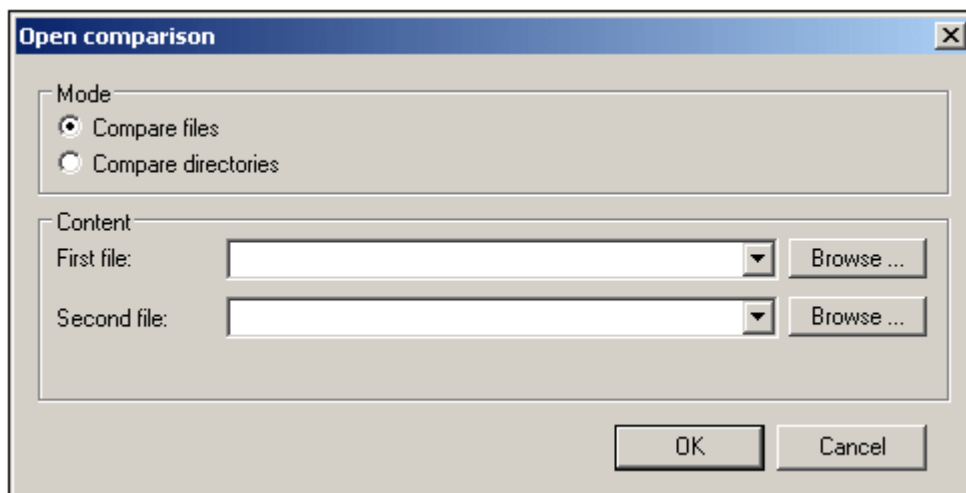
If you wish to compare the directory being opened with one of the directories listed in this dialog, select the required directory and click OK. Otherwise, click Cancel.

The directory you browsed for is opened in that pane of the window in which you browsed for it. The directory you select in the Recently Compared Pairs dialog, is opened in the other pane.

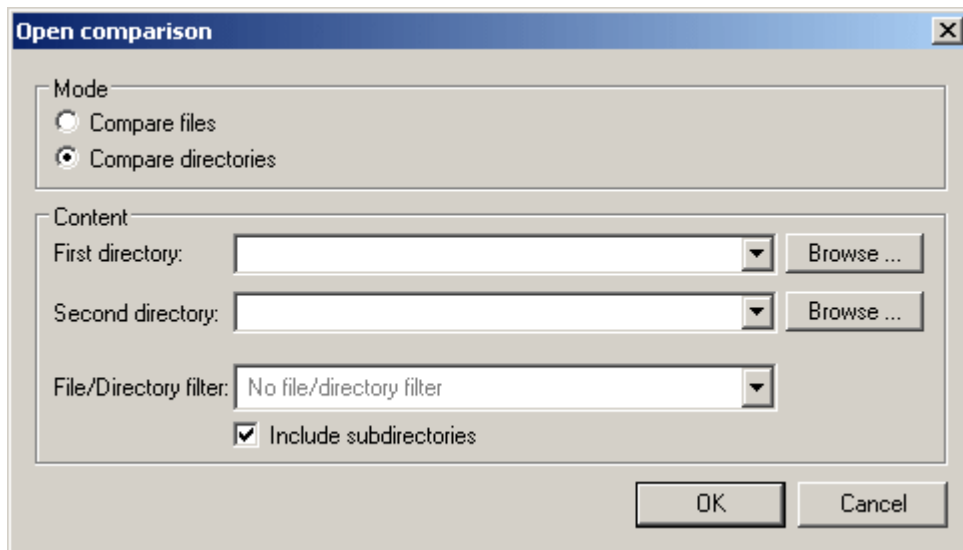
### 4.2.3 Open

The **Open** command enables you to open a File Comparison Window or Directory Comparison Window with the files or directories already selected. This is in contrast with the **File | Compare Files** and **File | Compare Directories** commands, which open empty comparison windows.

Clicking the **Open** command pops up the Open Comparison dialog (*shown below*).



In the Mode pane, you choose whether a File Comparison Window or Directory Comparison Window is to be opened. In the Content pane, you enter the name of the files or directories to be compared, either (i) directly, (ii) from entries in the dropdown menu, or (iii) by browsing for the required file or directory.

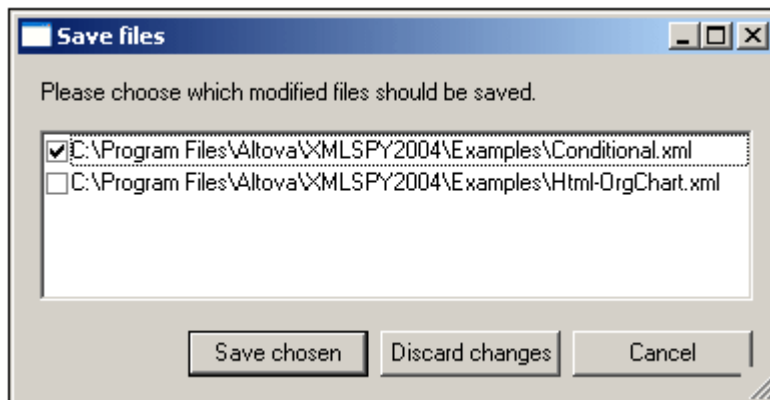


If you select a directory comparison, you can choose whether you wish to include subdirectories in the comparison or not (see screenshot above).

#### 4.2.4 Close, Close All, Save

##### Close

The **Close** command closes the active Comparison Window. If you have unsaved changes in either document of a File Comparison being closed, the Save Files dialog appears (screenshot below). Both files in the File Comparison are displayed. If a file contains unsaved changes, it is checked.



If you wish to save changes in a file make sure that its check box is selected and click Save Selected. Otherwise click Discard Changes to not save changes, or Cancel to not close the Comparison Window.



##### Close All

The **Close All** command closes all open comparison windows. If a document in a File Comparison contains unsaved changes, the Save Files dialog (screenshot above) appears for that File Comparison. Both documents are listed. Files that contain unsaved changes are checked. If you wish to save changes in a file make sure that its check box is selected and click Save Selected. Otherwise click Discard Changes to not save changes, or Cancel to not close the Comparison Window. Directory Comparisons are closed without any prompt.

If more than one File Comparison contains document/s with unsaved changes, a Save Files dialog is displayed for each File Comparison Window before the window is closed.

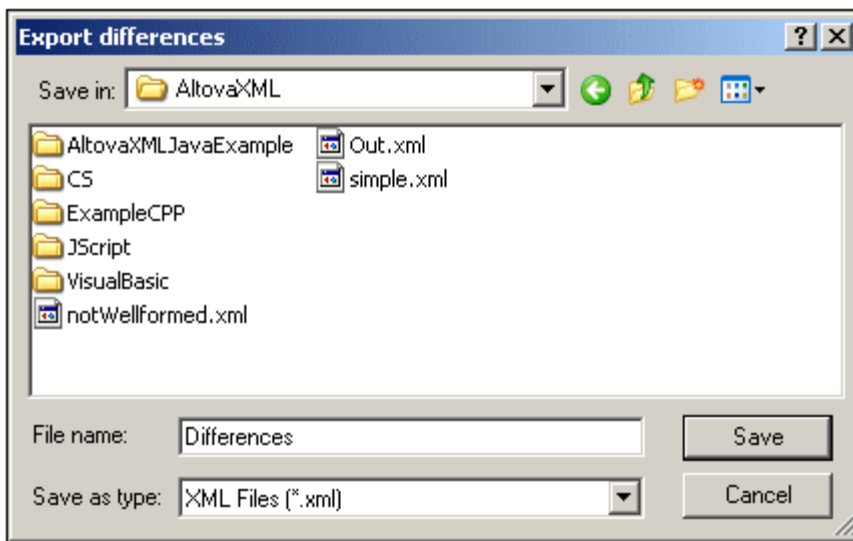
### Save

The **Save** command is available only for File Comparisons, and it pops up the Save Files dialog (*screenshot above*). Both files are displayed in the dialog. If a file contains unsaved changes, the file is listed with a check mark.

**Note:** Clicking the Save icon  of an **individual pane** in a File Comparison Window causes the document in that pane to be saved without further prompting. The Save As icon  enables you to save the document in that pane with a different filename.

## 4.2.5 Export Differences

For both File and Directory Comparisons, the differences can be exported to file. Clicking the Export Differences command pops up the Export Differences dialog (*screenshot below*), in which you can specify the filename of the file to which the differences will be exported.



Differences for XML and text file comparisons, and for directory comparisons, are exported to XML files. Differences for text comparisons can additionally be exported to text files.

Please note that restrictions apply to the export of XML files: The menu option **File | Export differences...** is **not available** if the [comparison options](#) for XML files are set as follows:

- The `Detailed differencing` check box in the View results group box is **not** activated, or
- the `Ignore node depth` check box in the Depth group box is activated.

**Note:** The Export Differences command is also available from the command line.

## 4.2.6 Print, Print Preview, Print Setup

### Print

The **Print** command pops up the Print dialog, in which you enter details about the print job. Note that this command prints the **active document**, that is, the document in which the cursor is when the command is invoked.

### Print Preview

The Print Preview displays a preview of how the active document will be printed.

### Print Setup

The **Print Setup** command pops up the Print Setup dialog, in which you can change printer settings for the print job and other printer properties. Settings include page orientation, paper size, and paper source. After you exit the Print Setup dialog, you must still use the Print command to print a document.

**Note:** You can print the active document from both Text View and Grid View. The output will be a printout of the selected view.

## 4.2.7 Exit

This command exits the DiffDog application. If documents in one or more File Comparison Windows contain unsaved changes, DiffDog pops up the Save Files dialog separately for each File Comparison containing an unsaved change. After you have answered the prompts, DiffDog closes.

## 4.3 Edit Menu

In DiffDog, you can edit documents displayed in a File Comparison Window. You edit a document either by typing directly into it, and/or by using keyboard shortcuts or commands in the **Edit** menu. The commands in the Edit menu include standard editing functions, such as **Undo**, **Cut**, **Copy**, **Paste**, and a powerful **Find and Replace** function. These commands are described in the sub-sections of this section.

**Note:**

- Editing commands are document-specific.
- Edit menu commands are not available when a Directory Comparison is active.

### 4.3.1 Undo, Redo

The **Undo (Alt+Backspace and Ctrl+Z)** command enables you to undo an unlimited number of previous actions for each document separately. To undo previous actions in any document, place the cursor in that document and select the Undo command. You can switch among documents in multiple open File Comparisons. In each document, the Undo's will continue from the point where it was last left.

The **Redo (Ctrl+Y)** command reverses a previous **Undo** command, and can be executed as many times as an **Undo** was performed. Like the **Undo** command, the **Redo** command is also document-specific, and you can switch among documents.

**Note:**

- The Undo and Redo commands also undo and redo merged differences an unlimited number of times.
- It is important to place the cursor in the document that has been changed. For example, if you merge a difference from the Left Pane to the Right Pane, then the Undo for this action will only be available if the cursor is placed in the Right Pane (because this pane contains the document that has been changed).
- The Undo and Redo history is lost when the view is switched from Text View to Grid View, or vice versa.
- The Edit menu and the Undo and Redo commands are not available in Directory Comparison Windows.

### 4.3.2 Cut, Copy, Paste, Delete

The **Cut (Ctrl+X, Shift+Delete)**, **Copy (Ctrl+C)**, and **Paste (Ctrl+V)** commands enable you to cut and copy text from a document to the clipboard, and then paste it into any document you make active in DiffDog. You can also paste text from the clipboard into any other document in an application that supports pasting from the clipboard.

The **Delete (Delete)** command enables you to delete a selection in the document.

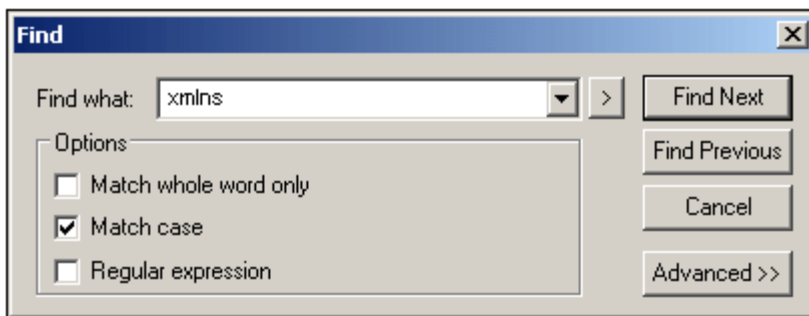
**Note:** The Edit menu and the Cut, Copy, Paste, and Delete commands are not available in Directory Comparison Windows.

### 4.3.3 Find and Replace

The **Find (Ctrl+F)**, **Find Next (F3)**, and **Replace (Ctrl+H)** commands enable you to find and replace text in the active document. The Find and Replace options are different for Text View and Grid View

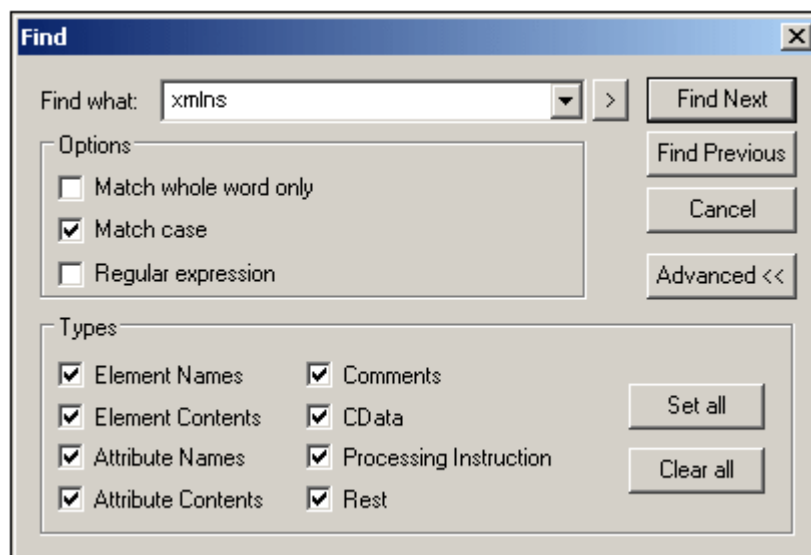
#### Find in Text View (Ctrl+F)

Clicking the **Find** command in Text View pops up the Find dialog shown below.



You can check one or more of the options in the Options frame to select them. The following options are available:

- Match whole word only. Finds the text string only if, in the document, it is delimited by spaces.
- Match case. Finds the text string only if the casing in the document is the same as that in the entry.
- Regular expression. Checking this option causes the entry to be read as a regular expression. The > button to the right of the Find What combo box opens a menu with entries to help define regular expressions. For details about using regular expressions, see the [section below](#).
- Clicking the Advanced button, opens a pane (*screenshot below*) that allows you to select XML node types to be searched.

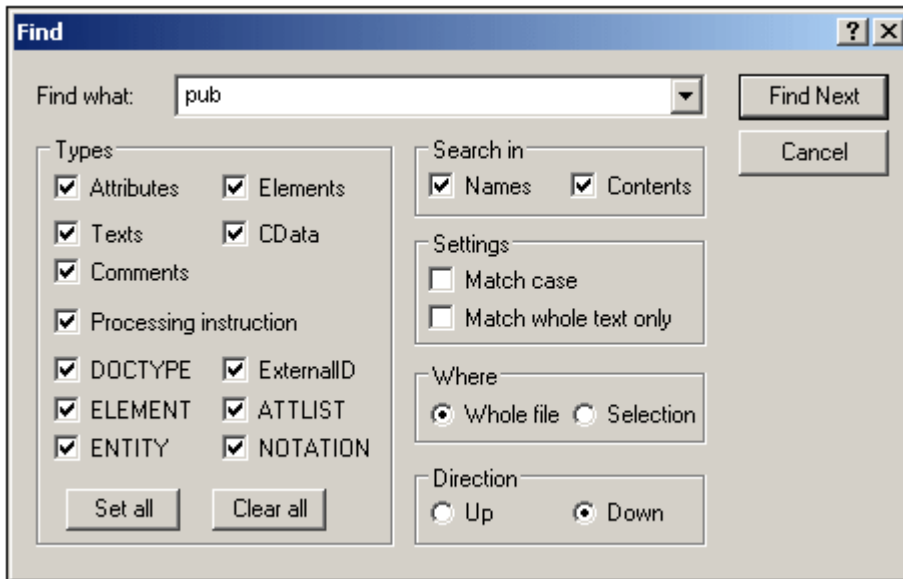


**Note:**

- If text is marked prior to opening the dialog box, then the marked text is automatically inserted into the Find What text box.
- The Find Next and Find Previous buttons enable you to navigate through the document when the Find dialog is open. Once the Find dialog is closed, you can repeat the current search by pressing **F3** for a forward search, or **Shift+F3** for a backward search.

**Find in Grid View (Ctrl+F)**

Clicking the **Find** command in Grid View pops up the Find dialog shown below.



The following options are available:

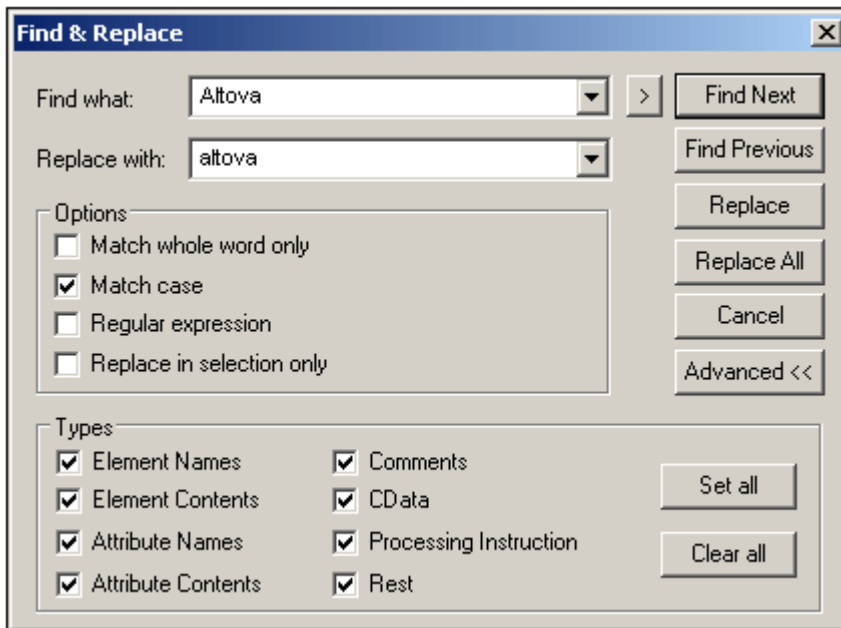
- Selecting the XML node types or DTD declarations to search (in the Types pane).
- Whether to search node names and/or node contents (in the Search In pane).
- Whether the search should match case and/or whole text.
- Whether the scope of the search should be the current selection or the whole file.
- Whether the search should progress upwards or downwards from the current selection or cursor location.

**Find Next in Text View and Grid View (F3)**

Clicking **Find Next** or **F3** takes you to the next occurrence in the document of the text string to be found. Clicking this command when the Find dialog is open, closes the Find dialog before taking you to the next occurrence of the search string.

**Replace in Text View (Ctrl+H)**

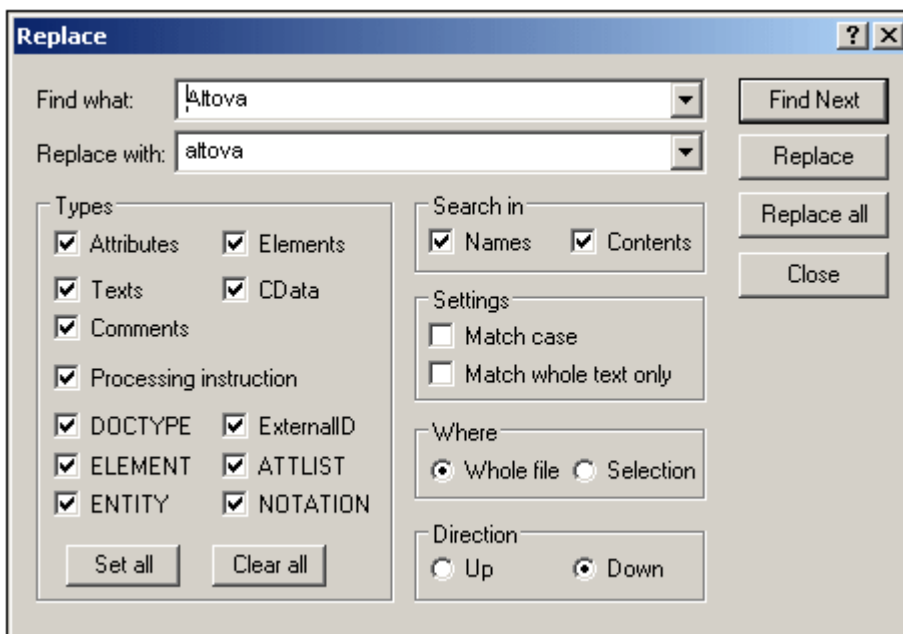
Clicking the **Replace** command in Text View pops up the Find & Replace dialog. Clicking the Advanced button opens a pane for selecting XML node types in which to search.



Note that the Regular Expression option applies only to the Find entry. You can replace within a selected text range (the range must be selected before opening the dialog) by checking the **Replace in Selection Only** option.

### Replace in Grid View (Ctrl+H)

Clicking the **Replace** command in Grid View pops up the Replace dialog shown below.



This dialog is similar to the Find dialog displayed in Grid View, but additionally has a text box in which you enter the text string with which you wish to replace the found string.

### Regular expressions

You can use regular expressions to further refine your search criteria. A pop-up list is available to help you build regular expressions. To access this list, click the > button to the right of the input field for the search term.

.	Matches any character. This is a placeholder for a single character.
\(	Marks the start of a region for tagging a match.
\)	Marks the end of a tagged region.
\n	Where <i>n</i> is 1 through 9. Refers to the first through ninth tagged region when replacing. For example, if the search string were <code>Fred\([ 1-9]\) XXX</code> and the replace string <code>Sam\1YYY</code> , when applied to <code>Fred2XXX</code> , this would generate <code>Sam2YYY</code> .
\<	Matches the start of a word. Usage: <code>&lt;?\&lt;</code> would look for the start of a processing instruction
\>	Matches the end of a word.
\x	Allows you to use a character <i>x</i> , that would otherwise have a special meaning. For example, <code>\[</code> would be interpreted as <code>[</code> and not as the start of a character set.
[ . . . ]	Indicates a set of characters. For example, <code>[ abc ]</code> matches any of the characters, <i>a</i> , <i>b</i> or <i>c</i> . You can also use ranges, for example <code>[ a-z ]</code> for any lower case character.
[ ^ . . . ]	The complement of the characters in the set. For example, <code>[ ^A-Za-z ]</code> means any character except an alphabetic character.
^	Matches the start of a line (unless used inside a set, see above).
\$	Matches the end of a line. Example: <code>A+\$</code> to find one or more <i>A</i> 's at end of line.
*	Matches 0 or more times. For example, <code>Sa*m</code> matches <i>Sm</i> , <i>Sam</i> , <i>Saam</i> , <i>Saaam</i> , and so on.
+	Matches 1 or more times. For example, <code>Sa+m</code> matches <i>Sam</i> , <i>Saam</i> , <i>Saaam</i> , and so on.

#### Note:

- The Edit menu and Find, Find Next, and Replace commands are not available in Directory Comparisons.
- The scope of the Find, Find Next, and Replace commands is the active document, and not both documents of a File Comparison.

## 4.4 View Menu

The **View Menu** contains commands to customize and organize the display of the DiffDog interface. It also contains the Go to Line/Character command, which takes you directly to a given line and character. This section has the following sub-sections:

- [Text View and Grid View](#)
- [Toolbars and Status Bar](#)
- [Synchronized Scrolling](#)
- [Go to Line/Char](#)

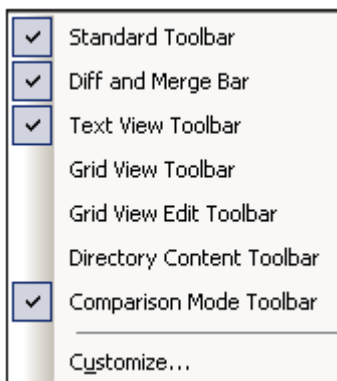
### 4.4.1 Text View and Grid View

The **Text View** and **Grid View** commands are available in File Comparison Windows (not Directory Comparison Windows), and they switch **both files** of the active File Comparison Window to the selected view. The view of files in File Comparison Windows can be either Text View or Grid View. Note that **both** files are always displayed in the same view. To switch the view, you can also use the Text View and Grid View tabs of either pane; the tabs are located at the bottom of each pane.

### 4.4.2 Toolbars and Status Bar

#### Toolbars

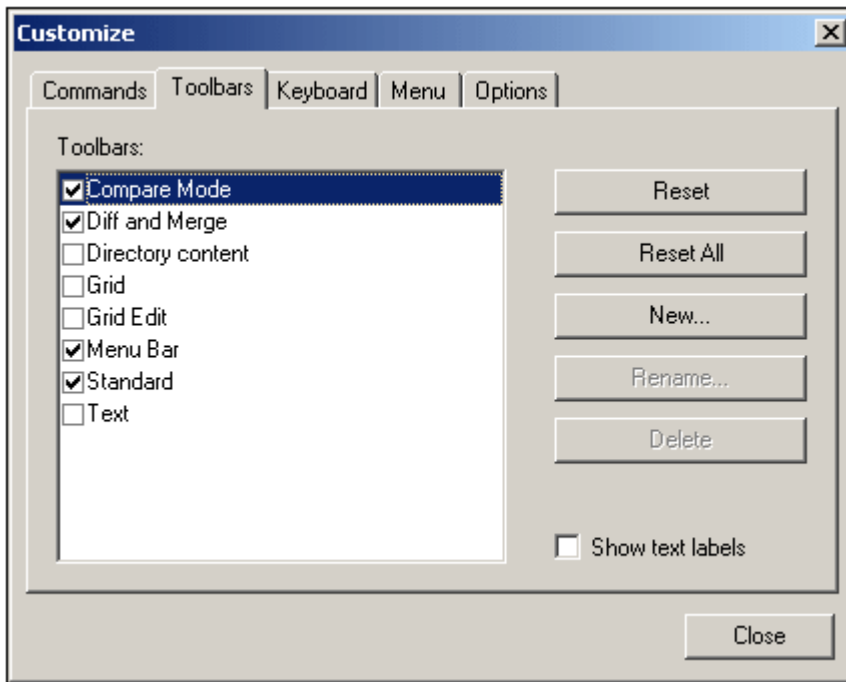
The Toolbars menu item is available in File Comparison and Directory Comparison windows, and contains a submenu which looks something like this:



The submenu items are toolbars that can be toggled on and off (by clicking the submenu item). In the screenshot above, the Standard Toolbar, Diff and Merge Toolbar, Text View Toolbar, and Comparison Mode Toolbar are toggled on, and are displayed in the GUI.

Toolbar settings are made for File Comparisons and Directory Comparisons separately. If toolbar settings are made with a File Comparison Window open, the settings apply to all File Comparison Windows that are currently open and that will be opened subsequently. The same applies for Directory Comparison Windows.

Clicking the Customize submenu item pops up the Customize dialog (*screenshot below*). (For a description of customization options, see the [Tools | Customize](#) section.) The Toolbars tab lists all the available toolbars.



To display a toolbar in the interface, click its check box. You can also show text labels for icons in a toolbar by selecting that toolbar and checking Show Text Labels. Clicking the Reset button resets all toolbar settings.

**Note:** You can move a toolbar around in the interface by dragging its handle to the desired location.

### Status Bar

The Status Bar, located at the bottom of the DiffDog application window, displays the following application-level information:

- A description of menu command and toolbar icon actions; displayed when the mouse cursor is placed over the command or icon. This information is on the left side in the Status Bar.
- Position of the cursor in a document, in terms of line number and character number. (At right in Status Bar.)
- Status of the Caps Lock, Num Lock and Scroll Lock keys. (At right in Status Bar.)

You can toggle the Status Bar on and off using the **Status Bar** command in both File Comparison and Directory Comparison Windows.

**Note:** Do not confuse the Application Status Bar described here with the File Comparison and Directory Comparison Status Bars, which are located at the bottom of Comparison Windows and contain information about that comparison. Comparison Window status bars are described in the [DiffDog Interface](#) section.

### 4.4.3 Synchronized Scrolling

**Synchronized Scrolling** is available in File Comparison Windows. If documents extend over a horizontal or vertical length greater than the size of its containing pane, horizontal and vertical scrollbars, respectively, appear at the bottom and right of the pane, respectively. When

synchronized scrolling is enabled, both documents can be scrolled simultaneously so that corresponding sections of the two documents are displayed simultaneously. Synchronized scrolling can be set for horizontal and vertical scrolling separately.

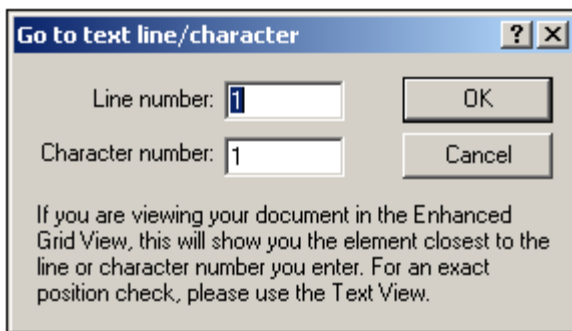
If you scroll through one document (by moving the scrollbar, clicking the scroll arrows, or using the mouse wheel) when synchronized scrolling is toggled on, the document in the other pane will also scroll (horizontally or vertically) so that the corresponding part of the document is displayed.

**Note:**

- Synchronized scrolling is possible only after a file comparison has been carried out (since the correspondence of sections in the two documents can only be determined after a comparison is made).
- Settings for Synchronized Scrolling apply to the application as a whole, and take effect immediately for all open File Comparison Windows and subsequently opened File Comparison Windows.

#### 4.4.4 Go to Line/Char

The **Go to Line/Char (Ctrl+G)** feature is available in File Comparison Windows only, and enables you to go to a particular location in the active document using line and character coordinates. The command pops up the Go To Text Line/Character dialog (*screenshot below*).



Enter the required line and character numbers in the respective text boxes, and click OK. This positions the cursor at the specified location.

**Note:** In Grid View, the Go to Line/Char feature highlights the grid cell closest to the line or character number you enter.

## 4.5 Text View Menu

The **Text View Menu** contains commands that apply to the Text View display of documents in File Comparison windows. They enable you to customize the display of documents. Among other features, you can toggle word-wrapping on and off; set margins for line numbers, bookmarks, and folding nodes; toggle on and off the display of whitespace, indentation guides, and end-of-line markers.

### 4.5.1 Word Wrap



The **Word Wrap** command enables or disables word wrapping in **Text View**.

### 4.5.2 Pretty-Print XML Text



The **Pretty-Print XML Text** command reformats the active XML document in Text View to give a structured display of the document. Each child node is offset from its parent by four space characters.

**Note:** The Pretty-Print XML Text command is not a toggle command. Once the command is executed, the pretty-printed format cannot be undone by clicking the Pretty-Print XML Text command again. To undo the pretty-printed format, you must use the **Undo (Ctrl+Z or Alt+Backspace)** command.

### 4.5.3 Insert/Remove Bookmark



The **Insert/Remove Bookmark** command is available in Text View only. It inserts a bookmark at the current cursor position, or removes the bookmark if the cursor is in a line that has been bookmarked previously.

Bookmarked lines are displayed in one of two ways:

- If the bookmarks margin has been enabled, then a solid cyan-colored ellipse appears to the left of the text in the bookmark margin.
- If the bookmarks margin has not been enabled, then the complete line containing the cursor is highlighted in cyan.

**Tip:** You can assign a keyboard shortcut for the inserting/removing bookmarks command in the [Keyboard Tab](#) of the Customize dialog.

#### 4.5.4 Go to Next Bookmark



The **Go to Next Bookmark** command is available in Text View only. It places the text cursor at the beginning of the next bookmarked line.

**Tip:** You can assign a keyboard shortcut for this command in the [Keyboard Tab](#) of the Customize dialog.

#### 4.5.5 Go to Previous Bookmark



The **Go to Previous Bookmark** command is available in Text View only. It places the text cursor at the beginning of the previous bookmarked line.

**Tip:** You can assign a keyboard shortcut for this command in the [Keyboard Tab](#) of the Customize dialog.

#### 4.5.6 Remove All Bookmarks



The **Remove All Bookmarks** command is available in Text View only. It removes all currently defined bookmarks in the active document. Note that the **Undo** command does not undo the effects of this command.

**Tip:** You can assign a keyboard shortcut for this command in the [Keyboard Tab](#) of the Customize dialog.

#### 4.5.7 Line Numbers Margin



The **Line Numbers Margin** command toggles the line numbering margin on and off in Text View.

#### 4.5.8 Bookmarks Margin



The **Bookmarks Margin** command toggles the Bookmarks Margin on and off in Text View. If a bookmark is present in the Bookmarks Margin and the Bookmarks Margin is then toggled off, the bookmarked line is highlighted. When the Bookmarks Margin is toggled on again, the highlighting is removed and the bookmark appears in the Bookmarks Margin.

### 4.5.9 Source Folding Margin



The **Source Folding Margin** command toggles the source folding margin on and off for documents with folding nodes (nodes that can be expanded and collapsed). Clicking the plus or minus symbols in this margin allows you to expand or collapse the respective section of code.

### 4.5.10 Indentation Guides



The **Indentation Guides** command toggles indentation guides on and off in Text View. Indentation guides are the dotted vertical lines that run downwards from the start of each indentation level. They give you a visual indication of the hierarchical levels in the document.

**Note:** Indentation guides are set for all File Comparison windows at once—not for individual File Comparison windows separately.

### 4.5.11 Whitespace



The **Whitespace** command toggles whitespace markers on and off in Text View. The whitespace markers that are indicated are space and tab characters. A tab is indicated with a rightward-pointing arrow, a space is indicated with a dot. Whitespace markers give you a visual indication of whitespace occurrence in the document. (Linefeed and carriage return characters are indicated by [end-of-line markers](#).)

**Note:** Whitespace markers are set for all File Comparison windows at once—not for individual File Comparison windows separately.

### 4.5.12 End-of-Line Markers



The **End-of-Line Markers** command toggles end-of-line markers on and off in Text View. Each end-of-line marker represents a carriage return and linefeed character.

**Note:** End-of-line markers are set for all File Comparison windows at once—not for individual File Comparison windows separately.

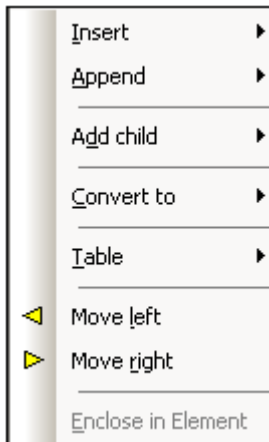
### 4.5.13 Toggle All Folds



The **Toggle All Folds** command toggles the active document between two states: (i) all nodes expanded, and (ii) all nodes collapsed.

## 4.6 Grid View Menu

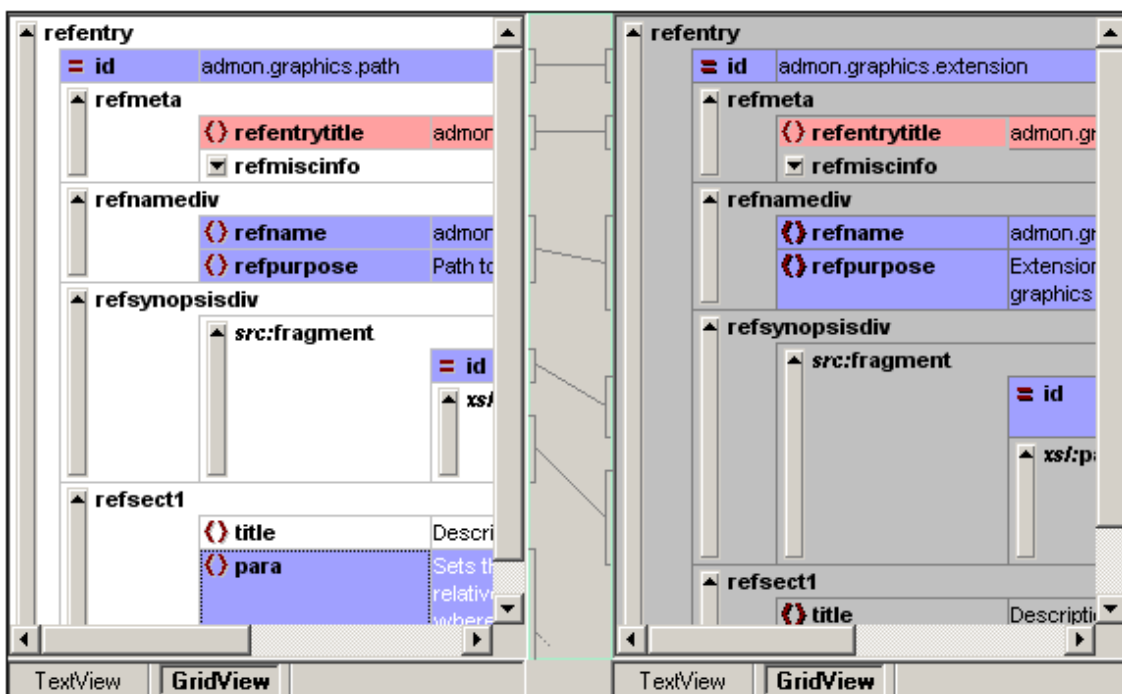
The **Grid View Menu** contains commands for working with documents in the Grid View of File Comparison Windows.



These commands are not available in Text View.

### Description of Grid View

Grid View can be used to display files that are well-formed, typically XML files. In Grid View, each node is displayed as a row in a grid. This enables you to see the hierarchy in a graphical view, to navigate through the document more easily, and to manipulate the structure of the document using graphical mechanisms such as drag-and-drop. Graphical manipulation of structure and contents is further enhanced in Table View, which is another mode of Grid View (see description below).



Note the following points, all of which can be seen in the screenshot above:

- Node names are displayed in bold, their contents in normal font.
- Different node types are indicated with different symbols. For example, attributes are indicated with a red = symbol, elements with red angular brackets.
- Nodes that are different from one document to the other are highlighted, with the current difference being highlighted in a different color.
- Corresponding differences in the two documents are joined with a line.

#### Navigation and display features

- Nodes (rows) can be expanded and collapsed by clicking on the upward arrow button at the extreme left of a grid row.
- Columns can be resized by dragging their borders left or right.

#### Editing document structure and contents

- Grid rows can be dragged to new locations by selecting the row and dragging it to the desired location. Multiple nodes that are contiguously located can be selected for this operation.
- Individual nodes can also be moved left or moved right using the respective Grid View menu commands (or their toolbar icons). This changes the position of the node in the document hierarchy. See the [Move Left](#) and [Move Right](#) menu commands for details.
- To edit a node name or node contents, double-click the location where you wish to insert the cursor.

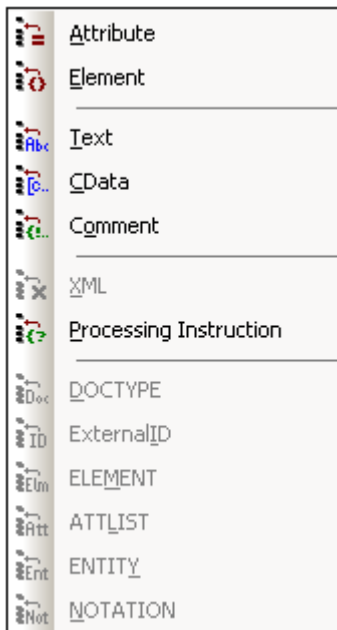
#### Table View

In normal Grid View, each node has a row to itself. When an element occurs multiple times at the same hierarchical level, this element can be displayed as a table, which enables additional editing features. Table View is described in the [Table](#) section.

### 4.6.1 Insert

The **Insert** command pops out a submenu, the commands of which can be used to insert:

- The XML declaration and node types (Attribute, Element, Text, CDATA, Comment, Processing Instruction) in XML documents;
- DOCTYPE declarations and external DTD declarations in XML documents; and
- DTD declarations (ELEMENT, ATTLIST, ENTITY, and NOTATION) in DTD documents and internal DTD declarations of XML documents.



Placing the cursor over the **Insert** command pops up a submenu which contains the items that can be inserted. The submenu items of the **Insert** command (*screenshot above*) are enabled only in Grid View. Items that can be inserted for the current selection are enabled.

### Insert Attribute



The **Insert Attribute** command is available in Grid View only, and inserts a new attribute before the selected item. Sometimes, an inserted attribute may appear a few lines before the current item in Grid View. This is because attributes immediately follow their parent element in Grid View and precede all child elements of that parent element.

### Insert Element



The **Insert Element** command is available in Grid View only, and inserts a new element before the selected item. If the current selection is an attribute, the new element is inserted before the first child element of the attribute's parent element.

### Insert Text



The **Insert Text** command is available in Grid View only, and inserts a new text row before the selected item. If the current selection is an attribute, the text row is inserted after the attribute and before the first child element of the attribute's parent element.

### Insert CDATA



The **Insert CDATA** command is available in Grid View only, and inserts a new CDATA block before the selected item. If the current selection is an attribute, the CDATA block is inserted after the attribute and before the first child element of the attribute's parent element.

### Insert Comment



The **Insert Comment** command is available in Grid View only, and inserts a new comment before the selected item. If the current selection is an attribute, the new comment row is inserted after the attribute and before the first child element of the attribute's parent element.

### Insert XML



The **Insert XML** command is available in Grid View only, and inserts a row for the XML declaration before the selected item. You must insert the child attributes of the XML declaration and the values of this attribute. An XML declaration must look something like this:

```
<?xml version="1.0" encoding="UTF-8"?>
```

**Note:** Since an XML document may only contain one XML declaration at the very top of the file, this command should only be used with the topmost row selected and if an XML declaration does not already exist.

### Insert Processing Instruction



The **Insert Processing Instruction** command is available in Grid View only, and inserts a new processing instruction (PI) before the selected item. If the current selection is an attribute, the PI is inserted after the attribute and before the first child element of the attribute's parent element.

### Insert DOCTYPE



The **Insert DOCTYPE** command is available in the Grid View of an XML file when a top-level node is selected. It appends a DOCTYPE declaration at the top of the XML document. You must enter the name of the DOCTYPE, and this name must be the same as the name of the document element.



After you have entered the name of the DOCTYPE, you can enter the declarations you wish to use in the internal DTD subset.

**Note:** A DOCTYPE declaration may only appear between the XML declaration and the XML document element.

### Insert ExternalID



A DOCTYPE declaration in an XML file can contain a reference to an external resource containing DTD declarations. This resource is referenced either through a public or system identifier. For example:

```
<!DOCTYPE doc_element_name PUBLIC "publicID" "systemID">
<!DOCTYPE doc_element_name SYSTEM "systemID">
```

A system identifier is a URI that identifies the external resource. A public identifier is location-independent and can be used to dereference the location of an external resource. For example, in your <%SPY-GEN%> installation, URIs for popular DTDs and XML Schemas are listed in a catalog file called `MainCatalog.xml`. A public identifier in an XML document can be used to dereference a DTD listed in `MainCatalog.xml`.

The **Insert ExternalID** command is available when a "child" item of the DOCTYPE declaration in an XML file is selected in Grid View. This command inserts a Grid View row for an external identifier (`PUBLIC` or `SYSTEM`). You must enter the type of identifier and its value.

DOCTYPE OrgChart	
ID	SYSTEM
Elm name	"orgchart.dtd"
	#PCDATA

The Text View corresponding to the screenshot of the Grid View shown above looks something like this:

```
<!DOCTYPE OrgChart SYSTEM "orgchart.dtd" [
  <!ELEMENT name ( #PCDATA) >
]>
```

**Note:** A row for External-ID can be added as a child when the DOCTYPE item is selected, or it can be inserted or appended when one of the child items of the DOCTYPE item is selected, for example, the ELEMENT declaration `name` in the example above.

### Insert ELEMENT



The **Insert ELEMENT** command is available in Grid View only, for DTD documents or when an item in the DOCTYPE declaration of an XML document is selected. It inserts an ELEMENT declaration before the selected declaration.

### Insert ATTLIST



The **Insert ATTLIST** command is available in Grid View only, for DTD documents or when an item in the DOCTYPE declaration of an XML document is selected. It inserts an ATTLIST declaration before the selected declaration.

### Insert ENTITY



The **Insert ENTITY** command is available in Grid View only, for DTD documents or when an item in the DOCTYPE declaration of an XML document is selected. It inserts an ENTITY declaration before the selected declaration.

### Insert NOTATION

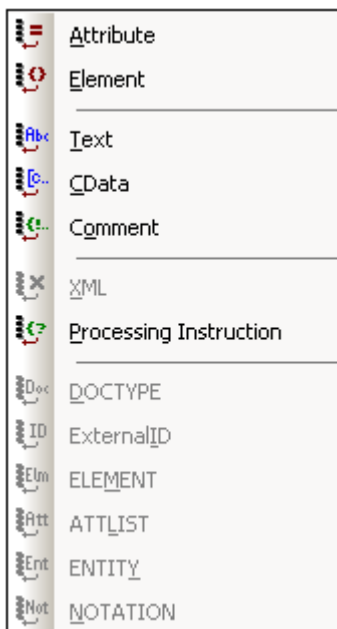


The **Insert NOTATION** command is available in Grid View only, for DTD documents or when an item in the DOCTYPE declaration of an XML document is selected. It inserts a NOTATION declaration before the selected declaration.

## 4.6.2 Append

The **Append** command pops out a submenu, the commands in which can be used to append:

- The XML declaration and node types (Attribute, Element, Text, CDATA, Comment, Processing Instruction) in XML documents;
- DOCTYPE declarations and external DTD declarations in XML documents; and
- DTD declarations (ELEMENT, ATTLIST, ENTITY, and NOTATION) in DTD documents and internal DTD declarations of XML documents.



Placing the cursor over the **Append** command pops up a submenu which contains the items that can be inserted for a given selection. The submenu items of the **Append** command ( *screenshot above*) are enabled only in Grid View.

### Append Attribute



The **Append Attribute** command is available in Grid View only, and appends a new attribute.

### Append Element



The **Append Element** command is available in Grid View only, and appends an element node after the last sibling element of the selected element. If an attribute node is selected, then the element node is appended after the last child of the selected attribute's parent element.

### Append Text



The **Append Text** command is available in Grid View only, and appends a text block after the last sibling element of the selected element. If an attribute node is selected, then the text block is appended after the last child of the selected attribute's parent element.

### Append CDATA



The **Append CDATA** command is available in Grid View only, and appends a CDATA node after the last sibling of any selected node other than an attribute node. If an attribute node is selected, then the CDATA section is appended after the last child of the selected attribute's parent element.

### Append Comment



The **Append Comment** command is available in Grid View only, and appends a comment node after the last sibling of any selected node other than an attribute node. If an attribute node is selected, then the comment node is appended after the last child of the selected attribute's parent element.

### Append XML



The **Append XML** command inserts a new XML declaration `<?xml version="1.0"`

`encoding="UTF-8" ?>` as the first item in a document. Note that an XML document may contain only one XML declaration, which must appear at the very top of the file.

### Append Processing Instruction



The **Append Processing Instruction** command is available in Grid View only, and appends a processing instruction node after the last sibling of any selected node other than an attribute node. If an attribute node is selected, then the processing instruction node is appended after the last child of the selected attribute's parent element.

### Append DOCTYPE



The **Append DOCTYPE** command is available in the Grid View of an XML file when a top-level node is selected. It appends a DOCTYPE declaration at the top of the XML document. You must enter the name of the DOCTYPE, and this name must be the same as the name of the document element.



After you have entered the name of the DOCTYPE, you can enter the declarations you wish to use in the internal DTD subset.

**Note:** A DOCTYPE declaration may only appear between the XML declaration and the XML document element.

### Append ExternalID

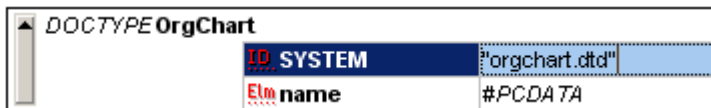


A DOCTYPE declaration in an XML file can contain a reference to an external resource containing DTD declarations. This resource is referenced either through a public or system identifier. For example:

```
<!DOCTYPE doc_element_name PUBLIC "publicID" "systemID">
<!DOCTYPE doc_element_name SYSTEM "systemID">
```

A system identifier is a URI that identifies the external resource. A public identifier is location-independent and can be used to dereference the location of an external resource. For example, in your <%SPY-GEN%> installation, URIs for popular DTDs and XML Schemas are listed in a catalog file called `MainCatalog.xml`. A public identifier in an XML document can be used to dereference a DTD listed in `MainCatalog.xml`.

The **Append ExternalID** command is available when a "child" item of the DOCTYPE declaration in an XML file is selected in Grid View. This command inserts a Grid View row for an external identifier (`PUBLIC` or `SYSTEM`). You must enter the type of identifier and its value.



The Text View corresponding to the screenshot of the Grid View shown above looks something like this:

```
<! DOCTYPE OrgChart SYSTEM "orgchart.dtd" [
  <! ELEMENT name ( #PCDATA) >
]>
```

**Note:** A row for External-ID can be added as a child when the DOCTYPE item is selected, or it can be inserted or appended when one of the child items of the DOCTYPE item is selected, for example, the ELEMENT declaration `name` in the example above.

### Append ELEMENT



The **Append ELEMENT** command is available in Grid View only, for DTD documents or when an item in the DOCTYPE declaration of an XML document is selected. It appends an ELEMENT declaration to the list of declarations.

### Append ATTLIST



The **Append ATTLIST** command is available in Grid View only, for DTD documents or when an item in the DOCTYPE declaration of an XML document is selected. It appends an ATTLIST declaration to the list of declarations.

### Append ENTITY



The **Append ENTITY** command is available in Grid View only, for DTD documents or when an item in the DOCTYPE declaration of an XML document is selected. It appends an ENTITY declaration to the list of declarations.

### Append NOTATION

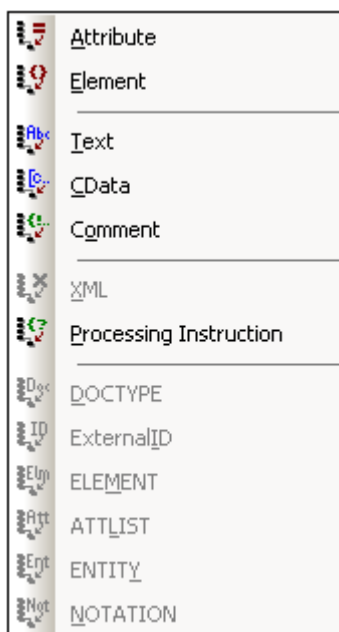


The **Append NOTATION** command is available in Grid View only, for DTD documents or when an item in the DOCTYPE declaration of an XML document is selected. It appends a NOTATION declaration to the list of declarations.

### 4.6.3 Add Child

The **Add Child** command pops out a submenu, the commands in which can be used to add the following child items to the currently selected element.

- The XML declaration and node types (Attribute, Element, Text, CDATA, Comment, Processing Instruction) in XML documents;
- DOCTYPE declarations and external DTD declarations in XML documents; and
- DTD declarations (ELEMENT, ATTLIST, ENTITY, and NOTATION) in DTD documents and internal DTD declarations of XML documents.



Placing the cursor over the **Add Child** command pops up a submenu which contains the items that can be inserted. The submenu items of the **Add Child** command (*screenshot above*) are enabled only in Grid View.

#### Add Child Attribute



The **Add Child Attribute** command is available in Grid View only and when an element node is selected. It inserts a new attribute as a child of the selected element node.

#### Add Child Element



The **Add Child Element** command is available in Grid View only. It inserts a new element as a child of the selected node.

### Add Child Text



The **Add Child Text** command is available in Grid View only, and inserts new text content as a child of the selected item.

### Add Child CDATA



The **Add Child CDATA** command is available in Grid View only, and inserts a new CDATA section as a child of the selected item.

### Add Child Comment



The **Add Child Comment** command is available in Grid View only, and inserts a new Comment node as a child of the selected item.

### Add Child XML



The **Add Child XML** command is available in Grid View only and when the file is **empty**. It inserts a new XML declaration `<?xml version="1.0" encoding="UTF-8"?>` as the first item in a document. Note that an XML document may contain only one XML declaration, which must appear at the very top of the file.

### Add Child Processing Instruction



The **Add Child Processing Instruction** command is available in Grid View only and inserts a new Processing Instruction (PI) as a child of the selected item.

### Add Child DOCTYPE



This **Add Child DOCTYPE** command is only available in the Grid View of an **empty** document. It inserts a DOCTYPE declaration in an XML document. The DOCTYPE declaration can be used to declare an internal DTD subset.

### Add Child ExternalID



The **Add Child ExternalID** command is available only when the DOCTYPE declaration of an XML file is selected in Grid View. This command inserts a Grid View row for an external identifier (`PUBLIC` or `SYSTEM`). You must enter the type of identifier and its value.

DOCTYPE OrgChart	
ID	SYSTEM
Elm name	"orgchart.dtd"
	#PCDATA

The Text View corresponding to the screenshot of the Grid View shown above looks something like this:

```
<! DOCTYPE OrgChart SYSTEM "orgchart.dtd" [
  <! ELEMENT name ( #PCDATA) >
]>
```

**Note:** A row for External-ID can be added as a child when the DOCTYPE item is selected, or it can be inserted or appended when one of the child items of the DOCTYPE item is selected, for example, the ELEMENT declaration `name` in the example above.

### Add Child ELEMENT



The **Add Child ELEMENT** command is available in Grid View only, for DTD documents, or when the DOCTYPE declaration of an XML document is selected. It appends an ELEMENT declaration to the list of declarations.

### Add Child ATTLIST



The **Add Child ATTLIST** command is available in Grid View only, for DTD documents, or when the DOCTYPE declaration of an XML document is selected. It appends an ATTLIST declaration to the list of declarations.

### Add Child ENTITY



The **Add Child ENTITY** command is available in Grid View only, for DTD documents, or when the DOCTYPE declaration of an XML document is selected. It appends an ENTITY declaration to the list of declarations.

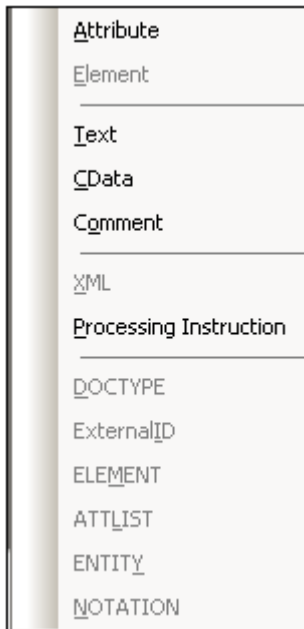
### Add Child NOTATION



The **Add Child NOTATION** command is available in Grid View only, for DTD documents, or when the DOCTYPE declaration of an XML document is selected. It appends a NOTATION declaration to the list of declarations.

#### 4.6.4 Convert To

The **Convert to** command converts a selected item in Grid View to a different item type. This operation is available only in Grid View on individual items that do not contain any child node. Placing the cursor over the **Convert to** command pops up a submenu which contains the items to which the selected item can be converted.



If the operation would result in a loss of data (for example, converting an attribute to a comment would result in a loss of the attribute name), a warning dialog box will appear.

##### **Convert To Attribute**

The **Convert to Attribute** command converts the selected item to a attribute.

##### **Convert To Element**

The **Convert to Element** command converts the selected item to an element.

##### **Convert To Text**

The **Convert to Text** command converts the selected item into text content.

##### **Convert To CDATA**

The **Convert to CDATA** command converts the selected item into a CDATA segment.

##### **Convert To Comment**

The **Convert to Comment** command converts the selected item into a comment.

### Convert To XML

The **Convert to XML** command converts the selected item to an XML declaration:

```
<?xml version="1.0" encoding="UTF-8"?>.
```

**Note:** Each XML document may only contain one XML declaration and it must appear at the very top of the file.

### Convert To Processing Instruction

The **Convert to Processing Instruction** command converts the selected item to a new Processing Instruction (PI).

### Convert To DOCTYPE

The **Convert to DOCTYPE** command converts the selected item to a DOCTYPE declaration (in an XML file), for the internal subset of a Document Type Declaration (DTD).

**Note:** A DOCTYPE declaration may only appear at the top of an XML instance document between the XML Declaration and the document element of the XML document.

### Convert To ExternalID

The **Convert to ExternalID** command converts the selected item to an external DTD reference in a DOCTYPE declaration (`PUBLIC` or `SYSTEM` identifier).

### Convert To ELEMENT

The **Convert to ELEMENT** command converts the selected item to an element declaration in a DOCTYPE declaration or in an external DTD.

### Convert To ATTLIST

The **Convert to ATTLIST** command converts the selected item to an attribute list declaration in a DOCTYPE declaration or in an external DTD.

### Convert To ENTITY

The **Convert to ENTITY** command converts the selected item to an entity declaration in a DOCTYPE declaration or in an external DTD.

### Convert To NOTATION

The **Convert to NOTATION** command converts the selected item to a notation declaration in a DOCTYPE declaration or in an external DTD.

## 4.6.5 Table

The **Table** menu command can be used only in Grid View. It pops out a submenu with commands that enable you to edit the selection as a table.

### Description of Table View

In normal Grid View, each node has a grid row to itself, as shown in the screenshot below.

member	
name	USA
pop	290
member	
name	UK
pop	80
member	
name	FRA
pop	82
member	
name	GER
pop	88
member	
name	AUT
pop	9

When an element occurs multiple times at the same hierarchical level (as is the case with the `member` element in the screenshot above), it can be displayed as a table (by selecting one of the occurrences of the element to be created as a table, and then clicking **Grid View | Table | Display as Table**). This creates a table (*screenshot below*) in which each occurrence of the element created as a table is represented as a row. The table element's child nodes (attributes, elements, etc) are displayed as columns of the table.

member (5)		
	name	pop
1	USA	290
2	UK	80
3	FRA	82
4	GER	88
5	AUT	9

The structure and contents of the table can now also be edited using table mechanisms. For example, rows (new table element occurrences) and columns (new child nodes for all table element occurrences) can be inserted into the table, and the table can be sorted on one of its columns.

member (5)		
	name	pop
1	AUT	9
2	UK	80
3	FRA	82
4	GER	88
5	USA	290

In the screenshot above, the table (for `member` elements) is sorted on the `pop` column. (This was done by selecting the `pop` column and then clicking the command **Grid View | Table | Ascending Sort**.)

## Display as Table



The **Display as Table** command allows you to switch between the standard Grid View and Table View of an element in the document. Table View enables you to view repeated elements as a table in which the rows represent the occurrences while the columns represent child nodes (including comments, CDATA sections, and PIs).


To switch to Table View, do the following:


1. Select any one occurrence of the repeating element you wish to view as a table.

▲ member	name	USA
	pop	40
▲ member	name	UK
	pop	80
▲ member	name	FRA
	pop	82
▲ member	name	GER
	pop	88
▲ member	name	AUT
	pop	8

2. Click **Grid View | Table | Display as Table** or the  toolbar icon.

▲ member (5)		
	name	pop
1	USA	290
2	UK	80
3	FRA	82
4	GER	88
5	AUT	9

The element is displayed as a table and the  toolbar icon is activated.

To switch from the Table View of a document element to the normal Grid View of that element, select the table or any of its rows (not a column or cell), and click the  toolbar icon. The table element switches to normal Grid View.

## Insert Row



The **Insert Row** command is enabled in Table View when a row or cell is selected. It inserts a new row before the selected row. The new row corresponds to an occurrence of the table element. Mandatory child elements are created for the new element.

### Append Row

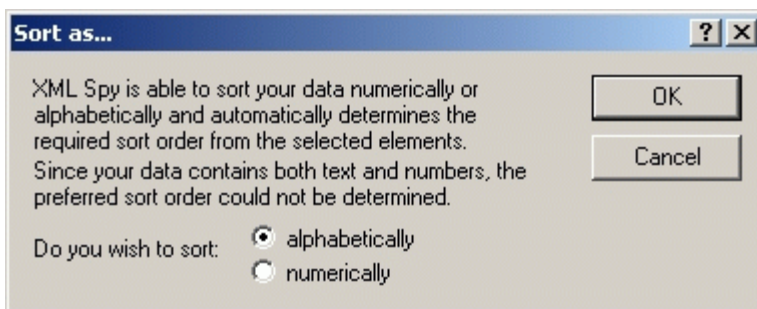


The **Append Row** command is enabled in Table View when a row or cell is selected. It appends a new row after the last row of the table. The new row corresponds to an occurrence of the table element. Mandatory child elements are created for the new element.

### Ascending Sort



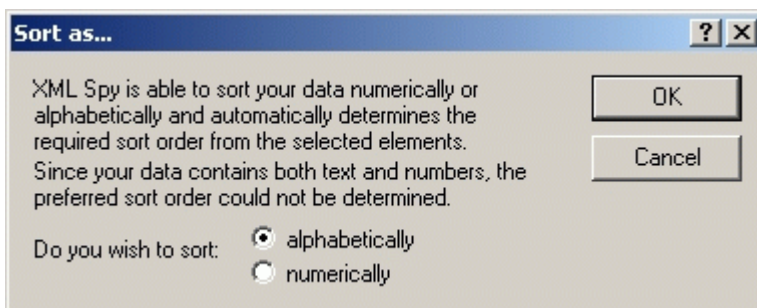
The **Ascending Sort** command is enabled in Table View when a column or cell is selected. It sorts the table on the basis of the contents of the selected column, in ascending order. DiffDog tries to automatically determine what kind of data is used in the column, and sorts on alphabetic or numeric order, as required. In case of uncertainty, you will be prompted for the sort method to use (*screenshot below*).



### Descending Sort



The **Descending Sort** command is enabled in Table View when a column or cell is selected. It sorts the table on the basis of the contents of the selected column, in descending order. DiffDog tries to automatically determine what kind of data is used in the column, and sorts on alphabetic or numeric order, as required. In case of uncertainty, you will be prompted for the sort method to use (*screenshot below*).



#### 4.6.6 Move Left



The **Move Left** command is available in Grid View only. It moves the selected node to the left by one level, thereby changing a child element into a sibling of its parent.

#### 4.6.7 Move Right

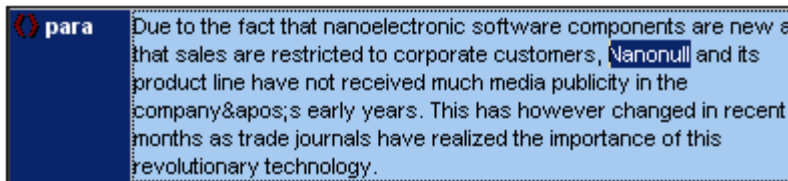


The **Move Right** command is available in Grid View only. It moves the selected node to the right by one level, thereby turning it into a child element of the preceding sibling element.

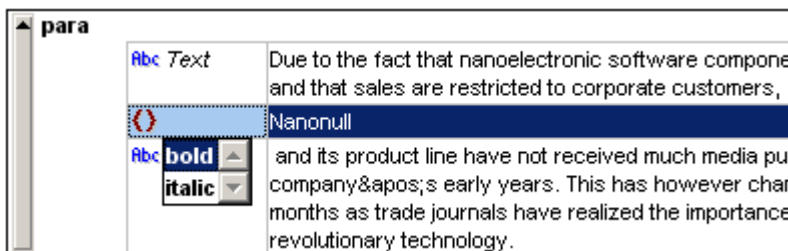
#### 4.6.8 Enclose in Element

The **Enclose in Element** command is enabled in Grid View only. It encloses a selected text range in a new element. The new element is created inline around the selected text. If you are editing a document based on a Schema or DTD, you will automatically be presented with a list of valid choices for the name of the element in which the text is to be enclosed.

For example, in the screenshot below, the text `Nanonull` in the `para` element is highlighted.



When you select the command **Grid View | Enclose in Element**, the text `Nanonull` is enclosed in a newly created inline element and a list appears offering a choice of `bold` or `italic` for the name of the element. These elements are defined in the schema as children of `para`.



The selection you make will be the name of the new element. Alternatively, you can enter some other name for the element.

## 4.7 XML Menu

The **XML Menu** contains commands that relate to XML documents opened in File Comparison Windows.

### 4.7.1 Check Well-Formedness



**F7**

The **Check Well-Formedness (F7)** command checks the active document for well-formedness by the definitions of the XML 1.0 specification. This command is available in both the Text View and Grid View of File Comparison windows. On running the well-formedness check, a message box displays the result of the check: whether successful or not.

**Note:** This command is available for all files with extensions that have been set as XML-conformant in the File Types tab of the [DiffDog Options](#) dialog.

### 4.7.2 Validate



**F8**

The **Validate (F8)** command is available in both the Text View and Grid View of File Comparison windows. It enables you to validate the active XML document against a DTD, XML Schema, or other schema. The associated schema must be declared in the file being validated. On validating the document, a message box displays the result of the validation: that is, whether successful or not.

**Note:** This command is available for all files with extensions that have been set as XML-conformant in the File Types tab of the [DiffDog Options](#) dialog.

## 4.8 Diff and Merge Menu

The **Diff and Merge Menu** lists three types of commands:

- Commands to set comparison modes and manage file and directory comparisons.
- Commands to navigate compared documents in File Comparison windows and merge differences in them.
- Commands to open the **Synchronize directories** dialog.

For a general overview of how to use DiffDog, see the [Using DiffDog](#) section.

### 4.8.1 Comparison Mode

#### Directory comparison modes

When a Directory Comparison Window is active, you can choose between Quick Comparison Mode and one of the four file comparison modes described in the File Comparison Modes section below.



#### Quick Comparison Mode

Compares files within directories and subdirectories by size and date modified. This mode is either toggled on or off. When toggled off, the four file comparison modes become available. Selecting one of the file comparison modes causes directories to be compared in terms of their contents as text, XML, or binary files.

**Note:** The comparison mode you select is important. For example, identical files with different timestamps will be indicated as same in Text Comparison Mode but as different in Quick Comparison Mode.

#### File comparison modes

When a File Comparison Window is active, or when Quick Comparison Mode is toggled off in a Directory Comparison Window, you can select from among the following four file comparison modes:



#### Text Comparison Mode

Compares files as text files. Compares directories in terms of their contents as text files.



#### XML Comparison Mode

Compares files as XML files. Compares directories in terms of their contents as XML files.



#### Binary Comparison Mode

Compares files as binary files. Compares directories in terms of their contents as binary files.



#### Extensions Comparison Mode

Compares files as text, XML, or binary files, depending on their extensions. You set whether file extensions are to be read as text, XML, or binary in the File Types tab of the [DiffDog Options](#) dialog (**Tools | DiffDog Options**).

### Current Comparison Mode

- DiffDog uses the concept of the **current comparison mode**. This is the comparison mode that is current at any given time. For each *type* of comparison window (file and directory), a *separate* current comparison mode exists at all times. The current comparison mode for each type of comparison window is that comparison mode most recently selected by you in any of the open comparison windows of that type. When the application is started, the current comparison modes are the comparison modes that were current at the time the application was last closed.
- Every File Comparison Window and Directory Comparison Window has a comparison mode.
- When new comparison windows (file or directory) are opened, they have the current comparison mode for that type of comparison window (file or directory). Note that the current comparison mode for file comparisons applies to new directory comparison windows if Quick Comparison Mode is not the current comparison mode for directory comparisons.
- If you change the comparison mode of a comparison window, then that comparison mode applies to that particular comparison window. The comparison mode of other open comparison windows is not affected. (However, the newly selected comparison mode becomes the current comparison mode and is applied to all comparison windows that are opened subsequently.)

## 4.8.2 Comparison Management Options

The commands in the **Diff and Merge** menu listed here are related to starting file and directory comparisons and to options about comparisons.



### Start Comparison (F5)

Starts comparison for the active comparison window. This command applies to File Comparison Windows and Directory Comparison Windows. This is the command to explicitly start a comparison at any time. Explicit invocations to start a comparison are not needed in the following cases:

- If Autostart Comparison (**Diff and Merge | Autostart Comparison**) is toggled on, then a comparison is automatically made when files or directories are loaded into a comparison window.
- If Compare while Editing (**Diff and Merge | Compare while Editing**) is toggled on, then comparisons are made as you edit documents in File Comparison Windows.



### Autostart Comparison

Automatically starts a comparison when both files or both directories are selected and opened in the comparison window. If this option is toggled off, then a comparison (file or directory) must be explicitly started (by clicking **Diff and Merge | Start Comparison**).



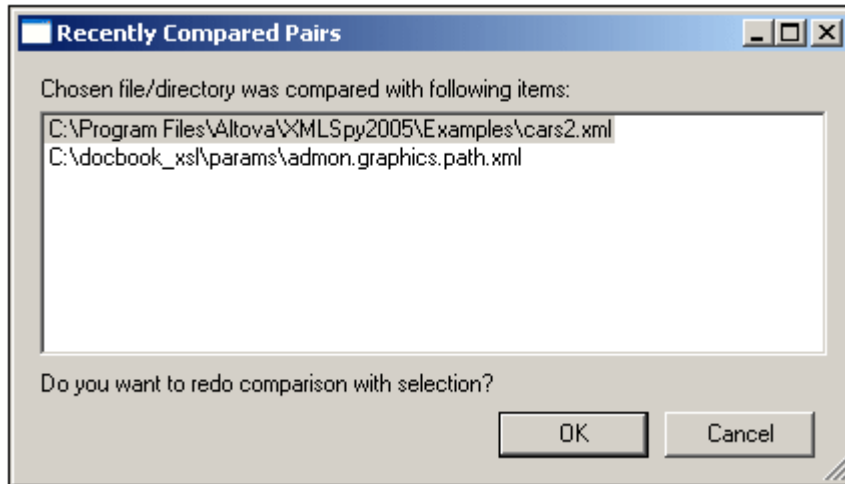
### Compare while Editing

A toggle to compare or not compare documents in File Comparison Windows while editing. If toggled on, differences are highlighted as you edit. If toggled off, highlighting of differences is turned off in both documents as soon as you start typing in either document; to highlight differences after editing, you must run a comparison (by clicking **Diff and Merge | Start Comparison**).



### Support Recently Compared Pairs

A toggle that switches on and off the option of suggesting recently compared files or directories each time a file or directory is selected in one pane. When you click this command, the Recently Compared Pairs dialog is displayed (*screenshot below*). The dialog shows the previous 5 files/directories with which the selected file/directory has been compared.



#### Show Options Before Comparison

The Show Options Before Comparison command is a toggle command. It is toggled either on or off for individual Comparison Windows. When toggled on for a Comparison Window, the Comparison Options dialog is displayed each time a comparison is made in that window. Note that the Comparison Options dialog is not displayed before comparisons made dynamically by DiffDog while you edit a document.

#### Note:

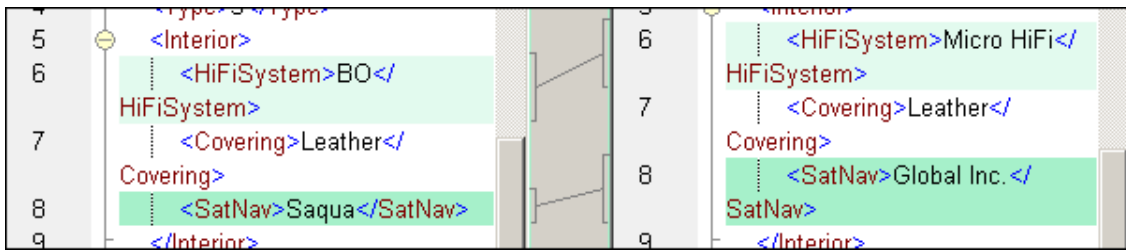
- All the above commands can be accessed by clicking their corresponding icons in the toolbar.
- When a toggle command is toggled on, the icon in the toolbar is displayed with a black border.

### 4.8.3 Navigating Differences

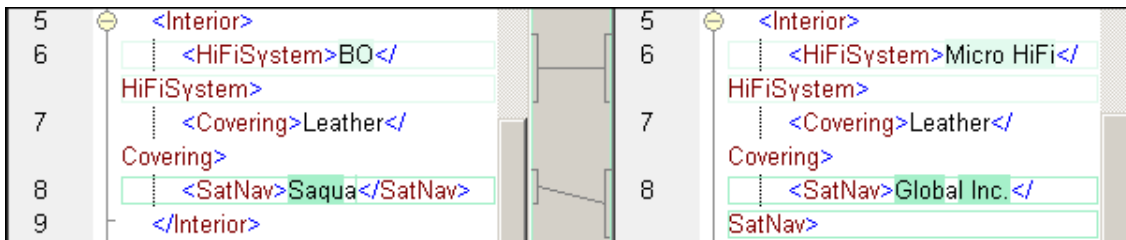
The navigation controls described below can be used for navigating differences in a File Comparison and for navigating non-equal files in a Directory Comparison.

#### Navigating Differences in File Comparisons

When the results of a **file comparison** are displayed, the differences are highlighted with a background color. There is always only one difference that is the current difference, and this is typically highlighted with a different background color. You can select the background colors in the File Comparison tab of the DiffDog Options dialog ([Tools | DiffDog Options](#)).



The screenshot above shows a file comparison in which differences are indicated by line. The screenshot below shows a file comparison in which differences within individual lines are indicated. You can select between these two options in the Comparison Options dialog ([Tools | Comparison Options](#)).



When the results of a file comparison are first displayed, it is always the first difference that is the current difference (*screenshot above*). You can navigate through the differences by selecting other differences to be the current difference. You move the selection of the current difference by using the following navigation commands in the **Diff and Merge** menu. These commands are listed below with a description of what they do.



**First Difference (Alt+Pos1)**

Selects the first difference in the document as the current difference.



**Last Difference (Alt+End)**

Selects the last difference in the document as the current difference.



**Previous Difference (Alt+Up Arrow)**

Selects the previous difference as the current difference.

**Next Difference (Alt+Down Arrow)**

Selects the next difference as the current difference.

**Display Current Difference (Ctrl+Enter)**

Scrolls through the document to display the current difference. This command is useful if you have scrolled to some point that causes the current difference to be outside the display area (document pane).

**Make Current Difference (Alt+Enter)**

Makes the selected difference the current difference, and sets it as the difference from which to navigate. To use this command, place the cursor in the required difference (which could be anywhere in the document), and select the command (or click its toolbar icon). This makes that difference the current difference. The **Make Current Difference** command is useful if you wish to jump directly to a particular difference and navigate from there.

**Note:**

- The navigation commands move the selection of the current difference in **both** documents. If you wish to edit highlighted text, you must place the cursor in the highlighted text (in the appropriate document).
- To make a difference the current difference, you can navigate to it using the **Next/Previous** navigation commands listed above, or you can place the cursor in the difference and select **Make Current Difference** to make the difference the current difference.
- If you start typing into the document and the **Compare While Editing** toggle is off, all difference highlighting disappears in both documents. If the **Compare While Editing** toggle is on, then if you type in something that results in a difference it is highlighted as the current difference; if you make a modification that removes a difference, the difference immediately following the cursor position is highlighted as the current difference.
- The commands listed above also have corresponding toolbar icons. If these icons are not displayed in your toolbar, you can include them by checking the Navigation option in the Toolbars tab of the Customize dialog ([Tools | Customize | Toolbars](#)).

**Navigating non-equal files in Directory Comparisons**

In Directory Comparisons, you can navigate non-equal files using all the navigation controls described above, except for the **Make Current Difference** control. A non-equal file is one that is either (i) present in one directory but not in the other, or (ii) different than the corresponding file in the compared directory.

#### 4.8.4 Merging Differences

After running a comparison in a Comparison Window (File or Directory), you can merge differences that exist between the directories/files in the two panes. In File Comparison Windows, a difference (that is, a text fragment for which there is no, or no identical, corresponding text fragment in the compared file) can be copied over from one file to the corresponding location in the other file. In Directory Comparison Windows, the selected non-equal file (a file for which no, or no equal, corresponding file exists in the compared directory) can be copied from one directory to the other directory. You use the following commands to merge a difference:

**Copy from Left to Right (Alt+Right Arrow)**

For the selected difference in a File Comparison, copies text from the document in the left pane to the document in the right pane. For the selected non-equal file in a Directory Comparison, copies the file from the (directory in the) left pane to the (directory in the) right pane.

**Copy from Right to Left (Alt+Left Arrow)**

For the selected difference in a File Comparison, copies text from the document in the right pane to the document in the left pane. For the selected non-equal file in a Directory Comparison, copies the file from the (directory in the) right pane to the (directory in the) left pane.

To merge a difference, do the following:

- Make the difference (or non-equal file) you want to merge the current difference (either by using the **Next/Previous** navigation commands, or, in the case of File Comparisons, by placing the cursor in the difference and selecting **Make Current Difference**)
- Select **Copy from Left to Right** if you want to copy from the left pane to the right pane; or select **Copy from Right to Left** to copy from the right pane to the left pane.

**Note:**

- In File Comparisons, the source difference is copied in its entirety (i.e. the entire unit highlighted in the current difference background color overwrites the entire difference in the target document).
- In File Comparisons, merged differences can be shown in a different background color. This setting is made in the File Comparison tab of the DiffDog Options dialog ([Tools | DiffDog Options](#)).

## 4.8.5 Directory Synchronization

Directories can be synchronized in DiffDog after you have run a Directory Comparison on them. The **Diff and Merge** menu provides two commands for this purpose. If you have the Autostart Comparison option disabled, you must start the Directory Comparison manually after you have opened two directories for comparison in order to make the synchronizing commands available.



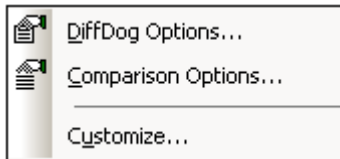
**Synchronize directories:** Opens the **Synchronize directories** dialog and populates it with all non-equal files that are present in at least one of the directories.



**Synchronize selected directory:** This command is only available if at least one of the compared directories contains a sub-directory which is selected. It opens the **Synchronize directories** dialog and populates it with all non-equal files that are present in the selected sub-directory.

## 4.9 Tools Menu

The **Tools Menu** contains commands that enable you to set [DiffDog application options](#), [file comparison options](#), and [directory comparison options](#). The mode in which directories are compared is important, and this is described at the end of the section on [Comparison Options](#).



The [Customize](#) command enables you to customize toolbars and keyboard shortcuts.

### 4.9.1 DiffDog Options

The **DiffDog Options** command pops up the DiffDog Options dialog, which enables you to set preferences for the application. This dialog has the following tabs:

- [Application](#)
- [File Comparison](#)
- [Directory Comparison](#)
- [File Types](#)

These tabs are described in detail in the respective sections.

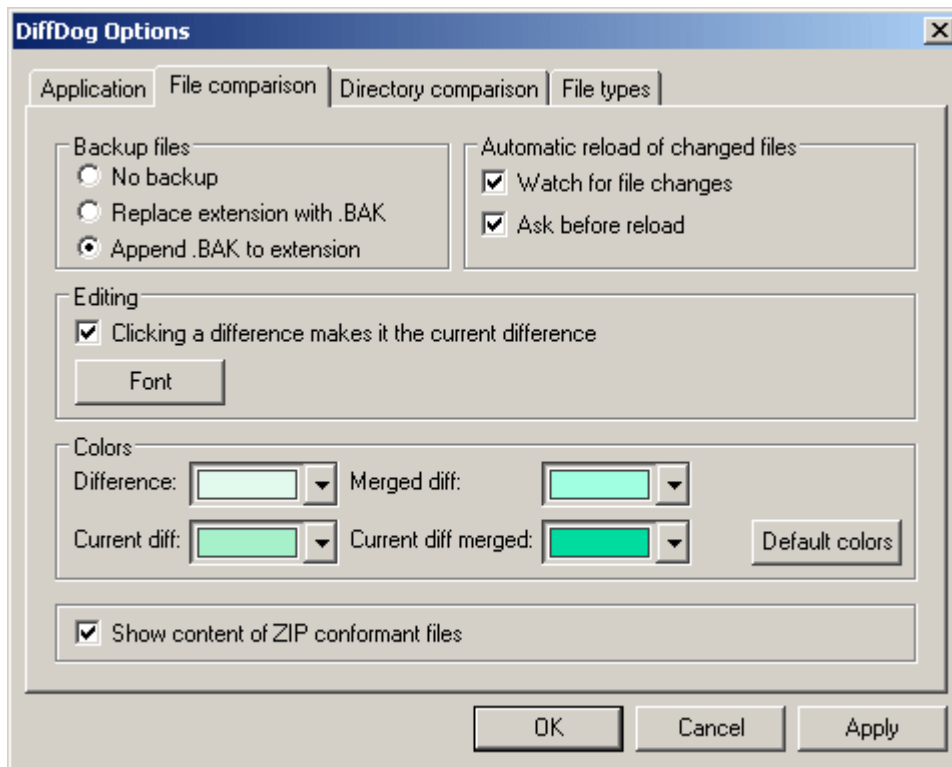
#### Application

You can select the following options:

- Whether DiffDog starts up with an empty File Comparison Window, an empty Directory Comparison Window, or no Comparison Window.
- Whether multiple instances of DiffDog are allowed or not. If multiple instances are not allowed, starting DiffDog when an instance of DiffDog is already running causes a new comparison window (file, directory, or empty) to open in the already running instance of DiffDog.
- Whether the splash screen (logo) is displayed when DiffDog starts.

#### File Comparison

The File Comparison tab enables you to set preferences for File Comparisons. These options range from display attributes to file actions, and apply to all open and subsequently opened file comparisons.



### Backup files

This option lets you configure whether the original file should be saved if you decide to save a version of it that you have edited in DiffDog, and, in such cases, how the original file and edited file should be named. The newly named files are created when you save an edited file. The following options are available.

- **No backup:** The original file is overwritten by the edited file, and the name of the original file is retained.
- **Replace extension with .BAK:** If the original file was called `abc.xml`, changes are written to this file, and a copy of the original is saved as `abc.bak`.
- **Append .BAK to extension:** If the original file was called `abc.xml`, changes are written to this file, and a copy of the original is saved as `abc.xml.bak`.

**Tip:** The `.BAK` files can be set to be XML-conformant, and used for comparisons with other XML files.

If ZIP-conformant files change, DiffDog creates a backup for the individual files that have changed inside the ZIP rather than a backup of the ZIP itself.

### Automatic reload of changed files

If a file that is open in DiffDog has been changed by another application or another person, DiffDog can reload the changed file, with or without prompting you to reload.

### Editing

The following options are available:

- Whether to make a difference in the compared documents the current difference by clicking in it.
- The properties of the display font; these can be freely chosen.

### Colors

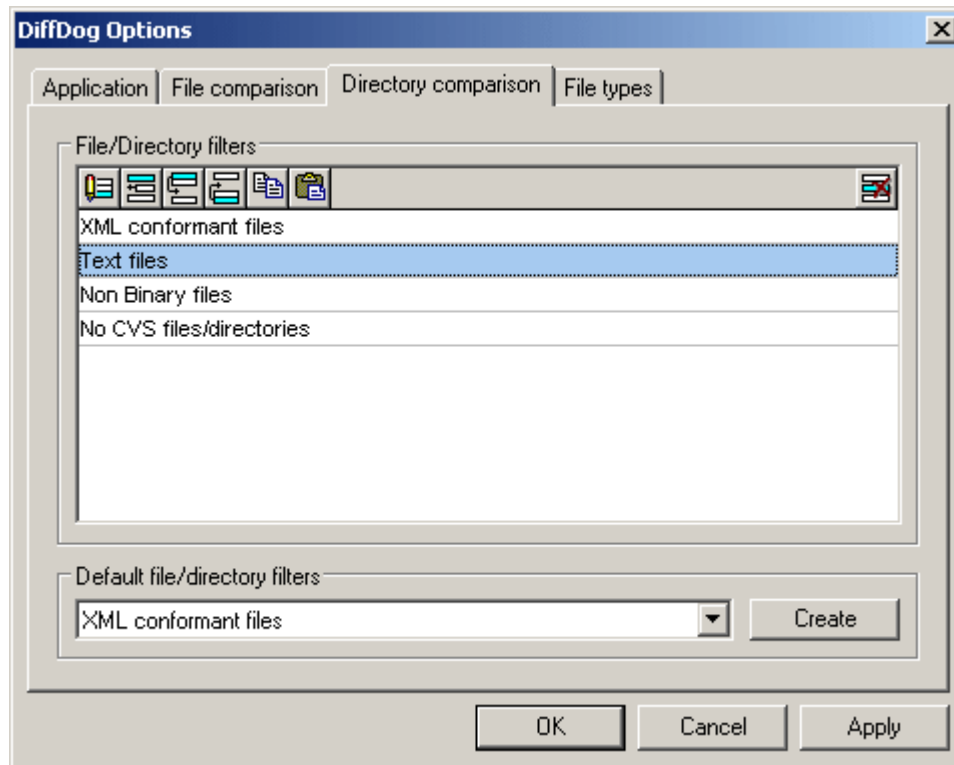
You can choose different background colors for highlighting differences in compared documents, the current difference, merged differences (that is, all merged differences that have not been saved as yet), and the current merged difference (a merged difference that is currently selected). You can go back to the default colors by clicking the Default Colors button.

### Showing content of ZIPs

The `Show content of ZIP-conformant files` check box is activated by default. If you uncheck this option, only the file itself will be shown in directory comparisons and you cannot expand the file to view its content.

### Directory Comparison

The Directory Comparison tab enables you to create filters that determine what files will be considered in Directory Comparisons.



**Note:** After exiting this dialog by clicking **OK**, you still have to select the required filter in the Directory Comparison window. Clicking **OK** does not select the filter for use; it saves the changes and exits the dialog.

### File/Directory filters

Filters are available for selection in the toolbar of the Directory Comparison window and in the **Open Comparison** dialog if the `Compare directories` option has been selected.

The File/Directory filters group box contains several buttons for defining, organizing, and deleting the filters:



Opens the **Edit Filter** dialog, where you can create a new filter. When the definition is completed, the filter is added to the list of available filters below the filter that has been selected when the button has been clicked.



Moves the selected filter one position down in the list of filters.



Moves the selected filter one position up in the list of filters.



Opens the **Edit Filter** dialog for the selected filter, where you can change the filter definition.



Deletes the selected filter.



Creates a copy of the selected filter.



Pastes the copy of a filter below the selected filter.

### Default file/directory filters

This group box contains a drop-down list with the available default filters. Select a filter and click Create to open the **Edit Filter** dialog, where you can create a new filter based on the definition of the selected default. Edit name and filter definition as required and click **OK** to add a new filter to the list of available filters in the File/Directory filters group box.

#### Defining a Filter

The **Edit Filter** dialog provides several options to restrict the directory comparison:

- Consider only files of a certain type
- Consider only specific directories
- Ignore certain files or directories
- Compare files or directories with certain attributes
- Define a date range for files/directories to be compared
- Restrict files to a certain file size

**Note:**

- If a file type is included in both the `Include only files` and `Ignore files` field, then that file type is ignored in a Directory Comparison.
- For Directory Comparison Windows that were opened before a new filter is selected, you must reload both directories so that the new filters are applied to these Comparison Windows.

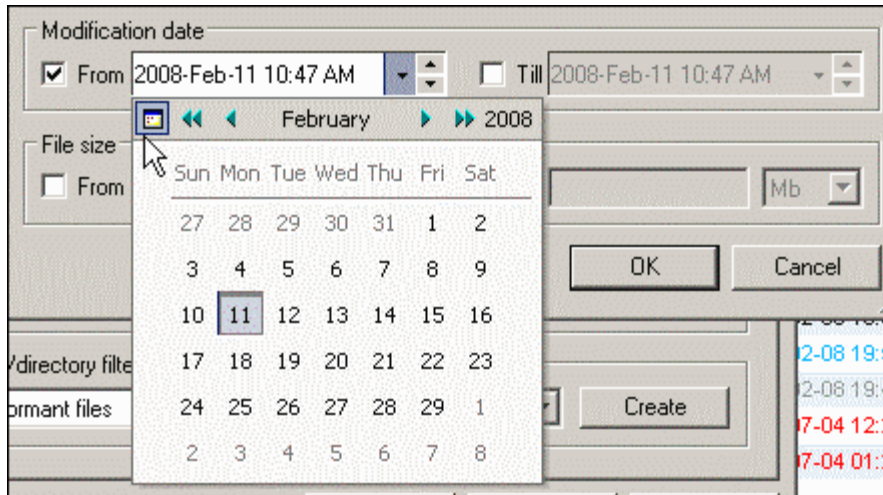
**Modification date**

In the Modification date group box, you can enter a From and/or a Till date to define a date range for directory comparison. Only files within that particular date range will be considered when the directories are compared. To include all files from or until a particular date, activate only the corresponding check box (`From` or `Till`, respectively) and leave the second check box unchecked.

If a check box is activated, you have several options for changing the date:

- Type a two-digit number in the year, day, hour, and minute fields. Note that in the year field, the number 91 through 99 will display the years 1991 through 1999, whereas the numbers 00 through 90 will result in years 2000 through 2090.



- In the respective date field, click the arrow button to the right of the date to open the calendar drop-down window. Here, several options are available:
- Select a date by clicking on it.
- Select today's date by clicking the corresponding button (*see screenshot*).
- Browse the calendar years by clicking the double arrows.
- Browse the calendar months by clicking the single arrows.



- Click into the date field and select the date part (i.e., year, month, day, hour, minute, AM/PM) you want to change and use the Up and Down keys or the arrow buttons on the right edge of the date field (*see screenshot below*) to alter the content. You can navigate to the next or previous date part by pressing the Right or Left key on your keyboard.



To define a filter for directory comparison:

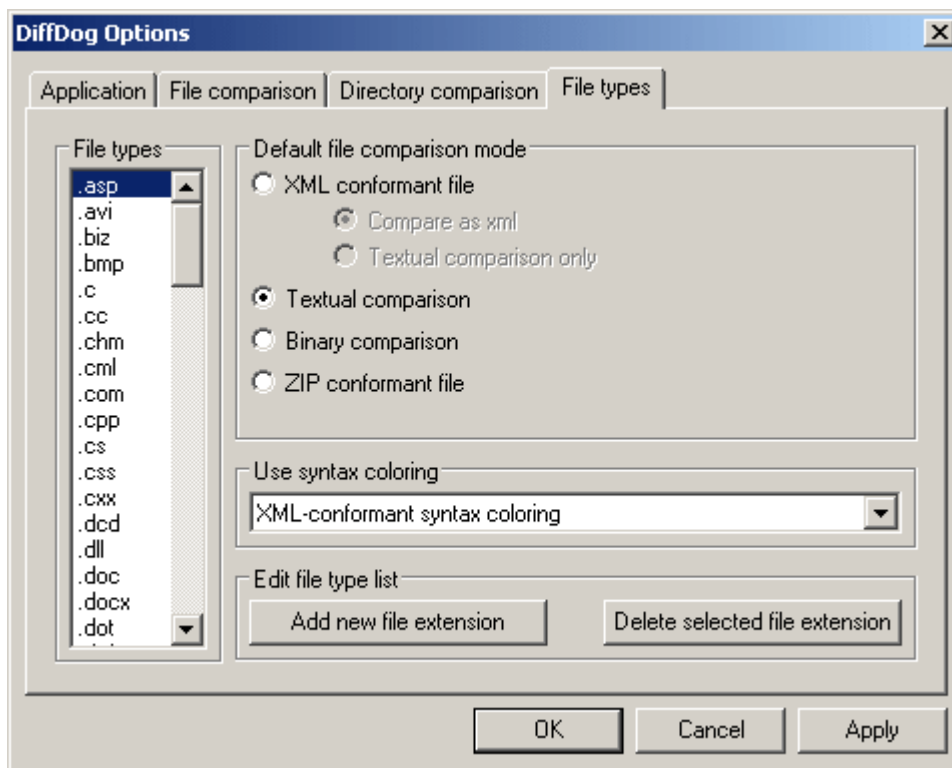
1. Select the menu option **Tools | DiffDog Options** and change to the Directory Comparison tab, or click the **Edit Filter**  button in the toolbar of a File Comparison window to open the **DiffDog Options** dialog.
2. Click the  button to open the **Edit Filter** dialog.
3. In the **Edit Filter** dialog, enter a descriptive name in the `Filter name` field. By default, `*.*` is displayed in the `Include only files` and `""` fields is displayed in the `Include only directories` fields. If you don't change this settings, files of all types and in all directories will be compared.
4. To restrict the comparison to certain file types, enter the file extension in the `Include only files` field. To exclude file types from comparison, enter the file extension in the `Ignore files` field. Note that file types are listed in the form `*.ext`, and that the delimiter between file types in a filter is the semi-colon (`;`).
5. To include or ignore specific sub-folders of a directory during comparison, enter the name of the folder(s) in the `Include only directories` field or the `Ignore directories` field, respectively. You can also use the wildcard character `*` to enter only parts of folder names. Note that the delimiter between individual folder names in a filter is the semi-colon (`;`).
6. To include files or directories that have certain attribute applied, activate the respective check box(es) in the File/Directory attributes group box. Files or directories with

unchecked attributes will not be shown in the Directory Comparison window. Note that hidden files in hidden directories will not be shown if the `Hidden` check box is activated for files but deactivated for directories.

7. Activate the `From` and/or `Till` check box in the Modification date group box, if you want to restrict the comparison to a certain date range.
8. Activate the `From` and/or `Till` check box in the File size group box, if you want to restrict the comparison to files of a certain size. Enter a number and select the appropriate unit from the drop-down list.
9. Click **OK** to save the changes.

## File Types

In the File types tab (*screenshot below*), you set the default comparison mode of various file types. File types are identified by their extension (.asp, .biz, etc), and the Comparison Mode can be XML, text, binary, or ZIP-conformant.



To assign a default comparison mode for a particular file type, select the corresponding file extension in the File Types pane, and, in the Default file comparison mode group box, choose one of the following radio buttons:

- XML-conformant file  
An instance of that file type is checked for XML conformance, and is treated as an XML file if it is conformant. An XML-conformant file may be compared as XML or text.
- Textual comparison
- Binary comparison  
An instance of that file type is considered as binary file. A byte-by-byte comparison is used in directory comparison. Files of this type will not be displayed in text view.
- ZIP-conformant file  
An instance of that file type is considered as a sub-directory in directory comparison. In file comparison, files of this type are compared as binaries.

To add a new file type to the list in the File Types pane, click the **Add New File Extension** button. To delete a file type from the list, select the file in the list and then click the **Delete Selected File Extension** button. You can also select the desired syntax coloring option (none, XML, or source-code) for text display.

**Note:** The comparison mode can be overridden for individual File Comparisons by selecting the desired comparison mode in the **Diff and Merge** menu. DiffDog detects binary files automatically.

## 4.9.2 Comparison Options

The **Comparison Options** command pops up the Comparison Options dialog, which is used for setting file comparison options. Since directory comparisons compare multiple files, comparison option settings are used for directory comparisons also. ([Directory comparisons](#) are explained at the end of this section.) Comparison options are set for individual Comparison Windows (both File and Directory).

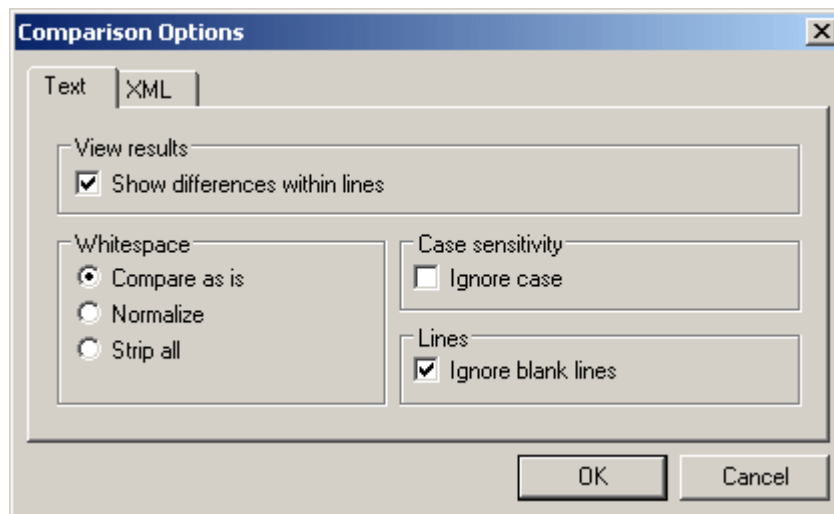
It is important to note that each Comparison Window has a separate set of comparison options. If a new comparison window is opened, it assumes the comparison options of the last Comparison Window (File or Directory) to have had any of its comparison options modified.

The various comparison options are grouped as follows:

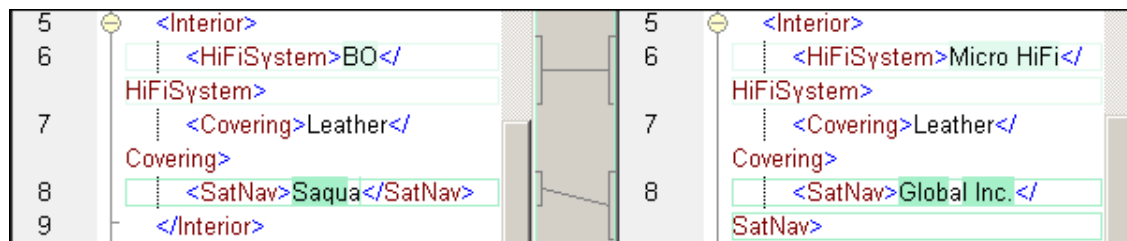
- [Comparison management options](#) (Autostart Comparison, Compare while Editing, Support Recently Compared Pairs, and Show Options Before Comparison). *For details, see the explanation of these commands under Diff and Merge menu.*
- [Text comparison options](#) (described below).
- [XML comparison options](#) (described below).

### Text comparison options

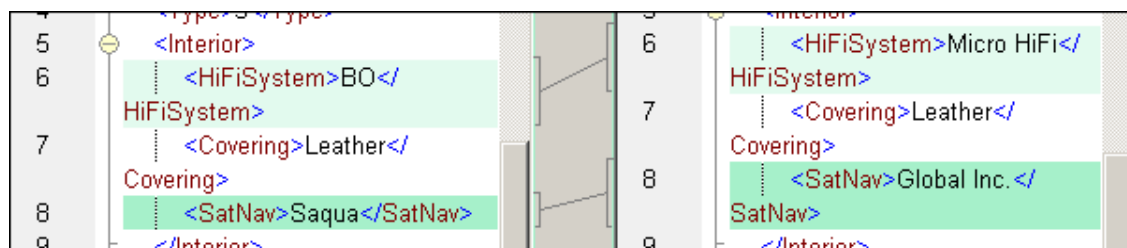
The options for text comparisons are displayed in the Text tab of the Comparison Options dialog (screenshot below).



The Show Differences Within Lines option displays character-level differences within lines in Text View when Text Comparison Mode is active (see screenshot below).



When this option is not selected, character level differences are not highlighted. Only the line, as a whole, is indicated as being different.

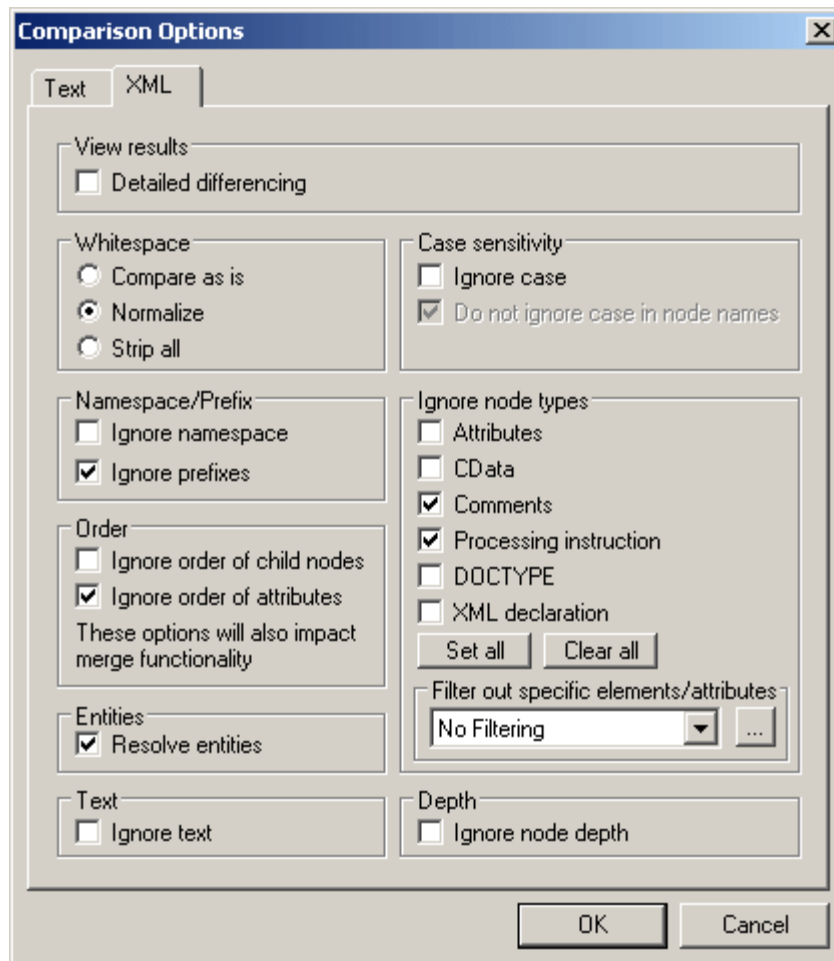


Other available text comparison options are:

- How whitespace is to be treated. Whitespace characters are space, tab, carriage return, and line feed. The three options here compare files with whitespace unchanged; with whitespace normalized (i.e. all consecutive whitespace characters are reduced to one whitespace character); and with all whitespace stripped.
- Whether upper and lower casing should be ignored when checking for differences.
- Whether blank lines should be ignored.

### XML comparison options

The options for XML comparisons are displayed in the XML tab of the Comparison Options dialog (*screenshot below*).



### View results

The Detailed Differencing option enables you to show differences in detail or reduce the number of differences (so that navigation is faster). With detailed differencing toggled off, consecutive nodes that are different are displayed as a single node. This applies also to consecutive nodes on different hierarchical levels, such as an element node and its child attribute node.

**Note:** Detailed differencing must be checked to enable merging and exporting differences.

### Whitespace

Whitespace characters are space, tab, carriage return, and line feed. The three options here compare files with whitespace unchanged; with whitespace normalized (i.e. all consecutive whitespace characters are reduced to one whitespace character); and with all whitespace

stripped.

**Case sensitivity**

If the Ignore Case check box is checked, then case is ignored, and you have the option of ignoring or not ignoring case in node names.

**Namespace/Prefix**

These are options for ignoring namespaces and prefixes when searching for differences.

**Order**

If Ignore Order of Child Nodes is selected, then the relative position of the child nodes of an element is ignored. As long as an element node with the same name exists in each of the two sets of sibling nodes, the two sets are considered to be equal. Note, however, that if an element node has an attribute, it will always be considered unequal to an element with the same name in the compared sibling set—even if the Ignore Order of Child Nodes is selected. Note that, if the Ignore Order option is specified, then the merge functionality also ignores the order.

If Ignore Order of Child Nodes is unselected, then differences in order are represented as differences.

The option of ignoring the order of attributes is also available, and applies to the order of attributes of a single element.

**Entities**

If Resolve Entities is selected, then all entities in the document are resolved. Otherwise the files are compared with the entities as is.

**Text**


If Ignore Text is selected, then differences in corresponding text nodes are not reported.

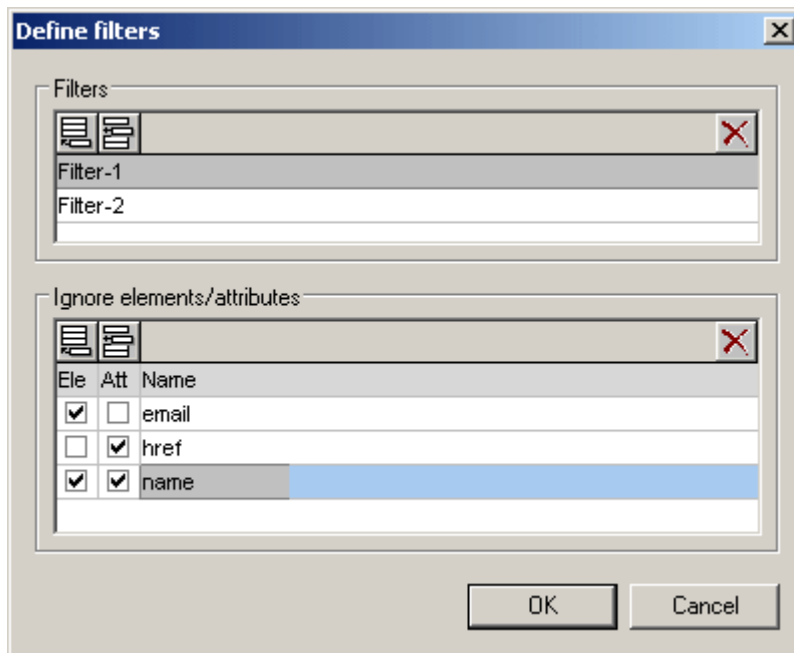
**Ignore node types**

Check the node types that will **not** be compared in the Compare session. Node types that may be ignored are Attributes, CDATA, Comments, Processing Instructions, DOCTYPE statements, and XML declarations.

**Filter out specific elements/attributes**

Enables you to set what elements and/or attributes should not be compared. The set of elements and/or attributes that are to be not considered for comparison are defined in a filter. A filter is defined at the application level, which means that once a filter is defined, it is available for every comparison. More than one filter can be defined, and, for every comparison, the filter to be used is selected in the Filter Out Specific Elements/Attributes combo box.

Filters are defined by clicking the Define Filters button , which pops up the Define Filters dialog (*screenshot below*).



To create a filter, in the Filters pane, first create a filter and give it a name. With the filter selected, in the Ignore Elements/Attributes pane, add the elements and/or attributes you wish to include for this filter. In the screenshot above, two filters (`Filter-1` and `Filter-2`) have been defined. `Filter-1` specifies that the elements `email` and `name`, and the attributes `href` and `name`, are to be ignored for comparison. When done with defining a filter, click OK. The defined filters are now available in the combo box in the Comparison Options dialog.

### Depth

If Ignore Node Depth is selected, then the additional depth of any element (i.e. more levels of descendants) relative to the depth of the corresponding element in the compared file is ignored. This option must be unselected to enable merging and exporting differences.

### Directory comparisons

Directories are compared according to one of the following criteria:

- The sizes and modification dates of files within directories (and, optionally, their subdirectories).
- Files in the directories are compared as text.
- Files in the directories are compared as XML files.
- Files in the directories are compared as binary files.
- Files in the directories are compared according to the file extension settings specified in the File Types tab of the [DiffDog Options](#) dialog (**Tools | DiffDog Options | File Types**).

To select how directories are compared, use the Text, XML, Binary, File Extension, or Quick Comparison comparison modes, which are options in the **Diff and Merge** menu. Alternatively use the corresponding toolbar icons.

### Note:

- In the Directory Comparison tab of the [DiffDog Options](#) dialog (**Tools | DiffDog Options | Directory Comparison**), you can customize directory comparisons to check sub-folders and to limit comparisons to particular file types.
- Files in directories are compared as Text, XML, or Binary according to: (i) whether the

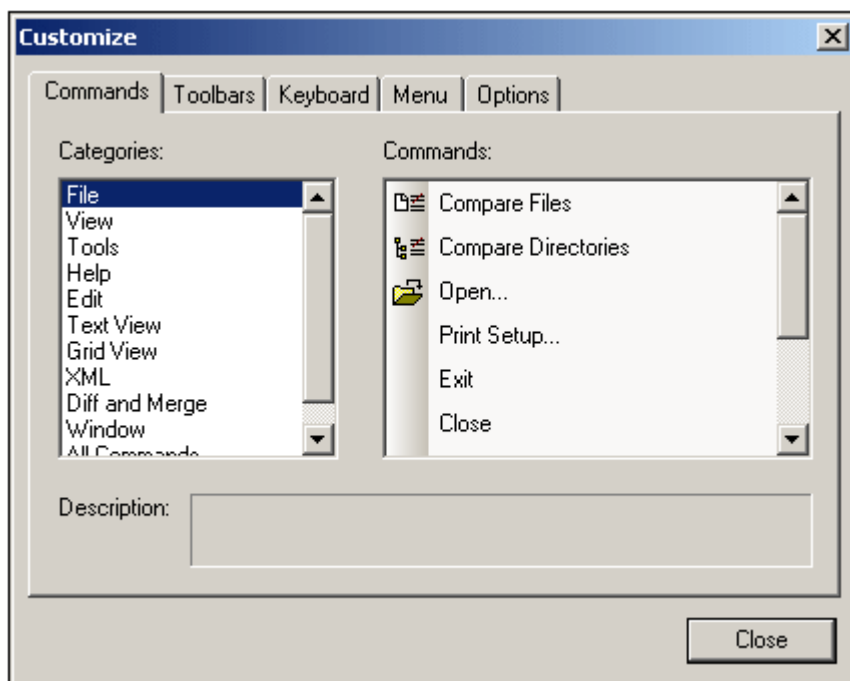
file type has been auto-detected as binary, (ii) whether the file type is XML-conformant, and (iii) whether the file type has been set for text or XML comparison.

### 4.9.3 Customize

The **Customize** command enables you to customize your DiffDog interface. Clicking the command pops up the Customize dialog, in which options are grouped in tabs. You can customize one set of options for File Comparison Windows and another set for Directory Comparison Windows, according to what kind of window is open when the customize options are set. If customization options are set with no window open, then the settings are adopted for both File Comparison Windows as well as Directory Comparison Windows.

### Commands tab

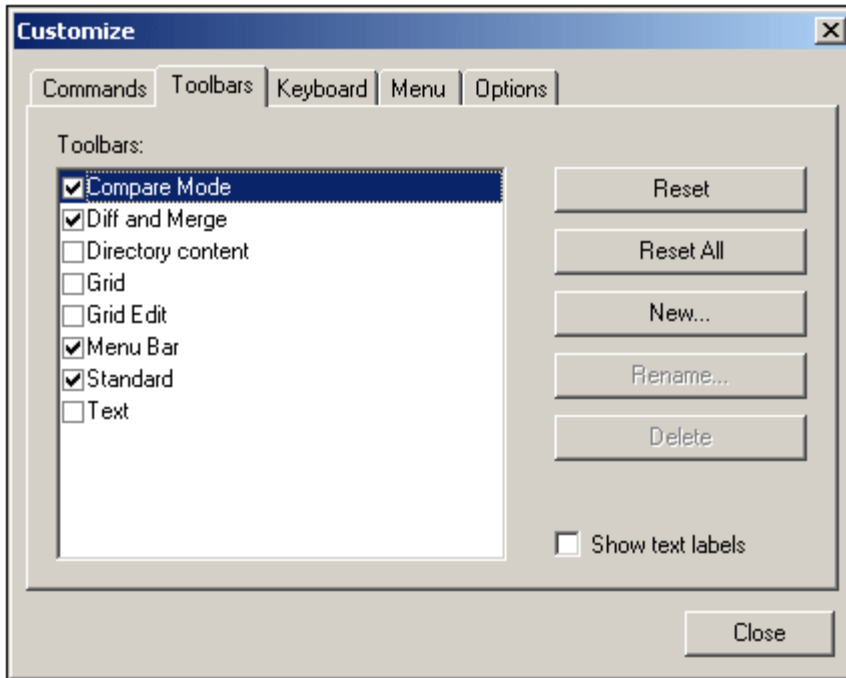
The Commands tab displays all DiffDog commands, grouped by menu.



Select a command to display a description (in the Description pane) of what the command does. You can also drag a selected command into a menu or into a toolbar. When you do this, the selected command is **not** removed from the menu in the Customize dialog in which it was originally listed; neither does the command appear in the menu or toolbar list (in the Customize dialog) into which it was dropped. A command that is dropped into a menu or toolbar appears only in the GUI.

**Toolbars tab**

The Toolbars tab lists all DiffDog toolbars. Each toolbar contains icons that serve as shortcuts for menu commands.



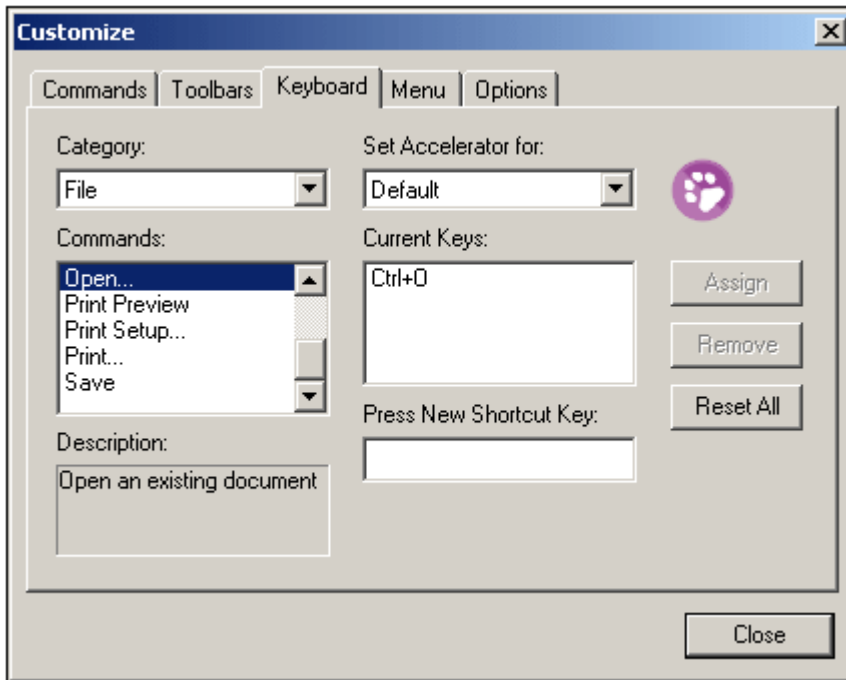
Toolbars can be activated (that is, displayed in the DiffDog GUI) by checking their corresponding check boxes. They are deactivated by unchecking the corresponding check box. The Menu Bar toolbar cannot be deactivated. Note that text labels can be enabled for individual toolbars. These text labels are the descriptive labels you see for each command in the Commands tab of the Customize dialog (see above).

The Reset button resets toolbars to the original settings. The Reset All button resets all toolbars and menus to their original settings. The New button enables you to define a new toolbar.

**Note:** You can also move individual toolbars to any location on the screen by dragging a toolbar by its handle and dropping it at the desired location.

### Keyboard tab

The Keyboard tab enables you to customize shortcuts for various commands.



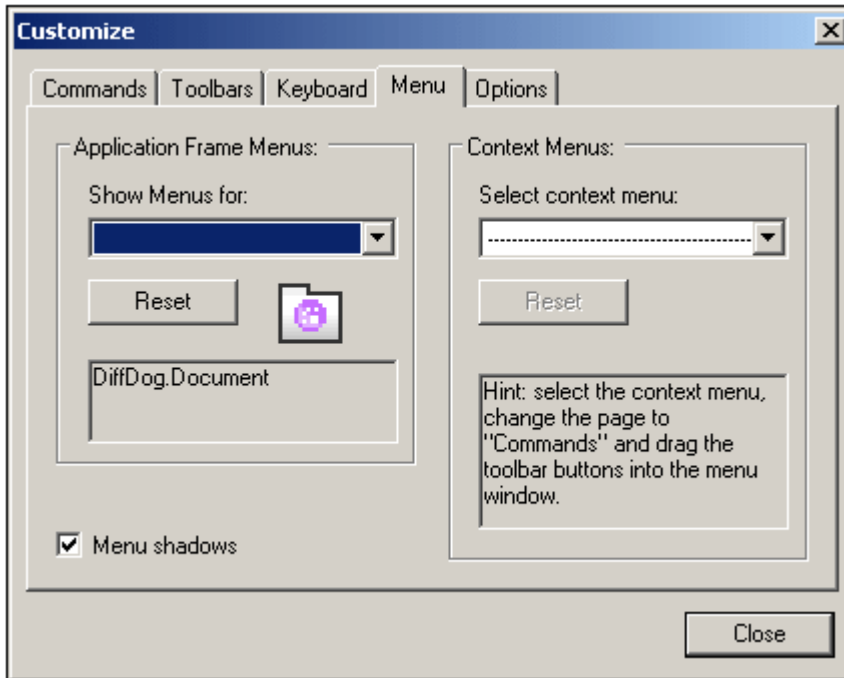
To define a new shortcut key combination for a command (for which a key combination may or may not exist), do the following:

1. Select the command for which you wish to assign a shortcut key combination from the Commands pane.
2. Place the cursor in the Press New Shortcut Key text box, and press the shortcut key combination you wish to use for this command.
3. If the key combination has already been assigned to a command, an "Assigned" message appears below the text box. Otherwise, an "Unassigned" message appears. Click the Assign button to assign an unassigned key combination to the selected command.

You can remove a key-combination assignment by selecting the key combination in the Current Keys pane and clicking the Remove button. Clicking the Reset All button resets the set of shortcut key combinations to the original settings.

**Menu tab**

The Menu tab enables you to select context menus and set appearance options such as menu shadows.

**Options tab**

The Options tab enables you to set the following Toolbar options: (i) whether Tool Tips are displayed when the cursor is placed over a toolbar icon; (ii) whether shortcut keys are displayed in Tool Tips; and (iii) whether toolbar icons are displayed as small or large icons.

## 4.10 Window Menu

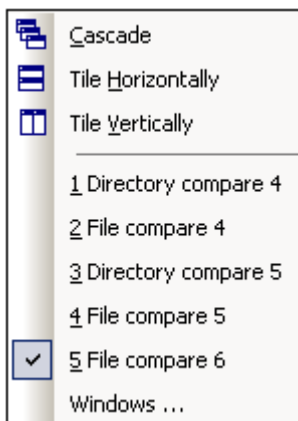
The **Windows** menu provides commands to arrange and organize the display of open windows.

### Arranging Windows in DiffDog

The Window menu contains commands to help you arrange windows within the DiffDog application interface. You can cascade or tile open windows by selecting **Cascade** and **Tile**, respectively. Note that maximizing a window will cause all windows that are made active subsequently also to be displayed maximized.

### List of Open Windows

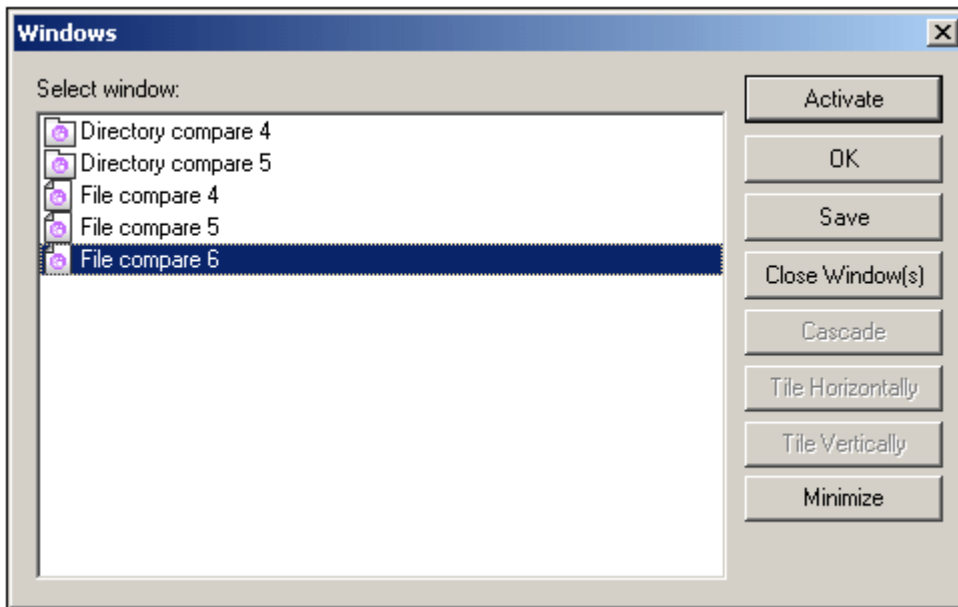
The bottom part of the Windows menu contains a list of all open windows:



The list is ordered in the sequence in which windows were opened. The active window is indicated with a check mark. The last entry is for the Windows dialog.

### Windows dialog

At the bottom of the list of open windows is an entry for the Windows dialog. Clicking this entry opens the Windows dialog, which displays a list of all open windows and provides commands that can be applied to the selected window/s. (A window is selected by clicking on its name.)

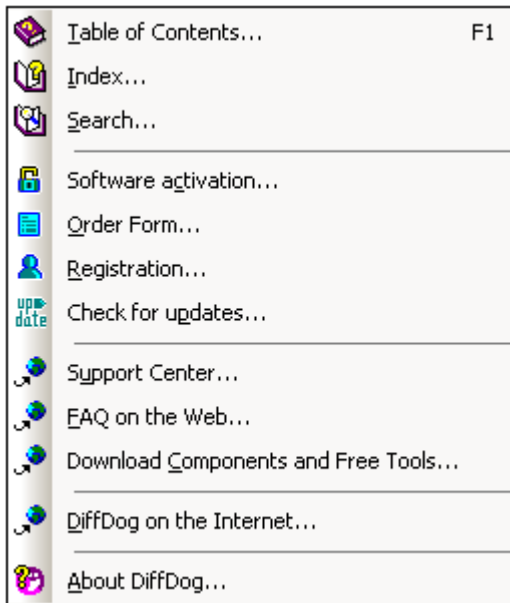


The Cascade and Tile options are available only when more than one window is selected. The Activate option is enabled only when a single window is selected.

**Warning:** To exit the Windows dialog, click OK; do **not** click the Close Window(s) button. The Close Window(s) button closes the window/s currently selected in the Windows dialog.

## 4.11 Help Menu

The **Help menu** contains an onscreen version of this documentation, registration information, relevant Internet hyperlinks, and information about your version of DiffDog.



### Software Activation

After you download your Altova product software, you can activate it using either a free evaluation key or a purchased permanent license key.

- **Free evaluation key.** When you first start the software after downloading and installing it, the Software Activation dialog will pop up. In it is a button to request a free evaluation key-code. Enter your name, company, and e-mail address in the dialog that appears, and click Request Now! The evaluation key is sent to the e-mail address you entered and should reach you in a few minutes. Now enter the key in the key-code field of the Software Activation dialog box and click **OK** to start working with your Altova product. The software will be unlocked for a period of 30 days.
- **Permanent license key.** The Software Activation dialog contains a button to purchase a permanent license key. Clicking this button takes you to Altova's online shop, where you can purchase a permanent license key for your product. There are two types of permanent license: single-user and multi-user. Both will be sent to you by e-mail. A *single-user license* contains your license-data and includes your name, company, e-mail, and key-code. A *multi-user license* contains your license-data and includes your company name and key-code. Note that your license agreement does not allow you to install more than the licensed number of copies of your Altova software on the computers in your organization (per-seat license). Please make sure that you enter the data required in the registration dialog exactly as given in your license e-mail.

**Note:** When you enter your license information in the Software Activation dialog, ensure that you enter the data exactly as given in your license e-mail. For multi-user licenses, each user should enter his or her own name in the Name field.

The Software Activation dialog can be accessed at any time by clicking the **Help | Software Activation** command.

**Order Form**

When you are ready to order a licensed version of the software product, you can use either the **Order license key** button in the Software Activation dialog (*see previous section*) or the **Help | Order Form** command to proceed to the secure Altova Online Shop.

**Registration**

The first time you start your Altova software after having activated it, a dialog appears asking whether you would like to register your product. There are three buttons in this dialog:

- **OK:** Takes you to the Registration Form
- **Remind Me Later:** Pops up a dialog in which you can select when you wish to be next reminded.
- **Cancel:** Closes the dialog and suppresses it in future. If you wish to register at a later time, you can use the **Help | Registration** command.

**Check for Updates**

Checks with the Altova server whether a newer version than yours is currently available and displays a message accordingly.

## 4.12 Status and Results Messages

Status and results messages for comparisons appear in the Comparison Window Status Bar, which is located at the bottom of each Comparison Window.

### Status messages

Status messages indicate the status of that particular comparison, essentially whether files/directories have been selected; whether a comparison has been carried out; and what kind of comparison was carried out (that is, which Comparison Mode was used).

### Result messages

Result messages provide a summary of the comparison results. If no differences are found, this is reported in the Status Bar. If differences are found, a summary of the results is provided in the Status Bar.

- For File Comparisons, the number and type of differences are listed. Text Comparison counts differences in terms of lines, even if the [Show Differences within Lines](#) option is selected. So if there are six differences in four lines, four differences are reported. In XML comparisons, differences are counted in terms of nodes. Note that a difference is counted when the node exists in both documents but is different. If the node does not exist in one document, such a node is listed as being either present **in Left Only** or **in Right Only**. In Binary Comparisons, it is only stated whether or not the file pair is different; no details concerning the number or location of differences are available.
- For Directory Comparisons, the result message has the form:  
number of differences;  
directories/files present in left pane only (and not in right pane);  
directories/files present in right pane only (and not in left pane).

## 4.13 DiffDog from the Command Line

DiffDog can be used from the command line in two ways:

- In Quiet Mode, directories or files, respectively, can be specified from the command line. The comparison mode and comparison options for such comparisons are defined on the command line. When the command is executed, a comparison is carried out, and the results of the comparison are either displayed on the command line or can be written to a file.
- In GUI Mode, directories or files can be opened in a Directory Comparison Window or File Comparison Window, respectively, from the command line. The comparison mode and comparison options for such comparisons are specified on the command line. When the command is executed, the directories or files are opened in the appropriate Comparison Window, a comparison is carried out, and the results are displayed in the GUI.

### Command line syntax

The command line syntax is as follows:

```
DiffDogBatch [source name1 name2] [general options] [compare mode] [
compare options] [filter filtername] [directory compare options]
[file-filter file filtername] [export result] [>filename.txt]
```

where

**source** specifies the type of comparison. `-cD` specifies a Directory Comparison. `-cF` specifies a File Comparison

**name1** and **name2** are the names of files or directories to compare.

**filename.txt** is the name of the file to which the results of the comparison is to be written. Note that it must be preceded by a greater than sign and must be the last parameter of the command. Do not use this option together with the `export` parameter.

### Command line options

The command line options are simple switches and are optional. If not specified, the switch is off. Although they are organized into groups, the options listed can appear in any order. Note (i) that the options are not case-sensitive, and (ii) that you can use the minus sign (-) or the slash (/) before options.

#### General options

The general options provide information about the command line syntax and set whether GUI Mode is used or not.

`-h` or `-?`

Outputs this information.

`-g`

GUI Mode. Use this option to display the GUI, and to display the results (whether the comparison detects a difference or not) in the GUI rather than to write them to the command line or a file.

#### Compare mode

The comparison mode specifies how directories and files should be compared. If no comparison mode is specified for a directory comparison, then the directory comparison is carried out in Quick Comparison Mode (that is, the comparison is done on the basis of the sizes and timestamps of files in the directories).

-mE

Extensions Comparison Mode. Directories are compared on the basis of the XML or text content of their files, depending on whether individual file types have been set as XML-conformant or not, respectively, in the DiffDog Options dialog. Files are also compared on the basis of either their XML or text content, according to the settings for file types.

-mX

XML Comparison Mode. Directories are compared on the basis of their XML nodes. Files are compared on the basis of their XML node content.

-mT

Text Comparison Mode. Directories are compared on the basis of the text content of their files. Files are compared on the basis of their text content.

-mB

Binary Comparison Mode. Directories are compared on the basis of the binary content of their files. Files are compared on the basis of a byte-by-byte comparison. No reports for file comparisons are available in this mode.

#### Compare options

The diff options apply to file comparisons. Note that, when File Comparisons are opened in the DiffDog GUI from the command line, they are displayed in Text View. For details about these options, see the relevant section in [Comparison Options](#).

-dD

Detailed differencing is switched on.

-dL

Show differences within lines.

-iC

Ignore case but not in node names.

-iCN

Ignore case.

-iD

Ignore node depth.

-iN

Ignore namespaces.

-iNT A CD C PI D X

Ignore node types, respectively Attributes, CDATA, Comments, Processing Instructions, DOCTYPE, XML declarations.

-iOA

Ignore order of attributes.

-iOC

Ignore order of child nodes.

`-iP`  
Ignore namespace prefixes.

`-iT`  
Ignore text nodes in XML files.

`-e`  
Resolve entities.

`-wN`  
Normalize whitespace.

`-wS`  
Strip all whitespace.

#### **Filter**

`-f`  
Filter out specific element or attributes.

#### **filtername**

Name of a predefined filter.

#### **Directory compare options**

`-iS`  
Ignore sub-directories.

#### **File-filter**

`-fD`  
Filter out specific files/directories in directory compare

#### **File-filtername**

Name of predefined file-filter

#### **Export**

`-rT`  
Creates a detailed text result file. This option is available for text-file comparisons and directory comparisons.

Example: `DiffDogBatch -cF filename1 filename2 -rT result.txt`

`-rX`  
Creates a detailed XML result file. This option is available for both text and XML file comparisons (but not for binary comparisons), and for directory comparisons.

Example: `DiffDogBatch -cF filename1 filename2 -rX result.xml`

#### **Result**

Name of export file.

#### **General points to note**

You should note the following points:

- When starting the command line processing, the DiffDog installation directory must be in the DOS path environment variable, or a complete path specification must be given on the command line.
- You must use `DiffDogBatch` on the command line, not `DiffDog`.
- For comparisons run from the command line in GUI mode (that is, for comparisons which open in the GUI), if the Allow Multiple Instances option is selected in the Application tab of the DiffDog Options dialog ([Tools | DiffDog Options](#)), and an instance of DiffDog is already running, then a new instance of DiffDog will be started. If the Allow Multiple Instances option is not checked, then the new comparison is opened in a new comparison window of an already running DiffDog instance.
- The default Comparison Mode for Directory Comparisons is Quick Comparison Mode. To compare directories on the basis of the content of their files, use the Comparison Mode option.
- Some Comparison Options apply to XML Comparison Mode only (for example, `-iN` and `-iNT`). These options will therefore be ignored if the Comparison Mode option is not `-mX`.
- Unless GUI Mode is selected for the comparison, the results are displayed in the following format. For File Comparisons, the two files are listed and are followed by the result of the comparison. Examples:

```
c:\workarea\a\1.sps c:\workarea\add_element\1.sps equal
The two files are equal.
```

```
c:\workarea\a\1.sps c:\workarea\add_element\1.sps different
The two files are different.
```

For Directory Comparisons, each item or pair of items in the directories (that is, files and subdirectories) is/are listed, followed by the comparison result. For example:

```
c:\workarea\a\subdir_a\team.xml
c:\workarea\add_element\subdir_a\team.xml different
The two files are different.
```

```
c:\workarea\add_element\subdir_addelem\team.xml rightonly
The file is present in the directory in the right pane only..
```

```
c:\workarea\a\1.sps c:\workarea\add_element\1.sps equal
The two files are equal.
```

### DiffDog in CVS

DiffDog can easily be integrated with CVS systems that provide a possibility to set up a path to the DiffDog executable. If a path to the DiffDog executable can be set up, CVS can execute a DiffDog command via the command line. No checking in or out is required in order to make a comparison. All that is needed is for DiffDog to be able to see a difference between two versions of a file.

### Exit codes

DiffDog provides exit codes to allow for conditional batch processing of file or directory comparisons. DiffDogBatch can complete with the following codes:

- 1 Equal:** The file or directory that has been compared shows no differences.
- 2 Different:** The two files or directories that have been compared are not equal.
- 3 Error:** An error occurred while comparing the file or directory.



## **Chapter 5**

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### **License Information**

## 5 License Information

This section contains:

- Information about the [distribution of this software product](#)
- Information about the [intellectual property rights](#) related to this software product
- The [End User License Agreement](#) governing the use of this software product

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This license-metering technology uses your local area network (LAN) to communicate between instances of the application running on different computers.

### Single license

When the application starts up, as part of the license metering process, the software sends a short broadcast datagram to find any other instance of the product running on another computer in the same network segment. If it doesn't get any response, it will open a port for listening to other instances of the application.

### Multi license

If more than one instance of the application is used within the same LAN, these instances will briefly communicate with each other on startup. These instances exchange key-codes in order to help you to better determine that the number of concurrent licenses purchased is not accidentally violated. This is the same kind of license metering technology that is common in the Unix world and with a number of database development tools. It allows Altova customers to purchase reasonably-priced concurrent-use multi-user licenses.

We have also designed the applications so that they send few and small network packets so as to not put a burden on your network. The TCP/IP ports (2799) used by your Altova product are officially registered with the IANA (see <http://www.isi.edu/in-notes/iana/assignments/port-numbers> for details) and our license-metering module is tested and proven technology.

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