



DirSync Pro Manual

v. 1.46

©2008-2013, O. Givi info@dirsyncpro.org

Table of Contents

1 Disclaimer and License.....	4
2 What is DirSync Pro?.....	5
3 User Interface.....	5
3.1 Menu and Toolbar.....	6
3.2 Main Window.....	8
3.2.1 Job Tree.....	8
3.2.2 Synchronization queue.....	10
3.2.2.1 Synchronization queue: Summary tab.....	10
3.2.2.2 Synchronization queue: View tab.....	12
3.2.2.3 Synchronization queue: Filter tab.....	13
3.2.2.4 Right mouse click context menu.....	14
3.2.3 Schedule queue.....	16
3.2.4 Messages.....	17
3.3 Job options.....	18
3.3.1 Basic options.....	18
3.3.2 Copy options.....	21
3.3.3 Conflict Resolution options.....	22
3.3.3.1 Mono-directional sync conflict resolution.....	22
3.3.3.2 Bi-directional sync conflict resolution.....	24
3.3.4 Filters options.....	26
3.3.4.1 Adding/Editing a filter: Basics tab.....	27
3.3.4.2 Adding/Editing a filter: By Pattern tab.....	29
3.3.4.3 Adding/Editing a filter: By File Size tab.....	30
3.3.4.4 Adding/Editing a filter: By File Date tab.....	31
3.3.4.5 Adding/Editing a filter: By Path tab.....	32
3.3.4.6 Adding/Editing a filter: By Attribute tab.....	33
3.3.4.7 Adding/Editing a filter: By Ownership tab.....	34
3.3.4.8 Adding/Editing a filter: By Permission tab.....	35
3.3.5 Deletion options.....	36
3.3.6 Backup options.....	37
3.3.7 Logging options.....	38
3.3.8 Schedule options.....	39
3.3.8.1 Adding/Editing a schedule: Basics tab.....	41
3.3.8.2 Adding/Editing a schedule: Schedule Once.....	42
3.3.8.3 Adding/Editing a schedule: Schedule Minutely.....	43
3.3.8.4 Adding/Editing a schedule: Schedule Hourly.....	44
3.3.8.5 Adding/Editing a schedule: Schedule Daily.....	45
3.3.8.6 Adding/Editing a schedule: Schedule Weekly.....	46
3.3.8.7 Adding/Editing a schedule: Schedule Monthly.....	47
3.3.9 Advanced options.....	48
3.3.10 Job Actions.....	50
3.4 Generate command line tool.....	51
3.5 Application Options window.....	52
3.5.1 General options.....	52
3.5.1.1 Update window.....	53
3.5.2 View options.....	54

3.5.3 Synchronization options.....	55
3.5.4 Log options.....	56
3.6 Command Line.....	57
3.7 Advanced features.....	57
3.7.1 Default directory for program settings.....	57
3.7.2 Default directory for saving logs.....	58
3.7.3 Default directory for saving configurations.....	58
3.7.4 Log behavior.....	58
3.7.5 Schedule a synchronization.....	58
3.7.6 Auto start in MS Windows.....	59
3.7.7 Allocating more memory for DirSync Pro.....	59
4 Frequently Asked Questions (FAQ).....	59
5 License.....	60
5.1 Disclaimer.....	60
5.2 DirSync Pro License.....	60
5.2.1 Icons licensed from KDE.....	60
5.3 GNU GENERAL PUBLIC LICENSE.....	60
5.3.1 Preamble.....	60
5.3.2 TERMS AND CONDITIONS.....	61
5.3.2.1 Source Code.....	62
5.3.2.2 Basic Permissions.....	63
5.3.2.3 Protecting Users' Legal Rights From Anti-Circumvention Law..	63
5.3.2.4 Conveying Verbatim Copies.....	64
5.3.2.5 Conveying Modified Source Versions.....	64
5.3.2.6 Conveying Non-Source Forms.....	64
5.3.2.7 Additional Terms.....	66
5.3.2.8 Termination.....	67
5.3.2.9 Acceptance Not Required for Having Copies.....	68
5.3.2.10 Automatic Licensing of Downstream Recipients.....	68
5.3.2.11 Patents.....	69
5.3.2.12 No Surrender of Others' Freedom.....	70
5.3.2.13 Use with the GNU Affero General Public License.....	70
5.3.2.14 Revised Versions of this License.....	70
5.3.2.15 Disclaimer of Warranty.....	71
5.3.2.16 Limitation of Liability.....	71
5.3.2.17 Interpretation of Sections 15 and 16.....	71

1 Disclaimer and License

THIS PROGRAM IS DISTRIBUTED IN THE HOPE THAT IT WILL BE USEFUL, BUT WITHOUT ANY WARRANTY; THERE IS NO WARRANTY FOR THIS PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

By using the program you confirm to accept the above terms and the license terms.

The full text of the License is included at the end of this document.

2 What is DirSync Pro?

DirSync Pro is a small, but powerful utility for file and folder synchronization. DirSync Pro can be used to synchronize the content of one or many folders recursively. Use DirSync Pro to easily synchronize files from your desktop PC to your USB-stick (/Externa HD/PDA/Notebook, ...). Use this USB-stick (/Externa HD/PDA/Notebook, ...) to synchronize files to another desktop PC.

Using DirSync Pro you can make incremental backups. In this way you'll spare lots of time because you don't have to copy all the files each time you want to update your backup; only new/modified/larger files would be copied. DirSync Pro provides some preconfigured modes (e.g. Mirror, Backup, Contribute, ...) for common synchronization and backup tasks and some custom modes in which the user could set up the synchronization behavior to meet specific wishes. Prior to synchronization, DirSync Pro performs an analysis on files and folders and detect any kind of changes to any file/directory in the source. If a file is for example modified, removed, deleted, renamed in the source DirSync Pro synchronizes the destination accordingly. DirSync Pro detects also changes to file meta data (e.g. DOS attributes, POSIX file ownerships/group/permissions) and could preserve them to the destination file/directories.

DirSync Pro has a user-friendly User Interface which helps you configure many options to your needs. You can use DirSync Pro also through the command line which makes it very flexible for running in batches.

DirSync Pro lets you define advanced filters based of filename patterns (textual and regular expression based), file sizes, modification dates, file paths and file meta data to include or exclude file/directories as desired.

DirSync Pro has a powerful schedule engine which lets you schedule synchronization tasks on many different ways, minutely, hourly, daily, weekly and monthly. Advanced users may use tons of options available in DirSync Pro to suit the synchronization behavior in details. DirSync Pro has many logging facilities which let you create detailed logs even per job.

DirSync Pro provides a real-time synchronization option which watches the source directory continuously and synchronizes the changes into the destination directory if a file/directory is changed.

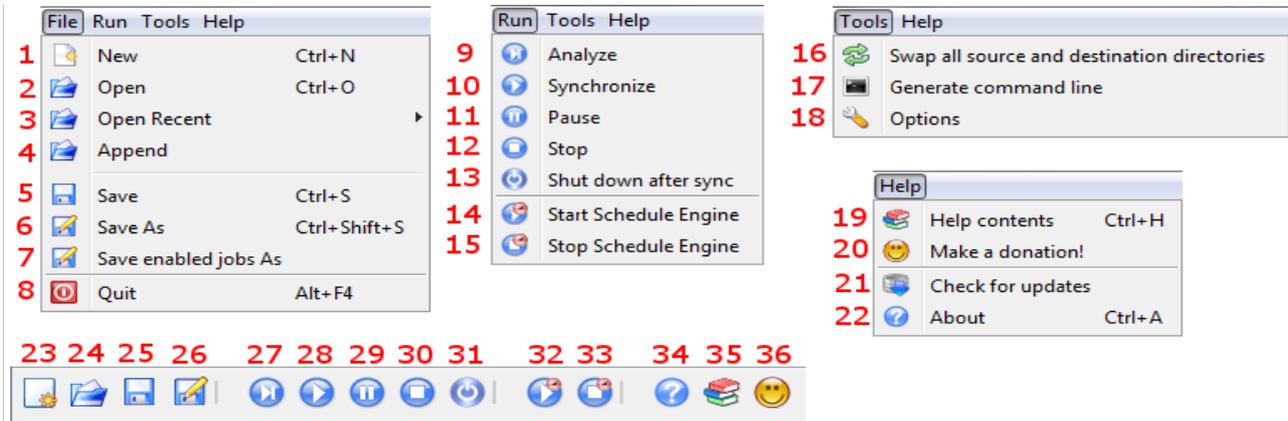
Unlike many other synchronization software, DirSync Pro is Open Source; it is 100% free of charge, 100% free of commercial text, 100% free of advertisements and 100% free of spyware. You can use it as long as you like, without any limitations in time or functionality. You can freely distribute it according to GPL3.

DirSync Pro is programmed completely in platform independent Java™ so it can be run under nearly every modern operating system including Windows™, Linux™ and Macintosh™.

3 User Interface

Synchronize can be configured via a GUI. You can use the GUI to execute a synchronization, or you can use the GUI to create a jobset file and run the synchronization in console mode.

3.1 Menu and Toolbar



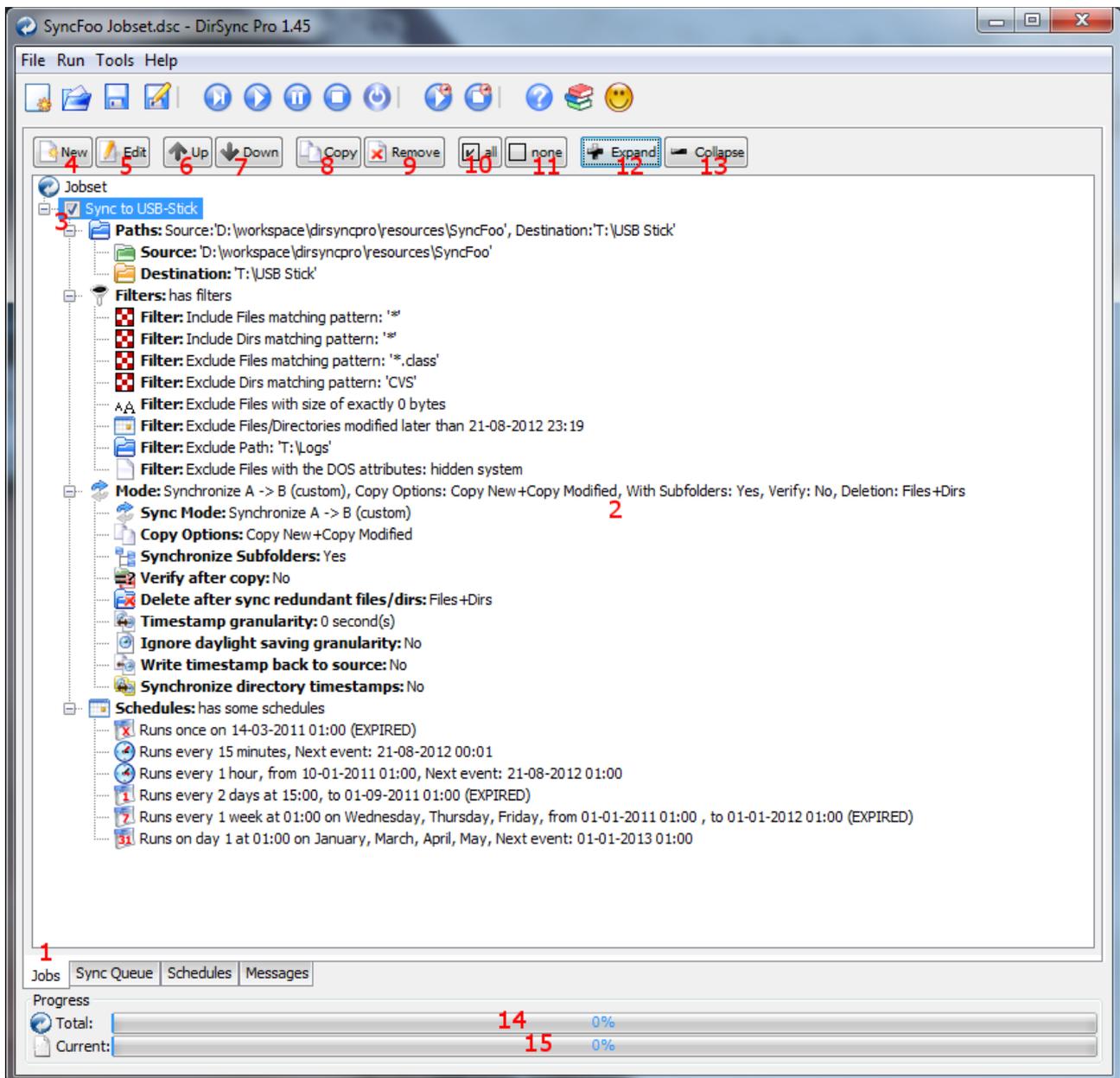
1. Create a **New** jobset.
2. **Open** an existing jobset.
3. **Open Recently** loaded jobsets.
4. Load and **Append** a saved jobset to the current one.
5. **Save** the current jobset.
6. **Save** the current jobset **As** a new file.
7. **Save** the **enabled jobs As** a new file.
8. **Quit** the program.
9. Start to **Analyze** the jobs. No synchronization will be carried out. The jobs should always be analyzed before synchronization.
10. Start to **Synchronize** the jobs. If not analyzed yet, DirSync Pro will initiate *Analyze* first.
11. **Pause** analyzing/synchronizing. If a file is being copied, the program pauses after the copy process is carried out.
12. **Stop** analyzing/synchronizing. If a file is being copied, the program stops after the copy process is carried out.
13. **Shut down** the system **after** the **synchronization** is carried out. If you use this command, DirSync Pro will opens a count-down dialog for 30 seconds after which the system will shut down.



14. **Start** the Synchronization Engine.
15. **Stop** the Synchronization Engine.
16. **Swap** the paths of **source and destination directories** in **all** jobs.
17. Open the **Generate command line** window which lets you create a batch command or batch file to run DirSync Pro in a batch.
18. Open the **Options** window.
19. Display **Help contents** for DirSync Pro.
20. Start the default internet browser and goes to the Donation page to **Make a Donation**.
21. **Check for** program **updates** if available.
22. Display information **About** DirSync Pro.
23. New jobset short-cut.
24. Open jobset short-cut.
25. Save jobset short-cut.
26. Save jobset As short-cut.
27. Analyze short-cut.
28. Synchronize short-cut.
29. Pause Analyze/Synchronize short-cut.
30. Stop Analyze/Synchronize short-cut.
31. Start the Schedule Engine short-cut.
32. Shut down the system after the synchronization is carried out.
33. Stop the Schedule Engine short-cut.
34. About short-cut.
35. Help contents short-cut.
36. Make a Donation short-cut.

3.2 Main Window

3.2.1 Job Tree



1. The **Jobs** tab: shows the configured jobs in a visual tree.
2. The **Job tree**: shows the details of the configured jobs.
3. **Enable/Disable** check box: to enable or disable a job for synchronization. Only the enabled directories get synchronized.
4. **Add** a new job to the tree.
5. **Edit** the selected job. This opens the Job Edit dialog for the selected job.
6. **Move** the selected job **Up**. The jobs are synchronized from top to

down. Upper jobs get synchronized first.

7. **Move** the selected job **Down**. The jobs are synchronized from top to down. Upper jobs get synchronized first.
8. **Copy** the selected job.
9. **Remove** the selected job.
10. Enable **All** jobs.
11. Disable all jobs (**None** enabled).
12. **Expand** the job tree one level. This opens up the tree for one level. Clicking it once more, will expand the tree another level.
13. **Collapse** the job tree.
14. The **Total** progress of the overall synchronization. During the synchronization this bar shows also the elapsed and remaining time.
15. The progress of the synchronization of the **Current** item. During the analyze process, this bar shows the steps being carried out. During the synchronization this bar shows also the name of the file/directory being synchronized.

3.2.2 Synchronization queue

3.2.2.1 Synchronization queue: Summary tab

The screenshot shows the DirSync Pro 1.45 interface. The Summary tab is active, displaying the following statistics:

	Analyzed	Syncing	Always	New	Modified	Larger	Larger&Modified	To be deleted	Conflicts
Files:	12	11	0	10	0	0	0	1	0
Dirs:	5	1	0	0	0	0	0	1	0
Total:	17	12	0	10	0	0	0	2	0

Below the statistics is a table comparing Dir A and Dir B:

Dir A	Date	Size	Mode	Dir B	Date	Size
				help	20-08-12 23:39	0 B
				license.html	17-08-12 23:41	44.2 KB
BFM.jpg	17-02-10 13:31	52.1 KB				
Data before migration.txt	17-02-10 13:31	14 B				
Definitions.xml	17-02-10 13:31	29.3 KB				
index.html	17-02-10 13:31	21.3 KB				
Presentation.pptx	17-02-10 13:31	28.3 KB				
Report.docx	13-01-11 22:49	12.2 KB				
Report.odt	17-02-10 13:31	4.2 KB				
Report.pdf	17-02-10 13:31	79.8 KB				
Report.xps	17-02-10 13:31	84.1 KB				
SyncFoo Jobset.dsc	20-08-12 23:36	5.7 KB				

The Progress bar at the bottom shows:

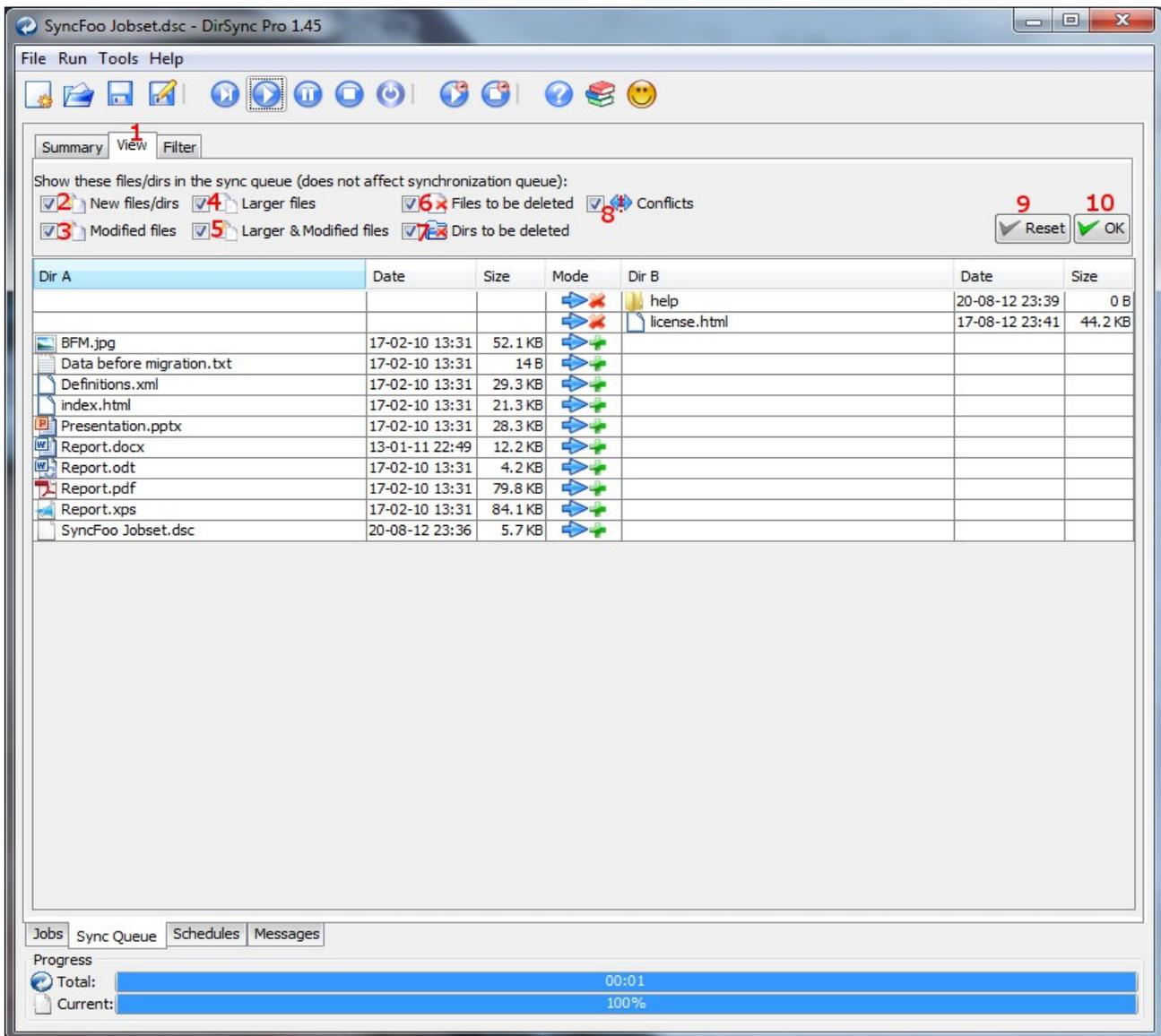
- Total: 00:01
- Current: 100%

1. The **Sync Queue** tab: shows the synchronization queue. You'll see here all the files which are going to be synchronized.
2. The **Summary** tab: shows some statistics about the synchronization: number of Analyzed files/directories, number of files/directories to be synchronized, number of New files/directories, number of Modified files, number of Larger files, number of files which are Larger and modified and number of files/directories to be deleted.
3. The **statistics** of the current synchronization.
4. The number of **Analyzed** files/directories.
5. The number of files/directories To be **Synchronized**.
6. The number of files/directories To be copied **Always**.
7. The number of **New** files/directories.

8. The number of **Modified** files/directories.
9. The number of **Larger** files.
10. The number of **Larger AND modified** files.
11. The number of files/directories To be **Deleted**.
12. The number of files/directories which are involved in a synchronization conflict.
13. The **Synchronization Queue** list which shows the file names, modification dates and sizes of the files in Directory A and Directory B.

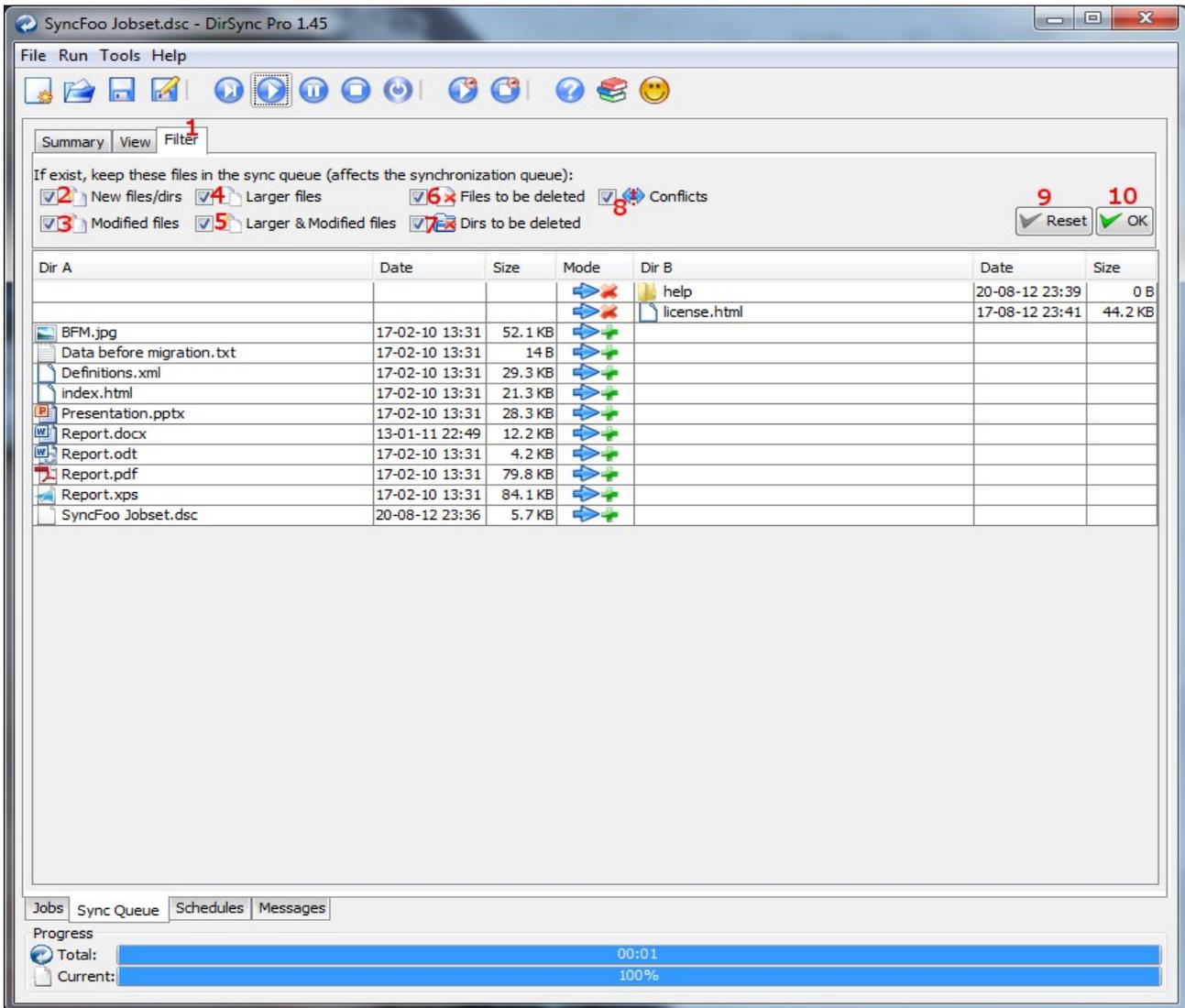
By right clicking a record in the synchronization queue, you get a context-aware menu with which you may manipulate the synchronization queue.

3.2.2.2 Synchronization queue: View tab



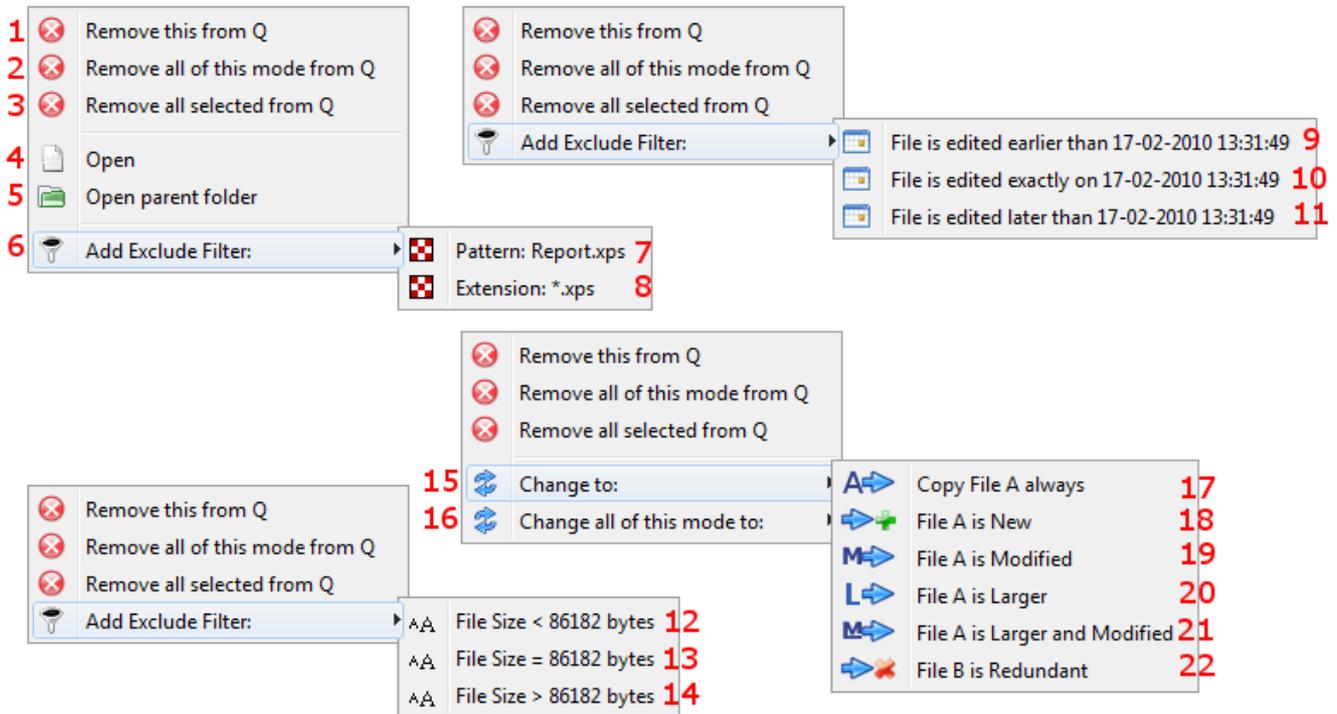
1. The **View** tab: allows filtering the view of the synchronization. This filter does not affect the synchronization queue. It only affects files/directories currently being shown.
2. Show **New** files/dirs.
3. Show **Modified** files.
4. Show **Larger** files.
5. Show **Larger & Modified** files.
6. Show **Files** to be deleted.
7. Show **Dirs** to be deleted.
8. Show **Conflict** items
9. **Reset** the view filters.
10. Apply (**OK**) the filters.

3.2.2.3 Synchronization queue: Filter tab



1. The **Filter** tab: allows filtering the synchronization queue. This helps you to make a selection of files to be synchronized. This filter does affect the synchronization queue. Only the files that remain in the queue are synchronized during the synchronization process.
2. Show **New** files/dirs.
3. Show **Modified** files.
4. Show **Larger** files.
5. Show **Larger & Modified** files.
6. Show **Files** to be deleted.
7. Show **Dirs** to be deleted.
8. **Reset** the view filters.
9. Show **Conflict** items
10. Apply (**OK**) the filters.

3.2.2.4 Right mouse click context menu



If you right mouse click an entry in the synchronization queue, a context menu appears in which you always may:

1. **Remove this** entry **from** the **synchronization queue** (not from the file system). This means that the corresponding file pair will not be synchronized.
2. **Remove all of this mode from** the **synchronization queue**, which means all the entry of which the synchronization mode is the same as the selected entry, will be removed from the synchronization queue (not from the file system) and so will not be synchronized.
3. **Remove all selected from** the **synchronization queue**, which means all selected (highlighted) entries will be removed from the synchronization queue (not from the file system) and so will not be synchronized. In the synchronization queue you may select multiple entries using the CTRL and/or SHIFT key in combination with left mouse click.

Additionally, depending on which column you right click, some other options will appear.

If you right click on the name of a folder or a file, you may:

4. **Open** the file/directory in the system file explorer. If the file is associated with an application, the file is then opened in the regarding application.
5. **Open the parent folder** of a file in the system file explorer.

If you right click on the name/date/size of a file/directory, you'll get a submenu:

14. **Add Exclude Filter** with which you may quickly add a context-

aware filter. The filter dialog will then open automatically in which you may fine-tune the filter.

This context-aware filter holds various options based on the data of the selected file/directory. If you right click the name of a file/directory, you may:

7. Add a **Pattern** filter based on the name of the file/directory. After the filter dialog has appeared, you may fine-tune the pattern manually.
8. Add a **Pattern** based on the file **Extension**. Again, you may fine-tune the filter in the filter dialog which opens automatically.

If you right click on the modification date of a file, the context-aware **Add Exclude Filter** lets you:

9. Add a date filter for files having earlier (<) modification date than the selected file size.
10. Add a date filter for files having exactly same (=) modification date as the selected file size.
11. Add a date filter for files having later (>) modification date than the selected file size.

If you right click on the file size of a file, the context-aware **Add Exclude Filter** lets you:

12. Add a file size filter for files having smaller (<) size than the selected file size.
13. Add a file size filter for files having exactly same (=) size as the selected file size.
14. Add a file size filter for files having larger (>) size than the selected file size.

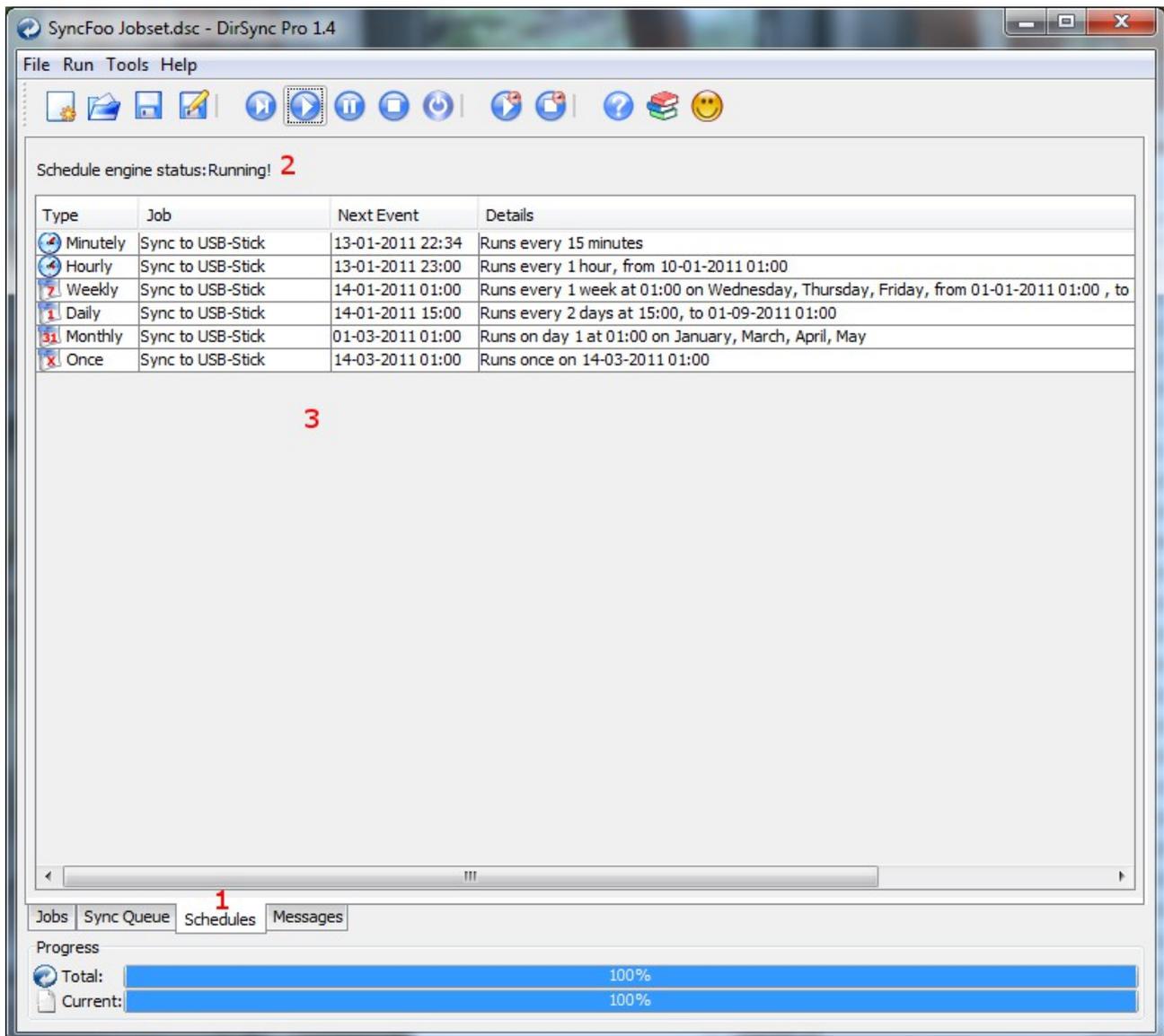
If you right click on the synchronization mode, you'll get two submenu's:

15. **Change to:** which lets you change the mode of the selected synchronization item to another mode.
16. **Change all of this mode to:** which lets you change the mode of all the synchronization items with the same mode to another mode.

You may change the mode to:

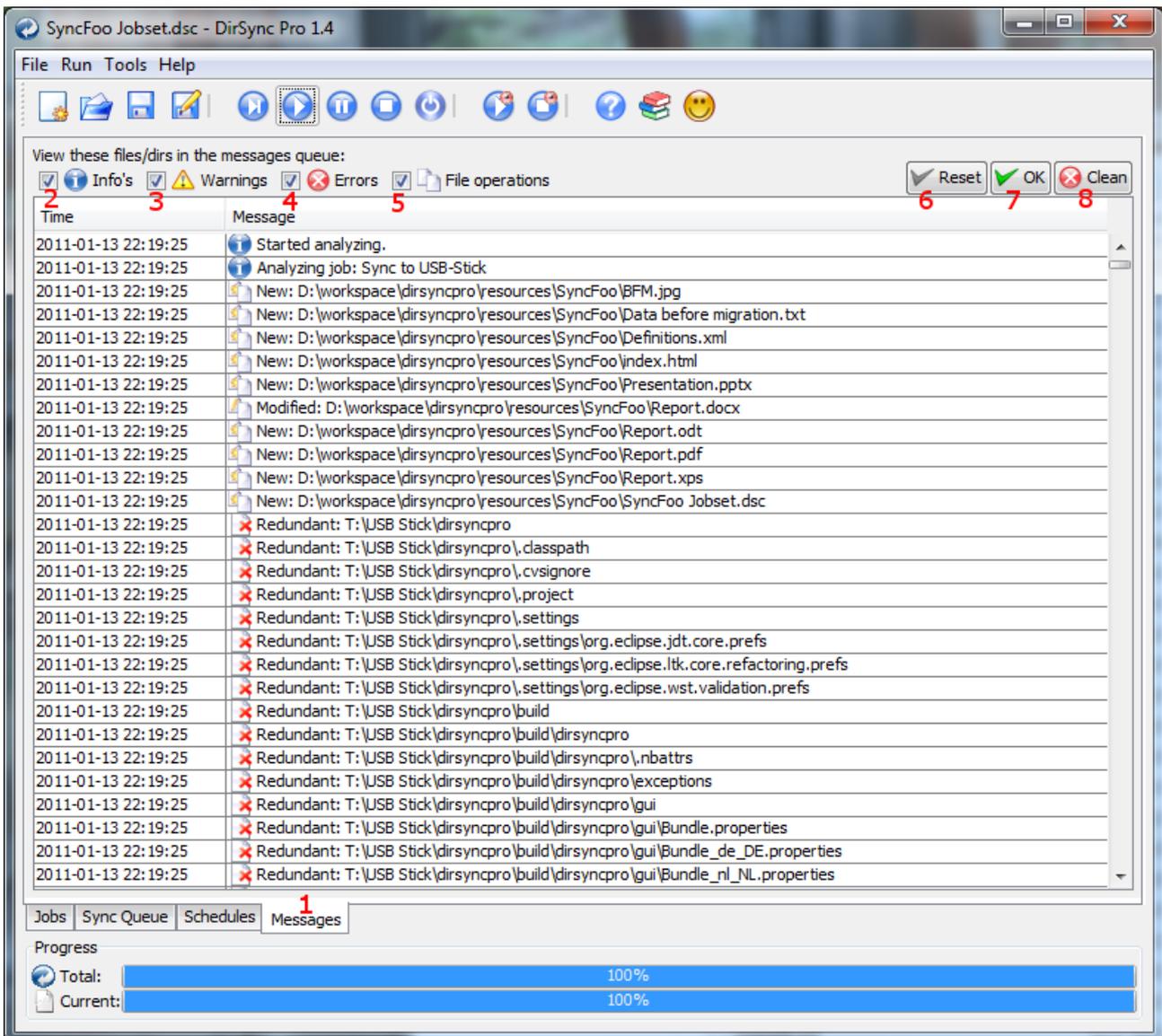
17. Copy File A Always
18. File A is New
19. File A is modified
20. File A is Larger
21. File A is Larger and Modified
22. File B is redundant

3.2.3 Schedule queue



1. The **Schedule** tab: shows the scheduled synchronization tasks.
2. **Schedule Engine Status** line shows whether the synchronization engine is **Running** or **Not**.
3. The schedule table shows all the scheduled tasks. For each task the following information is shown:
 1. Type of the scheduled task (Once, Minutely, Hourly, Daily, Weekly and Monthly).
 2. The job the scheduled task belong to.
 3. The next following event (date/time) when the scheduled is being run.
 4. Details of the scheduled task.

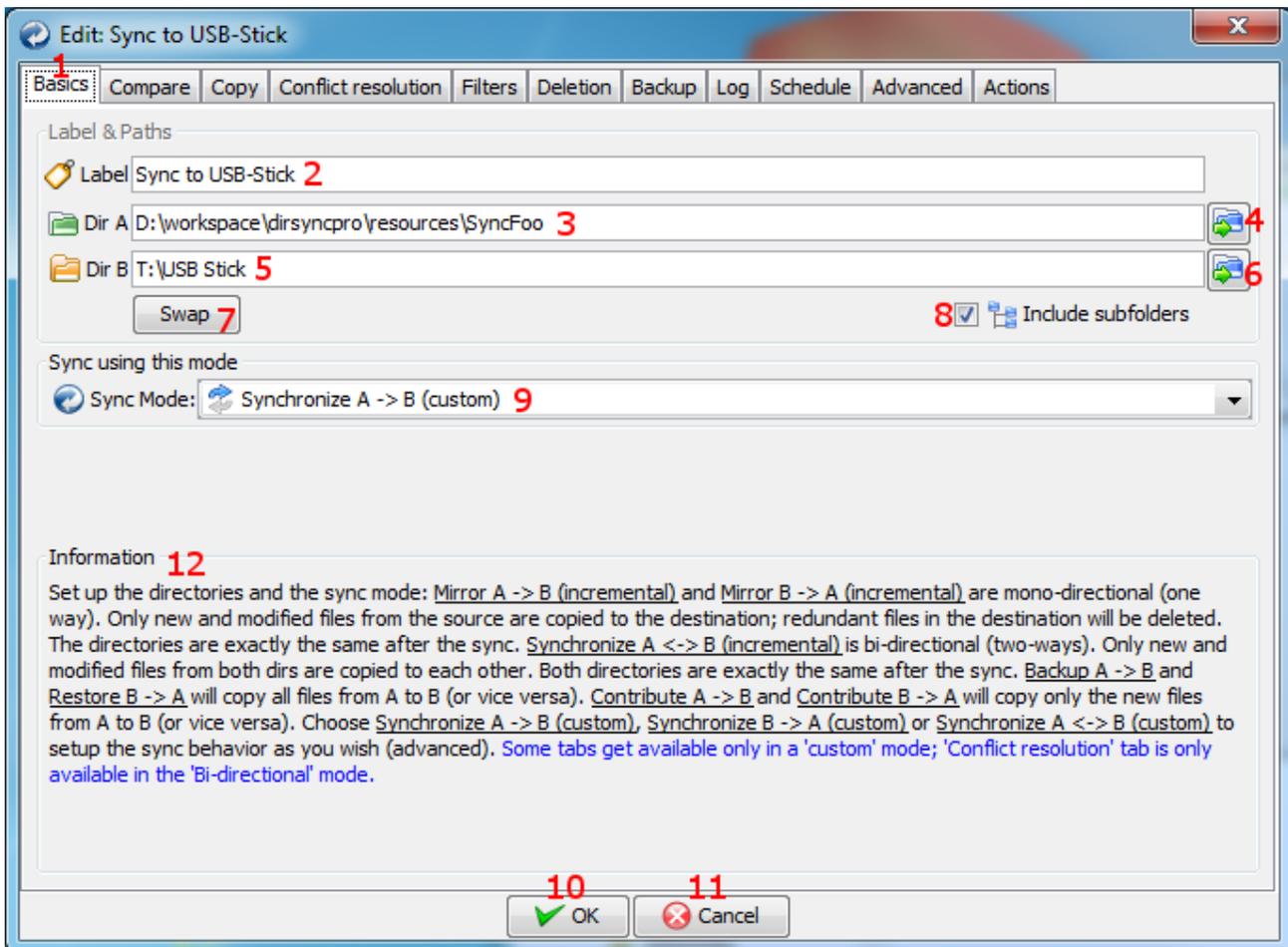
3.2.4 Messages



1. The **Messages** tab: shows the messages being created during the analysis and synchronization process.
2. Allows filtering the **Info** messages.
3. Allows filtering the **Warning** messages.
4. Allows filtering the **Error** messages.
5. Allows filtering the **File** operations.
6. **Reset** the view filters.
7. Apply (**OK**) the filters.
8. **Clean** the Messages list.

3.3 Job options

3.3.1 Basic options



1. The **Basics** tab: shows basic configuration of the job.
2. The **Label** of this job. The label is the name of the job. It is also used when to create the default log filename for this job.
3. The path to **Dir A** for this job. Here you specify the directory with the original files, also known as the source directory. You can specify here the following (case sensitive) wildcards:
 - <username> for the name of the current user, and
 - <userhome> for the home directory of the current user.
4. **Browse** for Dir A directory. **Important Note:** The Java Run-time Environment (JRE) which ships in recent Mac OSX's (like Lion) limits unfortunately the users access to other files/folders other than his/her personal files/folders. This limitation affects all Java applications (including DirSync Pro) which means no Java application can go beyond your personal files. We have no idea why Apple enforces this limitation to JRE for Mac users. The only way to eliminate this limitation is to install and use the original JRE from Sun/Oracle.
5. The path to **Dir B** for this job. Here you specify the directory which will

be synchronized according to Dir A. This directory is also known as the destination directory. You can specify here the following (case sensitive) wildcards:

<date> for the current date, and

<DD> for the current day,

<MM> for the current month,

<YYYY> for the current year.

<time> for the current time, and

<hh> for the current hour,

<mm> for the current minute,

<ss> for the current second.

<username> for the name of the current user, and

<userhome> for the home directory of the current user.

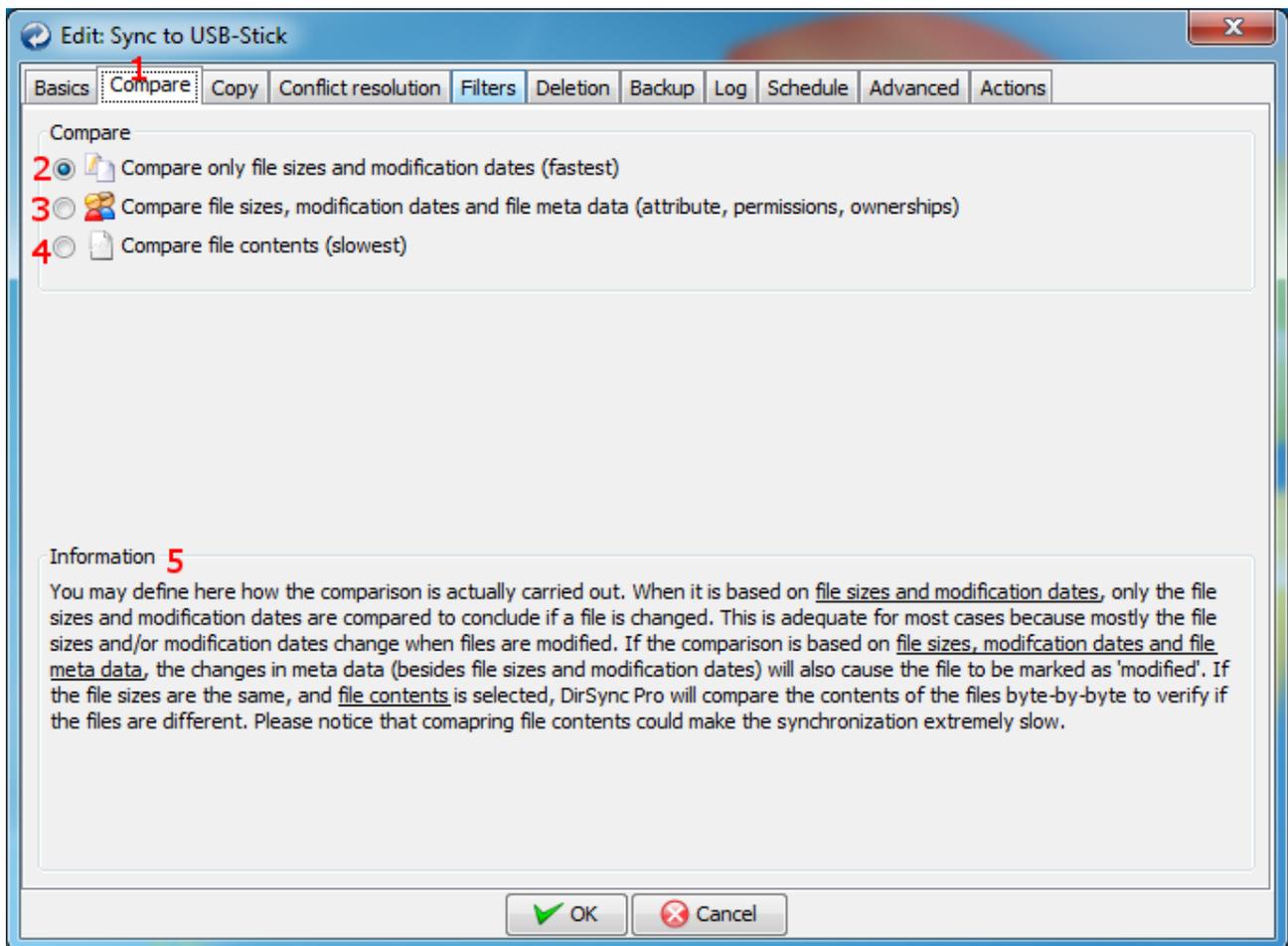
6. **Browse** for Dir B directory.
7. **Swap** Dir A and Dir B.
8. **Includes subfolders** in this synchronization. Here you can decide whether you want to synchronize the content of the source directory including subfolders or not.
9. **Synchronization Mode** pull down. This pull down allows you to select pre-defined synchronization configurations or to define your own custom configuration. The options are:
 - **Mirror A -> B (incremental)**: This is a mono-directional (one way) preconfigured synchronization which copies all the new and modified files/directories from DirA to DirB. A file/directory in DirB which does not correspond to a file/directory in DirA is marked as redundant and will be deleted. DirB is exactly the same as DirA after the synchronization.
 - **Mirror B -> A (incremental)**: Same as 'Mirror A -> B (incremental)' with DirA and DirB swapped.
 - **Synchronize A <-> B (incremental)**: This is a bi-directional (two way) preconfigured synchronization which copies all the new and modified files/directories from DirA to DirB and from DirB to DirA. All redundant files in DirA/DirB (according to each other) will be deleted after the synchronization. DirA and DirB will be exactly the same after the synchronization. If you select this mode, you may also define the conflict resolution mode in the conflict resolution tab.
 - **Synchronize A <-> B (custom)**: Same as 'Synchronize A <-> B (incremental)' except some tabs get enabled in which you may set up your own options to define the synchronization behavior as you may wish.
 - **Backup A -> B (full)**: This is a full copy preconfigured synchronization which will copy all files/directories one-by-one from

DirA to DirB. This mode is useful when you want to make a complete back up of DirA.

- **Restore B -> A (full)**: This is a full copy preconfigured synchronization which will copy all files/directories one-by-one from DirB to DirA. This mode is useful when you want to restore a backup to DirA.
 - **Contribute A -> B (incremental)**: This is a mono-directional (one way) preconfigured synchronization which copies all the new files/directories from DirA to DirB. No file is deleted from DirB in this mode.
 - **Contribute B -> A (incremental)**: Same as 'Contribute A -> B (incremental)' with DirA and DirB swapped.
 - **Synchronize A -> B (custom)**: This is a mono-directional (one way) custom synchronization from DirA to DirB. If you select this mode, some tabs get enabled in which you may set up your own options to define the synchronization behavior as you may wish.
 - **Synchronize A -> B (custom)**: Same as 'Synchronize A -> B (custom)' with DirA and DirB swapped.
 - Context **Information** about this tab.
10. **OK** button to save all the settings to the job.
 11. **Cancel** button to ignore all changes.
 12. Context **Information** about this tab.

Important note: Some tabs get only available only in a custom synchronization mode. 'Conflict Resolution tab' will only get available in a bi-directional synchronization.

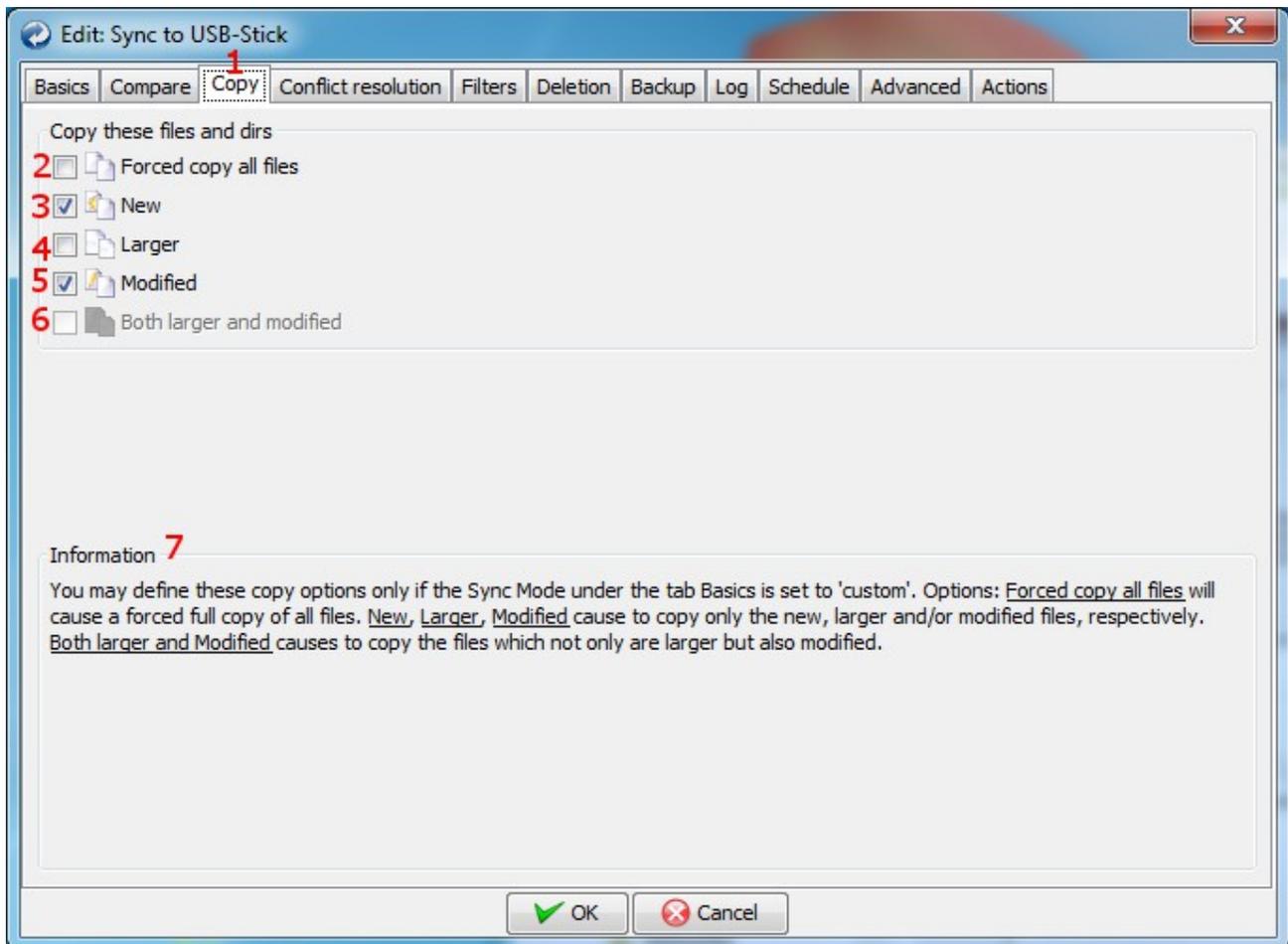
3.3.2 Compare options



1. The **Compare** tab in which compare options are set.
2. **Compare file sizes and modification dates.** With this option, the file gets copied:
 1. when the file in Dir A is modified later than the file in Dir B (in case of New/Modified copy options), or:
 2. when the file in Dir A is larger than the file in Dir B (in case of Larger copy option).
3. **Compare file sizes, modification dates and meta data (attributes, permissions, ownerships):** With this option, the conditions from the previous option apply, plus that the file meta data is taken into account. The file will get copied if the modification data is changed (New/Modified copy option), file size is larger (Larger copy option) or attributes/POSIX permissions/POSIX ownerships are changed.
4. **Compare file contents:** with this option, the file contents will be compared byte by byte if the file sizes are the same. If file sizes differ, a sync conflict will occur. Please note that comparing file contents is a very time consuming task.

5. Context **Information** about this tab.

3.3.3 Copy options



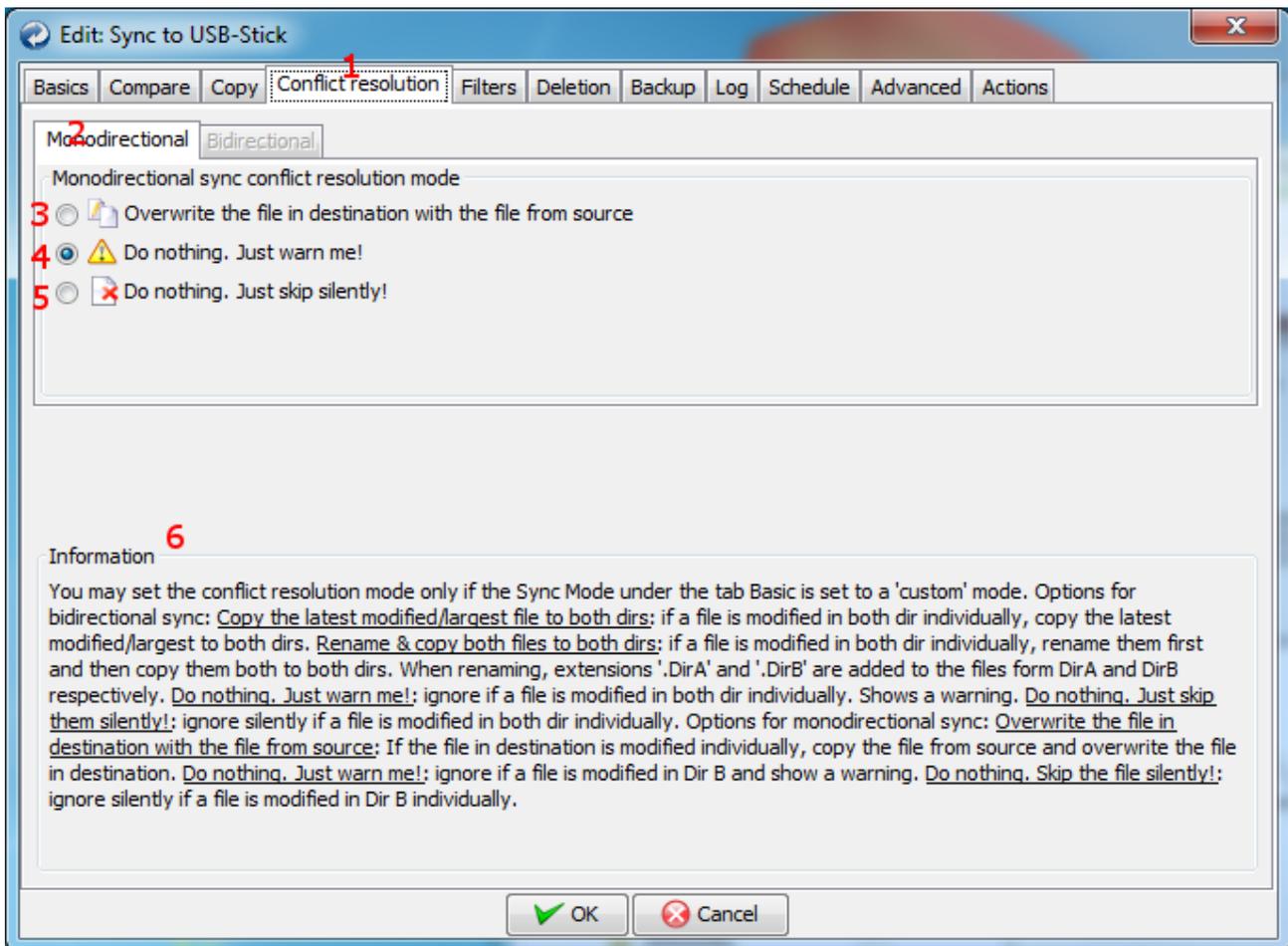
1. The **Copy** tab in which copy options are set.
2. Copies **All** files and directories. If a file already exists in the destination directory it will always be overwritten with that one from the source directory. If you specify this option, all other copy options will be ignored.
3. Copies only **New** (not existing in destination directory) files and directories. Files that exist in the source directory but not in the destination directory will be copied to the destination directory.
4. Copies only **Larger** files and directories. If there already is a file with the same name in the destination directory, it will only be overwritten with the file from the source directory if its size is smaller than the size of the original file in the source directory.
5. Copies only **Modified** files and directories. If there already is a file with the same name in the destination directory, it will only be overwritten with the file from the source directory if its modified-date is older than the modified-date of the original file in the source directory.
6. Copies only **Larger AND Modified** files and directories. If there already

is a file with the same name in the destination directory, it will only be overwritten with the file from the source directory if its size is smaller and its modified-date is older than the size and date of the original file in the source directory. If you specify the option 'Copy larger' or 'Copy modified', this option will be ignored (you already copied this files).

7. Context **Information** about this tab.

3.3.4 Conflict Resolution options

3.3.4.1 Mono-directional sync conflict resolution



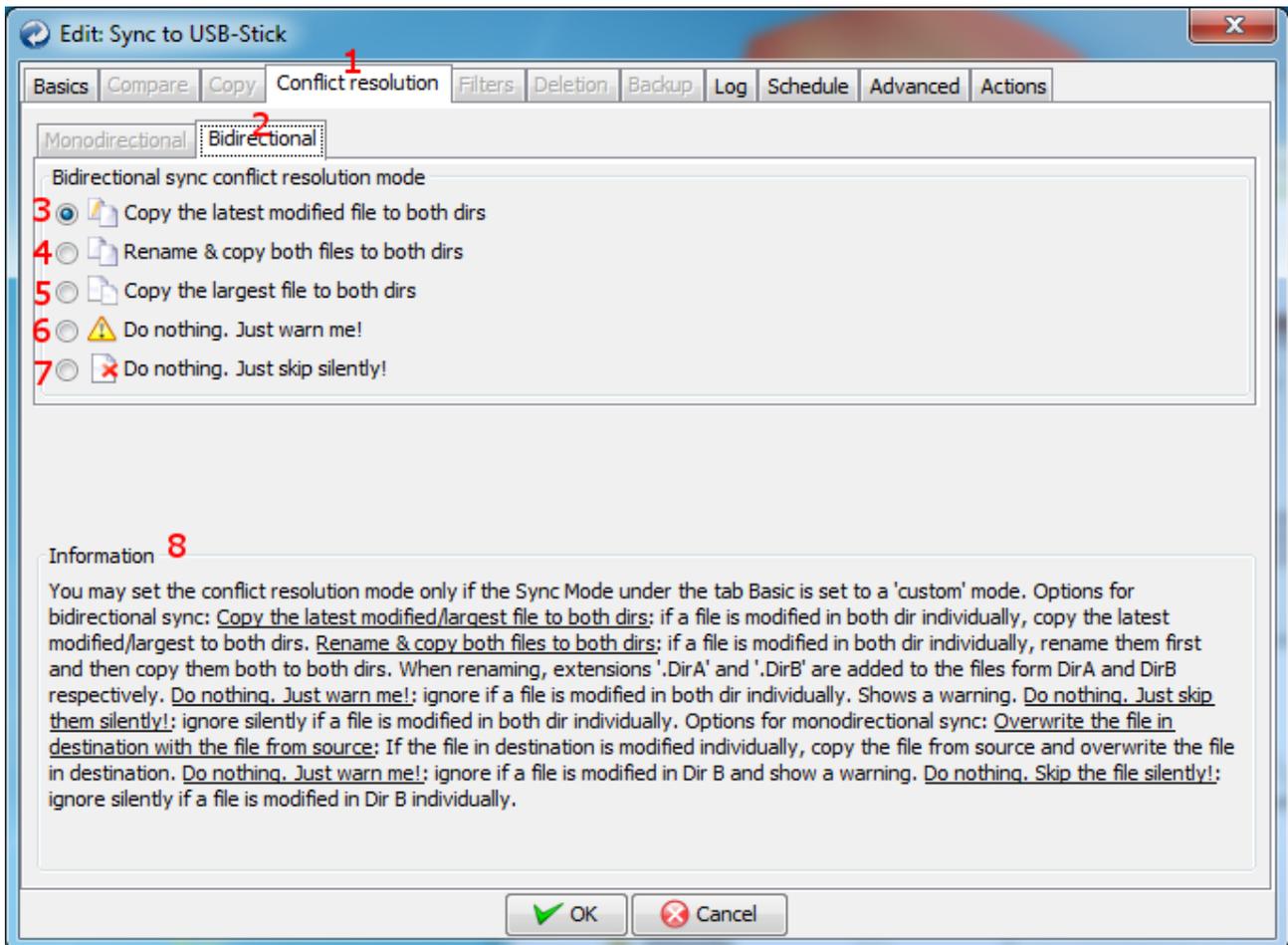
1. The **Conflict Resolution** tab: shows options when conflicts happens while using a mono-directional or bi-directional synchronization. You may set these options only if the Sync Mode is set to bi-directional or a custom mode.

2. **Mono-directional** conflict resolution tab.

1. Mono-directional sync conflict resolution through **Overwriting the file in destination with the file from the source**: when synchronizing from mono-directional in a custom mode, if the file in destination is modified later (file is newer), the file from the source is copied over the file in destination; the file in destination will be overwritten.

2. No Mono-directional sync conflict resolution **Do nothing. Just warn me**: when synchronizing from mono-directional in a custom mode, if the file in destination is modified later (file is newer), nothing will be copied. Instead the user gets a warning and could fix the conflict manually.
3. No Mono-directional sync conflict resolution **Do nothing. Just skip silently**: when synchronizing from mono-directional in a custom mode, if the file in destination is modified later (file is newer), the file will be skipped silently.

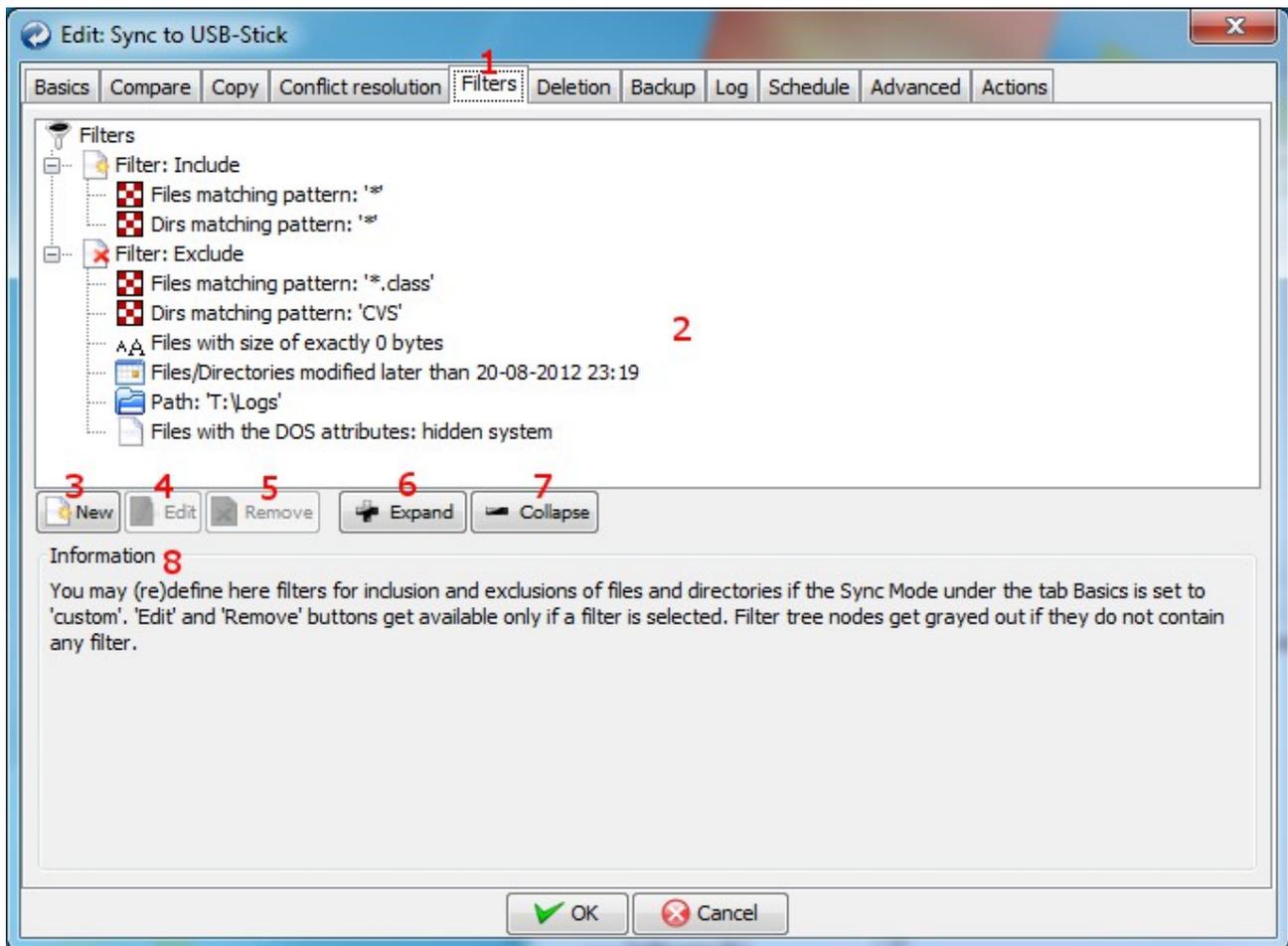
3.3.4.2 Bi-directional sync conflict resolution



1. The **Conflict Resolution** tab: shows options when conflicts happens while using a mono-directional or bi-directional synchronization. You may set these options only if the Sync Mode is set to bi-directional or a custom mode.
2. **Bi-directional** conflict resolution tab.
3. Bidirectional sync conflict resolution through **Copying the latest modified file to both directories**: when synchronizing bidirectionally, if two files are modified in both directories individually, the latest modified file will be copied to both directories.
4. Bidirectional sync conflict resolution through **copying the largest file to**

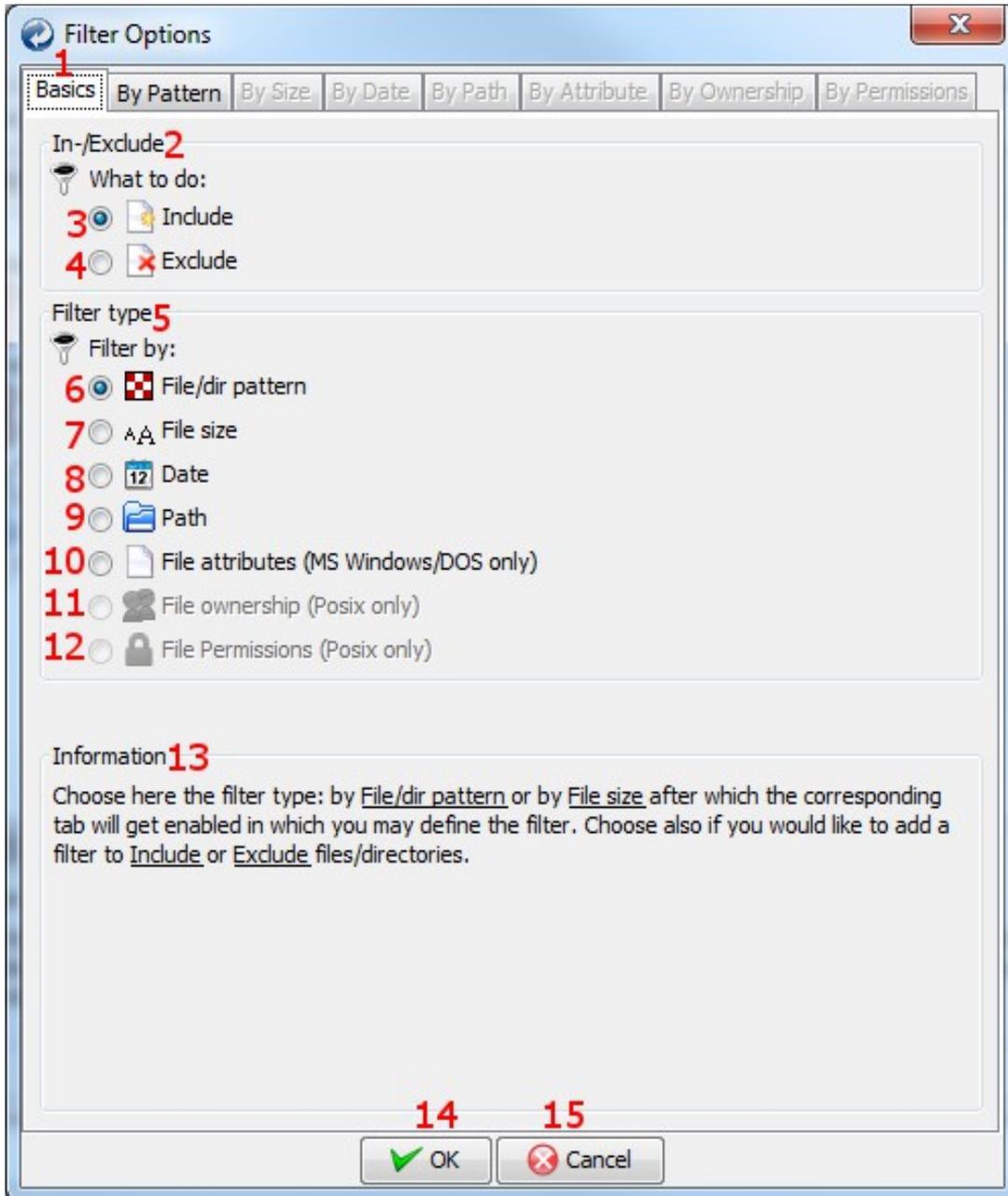
- both directories:** when synchronizing bidirectionally, if two files are modified in both directories individually, the largest file will be copied to both directories.
5. Bidirectional sync conflict resolution through **renaming copying both files to both directories:** when synchronizing bidirectionally, if two files are modified in both directories individually, they are postfixed (renamed with added extensions .DirA and .DirB) and they both will be copied to both directories.
 6. No Bidirectional sync conflict resolution **Do nothing. Just warn me:** when synchronizing bidirectionally, if two files are modified in both directories individually, none of the files are copied. Instead the user gets a warning and could fix the conflict manually.
 7. No Bi-directional sync conflict resolution **Do nothing. Just skip silently:** when synchronizing bidirectionally, if two files are modified in both directories individually, the files will be skipped silently.
 8. Context **Information** about this tab.

3.3.5 Filters options



1. The **Filters** tab to define which files/directories should be included/excluded. You may redefine these options if the Sync Mode is set to custom.
2. **Filters Tree** gives an overview of all filters for this job in a tree structure.
3. **Add** a New filter.
4. **Edit** an existing filter. This button is enabled only if a filter in the filter tree is selected.
5. **Remove** an existing filter. This button is enabled only if a filter in the filter tree is selected.
6. **Expand** the filter tree one level. This opens up the tree for one level. Clicking it once more, will expand the tree another level.
7. **Collapse** the filter tree.
8. Context **Information** about this tab.

3.3.5.1 Adding/Editing a filter: Basics tab

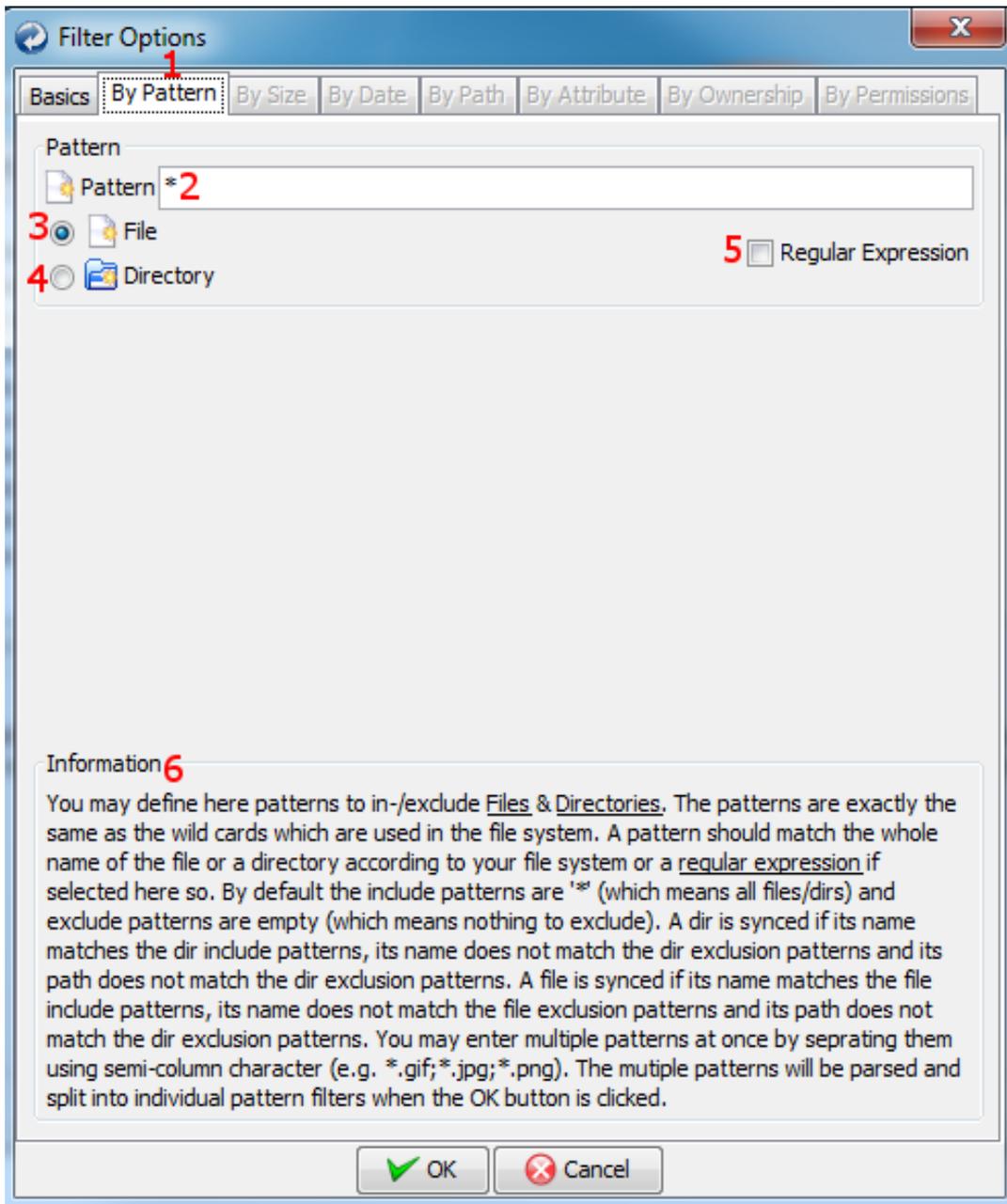


1. The **Basics** tab to define the the type of the filter and whether to include/exclude items.
2. Select here whether to **Include** or **Exclude** the matched files or directories.
3. **Include** the matched files or directories.
4. **Exclude** the matched files or directories.
5. Select here the **Filter type**. One of the tabs By Pattern and By Size will get enabled according to the selected filter type.
6. Filter based on **File/dir pattern**. This filter affects files and directories of which the name matches a text pattern.
7. Filter based on **File Size**. This filter affects files of which the size satisfy

some conditions.

8. Filter based on **File Date**. This filter affects files of which the modification date satisfy some conditions.
9. Filter based on **Path**. This filter affects files/directories of which the absolute path is exactly the same as defined.
10. Filter based on **File attributes**. This filter affects files having one or more specific DOS attributes and may be defined **only** under **MS Windows/DOS**.
11. Filter based on **File ownership**. This filter affect files/directories having a specified owner or group and may be defined only under **Posix** systems (Linux, Unix, ...).
12. Filter based on **File Permissions**. This filter affect files/directories having a specified file permission and may be defined only under **Posix** systems (Linux, Unix, ...).
13. Context **Information** about this tab.
14. **OK** button to save all the filters.
15. **Cancel** button to ignore all changes.

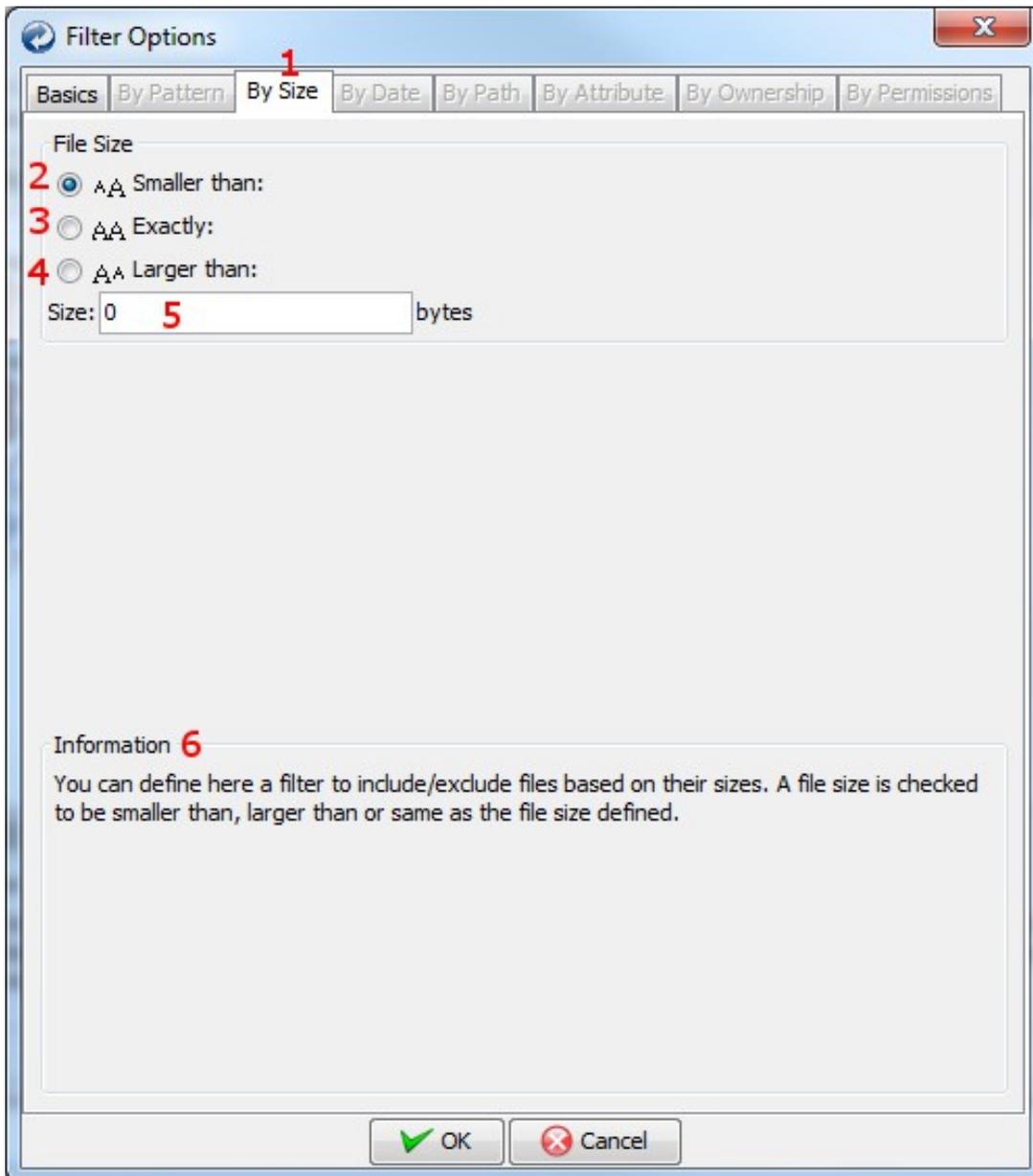
3.3.5.2 Adding/Editing a filter: By Pattern tab



1. The **By Pattern** tab to define a pattern to match the name of the files or directories.
2. Define here the **Pattern** for the file/directory name. Only files/directories matching a specified pattern should be included or excluded. For example if you specify '*.txt' only files/directories that end with '.txt' will be processed; or if you specify '*_new', only files/directories that end with '_new' will be processed. You can use wildcards (i.e. '?' and '*'). '?' means zero, or one character, '*' means zero, one, or more characters. If you wish to enter many patterns, you may enter them here. You may enter multiple patterns by separating them using semi-column (;) character, like '*.gif;*.jpg;*.png'. When you click on OK, multiple patterns will be parsed and split into individual pattern filters.

3. Pattern is a **File** pattern.
4. Pattern is a **Directory** pattern.
5. When this option is selected, the pattern is interpreted as a **regular expression**.
6. Context **Information** about this tab.

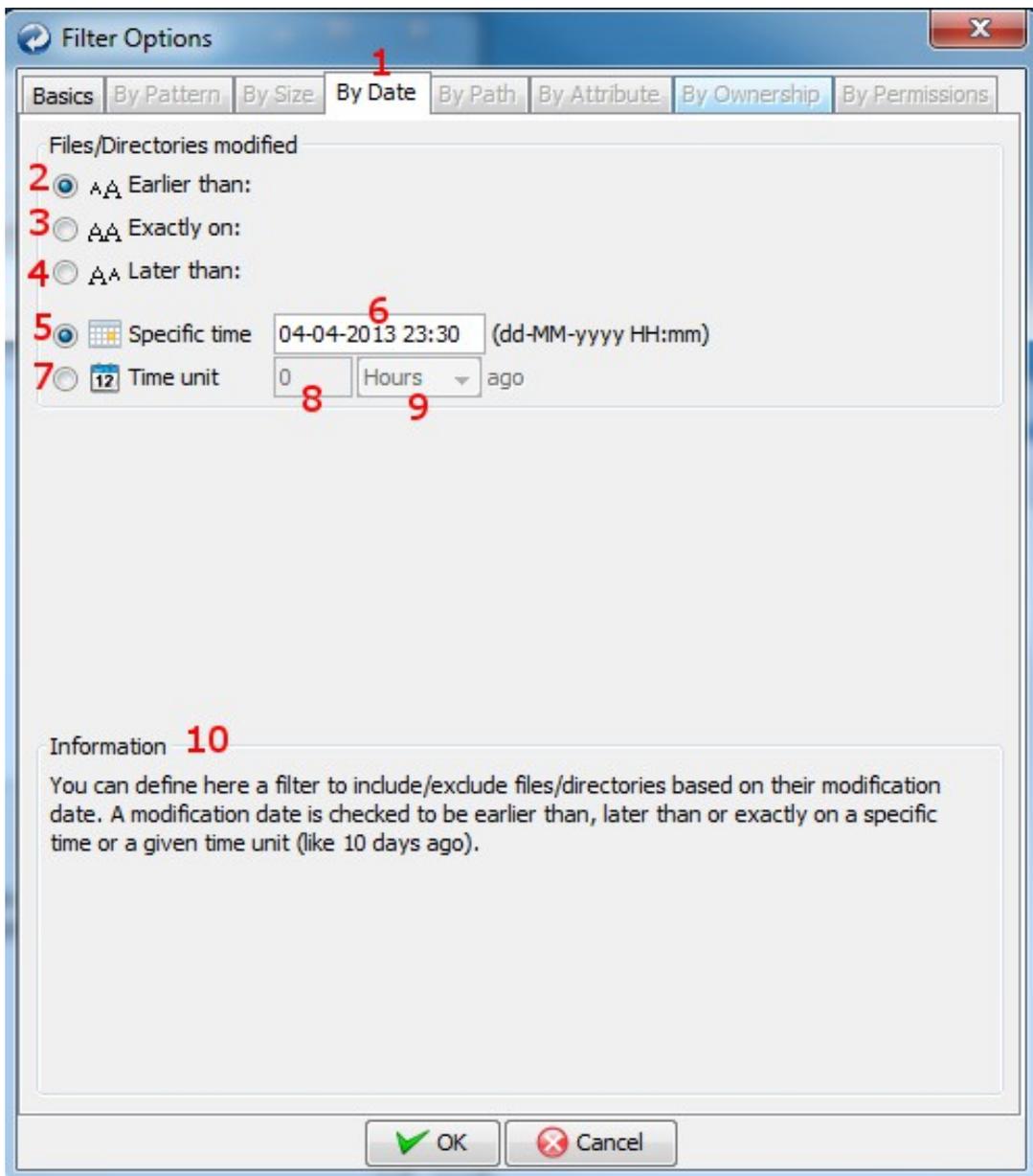
3.3.5.3 Adding/Editing a filter: By File Size tab



1. The **By File Size** tab to define filters based on file sizes.
2. Match files **Smaller** than.
3. Match files **Exactly** with the size.
4. Match files **Larger** than.

5. The **File size** in bytes.
6. Context **Information** about this tab.

3.3.5.4 Adding/Editing a filter: By File Date tab

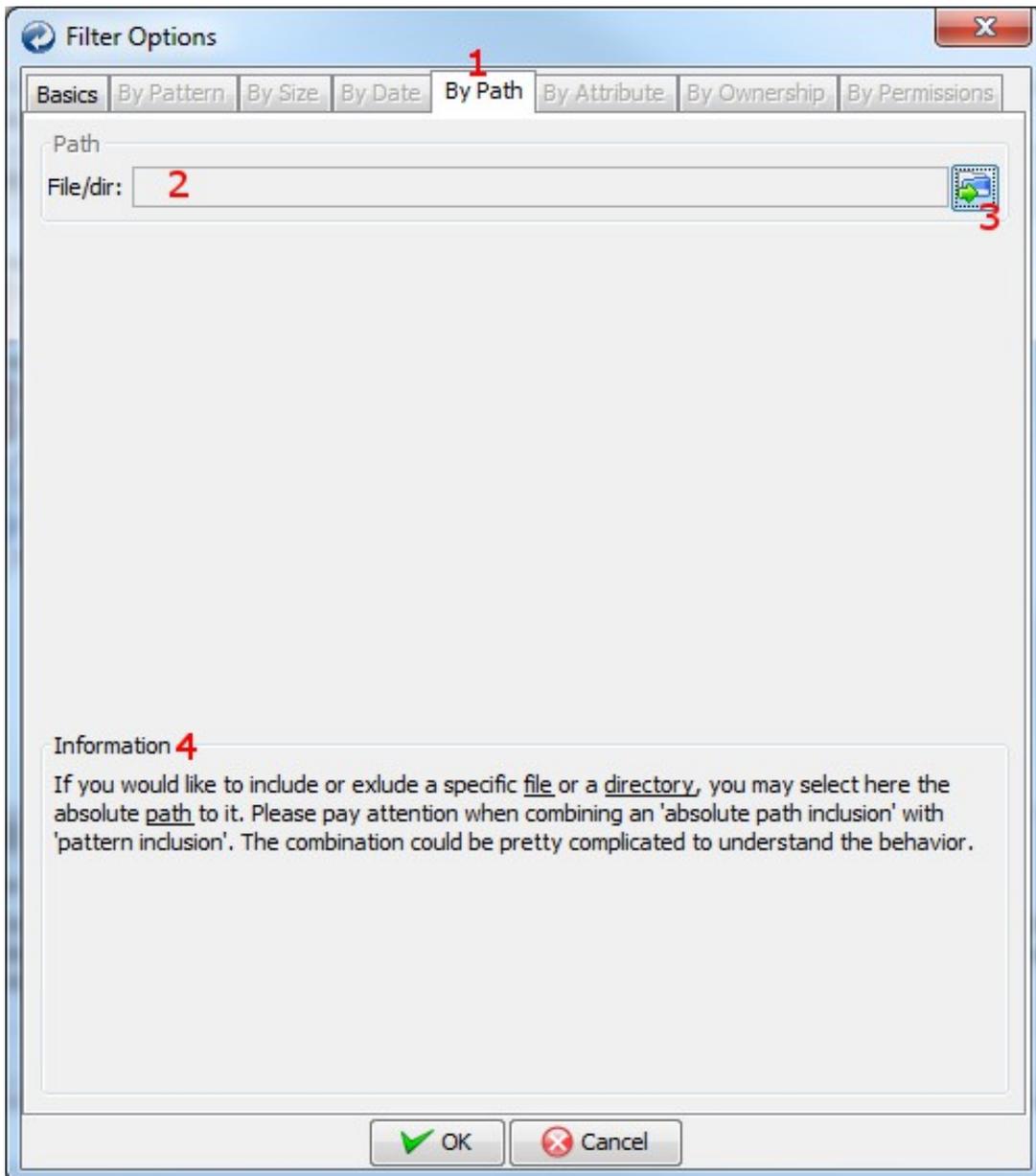


1. The **By File Date** tab to define filters based on file dates.
2. Match files **Earlier than**.
3. Match files **Exactly on** a date.
4. Match files **Later than**.
5. Set this filter based on a **Specific Time**. In this case the specified time will be used to compare to the modification time.
6. The specific **Time** formatted as dd-MM-yyyy HH:mm.
7. Set this filter based on number of some **Time unit**. In this case the

modification time is relatively compared to 'now', according to the number of specified time unit (like: '10 days ago').

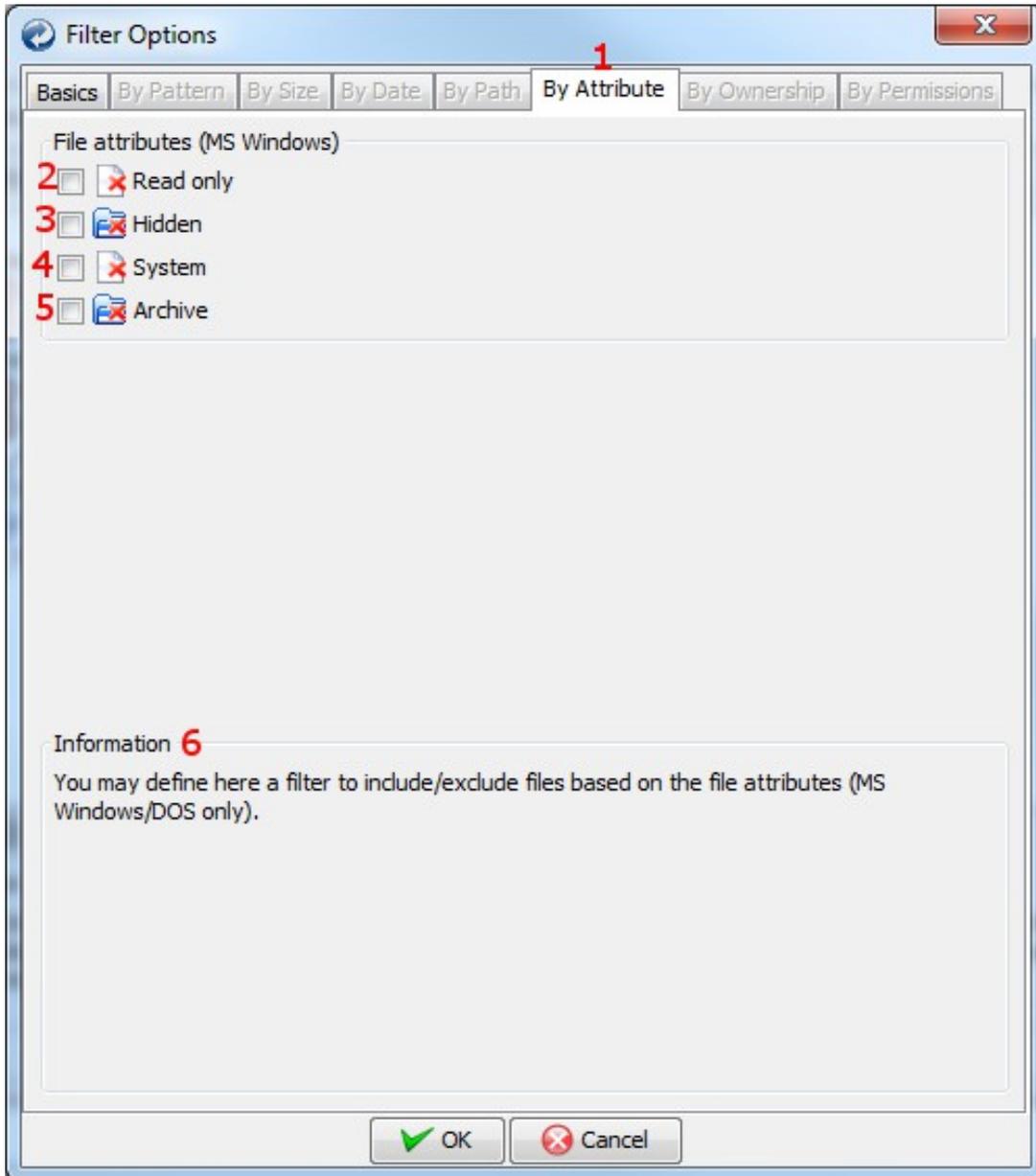
8. **Number** of time units to be specified.
9. The **Time unit** to be specified; available options are: **Hours, Days, Weeks, Months**.
10. Context **Information** about this tab.

3.3.5.5 Adding/Editing a filter: By Path tab



1. The **By Path** tab to define filters based on the file/directory path.
2. The **Path** to the file/directory.
3. **Browse** button to select a file/directory.
4. Context **Information** about this tab.

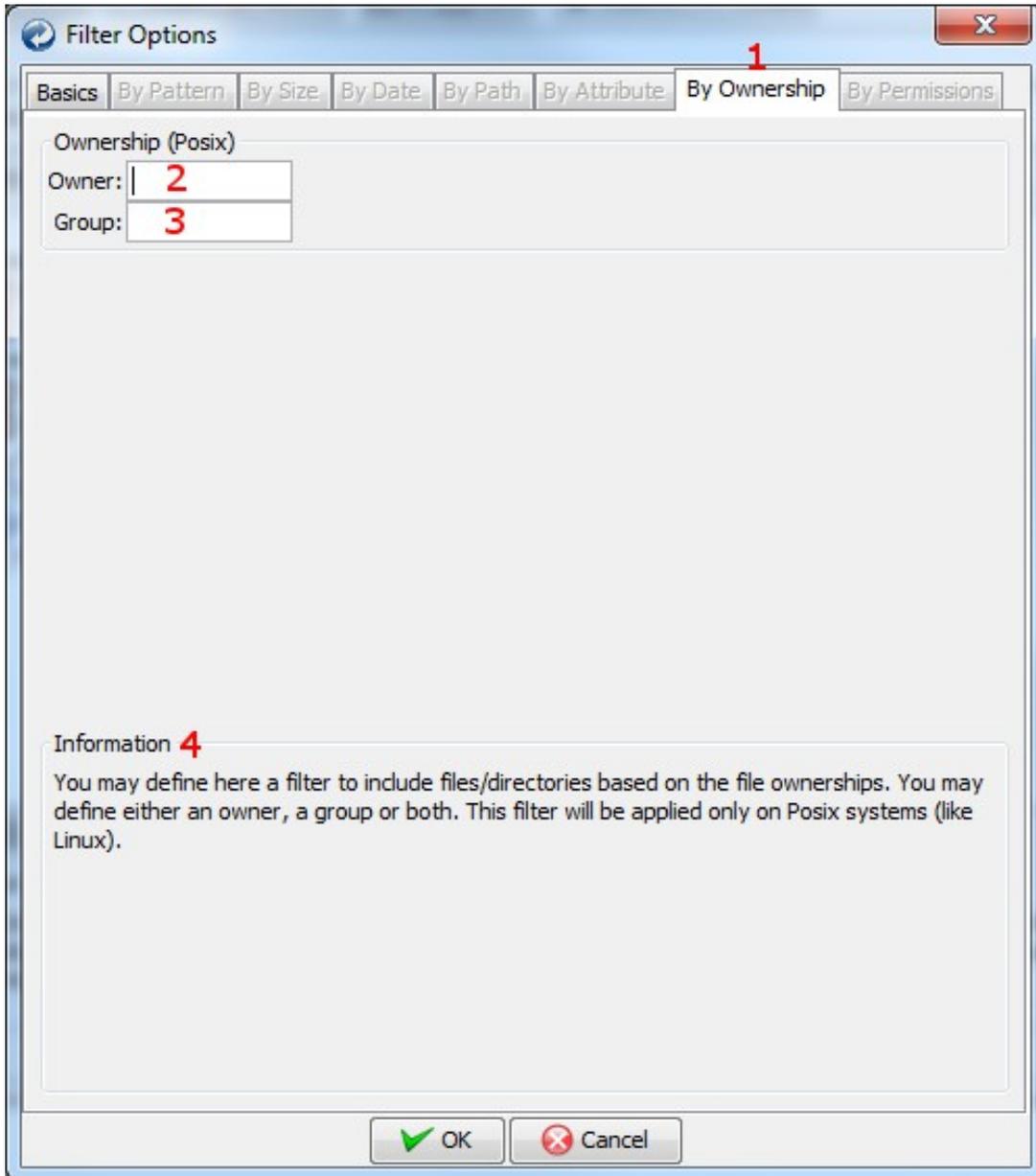
3.3.5.6 Adding/Editing a filter: By Attribute tab



1. The **By File Attribute** tab to define filters based on DOS attributes of the file.
2. Match files with the **Read only**.
3. Match files with the **Hidden** attribute.
4. Match files with the **System** attribute.
5. Match files with the **Archive** attribute.
6. Context **Information** about this tab.

This filter could only be defined on MS Windows/DOS systems.

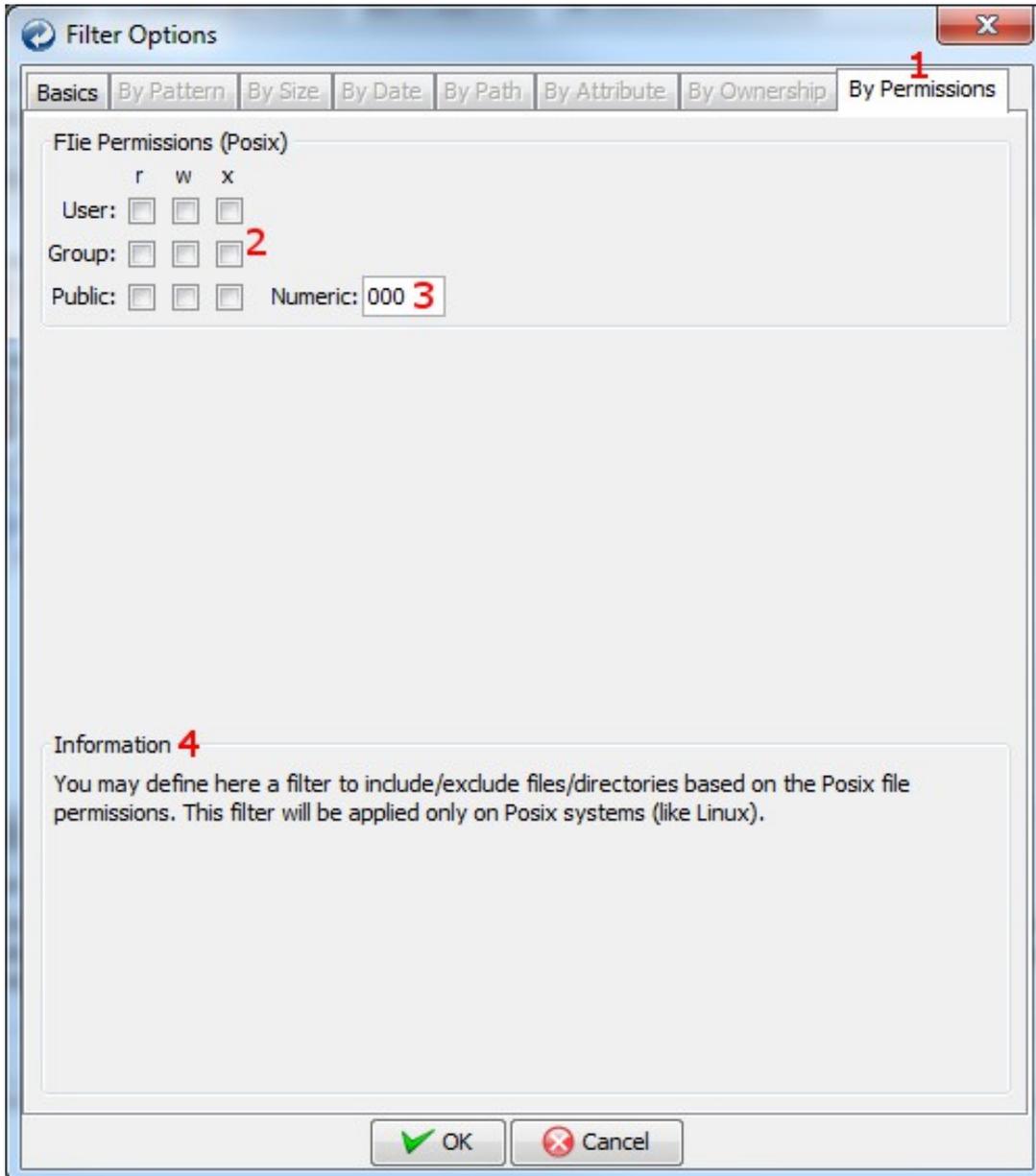
3.3.5.7 Adding/Editing a filter: By Ownership tab



1. The **By File Ownership** tab to define filters based on Posix ownerships of the file/directory.
2. Match files/directories with the specified **Owner**.
3. Match files/directories with the specified **Group**.
4. Context **Information** about this tab.

This filter could only be defined on Posix systems (Linux/Unix, ...).

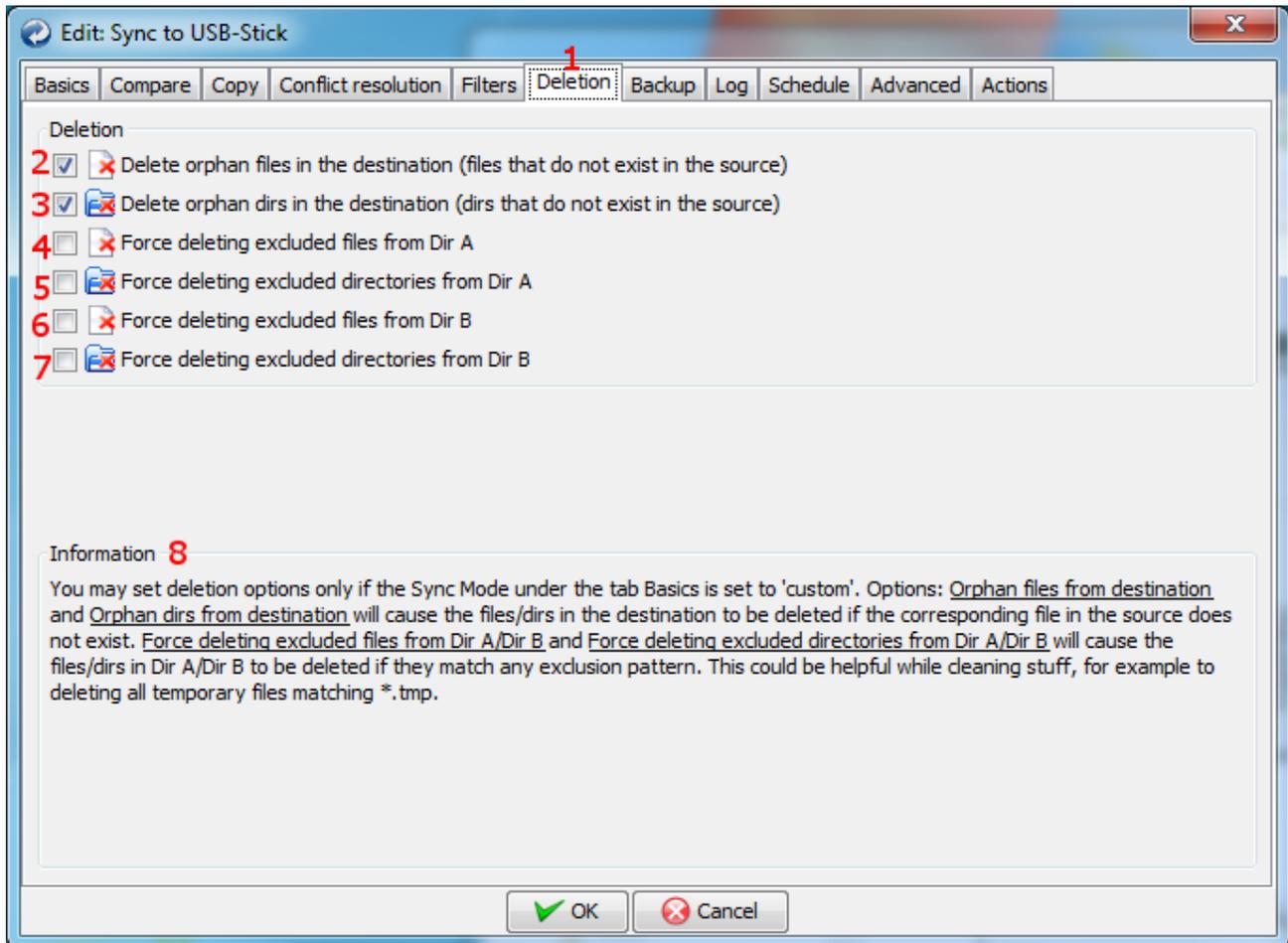
3.3.5.8 Adding/Editing a filter: By Permission tab



1. The **By File Ownership** tab to define filters based on Posix permissions of the file/directory.
2. Match files/directories with the specified bit-wise permissions. Once you edit these check-boxes, the Numeric value will be calculated and updated automatically in the corresponding field.
3. Match files/directories with the specified Numeric permission. Once you edit this value, the bit-wise permissions will be calculated and updated automatically in the corresponding check-boxes.
4. Context **Information** about this tab.

This filter could only be defined on Posix systems (Linux/Unix, ...).

3.3.6 Deletion options

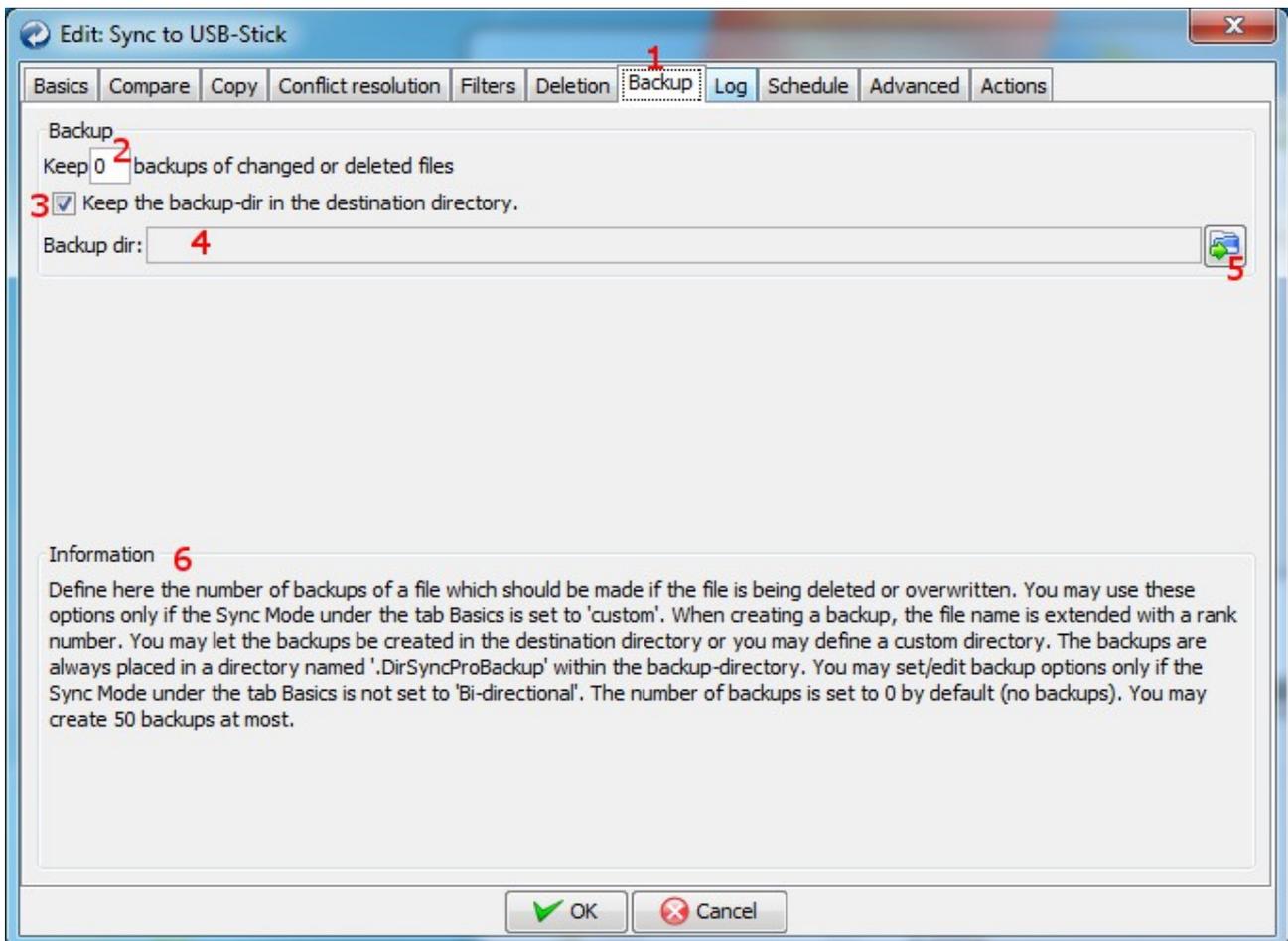


1. The **Deletion** tab to define the deletion behavior after the synchronization. You may redefine these options if the Sync Mode is set to custom.
2. **Delete files** not existing in the source directory from the destination directory. Files that have been deleted in the source directory, but still exist in the destination directory will be deleted in the destination directory.
3. **Delete directories** not existing in the source directory from the destination directory. Directories that have been deleted in the source directory, but still exist in the destination directory will be deleted in the destination directory.
4. **Delete Excluded Files** from **Dir A**. When this option is selected all files which match the Excluded Files pattern will be cleaned up (deleted) from Dir A.
5. **Delete Excluded Directories** from **Dir A**. When this option is selected all files which match the Excluded Directories pattern will be cleaned up (deleted) from Dir A.
6. **Delete Excluded Files** from **Dir B**. When this option is selected all files which match the Excluded Files pattern will be cleaned up (deleted) from

Dir A.

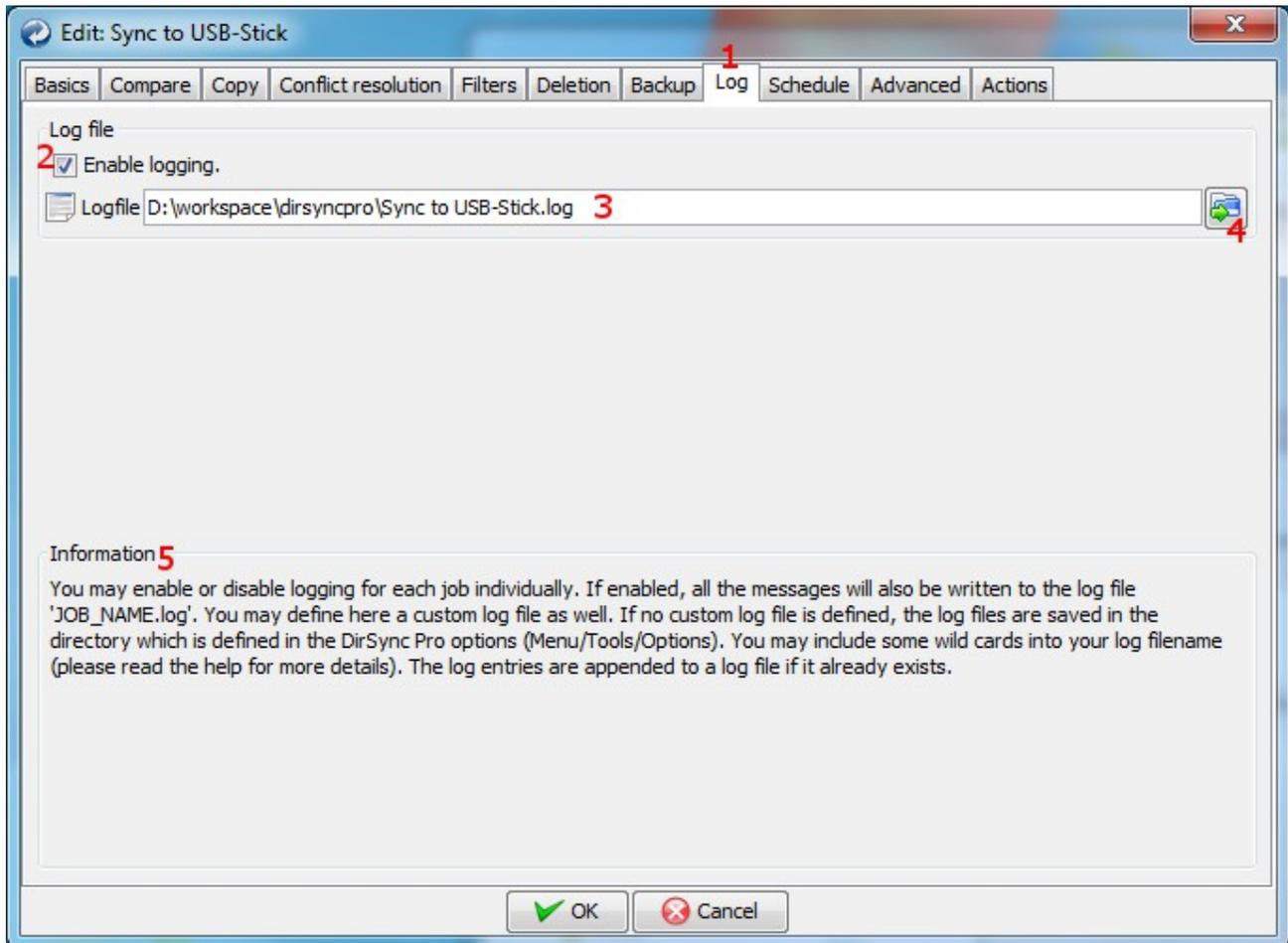
7. **Delete Excluded Directories** from **Dir B**. When this option is selected all files which match the Excluded Directories pattern will be cleaned up (deleted) from Dir A.
8. Context **Information** about this tab.

3.3.7 Backup options



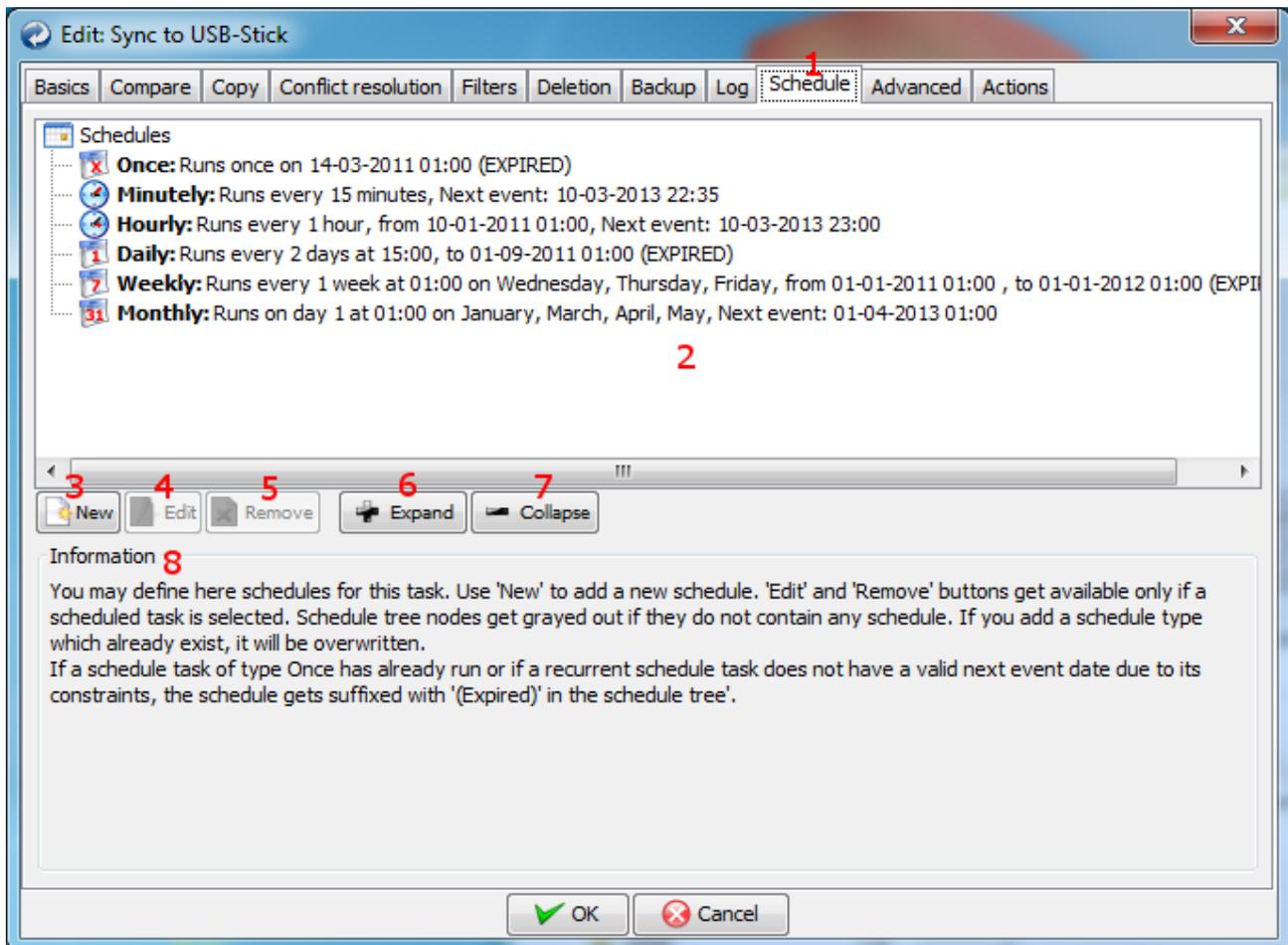
1. The **Backup** tab to define the backup behavior during the synchronization. You may redefine these options if the Sync Mode is set to custom.
2. **Keep n backups**: Before a file in the destination directory will be overwritten or deleted the file is copied to a special subdirectory of the destination directory as a backup.
3. **Keep the backup dir within the destination directory**. If this option is not selected, an alternative backup folder could be specified.
4. **Alternative Backup directory** in which the backup files will be created.
5. **Browse** for the alternative Backup directory.
6. Context **Information** about this tab.

3.3.8 Logging options



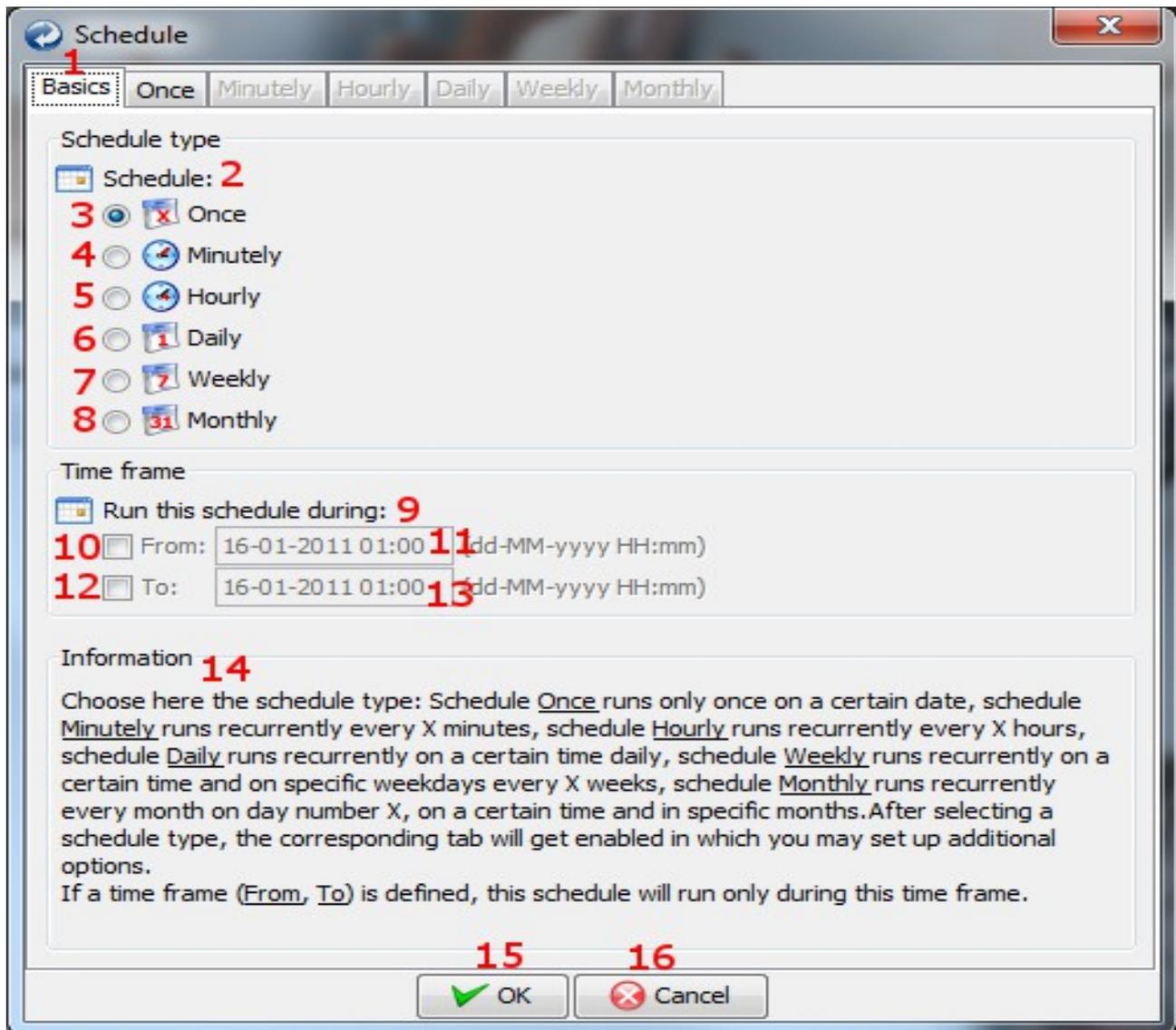
1. The **Log** tab to define the logging behavior after the synchronization.
2. **Enable** or **disable** separate logging for this job.
3. The **Logfile**. Normally the name of the job (label) is used to create the initial filename for the log. You may also specify a custom filename. New log entries are appended to the existing logfiles and hence they will not be overwritten.
You can specify here the following (case sensitive) wildcards:
 - <date> for the current date, and
 - <DD> for the current day,
 - <MM> for the current month,
 - <YYYY> for the current year.
 - <time> for the current time, and
 - <hh> for the current hour,
 - <mm> for the current minute,
 - <ss> for the current second.
 - <username> for the name of the current user, and
 - <userhome> for the home directory of the current user.
4. **Browse** for the logfile or directory.
5. Context **Information** about this tab.

3.3.9 Schedule options



1. The **Schedules** tab to define schedules for this job. Schedules cause this job to synchronize automatically on a certain time or recurrently according to a pattern.
2. **Schedule Tree** gives an overview of all schedules for this job in a tree structure. If a schedule task of type Once has already run or if a recurrent schedule task does not have a valid next event date due to its constraints, the schedule gets suffixed with '(Expired)' in the schedule tree.
3. **Add** a New schedule.
4. **Edit** an existing schedule. This button is enabled only if a schedule in the schedule tree is selected.
5. **Remove** an existing schedule. This button is enabled only if a schedule in the schedule tree is selected.
6. **Expand** the schedule tree one level. This opens up the tree for one level. Clicking it once more, will expand the tree another level.
7. **Collapse** the schedule tree.
8. Context **Information** about this tab.

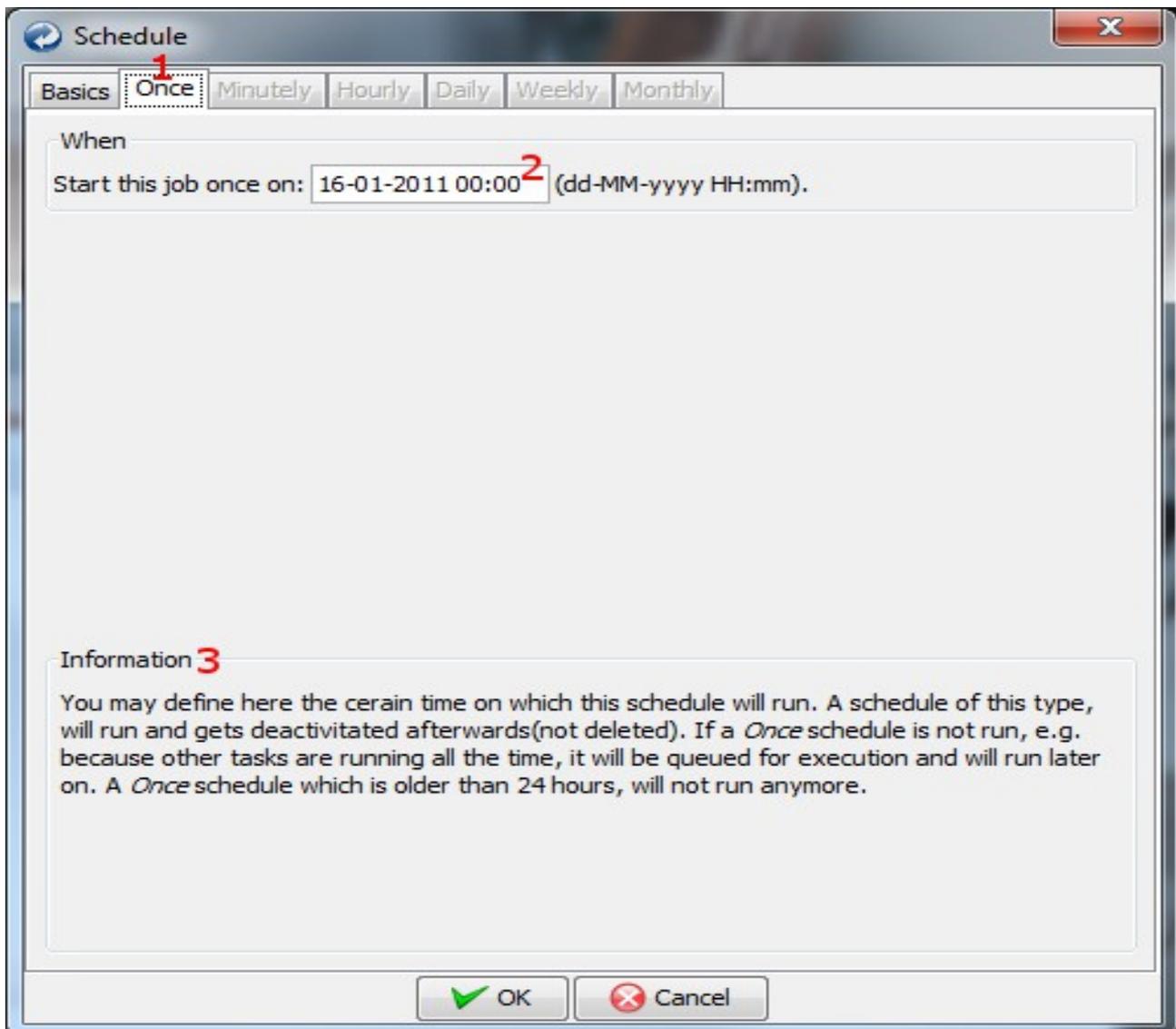
3.3.9.1 Adding/Editing a schedule: Basics tab



1. The **Basics** tab to define the the type of the schedule and some general settings.
2. Select here the **Schedule type**. There are 6 types are schedules available.
3. **Once**: This schedule runs only once on a certain date/time.
4. **Minutely**: This schedule runs recurrently every X minutes.
5. **Hourly**: This schedule runs recurrently every X hours.
6. **Daily**: This schedule runs recurrently on a certain time daily.
7. **Weekly**: This schedule runs recurrently on a certain time and in specific months every X weeks.
8. **Monthly**: This schedule runs recurrently every month on day number X, on a certain time and in specific months.

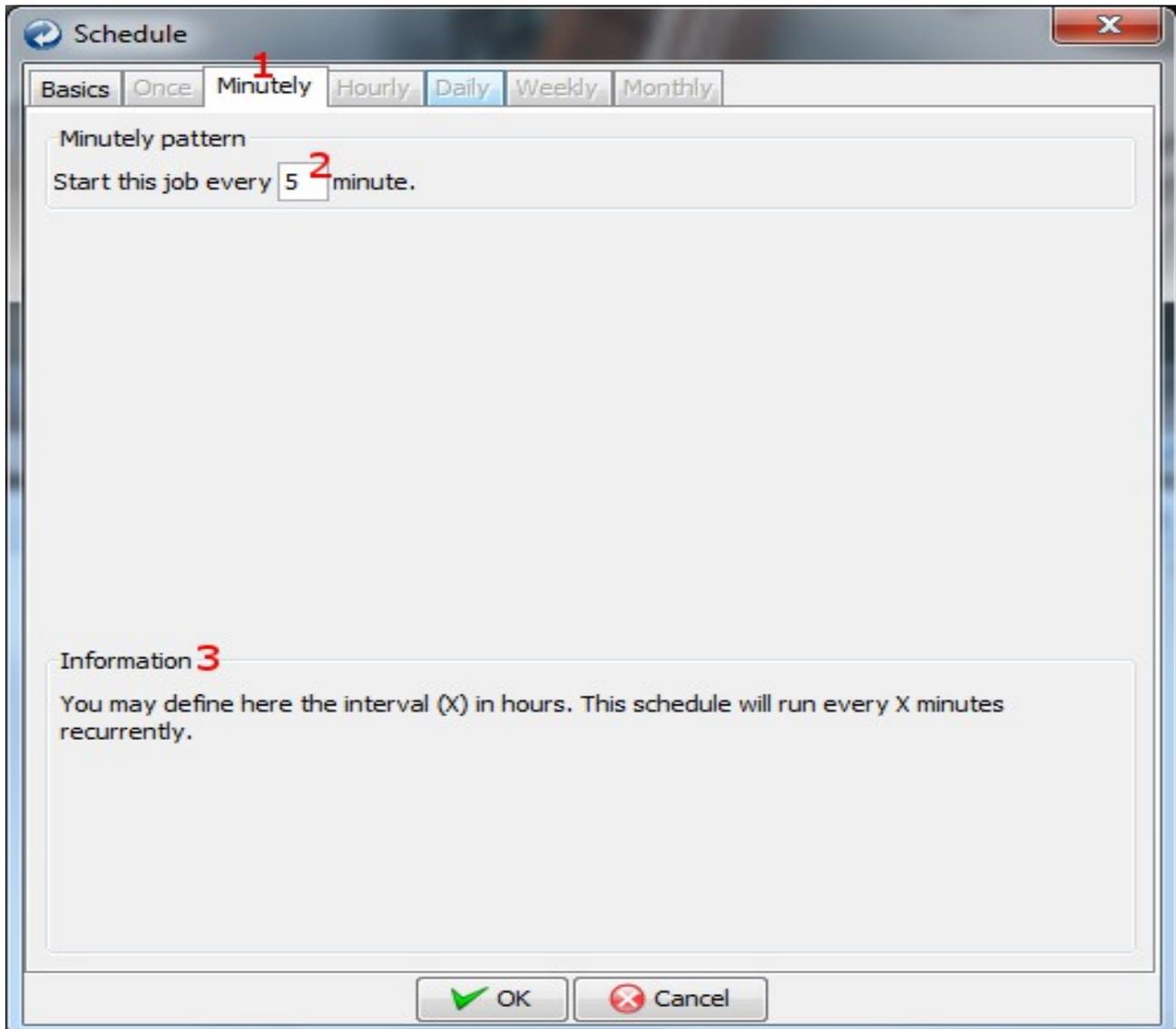
9. Define here if the task should run only during a time frame (From ... To).
10. **Enable Time frame From** constraint.
11. **Time frame From date value.** If defined, the task will run only if its next event date is after this date.
12. **Enable Time frame To** constraint.
13. **Time frame To date value.** If defined, the task will run only if its next event date is after this date.
14. Context **Information** about this tab.
15. **OK** button to save all the filters.
16. **Cancel** button to ignore all changes.

3.3.9.2 Adding/Editing a schedule: Schedule Once



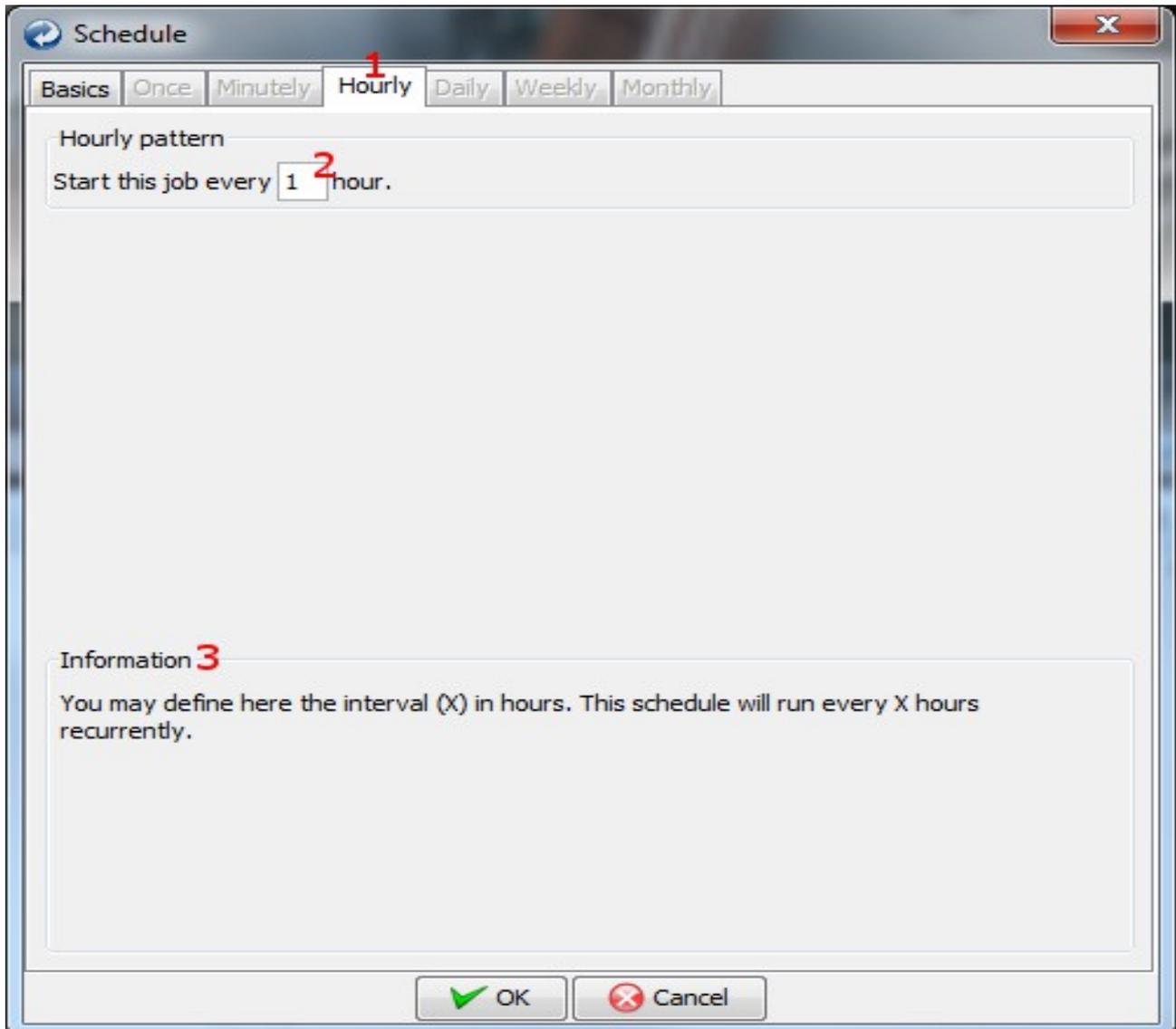
1. The Schedule **Once** tab in which you may define a task which runs once on a certain time. If a Once schedule is not run, e.g. because other tasks are running all the time, it will be queued for execution and will run later again. A Once schedule which is older than 24 hours, will not run anymore.
2. The **Time** on which this schedule will run.
3. Context **Information** about this tab.

3.3.9.3 Adding/Editing a schedule: Schedule Minutely



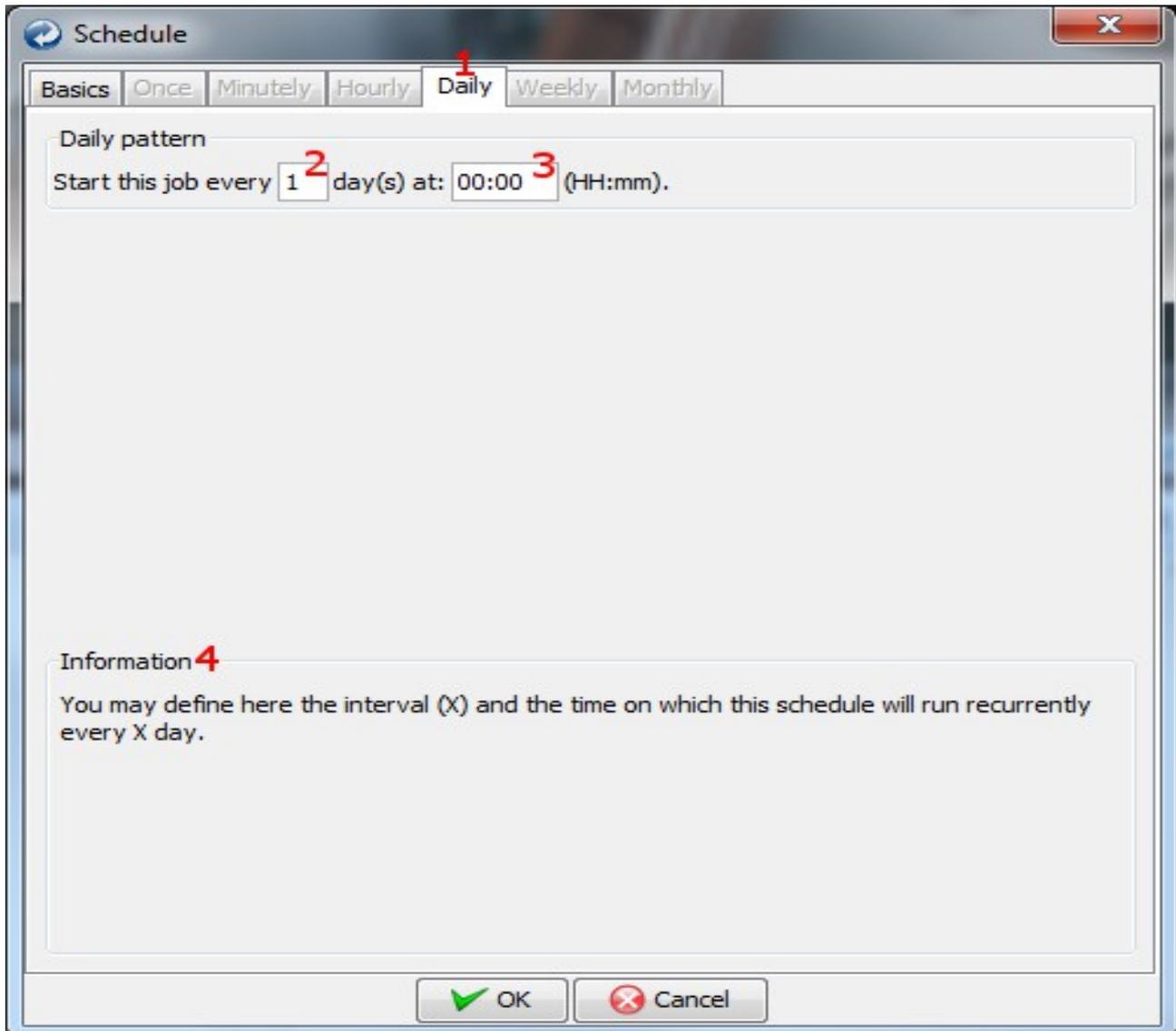
1. The Schedule **Minutely** tab in which you may define a task which runs recurrently every X minutes. The first occurrence will get scheduled for 'now'.
2. The **interval** in minutes.
3. Context Information about this tab.

3.3.9.4 Adding/Editing a schedule: Schedule Hourly



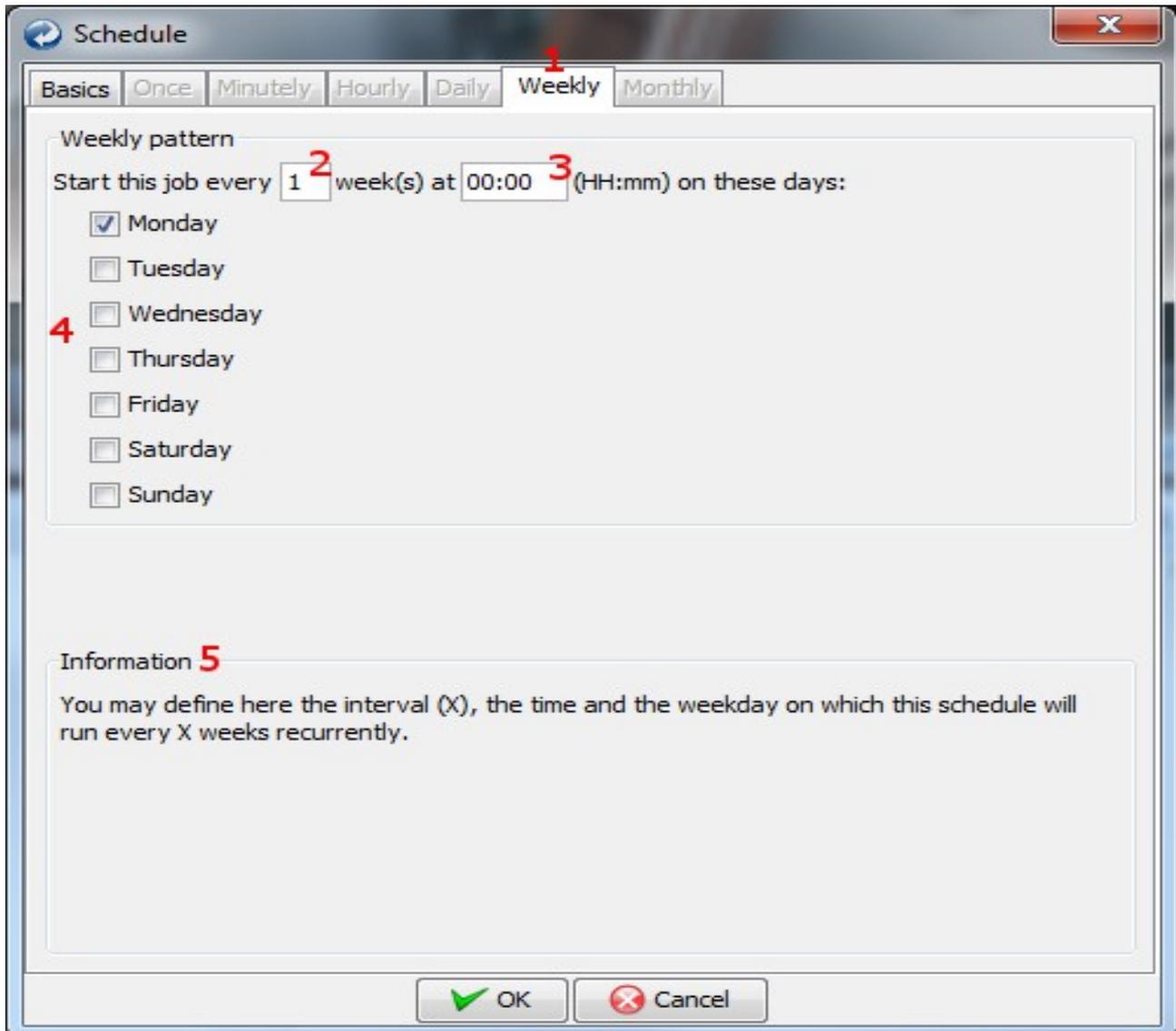
1. The Schedule **Hourly** tab in which you may define a task which runs recurrently every X hours. The first occurrence will get scheduled for the next complete hours (01:00, 02:00, 03:00, ...).
2. The **interval** in hours.
3. Context **Information** about this tab.

3.3.9.5 Adding/Editing a schedule: Schedule Daily



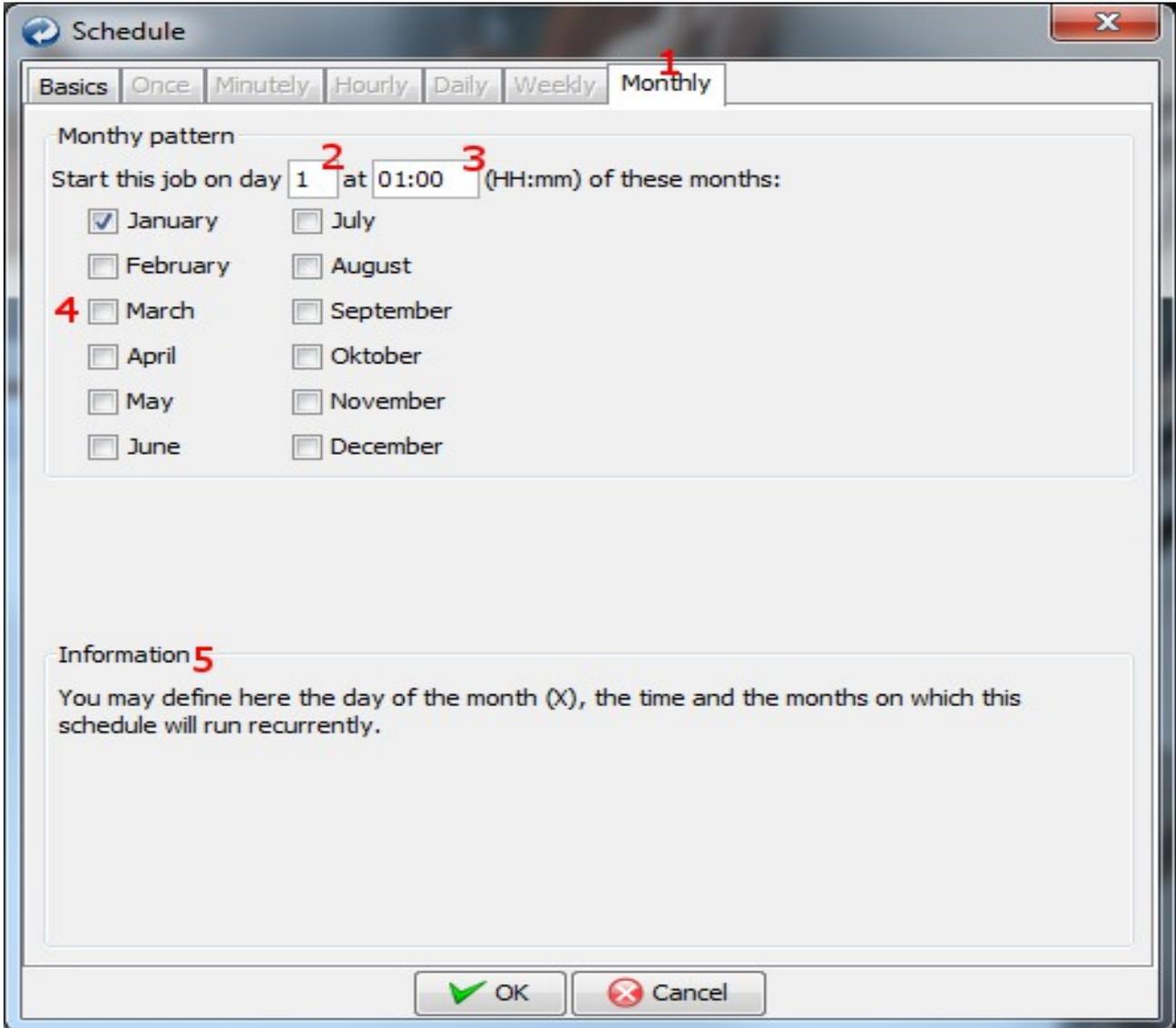
1. The Schedule **Daily** tab in which you may define a task which runs recurrently every X days on a certain time.
2. The **interval** in days.
3. The **time** of the day on which this task should run.
4. Context **Information** about this tab.

3.3.9.6 Adding/Editing a schedule: Schedule Weekly



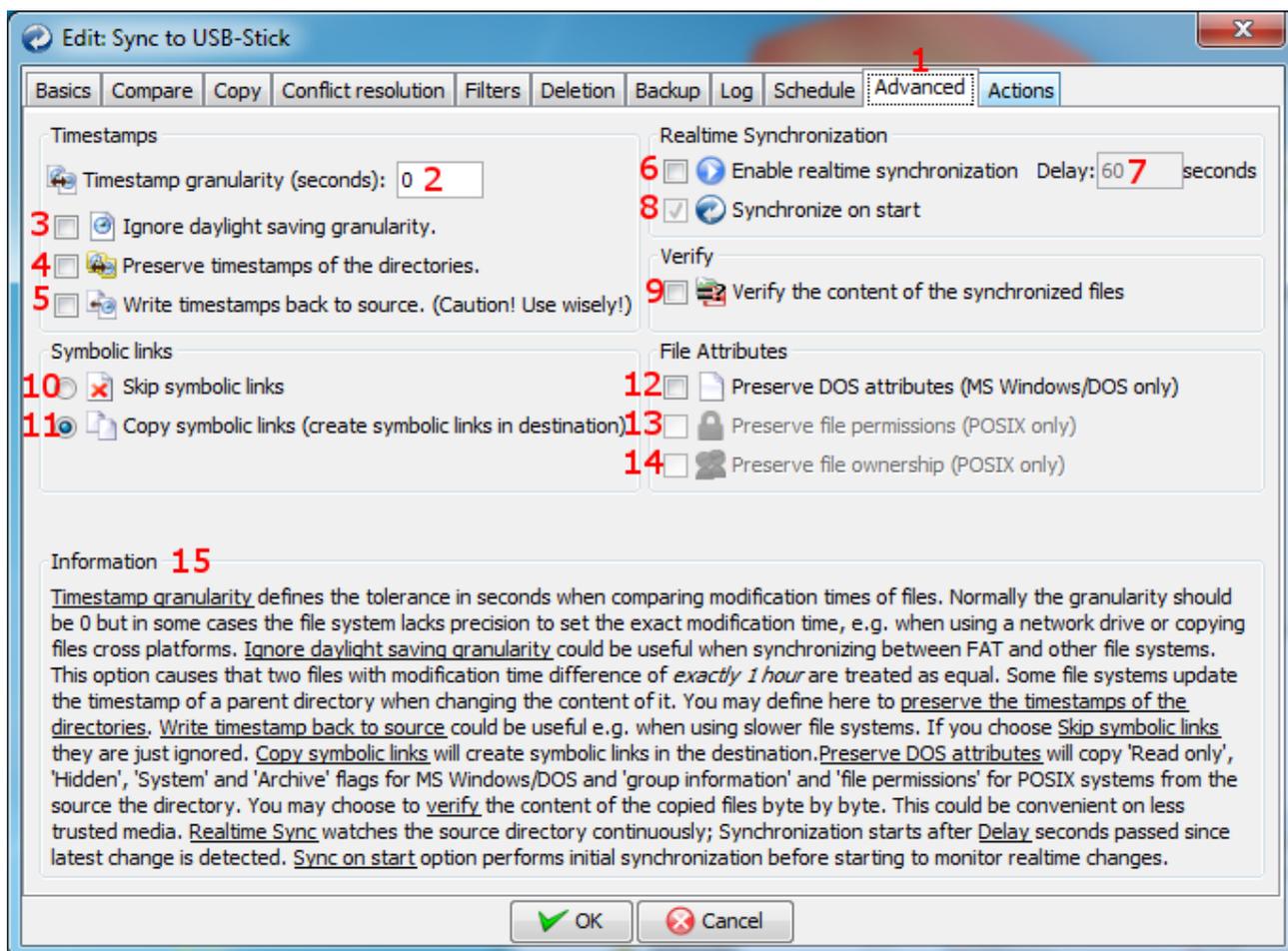
1. The Schedule **Weekly** tab in which you may define a task which runs recurrently every X weeks on a certain time and on specific weekdays.
2. The **interval** in weeks.
3. The **time** of the day on which this task should run.
4. Checkboxes to select on which **weekdays** this schedule task should run.
5. Context **Information** about this tab.

3.3.9.7 Adding/Editing a schedule: Schedule Monthly



1. The Schedule **Monthly** tab in which you may define a task which runs recurrently every month on day number X, on a certain time and in specific months.
2. The **Xth** day of the month.
3. The **time** of the day on which this task should run.
4. Checkboxes to select on which **months** this schedule task should run.
5. Context **Information** about this tab.

3.3.10 Advanced options



1. The **Advanced** tab to define advanced options.
2. **Timestamp granularity** is the tolerance in seconds when when comaring the modification time of files/folders. Normally the granularity should be zero but in some cases the file system fails to set the exact modification time, e.g. when using a network drive or copying files cross platforms. Two files with modification dates difference less than the granularity will be treated as 'not modified'.
3. **Ignore daylight saving granularity** could be useful when synchronizing between FAT and other file systems. This option makes that two files with modification time difference exactly 1 hour are treated as equal.
4. **Preserve timestamps of the directories** makes that the timestamps of the directories in destination get identical to that of the directories in the source. This option maybe useful for MS Windows/DOS users.
5. **Write timestamps back to source files** causes to write the time stamps of the copied files back to the source files. Caution: use this if you really need to.
6. **Real-time synchronization** option could be used to watch a directory automatically and continuously. If this option is set, DirSync Pro starts

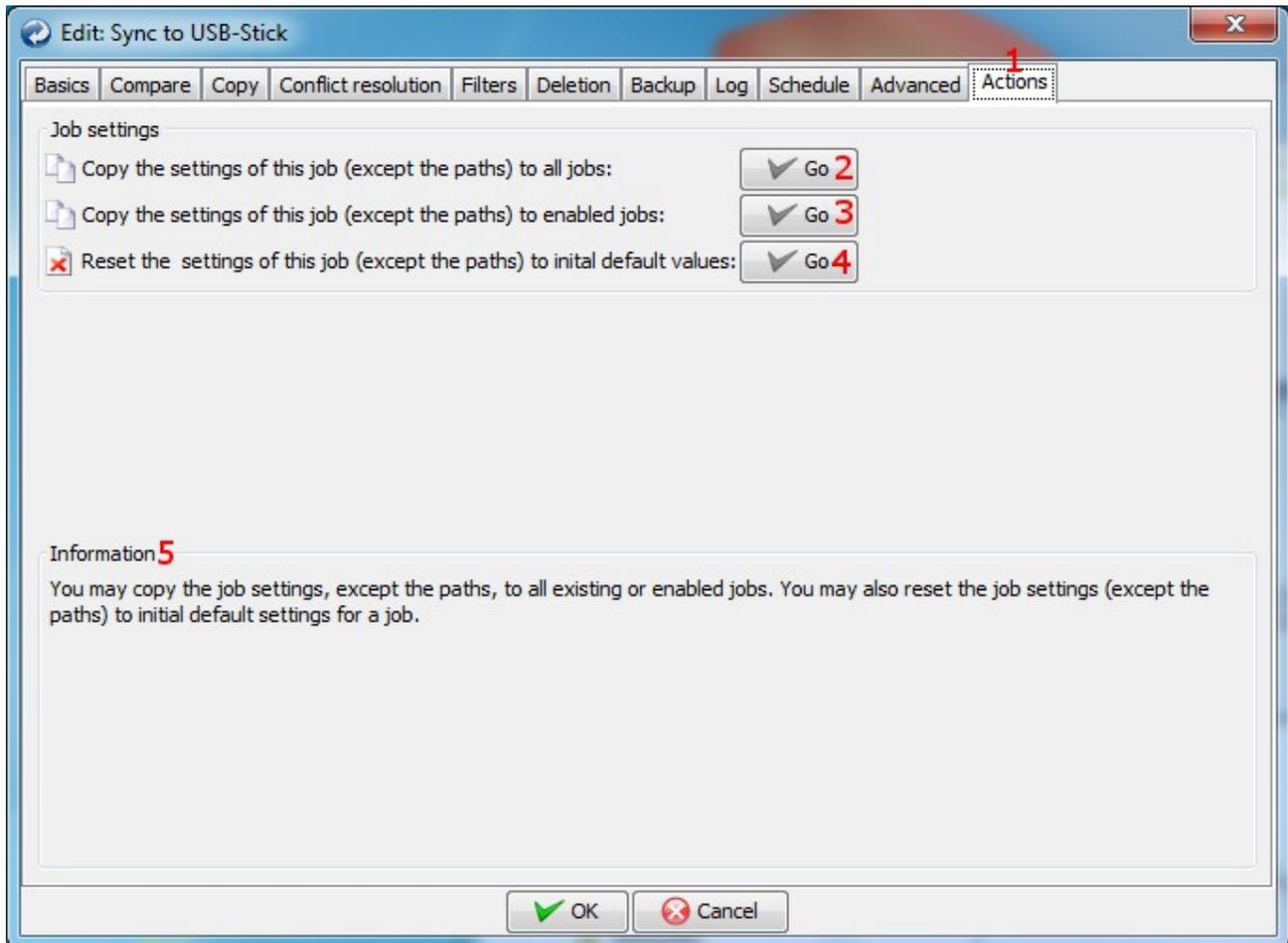
synchronizing after the preset number of seconds is passed since the last change is detected.

7. This is the **number** of seconds to wait before the next round of real-time synchronization is automatically started.
8. **Synchronization on start** causes an initial synchronization prior to monitoring the real-time changes.
9. **Verify the synchronized files** causes that after a file has been copied checksums of the source and destination file are calculated and compared. If the checksums don't match an "Verify error" will be reported. This option could be useful if the destination media are not completely trusted.
10. **Skip symbolic links** causes that symbolic **links are ignored** while copying. Only applies if the source file system uses symbolic links (UNIX, Linux, Mac OSX).
11. **Copy symbolic links** causes that symbolic links are verbatim copied. This will **create symbolic links** in the destination folder (UNIX, Linux, Mac OSX).
12. **Preserve DOS attributes** causes that the DOS file attributes of the files in destination get identical to that of the files in the source. This option maybe useful for MS Windows/DOS users and could only be set under these systems.
13. **Preserve file permissions** causes that the Posix permissions of the files/directories in destination get identical to that of the files/directories in the source. This option maybe useful for Posix users and could only be set under these systems.
14. **Preserve file ownership** causes that the Posix ownerships of the files/directories in destination get identical to that of the files/directories in the source. This option maybe useful for Posix users and could only be set under these systems.
15. Context **Information** about this tab.

Understanding timestamp related problems

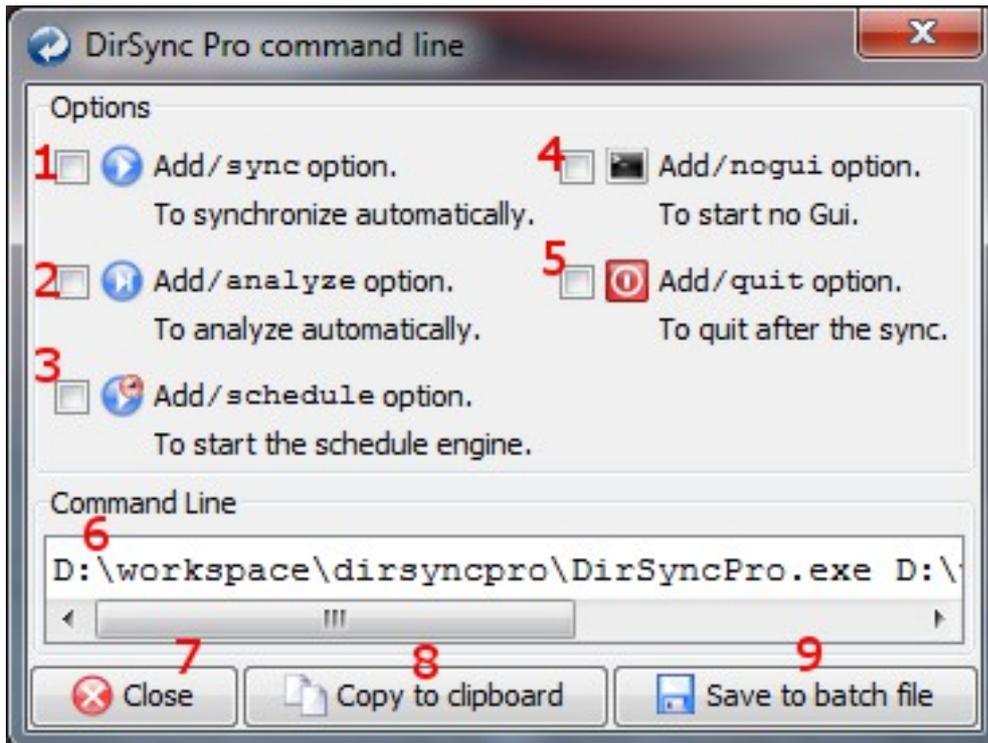
Some file systems do not store timestamps accurately (e.g. FAT) and it is possible that problems with the option "Modified" arise (e.g. FAT always forces the time stamp down to even seconds; if you copy a file with a source timestamp of "12:05:01" to FAT it will be stored with a destination timestamp of "12:05:00". The next time you synchronize this file with the "Copy modified" option it will be copied again because the source timestamp is newer than the destination timestamp).

3.3.11 Job Actions



1. The **Actions** tab to perform some actions on the job settings.
2. **Copy** all the job **options** (except the paths) to **all** jobs in the job tree.
3. **Copy** all the job **options** (except the paths) to **enabled** jobs in the job tree.
4. **Reset** all the job settings (except the paths) to initial default settings. This loads the application defaults to your job.
5. Context **Information** about this tab.

3.4 Generate command line tool



Using this tool you may let DirSync Pro create the **command line** for you. The command line could be used to start DirSync Pro directly from the command line. You could also write the command line to a batch file to start a specific synchronization directly.

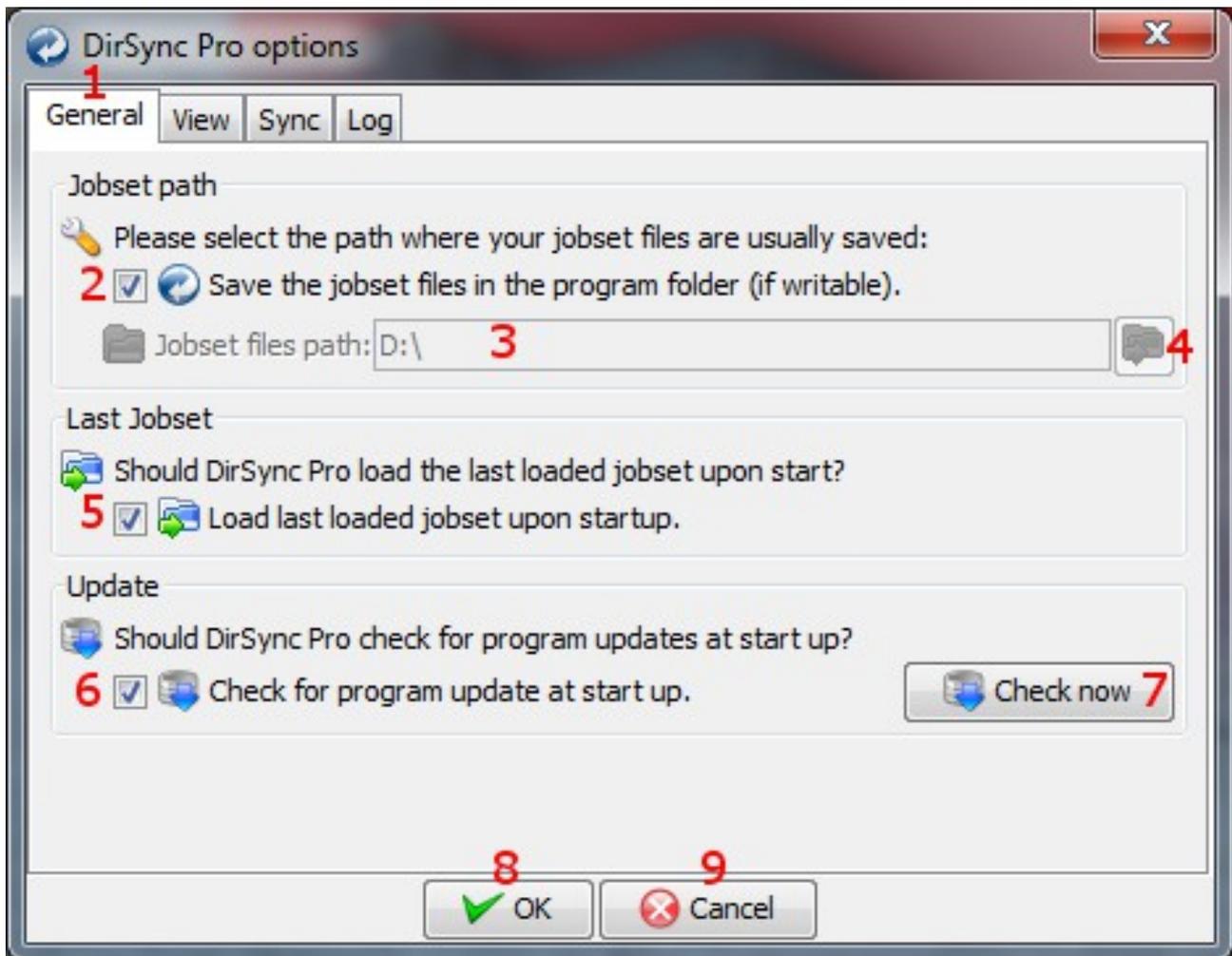
This tool is smart enough to check the type of the operating system (MS Windows vs. Linux-like systems) and uses the corresponding option delimiter (/ or -), file separator character (\ or /) and file and path conventions.

1. This option adds a **/sync** (Or `-sync` for Linux-like systems) options to the command line causes DirSync Pro to start synchronizing right away.
2. This option adds a **/analyze** (Or `-analyze` for UNIX-like systems) options to the command line which causes DirSync Pro to start analyzing right away.
3. This option adds **/schedule** (Or `-schedule` for UNIX-like systems) options to the command line which causes DirSync Pro to start the schedule engine as soon as the GUI is started.
4. This option adds a **/nogui** (Or `-nogui` for UNIX-like systems) options to the command line which causes DirSync Pro to start no graphical user interface.
5. This option adds a **/quit** (Or `-quit` for UNIX-like systems) options to the command line which causes DirSync Pro to quit right after the synchronization.
6. The **created command line**.
7. **Close** the window without further actions.

8. **Copy** the created command line to the system **clipboard**. You may paste this clipboard elsewhere.
9. **Save** the created command line to a **batch file**. After clicking this button, you will be asked to provide a filename. The extension `.cmd` and `.sh` are used for the batchfile on MS Windows systems and Linux-like systems respectively.

3.5 Application Options window

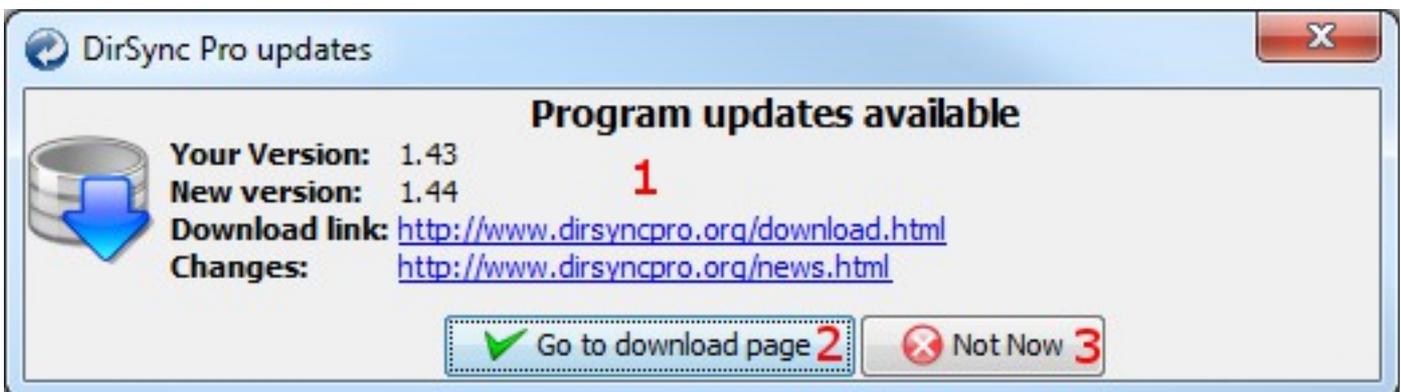
3.5.1 General options



1. The **General** tab to define general application options.
2. Whether the jobset files are saved in the **program folder**. In some cases it is useful to define another jobset path for example if you do not have write permissions in the program folder.
3. The **path** to the directory in which the jobset files reside. You can define a path in which you usually keep your saved jobset files.
4. **Browse** for the jobset files path.

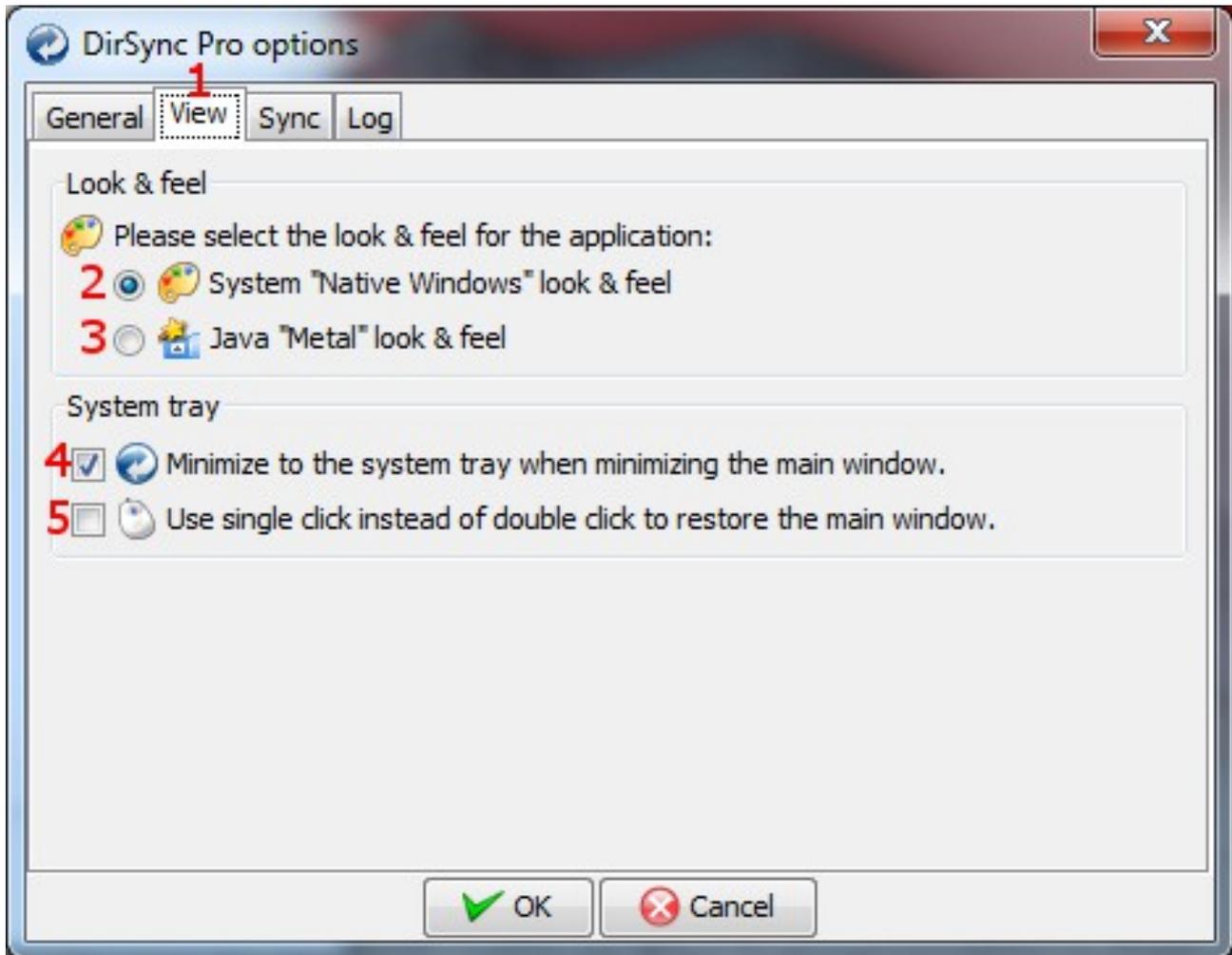
5. If the **Load last loaded jobset** is set, DirSync Pro will load the jobset that was loaded in the last session automatically upon start.
6. **Check for DirSync Pro program updates** every time at start-up. If an update is available following window will show up and lets you go to the download page to download the latest version.
7. **Check for DirSync Pro program updates Now**. If an update is available following window will show up and lets you go to the download page to download the latest version.
8. **OK** with the changes and exit options window.
9. **Cancel** the changes and exit options window.

3.5.1.1 Update window



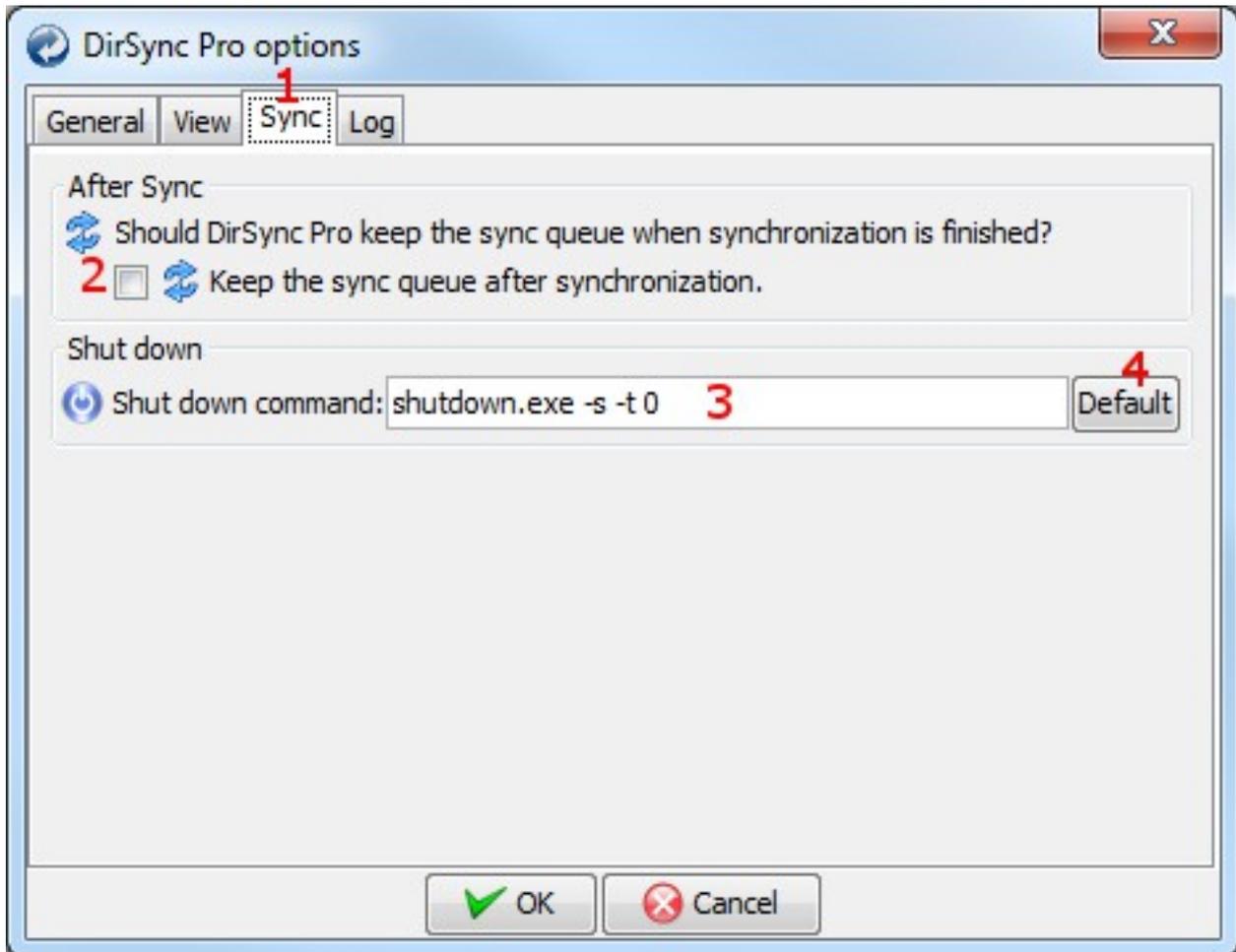
1. **Information** about the available update (version, links, ...)
2. **Go to download page** starts the default internet browser and opens the DirSync Pro update website.
3. **Not Now** will close this window without further actions.

3.5.2 View options

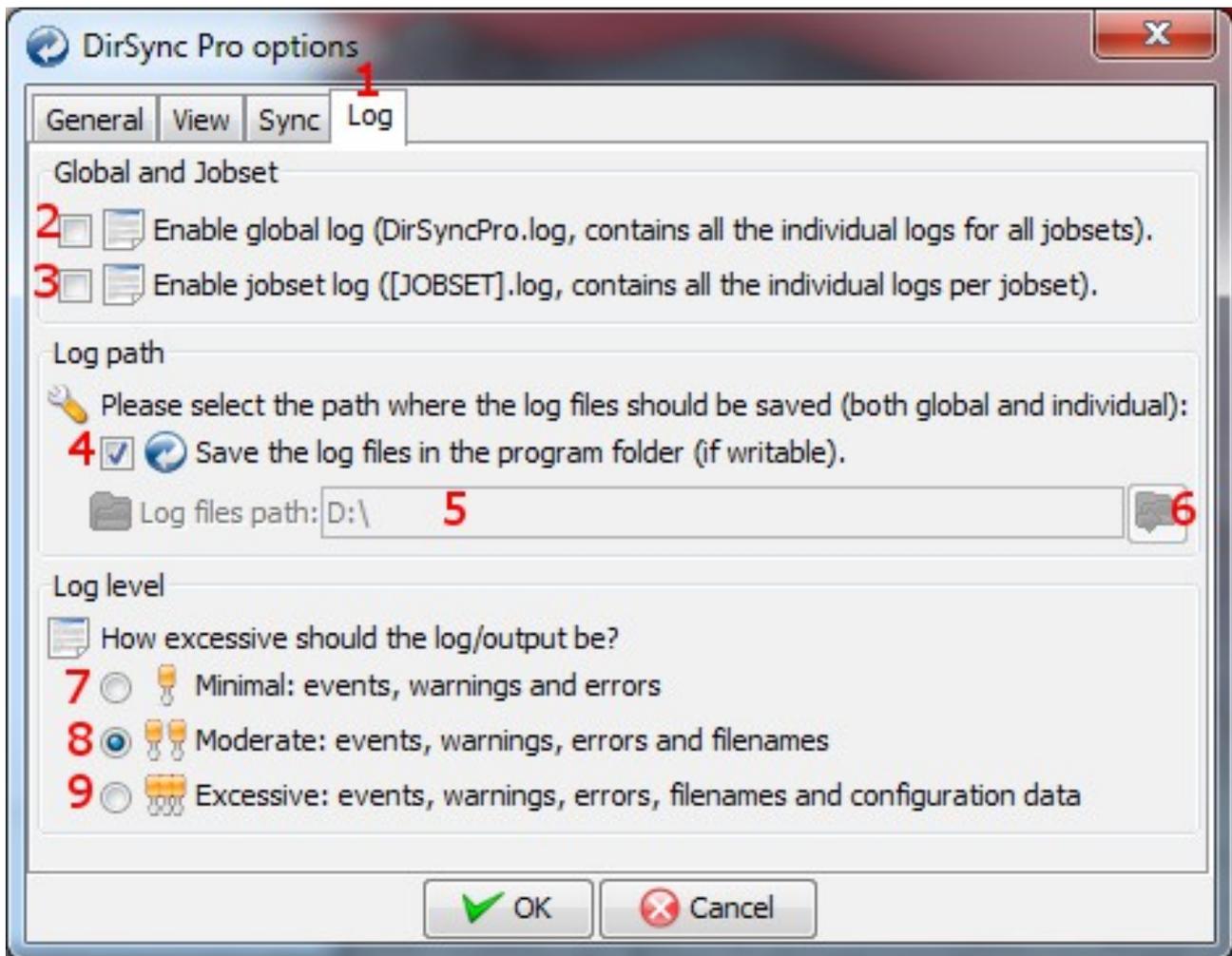


1. The **View** tab to define application view options.
2. Use **System "Native Windows" look & feel**: If you are using MS Windows or MacOS, you can select to use your own native windows look & feel.
3. Use **Java "Metal" look & feel**.
4. If the **Minimize to the system tray** option is set, DirSync Pro will minimize to the system tray when you minimize the application window. DirSync Pro is then still running, but the application window is not visible anymore.
5. The option **Use single click instead of double click** defines whether the main application window should be restored by a single click or a double one on the DirSync Pro system tray icon.

3.5.3 Synchronization options



1. The **Sync** tab to define application synchronization options.
2. If **Keep the sync queue after synchronization** is set, DirSync Pro will not clear the synchronization queue when the synchronization is carried out. This option could be helpful if you get warnings on some items during the synchronization and you want to resynchronize those items. If you synchronize the remaining queue again, only the items which have not been synchronized will be retried.
3. You may change here the **Shut-down command** which is being used to turn of the system when all the synchronization jobs are carried out.
4. **Default** button sets the command back to the default value. The default shut-down command is depending on which operating system you use (MS Windows/DOS or Posix).



3.5.4 Log options

1. Use the **Log** tab to define logging settings.
2. **Enable/disable** global logging. If enabled, DirSync Pro writes all the individual messages of all jobsets to a global log file (`DirSyncPro.log`).
3. **Enable/disable** jobset logging. If enabled, DirSync Pro writes all the individual messages of all jobs belonging to a jobset to the jobset log file (`[JOBSET].log` or custom name if defined in the job settings).
4. Whether the log files (global log or individual logs) are **saved in the program folder**. In some cases it is useful to define another log path for example if you do not have write permissions in the program folder.
5. The **path** to the directory in which the the log files should be saved. Please see the chapter 'Advanced features' for explanation on default values for this option.
6. **Browse** for the log file path.
7. Use **Minimal** log level: only events, warnings and errors are logged.
8. Use **Moderate** log level: events, warnings, errors and file names are logged.
9. Use **Excessive** log level: events, warnings, errors, file names and

configuration data are logged.

3.6 Command Line

You can use the GUI to generate the command line or even save it to a batch file. The syntax of the command line is:

```
Usage: 'dirsyncpro [-help] [-usage] [-sync ][-analyze] [-schedule]
[-quit] [-nogui] <jobset file>'
```

- `-help` Display help on homepage, contact, and license.
- `-usage` Displays this screen.
- `-sync` Starts a synchronization if a configuration file is specified.
- `-analyze` Starts a analysis rather than a synchronization if a configuration file is specified.
- `-schedule` Starts the schedule engine as soon as the the GUI is started.
- `-iconify` Minimizes the Gui to the tray (if available) on start-up.
- `-quit` Quits the program after the analyze or the synchronization.
- `-nogui` Start DirSync Pro in console mode and start synchronization (only useful if a configuration file is being specified).

Command line options start with a slash "/" on Windows and with a minus "-" on all other operating systems.

Examples:

Start in GUI mode:

```
dirsyncpro
```

Start synchronization in GUI mode and quit afterwards:

```
dirsyncpro -sync -quit <jobset file>
```

On Windows:

```
dirsyncpro /sync /quit <jobset file>
```

Start synchronization in command line mode:

```
dirsyncpro -nogui <jobset file>
```

On Windows:

```
dirsyncpro /nogui <jobset file>
```

3.7 Advanced features

3.7.1 Default directory for program settings

DirSync Pro saves its settings (`dirsyncpro.properties`) in the program folder

by default. If the program folder is not writable, DirSync Pro uses either the value of the `dirsyncpro.home` system property, if defined, or `XXX/.DirSyncPro` in which `XXX` stands for the `user.home` system property. You may define the `dirsyncpro.home` system property when running DirSync Pro. To do so you should use something like:

```
java -Xmx512M -Ddirsyncpro.home="D:\\\\" -jar dirsyncpro.jar
```

Characters like `\` must be escaped.

3.7.2 Default directory for saving logs

DirSync Pro saves the logs (if enabled) by default in the folder where the program settings are saved (see **Default directory for program settings**). You can change this default directory by defining a new default directory through the options window in the GUI.

3.7.3 Default directory for saving configurations

When you want to open a configuration or when you are about to save one, the file choosing dialog starts in the directory where the program settings are saved (see **Default directory for program settings**). You can change this default directory by defining a new default directory through the options window in the GUI.

3.7.4 Log behavior

DirSync Pro lets you create a log file for the synchronization (configuration) and for each individual Directory Profile. The log file for the synchronization is by default enabled. You may disable this log file in the Default Settings tab, if you wish. The log file name is initially set to the Synchronization name (this is the file name of your configuration). You may change the log file name or path in the same tab.

If a Directory Profile is set to default settings, it'll log into the Synchronization log, if the log is enabled. If it is not set to default, its log file is disabled initially. You may enable the log in the Directory Settings tab. The log file name is initially set to the Directory Profile name. You may change the log file name or path in the same tab.

3.7.5 Schedule a synchronization

DirSync Pro has a powerful synchronization engine with lots of scheduling features. But if, for whatever reason, these features aren't enough for your purpose, you may use existing scheduling tools in your operating system (like `cron` in Linux and `Windows Task Scheduler` in Microsoft Windows) to setup scheduled tasks to run a synchronization with DirSync Pro. This is how you can do it:

1. Use DirSync Pro user interface to setup your synchronization.
2. Save your configuration file.
3. Use the command line generator tool to create your command line with `/quit` and `/sync` en eventually `/nogui` options. Save this command line to a batch file.
4. Use your system scheduler to run the created batch file as you like.

3.7.6 Auto start in MS Windows

You may want DirSync Pro to start automatically when you plug a USB drive under MS Windows. To do so, create a file called `autorun.inf` with the following content:

```
[AutoRun]
ACTION=Backup
Open=java -jar dirsyncpro\dirsyncpro.jar JobsetFile.dsc
```

And in case you want it to quit right away after the synchronization:

```
[AutoRun]
ACTION=Backup
Open=java -jar dirsyncpro\dirsyncpro.jar JobsetFile.dsc /sync
/quit
```

In which the `JobsetFile.dsc` is your corresponding preconfigured and saved jobset file. Please note that you may need to adjust the command in front of `Open=` to suit the paths in your system. You should use the command line generator tool (under Tools menu) to create the right command for you.

3.7.7 Allocating more memory for DirSync Pro

If you run DirSync Pro through the command line, you may need to allocate more memory for example when synchronizing massive number of files. If you want to allocate more memory to DirSyncPro, use the following command to run DirSync Pro with 512MB (adjust to own will):

```
java -Xmx512M -jar dirsyncpro.jar
```

You may choose a larger amount if you need to.

If you start DirSync Pro through the wrapper `DirSyncPro.exe` under MS Windows, the wrapper `DirSyncPro.exe` itself already uses 512MB memory.

4 Frequently Asked Questions (FAQ)

Please visit www.dirsyncpro.org/faq.html for a recent list of FAQ.

5 License

5.1 Disclaimer

THIS PROGRAM IS DISTRIBUTED IN THE HOPE THAT IT WILL BE USEFUL, BUT WITHOUT ANY WARRANTY; THERE IS NO WARRANTY FOR THIS PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

By using the program you confirm to accept the above terms and the license terms.

5.2 *DirSync Pro License*

DirSync Pro is governed by the GNU General Public License as published by the Free Software Foundation, either version 3 of the License, or (at your option) any later version, with the following exception:

5.2.1 Icons licensed from KDE

The icons are from the Kommon Desktop Environment KDE www.kde.org released under the GPL.

5.3 *GNU GENERAL PUBLIC LICENSE*

Version 3, 29 June 2007

Copyright © 2007 Free Software Foundation, Inc. <<http://fsf.org/>>

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

5.3.1 Preamble

The GNU General Public License is a free, copyleft license for software and other kinds of works.

The licenses for most software and other practical works are designed to take away your freedom to share and change the works. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change all versions of a program--to make sure it remains free software for all its users. We, the Free Software Foundation, use the GNU General Public License for most of our software; it applies also to any other work released this way by its authors. You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our

General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for them if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs, and that you know you can do these things.

To protect your rights, we need to prevent others from denying you these rights or asking you to surrender the rights. Therefore, you have certain responsibilities if you distribute copies of the software, or if you modify it: responsibilities to respect the freedom of others.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must pass on to the recipients the same freedoms that you received. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

Developers that use the GNU GPL protect your rights with two steps: (1) assert copyright on the software, and (2) offer you this License giving you legal permission to copy, distribute and/or modify it.

For the developers' and authors' protection, the GPL clearly explains that there is no warranty for this free software. For both users' and authors' sake, the GPL requires that modified versions be marked as changed, so that their problems will not be attributed erroneously to authors of previous versions.

Some devices are designed to deny users access to install or run modified versions of the software inside them, although the manufacturer can do so. This is fundamentally incompatible with the aim of protecting users' freedom to change the software. The systematic pattern of such abuse occurs in the area of products for individuals to use, which is precisely where it is most unacceptable. Therefore, we have designed this version of the GPL to prohibit the practice for those products. If such problems arise substantially in other domains, we stand ready to extend this provision to those domains in future versions of the GPL, as needed to protect the freedom of users.

Finally, every program is threatened constantly by software patents. States should not allow patents to restrict development and use of software on general-purpose computers, but in those that do, we wish to avoid the special danger that patents applied to a free program could make it effectively proprietary. To prevent this, the GPL assures that patents cannot be used to render the program non-free.

The precise terms and conditions for copying, distribution and modification follow.

5.3.2 TERMS AND CONDITIONS

Definitions

"This License" refers to version 3 of the GNU General Public License.

"Copyright" also means copyright-like laws that apply to other kinds of works, such as semiconductor masks.

“The Program” refers to any copyrightable work licensed under this License. Each licensee is addressed as “you”. “Licensees” and “recipients” may be individuals or organizations.

To “modify” a work means to copy from or adapt all or part of the work in a fashion requiring copyright permission, other than the making of an exact copy. The resulting work is called a “modified version” of the earlier work or a work “based on” the earlier work.

A “covered work” means either the unmodified Program or a work based on the Program.

To “propagate” a work means to do anything with it that, without permission, would make you directly or secondarily liable for infringement under applicable copyright law, except executing it on a computer or modifying a private copy. Propagation includes copying, distribution (with or without modification), making available to the public, and in some countries other activities as well.

To “convey” a work means any kind of propagation that enables other parties to make or receive copies. Mere interaction with a user through a computer network, with no transfer of a copy, is not conveying.

An interactive user interface displays “Appropriate Legal Notices” to the extent that it includes a convenient and prominently visible feature that (1) displays an appropriate copyright notice, and (2) tells the user that there is no warranty for the work (except to the extent that warranties are provided), that licensees may convey the work under this License, and how to view a copy of this License. If the interface presents a list of user commands or options, such as a menu, a prominent item in the list meets this criterion.

5.3.2.1 Source Code.

The “source code” for a work means the preferred form of the work for making modifications to it. “Object code” means any non-source form of a work.

A “Standard Interface” means an interface that either is an official standard defined by a recognized standards body, or, in the case of interfaces specified for a particular programming language, one that is widely used among developers working in that language.

The “System Libraries” of an executable work include anything, other than the work as a whole, that (a) is included in the normal form of packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A “Major Component”, in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

The “Corresponding Source” for a work in object code form means all the source code needed to generate, install, and (for an executable work) run the object code and to modify the work, including scripts to control those activities.

However, it does not include the work's System Libraries, or general-purpose tools or generally available free programs which are used unmodified in performing those activities but which are not part of the work. For example, Corresponding Source includes interface definition files associated with source files for the work, and the source code for shared libraries and dynamically linked subprograms that the work is specifically designed to require, such as by intimate data communication or control flow between those subprograms and other parts of the work.

The Corresponding Source need not include anything that users can regenerate automatically from other parts of the Corresponding Source.

The Corresponding Source for a work in source code form is that same work.

5.3.2.2 Basic Permissions.

All rights granted under this License are granted for the term of copyright on the Program, and are irrevocable provided the stated conditions are met. This License explicitly affirms your unlimited permission to run the unmodified Program. The output from running a covered work is covered by this License only if the output, given its content, constitutes a covered work. This License acknowledges your rights of fair use or other equivalent, as provided by copyright law.

You may make, run and propagate covered works that you do not convey, without conditions so long as your license otherwise remains in force. You may convey covered works to others for the sole purpose of having them make modifications exclusively for you, or provide you with facilities for running those works, provided that you comply with the terms of this License in conveying all material for which you do not control copyright. Those thus making or running the covered works for you must do so exclusively on your behalf, under your direction and control, on terms that prohibit them from making any copies of your copyrighted material outside their relationship with you.

Conveying under any other circumstances is permitted solely under the conditions stated below. Sublicensing is not allowed; section 10 makes it unnecessary.

5.3.2.3 Protecting Users' Legal Rights From Anti-Circumvention Law.

No covered work shall be deemed part of an effective technological measure under any applicable law fulfilling obligations under article 11 of the WIPO copyright treaty adopted on 20 December 1996, or similar laws prohibiting or restricting circumvention of such measures.

When you convey a covered work, you waive any legal power to forbid circumvention of technological measures to the extent such circumvention is effected by exercising rights under this License with respect to the covered work, and you disclaim any intention to limit operation or modification of the

work as a means of enforcing, against the work's users, your or third parties' legal rights to forbid circumvention of technological measures.

5.3.2.4 Conveying Verbatim Copies.

You may convey verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice; keep intact all notices stating that this License and any non-permissive terms added in accord with section 7 apply to the code; keep intact all notices of the absence of any warranty; and give all recipients a copy of this License along with the Program.

You may charge any price or no price for each copy that you convey, and you may offer support or warranty protection for a fee.

5.3.2.5 Conveying Modified Source Versions.

You may convey a work based on the Program, or the modifications to produce it from the Program, in the form of source code under the terms of section 4, provided that you also meet all of these conditions:

- a) The work must carry prominent notices stating that you modified it, and giving a relevant date.
- b) The work must carry prominent notices stating that it is released under this License and any conditions added under section 7. This requirement modifies the requirement in section 4 to "keep intact all notices".
- c) You must license the entire work, as a whole, under this License to anyone who comes into possession of a copy. This License will therefore apply, along with any applicable section 7 additional terms, to the whole of the work, and all its parts, regardless of how they are packaged. This License gives no permission to license the work in any other way, but it does not invalidate such permission if you have separately received it.
- d) If the work has interactive user interfaces, each must display Appropriate Legal Notices; however, if the Program has interactive interfaces that do not display Appropriate Legal Notices, your work need not make them do so.

A compilation of a covered work with other separate and independent works, which are not by their nature extensions of the covered work, and which are not combined with it such as to form a larger program, in or on a volume of a storage or distribution medium, is called an "aggregate" if the compilation and its resulting copyright are not used to limit the access or legal rights of the compilation's users beyond what the individual works permit. Inclusion of a covered work in an aggregate does not cause this License to apply to the other parts of the aggregate.

5.3.2.6 Conveying Non-Source Forms.

You may convey a covered work in object code form under the terms of

sections 4 and 5, provided that you also convey the machine-readable Corresponding Source under the terms of this License, in one of these ways:

- a) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by the Corresponding Source fixed on a durable physical medium customarily used for software interchange.
- b) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge.
- c) Convey individual copies of the object code with a copy of the written offer to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b.
- d) Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (operated by you or a third party) that supports equivalent copying facilities, provided you maintain clear directions next to the object code saying where to find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is available for as long as needed to satisfy these requirements.
- e) Convey the object code using peer-to-peer transmission, provided you inform other peers where the object code and Corresponding Source of the work are being offered to the general public at no charge under subsection 6d.

A separable portion of the object code, whose source code is excluded from the Corresponding Source as a System Library, need not be included in conveying the object code work.

A “User Product” is either (1) a “consumer product”, which means any tangible personal property which is normally used for personal, family, or household purposes, or (2) anything designed or sold for incorporation into a dwelling. In determining whether a product is a consumer product, doubtful cases shall be resolved in favor of coverage. For a particular product received by a particular user, “normally used” refers to a typical or common use of that class of product, regardless of the status of the particular user or of the way in which the particular user actually uses, or expects or is expected to use, the product.

A product is a consumer product regardless of whether the product has substantial commercial, industrial or non-consumer uses, unless such uses represent the only significant mode of use of the product.

“Installation Information” for a User Product means any methods, procedures, authorization keys, or other information required to install and execute modified versions of a covered work in that User Product from a modified version of its Corresponding Source. The information must suffice to ensure that the continued functioning of the modified object code is in no case prevented or interfered with solely because modification has been made.

If you convey an object code work under this section in, or with, or specifically for use in, a User Product, and the conveying occurs as part of a transaction in which the right of possession and use of the User Product is transferred to the recipient in perpetuity or for a fixed term (regardless of how the transaction is characterized), the Corresponding Source conveyed under this section must be accompanied by the Installation Information. But this requirement does not apply if neither you nor any third party retains the ability to install modified object code on the User Product (for example, the work has been installed in ROM).

The requirement to provide Installation Information does not include a requirement to continue to provide support service, warranty, or updates for a work that has been modified or installed by the recipient, or for the User Product in which it has been modified or installed. Access to a network may be denied when the modification itself materially and adversely affects the operation of the network or violates the rules and protocols for communication across the network.

Corresponding Source conveyed, and Installation Information provided, in accord with this section must be in a format that is publicly documented (and with an implementation available to the public in source code form), and must require no special password or key for unpacking, reading or copying.

5.3.2.7 Additional Terms.

“Additional permissions” are terms that supplement the terms of this License by making exceptions from one or more of its conditions. Additional permissions that are applicable to the entire Program shall be treated as though they were included in this License, to the extent that they are valid under applicable law. If additional permissions apply only to part of the Program, that part may be used separately under those permissions, but the entire Program remains governed by this License without regard to the additional permissions.

When you convey a copy of a covered work, you may at your option remove any additional permissions from that copy, or from any part of it. (Additional permissions may be written to require their own removal in certain cases when you modify the work.) You may place additional permissions on material, added by you to a covered work, for which you have or can give appropriate copyright permission.

Notwithstanding any other provision of this License, for material you add to a covered work, you may (if authorized by the copyright holders of that material) supplement the terms of this License with terms:

- a) Disclaiming warranty or limiting liability differently from the terms of sections 15 and 16 of this License; or
- b) Requiring preservation of specified reasonable legal notices or author attributions in that material or in the Appropriate Legal Notices displayed by works containing it; or
- c) Prohibiting misrepresentation of the origin of that material, or requiring that modified versions of such material be marked in reasonable ways as different from the original version; or
- d) Limiting the use for publicity purposes of names of licensors or authors of the material; or
- e) Declining to grant rights under trademark law for use of some trade names, trademarks, or service marks; or
- f) Requiring indemnification of licensors and authors of that material by anyone who conveys the material (or modified versions of it) with contractual assumptions of liability to the recipient, for any liability that these contractual assumptions directly impose on those licensors and authors.

All other non-permissive additional terms are considered “further restrictions” within the meaning of section 10. If the Program as you received it, or any part of it, contains a notice stating that it is governed by this License along with a term that is a further restriction, you may remove that term. If a license document contains a further restriction but permits relicensing or conveying under this License, you may add to a covered work material governed by the terms of that license document, provided that the further restriction does not survive such relicensing or conveying.

If you add terms to a covered work in accord with this section, you must place, in the relevant source files, a statement of the additional terms that apply to those files, or a notice indicating where to find the applicable terms.

Additional terms, permissive or non-permissive, may be stated in the form of a separately written license, or stated as exceptions; the above requirements apply either way.

5.3.2.8 Termination.

You may not propagate or modify a covered work except as expressly provided under this License. Any attempt otherwise to propagate or modify it is void, and will automatically terminate your rights under this License (including any patent licenses granted under the third paragraph of section 11).

However, if you cease all violation of this License, then your license from a particular copyright holder is reinstated (a) provisionally, unless and until the copyright holder explicitly and finally terminates your license, and (b) permanently, if the copyright holder fails to notify you of the violation by some reasonable means prior to 60 days after the cessation.

Moreover, your license from a particular copyright holder is reinstated permanently if the copyright holder notifies you of the violation by some reasonable means, this is the first time you have received notice of violation of this License (for any work) from that copyright holder, and you cure the violation prior to 30 days after your receipt of the notice.

Termination of your rights under this section does not terminate the licenses of parties who have received copies or rights from you under this License. If your rights have been terminated and not permanently reinstated, you do not qualify to receive new licenses for the same material under section 10.

5.3.2.9 Acceptance Not Required for Having Copies.

You are not required to accept this License in order to receive or run a copy of the Program. Ancillary propagation of a covered work occurring solely as a consequence of using peer-to-peer transmission to receive a copy likewise does not require acceptance. However, nothing other than this License grants you permission to propagate or modify any covered work. These actions infringe copyright if you do not accept this License. Therefore, by modifying or propagating a covered work, you indicate your acceptance of this License to do so.

5.3.2.10 Automatic Licensing of Downstream Recipients.

Each time you convey a covered work, the recipient automatically receives a license from the original licensors, to run, modify and propagate that work, subject to this License. You are not responsible for enforcing compliance by third parties with this License.

An "entity transaction" is a transaction transferring control of an organization, or substantially all assets of one, or subdividing an organization, or merging organizations. If propagation of a covered work results from an entity transaction, each party to that transaction who receives a copy of the work also receives whatever licenses to the work the party's predecessor in interest had or could give under the previous paragraph, plus a right to possession of the Corresponding Source of the work from the predecessor in interest, if the predecessor has it or can get it with reasonable efforts.

You may not impose any further restrictions on the exercise of the rights granted or affirmed under this License. For example, you may not impose a license fee, royalty, or other charge for exercise of rights granted under this License, and you may not initiate litigation (including a cross-claim or counterclaim in a lawsuit) alleging that any patent claim is infringed by making, using, selling, offering for sale, or importing the Program or any portion of it.

5.3.2.11 Patents.

A "contributor" is a copyright holder who authorizes use under this License of the Program or a work on which the Program is based. The work thus licensed

is called the contributor's "contributor version".

A contributor's "essential patent claims" are all patent claims owned or controlled by the contributor, whether already acquired or hereafter acquired, that would be infringed by some manner, permitted by this License, of making, using, or selling its contributor version, but do not include claims that would be infringed only as a consequence of further modification of the contributor version. For purposes of this definition, "control" includes the right to grant patent sublicenses in a manner consistent with the requirements of this License.

Each contributor grants you a non-exclusive, worldwide, royalty-free patent license under the contributor's essential patent claims, to make, use, sell, offer for sale, import and otherwise run, modify and propagate the contents of its contributor version.

In the following three paragraphs, a "patent license" is any express agreement or commitment, however denominated, not to enforce a patent (such as an express permission to practice a patent or covenant not to sue for patent infringement). To "grant" such a patent license to a party means to make such an agreement or commitment not to enforce a patent against the party.

If you convey a covered work, knowingly relying on a patent license, and the Corresponding Source of the work is not available for anyone to copy, free of charge and under the terms of this License, through a publicly available network server or other readily accessible means, then you must either (1) cause the Corresponding Source to be so available, or (2) arrange to deprive yourself of the benefit of the patent license for this particular work, or (3) arrange, in a manner consistent with the requirements of this License, to extend the patent license to downstream recipients. "Knowingly relying" means you have actual knowledge that, but for the patent license, your conveying the covered work in a country, or your recipient's use of the covered work in a country, would infringe one or more identifiable patents in that country that you have reason to believe are valid.

If, pursuant to or in connection with a single transaction or arrangement, you convey, or propagate by procuring conveyance of, a covered work, and grant a patent license to some of the parties receiving the covered work authorizing them to use, propagate, modify or convey a specific copy of the covered work, then the patent license you grant is automatically extended to all recipients of the covered work and works based on it.

A patent license is "discriminatory" if it does not include within the scope of its coverage, prohibits the exercise of, or is conditioned on the non-exercise of one or more of the rights that are specifically granted under this License. You may not convey a covered work if you are a party to an arrangement with a third party that is in the business of distributing software, under which you make payment to the third party based on the extent of your activity of conveying the work, and under which the third party grants, to any of the parties who would receive the covered work from you, a discriminatory patent license (a) in connection with copies of the covered work conveyed by you (or

copies made from those copies), or (b) primarily for and in connection with specific products or compilations that contain the covered work, unless you entered into that arrangement, or that patent license was granted, prior to 28 March 2007.

Nothing in this License shall be construed as excluding or limiting any implied license or other defenses to infringement that may otherwise be available to you under applicable patent law.

5.3.2.12 No Surrender of Others' Freedom.

If conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot convey a covered work so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not convey it at all. For example, if you agree to terms that obligate you to collect a royalty for further conveying from those to whom you convey the Program, the only way you could satisfy both those terms and this License would be to refrain entirely from conveying the Program.

5.3.2.13 Use with the GNU Affero General Public License.

Notwithstanding any other provision of this License, you have permission to link or combine any covered work with a work licensed under version 3 of the GNU Affero General Public License into a single combined work, and to convey the resulting work. The terms of this License will continue to apply to the part which is the covered work, but the special requirements of the GNU Affero General Public License, section 13, concerning interaction through a network will apply to the combination as such.

5.3.2.14 Revised Versions of this License.

The Free Software Foundation may publish revised and/or new versions of the GNU General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies that a certain numbered version of the GNU General Public License "or any later version" applies to it, you have the option of following the terms and conditions either of that numbered version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of the GNU General Public License, you may choose any version ever published by the Free Software Foundation.

If the Program specifies that a proxy can decide which future versions of the GNU General Public License can be used, that proxy's public statement of acceptance of a version permanently authorizes you to choose that version for the Program.

Later license versions may give you additional or different permissions. However, no additional obligations are imposed on any author or copyright holder as a result of your choosing to follow a later version.

5.3.2.15 Disclaimer of Warranty.

THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

5.3.2.16 Limitation of Liability.

IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MODIFIES AND/OR CONVEYS THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

5.3.2.17 Interpretation of Sections 15 and 16.

If the disclaimer of warranty and limitation of liability provided above cannot be given local legal effect according to their terms, reviewing courts shall apply local law that most closely approximates an absolute waiver of all civil liability in connection with the Program, unless a warranty or assumption of liability accompanies a copy of the Program in return for a fee.

END OF TERMS AND CONDITIONS