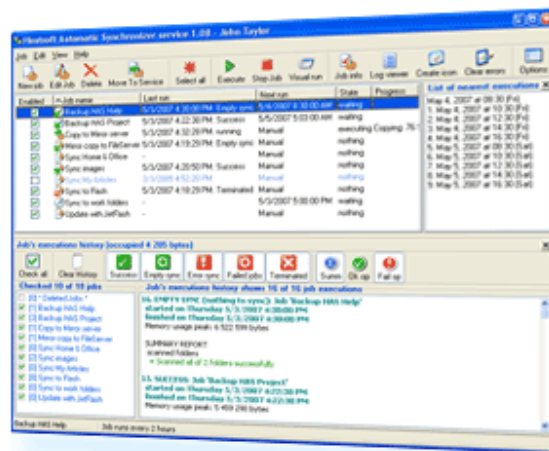


HEATSOFT AUTOMATIC SYNCHRONIZER version 1.10



User Guide

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1 Introduction

1.1 What is HAS?



Heatsoft Automatic Synchronizer (HAS) is an easy-to-use program designed for an automatic synchronization, backup, replication and mirroring of important files on most storage media or even between two computers on a network. With HAS you can easily keep all important files synchronized between servers, desktops, notebooks, LANs, ZIP disks, secondary hard disks, etc.

HAS allows you to compare and synchronize multiple folders at a time in manual mode with a single mouse click or in automatic mode with scheduler. The program arranges your synchronization needs in sets of "jobs". A job is a set of specifications which defines what folder pairs you want to synchronize, how you want to do this, and how often you want to do it. HAS Job Wizard provides most of the building blocks of jobs for you, such as the preinstalled synchronization methods. Once configured, in automatic mode HAS synchronizes the folder pairs at the user-defined time intervals. This multithreaded process runs in the background without any further user-interaction required. In the manual mode you are able to see a preview table of synchronization. All synchronization activities are stored in a log file. Summary e-mail will be send to specified address after the job execution. Service addon allows a user to execute jobs within a native windows service.

HAS is designed for Microsoft Windows NT/2000/XP/2003/Vista.

If you are looking for a simple, fast, powerful and flexible synchronizing solution for your business or for your personal needs in a networking environment or on a single machine, you have just found it. Download the 30-day trial version and see for yourself.

HAS is priced competitively at only \$39.92 US for a single user license. HAS version with Service addon costs \$59.92 US. We provide flexible discount program for volume purchase orders. See Order section for more information. If you have a problem or a question, free support is always available.

1.2 Features

- Multi-thread transfer engine which executes jobs in the background. Execution of several jobs at the same time.
- Service add-on allows a user to execute jobs within a native windows service.
- Ability to synchronize between servers, desktops, notebooks, LANs, ZIP disks, etc.
- Ability to run on Windows startup.
- Ability to work in the silent mode.
- Ability to execute a job in visual mode. In this mode you are able to see a preview table of synchronization.
- History of jobs' executions.
- Launch job execution via shortcut.
- Command line interface for the professional users.
- System tray alerts.
- Synchronization activities are stored in the log files: full, summary, error logs.
- Ability to send notifications by e-mail with attached log files.
- Job Wizard provides most of the building blocks of a job for you, such as the preinstalled synchronization methods.
- Ability to export and import jobs.
- Select folders for synchronization in Explorer like a folders tree.
- Ability to use UNC paths in a comparison.
- Ability to use environment variables in folder paths.
- Supports inclusion or exclusion of files.
- Ability to exclude folders from comparison.
- Supports different types of synchronization.
- Flexible and powerful scheduler.
- Ability to view log files for jobs in the Log Viewer.
- Easy to use interface for simple creation and maintenance of synchronization tasks.
- Ability to customize toolbars.
- Extremely cost effective.

1.3 System Requirements

Desktop or notebook computer with:

- 64 MB RAM or more
- 1.9 MB of hard disk space

One of following operating systems:

- Windows NT
- Windows 2000
- Windows XP
- Windows 2003
- Windows Vista

1.4 Support and feedback

Technical Support

Registered users are entitled to technical support, should the need arise. Please contact us by e-mail at support@heatsoft.com

Important note

The program version has been created for running on *Microsoft Windows NT/2000/XP/2003/Vista*. If you experience any problems please inform us about it!

All mentioned Trademarks and Copyrights belong to their respective owners.

Before you contact us, please do the following:

- Be sure that you're doing everything right. We all make mistakes sometimes... Be attentive.
- Look at the Help file: it may already contain an answer to your question. A lot of people ask us something like "how do I:", though the complete information is there.
- Visit HAS home page in the Internet at <http://www.heatsoft.com/has/HASindex.html>

It's a good chance that you'll find the newer version of HAS there. If the serious bug has been found in the program, but the new version is not ready yet, we make the hot fix for it.

But if you still have a problem with HAS and noting else helps, please contact technical support at feedback@heatsoft.com

Please inform us about the following:

- HAS version (from "About" dialog).
- Where did you get HAS (http or ftp site).
- Windows NT/2000/XP/2003/Vista version (including service packs and other fixes installed), US or international, OEM or not.
- Computer information: CPU type and speed, installed memory.
- Description of your problem (as much information as possible to retrieve the problem).

In order to get the complete computer information (working under Windows XP), open the Control Panel, click on "System" icon and select tab "Hardware" in the "System properties" window.

If you have any comments or suggestions for the next releases, please don't hesitate to email them to us feedback@heatsoft.com

Feedback

If you have any comments or concerns about HAS please direct them to feedback@heatsoft.com or <http://www.heatsoft.com/has/HASsupport.html> Your feedback is important to us in order to get an idea of how to make HAS a better product for you. Many of HAS features and significant portions of HAS interface have been heavily influenced by comments from users. So if you have a grand idea for a new feature, or a better way of doing something, please drop us a note.

1.5 Getting program updates

Important!

If you've got HAS not from our web page, but from the other source (magazine CD or some software library), please visit our home page:

<http://www.heatsoft.com/has/HASdownload.html>

- you'll probably find the latest version. Usually, **we release new version of HAS about once within every three months.**

1.6 Information for registered users

Registered users who have purchased a license of HAS from Heatsoft Corporation are eligible for a free upgrade to HAS 1.10. To upgrade, send an email message to support@heatsoft.com including the name and email address that you used when you purchased the license. And we'll email you detailed instructions within 24 hours.

1.7 Install HAS

Important!

If you've got HAS not from our web page, but from the other source (magazine CD or some software library), please visit our home page:

<http://www.heatsoft.com/has/HASdownload.html>

- you'll probably find the latest version. Usually, **we release new version of HAS about once within every three months.**

To install HAS, unpack the **HASheat.zip**, execute the **HASv1103_setup.exe** and follow the instructions. You'll need to select the target directory and the components to install.

The installation procedures and screen shots are based on Windows XP operating system. For those of other OS, please follow its on-screen instruction.



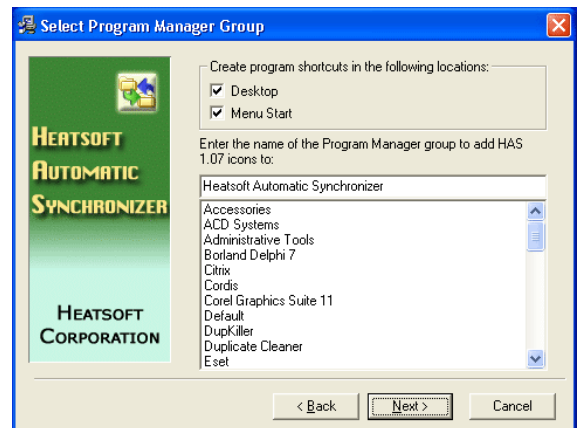
1. Click [Next].



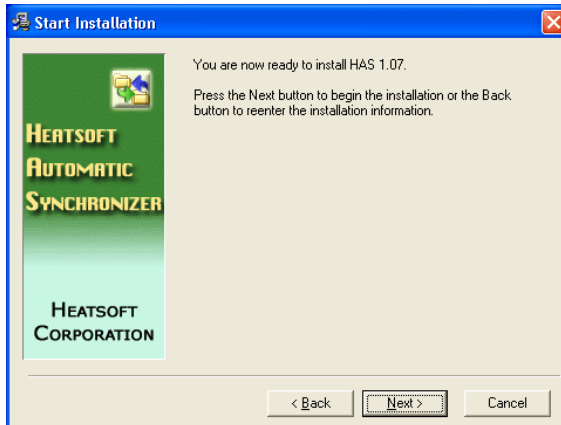
2. Read the License Agreement. Click [Next].



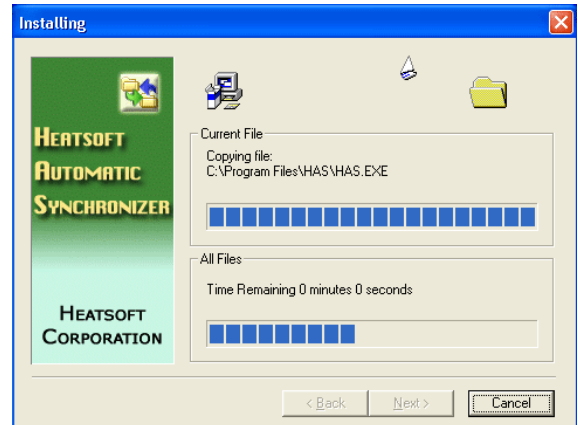
3. Review a path to the destination folder. Click [Next].



4. By default HAS will create group in the Program Manager, desktop shortcut and shortcut in the Start Menu. Click [Next].



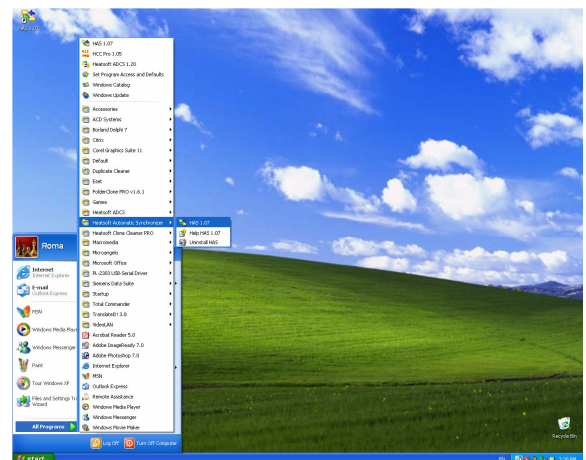
5. Click [Next].



6. You can terminate installation by clicking [Cancel].



7. Click [Finish] to complete setup.



8. To run HAS click [Start] → [All Programs] → [Heatsoft Automatic Synchronizer] → [HAS 1.10] or click the shortcut [HAS 1.10] on the desktop or Start Menu.

1.8 About Heatsoft Corporation

Heatsoft Corporation is a small software development company. We provide high-quality, software development services and Web design solutions at excellent rates. We've been around for almost nine years, specializing in simple, cost-effective stuff that runs well.

Heatsoft products:

Heatsoft Automatic Synchronizer	Keep your folders synchronized with Heatsoft Automatic Synchronizer. The program allows you to compare and synchronize multiple folders in manual mode with a single click or in automatic mode with scheduler. Once configured, it works in the background without any further user-interaction required. Designed for Windows NT/2000/XP/2003/Vista. Costs \$39.92 .
Advanced Directory Comparison and Synchronization	It is ideal for keeping files synchronized between a desktop & laptop and is a very fast method of backing up critical directories. With ADCS you can easily see what have changed in your directories and transfer changes with single mouse click ADCS is targeted to 'visual' (manual) sync. ADCS is more comfortable to synchronize a folder's pair easily. Moreover ADCS has integrated features like Disk space viewer and Remove empty folders. Designed for Windows 98/Me/2000/XP/2003/Vista. Costs \$32.92 .
Heatsoft Clone Cleaner	HCC helps you to find duplicate files on your system and delete them. Thus, you can free up a lot of disk space taken by the extra copies and reduce clutter on your disks. HCC does not only take into account items like file name, size or timestamp, but reads possible duplicates byte to byte. This way, it is guaranteed that the files are really identical, and you can delete the extra copies with full confidence. HCC provides tools for safe and easy deletion of duplicate files. Designed for Windows 98/Me/2000/XP/2003/Vista. Costs \$32.92 .
Handy File Tool	Handy File Tool (HFT) is a very fast and simple file manager. It has some internal utilities such as Renamer, Replacer and Finder. HFT has utilities necessary for webmasters, programmers and anybody who is concerned with computers. Imagine that you need to process hundreds of files. It would take you many hours to do this manually. Designed for Windows 98/Me/2000/XP/2003/Vista. Freeware .

Web site:

<http://www.heatsoft.com>

Support forum:

<http://www.heatsoft.com/hfm>

Email:

Sales Department: sales@heatsoft.com
Support Department: support@heatsoft.com
Feedback Department: feedback@heatsoft.com
Webmaster: webmaster@heatsoft.com

Postal Address:

Heatsoft Corporation
3914 Seaton Place
Las Vegas, Nevada 89121
United States of America

2 Quick start tutorial

The quickest way to introduce your self to HAS is to use this program. This tutorial guides you through the some actual situations which you can solve with HAS. All situations are described step by step. If you read the guides carefully many of your questions will be solved.

2.1 Tutorial 1: Set up automatic synchronization


Task:

Set up automatic synchronization at every hour on all days except Saturday and Sunday.

Solution:

- You must create a new Job (see Tutorial 5: Creating a job quickly). Click the button **New Job** on the main toolbar or press **Ctrl+N** shortcut. This opens the Job wizard window.
- If you have created Job, then select it in the main window. For example you select the job - 'Mirror to Server'.
- Click the button **Edit Job** on the main toolbar. This opens the Job wizard with the job 'Mirror to Server'.
- In the Job wizard window go to the page Scheduling.
- On the page Scheduling in the group **Enable scheduler** select **always**. This makes the enable scheduler controls.
- To exclude Saturday and Sunday from the scheduler list:
 - Turn on check **Run on the week days only**, this makes the enable week days list.
 - Turn off these checks **Saturday** and **Sunday** in the **Run on the week days only** list.
- To setup automatic synchronization at every hour:
 - A single click on **every** control in the **Repeat** controls group.
 - Set value 0 in the **days** control.
 - Set value 1 in the **hours** control.
 - Set value 0 in the **minutes** control.

You can see the real dates of executions, calculated on started settings in the **List of nearest executions**.

- Turn on the option **Run missed schedules at the program startup** if you need to periodically switch off your computer and some scheduled jobs can be missed. If this option is checked, the program will detect all missed (scheduled but not executed on time) items and execute them at startup program.
- Click the button **Save Job** to save changes of the job.
- The job state switches to  waiting. In the column **Next run** you can see the date when the job 'Mirror to Server' will start.

Notes:

- Scheduler can execute jobs automatically when HAS is running only. Turn on **Launch HAS at Windows start up** tick box on the options general page to run HAS automatically at Windows startup. For more information see the work in "silent" mode.
- To view information about job settings click the button **Job info** on the main toolbar.
- To edit job settings click the button **Edit job** on the main toolbar. Editing job turns off the scheduler settings.

2.2 Tutorial 2: Set up automatic incremental backup

Task:

Set up automatic incremental backup for the work's folders every day at 16:30.

Backup is the most frequently used operation type. It is used for saving your important files into another storage location. If some files are corrupted or lost in the original folder, you can easily restore them from the backup copies.

Incremental backup is the program which copies only files that have been changed since previous backup; files are compared by a date and time of the last change (comparison rules of a job). The advantages of this backup type are quite obvious - less amount of data to operate with, less time is necessary to perform backup operation.

For example, you have three work's folders which you do want to backup daily once a day:

<u>Work's folders</u>	<u>Backup folders</u>
c:\My documents	z:\backup\My documents
c:\My pictures	z:\backup\My pictures
c:\My stuff	z:\backup\My stuff

Solution:

The task is divided into 2 steps:


Step 1: Creating a new job

Step 2: Scheduled job execution

Step 1: Creating a new job

- To create a new Job, click the button **New Job** on the main toolbar or press **Ctrl+N** shortcut. This opens the Job wizard window.
- In the window Job wizard on the page Job settings type a name for your Job. For example, 'Backup work's folders'. Choose the page Comparing folders by clicking on the appropriate item in the list which occupies top-left part of the page Job settings.
- On the page Comparing folders you should add folder pairs for comparison and synchronization. Click the button **Add pair** or press **Ins**. The window Add/Edit a pair will appear.
- In the window Add a pair select folder "c:\My documents" in the left tree, and folder "z:\backup\My documents" in the right tree. Press the button **Ok** to add these selected folders as a pair. The pair "c:\My documents <-> z:\backup\My documents" will be added into the Folder pairs list.
- Using the same way, add another two pairs into the Folder pairs list:
"c:\My pictures <-> z:\backup\My pictures"
"c:\My stuff <-> z:\backup\My stuff"
When you add pairs go to the page Synchronize methods.
- On the page Synchronize methods set the method **Copy files from Left to Right**. This method copies files that have been changed since previous backup from the Left folders to the Right folders. So the Right folders (backup folders) will be equal and updated with the most recent files from the Left side folders (work's folders). After this go to the page Comparison rules.
- On the page Comparison rules turn on checks: **Size, Timestamp, Attributes**. HAS will compare files by a size, date and time of the last change, attributes. Choose the page Scheduling.
- On the page Scheduling in the group **Enable scheduler** select **always**. This makes enable scheduler controls.
- To setup automatic synchronization at every day at 16:30:00.
 - Set **First executions' date** in the **Enable scheduler** controls group. Set date to today, set time to 16:30.
 - A single click on **every day at the start time** control in the **Repeat** controls group.You can see the real dates of executions, calculated on stated settings in the **List of nearest executions**.
- Turn on option **Run missed schedules at the program startup** if you need to periodically switch off your computer and some scheduled jobs can be missed. If this option is checked, the program will detect all missed (scheduled but not executed on time) items and execute them at startup program.
- Click the button **Save Job** to save a created job. The job 'Backup work's folders' will appear in the Main window.

Step 2: Scheduled job execution

- The job state will be  waiting. In the column **Next run** in the main window you can see the date when the job 'Backup work's folders' will start automatically. Scheduler can execute jobs automatically when HAS is running only. You can setup HAS to run it automatically at log on, for more information see the work in "silent" mode.
- You can execute the job in background mode before **Next run** time is coming. Select the job and click the button **Execute** on the main toolbar or press **Ctrl+R**. The executing job in background mode does not change the scheduler settings.
- You can execute the job in the detailed mode before **Next run** time is coming. Select the job and click the button **Visual run** on the main toolbar. The executing job in the detailed mode turn off the scheduler settings.

Notes:

- Scheduler can execute jobs automatically when HAS is running only. Turn on **Run at Logon** check on the options general page to run HAS automatically at Windows startup. For more information see the work in "silent" mode.
- To view information about job settings click the button **Job info** on the main toolbar.
- To edit job settings click the button **Edit job** on the main toolbar. The editing job turns off the scheduler settings.

2.3 Tutorial 3: Set up the mirror copy for all files

Task:

Set up the mirror copy for all files, except temporary files (*.tmp; *.old; *.~*; *.bak) from work folders to backup folders include time zones differences between New York (GMT-05:00) and San Francisco (GMT-08:00).

Mirror copy is one of the most frequently used operation type. It is used for saving your important files into another storage location and clearing backup folders from old files at the same time.

Mirror copy is the program which copies only files that have been changed since previous backup, and new files which are not present in backup folders. Files are compared by a date and time of the last change (comparison rules of a job). The particularity of mirror copy is in removing old files which existing in backup folders and copying new files at the same time. So the backup folders will be made identical to the source work folders.

For example, you have four work folders which you do want to mirror copy:

<u>Work's folders</u>	<u>Backup folders</u>
c:\My documents	x:\Backup\My documents
c:\My projects	x:\Backup\My projects
c:\My stuff	x:\Backup\My stuff
c:\My articles	x:\Backup\My articles

Solution:

The task is divided into two steps:


Step 1: Creating a new job for mirror copy

Step 2: The job execution

Step 1: Creating a new job for mirror copy

- To create a new Job, click the button **New Job** on the main toolbar or press **Ctrl+N** shortcut. This opens the Job wizard window.
- In the window Job wizard on the page Job settings type a name for your Job. For example, 'Mirror copy to Backup'. Choose the page Comparing folders by clicking on the appropriate item in the list which occupies top-left part of the Job wizard window.
- On the page Comparing folders you should add folders pairs for comparison and synchronization. You can add pairs to your Job by choosing them from folder trees. Click on the **Add pair** button or press **Ins** shortcut. The window Add/Edit a pair will be displayed.
- In the window Add a pair choose the folder "c:\My documents" in the left tree, and the folder "x:\Backup\My documents" in the right tree. Click on the button **Ok** to add these selected folders. The pair "c:\My documents <-> x:\Backup\My documents" will be added into the Folder pairs list.
- Using the same way, add another pairs into Folder pairs list:
"c:\My projects <-> x:\Backup\My projects"
"c:\My stuff <-> x:\Backup\My stuff"
"c:\My articles <-> x:\Backup\My articles"
When you add pairs jump to the page File filters.
- On the page File filters you should set exclude file filter for temporary files. To do this, turn on the check **Use exclude file filter** and enter *.tmp; *.old; *.~*; *.bak in the drop-down list. Choose the page Synchronize methods when you complete the filter form.
- Select the **Mirror copy files from Left to Right** method on the page Synchronize methods. This method copies all newer, single files and empty folders from Left to Right and delete all single files and empty folders in the Right folders. So the Right folders (backup folders) will be made identical to the Left side folders (work's folders). After this go to the Comparison rules page.
- On the page Comparison rules turn on checks: **Size, Timestamp, Attributes**. Turn on the check **Adjust timezone** and type **3** (difference in time between GMT-05:00 and GMT-08:00) in the string **Ignore filetype differences in hours** to includes time zones differences.
- Click the button **Save Job** to save a created job. The job 'Mirror copy to Backup' will appear in the Main window.

Step 2: The job execution

- The state of the job 'Mirror copy to Backup' will be  nothing. It means that the job is in manual mode. You can execute the job manually at any time you wish. Select the job 'Mirror copy to Backup' and click the **Execute selected Job(s)** button on the main toolbar or use **Ctrl+R** shortcut.
- You can execute the job in detailed mode. Choose the job 'Mirror copy to Backup' and click the button **Visual run** on the main toolbar.
- You can also set up automatic job execution. See Tutorial 1 - *Set up automatic synchronization on every hour on all days except Saturday and Sunday* -.

Notes:

- To view information about job settings click the button **Job info** on the main toolbar.
- To edit job settings click the button **Edit job** on the main toolbar. Editing job turn off scheduler settings.

2.4 Tutorial 4: Synchronize Home computer and Flash drive

Task:

Synchronize Home computer folders and Flash drive via single clicking shortcut on a Desktop.

For example, you have three folders which you do want to keep in sync:

<u>Home Desktop</u>	<u>Flash drive</u>
c:\My documents	h:\work\docs
c:\My pictures	h:\work\pics
c:\My stuff	h:\work\stuff

Solution:

The task is divided into 2 steps:

Step 1: Creating a new job

Step 2: Setup shortcut for the job

Step 1: Creating a new job

- To create a new Job, click the button **New Job** on the main toolbar or press **Ctrl+N** shortcut. This opens the Job wizard window.
- In the window Job wizard on the page Job settings type a name for your Job. For example, 'Sync Home and Flash'. Choose the page Comparing folders by clicking on the appropriate item in the list which occupies top-left part of the page Job settings.
- On the page Comparing folders you should add folder pairs for comparison and synchronization. Click the button **Add pair** or press **Ins**. The window Add/Edit a pair will appear.
- In the window Add a pair choose folder "c:\My documents" in the left tree, and folder "h:\work\docs" in the right tree. Press the button **Ok** to add these selected folders as a pair. The pair "c:\My documents <-> h:\work\docs" will be added into the Folder pairs list.
- Using the same way, add another two pairs into the Folder pairs list:
"c:\My pictures <-> h:\work\pics"
"c:\My stuff <-> h:\work\stuff"
And go to the page Synchronize methods.
- On the page Synchronize methods set the method **Update Left and Right (Make Equal)**. This method copies NEWER and SINGLE files from Left and Right folders to the each other. So Left and Right folders will be equal and updated with most recent files.
- Click the button **Save Job** to save the created job. The job 'Sync Home and Flash' will appear in the Main window.
- Now you can execute the job 'Sync Home and Flash'. Select the job and click the button **Execute** on the main toolbar or press **Ctrl+R**.

Step 2: Setup shortcut for the job

- To place a shortcut on a Desktop for the job 'Sync Home and Flash' select it and click the button **Create icon** on the main toolbar. The window Create shortcut will appear.
- In the window Create shortcut under the group **Where create shortcut** set **Desktop, Start menu** and click the button **Create shortcut**. It creates shortcuts for the job 'Sync Home and Flash' on a Desktop and in the Start menu.
- Now you can click the created shortcut in order to synchronize folders between *Home Desktop* and *Flash drive*.

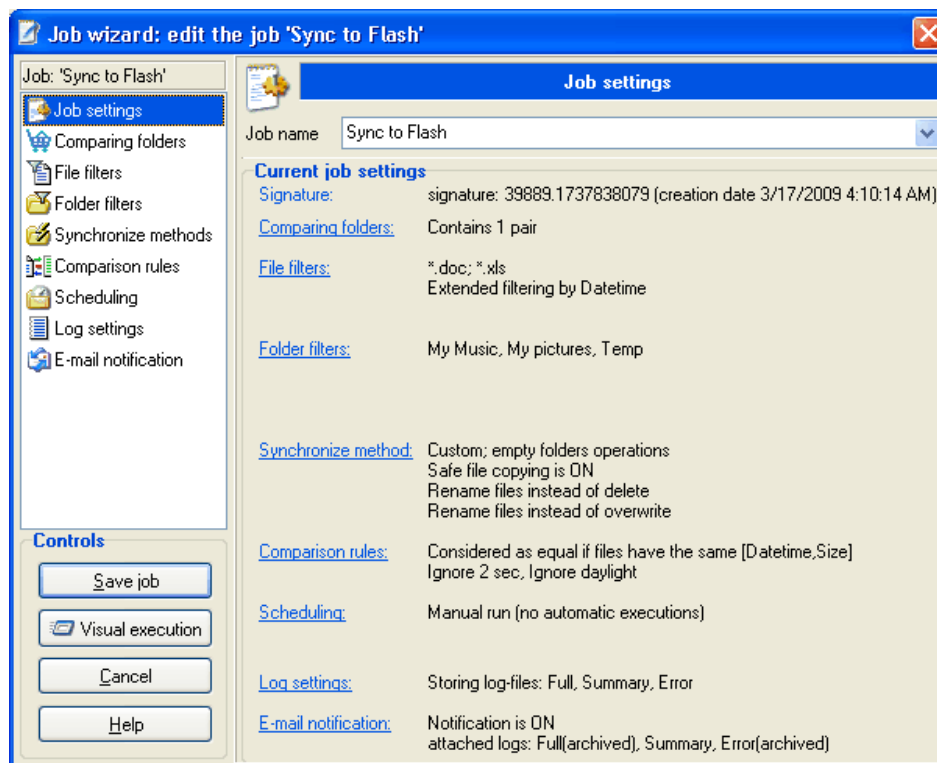
2.5 Tutorial 5: Simple way to create a Job

Job settings

Automatic Synchronizer works with data organized in Jobs. To synchronize your data, you need to create a Job defining which folders to compare, which files to copy, when to transfer them.

You can easily create a new Job with the help of Job Wizard: press **New Job** button on the program toolbar and follow the instructions of the Wizard.

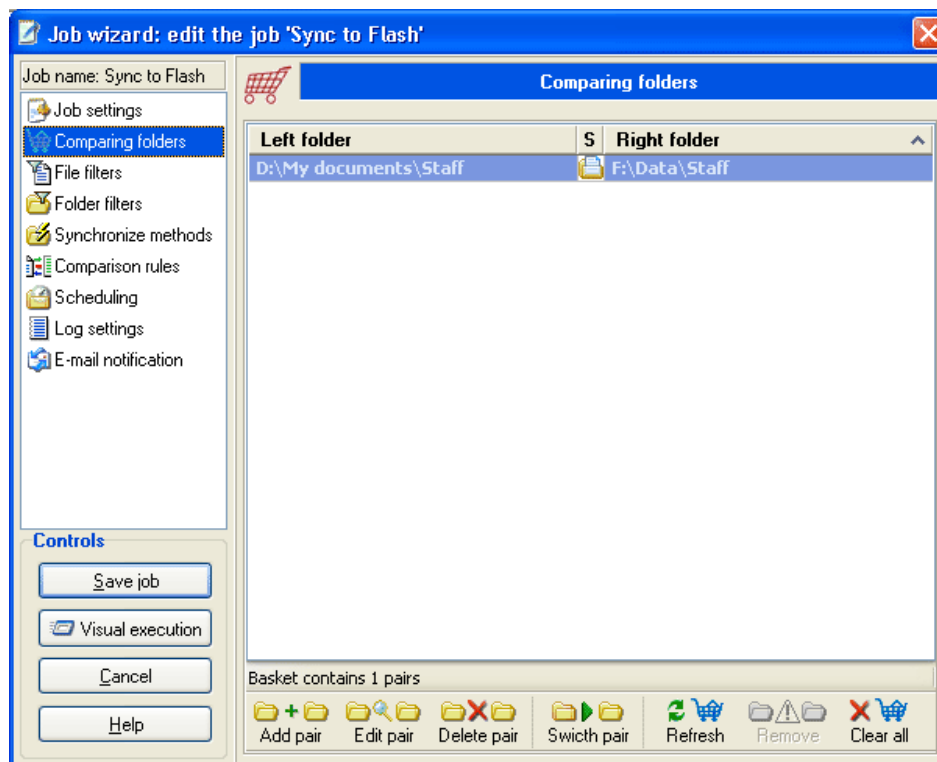
On the first step you specify a Job name in the Job settings section. A Job name must be unique. A Job name cannot contain the following characters such as: \ / : * ? " < > |.



Select folders for comparison

At this step, choose folders pairs for comparison. Add at least one folders pairs in order to create a job.

To select a folders pair, click the **Add pair** button. In the Add pair dialog you can either select a pair from existing folders or create a new one.



Set files specifications

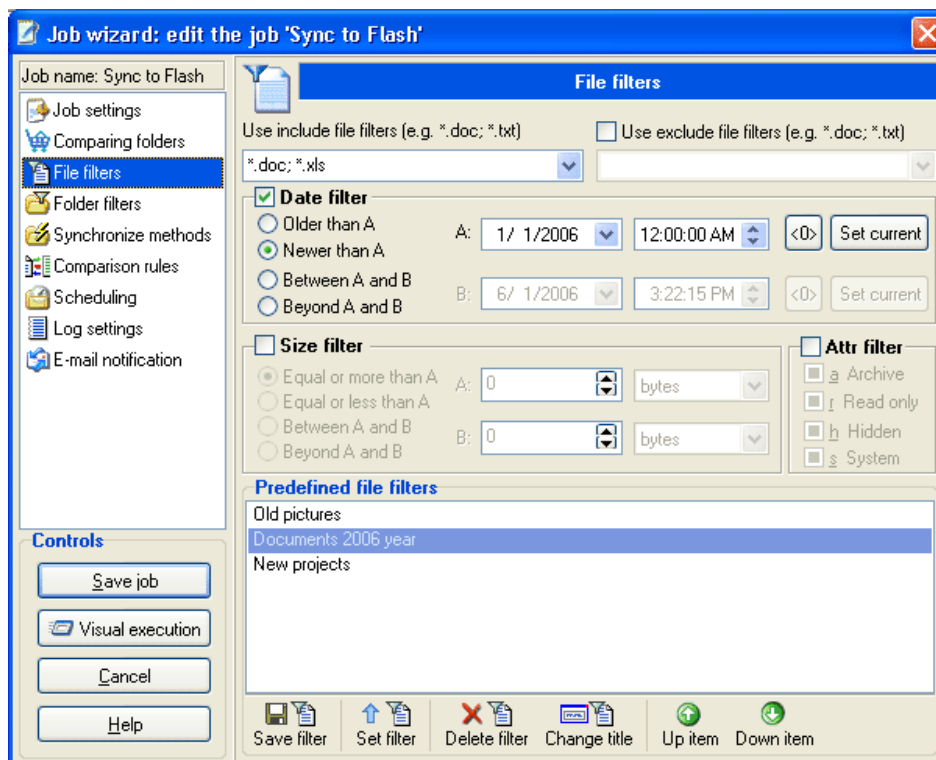
At this step, define files specifications to include or exclude files from a comparison.
You may skip this step, by default all files from compared folders will be included in a comparison.

To set a file mask to include files in a comparison, type the mask in the string **Use include file filters**. For example the mask may be: **a***. This mask includes files, which name begins with **a**.

To set a file mask to exclude files from a comparison, turn on check **Use exclude file filters** and type the mask in it. For example the mask may be: ***.html**. This mask excludes files, which name ends with **.html**.

You may use the advanced include file filter by a date, size and attributes for more accuracy.

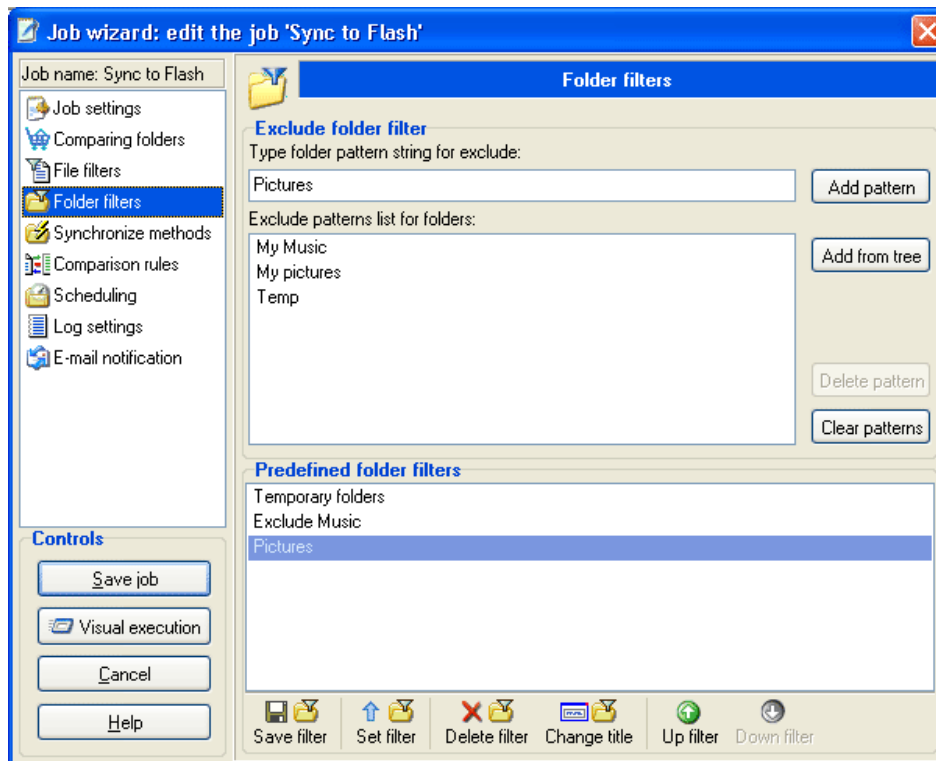
To read more information about file filters see the Job wizard: page File filters topic.



Set folder filter

At this step, you may select folders which will be excluded from a comparison. You may skip this step, by default all folders from compared pairs will be include in a comparison.

To set the folder filter, type a name of a folder in the line **Type folder pattern string for exclude** and click on the button **Add pattern**. The typed name will be added into **Exclude patterns list for folders**. A pattern string can be a combination of valid folder name characters and the asterisk (*). The asterisk is a wildcard that represents any combination of valid folder name characters.



Set synchronize method

At this step, you must set the synchronize method.

Automatic Synchronizer has several predefined methods and one custom.

Synchronization method: You can select the required synchronization method:

- **Mirror copy files from Left to Right:** the program will copy all files and empty folders from Left to Right and delete all single files and empty folders in the Right folders. So the Right folders will be made identical to the Left folders.
- **Mirror copy files from Right to Left:** the program will copy all files and empty folders from Right to Left and delete all single files and empty folders in the Left folders. So the Left folders will be made identical to the Right folders.
- **Copy files from Left to Right:** the program will copy all files and empty folders from Left to Right. So files and empty folders from the Left folders will be added/overwritten to the Right folders.
- **Copy files from Right to Left:** the program will copy all files and empty folders from Right to Left. So files and empty folders from the Right folders will be added/overwritten to the Left folders.
- **Update Left and Right (Make equal):** the program will copy NEWER, SINGLE files and empty folders from Left and Right folders to the each other. So Left and Right folders will be equal and updated with most recent files and empty folders.
- **Custom:** This method allows you to manually set operations for the file groups from the drop-down controls.

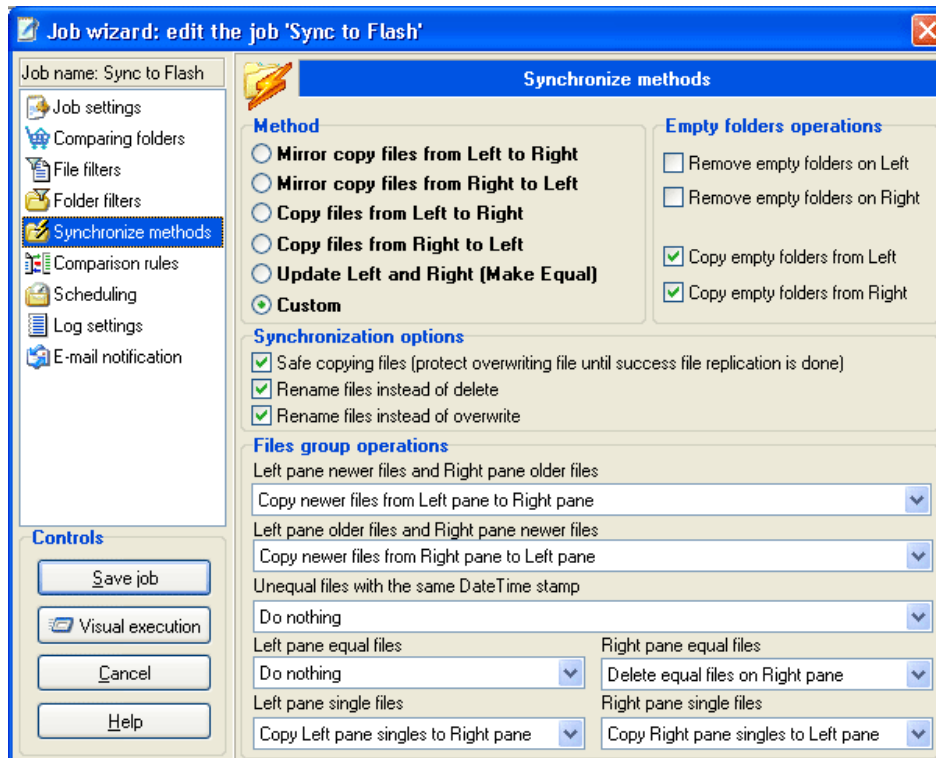
Operations for empty folders are sets automatically for each predefined synchronization method. If you want to customize operations for empty folders you must set **Custom** synchronization method.

Empty folders operations:

- **Remove empty folders on Left:** Removes empty folders on the Left pane.
- **Remove empty folders on Right:** Removes empty folders on the Right pane.
- **Copy empty folders from Left:** Copies empty folders from Left to Right pane.
- **Copy empty folders from Right:** Copies empty folders from Right to Left pane.

You must select one of the methods to have a valid job.

If you select **Custom** method you must set operations for the file groups and empty folders manually.



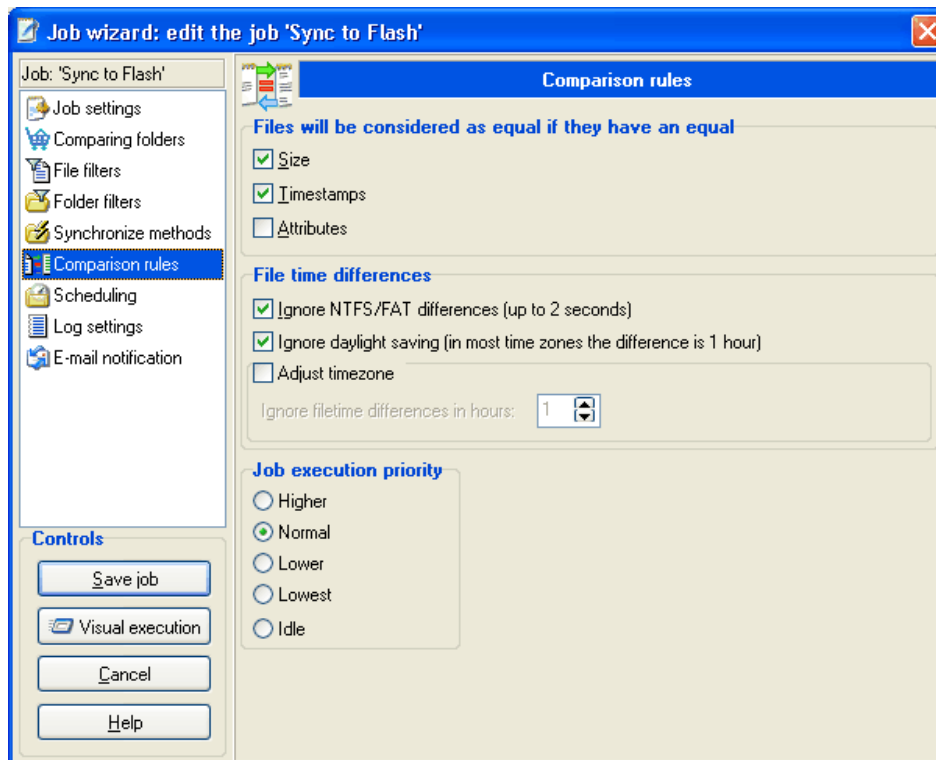
Set comparison rules

At this step, you can set the rules for a comparison.
You may skip this step at first time and set the rules later.

The rules are divided into groups:

- **the rules for considered files as equal by attributes:** use these rules if you do not want to check all file attributes in a comparison. You may turn off some fields. If you turn off all attributes, the program will compare files only by file names.
- **the rules by file time differences in operating systems and time zones:** use these rules if you work with files and transfer them between different operating systems or time zones.

To read more information about comparison rules see the Job wizard: page Comparison rules topic.

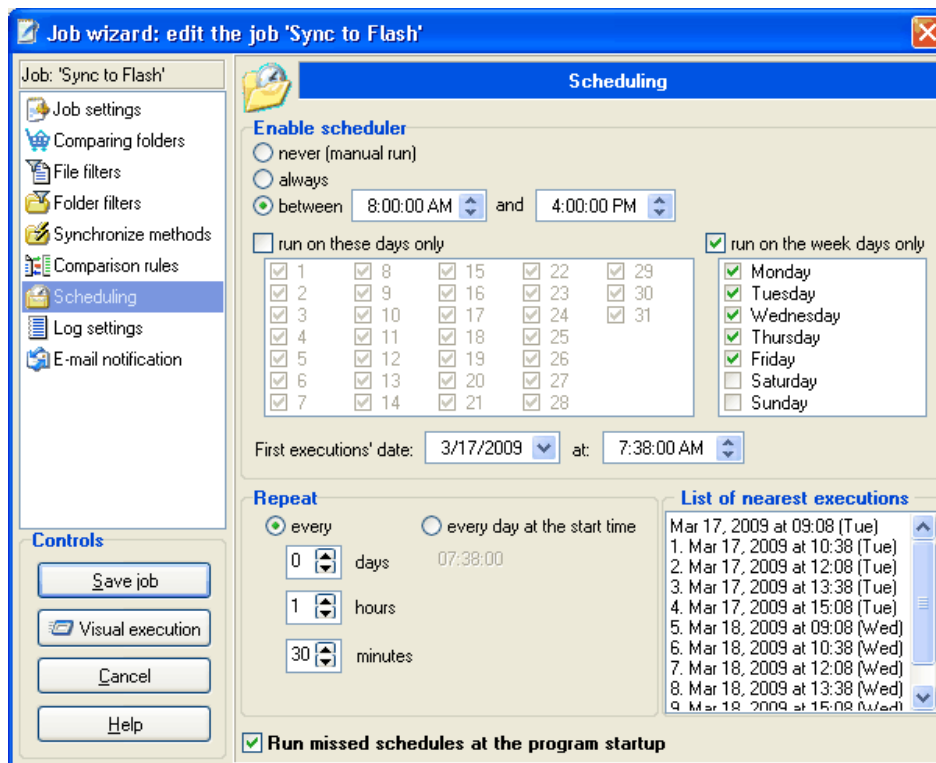


Schedule job

You can set Automatic Synchronizer to perform synchronization at any date and time automatically. To schedule a Job you must enable scheduler. Set **always** or **between** value in the **Enable scheduler** controls group.

Field	Description
Enable scheduler	The group of controls enables the job automatic executions.
Never (manual run)	Job is in manual mode, automatic executions are disabled. You can execute it manually at any convenient time.
Always	Job automatic executions are enabled all the time.
Between	Job automatic executions are enabled between the specified time.
Run on these days only	The program will execute your job on selected month days only. Select one or several days of a month.
Run on the week days only	The program will execute your job on selected week days only. Select one or several weekdays.
First executions' date	Defines date and time of the first job execution.
Repeat	The group of controls defines frequency of job automatic executions.
Every XX days	The program will execute your job every XX days at the specified time.
Every XX hours	The program will execute your job every XX hours.
Every XX minutes	The program will execute your job every XX minutes.
Every day at the start time	The program will execute your job every day at the specified time. You can set the start time in the First executions' date control.
List of nearest executions	The list of the nearest job executions. These are the real dates of execution, calculated on stated settings.
Run missed schedules at the program startup	Use this option if you need to periodically switch off your computer and some scheduled jobs can be missed. If this option is checked, the program will detect all missed (scheduled but not executed on time) items and execute them at the startup program.

You may skip this step, a job will be stored in manual mode by default. You can execute it manually at any convenient time. Select a job in the Job list, click **Execute** button in the main toolbar. You can also perform required operations either through the right-click menu in the main window.

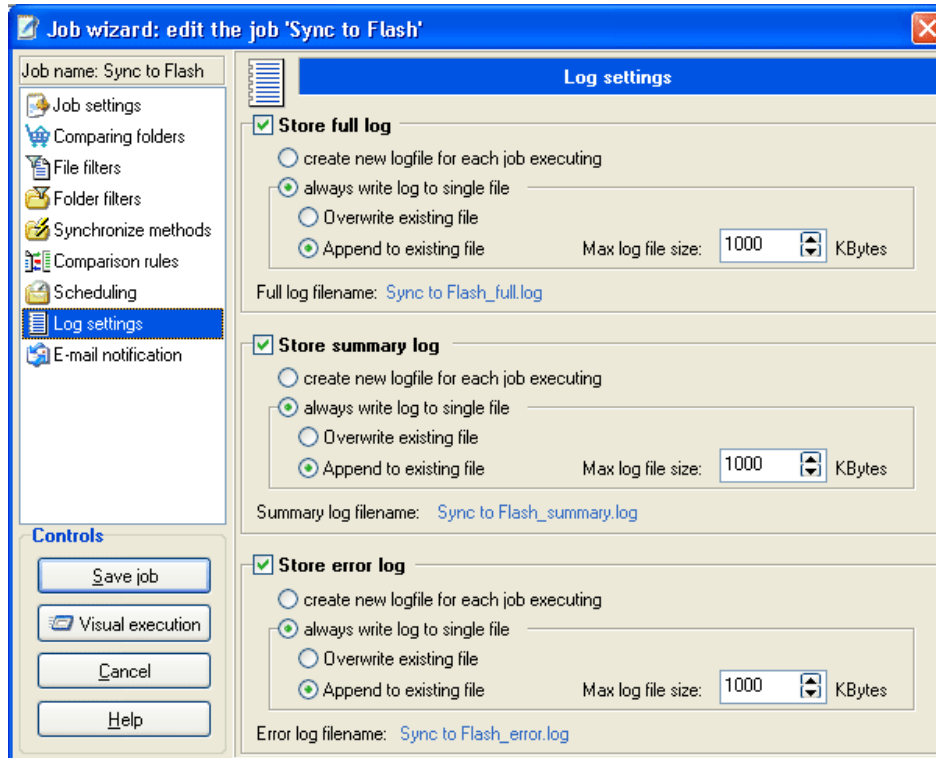


Setup log settings

At this step, you can set the log storing settings for a job.

Automatic Synchronizer can store the synchronization activity into log files: Full log, Summary log and Error log. You can select which log files will be created. To do this turn on the tick box next to necessary log file group.

You may skip this step, all log files will be created by default.



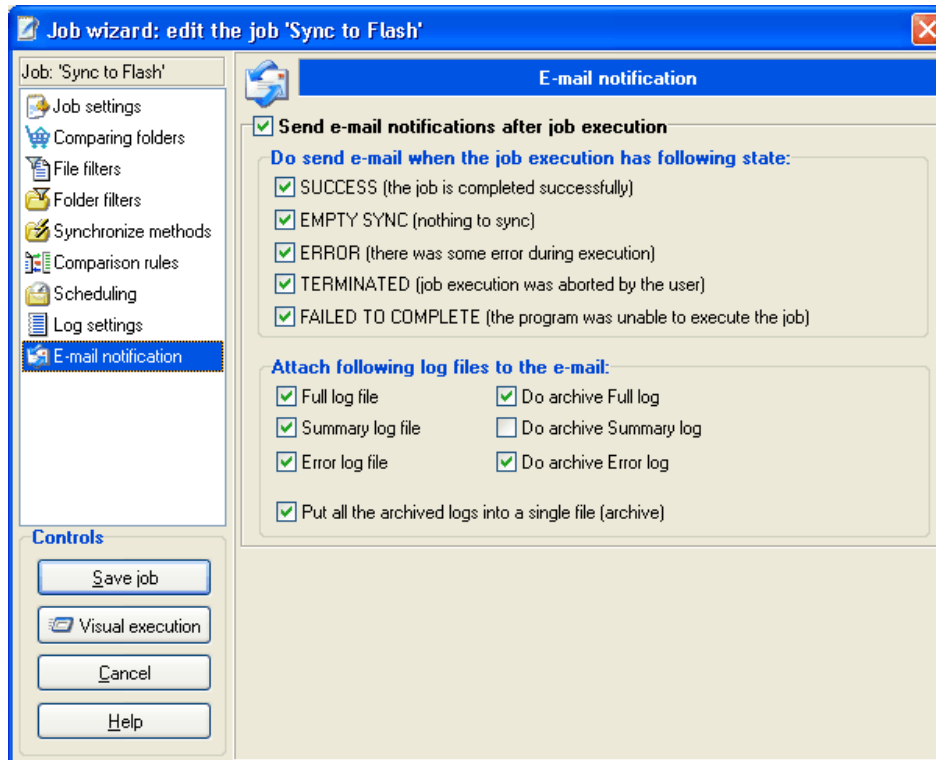
Setup e-mail notifications settings

At this step, you can set the e-mail notifications settings for a job.

Automatic Synchronizer can send e-mail to specified address after the job execution. To do this turn on the tick box **"Send e-mail notification after each job execution"**.

Important note:

- Upon defining all settings you need to go to the "E-mail notifications" page in the Job Wizard window in order to set a notification type for each job.



2.6 Tutorial 6: Run HAS as Windows service

Task:

Synchronize folders for an organizer everyday around 6 AM. The synchronization task must be executed daily even if no one is logged on interactively.

Solution:

The task is divided into 3 steps:

Step 1: Add a job to the Service manager

Step 2: Put the created job into the HAS Service

Step 3: Run the HAS Service

Important note

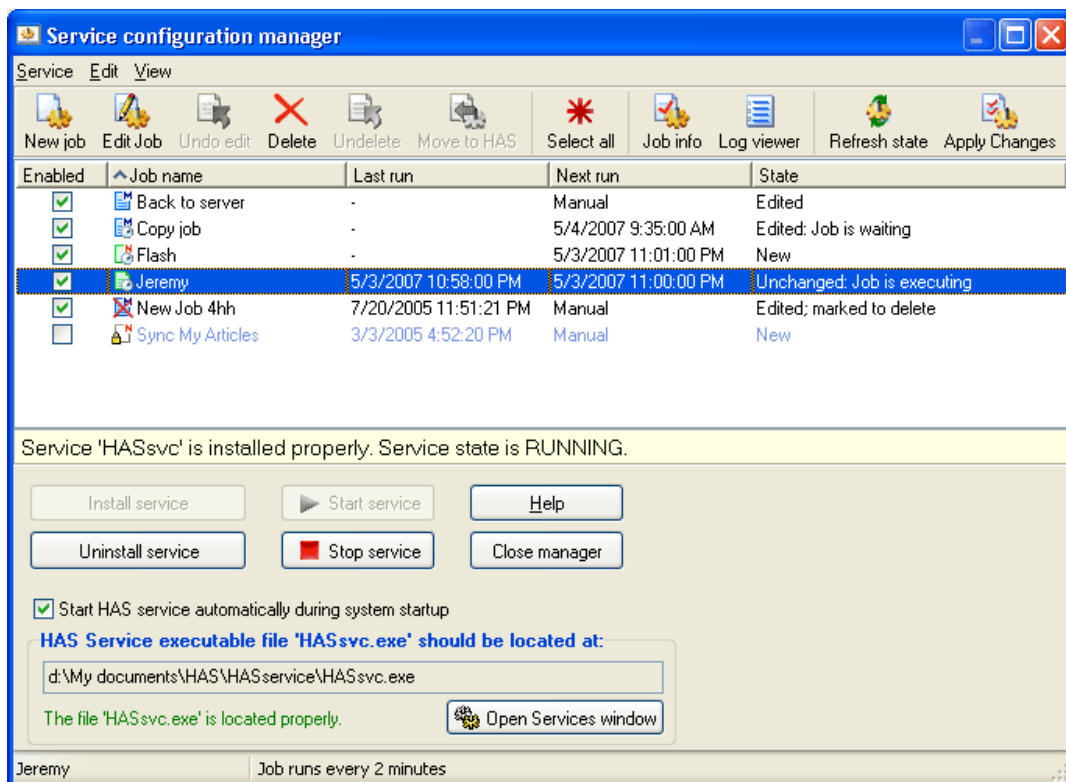
Unlimited HAS Service is available in *HAS with Service addon* only. For more details see Order section.

Step 1: Add a job to the Service manager

- Open the *Service configuration manager* window. Use the main menu item **Job|Service configuration manager** in the HAS main window.
- Create a new Job (see Tutorial 5: Creating a job quickly). Click the button **New Job** on the toolbar in the top of the window or press **Ctrl+N** shortcut. This opens the Job wizard window.
- If you have created Job in the HAS main window, you can move it to the *Service configuration manager*. Select a job in the main window and click the main menu item **Edit|Move Job to Service**.

Step 2: Put the created job into the HAS Service

- Click the button **Apply Changes** on the toolbar in the *Service configuration manager* window in order to put the created job into the HAS Service jobs list. You will see statistics of changes.



Step 3: Run the HAS Service

- You should install HAS service. For that, click the button **Install service** at the bottom of the jobs list. You can see the installed service in the **Services window** - click the button **Open Services window** and locate the '*HAS service*' in the window:
 - Select the '*HAS service*' and click right mouse button, a popup menu will appear
 - In the popup click the item **Properties**, HAS Service Properties window will be opened
 - In the window choose the sheet **Log on**
 - Check the radiobutton **This account**, and select an account which the '*HAS service*' will use to access to network resources (folders)
- Finally, start *HAS service*: click the button **Start service** at the bottom of the job list. Jobs status is reflected in the jobs list.

Notes:

- You must set a scheduler for a job in order *HAS Service* will be able to execute the job.
- You can update job settings while *HAS Service* is running.
- To see what *HAS Service* is doing click the **Log Viewer** button on the toolbar.

2.7 Tutorial 7: Notes for using Heatsoft Automatic Synchronizer

Task:

Several notes for using Heatsoft Automatic Synchronizer

Note 1: synchronizing thousands files

We recommend to construct a Job in such way what Job has less than 100,000 files for scanning/synchronizing. Greater number of files during scanning/synchronizing can exceed limit of memory Windows and Job execution would be aborted.

Note 2: schedule a Job

Try to run a Job in manual (Visual) mode several times, before setup the Job for automatic execution. You can see the **memory usage pick** of the Job execution in the Job History or Log file. If the Job execution takes much memory, you can reduce memory size used for storing the Job History in the Options.

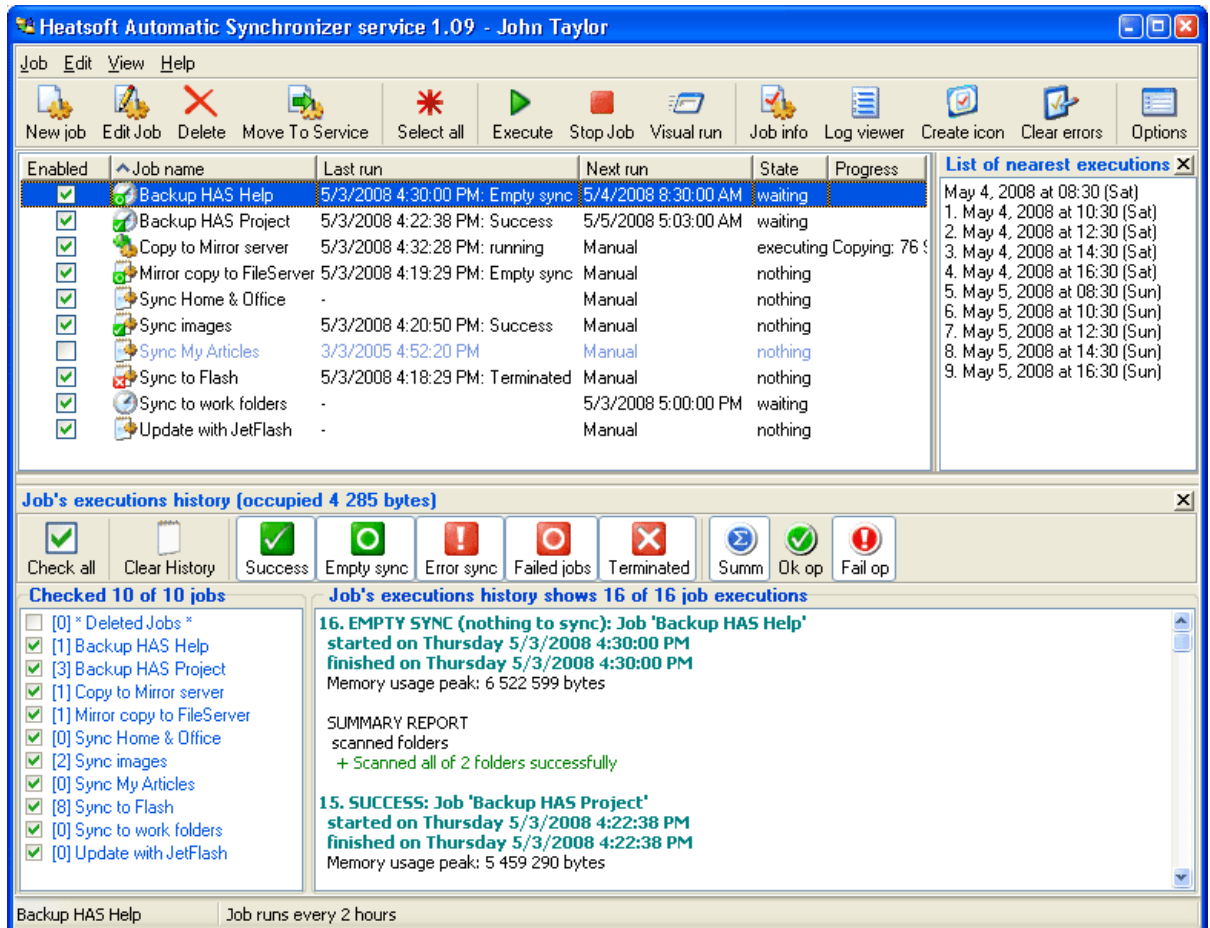
Note 3: executing several Jobs at one time

Please do not start all Jobs at one time. This can take much memory, so some Jobs could be aborted.

3 User interface

3.1 The main window

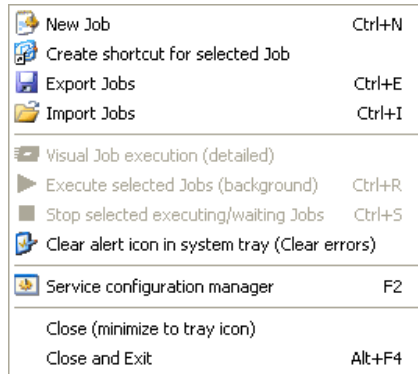
The main window contains the main menu, the toolbar, the Job list and the Job's executions history pane.



3.2 The main menu

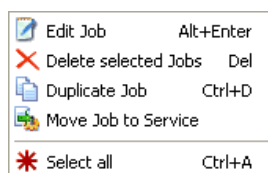
The program menu allows you to manage your jobs and user interface options.

Job menu

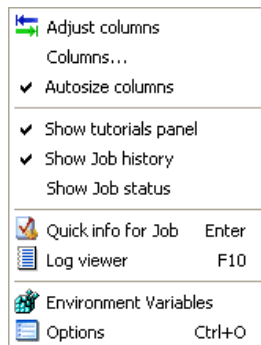


Menu item	Shortcut	Description
New Job	Ctrl+N	Opens the job wizard to create a new job.
Create a shortcut for a selected Job	None	Opens the window to create a shortcut for a selected Job.
Export Jobs	Ctrl+E	Opens the Export Jobs window to store jobs.
Import Jobs	Ctrl+I	Opens the Import Jobs window to load stored jobs into HAS.
Visual Job execution (detailed)	None	Opens the visual job executing window.
Execute selected Jobs (background)	Ctrl+R	Executes selected Jobs in the main window.
Stop selected executing/waiting Jobs	Ctrl+S	Terminates selected executing or waiting Jobs in the main window.
Clear alert icon in the system tray (Clear errors)	None	Use this item to change tray icon status from error to normal.
Service configuration manager	F2	Opens the Service configuration manager window where you can setup the HAS Service.
Close and Exit	None	Closes the program.
Close	Alt+F4	Minimizes application to the system tray icon.

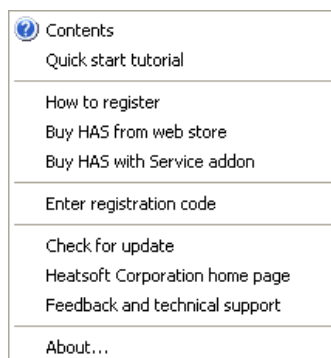
Edit menu



Menu item	Shortcut	Description
Edit Job	Alt+Enter	Opens the job wizard to edit a selected job.
Delete selected Jobs	Del	Deletes selected Jobs in the main window.
Duplicate Job	Ctrl+D	Duplicates a selected Job in the main window.
Move Job to Service	None	Move selected jobs to the Service configuration manager.
Select all	Ctrl+A	Selects or deselects all Jobs in the main window.

View menu

Menu item	Shortcut	Description
Adjust columns	None	Makes equal column widths in the main window.
Columns...	None	Opens the Job columns window for customize columns in the Job list.
Show tutorials panel	None	Hides/Shows the quick start tutorials panel in the main window.
Show Job history	None	Hides/Shows the Job executions history panel in the main window.
Show Job status	None	Hides/Shows the Job status panel in the Job list.
Quick info for Job	Enter	Opens the quick info window for a selected job.
Log viewer	F10	Shows the log viewer window.
Environment variables	None	Shows the Environment variables window.
Options	Ctrl+O	Shows the options window.

Help menu

Menu item	Shortcut	Description
Contents	None	Shows HAS help topics.
Quick start tutorial	None	Shows HAS quick start tutorial help.
How to register	None	Shows the order help topic.
Buy HAS from web store	None	Opens the window to buy from web store, needs internet connection.
Enter registration code	None	Opens the window to type your registration code.
Check for update	None	Directs you to Heatsoft Corporation web site to check for a new version of HAS.
Heatsoft Corporation home page	None	Directs you to Heatsoft Corporation web site.
Feedback and technical support	None	Directs you to Heatsoft Corporation web site to the support page.
About	None	Provides information about a current version of HAS.

3.3 The main toolbar

HAS main toolbar provides quick access to frequently used operations and commands. Most toolbar operations are duplicated in the drop-down menus.















The toolbar consists of a number of buttons identified by icons and captions. If you leave the mouse cursor on a button for a moment a small window with a description will appear.



Notes:











- To activate a command, click on the corresponding button with the primary mouse button.
- To get a short description of the function of each button, rest the mouse cursor over the button.
- To customize Main toolbar, right click on the toolbar and select item Customize toolbar. This opens the window which allows you to add or remove buttons from the toolbar.

The **Main toolbar** can contains the following buttons:

Button	Shortcut	Description
	New job	CTRL+N Opens Job wizard to create a new Job.
	Edit job	Alt+Enter Opens Job wizard to edit a selected Job. If a selected job state is either waiting or executing you'll be asked to abort it for editing.
	Delete	Del Deletes selected jobs from the Job list.
	Move to service	None Move selected jobs to the Service configuration manager.
	Select all	CTRL+A Selects/deselects all jobs in the Job list.
	Service config	F2 Opens the Service configuration manager window where you can setup the HAS Service.
	Execute	Ctrl+R Manual start of selected jobs. All selected jobs will start simultaneously.
	Stop Job	CTRL+S Stops execution/waiting of selected jobs.
	Visual run	None Opens the Visual run window where you can execute a selected job step by step.
	Job info	Enter Shows detailed properties of a selected job in the Quick info window.
	Log viewer	F10 Allows to view stored log files in the Log viewer window.
	Create icon	None Opens the Create shortcut window. The window allows you to place job shortcut on a Desktop for a fast executing job.
	Clear errors	None Use this button to change tray icon status from error to normal.
	Options	CTRL+O Shows the options window.

3.4 Job list

The Job list displays jobs which you can execute. Fields of the Job list allow you to view the state of each job. You can left-click on the top of the column to sort by a specified field. You can right-click on the Job list to display a menu of commands appropriate to the object.

Enabled	Job name	Last run	Next run	State	Progress
<input checked="" type="checkbox"/>	 Backup HAS help	08.12.2006 16:42:42: Empty sync	Manual	nothing	
<input checked="" type="checkbox"/>	 Backup HAS project	08.12.2006 16:43:52: Success	Manual	nothing	
<input checked="" type="checkbox"/>	 Copy to Mirror server	08.11.2006 17:06:00: Failed	08.11.2006 17:07:00	waiting	
<input checked="" type="checkbox"/>	 Mirror copy to FileServer	08.11.2006 17:06:00: Success	08.11.2006 17:07:00	waiting	
<input checked="" type="checkbox"/>	 Sync Home & Office	08.11.2006 16:57:08: Terminated	Manual	nothing	
<input checked="" type="checkbox"/>	 Sync images	08.12.2006 16:33:27: Success	Manual	nothing	
<input checked="" type="checkbox"/>	 Sync My Articles	08.11.2006 17:06:48: running	Manual	executing	Copying: 61 969 of 94 751 Kb
<input type="checkbox"/>	 Sync to JetFlash	-	Manual	nothing	
<input type="checkbox"/>	 Sync to work folders	-	Manual	nothing	
<input type="checkbox"/>	 Update with JetFlash	-	Manual	nothing	

To change the columns displayed in the Job list:














- On the View menu, click Columns.
- Right-click on the top of the column, choose Columns item.
- Click the button **Job list columns...** in the general settings window.

You can also re-order the Jobs by clicking headings such as **Job name**, **Last run**, **Next run** or **State**. Click the column heading to re-order the jobs by that column. For example, when you click the **Job name** column, jobs are sorted alphabetically by the job name.

To change the order of the columns, point to a column heading (**Job name**, **Last run**, **Next run** or **State**), and then drag the column to the left or right until it's located where you want it.

Column	Description
Job name	Column displays a unique name of a job.
Last run	Column displays a date when a job was started and result of last job execution.
Next run	Column displays a date when a job should start next time.
State	Column displays a job state.
Progress	Column displays progress of synchronization.

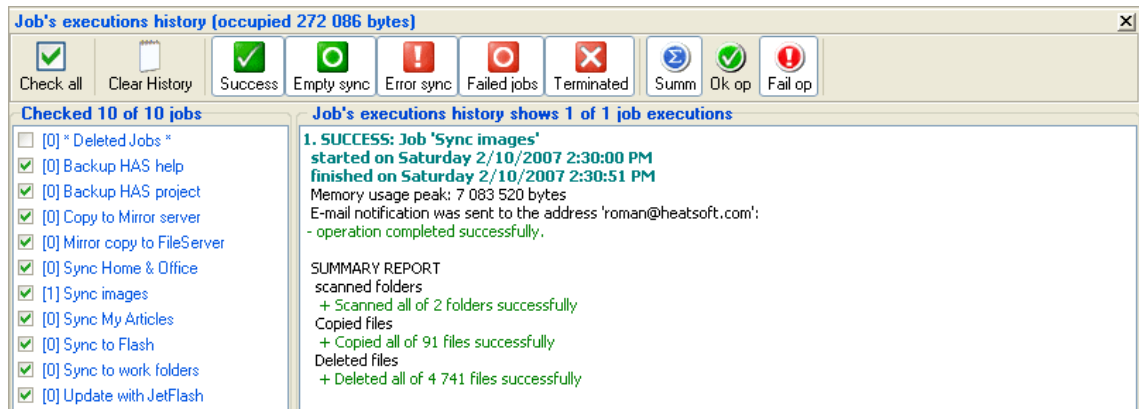
Job can be in one of three following states:


Symbol	State	Description
	Waiting	Job is in automatic mode and it was not executed. Job waits Next Run time and starts when current time will be equal or greater than Next Run time.
	Nothing	Job is in manual mode and it was not executed. You may execute the job at any time you wish.
	Executing	Job performs a synchronization.
	Nothing: Success	Job is in manual mode and the last execution has been completed successfully.
	Nothing: Empty sync	Job is in manual mode and the last execution has been completed without synchronization.
	Nothing: Error	Job is in manual mode and the last execution has been completed with an error.
	Nothing: Failed	Job is in manual mode and it was unable to execute.
	Nothing: Terminated	Job is in manual mode and the last execution has been terminated.
	Waiting: Success	Job is in automatic mode and the last execution has been completed successfully.
	Waiting: Empty sync	Job is in automatic mode and the last execution has been completed without synchronization.
	Waiting: Error	Job is in automatic mode and the last execution has been completed with an error.
	Waiting: Failed	Job is in automatic mode and it was unable to execute.
	Waiting: Terminated	Job is in automatic mode and the last execution has been terminated.

3.5 Jobs executions history

The Job's executions history shows events occurred during synchronization. The history pane contains the toolbar, the **Checked Jobs list** and the text pane. The text pane displays messages related only to the checked jobs. You can right-click on the Job history to display a menu of commands appropriate to the object.

Checked Jobs list allows you to manage Jobs executions displayed in the text pane. Jobs executions will be displayed only for Jobs checked in the list. Check **Deleted Jobs** to see executions for Jobs which were removed. A number next to the Job name means quantity of executions for this job.



Different colors denote different types of history messages as defined in Job History Settings. If you wish you can customize fonts and colors for all kinds of events with the help of the **Job History Settings** item  from the Context menu.











The Job history toolbar allows you to manage information about jobs executions in the text pane. The hint contains a text string that appears when you move the mouse pointer over a button.



Notes:

- To activate a command, click on the corresponding button with the primary mouse button.
- To get a short description of the function of each button, rest the mouse cursor over the button.
- To customize History toolbar, right click on the toolbar and select item Customize toolbar. This opens the window which allows you to add or remove buttons from the toolbar.

The **History toolbar** can contains the following buttons:

Button	Description
	Turn on/off tick boxes for all jobs in the job history list.
	Deletes information from the Job history.
	Shows successful jobs executed. This executions were completed successful without any errors.
	Shows jobs executions without data synchronization because comparison folders are empty.
	Shows jobs executions with an error. During this executions some errors like "not enough space", "access denied" were occurred.
	Shows jobs executions which were failed. This Jobs can not be executed because comparison folders not exists, or exceeded windows memory limit.
	Shows jobs executions which were terminated. The executions of this Jobs were stoped by user.
	Shows summary report (statistics) for each job execution.
	Shows all success operations (creating, removing folders and copied, deleted files).
	Shows all filed operations (creating, removing folders and copied, deleted files with errors).

3.6 Job wizard

A job has some settings which define job behavior during execution. Job Wizard allows you to create a job or customize job settings. Job Wizard contains several pages. Each page has specific settings that enable you to control your job execution.

There are eight pages:

Job Wizard page	Description
Job settings	Represents current job settings in a short form. On the page you can change a job name.
Comparing folders	Contains pairs of folders which will be compared.
File filters	File filters specify files which will be involved in comparison/synchronization. There are a filespec, a datetime, a size and attributes filters.
Folder filters	Folder filters define what folders to exclude from a comparison.
Synchronize methods	Allows you to specify how to perform a synchronization. There are predefined methods such as Mirror copy, Update, Copy.
Comparison rules	Contains comparison rules. Defines what files are equal.
Scheduling	Allows you to set up HAS scheduler for an editing job. Defines how often the job must be executed in automatic mode.
Log settings	Allows you to set up a storing of synchronization activity. There are three types of log files: full, summary, and error.
E-mail notifications	Allows you to set up the Notifications to inform you by e-mail about Job execution results.

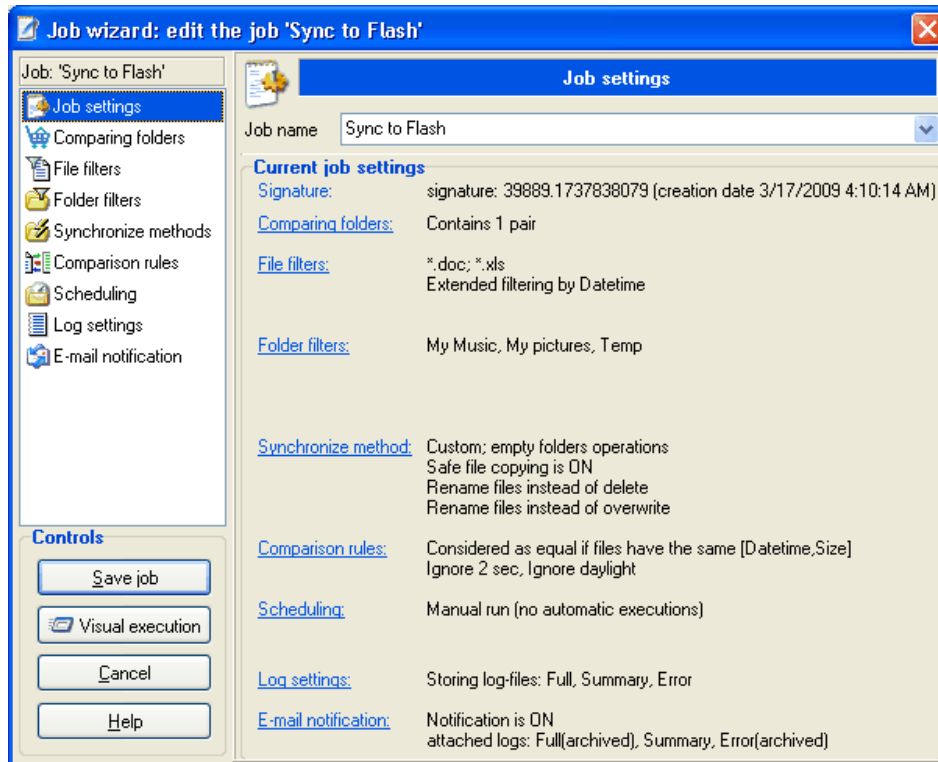
Job is a set of comparing folders and operations over them. For detailed customization you can set comparison rules for each job. Job can be executed in automatic mode or manual mode. All the Job operations can be stored into a log file.

Created Job can be executed in visual mode. This mode allows to control all the execution step by step.

Job settings

Job settings display the current job settings in a short form. In the page you see information about comparing folders, file filters, folder filters, defined synchronization method, comparison rules for files, Job scheduling and log file settings. When you see all settings, you can fast forward to the desired page for editing. To do that, click on the highlighted link on the page.

You can set/edit a Job name on the page.

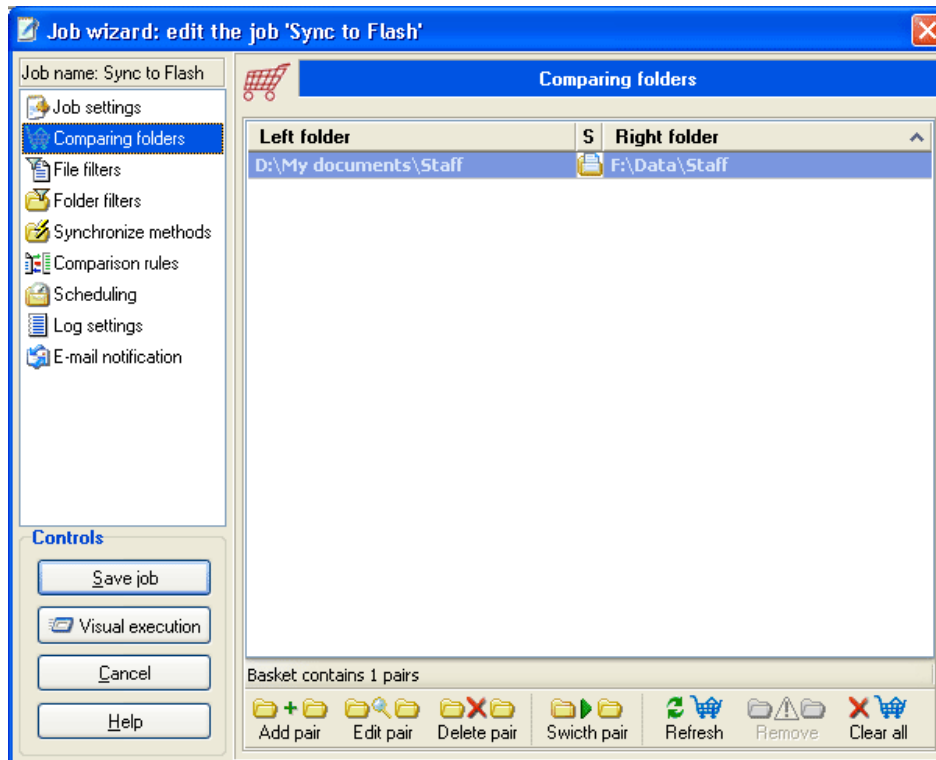


Notes:

- Job name must be unique.
- Don't use symbols such as \ / : * ? " < > | in a Job name.



Comparing folders

On the page Comparing folders you can set/edit folder pairs for comparison.



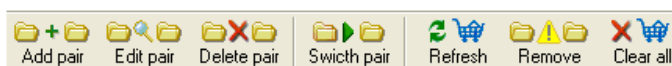
Comparing folders is a folder pair which is displayed in the table.










An image between folder paths shows how the folder will be compared with or without their subfolders:

- This image  presents comparing with subfolders.
- This image  presents comparing without subfolders.

You can sort pairs by a name and by a path. Click on the top of table column to view the sort menu.

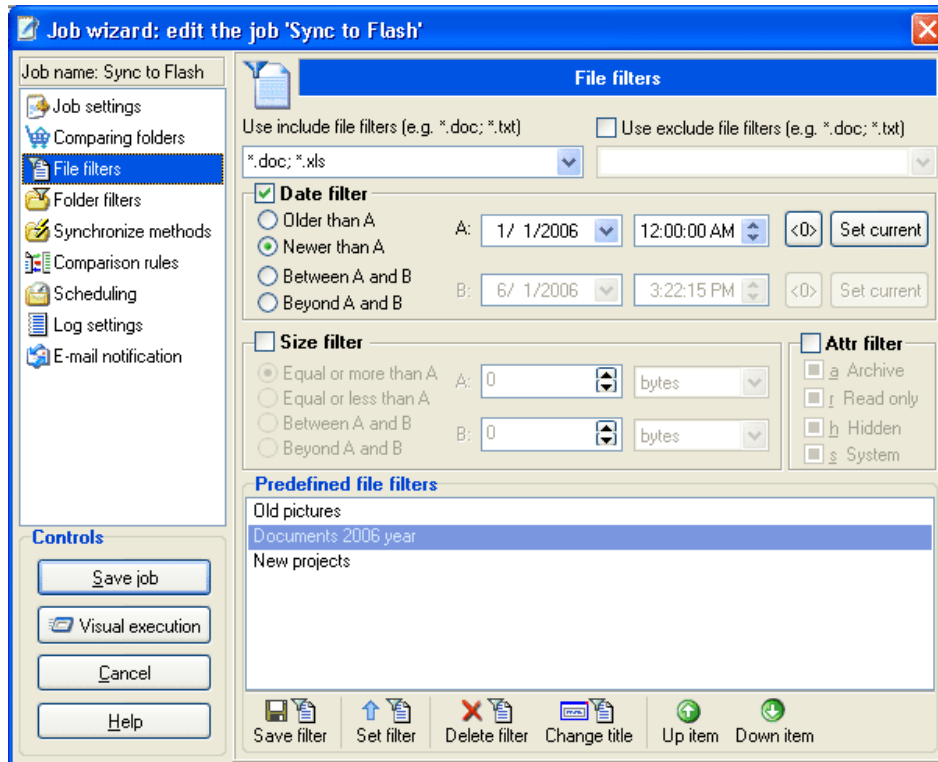
Use the toolbar for the pair management:



Button	Shortcut	Description
	Ins	Adds a pair to the comparing folders list. Opens the Add/Edit a pair window.
	Enter	Edits a selected pair. Opens the Add/Edit a pair window with selection of editing folders.
	Del	Deletes a selected pair from the comparing folders list.
	None	Switches a type of comparison for a selected pair:  <u>with</u> subfolders or  <u>without</u> subfolders.
	None	Checks folder pairs: if a folder from a pair doesn't exist the pair will be shadowed.
	None	Deletes invalid pairs.
	None	Clears the comparing folders list.

File filters

On the page you can exclude files from a comparison/synchronization. File filter is actual for all of the folder pairs. You can filter files by a name mask(filespec), by a modified date, by a size and by attributes.



Filtering by a name mask (filespec)

If you want to include files with only a specific name, simply type a file mask in **Use include file filters** line. For example, the mask ***books*** limits the files involved into comparison to files which have the word *books* in their name.

If you want to exclude some files with a specific name you need:

- set check **Use exclude file filters**
- type a name mask in the **Use exclude file filters** line.
For example, the mask ***Finance*** excludes all the files which have in their name the word *Finance*.

You can use **include** and **exclude** file name masks together. For example, **include** mask ***books***, and **exclude** mask ***Finance*** and it allows you involve in comparison only files which have the word *books*, but do not contain the word *Finance* in their name.

File mask (filespec) can contain special symbols:

Symbol	Description
*	In file name of this place can be any number of any characters.
?	In file name of this place should be a single character.
;	This symbol separates filter parts.

For example, there are three files in the comparing folders: **air.exe**, **air.com**, **water.exe**.

Operation Task		Implementation Files in the table	
AND	File name must begin with the letter "A" AND must end with the letter "E"	Include: a*e	air.exe
OR	File name must begin with the letter "A" OR must end with the letter "E"	Include: a*; *e	air.com, water.exe
NOT	File name should NOT begin with the letter "A"	Exclude: a*	water.exe
Ex #1	Shows all files which have names length of seven characters	Include: ???????	air.exe, air.com
Ex #2	Shows all files which names end with the "EXE" but do NOT begin with the letter "A"	Include: *exe Exclude: a*	water.exe

Filters rules:

- Filter can contain any numbers of filters parts. Filters parts separated by ";".
- Filters parts concatenated by OR.
- Filters part "*" It means including all files. It doesn't matter, it contains a file "." or not.
- Any numbers of "*" or any numbers of spaces will be considered as "*.*".
- Exclude filter like "*.*" shows all files.
- File name like readme.txt contains a dot, but this dot doesn't appear in the preview table. The filter like readme?txt shows file readme.txt and doesn't show the file readme1.txt.

Filtering by a modified date, size, and attributes







To use the filter you must set an appropriate check on a Date filter, a Size filter or a Attr filter and set filter parameters. These parameters are described in the table below.

Field	Description
<u>Date filter</u>	<u>This group allows to filter out files by the last modified file date.</u>
Older than A	This field allows to specify a file date range for filtering. The file date range filter makes visible those files which the last modified date is older than the given date range.
Newer than A	This field allows to specify a file date range for filtering. The file date range filter makes visible those files which the last modified date is newer than the given date range.
Between A and B	These two fields allow to specify a file date range for filtering. The file date range filter makes visible those files which the last modified date is between the given date range.
Beyond A and B	These two fields allow to specify a file date range for filtering. The file date range filter makes visible those files which the last modified date is beyond the given date range.
Set current	Sets time to zero (00:00:00). Inserts the current date and time.
<u>Size filter</u>	<u>This group allows to filter out files by a file size.</u>
More than A	This field allows to specify a file size range for filtering. The file size range filter makes visible those files which sizes are more than the given size range.
Less than A	This field allows to specify a file size range for filtering. The file size range filter makes visible those files which sizes are less than the given size range.
Between A and B	These two fields allow to specify a file size range for filtering. The file size range filter makes visible those files which sizes are between the given size range.
Beyond A and B	These two fields allow to specify a file size range for filtering. The file size range filter makes visible those files which sizes are beyond the given size range.
<u>Attr filter</u>	<u>This group allows to filter out files by file attributes.</u>

User interface

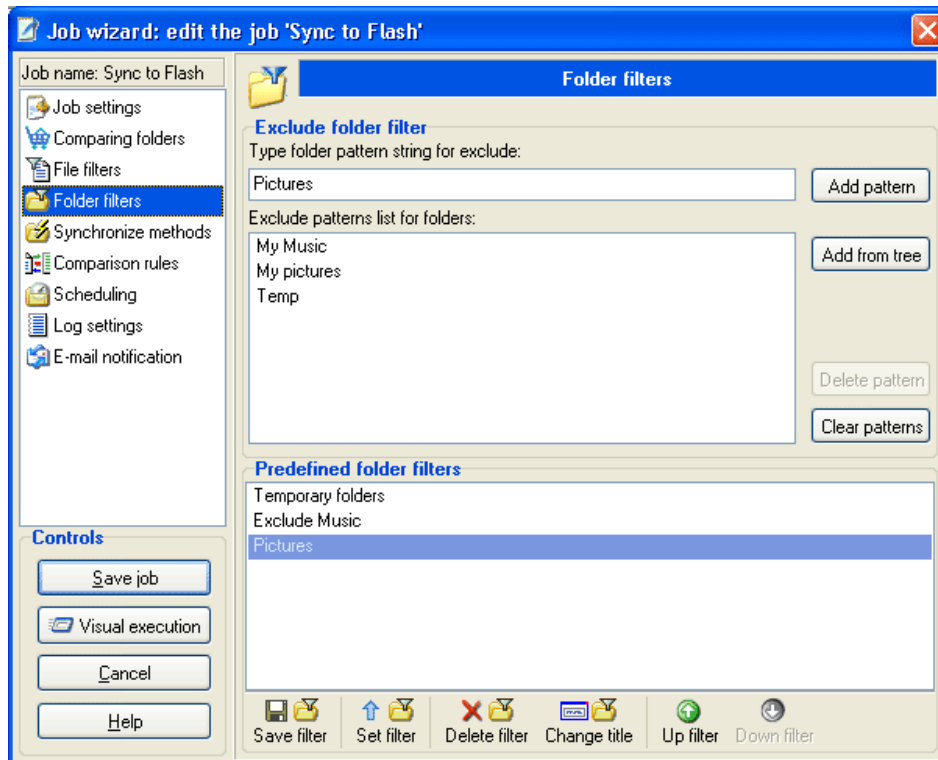
You can save the whole file filter as predefined in order to use it for other jobs. To save the file filter click the button **Save filter** on the toolbar.



Button	Shortcut	Description
 Save filter	None	Saves the current filter as predefined in the Save file filter window.
 Set filter	None	Sets the predefined file filter and fill fields with values of the predefined file filter.
 Delete filter	None	Deletes the selected predefined file filter from the list.
 Change title	None	Changes caption of the selected predefined file filter in the Rename file filter window.
 Up item	None	Moves selection in the predefined file filter list to one item up.
 Down item	None	Moves selection in the predefined file filter list to one item down.

Folder filters

On the page you can exclude folders from a comparison. The folder filter is actual for all of the folder pairs. Folder filter consists of the list folder names you do want to exclude from a comparison.



You can type folder patterns or select the pattern names from a tree. Type the folder name in the line **Type folder pattern string for exclude** and click on the button **Add pattern** to add the typed folder name. The typed name will be added into **Exclude patterns list for folders**. A pattern string can be a combination of valid folder name characters and the asterisk (*). The asterisk is a wildcard that represents any combination of valid folder name characters.

To add pattern names from a tree click the button **Add from tree**. You can select folders names in the Getting folder names window.

You can manage the folder patterns in **Exclude patterns list for folders** with following buttons:

Button	Description
Add pattern	Adds the typed folder pattern.
Add from tree	Adds the folder patterns from the tree.
Delete pattern	Deletes the selected folder pattern.
Clear patterns	Deletes all the folders patterns in the list.

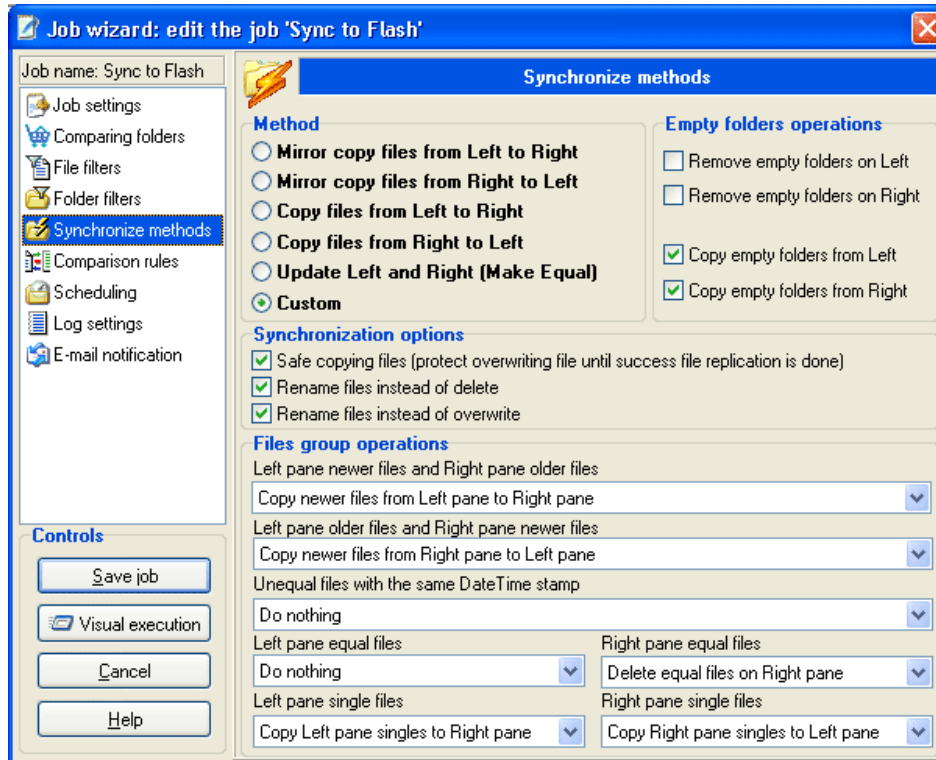
You can save the folder filter as predefined in order to use it for other jobs. To save the file filter click the button **Save filter** on the toolbar.



Button	Shortcut	Description
	None	Saves the current filter as the predefined folder filter in the Save folder filter window.
	None	Sets the predefined folder filter and fills fields with values of the predefined folder filter.
	None	Deletes the selected predefined file filter from the list.
	None	Changes caption of the selected predefined file filter in the Rename folder filter window.

Synchronize methods

Synchronization method is a set of operations which HAS takes over the compared folder pairs during synchronization. On the page you can choose synchronization predefined method or customize your own method.



There are five predefined methods and one custom:

Method	Description
Mirror copy files from Left to Right	Copies all files and empty folders from Left to Right and delete all single files and empty folders in the Right folders. So the Right folders will be made identical to the Left folders.
Mirror copy files from Right to Left	Copies all files and empty folders from Right to Left and delete all single files and empty folders in the Left folders. So the Left folders will be made identical to the Right folders.
Copy files from Left to Right	Copies all files and empty folders from Left to Right. So files and empty folders from the Left folders will be added/overwritten to the Right folders.
Copy files from Right to Left	Copies all files and empty folders from Right to Left. So files and empty folders from the Right folders will be added/overwritten to the Left folders.
Update Left and Right (Make equal)	Copies NEWER, SINGLE files and empty folders from Left and Right folders to the each other. So Left and Right folders will be equal and updated with most recent files and empty folders.
Custom	This method allows you to manually set operations for file groups from the drop-down controls. Operations for empty folders will be enabled when you select this method.

Safe copying files (protect overwriting file until success file replication is done) - turn on this tick box to protect overwriting file. When this tick box is on HAS will copy a file to a temporary file, and when file replication is successfully done HAS will overwrite old file with new one.

Rename files instead of delete - turn on this tick box to protect deleting file. When this tick box is on HAS will rename a file instead of delete it. For example, HAS does create the file **My thesis.doc.(May 16, 2008 at 13-41-57).del** instead of delete **My thesis.doc**.

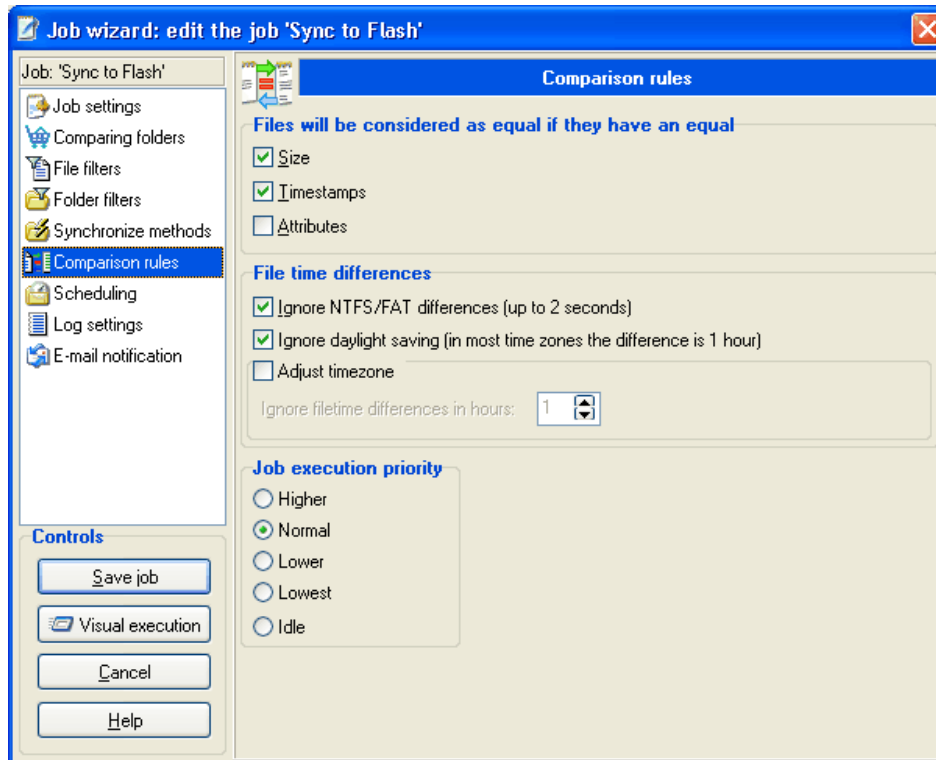
Rename files instead of overwrite - turn on this tick box to protect overwriting file. When this tick box is on HAS will rename a file instead of overwrite it. For example, HAS does create the file **My thesis.doc.(May 16, 2008 at 13-41-57).owr** instead of overwrite **My thesis.doc**.

Operations for empty folders are sets automatically for each predefined synchronization method. If you want to customize operations for empty folders, set custom synchronization method.

Empty folders operations	Description
Remove empty folders on Left	Removes empty folders on the Left pane.
Remove empty folders on Right	Removes empty folders on the Right pane.
Copy empty folders from Left	Copies empty folders from Left to Right pane.
Copy empty folders from Right	Copies empty folders from Right to Left pane.

Comparison rules

Comparison rules define how duplicate files will be compared. On the page you can set up when the duplicates will be considered as equal.



The following options let you specify what comparison criteria is used to consider files as equal:

Option	Description
Size	Duplicates being considered as equal if files have an equal size.
Timestamp	Duplicates being considered as equal if files have an equal date and time.
Attribute	Duplicates being considered as equal if files have an equal attribute. File attributes can differ in some OS, for example in Windows 2000 and Windows 98.
Ignore NTFS/FAT differences (up to 2 seconds)	The DOS FAT system stores file timestamps to the nearest 2 seconds only, while NTFS and HPFS can represent timestamps to the nearest 100 nanoseconds. Copying across a network, between file systems, can result in files with slightly different timestamps. If this option is checked, those files would be treated as if they had the same times. This option is useful for comparing directories between computers with different file systems.
Ignore daylight saving (usually 1 hour)	The DOS FAT file times are not adjusted for Daylight Saving Time (DST), whereas NTFS entries are. When NT family automatically adjusts for DST, the date/time stamp of files on NTFS volumes appear to be shifted by one hour, even if the files were last changed prior to the DST adjustment. This adjusted time is then displayed in all operations which report local time (that is, NT Explorer, File Manager, directory listings, and so on). When files are copied from an NTFS drive to a FAT drive before the time change, the times can differ by an hour, but the files remain the same. If this options is checked, those files would be treated as if they had the same times. This option is useful for comparing directories between computers with different file systems.
Adjust timezone	Sets filetime differences in hours. It is available if the Adjust timezone is checked.
Ignore filetime differences in hours	

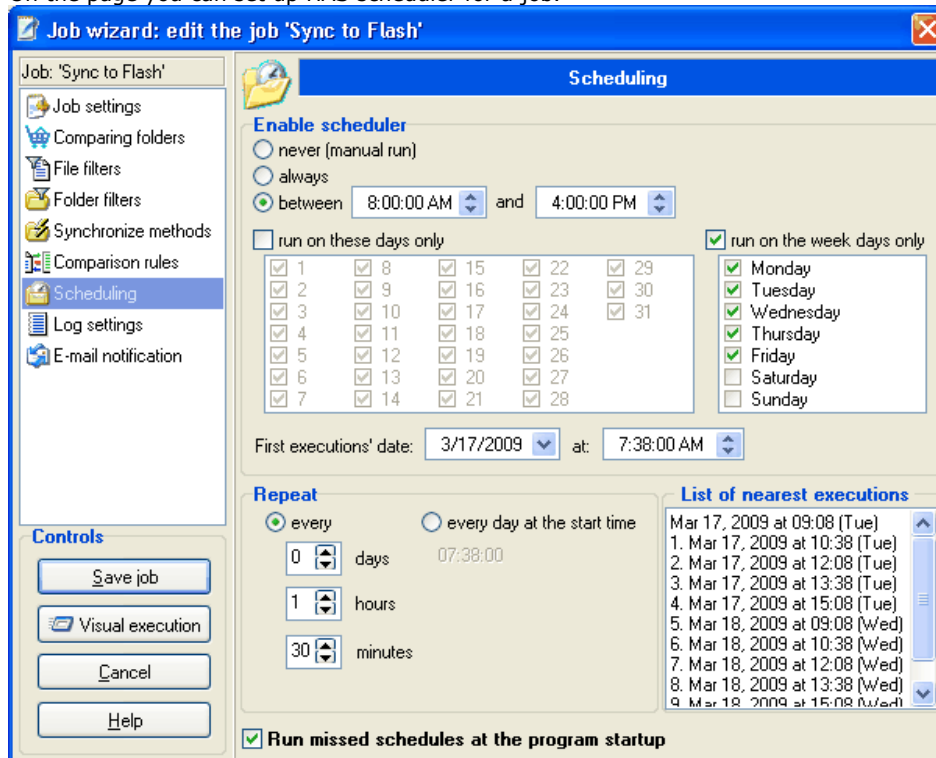
Scheduling

With scheduler, you can schedule a Job to run at a time that is most convenient for you. HAS starts each time you start Windows and runs in the background. Turn on the check **Launch HAS on Windows start up** in the Options general. (Checked by default).

With scheduler, you can also:

- Schedule a job to run daily, weekly, monthly, or at certain times.
- Change the schedule for a job.
- Stop a scheduled job.

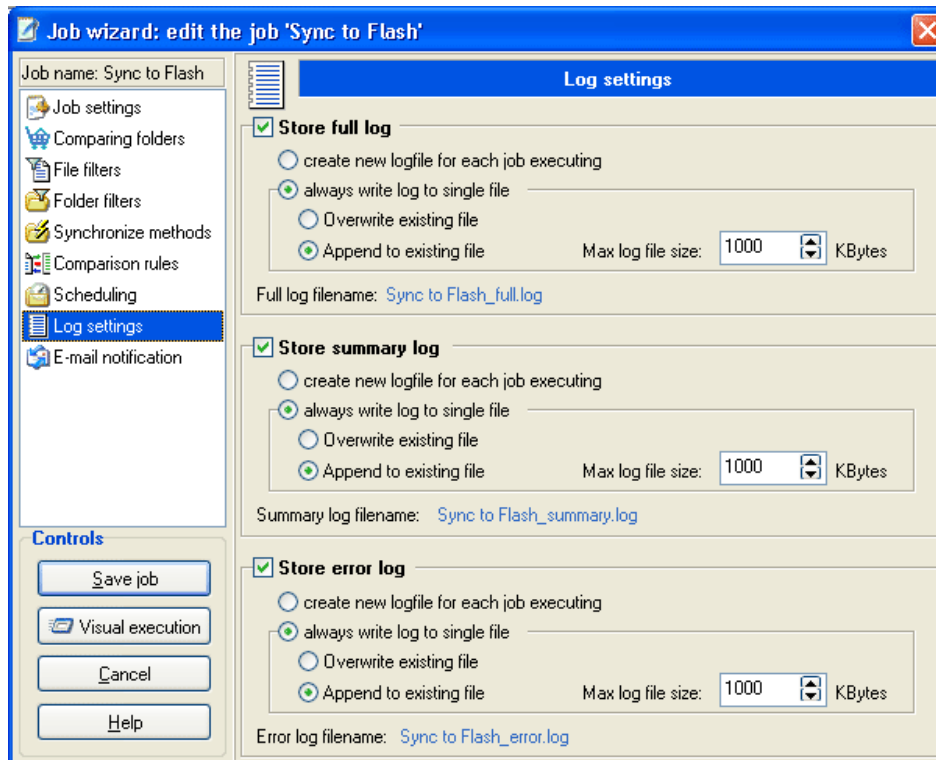
On the page you can set up HAS scheduler for a job.



Field	Description
Enable scheduler	The group of controls enables the job automatic executions.
Never (manual run)	Job is in manual mode, automatic executions are disabled. You can execute it manually at any convenient time.
Always	Job automatic executions are enabled all the time.
Between	Job automatic executions are enabled between the specified time.
Run on these days only	The program will execute your job on selected month days only. Select one or several days of a month.
Run on the week days only	The program will execute your job on selected week days only. Select one or several weekdays.
First executions' date	Defines date and time of the first job execution.
Repeat	The group of controls defines frequency of job automatic executions.
Every XX days	The program will execute your job every XX days at the specified time.
Every XX hours	The program will execute your job every XX hours.
Every XX minutes	The program will execute your job every XX minutes.
Every day at the start time	The program will execute your job every day at the specified time. You can set the start time in the First executions' date control.
List of nearest executions	The list of the nearest job executions. These are the real dates of execution, calculated on stateded settings.
Run missed schedules at the program startup	Use this option if you need to periodically switch off your computer and some scheduled jobs can be missed. If this option is checked, the program will detect all missed (scheduled but not executed on time) items and execute them at the startup program.

Log settings

All the synchronization activity of a job can be stored into a log file. On the page you can set up storing settings.



HAS can create three types of log file: Full log, Summary log and Error log:

Log file type	Description
Full log	Contains detailed information about job execution.
Summary log	Contains status information about job execution.
Error log	Describes errors which are occurred during job execution.

Log file name can vary depending on log settings. You can see an example of Log file name on the page.

There are individual settings for each log file types (Full log, Summary log, Error log):

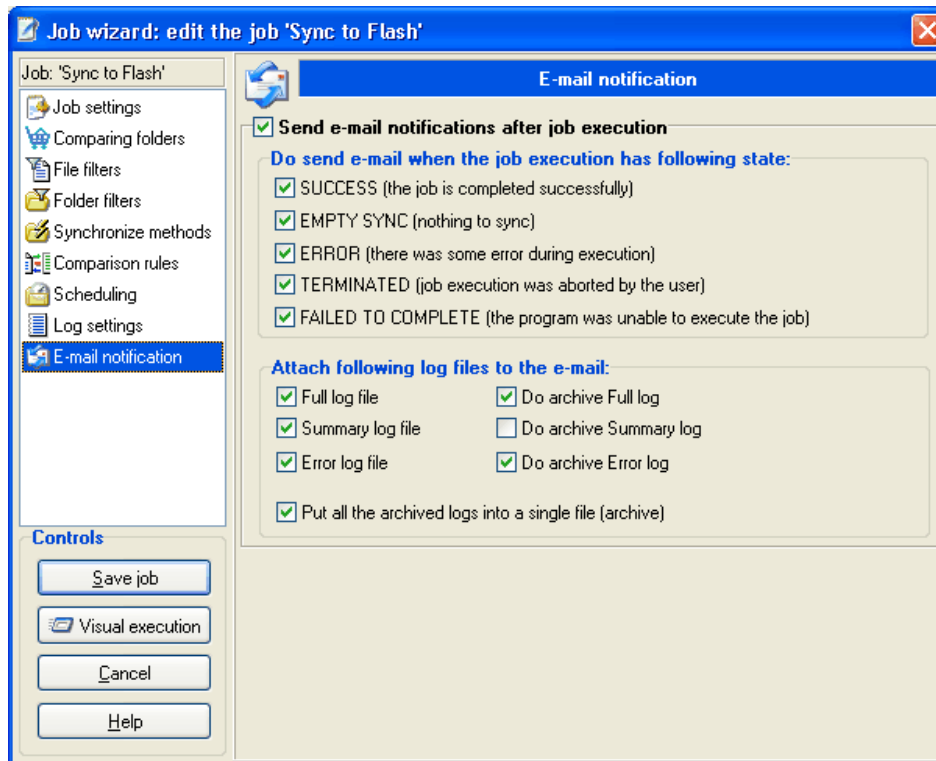
Option	Description
Store new log file for each job executing	Creates the new file every time job was executed. The name of file includes the current date and time. So you can easily distinguish what log is for.
Always write log to single file	Log file is stored in one single file always.
Overwrite existing file	Log file will be overwritten on every job execution.
Append to existing file	Job execution results will be appended to existing log file.
Max log file size	Limits maximum log file size. When this limit will be exceeded the log file would be overwritten.

Note:

- You can set the main log folder for storing log files in the Options window.

E-mail Notifications

HAS can inform you about Job execution results. On this page you can choose events when HAS will send e-mail to specified address.



Option	Description
Send e-mail notification after each job execution	Summary e-mail will be send to specified address after the job execution.
<u>Do send e-mail when the job execution has following state</u>	The group allows a user to define when HAS will send notifications for the job.
SUCCESS	Job completed successfully. There was no error during execution.
EMPTY SYNC	Job did not perform any operation since folders are synchronized already.
ERROR	There was some error during the job execution.
TERMINATED	The job execution was aborted by the user.
FAILED TO COMPLETE	HAS was unable to execute the job in a proper way (for instance due to inaccessible folders).
<u>Attach following log files to the e-mail</u>	The group allows a user to attach the job log files to the notification e-mail.
Full log file	A log file with all the operations that HAS performed during the job execution.
Summary log file	Contains a few lines with status information about the job execution.
Error log file	Describes errors which are occurred during the job execution.
Do archive Full log	Option to put the Full log file into a zip-archive. Allows to decrease size of a log file for sending up to 10 times. Extremely useful when operations volume is large.
Do archive Summary log	Option to put the Summary log file into a zip-archive. May not be useful if you do choose to archive Summary log only.
Do archive Error log	Option to put the Error log file into a zip-archive. Allows to decrease size of a log file for sending up to 10 times.
Put all the archived logs into a single file	Log files with archive option will be archived together into a one file.

Note:

- To use the e-mail notification you must first set up main Email Notification setting.

3.7 Visual Job executing

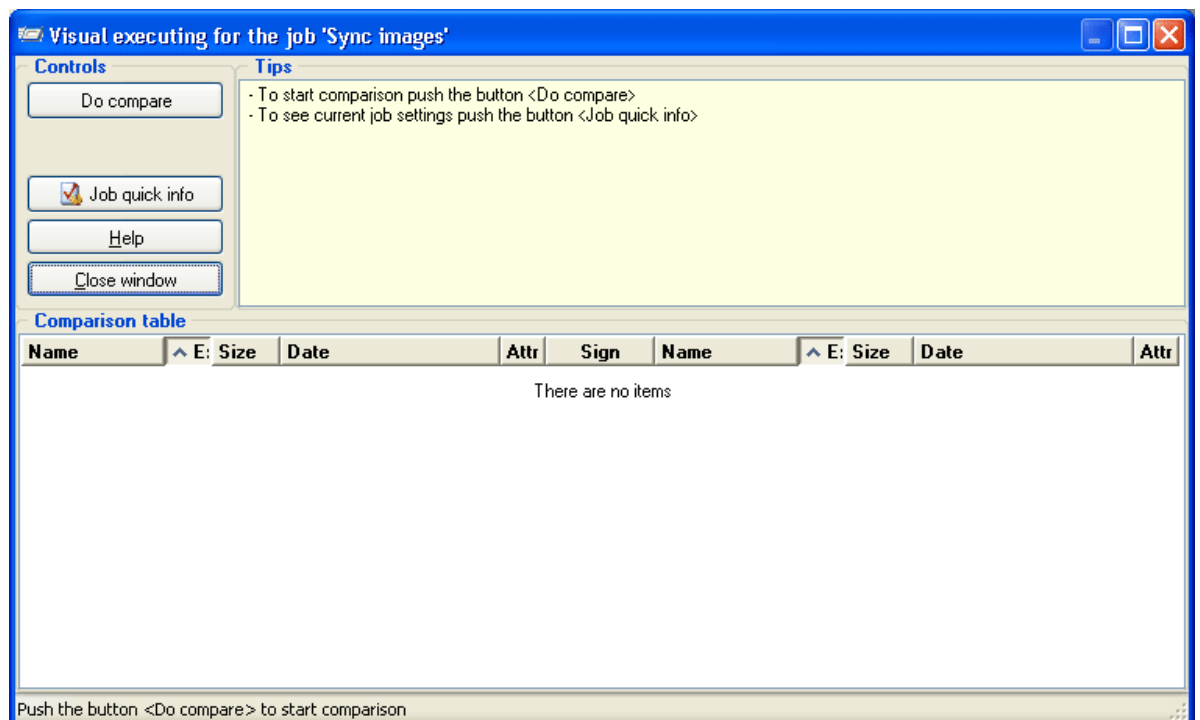
You can execute a job in detailed visual mode. The visual mode allows you to have full control on every step of job execution. To execute a job in visual mode click the button Visual run on the main toolbar or select main menu item Job|Visual Job execution (detailed).

Visual job execution is divided into six following stages:

Visual execution stage	Description
Before comparison	Invitation for comparison. You can start comparing folder pairs in the stage.
Comparison progress	Comparison is running. You can see folder scanning progress. The stage allows you to abort comparison.
Comparison results	Processed folder scanning results are displayed in a comparison table. You can see calculated statistics for comparison.
Synchronization preview	Synchronization preview shows what operations should be taken for folder pairs synchronization.
Synchronization progress	Synchronization is running. You can see synchronization progress - every operation is displayed in an operation table. The stage allows you to abort synchronization.
Synchronization results	Represents synchronization results and statistics.

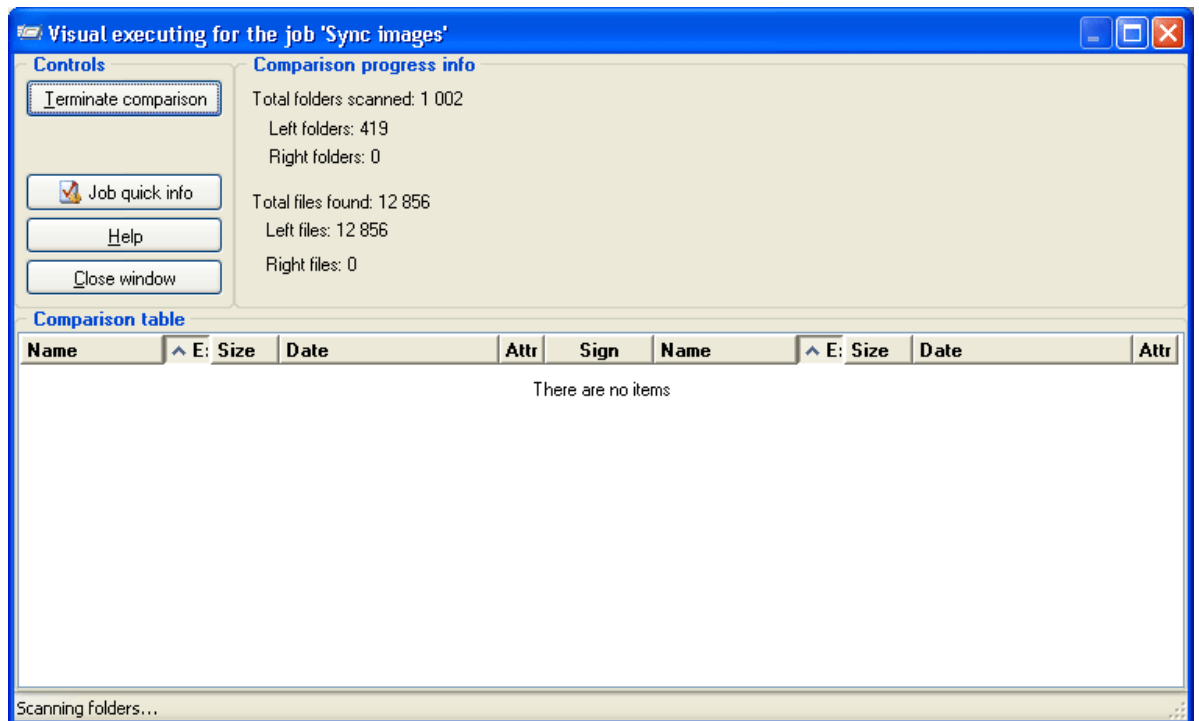
Visual Job executing: before comparison

This stage allows you to start comparison, simply click the button **Do compare**.



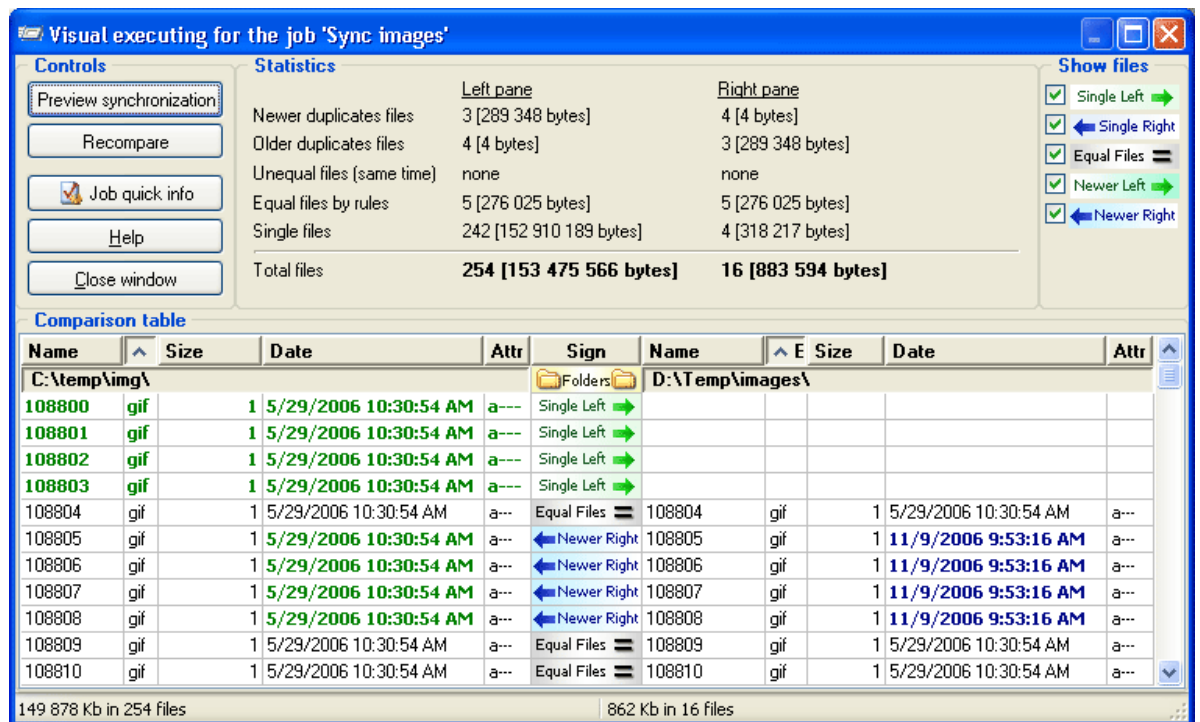
Visual Job executing: comparison progress

Comparison progress info shows how many folders were scanned. You can abort scanning at any time by click the button **Terminate comparison**.



Visual Job executing window: comparison results

The stage allows to view comparison statistics and folder pairs content.



The group **Statistics** contains statistics of comparison results.

The group **Show files** contains check boxes defining which files will be shown in the table. Turn on/off check to show/hide a files group.

The image in the middle of comparison table shows the file status:

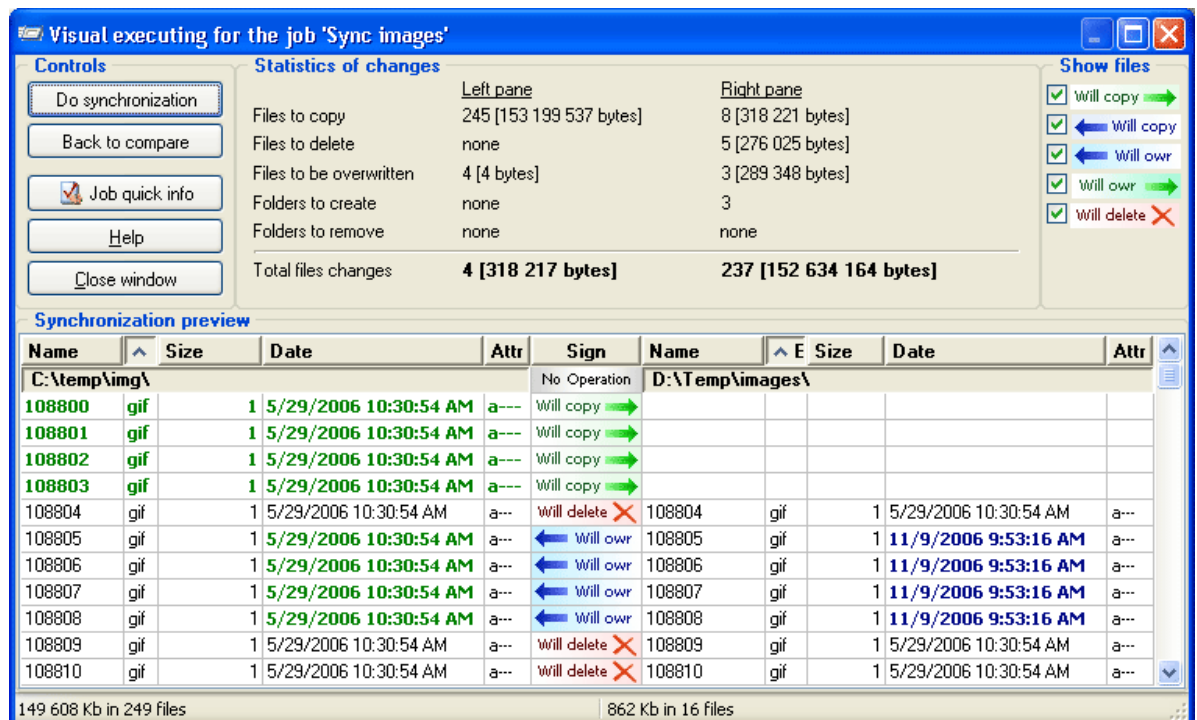
Image	Description
	Single file on the Left side.
	Duplicate files which have the same name. Left file is newer than Right one.
	Single file on the Right side.
	Duplicate files which have the same name. Right file is newer than Left one.
	Duplicate files which have the same name. Left and Right files are equal.
	Duplicate files which have the same name and the same date, but have different size.
	The folder pair.
	The single folder is on left pane of the comparison table.
	The single folder is on right pane of the comparison table.

You can sort files in the comparison table. The tabstop header allows to sort the file list by a name, extension, size, and date&time on the appropriate header. Clicking on the same headers reverses the order. A small arrow on the left of the header text shows the sort direction. To sort files in compared directories click on the tabstop header which is placed above the comparison table.

Tabstop header	Meaning
Name	Sorting the files by a name then by extension.
Ext	Sorting the files by type (extension) then by a name.
Size	Sorting the files by their size on a disk, then by a name, then by an extension.
Date	Sorting the files by their creation date and time, then by a name, then by an extension.

Visual Job executing window: synchronization preview

This stage informs you of how synchronization is going to work. To start synchronization click the button **Do synchronization**.



The group **Statistics of changes** contains statistics of changing during synchronization.

The group **Show files** contains check boxes defining which files will be shown in the table. Turn on/off check to show/hide a files group.

The image in the middle of the Synchronization preview shows the operation status:

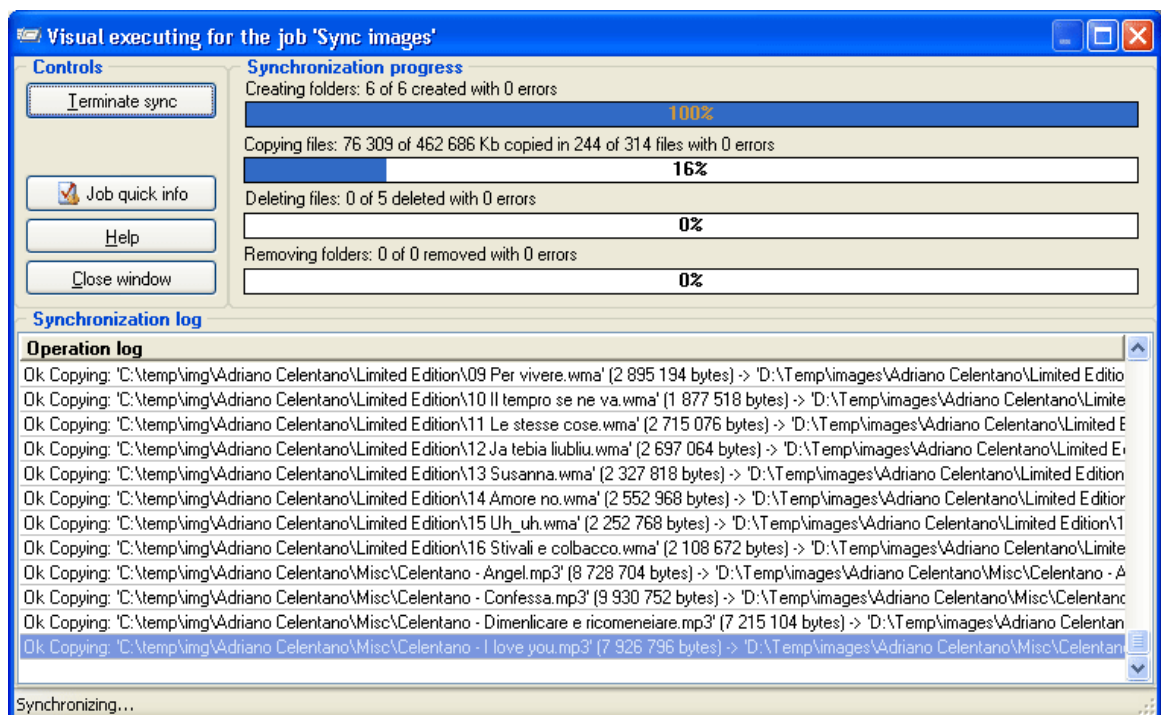
Image	Description
	Folder will be created on the Left side.
	Folder will be created on the Right side.
	Empty folder will be deleted on the Left side and will create on the Right side.
	Empty folder will be deleted on the Right side and will create on the Left side.
	Empty folder will be deleted on the Left side.
	Empty folder will be delete on the Right side.
	Empty folders will be deleted from both sides.
	File will be copied from left folder to right one.
	File in right folder will be overwritten with file from left folder.
	File in right folder will be renamed instead overwrite.
	File will be copied from right folder to left one.
	File in left folder will be overwritten with file from right folder.
	File in left folder will be renamed instead overwrite.
	File will be deleted from left folder.
	File will be renamed instead delete in left folder.
	File will be deleted from right folder.
	File will be renamed instead delete in right folder.
	Files will be deleted both from left and right folders.
	Files will be renamed both from left and right folders.
	No operation.

You can sort files in the table. The tabstop header allows to sort the file list by a name, extension, size, and date&time on the appropriate header. Clicking on the same headers reverses the order. A small arrow on the left of the header text shows the sort direction. To sort files click on the tabstop header which is placed above the table.

Tabstop header	Meaning
Name	Sorting the files by a name then by extension.
Ext	Sorting the files by type (extension) then by a name.
Size	Sorting the files by their size on a disk, then by a name, then by an extension.
Date	Sorting the files by their creation date and time, then by a name, then by an extension.

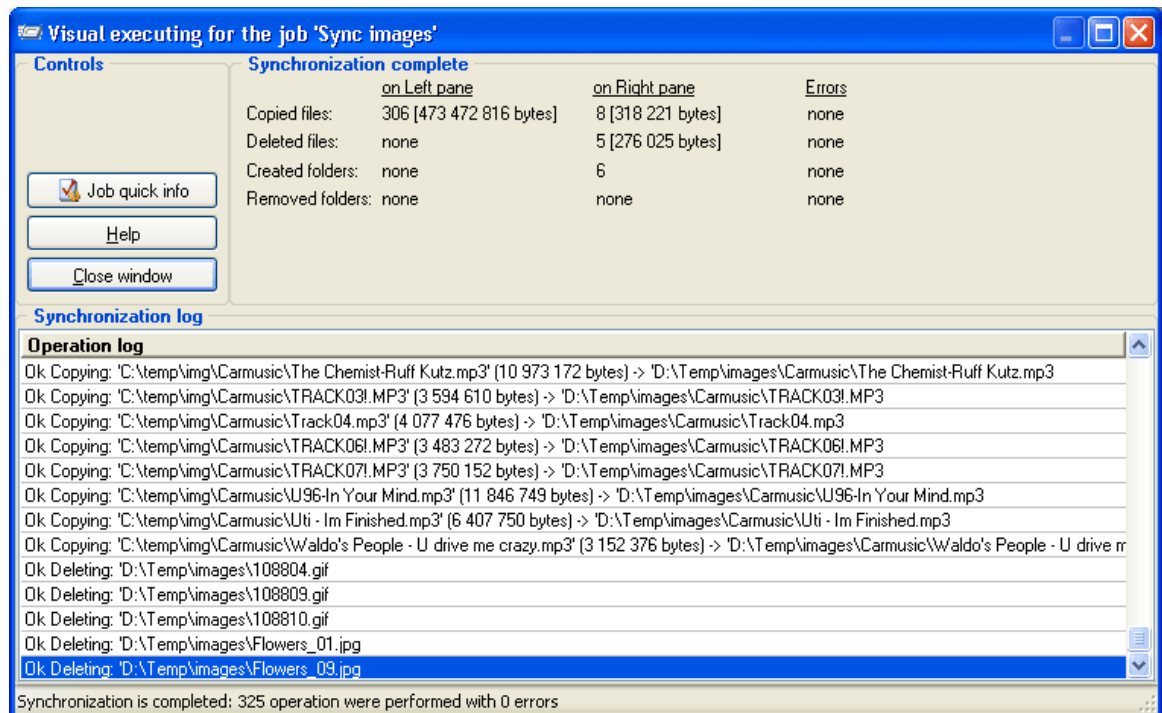
Visual Job executing window: synchronization progress

The stage informs you about synchronization progress. You can abort synchronizing at any time by click the button **Terminate sync**.



Visual Job executing window: synchronization results

This is the final stage of **Visual executing** of a job. You can see the statistics of performed operations.



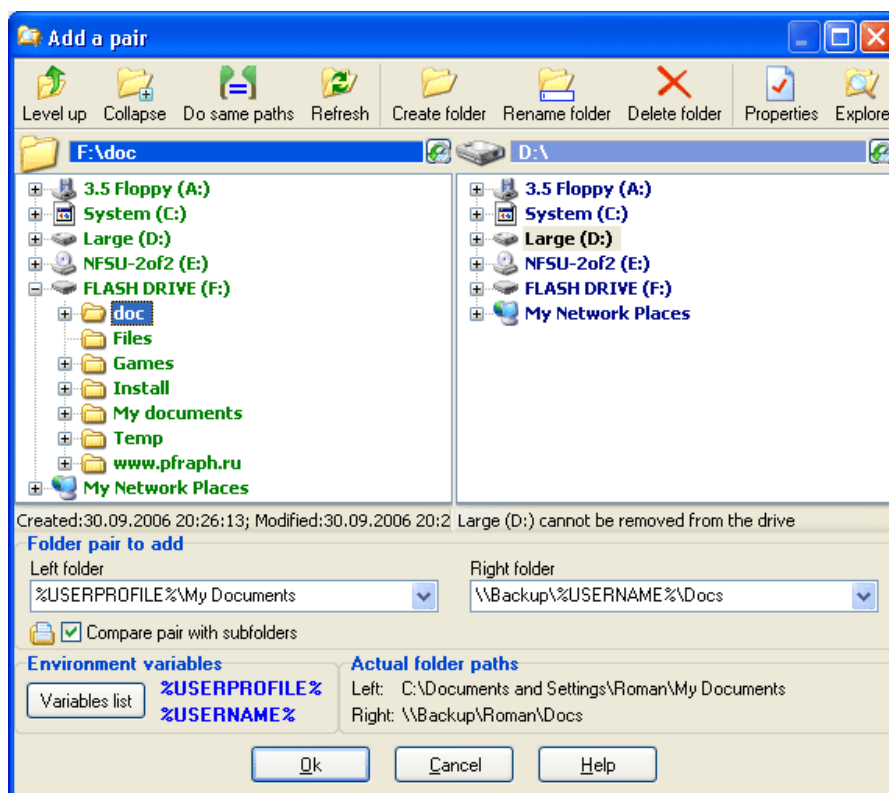
3.8 Add/Edit pair window


The main purpose of the Add/Edit a pair window is to allow you to select/change folders you want to compare. Moreover you can manage folders: create, rename and delete a folder, view folder properties and explore a folder with Windows explorer.

The selected folders pair is displayed at the bottom part of the window in the group **Folder pair to add**. You can type UNC path (like \\My Server\Data) in the text boxes. The check **Add pair with subfolders** defines how to compare folders: with or without their subfolders.

You can use environment variables in folder paths. Clicking on blue labels **%USERPROFILE%** and **%USERNAME%** would add the variables names into active combobox. Clicking on the button **Variables list** to open list of environment variables and their values.

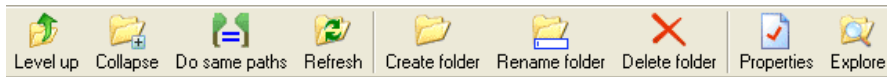
When you select/type a folder pair click **Ok** button. The pair will be added/changed into the Comparing folders wizard page.












You can use **History** button  for navigation in the folder tree.

User interface

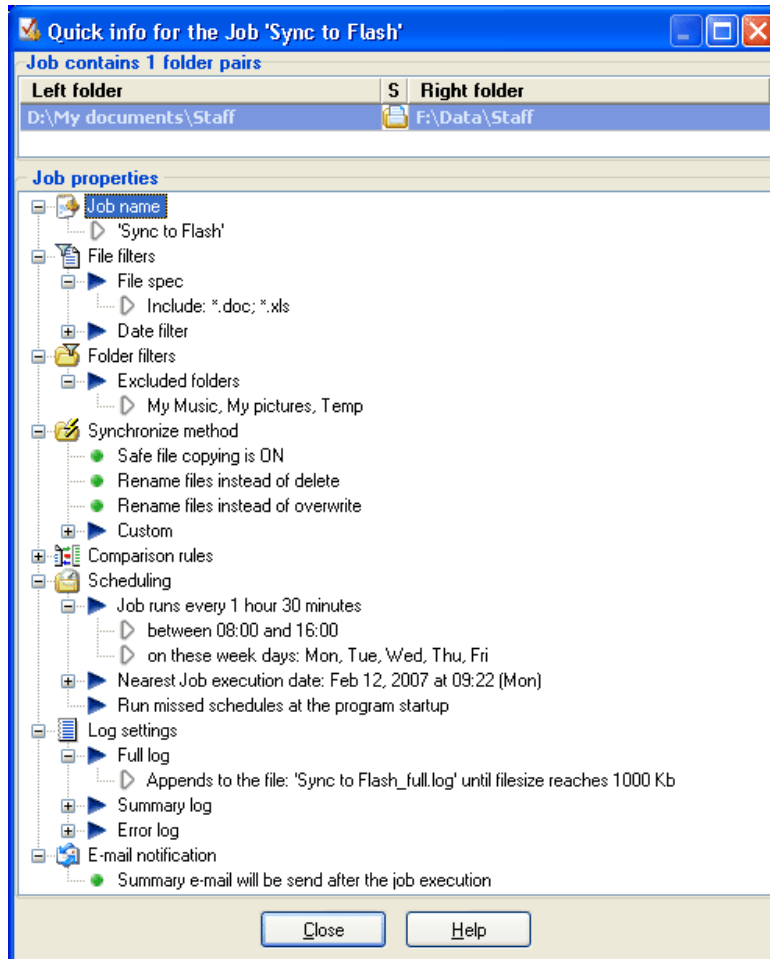
Tool buttons are described as below:



Button	Shortcut	Description
 Level up	Ctrl+U	Goes to level up in the tree.
 Collapse	Ctrl+Z	Collapses all expanded items in the tree.
 Do same paths	Ctrl+Tab	Sets the same path in a sibling tree.
 Refresh	Ctrl+R	Refreshes trees.
 Create folder	F7	This command allows you to create a new folder in the Create folder window.
 Rename folder	Shift+F6	The command will open an inplace edit window around the folder to be renamed. Don't use symbols such as \ / : * ? " < > in a folder name.
 Delete folder	Del	Deletes a selected folder.
 Properties	Alt+Enter	This command opens properties dialog box for a selected folder or a drive.
 Explore	Alt+W	This command starts Windows Explorer with a selected folder.




3.9 Quick info for Job

The window **Quick info** examines a job in details. The **Quick info** displays folder pairs, file and folder filters, comparison rules, a synchronization method, scheduling and log settings used in a job.



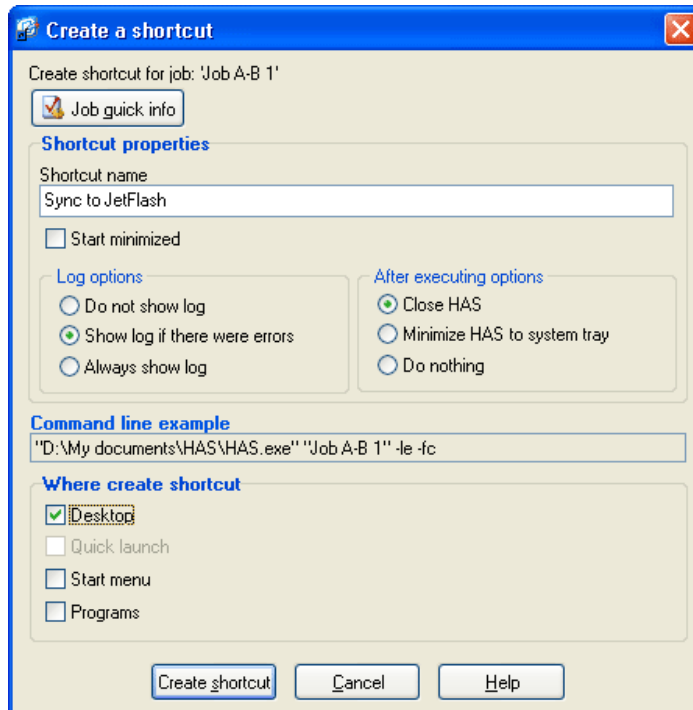
With this window you can get information about job settings. To edit these settings use the Job wizard window.

Notes:

- Opening the window **Quick info** does not require to stop the executing/waiting job.
- Editing a job with the Job wizard requires to stop  executing or  waiting job. This switches the job state to  nothing.

3.10 Create shortcut for Job

The Create a shortcut window allows you to place a shortcut for a specified job on a Desktop, a Quick launch pane, a Start Menu and a Programs menu. You can use this option for a fast executing job.



The shortcut you created will allow you to execute a job immediately. Clicking on the shortcut causes HAS to open and execute a specified job.

You can customize behavior of HAS started via the shortcut:

- Start up options.
- Log options.
- After executing options.

The Create a shortcut window has following fields described below:

Field	Description
Job quick info	Opens the Quick info window for the job. Allows to view job settings.
Shortcut name	Represents the display name of a shortcut on a Desktop.
Start minimized	Defines how HAS will be started. If checked then HAS will start minimized in system tray. Otherwise HAS shows the HAS main window.
<u>Log options</u>	This parameters define how the Log file will be displayed after a job execution.
Do not show log	Log file does not display.
Show log if there were errors	Log file will be displayed if there are errors only during execution.
Always show log	Log file will be displayed after every job execution.
<u>After executing options</u>	This parameters define behaviour of HAS after job execution.
Close HAS	HAS will be closed after job execution.
Minimize HAS to system tray	HAS will be minimized in the system tray.
Do nothing	HAS remains working.

Command line example	Shows an example of a command-line for a specified job. You can use this line to start a job from a command-line.
<u>Where create shortcut</u>	These parameters set locations where a shortcut will be created.
Desktop	Shortcut will be created on a Desktop.
Quick launch	Shortcut will be created in a Quick Launch pane.
Start menu	Shortcut will be created in a Start menu.
Programs	Shortcut will be created in a Programs menu.

Below there are some examples of command line usage.

- For example, during your workday you need to periodically backup the Job named "Backup_work_files". Create the shortcut on your desktop for this Job and execute it.

Notes:

- Only a shortcut specified job will be started. Other jobs will be suspended while the specified executing.
- You can stop the specified job execution. This will abort **Log options** and **After executing options**.
- Only one instance of HAS is allowed. If HAS is running already, the shortcut activates the HAS main window only.

3.11 Command line parameters

Automatic Synchronizer allows performing a number of its operations using a command line parameters. In this way you can perform Automatic Synchronizer commands without opening the program window, either with any appropriate program (like "Windows Scheduled Tasks", for instance), through created shortcut to Automatic Synchronizer or through "Run" option from Windows "Start" menu.

Automatic Synchronizer command line syntax (keys and corresponding Automatic Synchronizer actions) is displayed in the following table:

Key	Description
sm	HAS will start minimized in system tray.
fc	HAS will be closed after job execution.
fm	HAS will be minimized in the system tray after job execution.
le	Log file will be displayed if there are errors only during execution.
la	Log file will be displayed after every job execution.

The command line example is:

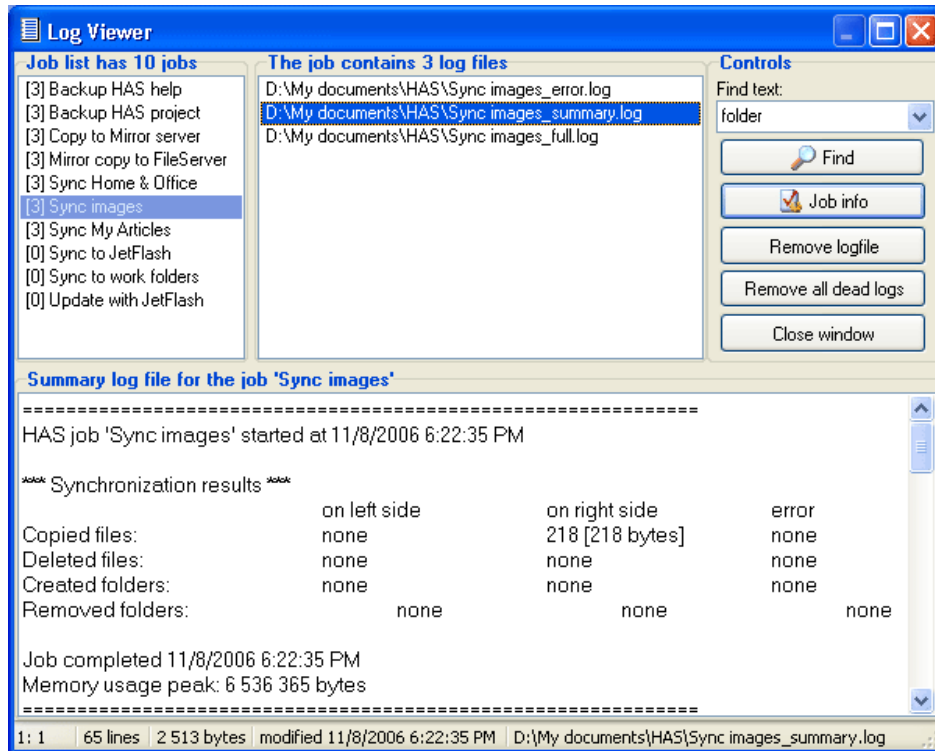
"c:\Program Files\HAS\HAS.exe" "Job_Name" -la -sm

Below there are some examples of command line usage.

- Work HAS as Windows service (synchronize folders when user is logged off).
- Execute Job through "Run" option from Windows "Start" menu.
- Create shortcut for a Job for next quick execution.

3.12 Log file viewer

The window allows you to view log files for all job executions. Log files separated by jobs. You can set up log storing settings for each job in the Log settings wizard page.



Field	Description
Job list	The Job list contains all jobs. A number next to the Job name means quantity of stored log files for this job.
Logfile list	The Logfile list contains all log files which belong to the selected job in the Job list.
Find	You can find a specified text in a log file. To search the text type it in the line Find text and click the button Find .
Job info	Opens the quick info window for the job.
Remove logfile	Physically removes a selected logfile.
Remove all dead logs	Removes links to logfiles which doesn't exist on the disk.
Logfile text pane	Displays the log file selected in the Logfile list.

3.13 Tray icon

When Automatic Synchronizer is running, HAS icon appears in the system tray. It doesn't require much system resources and it provides the following functions:

- indicates that Automatic Synchronizer is running;
- enables to open the program window by a single left mouse click on a tray icon;
- allows you to use some menu options.

Tray icon menu







The tray icon menu is available on right-clicking on the icon. All menu options are performed with the user's left-click.

- **Activate HAS:** Enables to open the program window.
- **Clear errors:** Uses this item to change tray icon status from error to normal.
- **Feedback and technical support:** Directs you to Heatsoft Corporation web site to support page.
- **About:** Provides information about a current version of HAS.
- **Close and Exit:** Enables to exit the program (the program will be terminated and the HAS will disappear in the system tray).

Working statuses

The HAS tray icon indicates the following working statuses of the program:

State Description

	State of all jobs is nothing.
	State of all jobs is nothing and one or several jobs have finished with an error.
	The program is waiting to execute one or several jobs.
	The program is waiting to execute one or several jobs and one or several jobs have finished with an error.
	The program is executing one or several jobs.
	The program is executing one or several jobs and one or several jobs have finished with an error.

Use **Clear errors** item from tray icon menu to change tray icon status from error to normal.

3.14 Work in "silent" mode

You can setup HAS to run it automatically at log on (work in "silent" mode). It allows you to execute scheduled jobs every time when you work, without your attention.

To setup the "silent mode" you must:

- Create one or several scheduled Jobs.
- Turn on **Launch HAS on Windows start up** tick box on the options "General" page.
- Turn off **Confirm stop executing/waiting jobs on exit application** check on the options "General" page.

When you complete these simple steps HAS will startup automatically minimized in the system tray after you log on and will execute scheduled jobs. You can see HAS status in the HAS system tray icon.

Important note

This feature is available in the registered version only. In non-registered version HAS will run minimized, but you must activate it and close the **Nag box** window first.

Another way to run HAS in "silent" mode is to use **HAS service** - a small executable 'HASsvc.exe' that can run as a native Windows service without user interaction in background. You can read detailed description how to do that in **Tutorial 6: Run HAS as Windows service**.

3.15 The keyboard shortcuts

Shortcuts for the Main window

Shortcut	Description
Alt	Activates the main menu.
Alt+J	Activates the Job menu.
Alt+E	Activates the Edit menu.
Alt+V	Activates the View menu.
Alt+H	Activates the Help menu.
Alt+Enter	Opens the job wizard to edit a selected job.
Alt+F4	Minimizes application to the system tray icon.
Ctrl+N	Opens the job wizard to create a new job.
Ctrl+D	Duplicates a selected job.
Ctrl+R	Executes selected jobs (background).
Ctrl+S	Stops selected executed/waiting jobs.
Ctrl+A	Selects or deselects all jobs in the main window.
Del	Deletes selected Jobs in the main window.
Enter	Opens the quick info window for a selected job.
F10	Shows the log viewer window.
Ctrl+O	Shows the options window.

Shortcuts for the page Comparing folders in the Job Wizard

Shortcut	Description
Ins	Opens the add pair window.
Enter	Opens the edit pair window.
Del	Deletes a selected pair.

Shortcuts for the Add/Edit pair window

Shortcut	Description
Ctrl+Z	Collapses all open items in the directories tree.
F7	Opens the create folder window.
Del	Deletes a selected folder.
Shift+F6	Renames a selected folder.
Alt+W	Explores for files.
Alt+Enter	Shows drive or folder properties.
Ctrl+H	Shows the history of using folders.

3.16 Settings

There are a number of settings defining the way Automatic Synchronizer operates. You can modify them any time you wish. Choose item **Options** [**Ctrl+O**] in the menu View and Options window will appear. Choose the settings type you wish to modify.

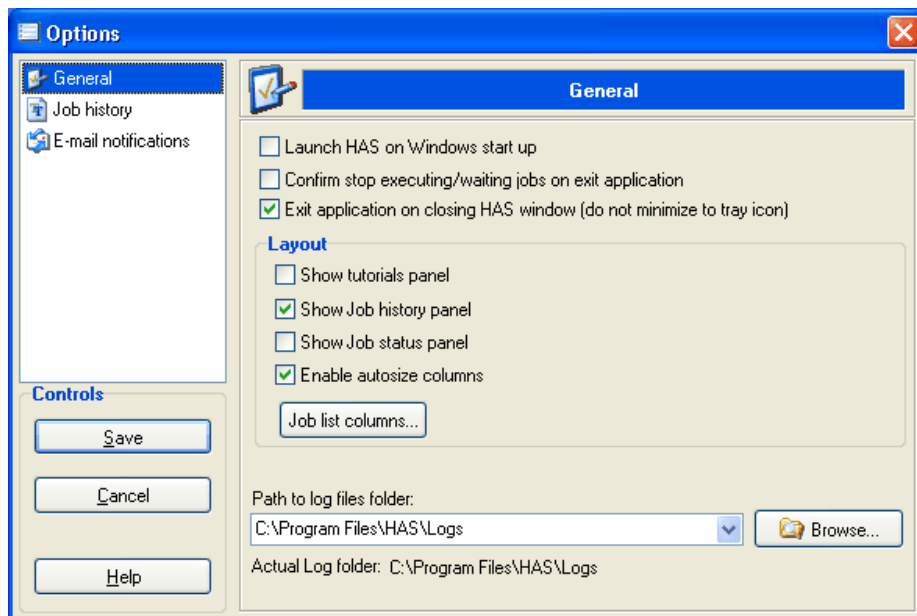
There are the following setting types in HAS:

- General settings
- Job history settings
- Email notifications settings

General options

To open the Options window choose item **Options** in the menu View or use [**Ctrl+O**] shortcut.

The sheet **General** allows you to set up common HAS settings.



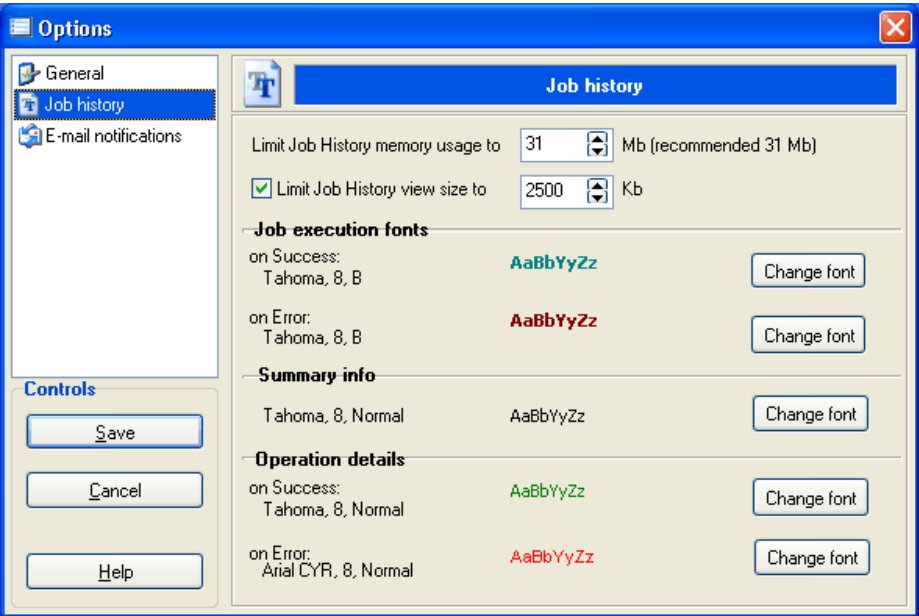
Field	Description
Launch HAS on Windows start up	Launches Automatic Synchronizer on Windows startup.
Confirm stop executing/waiting jobs on exit application	When checked and the state of some jobs are waiting, HAS will ask you for confirmation before closing.
Layout	This group allows to define visible controls in the main window.
Show tutorials panel	Hides/Shows the quick start tutorials panel in the main window.
Show Job history panel	Hides/Shows the Job executions history panel in the main window.
Show Job status panel	Hides/Shows the Job status panel in the Job list.
Enable autosize columns	If checked then columns width in the Job list will be adjusted on every resize of the main window.
Job list columns...	Click to change the columns displayed in the Job list.
Path to log files folder	Sets a path to a folder where all log files will be stored. To select the folder click on the button Browse .

To save the changed settings click on the button **Save**.

Job History options

To open the Options window choose item **Options** in the menu View or use **[Ctrl+O]** shortcut.

The sheet **Job history** allows you to set up **Job's executions history** settings.



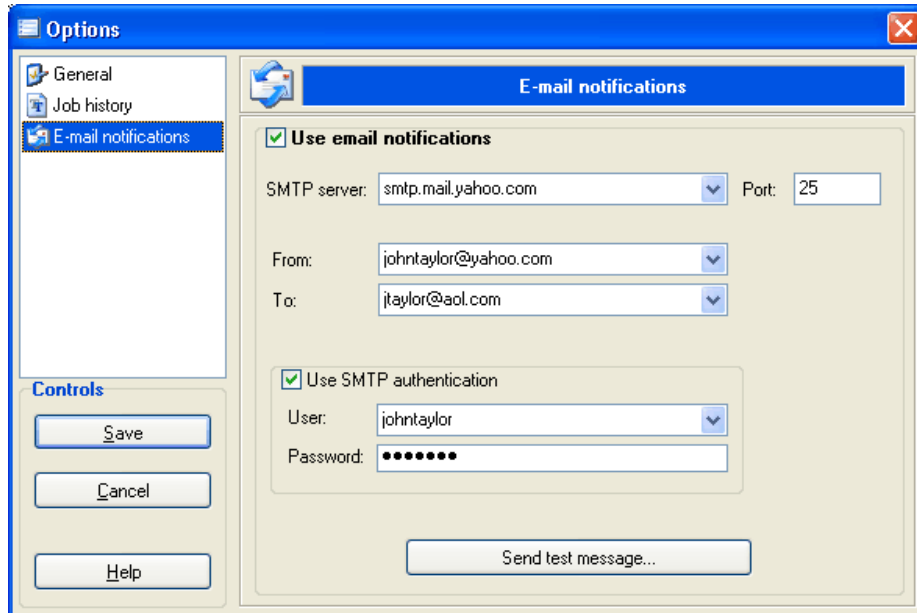
Field	Description
Limit Job History memory usage to	Use to control size of memory using for store Job History. When Job history exceeds the specified size, the memory is cleared.
Limit Job History view size to	When Job's executions history exceeds the specified size, the oldest (first) jobs executions will be cleared. The recommended default value is 500 Kb.
Job history fonts	Group of controls to set fonts for the Job's executions history.
<u>Job execution fonts</u>	Fonts for a job execution caption text.
on Success	Font for a caption of success job execution.
on Error	Font for a caption of job execution with an error.
Summary info	Font for summary information text of job execution.
<u>Operation details</u>	Fonts for operations description text of job execution.
on Success	Font for success operation description.
on Error	Font for error operation description.
Change font	Allows you to change a font Color, Name, Size or Style.

To save changed settings click on the button **Save**.

Email notifications options

To open the Options window choose item **Options** in the menu View or use **[Ctrl+O]** shortcut.

The sheet **Email notifications** allows you to set up the program to notify you by e-mail.



Field	Description
Use email notification	Check this box if you want to use e-mail notification about Job execution results.
SMTP server	Enter the SMTP server name of sender mailbox. For example, smtp.yourmail.com.
Port	Enter the server port. Its default value is 25 .
From	Type the sender e-mail address. The e-mail notifications will be sent on behalf the address. Note: the specified SMTP server should support this address.
To	Type the receiver e-mail address.
Use SMTP authentication	Check this box if the SMTP server does require authentication for sending e-mails.
User	A username of the sender e-mail account.
Password	A password of the sender e-mail account.
Send test message...	Click this button to test your e-mail settings. HAS will send a test message using the settings you specified.

Note:

- Upon defining all settings you need to go to the "E-mail notifications" page in the Job Wizard window in order to set a notification type for each job.

To save the changed settings click on the button **Save**.

4 Registration and Licensing

4.1 Ordering Information

We do offer Heatsoft Automatic Synchronizer (HAS) in two packages:

Heatsoft Automatic Synchronizer costs **\$39.92 US**.

That is common HAS edition with all of the basic functionality.

Heatsoft Automatic Synchronizer with [Service addon](#) costs **\$59.92 US**.

That edition does include all the features of HAS, plus it allows to execute jobs within a native windows service.

Once you have purchased common HAS edition, you will be able to purchase the [HAS Service addon](#) for **\$29.92 US** in addition.

We strongly recommend you to read [License Agreement](#) between you and Heatsoft Corporation for using the software product.

Please keep in mind that is one-time fee for HAS lifetime support and free upgrades. Once registered, you will get all the future updates of Heatsoft Automatic Synchronizer for free. Before you place the order please READ CAREFULLY our [Return Policy](#) and [Privacy Policy](#).

Purchasing Heatsoft Automatic Synchronizer licence

There are several options for a purchase of HAS user license. You can purchase HAS user license with a Credit card (<https://www.regsoft.net/regsoft/vieworderpage.php3?productid=69465>). PayPal, Fax and Phone orders are available.

We offer volume discount pricing for Heatsoft Automatic Synchronizer, as shown below:

Quantity	Price
1 to 2 copies	\$39.92 per copy
3 to 5 copies	\$34.92 per copy
6 to 9 copies	\$29.92 per copy
10 to 19 copies	\$24.92 per copy
20 to 49 copies	\$19.92 per copy
50 to 99 copies	\$14.92 per copy
100 or more copies	\$9.92 per copy

The registration information will be emailed to you. To register software enter your HAS registration code (use the menu item Help|Enter registration code).

Purchasing Heatsoft Automatic Synchronizer with Service addon licence

There are several options for a purchase of HAS user license. You can purchase HAS with Service addon user license with a Credit card (<https://www.regsoft.net/regsoft/vieworderpage.php3?productid=79937>). PayPal, Fax and Phone orders are available.

We offer volume discount pricing for Heatsoft Automatic Synchronizer, as shown below:

Quantity	Price
1 to 2 copies	\$59.92 per copy
3 to 5 copies	\$52.92 per copy
6 to 9 copies	\$44.92 per copy
10 to 19 copies	\$37.92 per copy
20 to 49 copies	\$29.92 per copy
50 to 99 copies	\$24.92 per copy
100 or more copies	\$19.92 per copy

The registration information will be emailed to you within 24 hours. To register software enter your HAS registration and HAS Service addon codes from the email (use the menu item Help|Enter registration code).

If you have any questions about purchasing Heatsoft Automatic Synchronizer please email us at support@heatsoft.com.

4.2 Privacy policy

The information you provide Heatsoft Corporation is never compromised. It is used for the sole purpose of your purchase, and to keep you informed of updates and special offers (should you choose this option). It is never given out or sold to the any 3rd parties or used in any other way.

If you have any questions about our Privacy Policy please email us at support@heatsoft.com.

4.3 Return policy

Any Heatsoft Automatic Synchronizer (HAS) user is entitled to 30-days trial period to try the software. And we believe that the trial period is enough to decide if our software is suitable for your needs or not. Because every Heatsoft product is available as a full functioning trial version, refunds are not given. If you receive a defective CD, it will be replaced free of charge, but no part of your purchase price will be refunded. It is because of this strict "NO REFUNDS" policy that it is strongly suggested you download and try the trial version prior to your purchase.

If you have any questions about our Return Policy please email us at support@heatsoft.com.

4.4 License agreement

Please read the following lines carefully before using this software.

If you disagree with any of the following, you are not allowed to use this program, you MUST delete it immediately.

The Heatsoft Automatic Synchronizer (HAS) is a shareware. It means:

All copyrights of HAS are exclusively owned by Heatsoft Corporation.

Anyone may use this software during a test period of 30 days. Following this test period of 30 days or less, if you wish to continue using HAS, you MUST register.

Once registered, the user is granted a non-exclusive license to use HAS on one computer, for any legal purpose, at the same time. The registered HAS software may not be rented or leased, but may be permanently transferred, if the person receiving it agrees to terms of this license. If the software is an update, the transfer must include the update and all previous versions.

The HAS unregistered shareware version may be freely distributed, provided the distribution package is not modified. No person or company may charge a fee for the distribution of HAS without written permission of the copyright holder.

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All rights not expressly granted here are reserved by Heatsoft Corporation.

Installing and using HAS signifies acceptance of these terms and conditions of the license.

If you do not agree with the terms of this license you must remove HAS files from your storage devices and cease to use the product.

Liability

We try to keep our software as bug-free as possible. But it's a general rule, that no software is ever error free, and the number of errors increases with the complexity of the program. That's why we cannot guarantee that this software will run in every environment, on any Windows compatible machine, together with any other application, without producing errors. Any liability for damage of any sort is hereby denied. In any case, the liability is limited to the registration fee. Please test this program with non-critical data. We cannot guarantee the safety of your data. Especially other operating system, except Windows XP, can cause trouble. Should you detect errors before registration, you accept them if you register. Any description of bugs will be accepted, but we cannot guarantee that we will be able to correct them.

Important note

This version of the program has been created for functioning in Microsoft Windows Me/2000/XP/2003/Vista. If you have problems please inform us about it!

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