Oxygen Diff with ~~Change~~ Tracking

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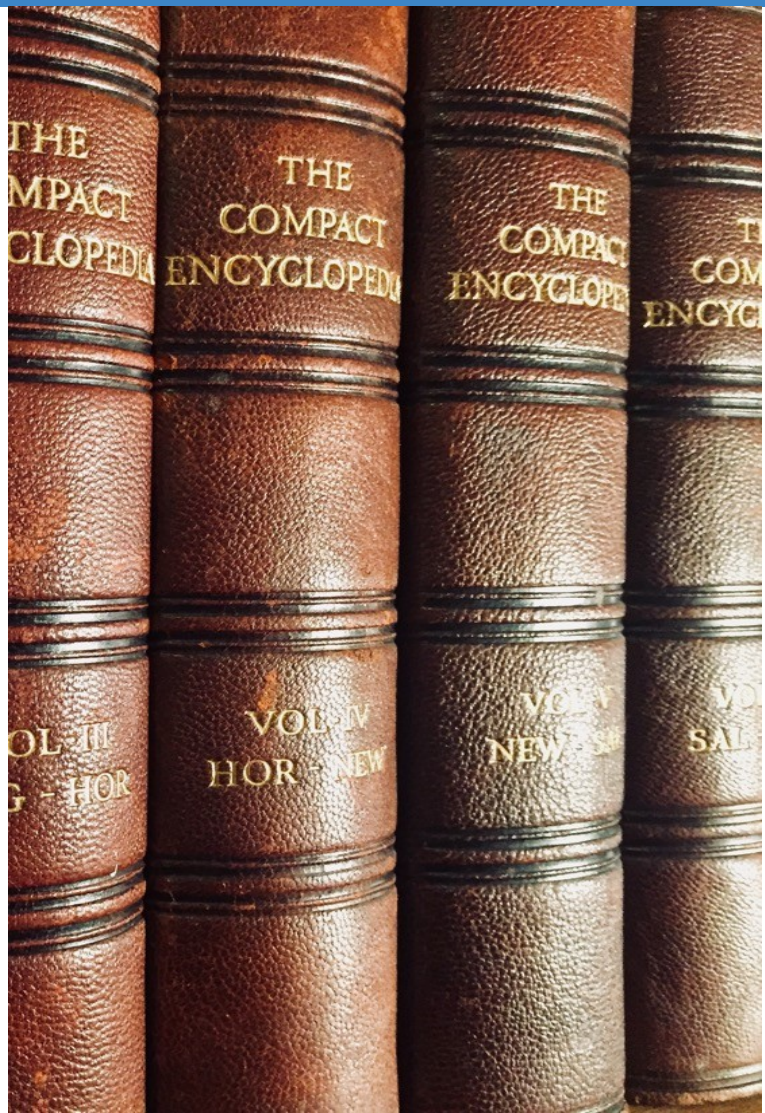
Agenda

- Overview of the Oxygen Compare and Merge Support
- Documents Comparison and Merge Using Change Tracking
- Directory Comparison and Merge Using Change Tracking
- Automate the Compare and Merge using Oxygen Scripting

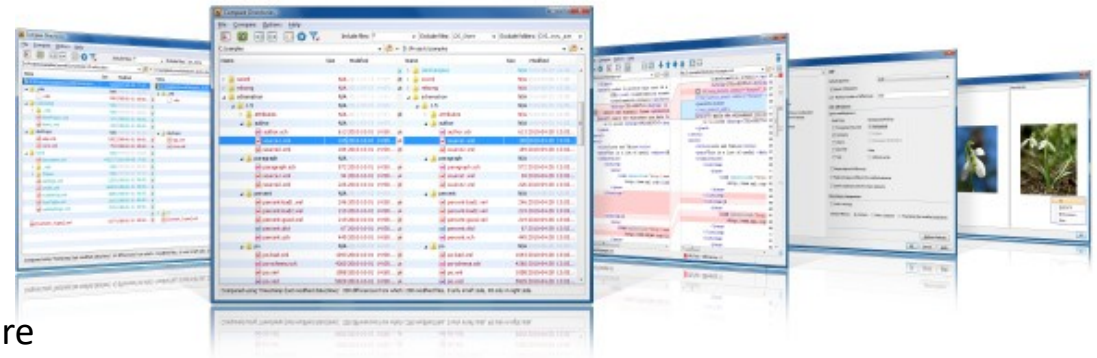
Compare and Merge

- Compare documents – identify changes between two versions of the same document
- Merge documents - uniting two documents into a single one



Compare and Merge Support in Oxygen

- Compare and Merge Files
  - Text and Visual Author Compare
  - Three-Way Comparisons
  - XML Diff Algorithms
- Compare and Merge Directories
  - Binary, Timestamp, and Content Compare



- Generating File or Directory Comparison HTML Reports
- Merge Documents with Change Tracking Highlights*
- Merge Directories with Change Tracking Highlights*
- Compare and Merge Files/Directories Command-Line Scripts*

Products Offering Compare and Merge Functionality

- Products where the compare and merge support is available:
  - Oxygen XML Editor
  - Oxygen XML Author
  - Oxygen XML Developer
  - Oxygen JSON Editor
  - Oxygen XML Web Author
  - Oxygen Content Fusion
  - Oxygen Scripting

Compare and Merge Support in Oxygen

- Available actions in Oxygen XML Editor/Author/Developer or JSON Editor:
  - Compare and Merge Files
  - Compare and Merge Directories
  - Generating File or Directory Comparison HTML Reports
  - Merge Files or Directories with Change Tracking Highlights

Compare and Merge Support on Web

- Available actions in Oxygen XML Web Author or Content Fusion:
  - Compare with latest version from repository
  - Compare with another file
  - Merge differences from a file

Automate Compare and Merge

- Command line actions available in Oxygen Scripting:
  - Compare and Merge Files
  - Compare and Merge Directories
  - Merge Files with Change Tracking Highlights*
  - Merge Directories with Change Tracking Highlights*
  - GitHub Template/Actions for Compare and Merge
    https://github.com/oxygenxml/oxygen-script-comparison-template

oxygenxml.com/oxygen_scripting.html
oxygenxml.com/doc/ug-editor/topics/scripting_oxygen.html

Question: What Oxygen Diff tools do you use or intend to use?

- Compare and Merge Files/Directories
- Merge File/Directories with Change Tracking
- Web Author Comparison
- Generate Comparison HTML Reports
- Compare and Merge Scripts

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

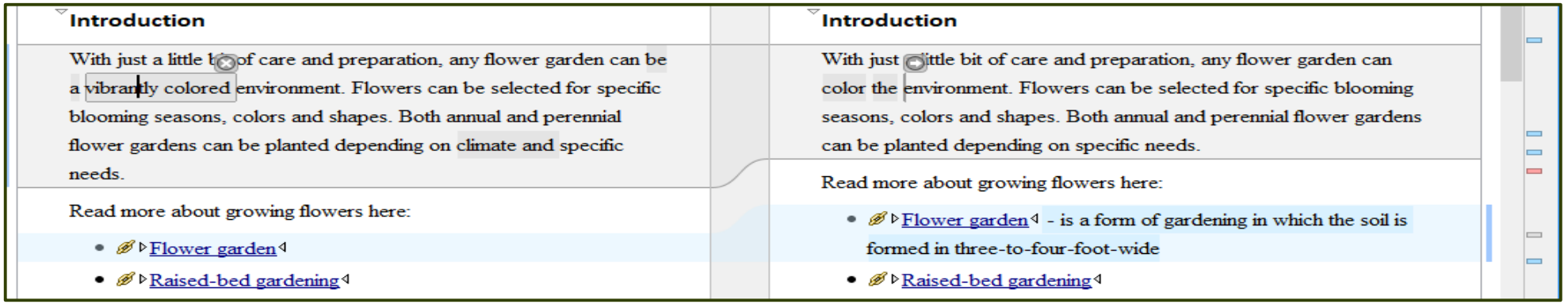
Focus on the content vs. See also the code markup

See track changes vs. See some processing instructions

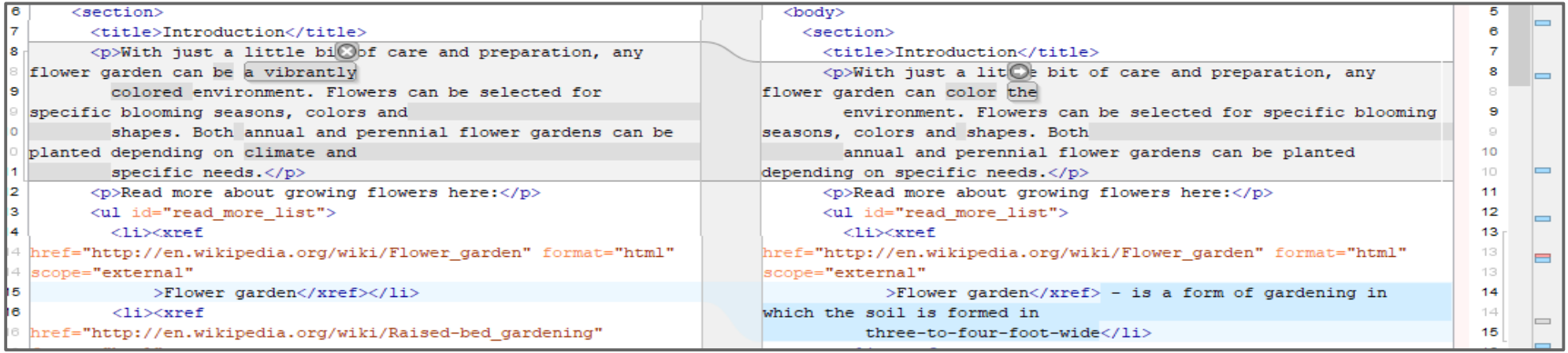
See the table layout vs. See the tags from a table

See the images vs. See some link URLs

Author


Introduction
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.
Read more about growing flowers here:
Flower garden
Raised-bed gardening
Introduction
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.
Read more about growing flowers here:
Flower garden - is a form of gardening in which the soil is formed in three-to-four-foot-wide
Raised-bed gardening

Text


<section>
<title>Introduction</title>
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.
Read more about growing flowers here:
<ul id="read_more_list">
<xref href="http://en.wikipedia.org/wiki/Flower_garden" format="html" scope="external">Flower garden</xref>
<xref href="http://en.wikipedia.org/wiki/Raised-bed_gardening"
<body>
<section>
<title>Introduction</title>
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.
Read more about growing flowers here:
<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

Author with Change Tracking Highlights

Flowers

colspecs...

Flower	Type	Soil
Chrysanthemum	perennial	well drained
Gardenia	perennial	acidic
Gerbera	annual	sandy, well-drained
Iris	annual~~perennial~~	slightly acidic

Flowers by Season

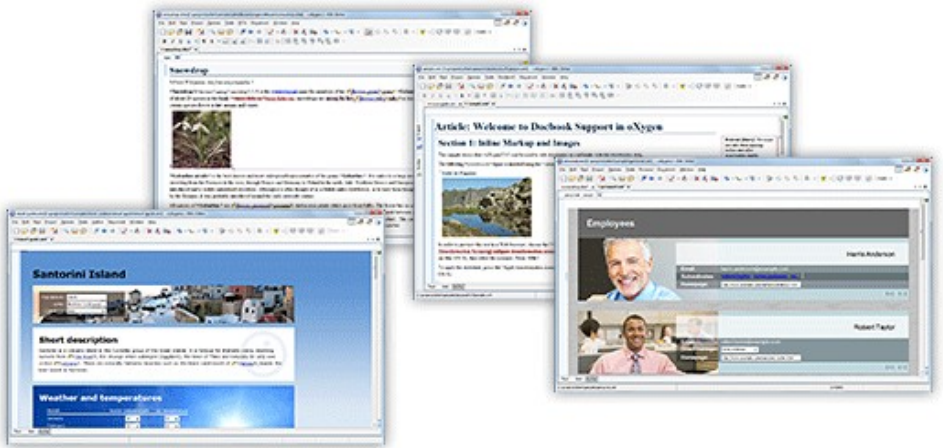
The various climatic changes that occur in cyclic pattern are termed as 'Seasons'. There are four general seasons occurring on Earth - Spring, Summer, Autumn and Winter.

- Spring Flowers
  - Iris - is a genus of between 200-30~~300~~ species of flowering plants with showy flowers.
    - Irises are extensively grown as ornamental plants in home and botanical gardens.
    - Some rhizomes are traded as orris root and are used in perfume and medicine, though more common in ancient times than today.

Author Mode Frameworks

Compare in Author mode is available for:

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

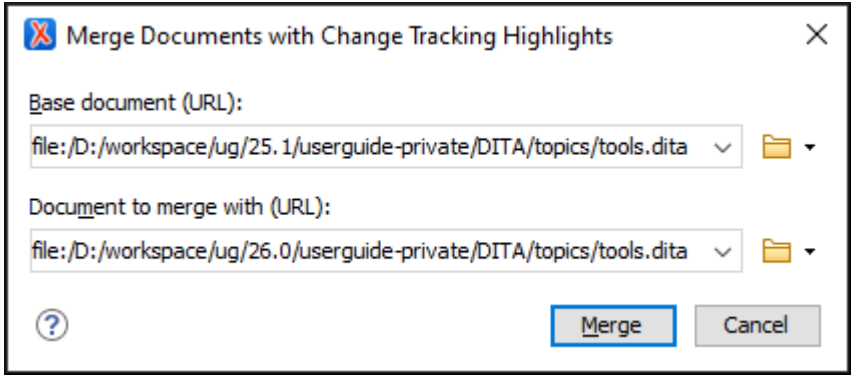


Oxygen Diff with ~~Change~~ Tracking

- Merge Documents with Change Tracking Highlights
- Merge Directories with Change Tracking Highlights

Merge Documents with Change Tracking Highlights

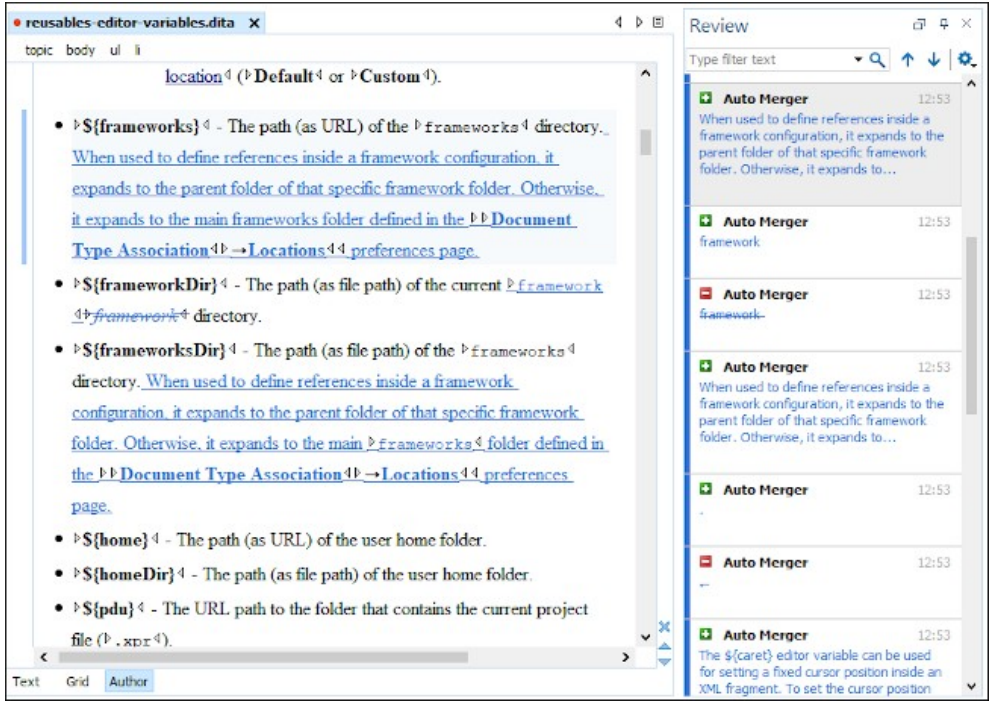
- Compare two versions of a document
- Generate a merged document with the change tracking highlights



oxygenxml.com/doc/ug-editor/topics/merge-docs-with-change-tracking-highlights.html

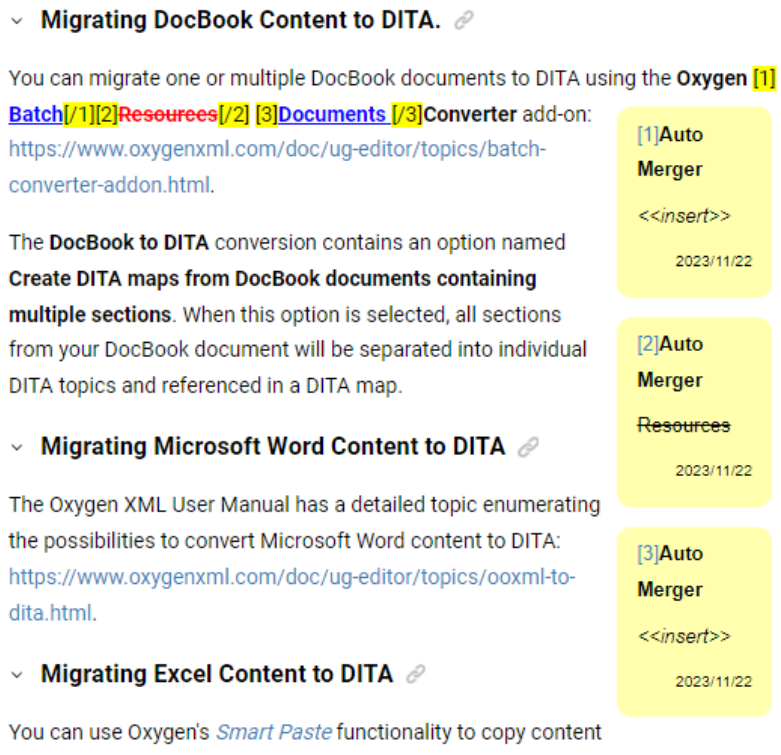
Document with Change Tracking Highlights

- Visualize changes in the Author mode
- Accept or reject the changes using review actions



Publish Document with Change Tracking Highlights

- Publish the merge document with change tracking highlights in HTML



Migrating DocBook Content to DITA.

You can migrate one or multiple DocBook documents to DITA using the **Oxygen** [1] Batch[/1][2]~~Resources~~[/2] [3]Documents [/3]**Converter** add-on: https://www.oxygenxml.com/doc/ug-editor/topics/batch-converter-addon.html.

The **DocBook to DITA** conversion contains an option named **Create DITA maps from DocBook documents containing multiple sections**. When this option is selected, all sections from your DocBook document will be separated into individual DITA topics and referenced in a DITA map.

Migrating Microsoft Word Content to DITA

The Oxygen XML User Manual has a detailed topic enumerating the possibilities to convert Microsoft Word content to DITA: https://www.oxygenxml.com/doc/ug-editor/topics/ooxml-to-dita.html.

Migrating Excel Content to DITA

You can use Oxygen's *Smart Paste* functionality to copy content

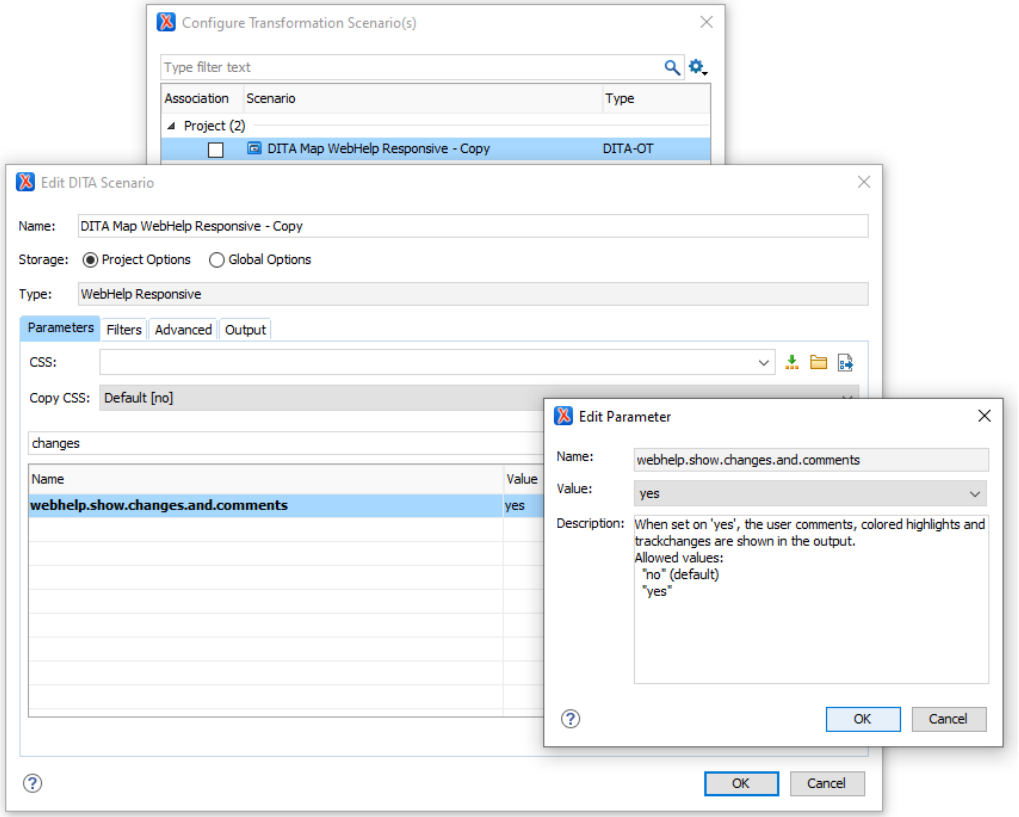
[1]**Auto Merger**
<<insert>>
2023/11/22

[2]**Auto Merger**
~~Resources~~
2023/11/22

[3]**Auto Merger**
<<insert>>
2023/11/22

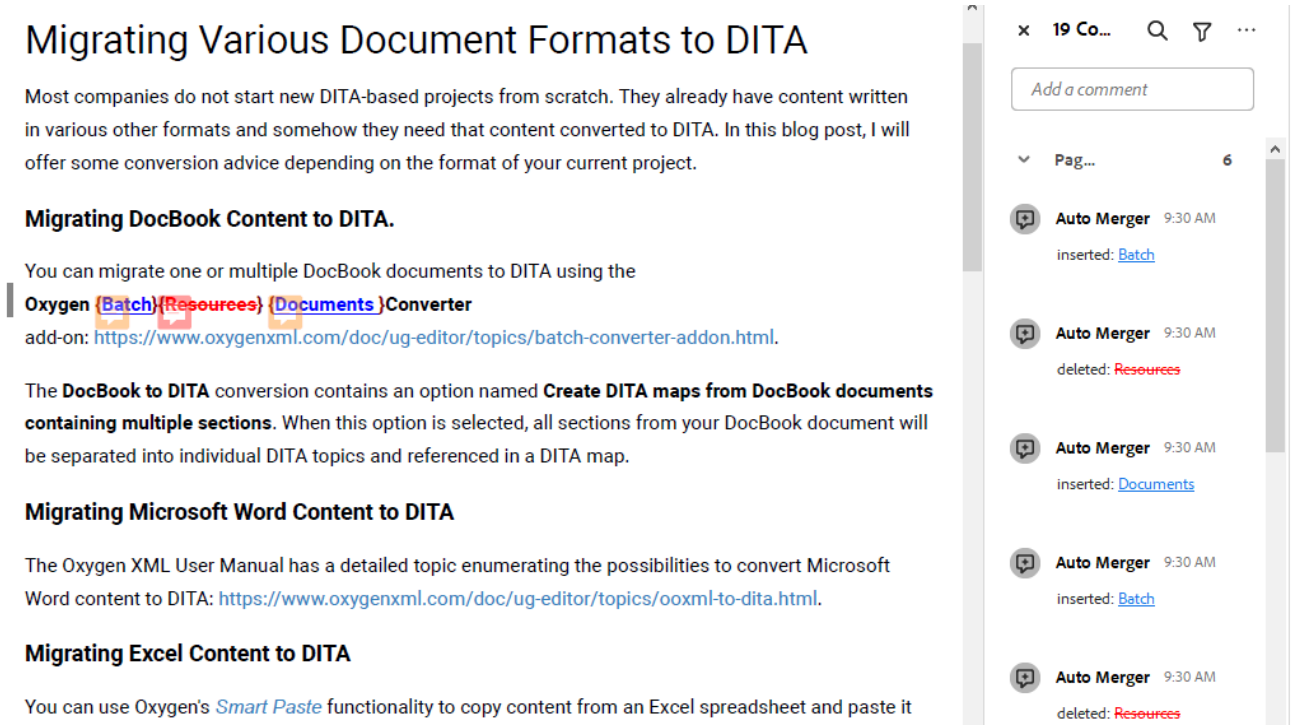
Publish HTML with Change Tracking Highlights

- Set the “webhelp.show.changes.and.comments” parameter



Publish Document with Change Tracking Highlights

- Publish the merge document with change tracking highlights in PDF



Migrating Various Document Formats to DITA

Most companies do not start new DITA-based projects from scratch. They already have content written in various other formats and somehow they need that content converted to DITA. In this blog post, I will offer some conversion advice depending on the format of your current project.

Migrating DocBook Content to DITA.

You can migrate one or multiple DocBook documents to DITA using the **Oxygen {Batch}{~~Resources~~} {Documents }Converter** add-on: https://www.oxygenxml.com/doc/ug-editor/topics/batch-converter-addon.html.

The **DocBook to DITA** conversion contains an option named **Create DITA maps from DocBook documents containing multiple sections**. When this option is selected, all sections from your DocBook document will be separated into individual DITA topics and referenced in a DITA map.

Migrating Microsoft Word Content to DITA

The Oxygen XML User Manual has a detailed topic enumerating the possibilities to convert Microsoft Word content to DITA: https://www.oxygenxml.com/doc/ug-editor/topics/ooxml-to-dita.html.

Migrating Excel Content to DITA

You can use Oxygen's *Smart Paste* functionality to copy content from an Excel spreadsheet and paste it

19 Co...

Add a comment

Pag... 6

Auto Merger 9:30 AM
inserted: Batch

Auto Merger 9:30 AM
deleted: ~~Resources~~

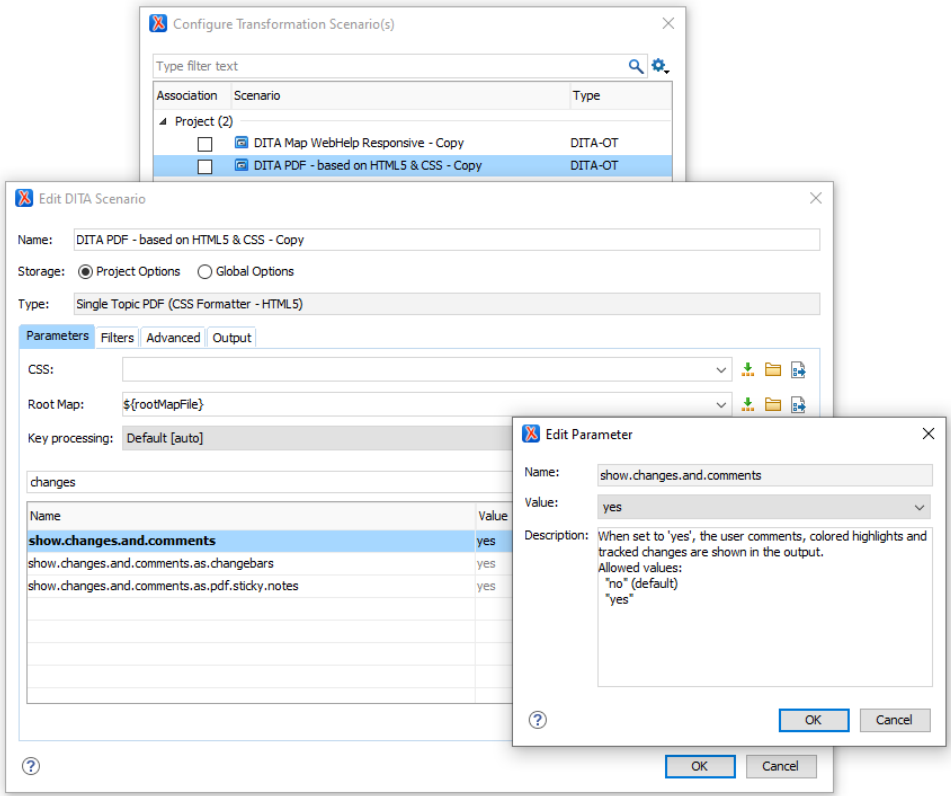
Auto Merger 9:30 AM
inserted: Documents

Auto Merger 9:30 AM
inserted: Batch

Auto Merger 9:30 AM
deleted: ~~Resources~~

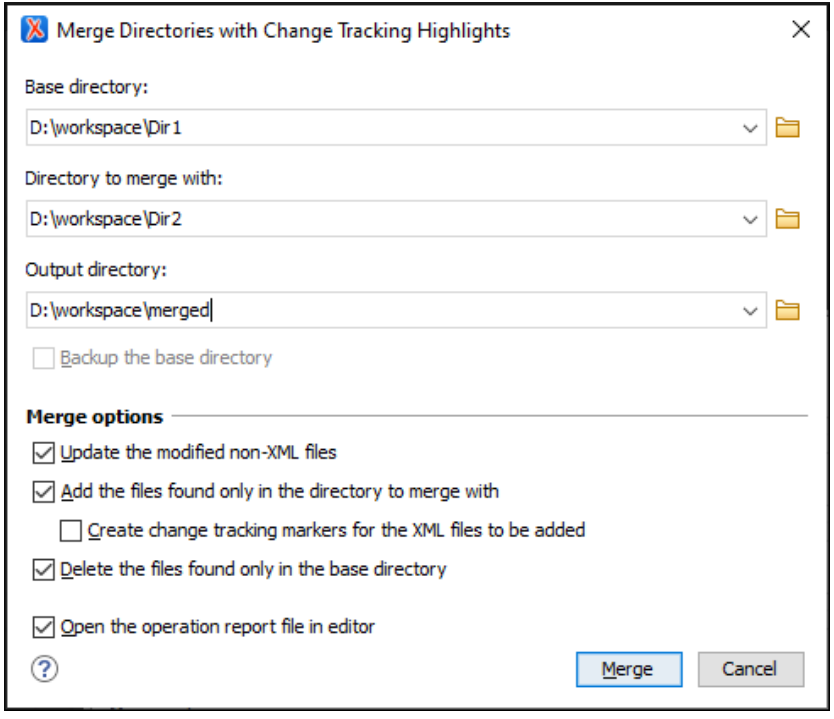
Publish PDF with Change Tracking Highlights

- Set the “show.changes.and.comments” parameter



Merge Directories with Change Tracking Highlights

- Compare two versions of a project
- Generate a merged result with the change tracking highlights



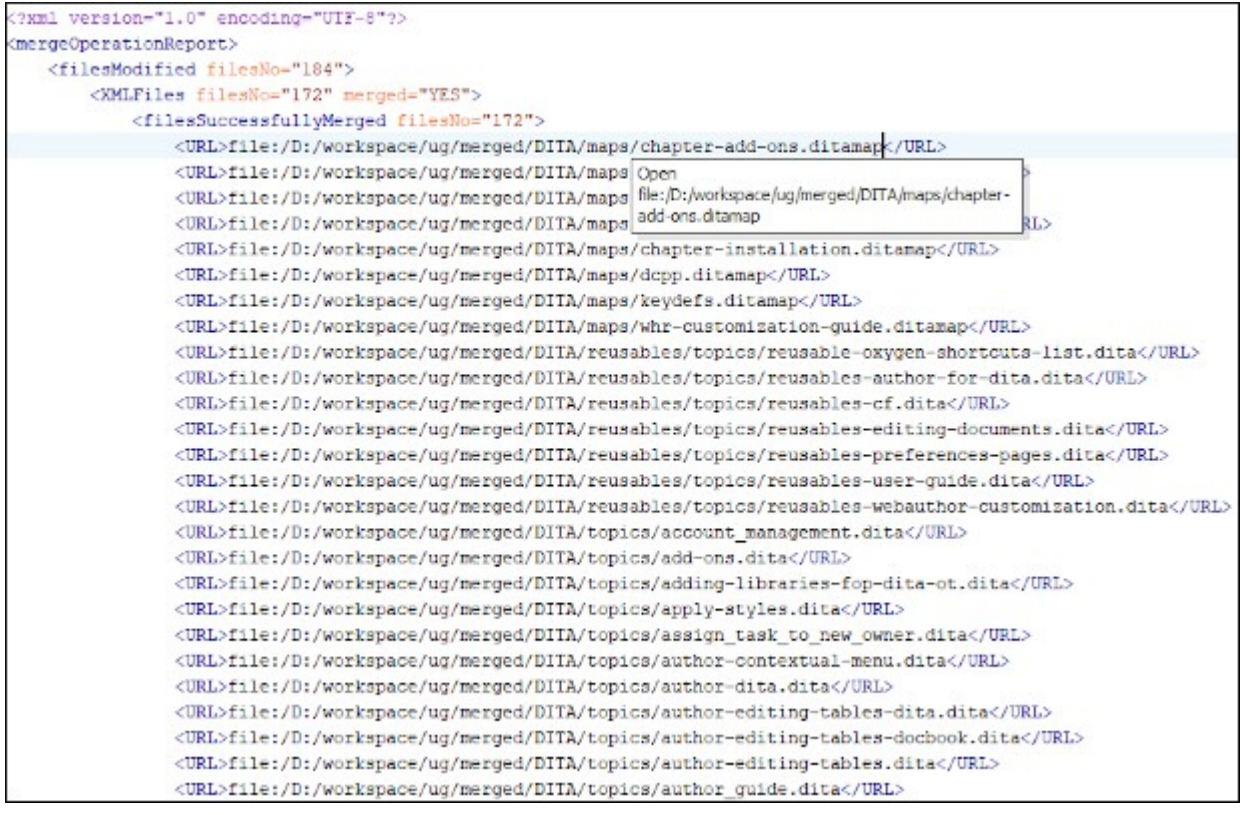
Merge Directories with Change Tracking Highlights

- Merge options:
  - Backup the base directory
  - Update the modified non-XML files
  - Add the files found only in the directory to merge with
  - Create change tracking markers for the XML files to be added
  - Delete the files found only in the base directory
  - Open the operation report file in editor

oxygenxml.com/doc/ug-editor/topics/merge-dirs-with-change-tracking-highlights.html

Merge Directories with Change Tracking Highlights

- Visualize changes in the Text mode




```
<?xml version="1.0" encoding="UTF-8"?>
<mergeOperationReport>
    <filesModified filesNo="184">
        <XMLFiles filesNo="172" merged="YES">
            <filesSuccessfullyMerged filesNo="172">
                <URL>file:/D:/workspace/ug/merged/DITA/maps/chapter-add-ons.ditamap</URL>
                <URL>file:/D:/workspace/ug/merged/DITA/maps
                <URL>file:/D:/workspace/ug/merged/DITA/maps
                <URL>file:/D:/workspace/ug/merged/DITA/maps
                <URL>file:/D:/workspace/ug/merged/DITA/maps/chapter-installation.ditamap</URL>
                <URL>file:/D:/workspace/ug/merged/DITA/maps/dcpp.ditamap</URL>
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                <URL>file:/D:/workspace/ug/merged/DITA/topics/author-editing-tables-docbook.dita</URL>
                <URL>file:/D:/workspace/ug/merged/DITA/topics/author-editing-tables.dita</URL>
                <URL>file:/D:/workspace/ug/merged/DITA/topics/author_guide.dita</URL>
```

Merge Directories with Change Tracking Highlights

- Visualize changes in the Author mode

Merge operation report

▽ *Files modified:*

▽ XML files

▽ Files successfully merged:

→ file:/D:/GitRepos/octavian-demos/CompareWithChnageTrakingWebinar/blog/blog-merged/presentation-reuse/reuseSimilarProducts.dita

→ file:/D:/GitRepos/octavian-demos/CompareWithChnageTrakingWebinar/blog/blog-merged/topics/migrating_word_to_dita_bdc/frequently_asked_questions.dita

→ file:/D:/GitRepos/octavian-demos/CompareWithChnageTrakingWebinar/blog/blog-merged/topics/migrating_word_to_dita_bdc/preparing_word_document_for_migration.dita

→ file:/D:/GitRepos/octavian-demos/CompareWithChnageTrakingWebinar/blog/blog-merged/topics/adding_cals_table_related_functionality_to_your_custom_oxygen_framework.dita

→ file:/D:/GitRepos/octavian-demos/CompareWithChnageTrakingWebinar/blog/blog-merged/topics/blog_2022_retrospective.dita

→ file:/D:/GitRepos/octavian-demos/CompareWithChnageTrakingWebinar/blog/blog-merged/topics/dita_for_small_teams.dita

→ file:/D:/GitRepos/octavian-demos/CompareWithChnageTrakingWebinar/blog/blog-merged/topics/learnDita.dita

→ file:/D:/GitRepos/octavian-demos/CompareWithChnageTrakingWebinar/blog/blog-merged/topics/migrating_to_dita.dita

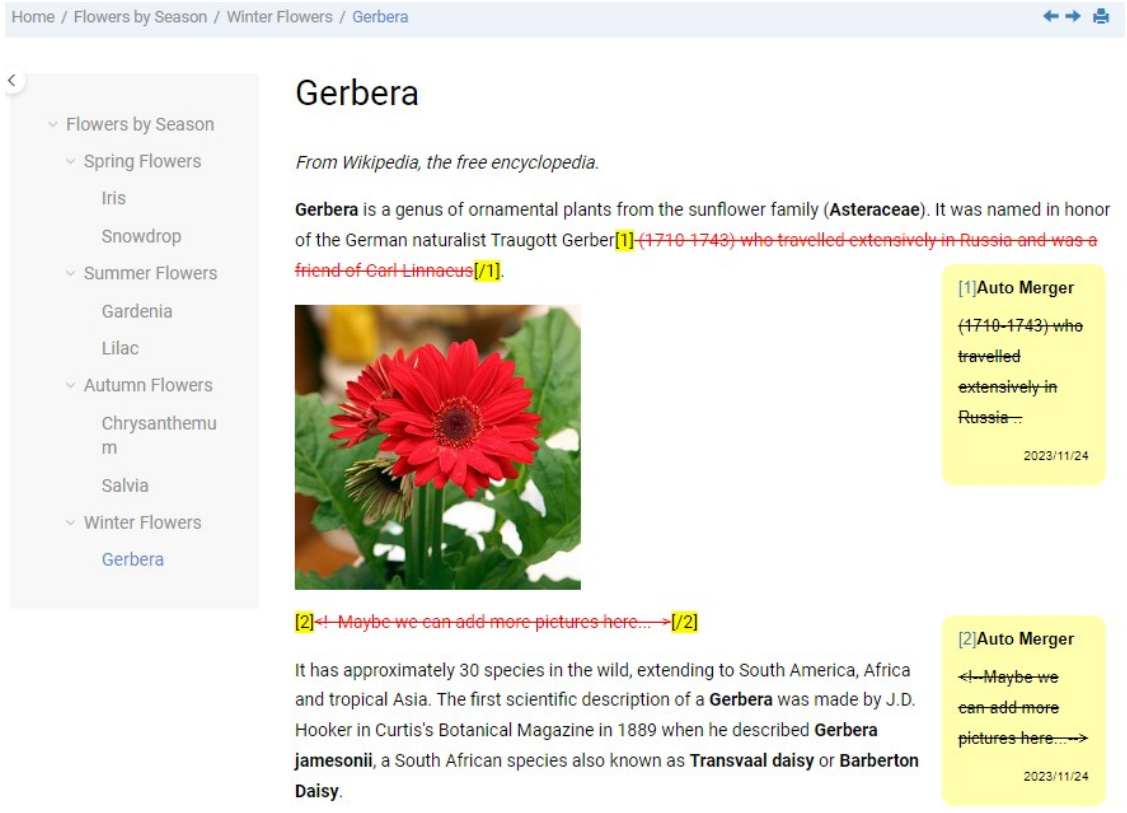
→ file:/D:/GitRepos/octavian-demos/CompareWithChnageTrakingWebinar/blog/blog-merged/topics/publishing_dita_content_using_a_markdown_static_web_site_generator.dita

→ file:/D:/GitRepos/octavian-demos/CompareWithChnageTrakingWebinar/blog/blog-merged/topics/welcome.dita

→ file:/D:/GitRepos/octavian-demos/CompareWithChnageTrakingWebinar/blog/blog-merged/oxygen_xml_blog.ditamap

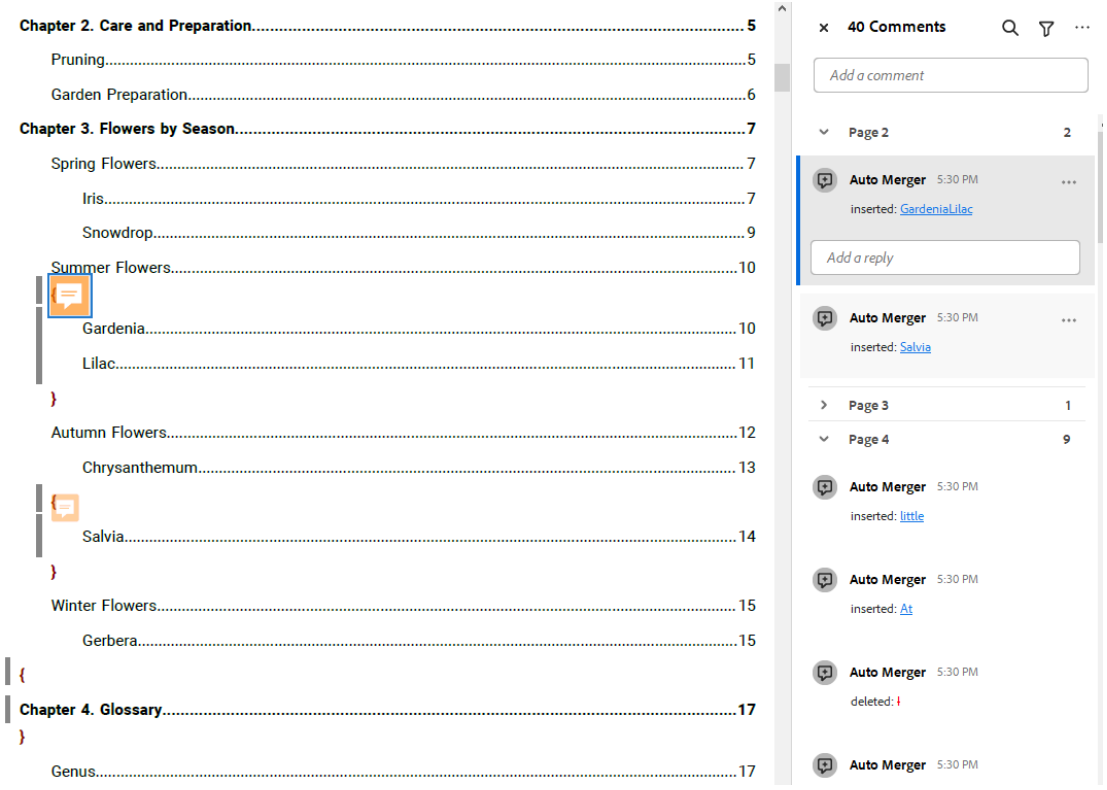
Publish Report in HTML

- Publish the report with change tracking highlights HTML format



Publish Report in PDF

- Publish the report with change tracking highlights PDF format



Diff with Change Tracking Remarks

- All the existing track changes from the compared documents are accepted before starting the merge process
- The modifications made to the DOCTYPE are automatically merged and do not include track change highlighting

Automate Compare and Merge

Merge Files Script

Merge files and generate the merged result with change tracking highlights

File comparison

Merge Files with Change Tracking

- Compare two documents and generates a merged document
- Results are saved as documents with highlighted tracked changes that can later be reviewed and accepted or rejected

```
sh mergeFilesTrackChanges.sh pathOfBaseFile pathOfFileToMergeWith
[[pathOfOutFile] [-nb noBackupOfBaseFile]] [-help | --help | -h | --h]
```

Arguments for the Compare Files with Change Tracking

pathOfBaseFile - Mandatory argument that specifies the path of the base file

pathOfFileToMergeWith - Mandatory argument that specifies the file to merge with

pathOfOutFile - Optional argument that specifies the path of the file where the merge results are saved to

-nb noBackupOfBaseFile - Set to true if you do not want a backup copy of the base file on the hard disk

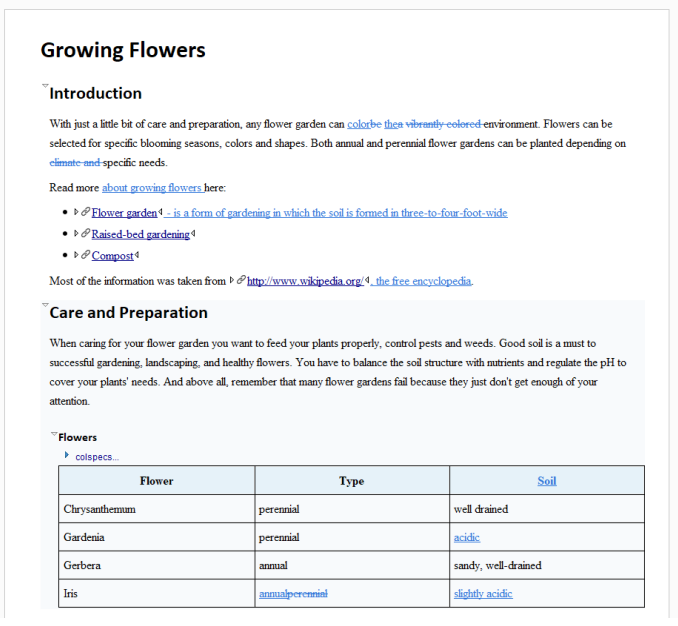
-help | --help | -h | --h - Displays help text.

oxygenxml.com/doc/ug-editor/topics/merge-files-change-tracking.html

Merge Files Result

Example of generating a merged file “flowers-merged.xml” using the script

```
mergeFilesTrackChanges flowers.xml flowers-reviwed.xml flowers-merged.xml
```



Growing Flowers

Introduction

With just a little bit of care and preparation, any flower garden can ~~colorbe~~ ~~thea~~ ~~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.

Read more about growing flowers here:

- Flower garden – is a form of gardening in which the soil is formed in three-to-four-foot-wide
- Raised-bed gardening
- Compost

Most of the information was taken from http://www.wikipedia.org/, the free encyclopedia.

Care and Preparation

When caring for your flower garden you want to feed your plants properly, control pests and weeds. Good soil is a must to successful gardening, landscaping, and healthy flowers. You have to balance the soil structure with nutrients and regulate the pH to cover your plants' needs. And above all, remember that many flower gardens fail because they just don't get enough of your attention.

Flowers

colspecs...

Flower	Type	Soil
Chrysanthemum	perennial	well drained
Gardenia	perennial	acidic
Gerbera	annual	sandy, well-drained
Iris	~~annualperennial~~	slightly acidic

Compare Files Script Result

Can be used to:

- Verify if the documents are modified
- Visualize the changes from the document
- Publish the document with changes
- Executed from CI/CD pipelines

Merge Directories Script

Merge directories and get the results with change tracking highlights

Directory comparison

Merge Directories with Change Tracking

- Compare two directories and generates a merged result
- The XML documents are saved as documents with highlighted tracked changes that can later be reviewed and accepted or rejected

```
sh mergeDirsTrackChanges.sh pathOfBaseDir pathOfDirToMergeWith [[pathOfOutDir]
[-nb noBackupOfBaseDir] [-nu noUpdateOfModifNonXMLFiles] [-na
noAddingFilesOnlyPresentInDirToMergeWith] [-nd noDeletionOfFilesOnlyPresentInBaseDir]
[-cm createChangeTrackingMarkersForAddedXMLFiles]] [-help | --help | -h | --h]
```

Arguments for the Compare Files with Change Tracking

pathOfBaseDir - Mandatory argument that specifies the path of the base directory

pathOfDirToMergeWith - Mandatory argument that specifies the directory to merge with

pathOfOutDir - Optional argument that specifies the path of the directory where the merge results are saved to

-nb noBackupOfBaseDir - Set to true if you do not want a backup copy of the base file on the hard disk

-nu noUpdateOfModifNonXMLFiles - Set to true if you want to keep the non-XML files at their versions from the base directory.

-na noAddingFilesOnlyPresentInDirToMergeWith - Set to true if you want to skip adding the files that are only present in the directory to merge with to the output directory as well.

-nd noDeletionOfFilesOnlyPresentInBaseDir - Set to true if you want to preserve the files that are only present in the base directory.

-cm createChangeTrackingMarkersForAddedXMLFiles - Set to true if you want to create change tracking markers for the XML files only present in the directory to merge with .

-help | --help | -h | --h - Displays help text.

oxygenxml.com/doc/ug-editor/topics/merge-directories-change-tracking.html

Merge Directories Report

Example of generating a merged result

```
mergeDirsTrackChanges flowers flowers-changed flowers-merged
```

Merged Directories Result

Can be used to:

- Verify if the directories are modified
- Determine the type of changes between directories
- Automatically publish the changes from a project in PDF or HTML
- Executed from CI/CD pipelines

Conclusion

- Complete support for File and Directory Comparison and Merge
- Generate Merge Result with Change Tracking Highlights
- Publish Merge Result in PDF or HTML
- Scripts to Compare and Merge Files and Directories

Future Plans

- Diff with Change Tracking 3-way
- Diff with Change Tracking in Web Author
- Better Integration with External Tools (e.g. SourceTree)
- Ignore by XPath in Diff Directories
- Other (feedback is welcome)

Question: What features are the most important for you?

- Diff with Change Tracking 3-way
- Diff with Change Tracking in Web Author
- Better Integration with External Tools (e.g. SourceTree)
- Ignore by XPath in Diff Directories
- Other (feedback is welcome)

Resources

- oxygenxml.com/xml_editor/xml_diff_and_merge.html
- oxygenxml.com/xml_editor/wysiwyg_xml_editor_review_change_tracking.html
- oxygenxml.com/demo/generating_file_or_directory_comparison_reports_in_oxygen.html
- oxygenxml.com/demo/generating_file_comparison_reports_using_command_line.html
- oxygenxml.com/demo/generating_directory_comparison_reports_using_command_line.html
- oxygenxml.com/demo/Merge_Directories.html
- oxygenxml.com/demo/three_way_diff.html
- oxygenxml.com/demo/XML_Diff_Merge.html

Questions?

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