

Migrating from TIMELAPSE1 to TIMELAPSE 2

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Abstract.. The previous and now quite old version of TIMELAPSE1 (version 1) used a different file structure to store both the template and the data. If you have used TIMELAPSE1 and want to migrate your template and / or data to TIMELAPSE, the following is for you. However, if you do not have any old templates or data files, you can ignore this section.

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Note. This manual describes features that work with files created from Timelapse 1 versions, and most versions of Timelapse2 (currently at v2.2.3.8). The software is updated over time, mostly in response to feedback from people like you. Thus some of the information and/or features described in this manual may change. Check for new versions of the software and this manual at <http://saul.cpsc.ucalgary.ca/timelapse> or contact saul@ucalgary.ca.

1 Introduction

The previous and now quite old version of TIMELAPSE1 (version 1) used a different file structure to store both the template and the data. If you have used TIMELAPSE1 and want to migrate your template and / or data to TIMELAPSE, the following is for you. However, if you do not have any old templates or data files, you can ignore this section.

The template and data files also have different names across these versions, as listed below.

	TIMELAPSE (version 1)	TIMELAPSE (version 2)
Template file	CodeTemplate.xml	TimelapseTemplate.tdb, or a file with a .tdb suffix.
Data file	ImageData.xml	TimelapseData.ddb, or a file with a .ddb suffix

The tutorial User Guide page on the Timelapse web site also contains a downloadable zip file MigrationImageSet.zip that contains:

- a variety of images
- a sample CodeTemplate.xml file,
- an ImageData.xml file created by running Timelapse1 using the above **CodeTemplate.xml** file and images.

To follow this tutorial, download and uncompress the MigrationImageSet.zip folder to a location of your choosing.

Warning. Converting templates should be fairly seamless, with one major exception. New templates require that Data Labels be comprised of alphanumeric characters, with the only other allowable character being an '_'. In addition, the Data Label cannot match one of various reserved words.

If your old template used Data Labels with other characters, or if it matched a reserved word, the conversion process will detect that. It will offer alternative Data Labels (e.g., similar labels with the disallowed characters deleted), or a reserved word label modified to include an '_' at its end.) You can also change the Data Label to a new label of your choosing.

However, if you use other software that is based on those old labels (e.g., your own database, or custom program, or statistical analysis tool), that software will have to be modified to these new names.

2 Converting Templates

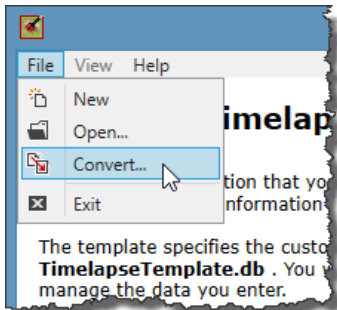
The TIMELAPSETEMPLATEEDITOR includes a facility that transforms an old CodeTemplate.xml file into a TimelapseTemplate.tdb. For this example, consider a CodeTemplate.xml that defines the following fields:

- the standard fields (File, Folder, Date, Time, ImageQuality etc.)
- Counters for *Goats* and *Hikers*
- A Note called *Comment*
- A Choice called *Weather*

As RelativePath and DeleteFlag did not exist in TIMELAPSE1, there is no equivalent *RelativePath*, *DeleteFlag* fields. Similarly, there are not controls of the type Flag.

Converting this CodeTemplate.xml file

1. Open the TimelapseTemplateEditor.
2. Select 'Convert' from the File menu,



A sequence of dialog boxes will ask you to:

- Locate the CodeTemplate.xml file that you wish to convert
- Locate the location for the new TimelapseTemplate.tdb file, where you will also have the option to rename it if you wish.

3. The TIMELAPSETEMPLATEEDITOR then converts the file. If it finds an error, it notifies you.

In the image below, for example, we see that the TIMELAPSETEMPLATEEDITOR has raised a dialog box saying that:

- an illicit character appeared in 'Weather?'
- it has changed the Data Label to 'Weather'.

Timelapse Template Editor | File: TimelapseTemplate.tdb

File View Help

Type directly in the white fields to edit them. Gray fields are not editable.
List items: create menu items by typing. Click 'v' to view the menu, and raise each item's context menu to re-order its position.

Type	Default Value	Label	Data Label	Tooltip	Width	Copyable	Visible	List
File		File	File	The file name of a specific image	100	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Folder		Folder	Folder	The folder name containing the image set	100	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Date	DD/MM/YY	Date	Date	The date this particular image was taken	100	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Time	HH:MM:SS	Time	Time	The time this particular image was taken	100	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
ImageQuality		Image quality	ImageQuality	The detected image quality		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
DeleteFlag	false	Delete?	MarkForDeletion	Mark an image as one to be deleted		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Note		Comment	Comment	Optional comments about the image		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
FixedChoice		Weather?	Weather	From sunny, to raining, to snowing		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Counter	0	Sheep	Sheep	A count of how many sheep were seen		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Counter	0	Goats	Goats	A count of how many goats were seen		<input type="checkbox"/>	<input checked="" type="checkbox"/>	

One or more Data Labels were problematic

1 of your Data Labels were problematic.

Data Labels can:

- only contain alphanumeric characters and '.',
- cannot match particular reserved words.

We repaired them as follows:

- illicit characters: 'Weather?' changed to 'Weather'

Alternately, you can rename the problematic Data Labels

OK

What the interface will (roughly) look like. Drag and drop these controls (by their labels) to re-arrange their order to your preference

File Folder Date DD/MM/YY Time HH:MM:SS Image quality Ok Delete? Comment Weather? Sunr

Sheep 0 Goats 0

The spreadsheet column order. Drag and drop columns to re-arrange their order to your preference

File Folder Date Time ImageQuality MarkForDeletion Comment Weather Sheep Goats

- At this point, you can accept the template as is, and then modify it as you wish. However, if you want to use data created from that old template, you should hold off modifying it until you read the next section.

3 Converting Data

If you have an old ImageData.xml file, you may want to convert it to the new TimelapseData.tdb format. This will allow you to continue processing it.

However, there are pre-conditions for conversion. Most importantly:

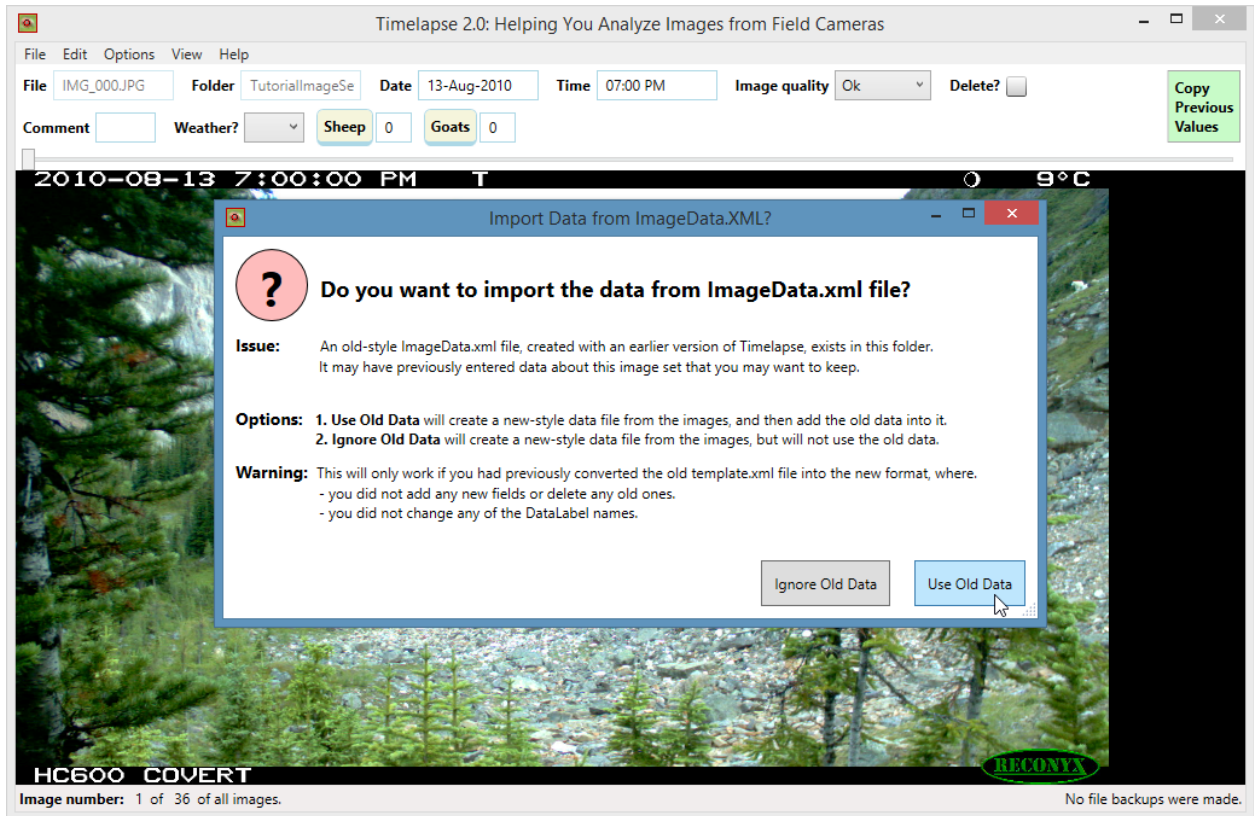
1. You need to have your original image folder that contains:
 - the original images
 - the original CodeTemplate.xml file
 - the ImageData.xml file created by TIMELAPSE1 when using that CodeTemplate.xml file to analyze the images in this folder.
2. You will need to convert the CodeTemplate.xml file into the new TimelapseTemplate.tdb format. However, you are restricted in the modifications you can make to the TimelapseTemplate.tdb format, as detailed below. Otherwise the new template will not be able to read the old data, or may read it incorrectly.

Converting the CodeTemplate.xml file

1. Following the instructions in the previous section, convert the CodeTemplate.xml file in your old image set folder into the new TimelapseTemplate.tdb format, which should be saved in the same image set folder.
2. You can modify the new template in any way you wish, EXCEPT:
 - Do not add any new fields
 - Do not delete any existing fields
 - Do not change any of the Data Label types
 - Do not change the order of your Data Label

Converting the ImageData.xml file

3. Start TIMELAPSE and load the image set using the new TimelapseTemplate.tdb file. It will scan and read all your images as if they had never been previously analyzed.
4. At the end of scanning new images, Timelapse automatically checks to see if there is an old-style ImageData.xml file in that folder set. If there is, it asks you if you want to import the data already stored in the ImageData.xml file:



5. Select 'Use Old Data'. Timelapse will then try to incorporate values of your old data.
 - Values are copied from your old ImageData.xml file from the following fields:
 - Date
 - Time
 - All other fields
 - Visual markers indicating where you had clicked for Counter fields are also copied over
 - The following values are **not** copied from your old ImageData.xml file fields
 - File (as these should not have changed)
 - Folder (in case the folder has been moved to a new place)
 - ImageQuality (as these have changed somewhat in the new system)
 - Delete? (as this did not exist in the previous version).

6. Check your data by one or all of:
 - navigating through images
 - examining the spreadsheet
 - using the Selection menu to check if particular image properties are correct.

Note.

- If your ImageData.xml file contains data for image files that no longer exist, that data will be skipped.
- If an existing image file does not have any matching data in the ImageData.xml file, its data will be filled in with its default values.