

Comparing & Merging <XML Documents> - Visual Mode -



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Overview

- Compare in Author mode
- Merging actions
- Frameworks and page detection
- Comparison algorithms
- Author comparison integration

Editing Content

Most users are editing content in Author page

- It looks much nicer
- You can see how the output will look like
- There are a lot of actions to create the content easily
- You cannot break the structure



Compare in Author Mode

Displaying the differences directly in the Author page is more helpful and appealing

- Easier to visualize the changes
- Focus on the content
- Ignore the changes that are not presented in output



Author vs. Text

See only relevant changes vs. See all changes from the document

Focus on the content vs. See also the code markup

See track changes vs. See some processing instructions

See the table layout vs. See the tags from a table

See the images vs. See some link URLs



Author

Introduction	Introduction
<p>With just a little bit of care and preparation, any flower garden can be a vibrantly colored environment. Flowers can be selected for specific blooming seasons, colors and shapes. Both annual and perennial flower gardens can be planted depending on climate and specific needs.</p>	<p>With just a little bit of care and preparation, any flower garden can color the environment. Flowers can be selected for specific blooming seasons, colors and shapes. Both annual and perennial flower gardens can be planted depending on specific needs.</p>
<p>Read more about growing flowers here:</p> <ul style="list-style-type: none"> ✎ Flower garden ✎ Raised-bed gardening 	<p>Read more about growing flowers here:</p> <ul style="list-style-type: none"> ✎ Flower garden - is a form of gardening in which the soil is formed in three-to-four-foot-wide ✎ Raised-bed gardening

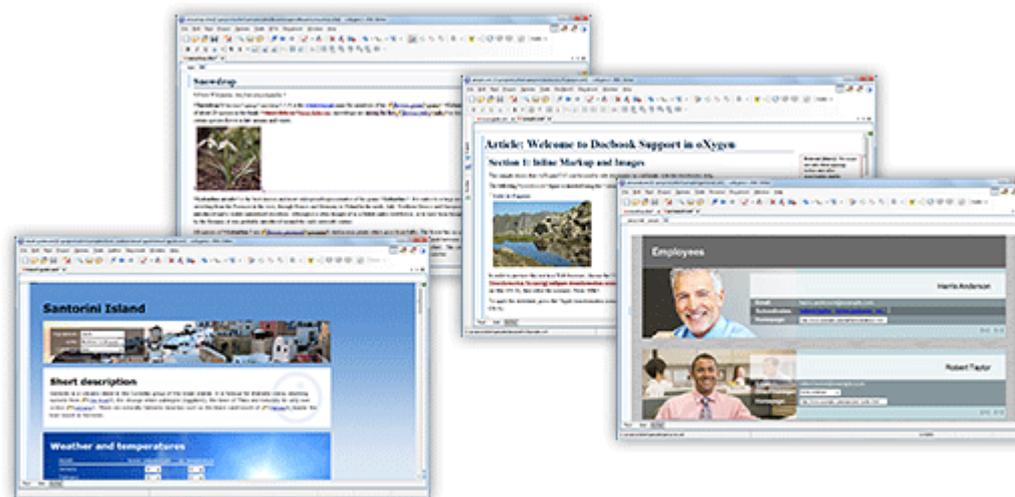
Text

<pre>6 <section> 7 <title>Introduction</title></pre>	<pre><body> <section></pre>	<pre>5</pre>
<pre>8 <p>With just a little bit of care and preparation, any 9 flower garden can be a vibrantly 10 colored environment. Flowers can be selected for 11 specific blooming seasons, colors and 12 shapes. Both annual and perennial flower gardens can be 13 planted depending on climate and 14 specific needs.</p></pre>	<pre><title>Introduction</title> <p>With just a little bit of care and preparation, any flower garden can color the environment. Flowers can be selected for specific blooming seasons, colors and shapes. Both annual and perennial flower gardens can be planted depending on specific needs.</p></pre>	<pre>6 7 8 9 10 11</pre>
<pre>2 <p>Read more about growing flowers here:</p> 3 <ul id="read_more_list"> 4 <xref 5 href="http://en.wikipedia.org/wiki/Flower_garden" format="html" 6 scope="external" 7 >Flower garden</xref> 8 <xref 9 href="http://en.wikipedia.org/wiki/Raised-bed_gardening"</pre>	<pre><p>Read more about growing flowers here:</p> <ul id="read_more_list"> <xref href="http://en.wikipedia.org/wiki/Flower_garden" format="html" scope="external" >Flower garden</xref> - is a form of gardening in which the soil is formed in three-to-four-foot-wide</pre>	<pre>12 13 14 15</pre>

Author Mode Frameworks

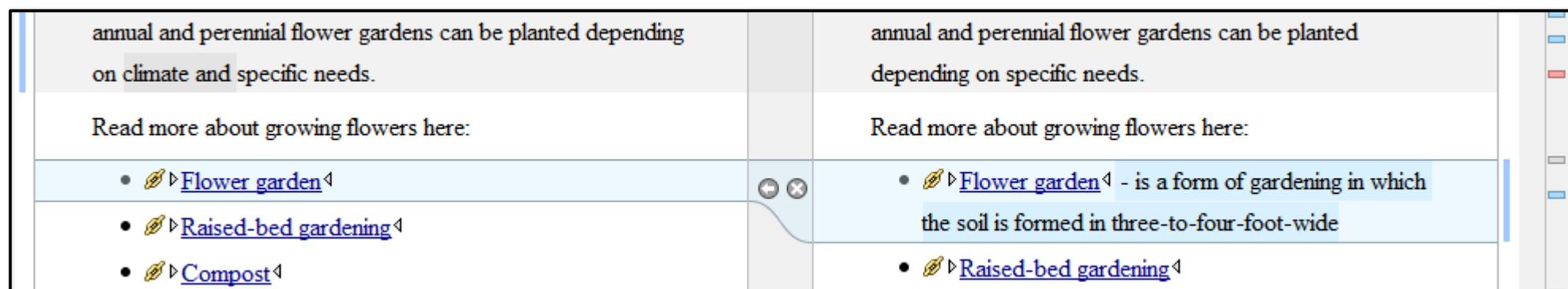
Compare in Author mode is available for:

- DITA
- DocBook
- XHTML
- TEI
- Any framework that has a CSS for the Author page



Diff in Author Mode

- Visualize modifications in the Author page
- The comparison is made on the Author content
- Colored blocks for inserted, deleted, and modified content



The screenshot displays a side-by-side comparison of two text blocks. The left block contains the text "annual and perennial flower gardens can be planted depending on climate and specific needs." followed by "Read more about growing flowers here:" and a list of three links: "Flower garden", "Raised-bed gardening", and "Compost". The right block contains the text "annual and perennial flower gardens can be planted depending on specific needs." followed by "Read more about growing flowers here:" and a list of two links: "Flower garden" and "Raised-bed gardening". The "Flower garden" link in the right block is highlighted in blue, indicating it is a modification or insertion. The "Compost" link in the left block is missing in the right block, indicating it is a deletion. A vertical scrollbar is visible on the right side of the comparison area.

annual and perennial flower gardens can be planted depending on climate and specific needs.	annual and perennial flower gardens can be planted depending on specific needs.
Read more about growing flowers here:	Read more about growing flowers here:
<ul style="list-style-type: none">• Flower garden• Raised-bed gardening• Compost	<ul style="list-style-type: none">• Flower garden - is a form of gardening in which the soil is formed in three-to-four-foot-wide• Raised-bed gardening

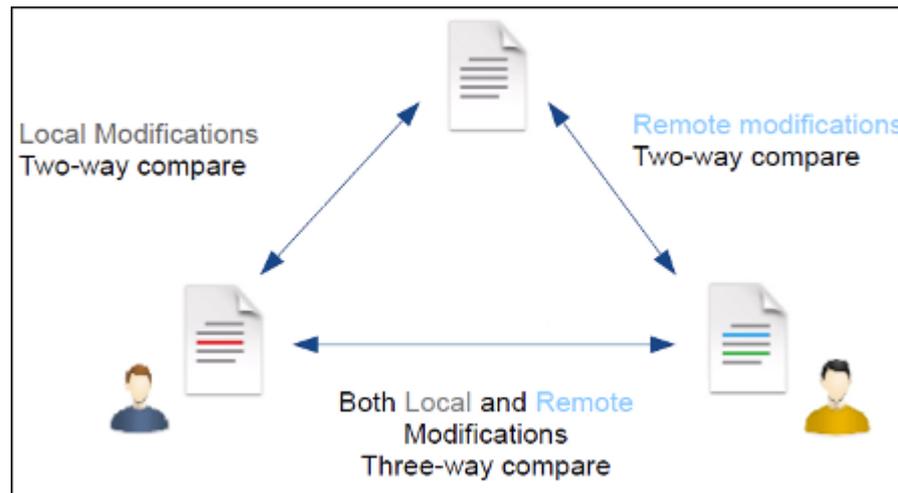
Detailed Changes

- Detailed highlights of changes within blocks
- Simultaneously highlight of text block modifications and word-level differences
- Merge only the modified words

<p>With just a little bit of care and preparation, any flower garden can be a vibrantly colored environment. Flowers can be selected for specific blooming seasons, colors and shapes. Both annual and perennial flower gardens can be planted depending on climate and specific needs.</p>	<p>With just a love bit of care and preparation, any flower garden can color the environment. Flowers can be selected for specific blooming seasons, colors and shapes. Both annual and perennial flower gardens can be planted depending on specific needs.</p>
<p>Read more about growing flowers here:</p> <ul style="list-style-type: none">• Flower garden• Raised-bed gardening	<p>Read more about growing flowers here:</p> <ul style="list-style-type: none">• Flower garden - is a form of gardening in which the soil is formed in three-to-four-foot-wide

Three-Way Comparison

- Compare two files against a base
- Helps you solve conflicts and merge changes between multiple modifications
- Integrates with version control systems as the merging tool for conflicting file revisions



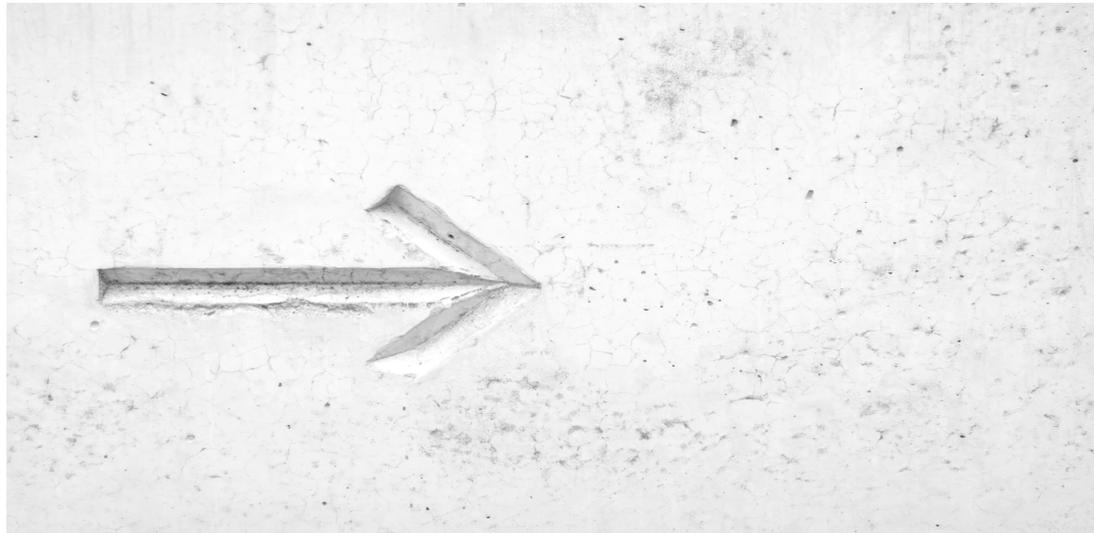
Diff Page Detection

- Detect page depending on document type settings
- Automatically open in Author mode
- Save the page state



Navigate Differences

- Navigate through blocks of differences
- Navigate word-level differences
- Select a block of differences by clicking its small colored marker in the overview ruler
- Shortcuts for advanced users



Merging in Author Mode

- Point-and-click merging with a mouse, on a block or a change
- Editing files on the fly
- Define merging shortcuts for advanced users

Automatic Merging

- Changes can be merged automatically
- Actions to merge all changes from left to right or from right to left

Author Mode Diff Algorithms

- Auto - selects the most appropriate algorithm, based on the compared content and its size
- XML Fast - comparison that works well on large files or fragments, but it is less precise
- XML Accurate - comparison that is more precise than XML Fast, at the expense of speed

Tags Display in Author mode

Tags Display Mode drop-down button that allows you to select the amount of tags to display in visual mode:

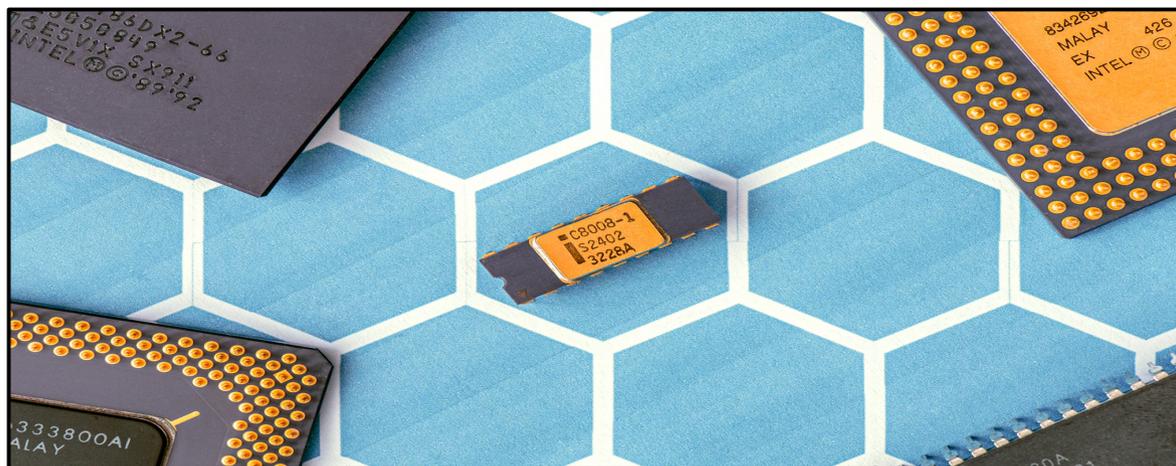
- Full Tags with Attributes
- Full Tags
- Block Tags
- Inline Tags
- Partial Tags
- No Tags

Author Mode Options

- Enable file comparison in Author mode
- Ignoring options
 - Attribute order
 - Namespaces
 - Prefixes
 - Namespace declaration

Visual Diff Integration

- Compare Files Tool from oXygen
- Integrates with version control systems
 - as the merging tool for conflicting file revisions
 - or to visualize the changes between revisions
- Compare Directories Against a Base
- From a plugin as a merge tool



Compare Files Tool

- Can be accessed from:
 - Tools menu
 - Project view
 - Compare Directories tool

Integration with Version Control Systems

Diff Files tool can be integrated as an external application

Command line parameters:

```
diffFiles.bat [-ext] [leftFile] [rightFile] [ancestorFile] [mergeOutputFile]
              [-leftRO=true | false] [-rightRO=true | false]
```

- ext** – instructs the application that it is used as an external comparison tool for another application
- leftFile** – the file that will be displayed on the left side
- rightFile** – the file that will be displayed on the right side
- ancestorFile** – the base (ancestor) file
- mergeOutputFile** – the merge output/result file. Will be displayed in the left side and its initial content will be the left file content
- leftRO** – enables (true) or disables (false) editing of the left-side file
- rightRO** – enables (true) or disables (false) editing of the right-side file

SourceTree Compare

SourceTree Compare View

```
8 hemisphere<?oxy_delete author="Mary" timestamp="20120510T124126+0300" content=" " comment="Delete any e
9 In the Southern hemisphere winter occurs during June - August. </p>
- <p>Some of the flowers blooming
- <?oxy_delete author="Mary" timestamp="20120510T124054+0300" content=" " comment="Also use a single space
- winter are: Acashia, Alstromeria, Amaryllis, Carnation, Chrysanthemums, Cyclamen,
- Evergreens, Gerbera Daisy, Ginger, Helleborus, Holly berry, Lily, Asiatic Lily, Casa
- Blanca Lily,
10 + <p>Some of the flowers blooming in winter are Acashia, Alstromeria, Amaryllis, Carnation,
11 + Chrysanthemums, Cyclamen, Evergreens, Gerbera Daisy, Helleborus, Holly berry, Asiatic
12 + Lily, Casa Blanca Lily,
13 <?oxy_comment_start author="John" timestamp="20120510T124636+0300" comment="We should include one more f
14 Orchid, Pansy, Pepperberry, Phlox, Protea, Queen Ann's Lace,
15 <?oxy_comment_start author="Bob" timestamp="20120510T124701+0300" comment="It's a good idea to add
16 Star of Bethlehem, Statice. </p>
```

Oxygen XML Diff

Some of the flowers blooming in winter are Acashia, Alstromeria, Amaryllis, Carnation, Chrysanthemums, Cyclamen, Evergreens, Gerbera Daisy, Helleborus, Holly berry, Asiatic Lily, Casa Blanca Lily, Narcissus, Orchid, Pansy, Pepperberry, Phlox, Protea, Queen Ann's Lace, Roses, Star of Bethlehem, Statice.

Some of the flowers blooming in winter are: Acashia, Alstromeria, Amaryllis, Carnation, Chrysanthemums, Cyclamen, Evergreens, Gerbera Daisy, Ginger, Helleborus, Holly berry, Lily, Asiatic Lily, Casa Blanca Lily, Narcissus, Orchid, Pansy, Pepperberry, Phlox, Protea, Queen Ann's Lace, Roses, Star of Bethlehem

Commented by Bob
It's a good idea to add more plants (consider including also Roses).
Thu May 10 12:47 PM 2012

Press F2 for focus

Integrate with SourceTree

Configure the External Diff tool in SourceTree Options dialog box, in the Diff tab.

"Diff Command"

[Oxygen install dir]/diffFiles.exe, and for

"Arguments" -ext \$REMOTE \$LOCAL \$LOCAL

"Merge Tool"

[Oxygen install dir]/diffFiles.exe, and for the

"Arguments" -ext \$LOCAL \$REMOTE \$BASE \$MERGED

Integrate with Command Line Git

To configure git to use a <oxygen/> Diff Files for comparison you need to add the following lines in the ".gitconfig" file:

```
[diff]
  tool = oxygendiff
[merge]
  tool = oxygendiff
[difftool "oxygendiff"]
  cmd = '[Oxygen install dir]/diffFiles.exe' -ext $REMOTE $LOCAL $LOCAL
[mergetool "oxygendiff"]
  cmd = '[Oxygen install dir]/diffFiles.exe' -ext $LOCAL $REMOTE $BASE $MERGED
  trustExitCode = true
[difftool]
  prompt = false
```

Run Oxygen Diff Files from command line using: "git difftool file.xml".

For MacOSX you need to specify the path to the "diffFiles.sh", for Linux "diffFiles.sh"

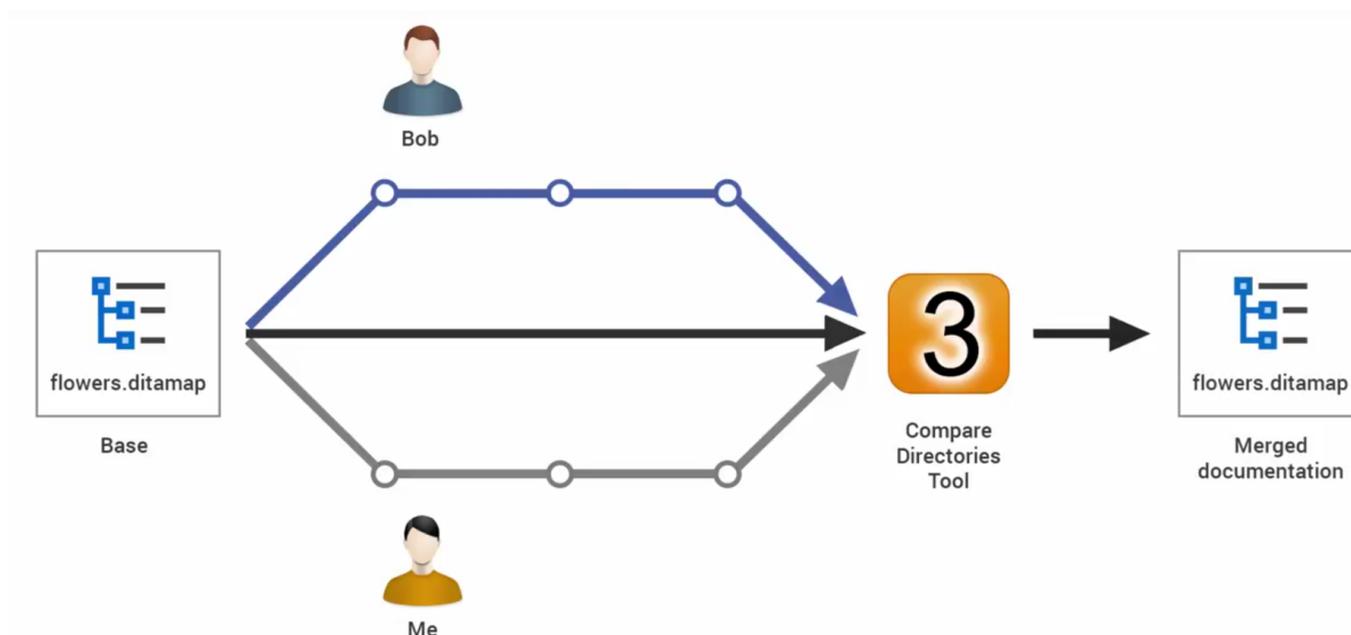
Integrate with Command Line Git

To configure git to use a <oxygen/> Diff Files for comparison you can run the following commands from the command line:

```
git config --global diff.tool oxygenDiff
git config --global difftool.oxygenDiff.cmd '[Oxygen install dir]/diffFiles.exe'
-ext $REMOTE $LOCAL $LOCAL
git config --global merge.tool oxygenDiff
git config --global mergetool.oxygenDiff.cmd '[Oxygen install dir]/diffFiles.exe'
-ext $LOCAL $REMOTE $BASE $MERGED
git config --global mergetool.oxygenDiff.trustExitCode true
```

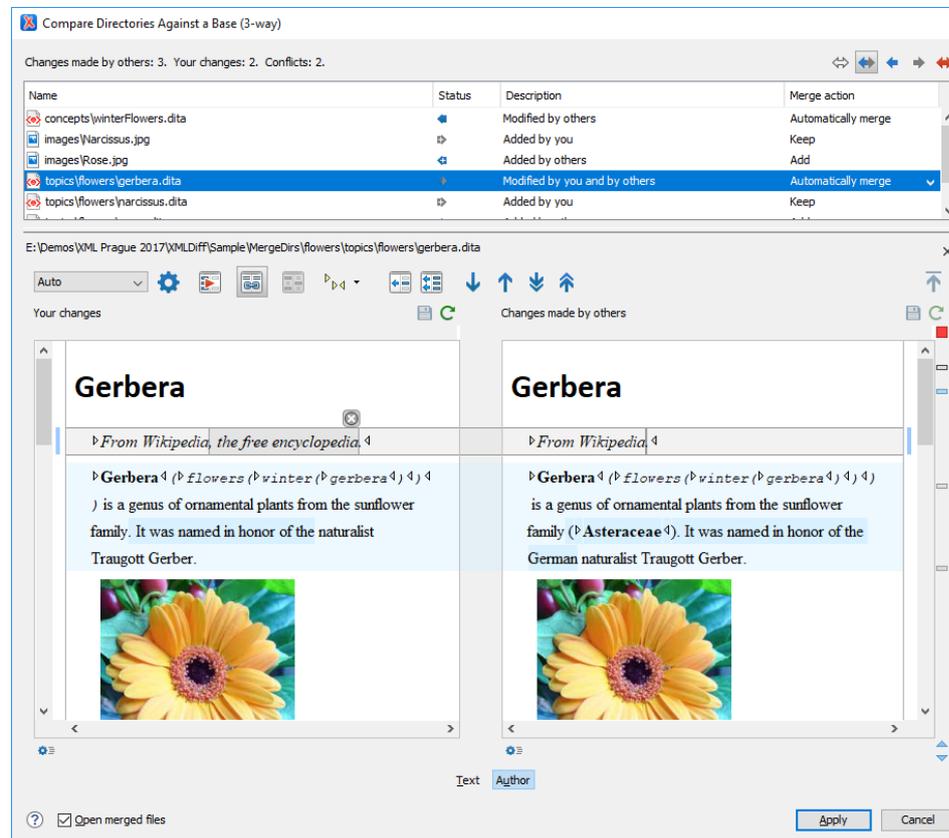
Compare Dirs Against a Base

- Identify and merge changes between multiple modifications of the same project structure
- Helpful for teams with multiple authors contributing documents to the same project concurrently



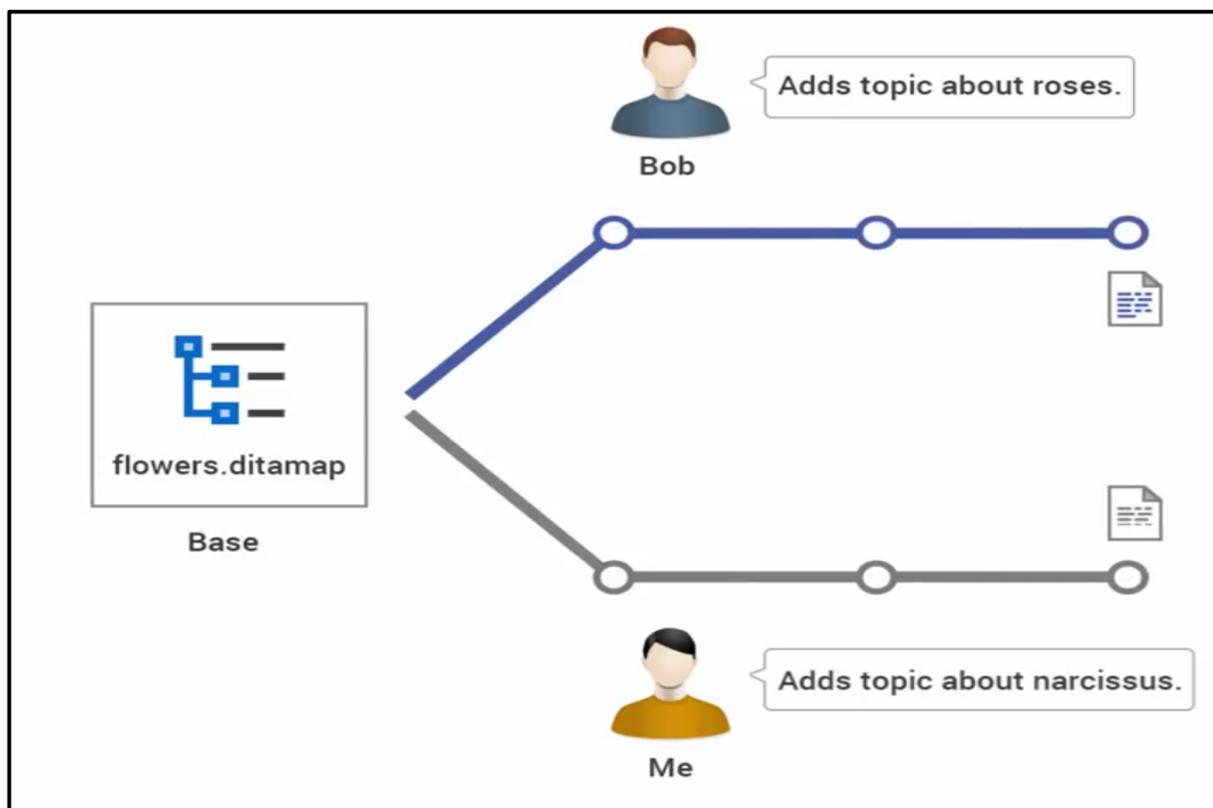
Compare Dirs Against a Base

- Color-coding for added, deleted, and modified files
- Filtering options for displaying certain modifications
- Instant opening of individual file comparison documents



Example

- Integrate the changes made by a reviewer in a documentation project
- The changes can be made with or without the change tracking support enabled



Integrate Merge Tool from Plugins

API to start 3-Way Directory Comparison Merge Tool

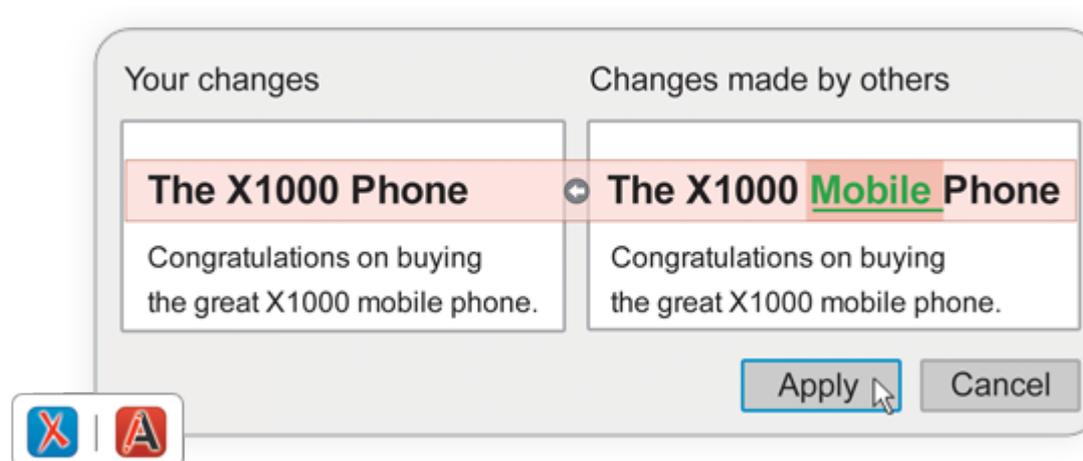
```
List<MergedFileState> DiffAndMergeTools.openMergeApplication(  
    baseDir,  
    personalModifiedFilesDir,  
    externalModifiedFilesDir,  
    mergeOptions)
```

- baseDir** – The directory containing initial, unaltered files.
- personalModifiedFilesDir** – The directory containing the files modified by you. These files are modified during the merging.
- externalModifiedFilesDir** – The directory containing the files modified by others.
- mergeOptions** – The options used in the merge operation. The keys that can be used in this map are found in MergeFilesOptionsConstants.

Obtain the list with the modified files and there status (deleted, added, modified).

Integrate Merge Tool from Plugins

- An example is the Content Fusion plugin
- Uses it to merge the changes back into the original documents



Integrating Diff Files from Plugin

API to start 2Way/3-Way Diff Files Merge Tool

```
Object DiffAndMergeTools.openDiffFilesApplication(  
    leftURL,  
    rightURL,  
    ancestorURL)
```

Example of plugin:

Built-in Git client directly in Oxygen XML Editor
github.com/oxygenxml/oxygen-git-plugin

Future Plans

- We are always improving the tool
- Waiting for feedback



Thank you!

Questions?

<oxygen/> XML Editor

<http://www.oxygenxml.com>

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