

Handy Backup User Manual

Version 8

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handybackup.net

Contents

This manual describes all features of Handy Backup, and explains its architecture and main principles of its work.

1	GENERAL INFORMATION	5
1.1	Product Overview	5
1.2	Copyright Notice.....	8
1.3	Third-Party Binaries.....	9
1.4	End User License Agreement.....	14
1.5	Technical Support Contacts	18
2	INSTALLATION	20
2.1	System Requirements	22
2.2	Installing Standalone Edition	24
2.3	Installing Network Editions (Server Network).....	26
2.4	Installing Network Agents for Windows.....	28
	• Centralized Installation of Network Agents with Centralize Deploy Tool	29
	• Fixing the WMI error in Centralize Deploy Tool	31
	• Manual Installation of Network Agents	33
	• For Configuring and Installing Network Agents Manually	37
	• Troubleshooting Problems with Network Agents for Handy Backup	40
2.5	Installing and Configuring Network Agents for Linux.....	44
2.6	Updating from Earlier Versions.....	50
2.7	Uninstalling.....	51
3	REGISTRATION.....	52
3.1	Features of Different Editions	55
3.2	Activating Upgrades and Plug-ins.....	56
3.3	Upgrading from Version 3 - 7 to Version 8.....	59
3.4	Migrating License to New Computer.....	60
4	QUICK START	63
4.1	Connecting to Server (Server Edition)	63
4.2	First Backup Task - Simple Mode	65
4.3	First Backup Task - Advanced Mode	69
4.4	First Recovery Task - Simple Mode	76
4.5	First Recovery Task - Advanced Mode.....	80
4.6	First Synchronization Task - Simple Mode.....	87
4.7	First Synchronization Task - Advanced Mode.....	92
4.8	Managing Remote Tasks (for the Server Network Edition)	97
5	MANAGING DATA.....	102
5.1	Step 1: Choose Task Type	103
5.2	Backup Task	104
	• Step 2: Specify the Backup Set.....	106

• Step 3: Choose Backup Storage	109
• Step 4: Advanced Backup Settings	110
Selecting type of backup	111
Backup update options.....	112
Comparison Settings.....	113
Error Handling.....	113
Creating Time Stamps	114
• Step 5: Compression and Encryption.....	115
5.3 Restore Task.....	117
• Step 2: Specify Index File	117
• Step 2*: Enter Password for Decryption	118
• Step 3: Select Restore Locations	119
• Step 4: Advanced Restore Settings	122
5.4 Synchronize Task.....	124
• Step 2: Select the First Folder.....	124
• Step 3: Select the Second Folder.....	125
• Step 4: Advanced Synchronizing Settings.....	125
5.5 New Task Wizard - Scheduling (Step 6 or 5)	128
5.6 Pre-, Post-Operation Actions (Step 7 or 6)	130
5.7 Ready to Create New Task (Step 8 or 7)	131
6 TECHNOLOGIES BEHIND THE SOFTWARE.....	133
6.1 Architecture	133
• Network Agents	136
• Management Panel.....	137
• Client	139
• Other Services	139
6.2 Plug-ins.....	140
• Plug-in File Systems	141
• Plug-in Configurations.....	143
• Data Source and Storage Plug-ins.....	144
User Folders Group (My Desktop, Documents, Music, Pictures, Videos)	148
Computer Plug-in	152
Network plug-in	158
Windows Libraries Plug-in.....	160
FTP, SFTP and FTPS Plug-ins	164
E-mail Plug-in	182
MS Exchange Plug-in.....	187
Outlook Plug-in	190
Database Plug-in	194
MSSQL Plug-in	200
MySQL Plug-in.....	205
PostgreSQL Plug-in	210
Oracle plug-in	216
MariaDB Plug-in.....	222
Lotus Notes plug-in	227
DB2 Plug-in.....	230
1C:Enterprise plug-in	237
Amazon s3 plug-in	239
S3 Cloud Plug-in	243
Dropbox Plug-in	247
Dropbox Business Plug-in.....	250

OneDrive Plug-in.....	253
WebDAV plug-in	257
Yandex.Disk Plug-in.....	260
Backblaze Plug-in	264
Mail.ru Hotbox Plug-in.....	267
Mail.ru Icebox Plug-in.....	271
VK Cloud Plug-in.....	275
Disk Image Plug-in.....	280
System Recovery Plug-in.....	283
Hyper-V Plug-in.....	286
VMware Workstation Plug-in.....	289
4shared Service	292
Box Cloud Data Storage	294
Registry Plug-in.....	297
7 USER INTERFACE	301
7.1 Main Menu	301
• Main Menu -> File	302
Export and Import Tasks	303
Reports	306
Task Properties.....	308
• Main Menu -> View	309
• Main Menu -> Actions	310
• Main Menu -> Service.....	310
• Main Menu -> Server	312
• Main Menu -> Language.....	313
7.2 Toolbar.....	315
7.3 Task View.....	316
7.4 Log View	318
7.5 Hot Keys	319
7.6 Tray Menu	319
7.7 Console Client.....	320
8 SETTINGS.....	322
8.1 Server Settings.....	322
• Log Settings.....	323
• Proxy Settings.....	325
• E-mail Notification	325
• Default Destination	327
• Agents Info	329
• Groups.....	329
8.2 Workstation Settings	332
8.3 Client Settings.....	333
• Log Settings.....	333
• Prompts	334
8.4 Updates.....	335
9 EXTRAS	337
9.1 Disaster Recovery Utility: Installation and operation in the WinPE.....	337

1 General Information

This manual describes in detail the use of Handy Backup™. It contains complete information on all features and explains all principles of the software's operation.

The manual consists of nine sections:

1. **General Information.** In this section you can find general overview of the product's strengths and target uses, legal and copyright information, and technical support contacts.
2. **Installation.** The second section provides detailed instructions on installing, updating and uninstalling the software.
3. **Registration.** This section describes all aspects of registration, upgrading and license management.
4. **Quick Start.** In the fourth section you can find startup instructions on creating your first backup, restore and synchronize tasks.
5. **Managing Data.** This is the core part of the manual that describes how to create tasks of different types, and gives general recommendations on setting up automated backups in different environments.
6. *** Technologies Behind the Software.** The sixth section contains technical materials on Handy Backup's architecture and principles of its work.
7. **User Interface.** In this section you can learn what makes up the program's user interface.
8. **Settings.** In the eighth section you can find information about various settings.
9. **Extras.** The final section describes Handy Backup Drive and other related services.

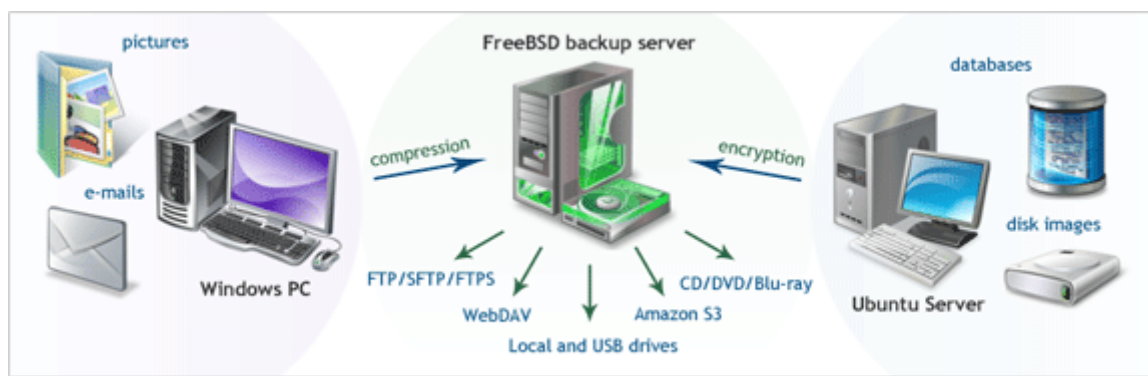
* Recommended reading for advanced IT users, technological partners and hardware manufacturers.

We hope that you find this manual useful and informative. To leave feedback and suggestions, or to report errors, please refer to [Technical Support Contacts](#).

1.1 Product Overview

Handy Backup™ is a family of award-winning solutions for home and business environments. It is a cross-platform utility built on client-server architecture that provides a reliable way to back up and restore any critical data, from common PC files to commercial database servers.

Handy Backup User Manual



Example use: copying files, disk images and databases in a heterogeneous network

Ease of Use

An intuitive interface makes protection and recovery procedures easy for users of all levels. To back up your data, you need to create a backup task, which is done with the help of a simple Wizard, as follows:

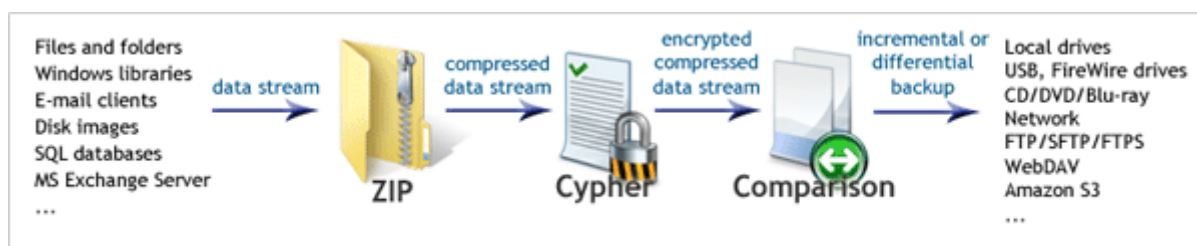
1. Select what you want to back up.
2. Select where you want to store the data.
3. Schedule the task.

In this manual you can find step-by-step instructions on every aspect of managing your data with our software. If you want to skip the product overview, you can start with the [Installation](#) and [Quick Start](#) sections.

Universality

The software works with very different types of data: from common files and folders to SQL databases and e-mail servers. To select data for backup, you don't need to be an IT expert: simply check the box near an item that you want to back up, and the program will do the rest.

Supported storage devices and data transferring protocols enable you to save data to virtually any place. Depending on your situation, you may want to store copies to an external USB disk, transfer them to an FTP or WebDAV server, upload them to Amazon S3 storage, or make use of any other location.



Data stream path: "on-the-fly" compression, encryption and comparison with previous backups

Handy Backup User Manual

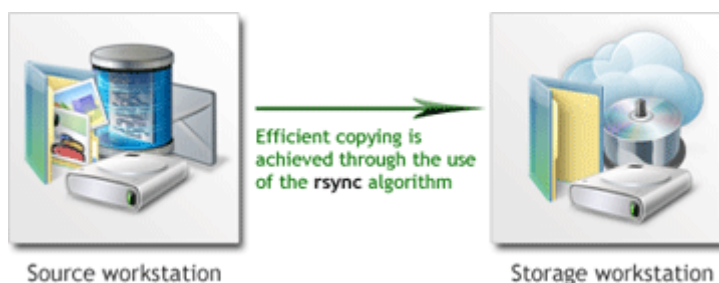
The program features built-in ZIP compression and 128-bit Blowfish encryption. Data processing is performed “on-the-fly”, without temporary files, which allows backing up significant amounts of data in an efficient and resource-friendly way. Before files are written to the designated storage, they are compared to existing backups, which enables you make incremental or differential backups (save only changes).

On its way from “source” to “destination”, data stream can also be transferred to a different computer running another instance of Handy Backup. This lets you back up all network data from a single control point, which is the idea of Server edition (see below). To learn technical details of the program’s client-server architecture, please see [Architecture](#).

Standalone and Server Editions

The program is available in Standalone and Server editions:

- In **Standalone editions**, data stream remains within one computer. All processing and storage operations are handled by a single machine.
- In **Server edition**, data stream can be transmitted from one computer to the other, over the network. Logical components responsible for data transfer are called **Workstations**: one workstation manages all reading and processing operations, while the other manages data storage.



For example, you may want to back up a server that for security reasons cannot be connected to the Internet. The client-server architecture employed in the software allows you to transfer the data in encrypted form to the “Storage” workstation which will then save it to a local or a remote place. To learn more about cooperation of workstations, please see [Workstation](#).

Extensibility

You can copy files, disk images, databases (MySQL, MS SQL, Oracle and other), and many other types of data. Supported storage destinations include local HDDs, USB drives, LAN, FTP, WebDAV, Amazon S3 and other locations. This versatility is achieved through the use of plug-ins: each program’s feature is a separate module that can be added to the program’s core independently of other features.

Handy Backup User Manual

The software comes in several editions, each one with different sets of plug-ins. At any time you can upgrade your version by supplementing it with plug-ins of your choice. This lets you build a solution tailored for your needs, saving on the options you never use. For more details, please see [Registration](#).

All the upgrades are available on the product website: www.handybackup.net

Multilanguage Support

The program is completely Unicode-enabled, and is available in several languages:

- English
- French
- Russian
- Spanish
- Czech

New language packs can be added relatively easily. We encourage our users to translate non-translated components (user interface, help files, main website pages, etc.) into their native languages, and send them to us. These efforts will be rewarded with free licenses, upgrades, Online Backup storage, and other valuable prizes. To learn more, please refer to the product website: www.handybackup.net/morelanguages.shtml

Always Up-to-Date

Our developers constantly work on Handy Backup to add new features, improve its security and performance. We take into consideration any feedback and recommendations, striving to make an ideal solution for all types of users. Updates are released each month or two. To stay informed of all news, watch the product website: www.handybackup.net

1.2 Copyright Notice

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- Amazon and Amazon S3 are trademarks or registered trademarks of Amazon.com Corporation.
- CORBA is a trademark or a registered trademark of the Object Management Group Corporation.

1.3 Third-Party Binaries

The software contains a number of third-party executable files and libraries critical for the core functionality. These files are included into the program's installation and come with their own licenses that you can find in the program's installation folder.

File	Description	Author
7z.dll	File compression library used in ZIP filter	Igor Pavlov
ACE.dll	Part of the Adaptive Communication Environment (ACE)	Douglas C. Schmidt
ACE_ETCL.dll	Part of the Adaptive Communication Environment (ACE)	Douglas C. Schmidt
ACE_ETCL_Parser.dll	Part of the Adaptive Communication Environment (ACE)	Douglas C. Schmidt
aws-cpp-sdk-core.dll	The AWS SDK provide a interface for Amazon Web Services (AWS).	Amazon Technologies, Inc
aws-cpp-sdk-s3.dll	The AWS SDK provides a interface for Amazon Web Services (AWS).	Amazon Technologies, Inc
icudt54.dll	Part of ICU, Unicode based globalization library, used by mailcore library	Unicode, Inc
icuin54.dll	Part of ICU, Unicode based globalization library, used by mailcore library	Unicode, Inc

Handy Backup User Manual

File	Description	Author
icuio54.dll	Part of ICU, Unicode based globalization library, used by mailcore library	Unicode, Inc
icule54.dll	Part of ICU, Unicode based globalization library, used by mailcore library	Unicode, Inc
iculx54.dll	Part of ICU, Unicode based globalization library, used by mailcore library	Unicode, Inc
icutu54.dll	Part of ICU, Unicode based globalization library, used by mailcore library	Unicode, Inc
icuuc54.dll	Part of ICU, Unicode based globalization library, used by mailcore library	Unicode, Inc
intl.dll	Libintl is part of Gettext; it is a library that provides native language support to programs.Used in PostgreSQL filter	Daiki Ueno
libctemplate.dll	library for fast text templating system	google- ctemplate@googlegroups.com
libeay32MD.dll/libeay64MD.dll	Part of the OpenSSL library used for secure data transferring	The OpenSSL Project
libetpan.dll	framework for different kinds of mail access. Used by mailcore library	Matt Ronge, Hoà V. Dinh, Robert Widmann, Jonathan Willing
libexpat.dll	library for parsing XML used in WebDav plugin	James Clark
libmysql.dll	Part of the MySQL Connector library used to connect to MySQL	Oracle Corporation
libpq.dll	PostgreSQL Access Library used to connect to PostgreSQL database	The PostgreSQL opensource team

Handy Backup User Manual

File	Description	Author
librsync.dll	Data transport library that implements the rsync remote-delta algorithm	Martin Pool, Andrew Tridgell
libsasl2.dll	Used for integrate authentication mechanisms in Mailcore library	The Cyrus Team
libtidy.dll	Part of Tidi library, used by Mailcore library	Dave Raggett
libxml2.dll	XML C parser and toolkit used by Mailcore library	Daniel Veillard
mailcore2.dll	MailCore is a library for working with e-mail protocols.	Matt Ronge, Hoà V. Dinh, Robert Widmann, Jonathan Willing
mysql.exe	Client application for the MySQL database management system	Oracle Corporation
mysqldump.exe	Application for dumping MySQL data into files	Igor Romanenko, Oracle Corporation
pg_dump.exe	Application for dumping PostgreSQL data into files	The PostgreSQL opensource team
psql.exe	Client application for the PostgreSQL database management system	The PostgreSQL opensource team
pthreadVC2.dll	POSIX Threads for Windows32 Library	Open Source Software community project
Sciter32.dll/Sciter64.dll	Library used for developing GUI of Handy Backup	Terra Informatica Software, Inc; Andrew Fedoniouk
ssleay32MD.dll/ssleay64MD.dll	Part of the OpenSSL library used for secure data transferring	The OpenSSL Project
StarBurn.dll	Library responsible for working with optical drive devices	StarBurn Software Ltd.

File	Description	Author
TAO.dll	Part of CORBA, used for communication of different components	Douglas C. Schmidt
TAO_AnyTypeCode.dll	Part of CORBA, used for communication of different components	Douglas C. Schmidt
TAO_BiDirGIOP.dll	Part of CORBA, used for communication of different components	Douglas C. Schmidt
TAO_CodecFactory.dll	Part of CORBA, used for communication of different components	Douglas C. Schmidt
TAO_Codeset.dll	Part of CORBA, used for communication of different components	Douglas C. Schmidt
TAO_CosEvent.dll	Part of CORBA, used for communication of different components	Douglas C. Schmidt
TAO_CosEvent_Skel.dll	Part of CORBA, used for communication of different components	Douglas C. Schmidt
TAO_CosNaming.dll	Part of CORBA, used for communication of different components	Douglas C. Schmidt
TAO_CosNaming_Serv.dll	Part of CORBA, used for communication of different components	Douglas C. Schmidt
TAO_CosNaming_skel.dll	Part of CORBA, used for communication of different components	Douglas C. Schmidt
TAO_CosNotification.dll	Part of CORBA, used for communication of different components	Douglas C. Schmidt
TAO_CosNotification_Serv.dll	Part of CORBA, used for communication of different components	Douglas C. Schmidt

File	Description	Author
TAO_CosNotification_Serv.dll	Part of CORBA, used for communication of different components	Douglas C. Schmidt
TAO_CosNotification_Skel.dll	Part of CORBA, used for communication of different components	Douglas C. Schmidt
TAO_CosNotification_Skel.dll	Part of CORBA, used for communication of different components	Douglas C. Schmidt
TAO_DynamicAny.dll	Part of CORBA, used for communication of different components	Douglas C. Schmidt
TAO_ETCL.dll	Part of CORBA, used for communication of different components	Douglas C. Schmidt
TAO_IORTable.dll	Part of CORBA, used for communication of different components	Douglas C. Schmidt
TAO_Messaging.dll	Part of CORBA, used for communication of different components	Douglas C. Schmidt
TAO_Notify_Service.dll	Part of CORBA, used for communication of different components	Douglas C. Schmidt
TAO_PI.dll	Part of CORBA, used for communication of different components	Douglas C. Schmidt
TAO_PortableServer.dll	Part of CORBA, used for communication of different components	Douglas C. Schmidt
TAO_Svc_Utills.dll	Part of CORBA, used for communication of different components	Douglas C. Schmidt
TAO_Valuetype.dll	Part of CORBA, used for communication of different components	Douglas C. Schmidt

File	Description	Author
VixAllProductsDyn.dll, Vix64AllProductsDyn.dll	The VIX API used for work with virtual machine	VMware, Inc
WnASPI32.dll	Library responsible for working with optical drive devices	FrontBack LLC
xdelta.exe*	Application that computes difference between two files	Josh McDonald
zlib.dll	lossless data-compression library used in some filters	Jean-loup Gailly, Mark Adler

* Not used, left for backward compatibility with old versions.

Publication of this list is a requirement for the Microsoft “**Works with Windows Server 2008**” certification program.

1.4 End User License Agreement

Handy Backup™ is copyrighted and licensed software, so please read the license agreement carefully.

Novosoft Handy Backup End User License Agreement

THIS SOFTWARE END USER LICENSE AGREEMENT (HEREINAFTER REFERRED TO AS THE "EUL". IS A LEGAL AGREEMENT BETWEEN YOU, AS THE EUL END-USER (HEREINAFTER REFERRED TO AS "YOU"), AND **NOVOSOFT DEVELOPMENT LLC**, AS THE EUL LICENSOR (HEREINAFTER REFERRED TO AS THE "NOVOSOFT"). BY INSTALLING, COPYING, OR OTHERWISE USING THE SOFTWARE PROVIDED WITH THIS EUL (AS DEFINED BELOW) OR ANY PART THEREOF, YOU AGREE TO BE BOUND BY THE TERMS OF THIS EUL. IF YOU DO NOT AGREE TO THE TERMS OF THIS EUL, DO NOT INSTALL AND/OR USE THIS SOFTWARE.

1 The Software

The Software provided with this EUL (hereinafter referred to as the "Software". is "Handy Backup" software product of Novosoft.

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6 Reverse Engineering

You agree that you will not attempt to reverse compile, modify, translate, or disassemble the Software in whole or in part.

7 Online Backup Service

By choosing the version of the Software with "Online Backup Service" component (hereinafter referred to as the "Online Backup Component" or the "Component"), you agree to be bound by the following provisions:

- Novosoft IS NOT RESPONSIBLE FOR ANY LOSS OF DATA, DUE TO TRANSMISSION ERROR, CLIENT SOFTWARE ERROR, SERVER SOFTWARE ERROR, USER ERROR, OR ANY CAUSE. DUE TO THE NATURE OF THE INTERNET AND THE ONLINE BACKUP COMPONENT FUNCTIONING, IT IS STRONGLY RECOMMENDED THAT YOU PERFORM ROUTINE TESTS OF THE FILE RESTORE FEATURES AND FAMILIARIZE YOURSELF WITH THE COMPLETE OPERATION OF THE BACKUP SOFTWARE BEFORE AN EMERGENCY SITUATION ARISES. You agree that this Component functions with no warranty and is "AS IS" and "AS AVAILABLE" only. The location the Component addresses is not intended to be the sole backup location for any data; users are responsible for backing up their own data files to a location other than provided by or with assistance of Novosoft. You assume all risks associated with functioning of a Component of this kind. Novosoft makes no warranty that Online Backup Component will meet your requirements or that Online Backup Component functioning will be uninterrupted, timely, secure or error-free.
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12 Indemnification

Novosoft assumes no liability for any of the data which is stored on the servers addressed by Online Backup Component and other facilities, be it obscene, offensive, illegal, or if it is an infringement of property rights of anyone. You, as all other individuals using Online Backup Component, are solely responsible for the file content you upload and store through this Component. You agree to indemnify and hold Novosoft and its affiliates, officers, owners, and employees harmless from any type of demand or any type of claim (which would include attorneys' fees which are reasonable), which are made by any third party as a result of your use of Online Backup Component, be it any type of infringement such as intellectual property or other rights, or other users of Online Backup Component using your computer, or an infringement of this EUL by you.

13 Governing Law

This EUL agreement is governed by the laws of the Russian Federation. If any provision or portion thereof of the EUL is found to be void or unenforceable by the appropriate legal jurisdiction and authority, that provision shall be understood and enforced as close to its original meaning as possible, and the remainder of this EUL shall remain in full force and effect.

14 General Provisions

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1.5 Technical Support Contacts

All users of are entitled to free technical support from Novosoft. If you experience any problems installing or using our software that you can't solve by using this manual, or have any questions or suggestions, please contact us.

Note: Contact information may change from the time of publication. To find most current contacts, please refer to the product website: www.handybackup.net/support.shtml

- Free technical support by phone or e-mail
- Guaranteed response time – 1-3 business days
- Patches, fixes, extended help and other critical assistance


 support@handybackup.net

To make sure that our support response letter is not deleted by spam filters, don't forget to add support@handybackup.net to your e-mail address book.


You can also contact us via instant messengers or phone:

 Facebook: [NovosoftHandyBackup](https://www.facebook.com/NovosoftHandyBackup)

 Twitter: [Handy_Backup](https://twitter.com/Handy_Backup)

 Skype: NovosoftHelp

 Email: support@novosoft.net

 +7 (383) 330-34-69
+1 (707) 703-13-11

Note: We are at GMT+7, EST +12, which may be inconvenient for your time zone. If you don't receive an instant response, please accept our apologies and try contacting us via e-mail.

You can also use an Online support form at product website: www.handybackup.net/support.shtml

Before Contacting Support

Before sending a message to our support team, please download and install the latest build of the program. It is highly possible that your problem has been fixed already.

- The program can be downloaded at the product website free of charge:
www.handybackup.net/download.shtml

- To learn about installing and uninstalling the program, please refer to [Installation](#).

When sending a support request, please describe the problem with as many details as you can.

If the program is running, include the following information:

- Version and build date of the program.
- Your operating system (with version and Service Pack number, if applicable).
- What you were doing before the error occurred.
- Settings and log of the task on which the error occurred.
- General system log.
- If possible, include a screenshot of an error.

If the program does not run, include the following information:

- Version and build date of the program.
- Your operating system (with version and Service Pack number, if applicable).
- What you were doing before the error occurred.
- If possible, include a screenshot of an error.

2 Installation

The program can be installed using the common [installation file](#), regardless of OS version used. You can download a required file from a [downloading page](#).

Editions

You can install the program in one of several editions:

- Standard
- Professional
- Small Business
- Server Network

You will install any edition from the common **setup file**; you will define an exact functionality of your version by entering a registration key number. To learn more, please see [Registration](#).

32- and 64-bit Versions

By default, Handy Backup installs a version that matches a type of your OS, i.e. a 32-bit version for a 32-bit OS, or a 64-bit version for a 64-bit OS.

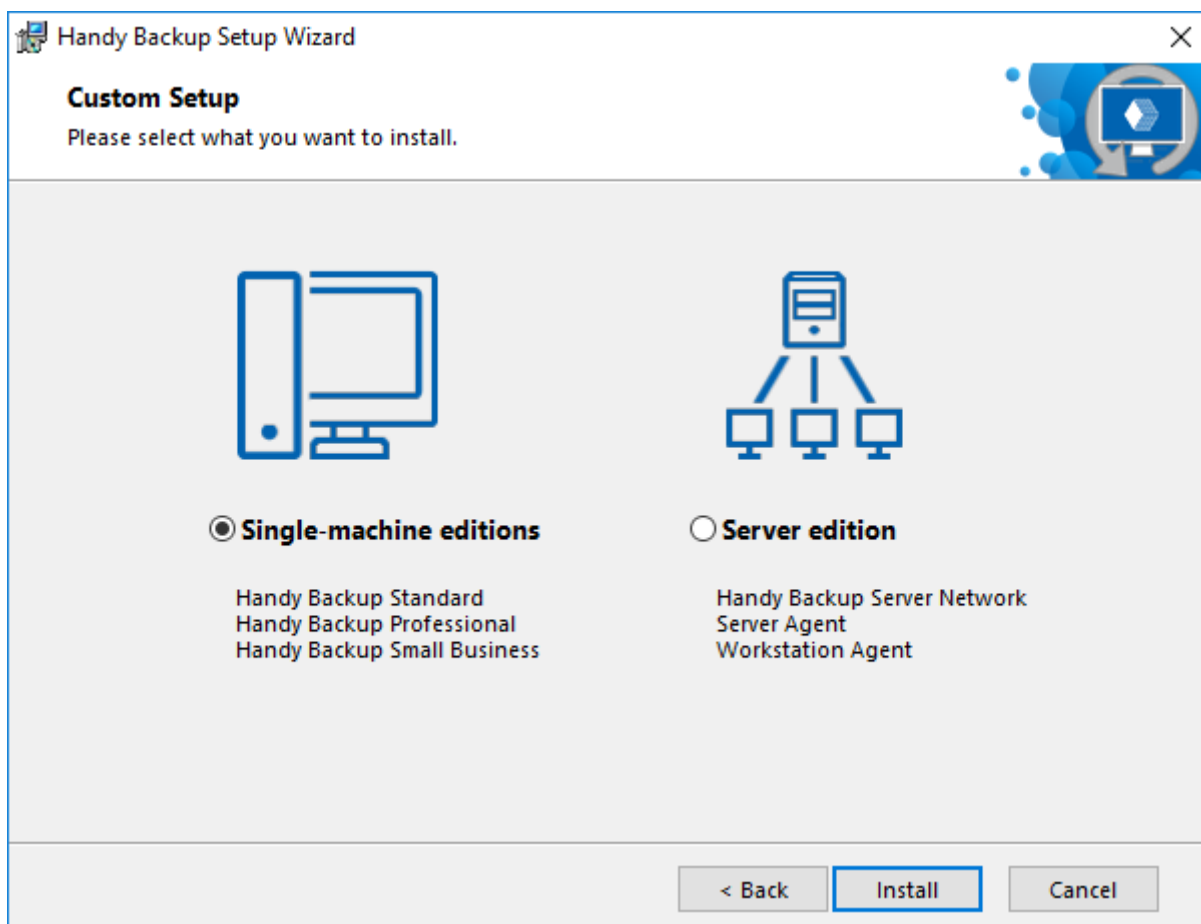
Plug-in Dependences

Some plug-ins (including Database, CD/DVD and just a few more), can work correctly only under a particular 32- or 64-bit version of Handy Backup. If you need to change a version to a 32- or a 64-bit, please read a reference at the end of this article.

Installing

To install the program, please follow these steps:

1. Launch the setup file.
2. On the welcome screen, change recommended parameters if you want by clicking “**Change recommended parameters**”. Click Next.
3. Read end user license agreement, and then click Next.
4. Select what you want to install. There are the two variants:

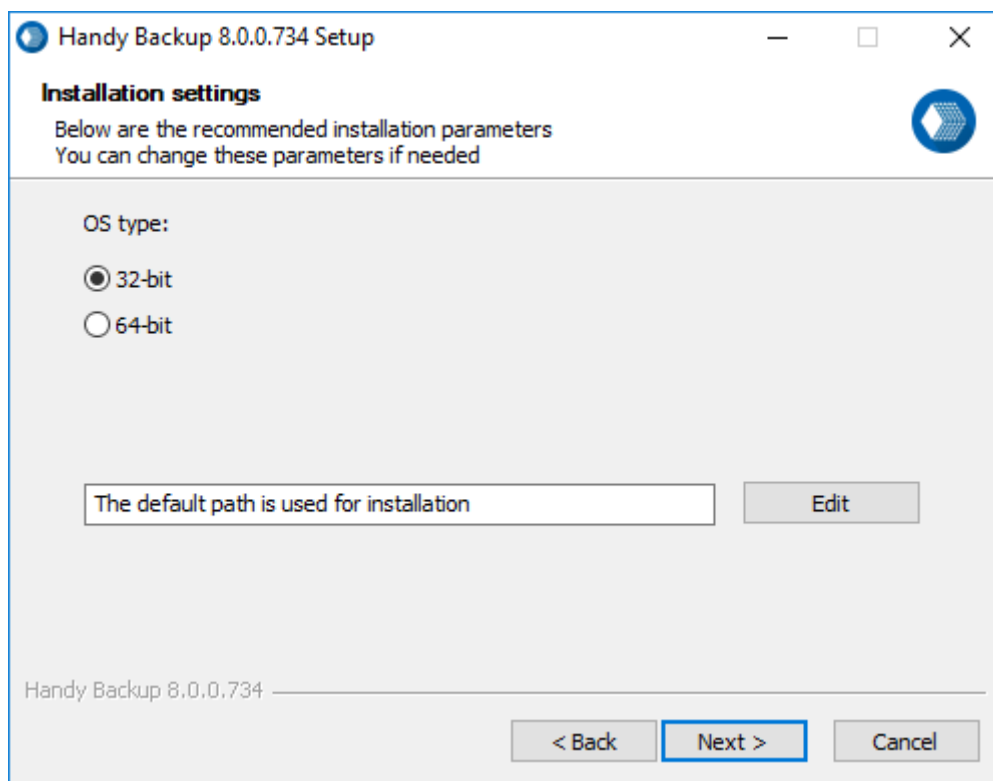


- **Single-machine editions.** Select this option if you are planning to back up only one computer or small server.
- **Server edition.** Select this option to install the Server Network edition or a **Network Agent**.

Selecting Between 32- and 64-bit Versions

Sometimes you need to force a 32- or a 64-bit version to install on your machine. In this case, select an OS type in the installation settings window, as shown below.

1. Launch Handy Backup setup.
2. On the welcome screen, select "**Change recommended parameters**".
3. In a new window, select a desired version (32-bit or 64-bit) for your copy of Handy Backup.



4. After selecting a version type, continue installing as described above.

2.1 System Requirements

The program is one of the fastest and most resource-friendly utilities on the market. Designed for Windows, it can run on virtually any system with Windows NT core:

- Windows 11
- Windows 10
- Windows 8, Windows 8.1
- Windows 7
- Windows Home Server
- Windows Server 2008
- Windows Server 2008 R2
- Windows Server 2012
- Windows Server 2012 R2
- Windows Server 2016
- Windows Server 2019
- Windows Server 2022

The program supports both 32-bit and 64-bit versions of Windows, and can run under any edition, e.g. Windows 8 Pro, Windows 8 Enterprise, Windows Server 2012 Foundation, Windows Server 2012 Essentials, and other.

Hardware Requirements

The list of requirements is very moderate:

- 512 MB RAM or more.
- Pentium 300Mhz or higher.
- Mouse (recommended).
- Network adapter (recommended).

Due to its powerful design, the program doesn't slow down the PC at all.

Hard Disk Space

- 1 GB for **Standalone editions** (Standard, Professional, Small Server) or **Network Management Panel** (Network and Server Network editions).
- 250 MB for **Network Agent**.

File System Support

All components of our software are fully Unicode-enabled, which means that you can safely use it under any locale setting. The program supports all file systems used in Windows:

- NTFS
- ReFS
- FAT32/FAT32X
- FAT16/FAT16X

When running image-based backup or HDD cloning, you can work with partitions of any other file system:

- ext2
- ext3
- ext4
- HFS
- HFS+
- ReiserFS and other

Storage Media Support

- **Local Drives.** You can store backups to any local or external drives accessible in your system, including any types of SSD, eSATA, USB, FireWire, Flash, NAS and other media.
- **Network.** Backups can be transferred to network shared drives, FTP/SFTP/FTPS and WebDAV-based servers of any kind.

- **Cloud storages.** The software features built-in support for a variety of cloud storage services including Amazon S3, Google Drive, Microsoft OneDrive, Dropbox and other.

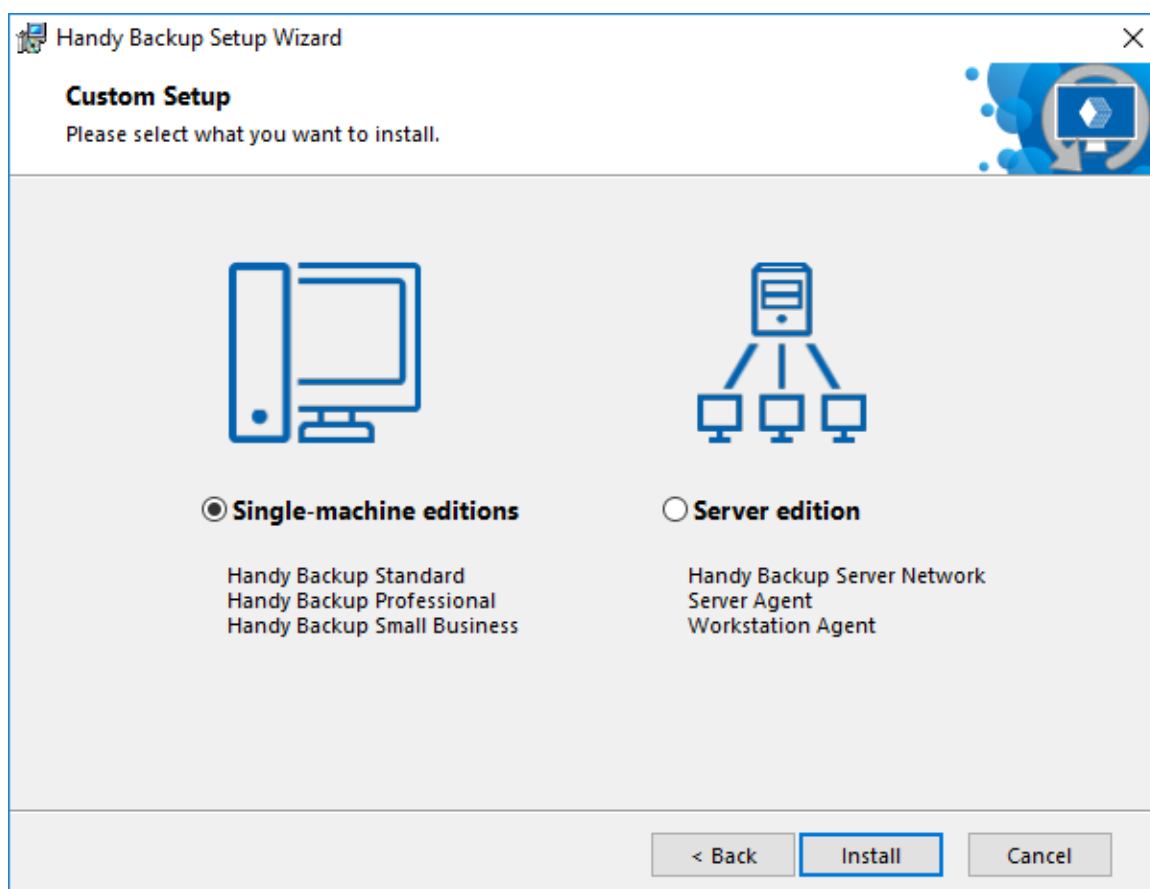
2.2 Installing Standalone Edition

The software is available in three Standalone editions: **Standard**, **Professional** and **Small Business**. The term "standalone" means that all components of the software are installed on one computer, and all data retrieval, processing and storage operations are handled by a single machine.

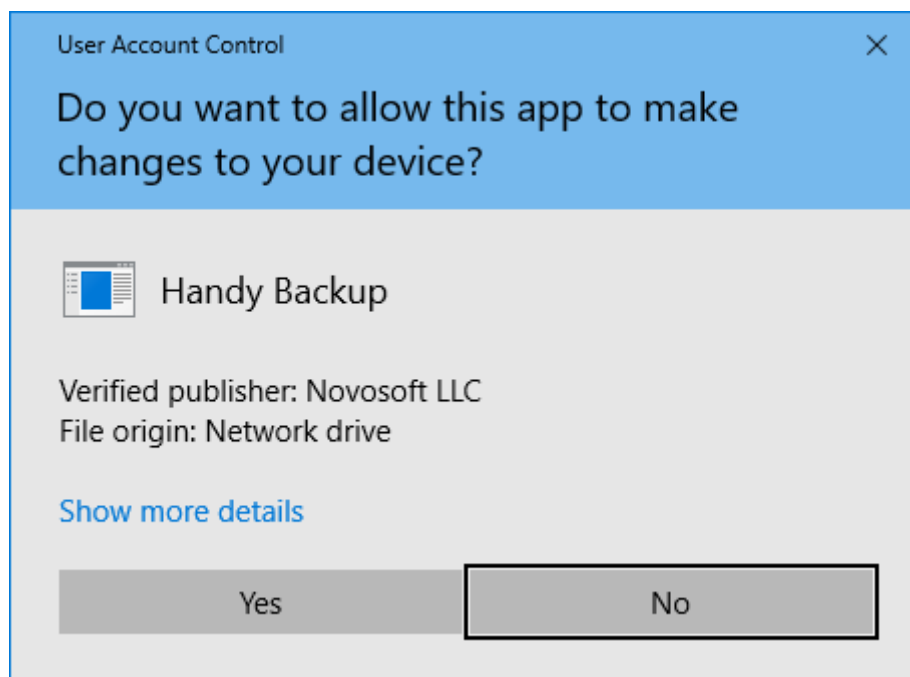
Installing

To install a standalone edition, follow these steps:

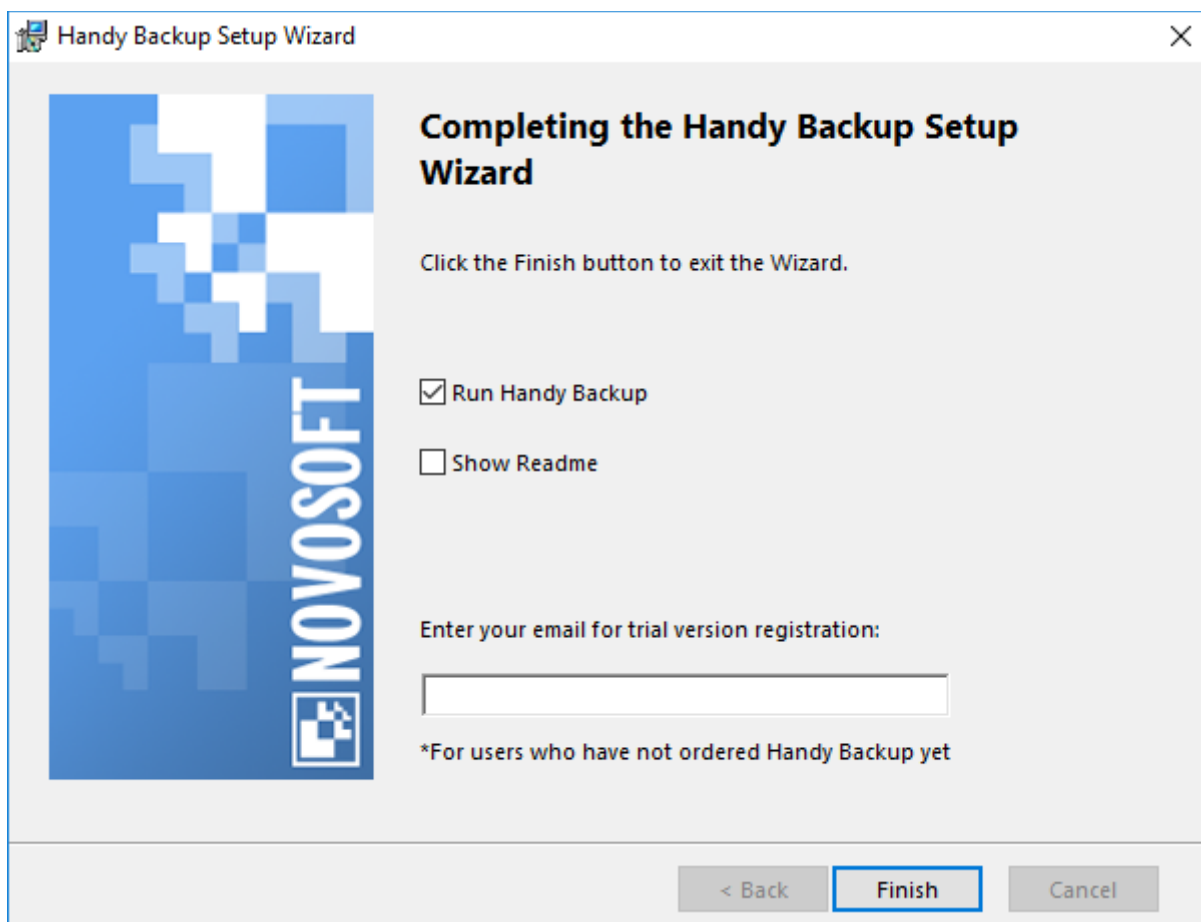
1. Run the installation file.
2. On the welcome screen, change installation parameters if you want (as described in the previous article).
3. On the **Custom Setup** step of the Setup Wizard, select "Single-machine editions" (default option), and then click **Install**.



If you have User Account Control enabled, then you will be prompted to confirm the installation. Click **Yes**.



4. On the final screen of the Setup Wizard, select if you want to start the program after installation, and if you want to see the Readme file with brief description of the program's features.



5. Click **Finish**.

Handy Backup User Manual

The program will start from the user account under which you launched the installation. This means that you will be able to back up data of this user only. To learn more about user privileges and accessing computer data, please see the [Workstation](#) section of this manual.

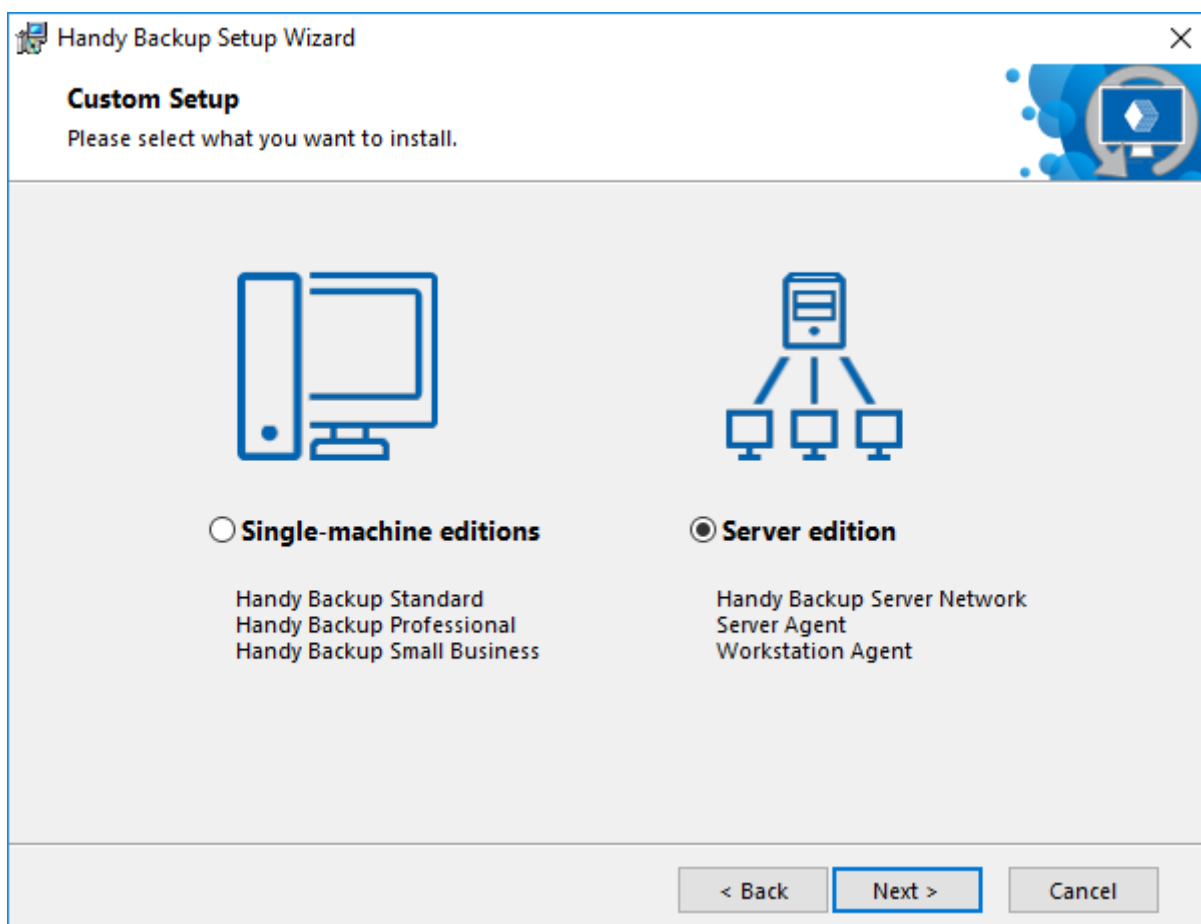
2.3 Installing Network Editions (Server Network)

Network edition of the program (**Server Network**) allows controlling backups of multiple computers from one control point. The scheme is divided by two parts:

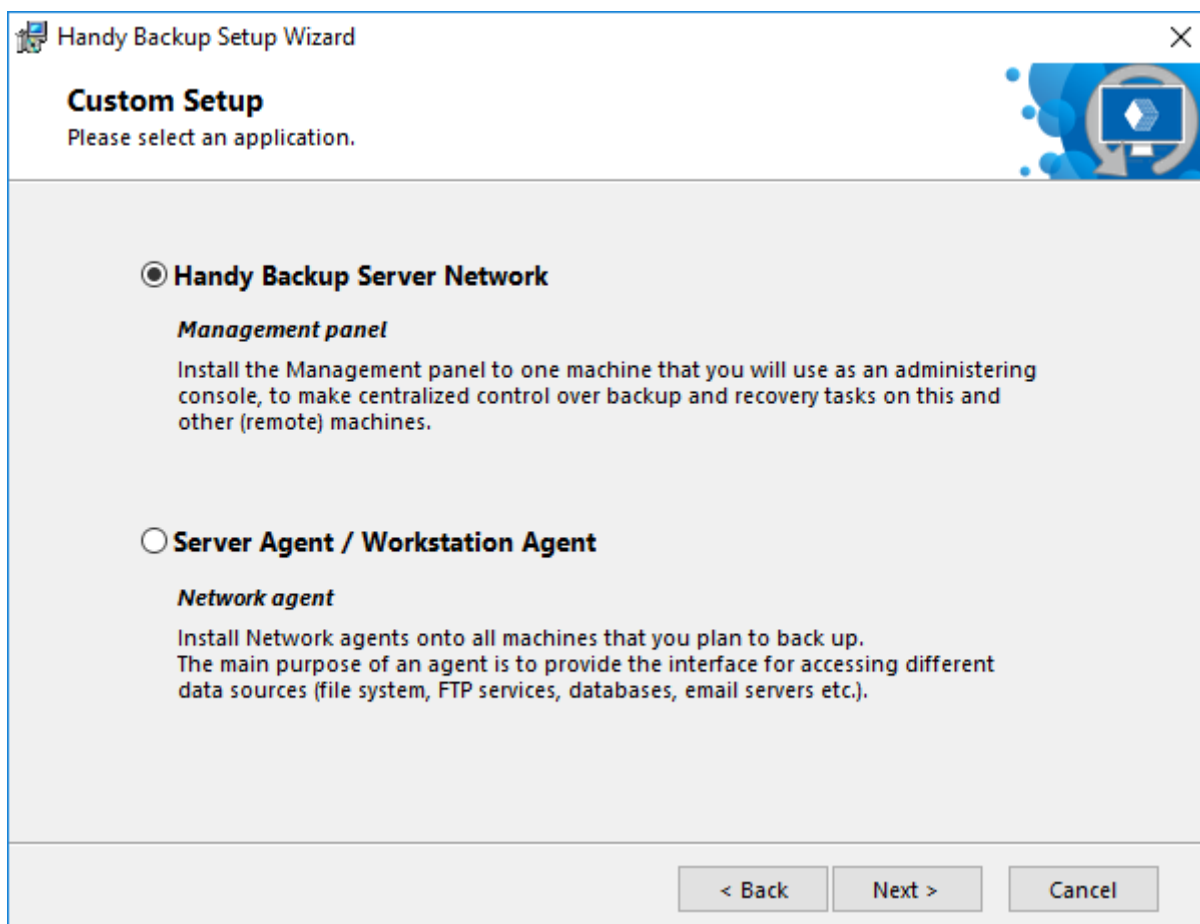
- **Management Panel** is installed on one computer (usually, administrator's machine) that will be used to control backups on networked workstations and servers.
- **Network Agents** are installed on all computers that you want to back up.

Installation of network editions is similar to installation of standalone editions:

1. On the **Custom Setup** step of the Setup Wizard, select **Server edition**, and then click **Install**.



2. Select "Handy Backup Server Network", and then click **Next**.



3. If you have User Account Control enabled, then you will be prompted to confirm the installation. Click **Yes**.

The Management Panel will be installed on your computer.

4. On the final screen of the Setup Wizard, select if you want to start the program after installation, and if you want to see the Readme file with brief description of the program's features.



5. Click **Finish**.

Besides network data, the Management Panel from the Server Network edition can be used to back up and restore data of a local PC. Technically, it is the same client-server scheme, in which a Network Agent installed locally, rather than on a remote computer. Local Network Agent always started from the user account under which you launched the installation. To learn more about user privileges and accessing computer data, please see [Workstation](#).

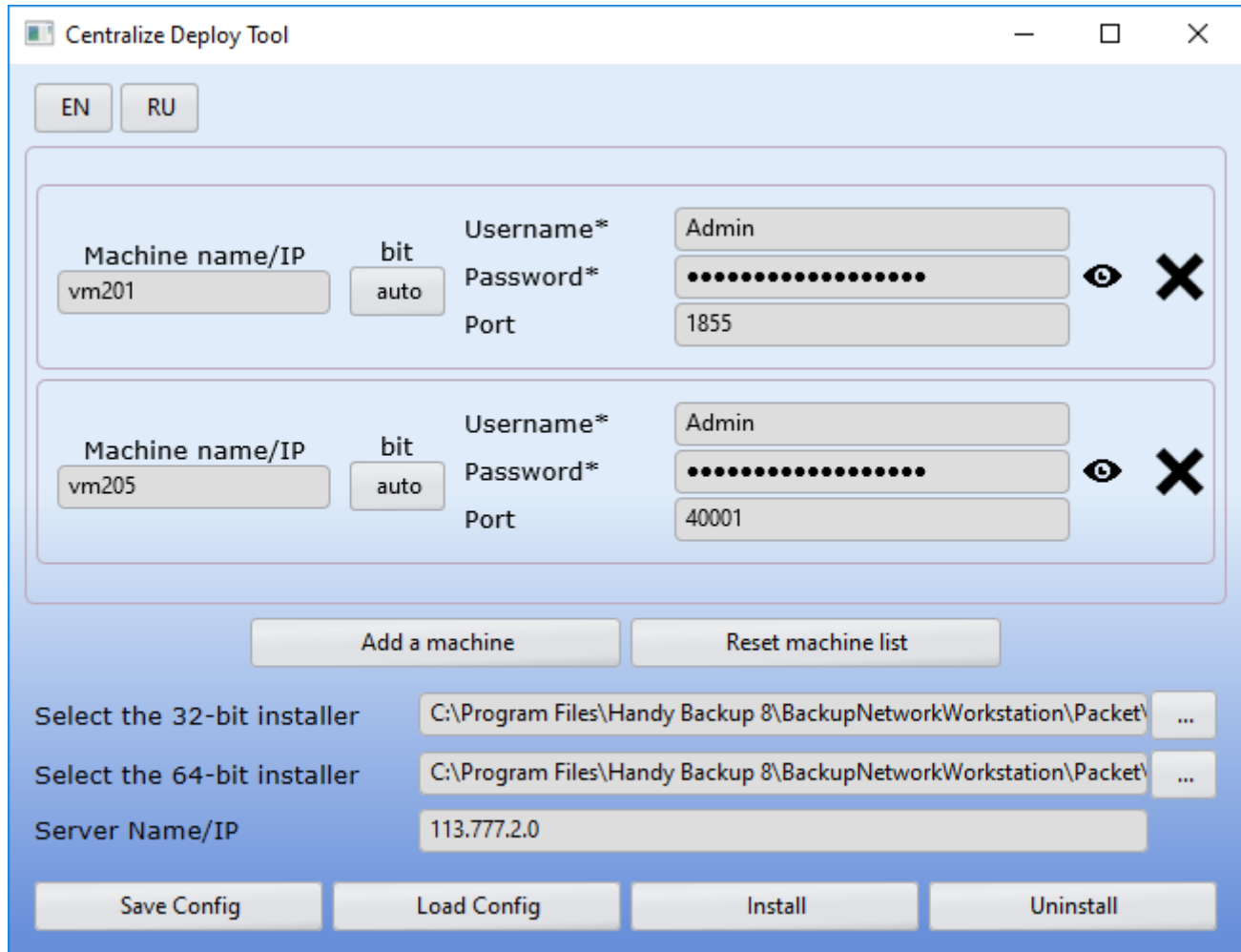
2.4 Installing Network Agents for Windows

The **Network Agent** is a client software for **Server Network** editions. The installation of network editions follow the scheme described below:

- Install the **Management Panel** of a network edition on administrator's computer. It will be used to control backups on **Workstations** and remote servers.
- Install **Network Agents** on all computers in your network you want to back up. They will provide **Management Panel** with the access to remote data.

• Centralized Installation of Network Agents with Centralize Deploy Tool

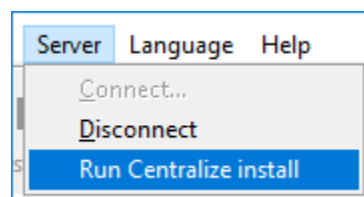
Handy Backup allows centralized deployment of Network Agents via the dedicated Centralize Deploy utility, distributed with the Server Network edition. To the reference, see the main utility window on the next screenshot.



To perform the centralized deployment, please follow the instruction listed below.

Install the Handy Backup Server Network management panel on the PC. Turn on the computer with the agent, without installing anything on it first.

1. Select the **"Run Centralize Install"** option in the **Server menu**. (Note that this option is available only in the Server Network edition.)

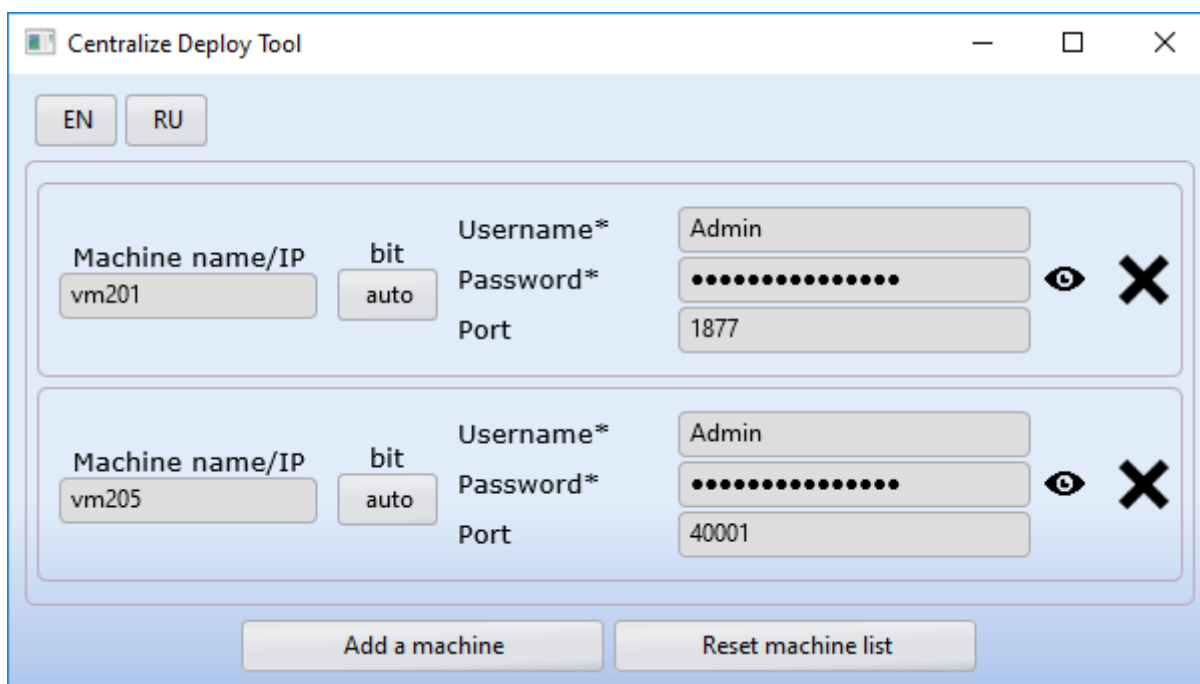


2. In a new dialog window, click onto the **"Add a machine"** option.

Handy Backup User Manual

3. In the next form, type **domains or names of machines** and then **usernames and passwords** for those users on remote machines who install the Network Agents.
4. You can also select the installation type (32- or 64-bit) for each machine if you need it (by default, the utility will make auto selection according to a target OS).
5. You can select any free port on the PC agent, for example, 455.

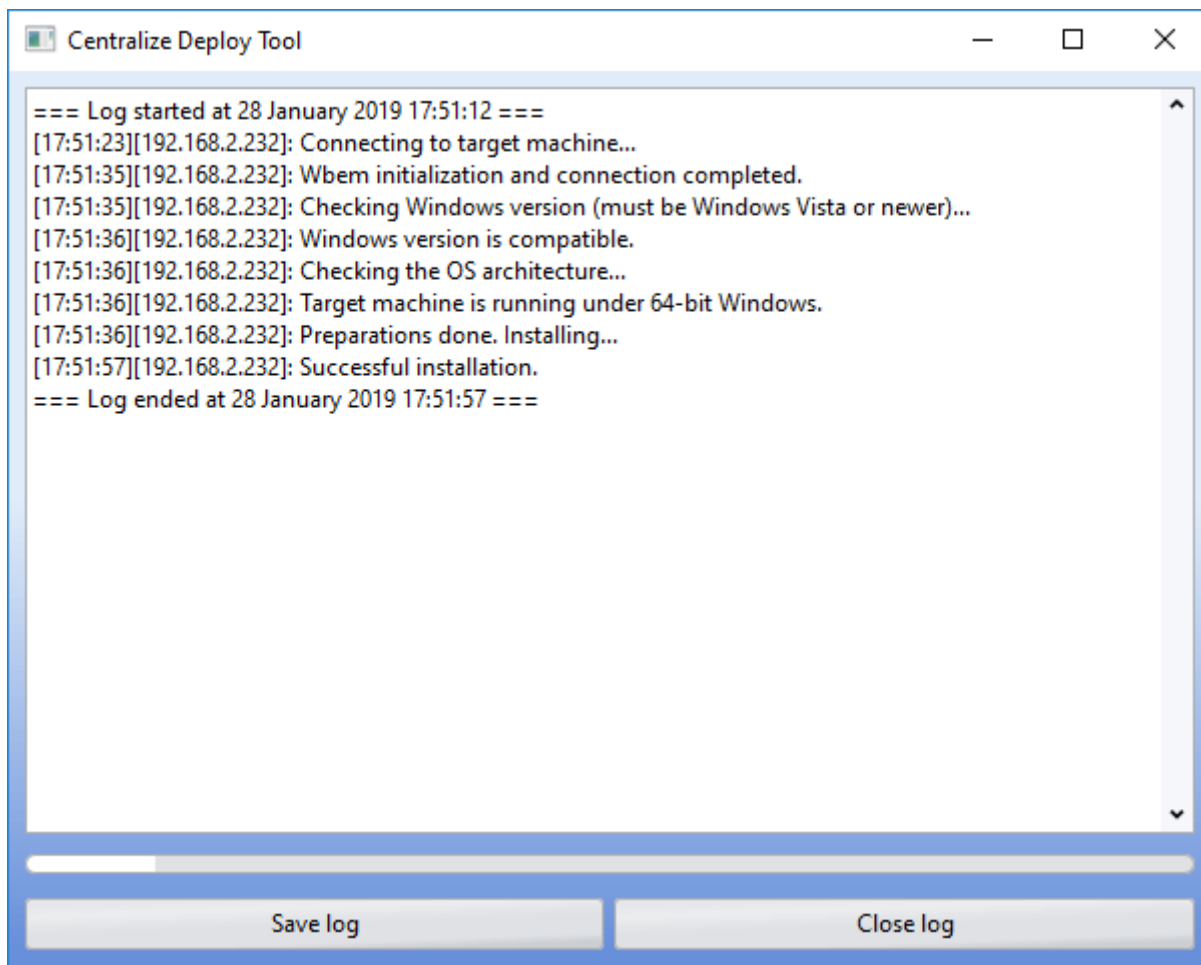
Note: This installation requires typing domain names or machine names before the username in the account! In addition, adding a new machine will copy a username and a password from the previous account, which is very useful when the administrator's account is the same for all computers.



The screenshot shows the 'Centralize Deploy Tool' window. At the top, there are language selection buttons for 'EN' and 'RU'. Below this, there are two identical configuration sections for machines. Each section contains fields for 'Machine name/IP', 'bit' (with an 'auto' button), 'Username*', 'Password*' (masked with dots and having an eye icon to toggle visibility), and 'Port'. The first machine is 'vm201' with 'Admin' as the username and '1877' as the port. The second machine is 'vm205' with 'Admin' as the username and '40001' as the port. At the bottom of the window, there are two buttons: 'Add a machine' and 'Reset machine list'.

Please consider that the Centralize Deploy utility keep all passwords in the encrypted format!

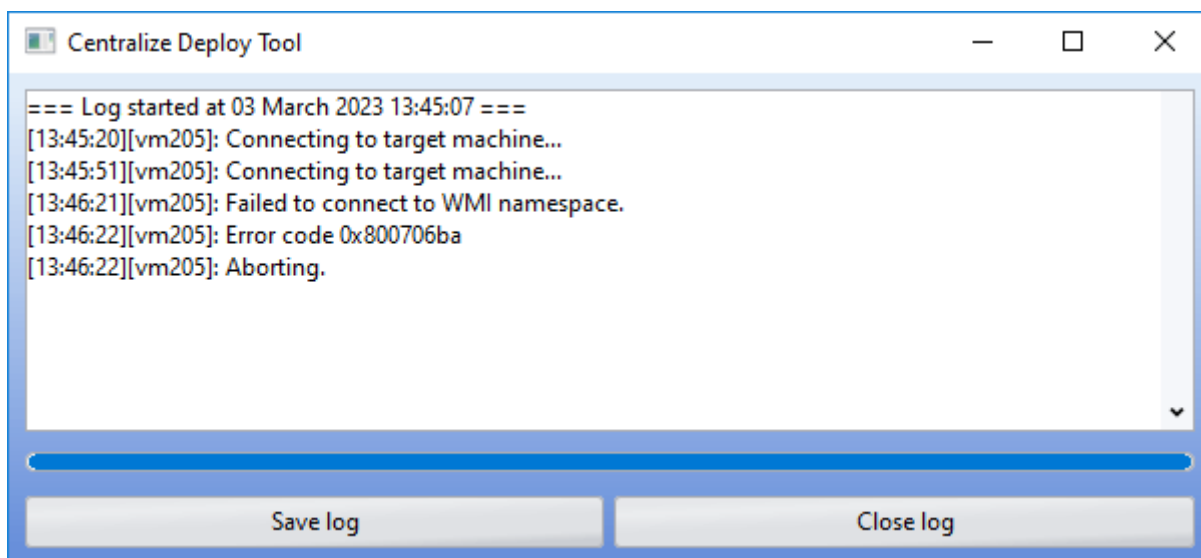
5. If you have several workstations, then after entering the settings for the first one, you need to click the "**Add a machine**" button and fill in the settings for the next agent.
6. Next, enter the **server name or IP** of the server PC on which the management panel is installed.
7. You can save the setup configuration and restore it later. To do this, click the "**Save Config**" button. To load the saved settings, click the "**Load Config**" button and select the required file with a configuration.
8. Now your utility is ready to install. If you entered correct data, start the **installation**.
9. The program will write a log file during installation. You can save this log to analyze it later.



This is all. Please configure your network edition of Handy Backup with the Network Agents you just install to remote machines!

• Fixing the WMI error in Centralize Deploy Tool

If a **WMI error** occurs after centralized agent installation via Centralize Deploy tool, use the instructions:



First, make sure that the **wimgmt RpcSs and RpcEptMapper services are running**. They are required to establish a remote connection with the machine.

If the services are running, but the installation fails to establish a connection with WMI, then you need:

1. Check the WMI settings:

- Open the WMI settings (press Win+R) and enter **wimgmt.msc**, then press enter.
- In the opening window click on the «**WMI Control**» and open properties, go to the Security tab.
- In the security tab, open the Root element, select the **CIMV2 element** and click the Security button.
- In the opening security Root\CIMV2 window, you need to add the "**DCOM users**" group and grant it permissions.
- Save and close.

2. Check the membership of the admin user in the group:

The administrator is considered to be the user system on the agent's machine (whose login is used), it is also specified in the connection settings in the «user» field in the Centralize Deploy Tool.

- Open the administrative utility "**local users and groups**", (press Win+R, and in the appearing window enter **lusrmgr.msc**, then press enter).
- In the window that opens go to the Users folder. Select the desired user, click on the RMB and open the **properties**.
- In the window that opens, go to the "Group Membership" tab, and add the "**DCOM Users**" group.
- Apply and close.

3. Check DCOM security settings:

- Open component services, to do this, press Win+R, and in the window that appears, enter **dcomcnfg**, then press enter.
- In the appearing window, open the Component services element -> Computers -> My computer, press "My Computer" PCM and open **properties**.
- In the window that opens, go to the go to the "COM Security" tab, and in turn open "Change restrictions..." for Access Rights and for Launch and Activation.
- Add, if there's none, the "**DCOM Users**" group and make sure, that it has permission for remote access.
- Apply and close.

Note: usually, by default, the "DCOM Users" group is already installed in the DCOM security settings, and it is enough to add it in the WMI settings and add the desired user to the group on whose behalf the installation will take place.

• Manual Installation of Network Agents

The **manual installation of Network Agents** provides an option of manual control over all aspects of installation and configuration of any Network Agent on a particular machine.

Causes for Manual Installation

You can have a need for configuring and installing Network Agents manually in some cases including:

- If some troubles emerge when configuring an Agent for a particular machine automatically;
- When you set up a remote Network Agent in a quite non-typical network architecture;
- To achieve an access to Linux-based remote machines;
- For fine-tuning some extra options such as using proxies and bridges, firewalls or other similar software.

For all these cases, you can install and configure your Network Agents manually. Read the next sub-chapters for taking detailed instructions about the manual installation and setup.

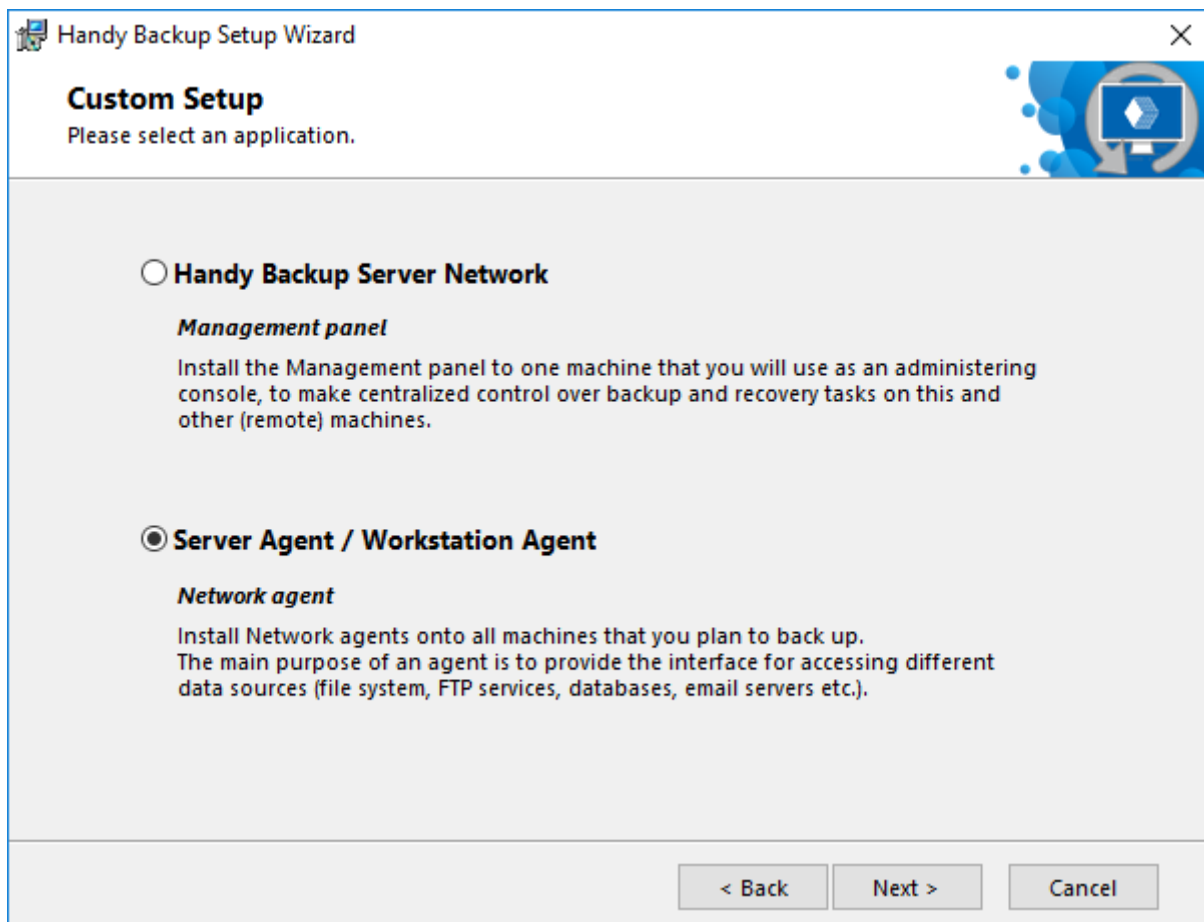
Selecting Installation Type

You can install Network Agents on remote machines by the two ways: locally or in a centralized mode. This chapter is about a local installation procedure. Please refer to the corresponding chapter for instructions describing a process of centralized installation.

Installing a Network Agent

To install a Network Agent, follow these steps:

1. On the **Custom Setup** step of the Setup Wizard, select the "**Server edition**" option, and then click the "**Next**" button.
2. On the next screen, select the "Server Agent / Workstation Agent" option and click "**Next**".

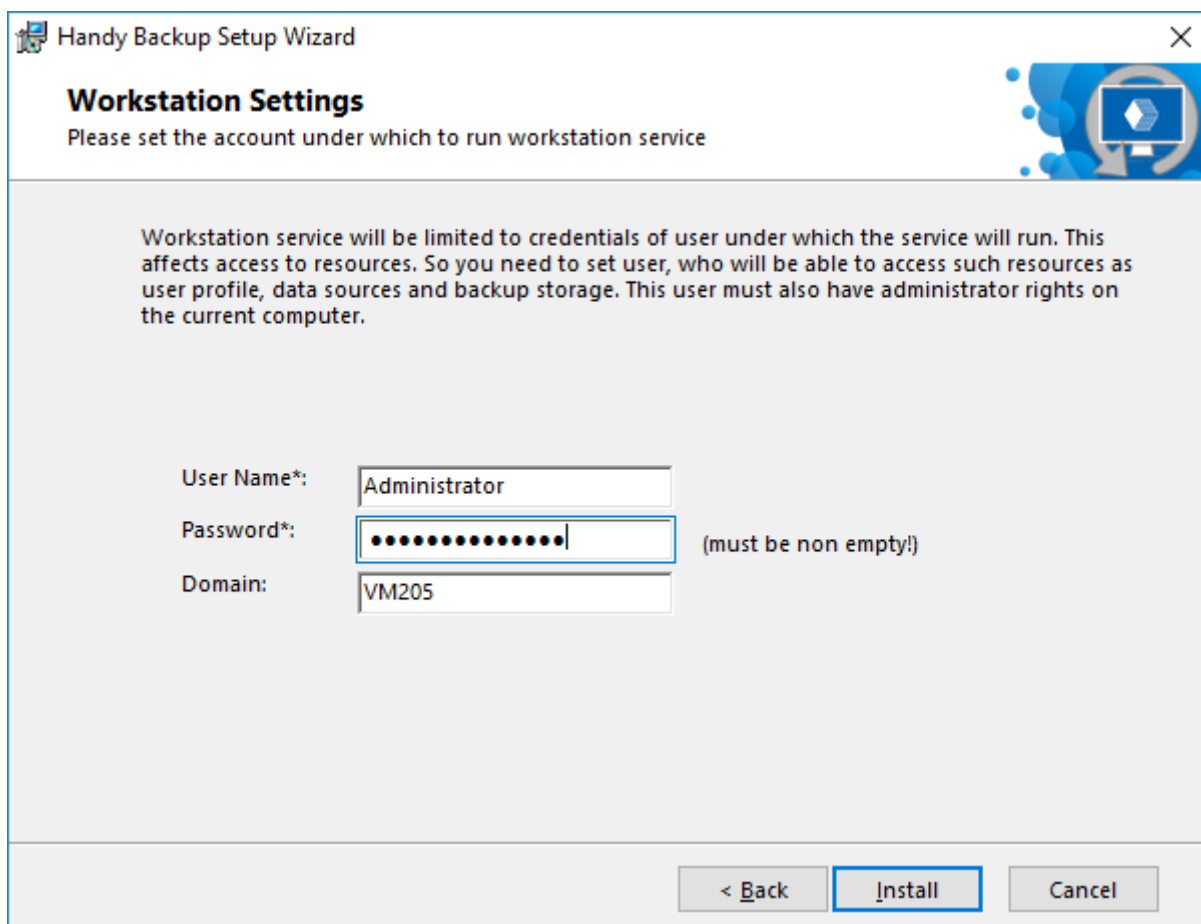


The **Network Agent Settings** window will appear.

3. On the **Network Agent Settings** step, select user account under which Workstation will be installed.

Network Agent is always launched from a certain user account, and allows backing up data that can be accessed by this user only.

- **Local System** – use this option to run the Network Agent from the SYSTEM account, i.e. you won't be able to back up Windows Libraries, Outlook and other user-specific data.
- **Custom Account** – use this option to run the Network Agent from a specific user account with its own access rights and privileges.



4. Click **Install** to start the installation.
5. If you have User Account Control enabled, then you will be prompted to confirm the installation. Click **Yes**.

The program is installed on your computer.

6. On the final screen of the Setup Wizard, select if you want to see the Readme file with brief description of the program's features.
7. Click **Finish**.

After the installation, you will need to configure the Network Agent, so it can register on a networked **Management Panel** of some network edition, and allow it to access its data. Please see the next chapter for details.

Configuring Network Agents Manually

Technically, the file **workstation.hbl** is a common XML file in which all parameters are available in a simple and readable form.

Specifying Server Settings

To specify **Server** to connect to, follow these steps:

1. Open the Network Agent settings file (**C:\ProgramData\Novosoft\Handy Backup 8\Users\[username]\Settings\Services\workstation.hbl**) with any text editor.
2. Find and modify the **WorkstationHost** parameter:
<param name=" WorkstationHost">localhost</param>

and instead of localhost, insert the IP of the machine on which the agent is installed, for example, 192.168.2.138:

<param name=" WorkstationHost ">192.168.2.138</param>

3. Find and modify the **CoordinatorHost** parameter:
<param name="CoordinatorHost">localhost</param>

For example, if your Server is located at 192.168.1.100, you need to change it as follows:

<param name="CoordinatorHost">192.168.1.100</param>

4. Restart the Network Agent.

To restart the Network Agent, go to Windows services, find a service named **Handy Backup Network Workstation 8**, and restart it.

• For Configuring and Installing Network Agents Manually

Step 1. Before the Manual Installation

To **start setting up** Handy Backup on remote computers, you need the next things:

1. Pack of setup files (see below);
2. Actual version of Handy Backup installation package;
3. PSEXec utility.

Setup Pack

The **pack of files you need** for installing contain of:

- This manual;
- The file **remote_workstation_deploy.bat**;
- The file **ComputersList_64bit.txt**;
- The file **ComputersList_32bit.txt**.

You can download setup files there: [download network agent setup files](#)

If you lack any of these files, please call for our Handy Backup manager or send us E-mail using this contact: sales@handybackup.net.

Handy Backup Installation Package

The most current version of Handy Backup distributive is available on official site: www.handybackup.net/download.shtml

You can download installation packages directly using these links:

[handybackup_setup.msi](#) - 32-bit installation package.

[handybackup_setup_x64.msi](#) - 64-bit installation package.

Note: Download the installation package that is appropriate for your OS (i.e. 32-bit for 32-bit Windows editions and 64-bit for 64-bit Windows)!

The Management Panel and Network Agents are installing from the common package.

Handy Backup User Manual

PSEXec Utility

PSEXec utility can be downloaded using the next link:

<http://technet.microsoft.com/en-us/sysinternals/bb897553.aspx>.

Step 2. Installation of Management Panel

To install the Management Panel on your main computer, use the next sequence of actions:

1. Run the Handy Backup installation.
2. Select “Handy Backup Network / Handy Backup Server Network” (the second option in a list) as a type of installation.
3. On the next step named “Workstation Settings” choose installing under the account of network administrator, giving appropriate name and password.

This sequence allows you to install Management Panel successfully.

Step 3. Installation of Network Agents

To install Network Agents on remote computers linked in domain, follow these guides:

1. Create the directory **c:\psexec** and extract in this directory the utility PSEXec from archive.
2. Create the directory **c:\remoteinstall** and another directory called **c:\remoteinstall\hb_distributives** inside it.
3. Place files **ComputersList_32bit.txt**, **ComputersList_64bit.txt** and **remote_workstation_deploy.bat** into the directory **c:\remoteinstall**.
4. Place the 32-bit and 64-bit Handy Backup installation packages into the directory **c:\remoteinstall\hb_distributives** and rename it to **handybackup_32bit.msi** and **handybackup_64bit.msi**, respectively.
5. Edit files **ComputersList_32bit.txt** and **ComputersList_64bit** with any text editor, appending in these files network names or IP addresses of remote computers where you plan to install Network Agents.

In **ComputersList_32bit.txt** file listed all machines where 32-bit version of Network Agent will be installed, and the file **ComputersList_64bit.txt** contains the names of machines designated for 64-bit version.

Every name or IP address in these files must be placed in a separate string!

Handy Backup User Manual

6. Edit the batch file called **remote_workstation_deploy.bat**, inserting appropriate values for these next variables in it:

DOMAIN_AND_USER_FOR_REMOTE_CONNECTION="[domain_name]\[user_name]"

PASSWORD_FOR_REMOTE_CONNECTION=[user_password]

These two variables contain user data of account under that the connection and remote installation will be executed.

...

HB_COORDINATOR_HOST=[host_IP_address]

This variable contains a host IP address of the computer containing Management Panel.

...

WORKSTATION_SERVICE_USER=[user_name] WORKSTATION_SERVICE_DOMAIN=[domain_name]

WORKSTATION_SERVICE_PASSWORD=[user_password]

These three variables contain user account data under which the Network Agent will be opened on remote computer.

7. Share the directory **c:\remoteinstall\hb_distributives** with user specified in **DOMAIN_AND_USER_FOR_REMOTE_CONNECTION** making it accessible to read by this user.

8. Run the Console application (**CMD**) and go to the directory **c:\remoteinstall**:

cd c:\remoteinstall

Now run the installation batch file called **remote_workstation_deploy.bat**

As all Network Agents are installed, Handy Backup is prepared for work.

Frequently Asked Questions

Question (Q): What if Network Agents were installed before on remote computers?

Answer (A): We are recommending uninstalling old versions of Network Agents before new installation.

Q: Will I need to configure some extra parameters after the installation of Network Agents?

A: As a general rule, no extra actions will required, as all the parameters needed are setted up during the installation process.

Q: How to install Handy Backup Network Agents on Linux-based machines?

A: The separate instruction for Linux Network Agents is existed. Tell us please if you need a copy of one.

Q: What if some machines where I plan to install Network Agents are not a part of domain?

A: These computers can be set up separately. Call us please for special instructions of installing Handy Backup Network Agents on non-domain machines when you need it.

Alternate Methods of Remote Installation

These are some other methods of installing Network Agents on remote computers existed:

1. Use no shared network resources for distribution. Instead the installation package copied as whole on a target computer using PSEXec with a key -c:

psexec -c

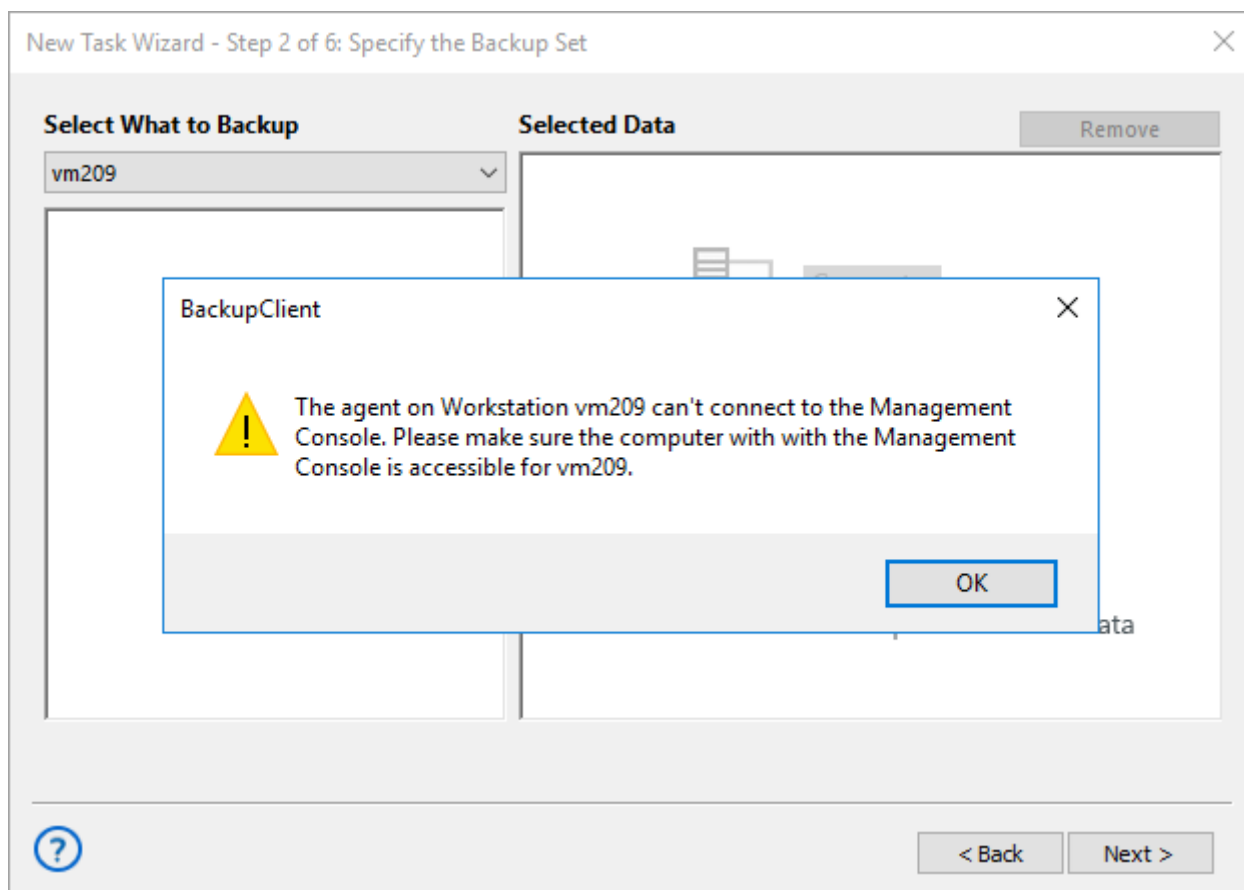
2. No PSEXec or scripts are used. Handy Backup is installed manually on all the machines in the network.

• Troubleshooting Problems with Network Agents for Handy Backup

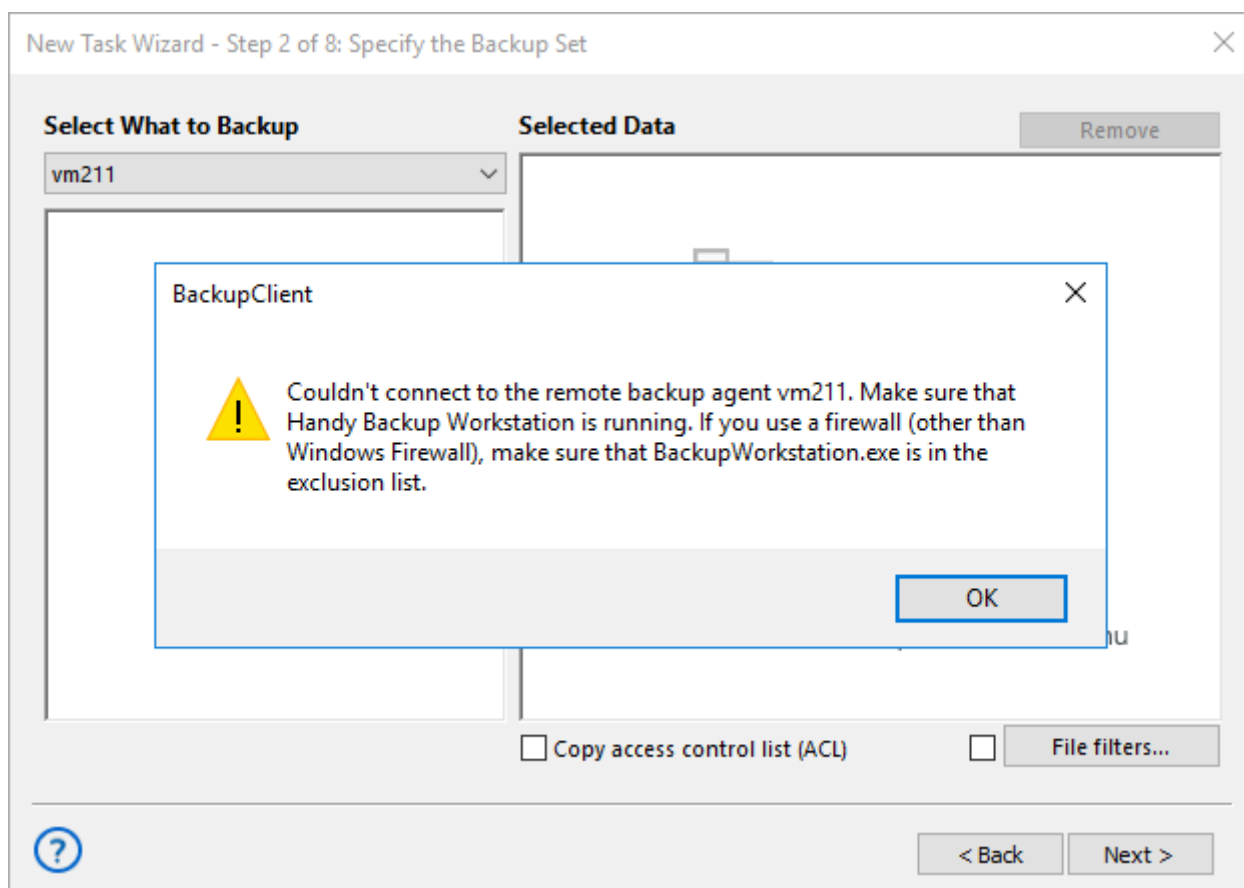
In some cases a remote machine remains unavailable for accessing via the Management Console after installing a Network Agent on it. In these cases a user can try to eliminate problems manually.

Typical problems often be of these two types:

- A Network Agent on a remote machine cannot connect to Management Console;



- The Management Console cannot connect to a remote computer.



A Network Agent Cannot Connect to the Management Console: Troubleshooting

Step 1

At first, ping a connection between a remote machine and the Management Console server. To do it, run the three next commands in a command line on the remote computer:

```
ping <Panel Full Hostname>
```

```
ping <Panel Hostname>
```

```
ping <Panel IP>
```

Here <Panel Full Hostname> is a full network name of a machine containing the Management Console, <Panel Hostname> is a short network name for this machine, and <Panel IP> is an IP address for this machine, correspondingly.

If no one of those commands connected to the Management Console, then please call for a system administrator to check network parameters. If one of previous commands was successful, then please remember all parameters of this command before going to next step.

Step 2

Open the Windows registry on a machine containing the Management Console by using **Regedit** or a similar utility, and add the key --HostNameInIOR <IP address or a network name> in the next field:

HKLM/System/CurrentControlSet/Services/HandyBackupServer8/ImagePath

Here the parameter <IP address or a network name> must be identical to those from the Step 1 that allows the Agent make a connection with the Management Console machine.

After changing the registry, please restart the service called "Handy Backup Server 8" on a computer containing the Management Console.

You can find and restart this service by using the next sequence of Windows control functions:

Management Panel --> Administering --> Services --> Handy Backup Server 8.

As the next operation, you will need to re-configure a Network Agent on a computer with the Management Console. To do it, please find and open the file **workstation.hbl** in any text editor:

C:\ProgramData\Novosoft\Handy Backup 8\Users\[username]\Settings\workstation.hbl

Handy Backup User Manual

Here **[username]** is a name of system user who started a Management Console. If the Management Console runs under the "Local System", then the username will be SYSTEM (varies from the Windows default language).

To configure the Network Agent, provide a name or IP address obtained on **Step 1** in the **CoordinatorHost** and **WorkstationHost** fields.

After changing the file **workstation.hbl**, restart a service by using the next Windows control sequence:

Management Panel --> Administering --> Services --> Handy Backup Network Workstation 8.

The Management Console Cannot Connect to a Network Agent: Troubleshooting

Step 1

Firstly ping a connection between a remote machine and the Management Console server. To do it, run the three next commands in a command line on the Management Console server:

```
ping <Agent Full Hostname>
```

```
ping <Agent Hostname>
```

```
ping <Agent IP>
```

Here <Agent Full Hostname> is a full network name of a workstation or a server containing a Network Agent, <Agent Hostname> is a short network name for this machine, and <Agent IP> is an IP address for this machine, correspondingly. If no one of those commands can connect to a remote machine, then please call for a system administrator to make necessary network actions. If one of previous commands was successful, then please remember all parameters of this command before going to next step.

Step 2

On a remote machine with a Network Agent, find the file **workstation.hbl** and open it in any text editor:

C:\ProgramData\Novosoft\Handy Backup 8\Users\[username]\Settings\workstation.hbl

Here **[username]** is the name of a user who runs a Network Agent on the system. If a Network Agent was installed under the "Local System" then a username will be SYSTEM (may change depending from local Windows language on a remote machine).

In the file **workstation.hbl** write a name or an IP address obtained on the **Step 1** in the **WorkstationHost** field.

After changing the file **workstation.hbl** restart a service by using the next Windows control sequence:

Handy Backup User Manual

Management Panel --> Administering --> Services --> Handy Backup Network Workstation 8.

Overriding Firewall

By default, Handy Backup uses the first free port to establish a connection between a Network Agent and the Management Console. If your firewall blocks unknown ports, please provide a port for a connection manually in the file **workstation.hbl**:

```
C:\ProgramData\Novosoft\Handy Backup 8\Users\[username]\Settings\workstation.hbl
```

Here *[username]* is the name of a user who installed a Network Agent. Add a port in the list of exceptions for a firewall.

To change a default port value, provide a port number in the **WorkstationPort** field.

After changing the file **workstation.hbl** restart the service by using the next Windows control sequence:

Management Panel --> Administering --> Services --> Handy Backup Network Workstation 8.

If you still have any problems, please contact our support team: support@handybackup.net

2.5 Installing and Configuring Network Agents for Linux

The workstation is distributed as a portable version in the form of an archive with data, before installation it is necessary to download the archive from the link:

- Red OS - dl.handybackup.net/handybackup-linux-workstation.zip.

System Requirements:

- Minimum version of **RED OS 7.3**;
- 64-bit processor with x86-64 architecture;
- Availability of the following libraries:
 - **zlib**: necessary for working with data compression.
 - **librsync**: used for efficient synchronization and transmission of changes between files.

Additional requirements for working with PostgreSQL:

Availability of the following libraries

- **libpq**: allows interaction with the PostgreSQL database.
- **postgresql14**: client tool for working with PostgreSQL version 14.

Basic Requirements:

- To use the **workstation** (network agent), you need the server version of Handy Backup.
- The Handy Backup Server Network **control panel**, installed on a machine with the **Windows OS**.
- Handy Backup Server Network solution is required for using the workstation.
- The server and coordinator computers must be configured to accept incoming network connections from the workstation.
- The workstation computer must be configured to accept connections from the server computer.
- Machines must be on the same local network.

Installation and Configuration of the Network Agent

1. Retrieve the data from the archive.

Note: Make sure that the unpacking path of the archive contains only **Latin characters** to avoid display issues in the interface.

2. To generate the configuration file, launch the workstation by navigating to the following location:

<extraction_location>/HandyBackupWorkstation8/bin/HandyBackupWorkstation8

3. To edit the configuration file of the workstation, navigate to:

<extraction_location>/HandyBackupWorkstation8/var/HandyBackup8/Settings/workstation.hbl

and input the connection details into the following lines:

- **WorkstationHost** - the IP address of the computer where the workstation is running.
- **Name** - the display name of the workstation when connecting to the coordinator.
- **CoordinatorHost** - the IP address of the computer where the coordinator is located.
- **CoordinatorPort** - if the coordinator's port hasn't been changed, leave the default value.

4. To apply the new configuration file settings, restart the workstation located at the following path:

<extraction_location>/HandyBackupWorkstation8/HandyBackupWorkstation8/bin/HandyBackupWorkstation8

Updating or Reinstalling the Network Agent

1. Create a backup of the configuration file in advance to preserve its current settings.
2. Delete the **HandyBackupWorkstation8** folder.
3. Repeat the workstation installation process using the new archive.
4. Replace the configuration file with the backup from step 1 or reconfigure it from scratch.

Handy Backup User Manual

Installation and Configuration of the Network Agent via Terminal

1. Download the data archive and unzip it:

```
tar -C <extraction_location> -xzf <path_to_archive>
```

Replace **<path_to_archive>** with the path to your downloaded archive and **<extraction_location>** with your desired location for unpacking the workstation.

2. Generate the configuration file by launching the workstation:

```
cd <extraction_location>/HandyBackupWorkstation8/bin/HandyBackupWorkstation8
```

3. Edit the workstation's configuration file using a text editor like nano:

```
<extraction_location>/HandyBackupWorkstation8/var/HandyBackup8/Settings/workstation.hbl
```

Adjust the following lines in the file to match your settings:

- **WorkstationHost=<station_IP_address>**
- **Name=<displayed_station_name>**
- **CoordinatorHost=<coordinator_IP_address>**
- **CoordinatorPort=<coordinator_port>**

4. Save your changes and exit the text editor.

5. To apply the new settings, restart the workstation:

```
cd <extraction_location>/HandyBackupWorkstation8/bin/HandyBackupWorkstation8
```

Updating or Reinstalling the Network Agent via Terminal

1. Create a backup copy of the configuration file in advance to preserve its current settings.
2. Delete the previous HandyBackupWorkstation8 version:

```
rm -r <extraction_location>/HandyBackupWorkstation8
```

3. Reinstall and configure the workstation using the new HandyBackup version.
4. Finally, replace the configuration file with the backup created in step 1, or reconfigure it according to your preferences.

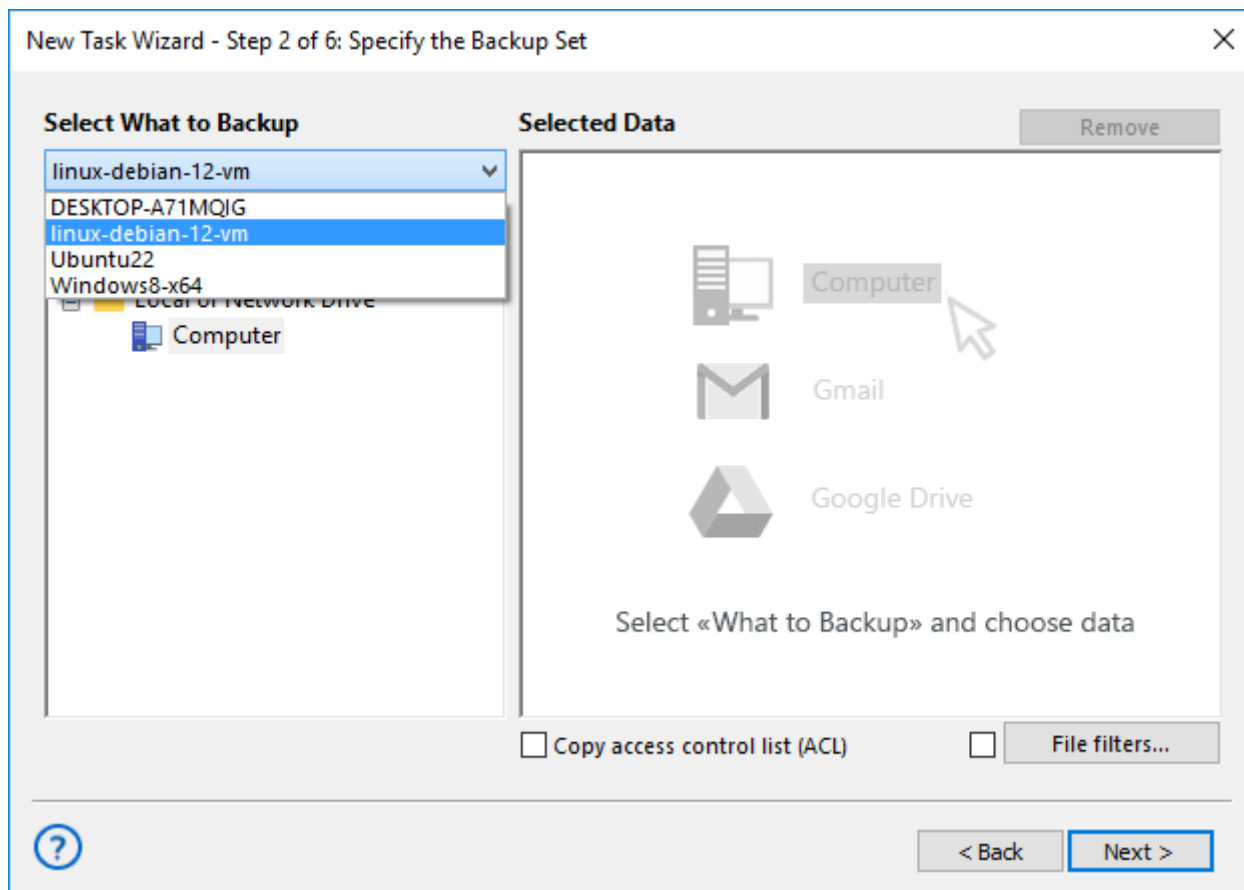
Creating a Backup Task for the Linux Network Agent from the Windows Central Panel

1. Select the "Create Backup" task type* and click 'Next'.

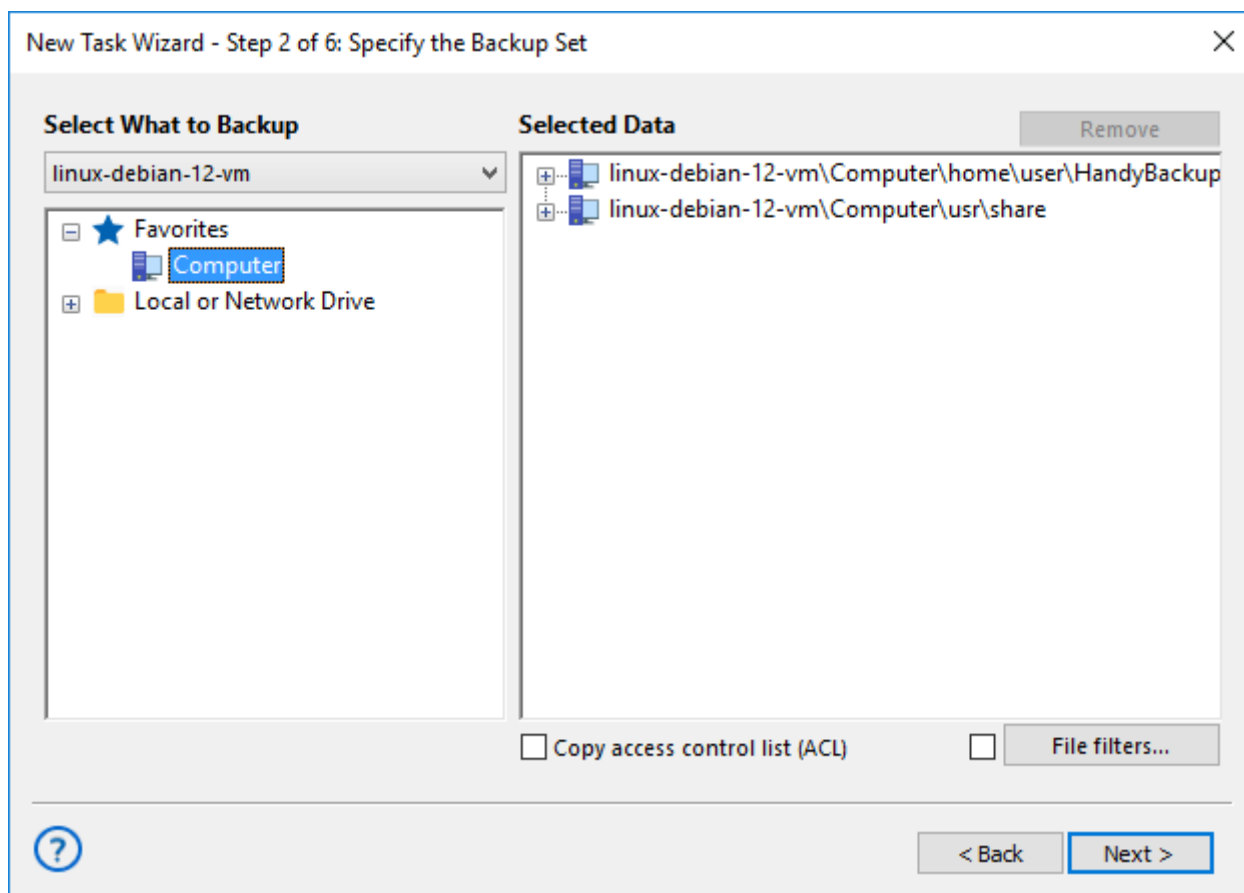
Handy Backup User Manual

* **Note:** In this example, a task is created in Simple Mode. If you require more advanced program features, such as choosing the backup type, configuring pre/post-task execution, and so on, you should check the “Advanced Mode” option.

2. On step 2, choose the connection to the Linux network agent (workstation):



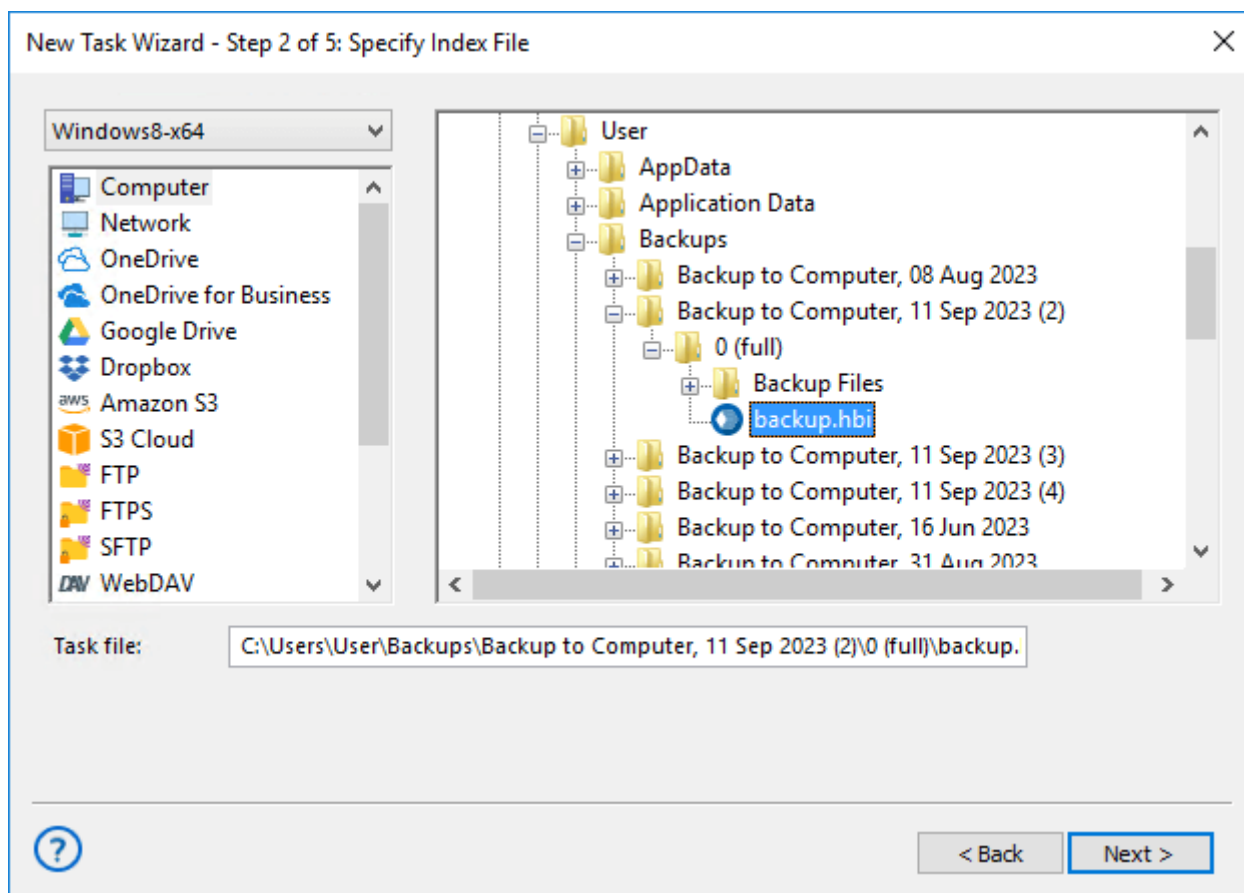
3. Select the files for backup (currently, only the “**Computer**” plugin is available for Linux workstations):



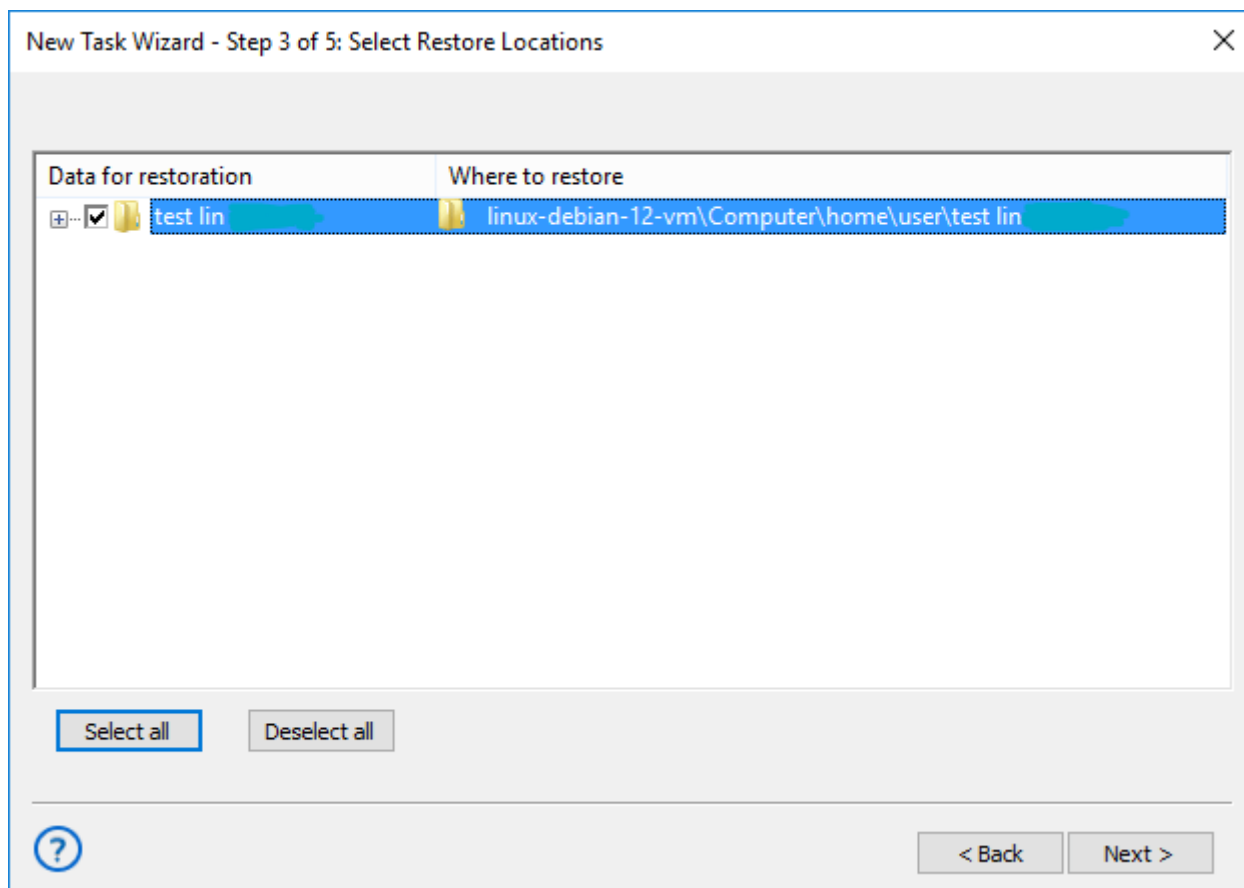
4. On step 3, choose the location where backups will be created.
5. On the next step, select compression and encryption options.
6. On step 5, set the task schedule.
7. On the final step, provide a task name and click 'Done'.

Setting Up a Data Restoration Task for the Linux Network Agent from the Windows Central Panel

1. On the first step, select the 'Restore' task type.
2. On the second step, specify the location of the '.hbi' file for the recovery task:



3. On the next step, choose the files for recovery:



4. On step 4, select the recovery type.
5. On the final step, provide a name for the backup task and click 'Done'.

2.6 Updating from Earlier Versions

Handy Backup is a live product that is regularly updated. We add new features, fix bugs, improve performance, introduce GUI optimizations and make other changes, releasing updates every 1-2 months. You can always get the latest version from the product website: www.handybackup.net/download.shtml

At present, all updates need to be made manually. To do it, follow these steps:

1. Check that there is a new version available on the website.
2. Uninstall an old version.
3. Download and install the new version.

All settings and tasks will remain unchanged.

4. If you are using the **Server Network** edition, carefully check if there are any special update instructions. We do our best to maintain backward compatibility, but in rare cases you may need to reinstall Workstations, so they can work with the latest Server version.

Updating from Version 7

Since version 7, the software has undergone a major upgrade, and there is no way to transfer or convert tasks between versions (up to version 7.8.2).

In the version 7.8.2 and later, you can migrate tasks automatically. To do it, export all tasks from your version 7, then install the version 8 and import* these tasks to the new version.

Warning! MS SQL and Oracle backup tasks will not convert directly from version 7 to 8, due to changes in basic plug-in configuration!

Learn more about [Export and Import tasks](#).

Recommended way of migrating from version 7 to version 8 is as follows:

1. Open task properties in version 7, browse and keep these properties manually.
2. Download and install the latest version.

3. Create a similar task set in version 8, making all properties for each task according to properties retrieved from version 7 tasks.
4. Repeat step 3 for all tasks of the old version.

* Note that you can import tasks only in a purchased version Handy Backup, not in a free trial version!

To learn more about creating tasks, please see [Managing Data](#).

2.7 Uninstalling

To uninstall Handy Backup, use the common Windows method: Open Control Panel, and click **Uninstall a program** in the **Programs** section. Find Handy Backup in the list, select it, and then click **Uninstall** on the toolbar.

After you select to uninstall the program, follow the steps of the Wizard.

When you uninstall the program, all settings, tasks and registration information are left on the computer. If you decide to install it again (e.g. if you are updating to a new version), you won't need to create them again.

3 Registration

During the first 30 days after installation, you can use all features of the software without any limitations. When the trial period expires, you will need to register the program. Exact set of features you can use after registration is defined by your registration number.

Obtaining Registration Number

- The exact functionality of the program after registration is defined by the registration number. Each number is unique and depends on the edition that you purchase (Standard, Professional, Small Server, Network or Server Network).

It is delivered to you via e-mail immediately after the payment is processed. To order, please refer to the [Order](#) section.

- When you register Handy Backup, some of its features may stop working (as compared to the trial version). This applies to all features that are not included into the purchased edition.

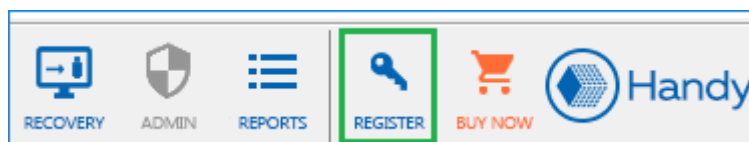
If at a later time you encounter the need to use the functionality that is unavailable, you can always enable it by upgrading your registration number. See [Upgrades](#) for details.

Registration can be made in a “common” way, over the Internet, and via e-mail.

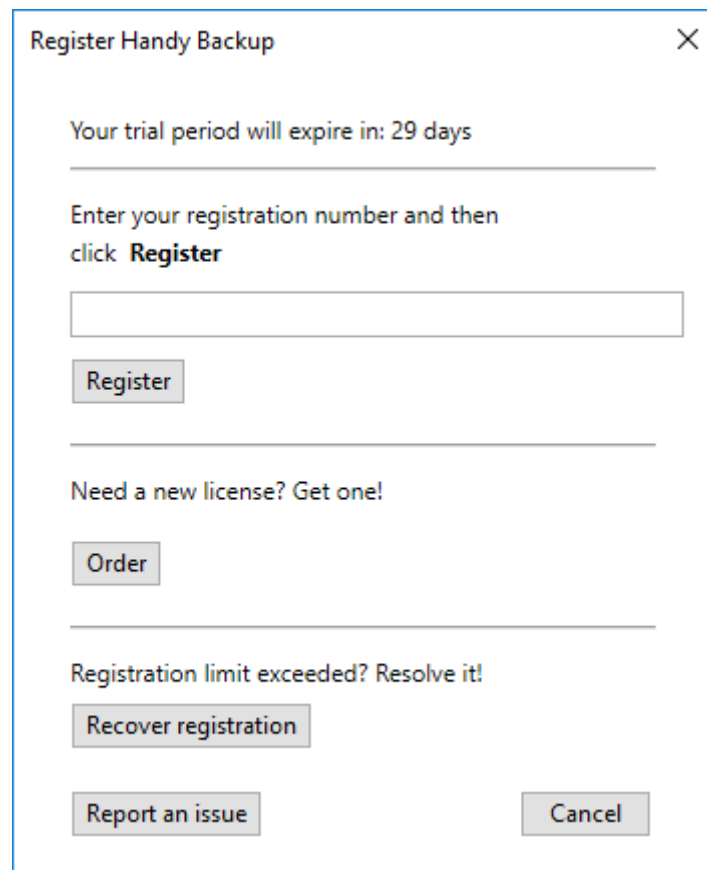
Registering over Internet

To register the program, follow these steps:

1. Click the **Register** button on the program's toolbar.



The **Registration** window opens.



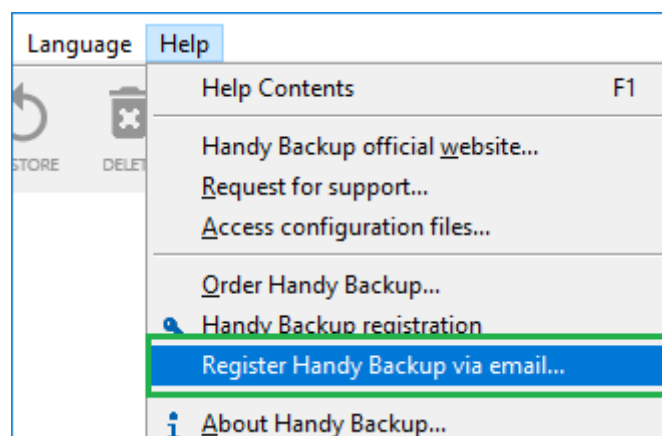
2. Enter your **registration number**, and then click **Register**.

Note: If registration doesn't succeed for the first time, it is recommended to try again. Sometimes it may fail due to connection errors.

Registering via E-mail

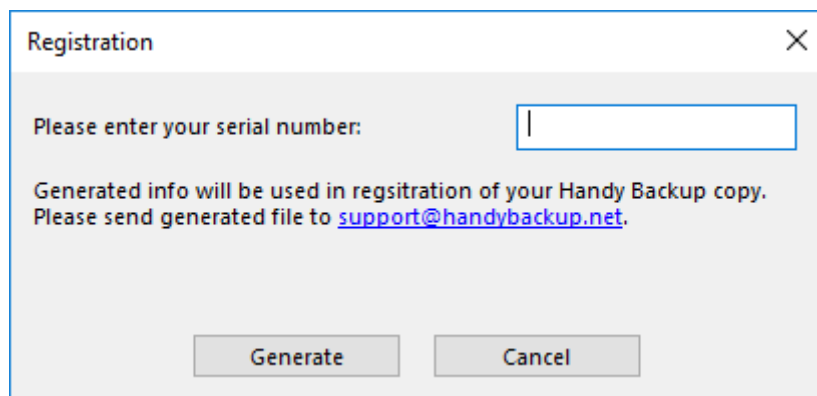
Sometimes the direct registration is undeserved or impossible (e.g. for registering a copy for the different computer not plugged to Internet). Then you can register the program via e-mail. To do it, follow these steps:

1. Open the **Help** menu item and find the **Register Handy Backup via email...** option.



Handy Backup User Manual

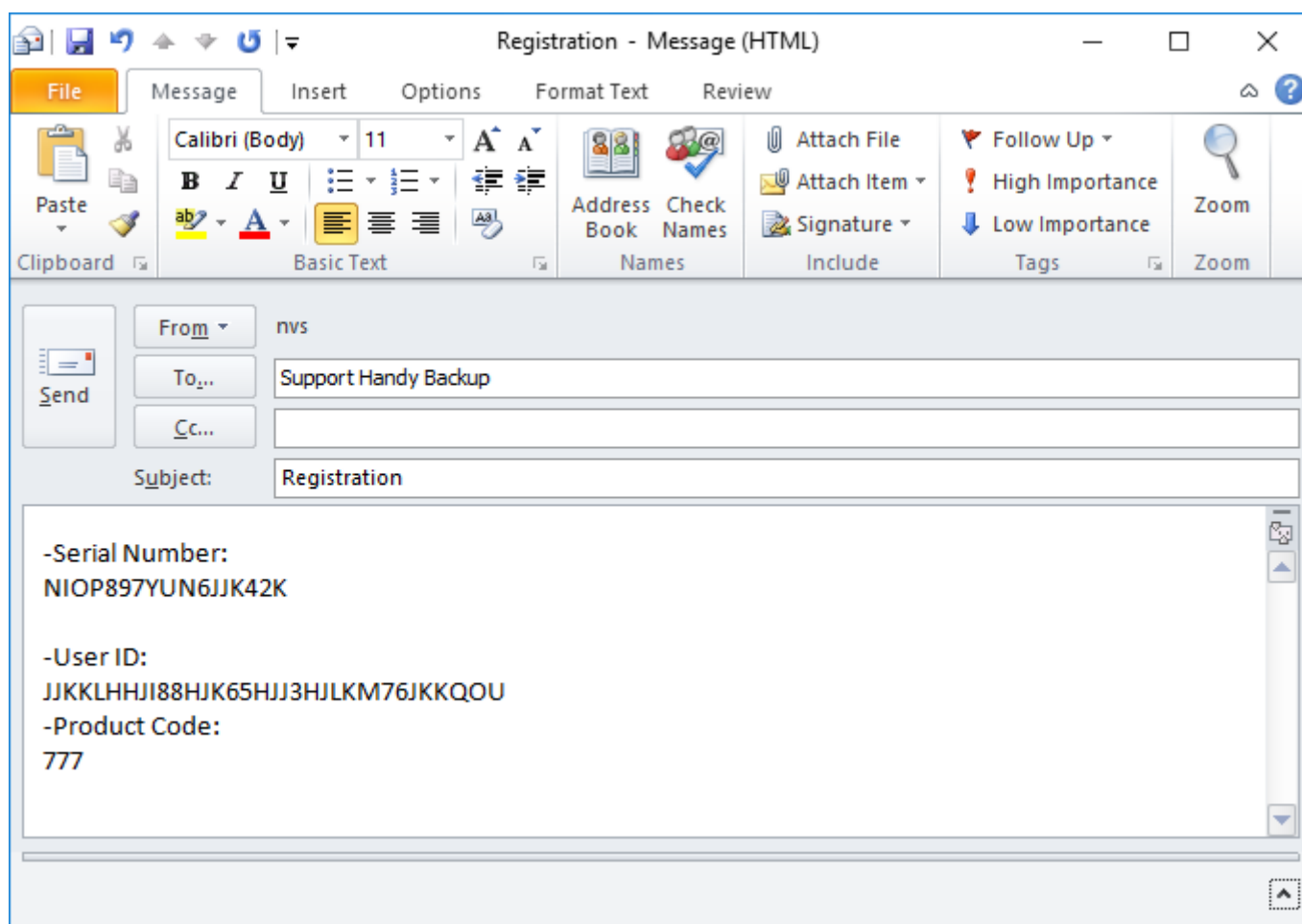
The **Registration** window opens.



The Registration window is a small dialog box with a title bar that says "Registration" and a close button (X). Inside, it says "Please enter your serial number:" followed by a text input field. Below that, it says "Generated info will be used in registration of your Handy Backup copy. Please send generated file to support@handybackup.net." At the bottom, there are two buttons: "Generate" and "Cancel".

2. Click **Generate** to create the email with your registering information.

The program generates a e-mail message and opens it in your default e-mail client. For example, if you have Microsoft Outlook, it will look as follows:



The screenshot shows a Microsoft Outlook window titled "Registration - Message (HTML)". The ribbon at the top includes "File", "Message", "Insert", "Options", "Format Text", and "Review". The "Message" tab is active, showing a rich text editor with various formatting options like font face (Calibri), size (11), bold, italic, underline, and text color. There are also buttons for "Attach File", "Attach Item", "Signature", "Follow Up", "High Importance", and "Low Importance". The message fields are filled with the following information: "From: nvs", "To: Support Handy Backup", "Subject: Registration". The body of the message contains the following text: "-Serial Number: NIOP897YUN6JJK42K", "-User ID: JJKKLHHJI88HJK65HJJ3HJLKM76JKKQOU", and "-Product Code: 777".

3. You need to **send this information** to support@handybackup.net. Upon receipt, we will send you a registration file that you will need to import into the program. The message from the support team will have all the necessary instructions.

Handy Backup User Manual

Registering as Console Client

You can register your copy of Handy Backup when running it as a console application. To do it, just write the following console command: `hbcc.exe -r registration_number`

Here the *registration_number* is a substitution to the registration key number of your Handy Backup license. That is all; enjoy the possibilities of your Handy Backup!

Registering under Linux

The Linux registration is almost identical to registering under Windows console. Type the following command in a terminal window: `sudo hbcc --CoordinatorHost [HOSTNAME] --ServerName [SERVERNAME] --UserName root -r [KEY]`

Here the *[HOSTNAME]* must be substituted with a name of your host, the *[SERVERNAME]* must be replaced with a name of your server (a computer containing the Management Panel), and the *[KEY]* is a substitution to your Handy Backup registration key number.

3.1 Features of Different Editions

After registration, functionality of the program is defined by your registration number. Different editions of the program have different sets of features. You can find a detailed comparison of editions at the product website: www.handybackup.net/backup-comparisons.shtml

The **Standard** edition has all the basic functionality related to files-based backup. The list of supported plug-ins* is as follows:

- | | | | |
|----------------|---------------------|--------------------|------------------|
| • My Desktop | • Network | • Dropbox | • 4shared |
| • My Documents | • Windows Libraries | • Dropbox Business | • Box |
| • My Music | • FTP | • Google Drive | • Registry |
| • My Pictures | • E-mail | • OneDrive | • Yandex Disk |
| • My Videos | • Gmail | • WebDAV | • Mail.ru Hotbox |
| • Computer | • Outlook | • Backblaze | • Mail.ru Icebox |

***Note:** Each plug-in is basically a function of the software. The term “plug-in” on this page is used for correct technical reference only. To learn more, please see [Plug-ins](#).

The **Professional** edition has all features of the **Standard** edition, and some advanced options. The list of additional plug-ins and features is as follows:

- | | | | |
|-------------------|-------------|-------------------------|----------------------------|
| • Disk Image | • FTPS | • OneDrive for Business | • Disaster Recovery module |
| • System Recovery | • SFTP | • S3 Cloud | • VK Cloud |
| • Database | • Amazon S3 | | |

Handy Backup User Manual

The **Small Business** edition has all the features of the **Standard** and **Professional** editions, and a range of server-specific functions. The list of additional plug-ins is as follows:

- MSSQL
- MySQL
- MariaDB
- PostgreSQL
- Oracle
- DB2
- Lotus Notes
- MS Exchange
- Hyper-V
- VMware Workstation
- 1C: Enterprise

The **Server Network** edition allows backing up and synchronizing a number of other computers, when each of it is managed by special software utility called Network Agent. On each Network Agent, all workstation or server backing up features are available. (Handy Backup installs automatically the Network Agent of a type needed - server or workstation.)

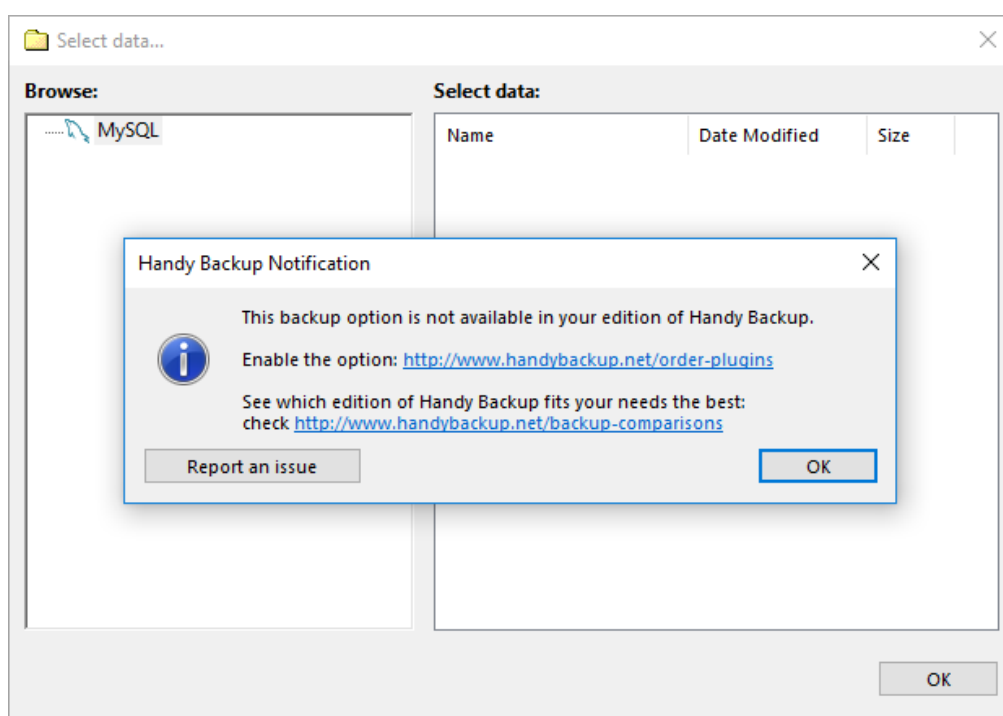
In addition, the **Server Network** edition allows the Management Panel to serve same ways as the **Small Business** edition (see above).

Note: The information above is valid for the version 8 (April 2024).

3.2 Activating Upgrades and Plug-ins

The program is distributed as one installation package which is common for all editions. During the trial period, you can use all of the features without any limitations. After registration, the features you can use are defined by your registration number. See [Features of Different Editions](#) for more details.

After registration, features that are not available in your edition will stop working. For example, if you registered the program with a number for **Standard** edition, all tasks that use plug-ins of the **Professional** and **Small Business** editions will end with an **Error** status. Attempts to use the respective options in New Task Wizard will fail.



Handy Backup User Manual

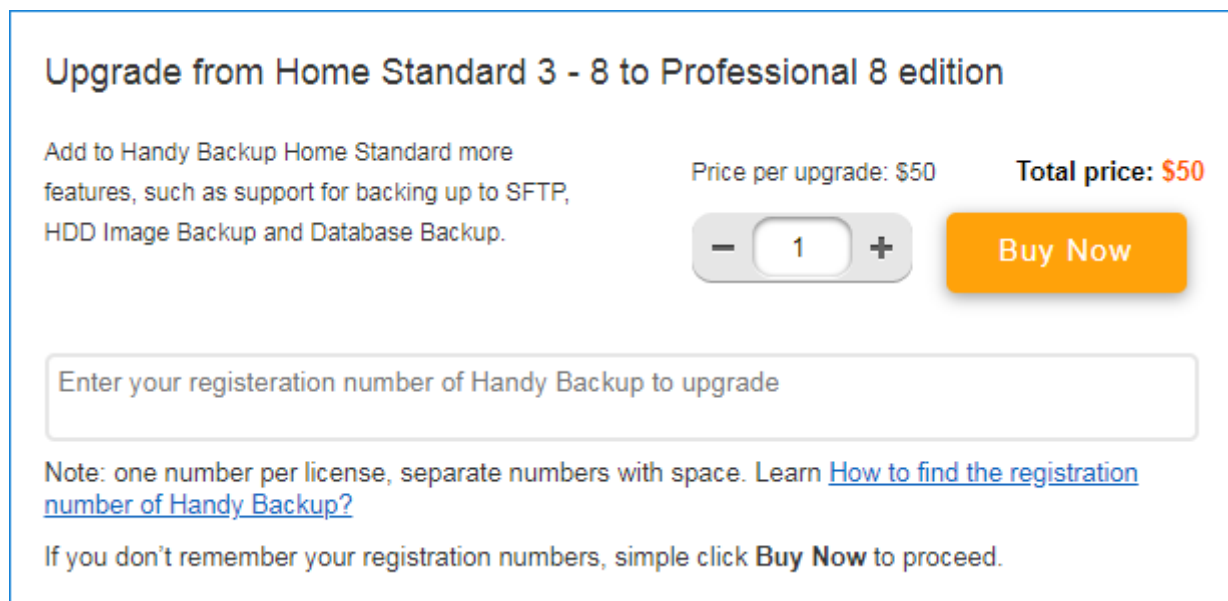
To add new features to a registered copy of Handy Backup, there is no need to install any additional software or patches. You need to upgrade your current registration number and re-register the software. General scheme is as follows:

1. Order the respective upgrade via the product website, or by contacting our support or sales team.
2. When your registration number is updated in the registration database (this generally takes no longer than 10 minutes), re-register the program to activate the new features.

Upgrading to a Higher Edition

The easiest way to upgrade the program to a higher edition is to order the respective upgrade on the product website. Follow these steps:

1. Open the **Upgrades** page on the product website: www.handybackup.net/order-upgrades.shtml
2. In the bottom of the page, find the upgrade you need.



The screenshot shows a web interface for upgrading Handy Backup. The title is "Upgrade from Home Standard 3 - 8 to Professional 8 edition". Below the title, it says "Add to Handy Backup Home Standard more features, such as support for backing up to SFTP, HDD Image Backup and Database Backup." To the right, it shows "Price per upgrade: \$50" and "Total price: \$50". There is a quantity selector with a minus button, a box containing the number "1", and a plus button. Next to it is an orange "Buy Now" button. Below these elements is a text input field with the placeholder "Enter your registration number of Handy Backup to upgrade". At the bottom, there is a note: "Note: one number per license, separate numbers with space. Learn [How to find the registration number of Handy Backup?](#)" and a line of text: "If you don't remember your registration numbers, simple click **Buy Now** to proceed."

Note: The above screenshot may change from the time of publication (April, 2019).

3. Enter registration numbers that you want to upgrade. Make sure that the numbers correspond to the upgrades, e.g. if you are ordering an upgrade from **Standard** to **Professional** edition, enter a registration number of **Standard** edition.
4. Click **Buy Now**. You are redirected to a payment system where you can complete the order.

If you don't remember your registration numbers, or need assistance, please don't hesitate to contact our support team: support@handybackup.net

Generally, it takes no longer than 10 minutes before the number is updated in our database.

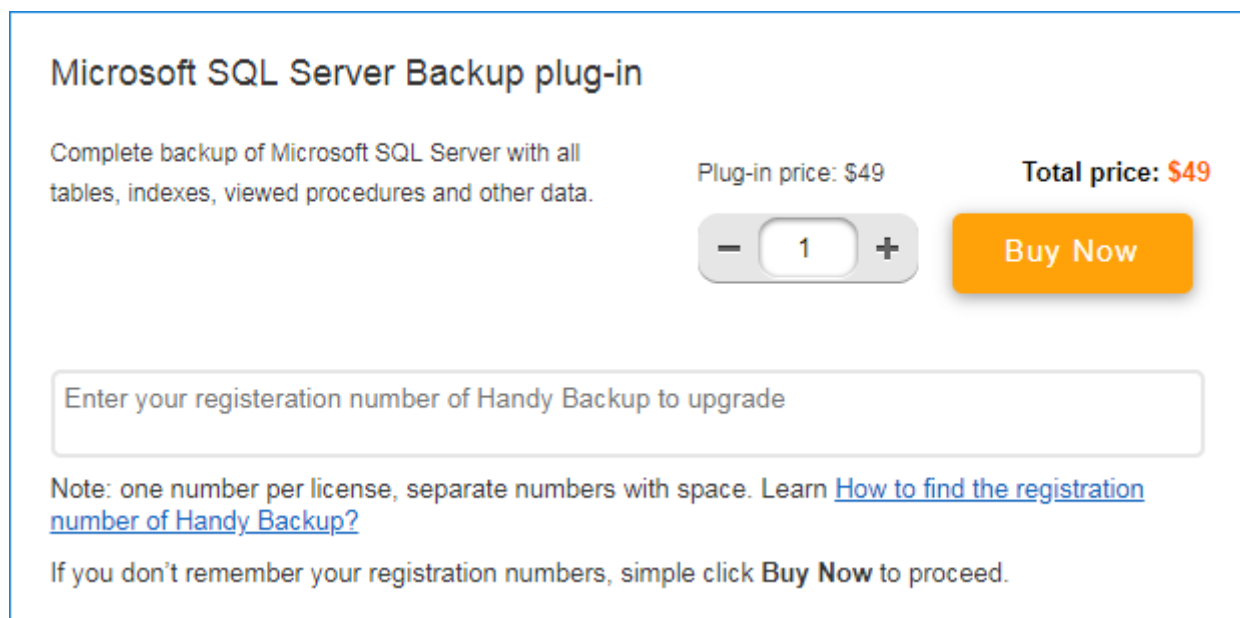
5. When you receive an e-mail with confirmation of the upgrade, re-register the software. To do it, click the **Register** button on the program's toolbar, enter your registration number in the **Registration** window, and then click **Register**.

For detailed instruction on re-registering, please see [Registration](#).

Upgrading with Plug-ins

You can also upgrade the program with any individual plug-ins that you need. Follow these steps:

1. Open the **Plug-ins** page on the product website: www.handybackup.net/order-plugins.shtml
2. Find the plug-in you need.



Microsoft SQL Server Backup plug-in

Complete backup of Microsoft SQL Server with all tables, indexes, viewed procedures and other data.

Plug-in price: \$49 **Total price: \$49**

– 1 +

Buy Now

Enter your registration number of Handy Backup to upgrade

Note: one number per license, separate numbers with space. Learn [How to find the registration number of Handy Backup?](#)

If you don't remember your registration numbers, simple click **Buy Now** to proceed.

Note: The above screenshot may change from the time of publication (April, 2019).

3. Enter registration numbers that you want to upgrade.
4. Click **Buy Now**. You are redirected to a payment system where you can complete the order.

If you don't remember your registration numbers, or need assistance, please don't hesitate to contact our support team: support@handybackup.net

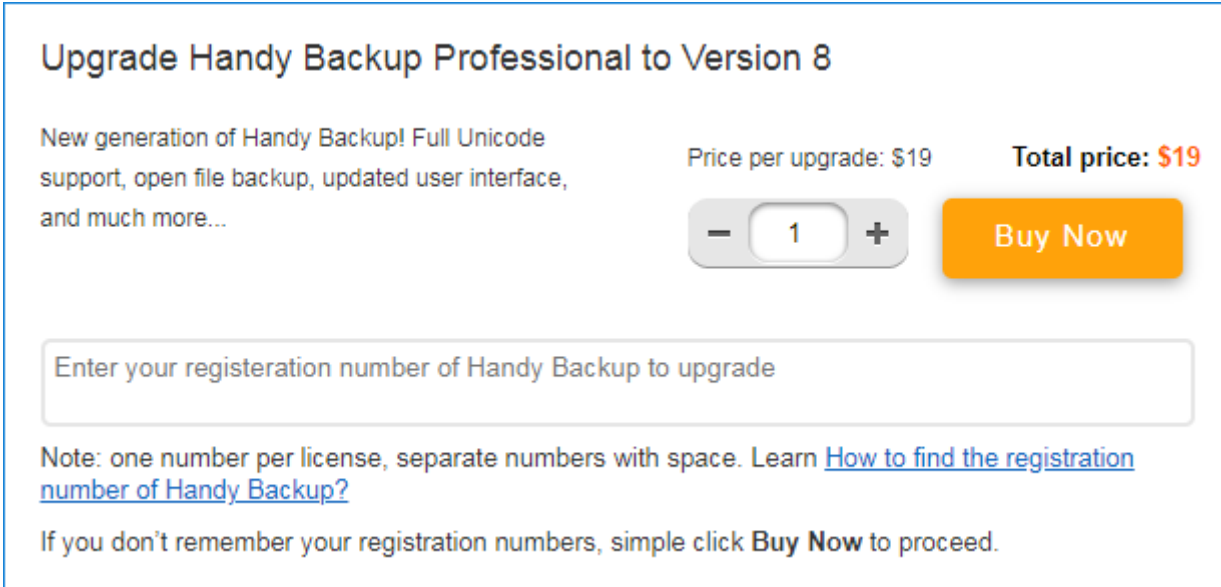
Generally, it takes no longer than 10 minutes before the number is updated in our database.

5. When you receive an e-mail with confirmation of the upgrade, re-register the software. To do it, click the **Register** button on the program's toolbar, enter your registration number in the **Registration** window, and then click **Register**.

3.3 Upgrading from Version 3 - 7 to Version 8

To migrate from version 3-7 to version 8, you need to order the respective upgrade. Follow these steps:

1. Open the **Upgrades** page on the product website: www.handybackup.net/order-upgrades.shtml
2. Find the upgrade you need.



The screenshot shows a web interface for upgrading Handy Backup Professional to Version 8. It includes a title, a description of the new generation features, pricing information, a quantity selector set to 1, a 'Buy Now' button, a registration number input field, and a note about registration numbers.

Upgrade Handy Backup Professional to Version 8

New generation of Handy Backup! Full Unicode support, open file backup, updated user interface, and much more...

Price per upgrade: \$19 **Total price: \$19**

Quantity:

Note: one number per license, separate numbers with space. Learn [How to find the registration number of Handy Backup?](#)

If you don't remember your registration numbers, simple click **Buy Now** to proceed.

Note: The above screenshot may change from the time of publication (April, 2019).

3. Enter registration numbers that you want to upgrade. Make sure that the numbers correspond to the upgrades, e.g. if you are ordering an upgrade for **Professional** edition, enter the respective registration number.
4. Click **Buy Now**. You are redirected to a payment system where you can complete the order.

If you don't remember your registration numbers, or need assistance, please don't hesitate to contact our support team: support@handybackup.net

Generally, it takes no longer than 10 minutes before the number is updated in our database.

5. When you receive an e-mail with confirmation of the upgrade, re-register the software. To do it, click the **Register** button on the program's toolbar, enter your registration key in the **Registration** window, and then click **Register**.

For detailed instruction on re-registering, please see [Registration](#).

Migrating Tasks

Version 8 of Handy Backup has undergone a major update and is not compatible with earlier versions. The only way to migrate tasks from old versions to version 8 is to create these tasks again or to export and then import tasks* (starting from version 7.8.2). Follow these steps:

1. Run Handy Backup 7 and export all your tasks.
2. Install the version 8.
3. Import your task list into the version 8.

Note: Tasks using MS SQL and Oracle plug-ins will not be available for transferring to version 8, as these plug-ins are deeply changed now!

Learn more about [Export and Import tasks](#).

Otherwise, the only way to "export" Handy Backup tasks to version 8 is to re-create these tasks manually with all corresponding properties.

* Note that you can import tasks only in a purchased version Handy Backup, not in a free trial version!

To learn more about creating tasks, please see [Managing Data](#).

3.4 Migrating License to New Computer

Handy Backup license allows you to use the software on one computer only*. After you have used your registration key on one PC, any attempts to re-use it on other computers will fail.

***Note:** In case of Server edition, you register only the Server component, independently of the key of Workstations you want to back up.

There are situations (e.g. hardware upgrade) when you may want to migrate your license to another computer. You can make it by one of two ways described below.

Re-register your license manually



You can reset your registration key manually, using the [registration management](#) page. It is a quick and simple action. Please follow the instruction to migrate your registration key from one computer to another.

Calling for Technical Support

1. Send a request to support@handybackup.net. Include your registration key, your name, and information about when you purchased the software.

Note: Make sure you give us enough information to find the correct record in the registration database. Generally, we identify customers by name and e-mail address used during the purchase.

2. Our support team resets information about your registration key, so you can use it to register the program on another computer.
3. When you receive an e-mail with confirmation, re-register the program on the new computer under the same key.

Entering the Released Registration Key

To register a migrating copy of Handy Backup, please open the **Help** menu section, and use the **Enter your serial key...** option to enter the registration code. Then click on a **Register** button to move your license.

Register Handy Backup

×

Your trial period will expire in: 29 days

Enter your registration number and then click **Register**

Register

Need a new license? Get one!

Order

Registration limit exceeded? Resolve it!

Recover registration

Report an issue

Cancel

For detailed instructions on registering, please see [Registration](#).

4 Quick Start

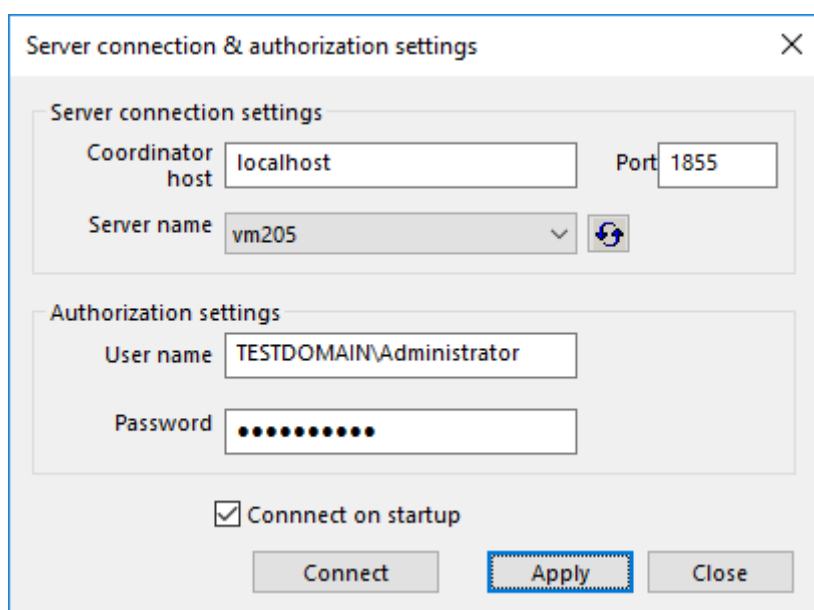
In this chapter you can find quick start instructions on creating your first Handy Backup tasks. Task is a set of instructions that need to be followed to protect your data. There are three type of tasks:

- **Backup** task copies data to a safe place, with optional compression, encryption and versioning.
- **Restore** task is used to recover data from backups to original location, with automatic decompression, decryption, etc.
- **Synchronize** task is used to keep two folders in sync, without any advanced options.

Each task can be run once, or scheduled to take place automatically.

4.1 Connecting to Server (Server Edition)

When you run the program for the first time, it starts with a **Server connection** dialog.



Server connection & authorization settings

Server connection settings

Coordinator host: localhost Port: 1855

Server name: vm205

Authorization settings

User name: TESTDOMAIN\Administrator

Password: [masked]

☒ Connect on startup

Connect Apply Close

In this dialog, you need to authorize on the **Server**. The idea of authorization is as follows:

- Technically, **Server** can be located on any computer on the network.
- When you run the program, you actually launch a **GUI Client** – an application designed to connect to **Server** and create, modify, or run its tasks.
- For security considerations, any **Client** connecting to **Server** must authorize on it, so only authorized users can access and control backups.

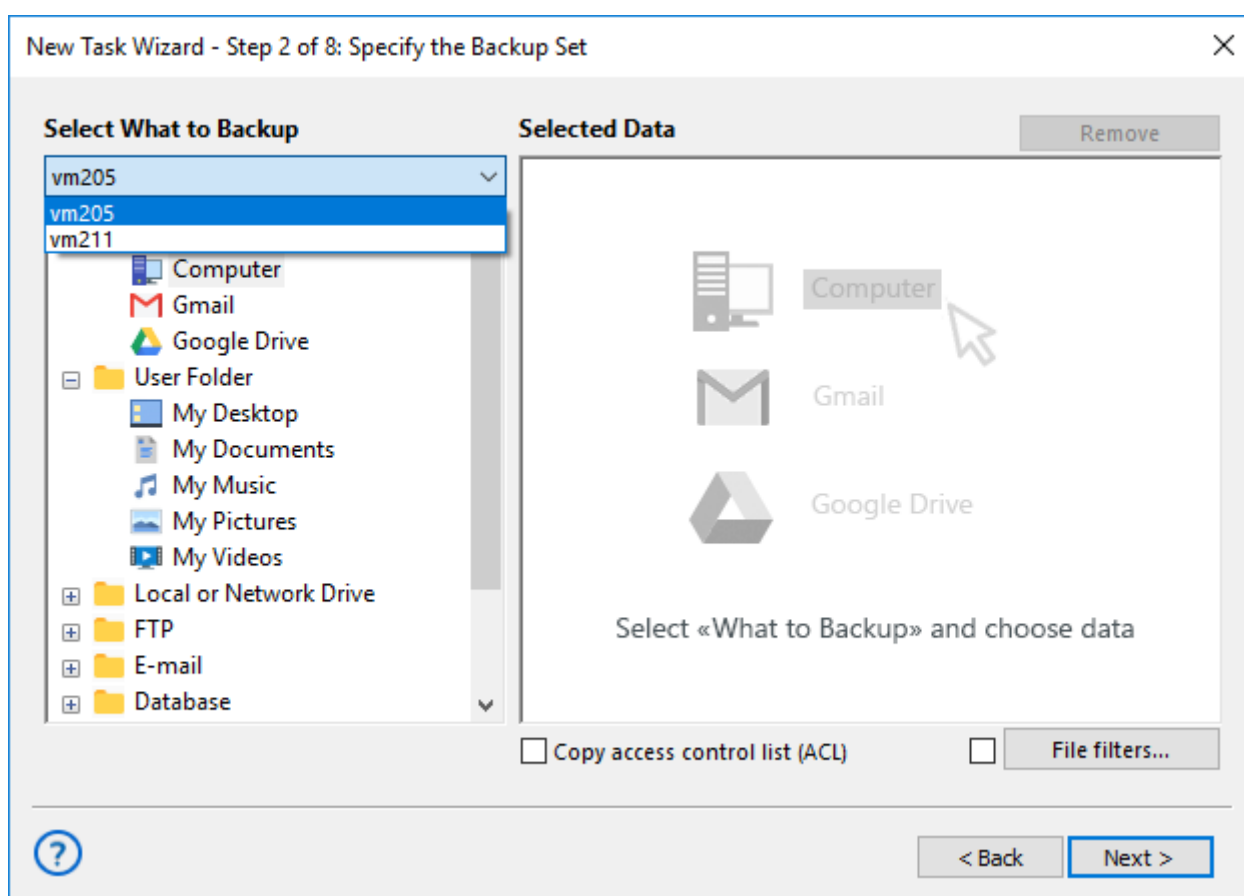
To authorize on the Server, follow these steps:

Handy Backup User Manual

1. In **Authorization settings**, specify **User name** and **Password** of the **Server's** administrator or Domain administrator.
2. Click Connect.

Before you authorize on the **Server**, the program's window name will have the **Disconnected: Session access denied** message in it. After successful authorization, this title will disappear. You can learn more about the program's components and their cooperation in [Architecture](#).

After connecting to the **Server**, you can call the **New Task Wizard** whenever you want. Since installation of **Server** edition includes at least a local **Network Agent** for server, data from the latter becomes available for backup immediately.



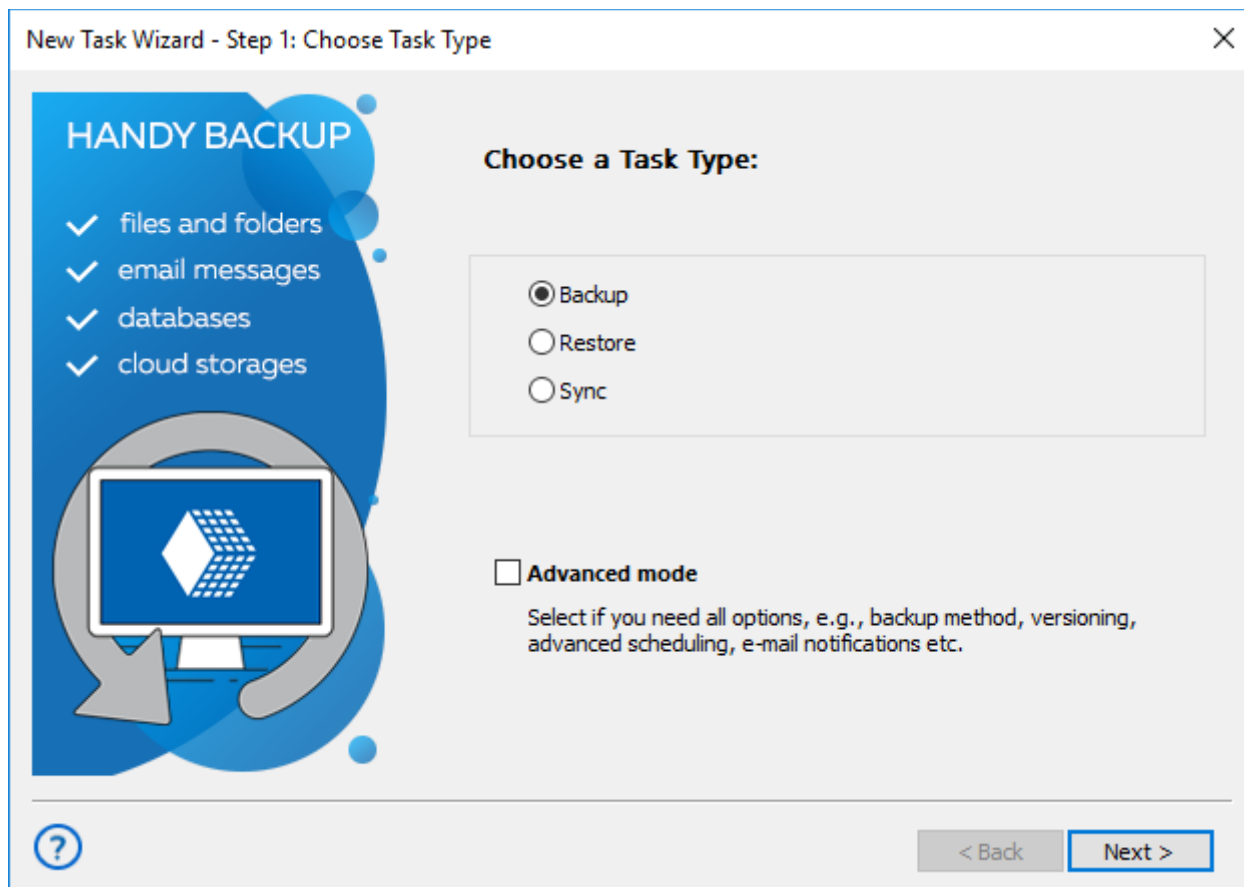
To learn how to add remote network machines to the list, please see [how to install Network Agents](#) for Server or Workstation.

To select a Workstation, find it in the dropdown menu at the top left corner of the New Task Wizard. You can learn about creating tasks in the next chapters.

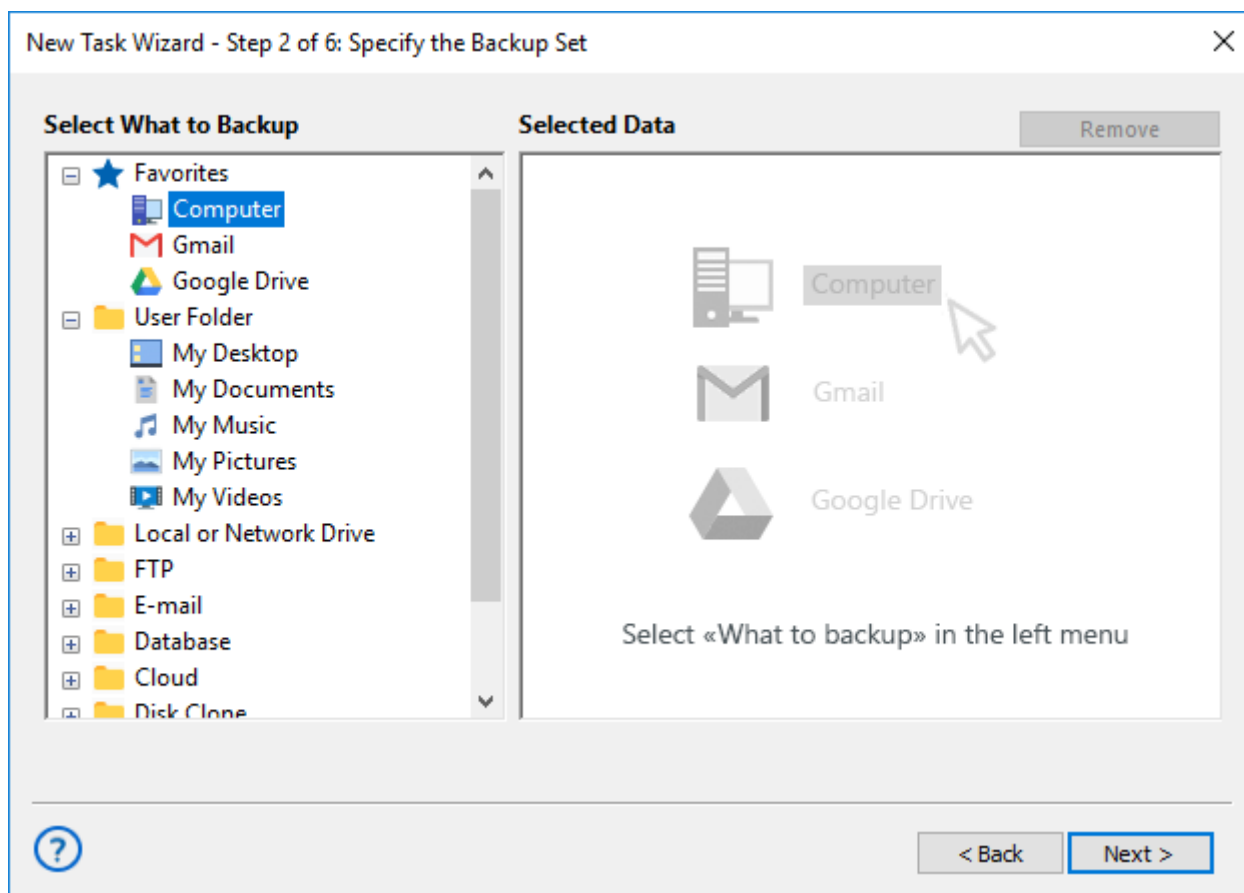
4.2 First Backup Task - Simple Mode

To create a simplified backup task, please use the following steps:

1. By clicking «Create» on the management panel, menu item or Ctrl+N keys, create a new task.
2. Select «Backup» on Step 1. Do not mark «Use Advanced Wizard» below to stay in simple mode.

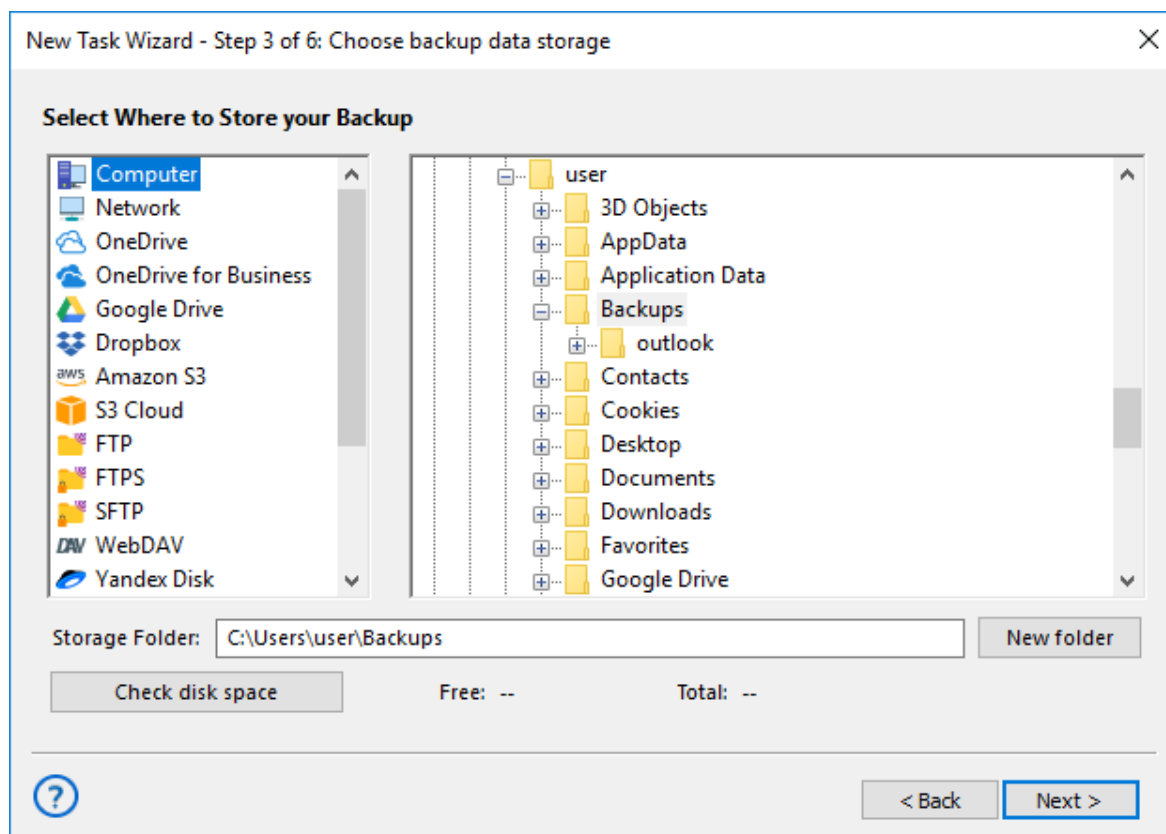


3. On Step 2 click onto an appropriate data source (you can expand a corresponding data group when you need).

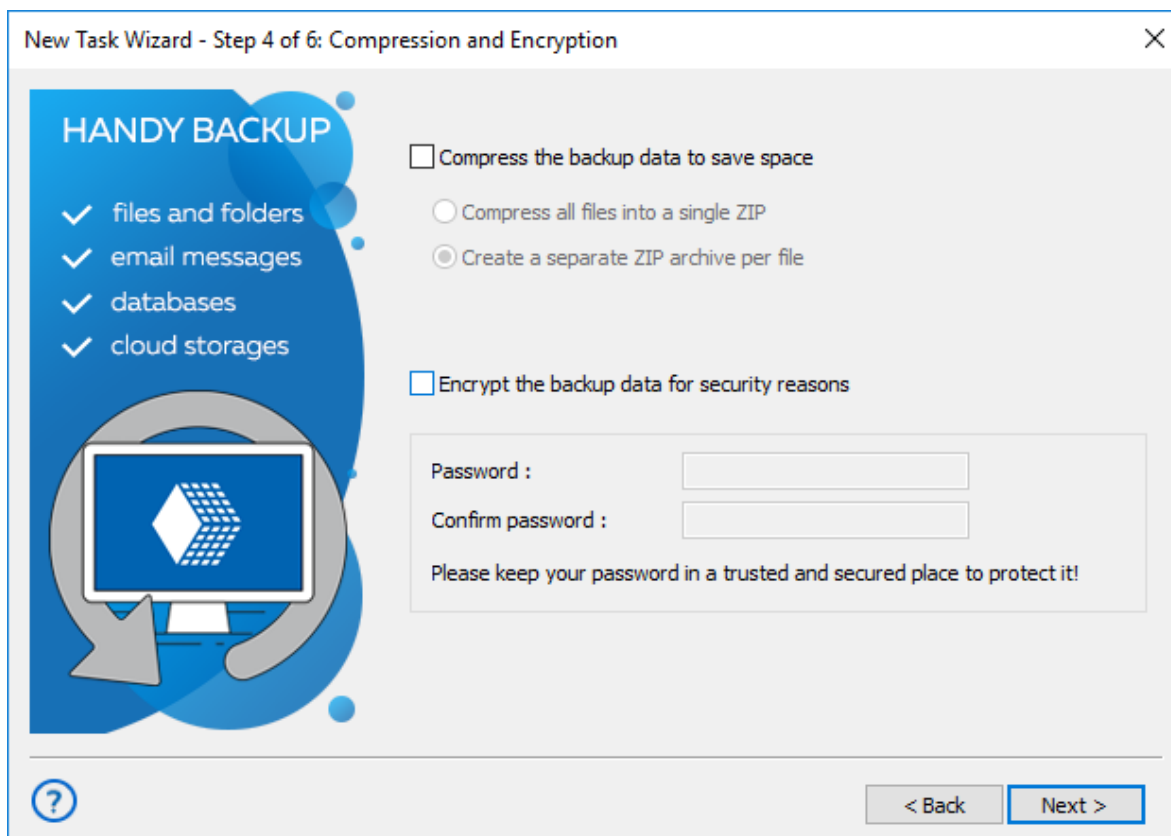


Note: Some plug-ins may require additional setup before first using. For detailed description of each particular plug-in, please read the «Plug-ins» chapter of this Manual.

4. In the “Select data...” dialog, mark a checkbox against name of each data that you plan to back up. Click OK and then “Next” to proceed.
5. On Step 3, click on storage that you plan to use for backups. The list of storage plug-ins is on the left panel.



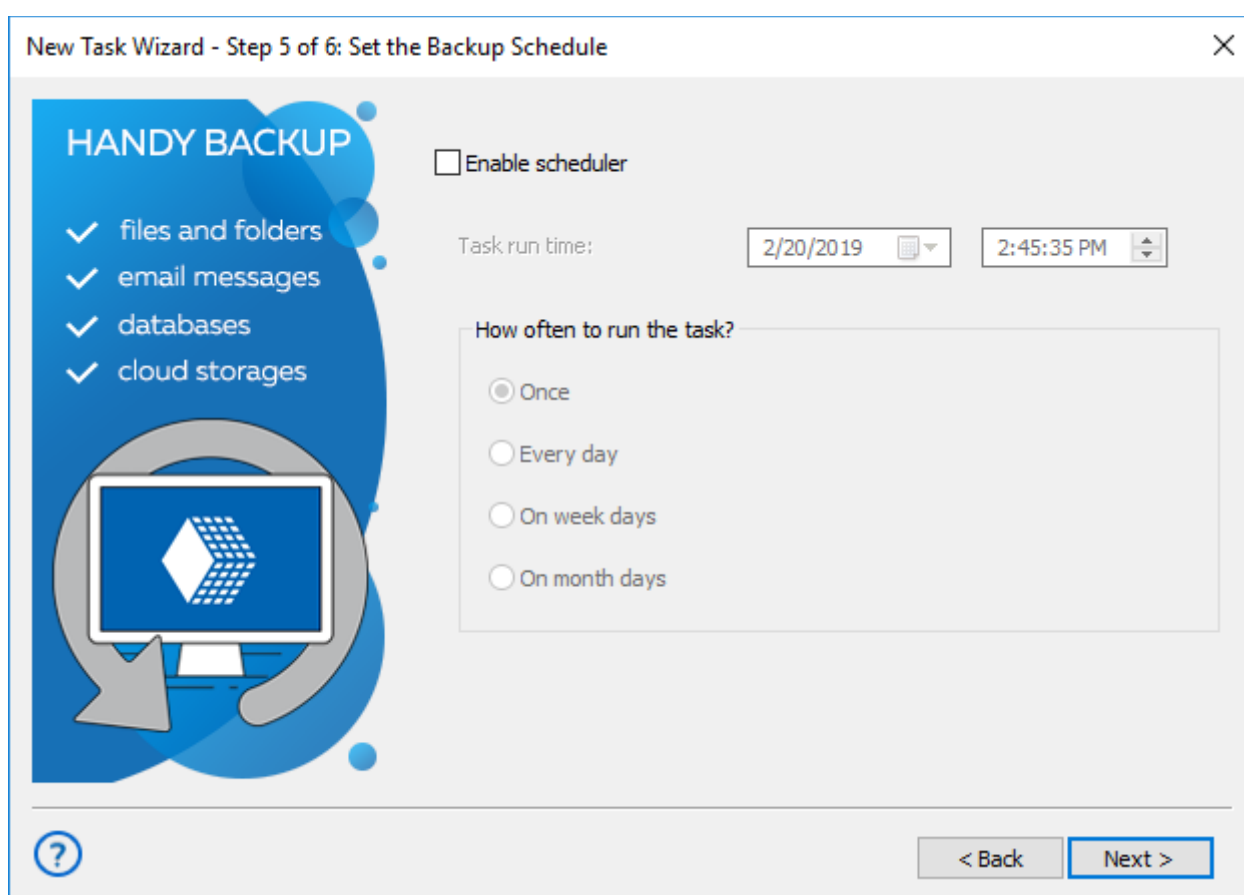
6. In a storage selection dialog, choose a folder where you will store backups. Click «Next».
7. On Step 4 you can compress and encrypt your backup if you want. It is not obligate!



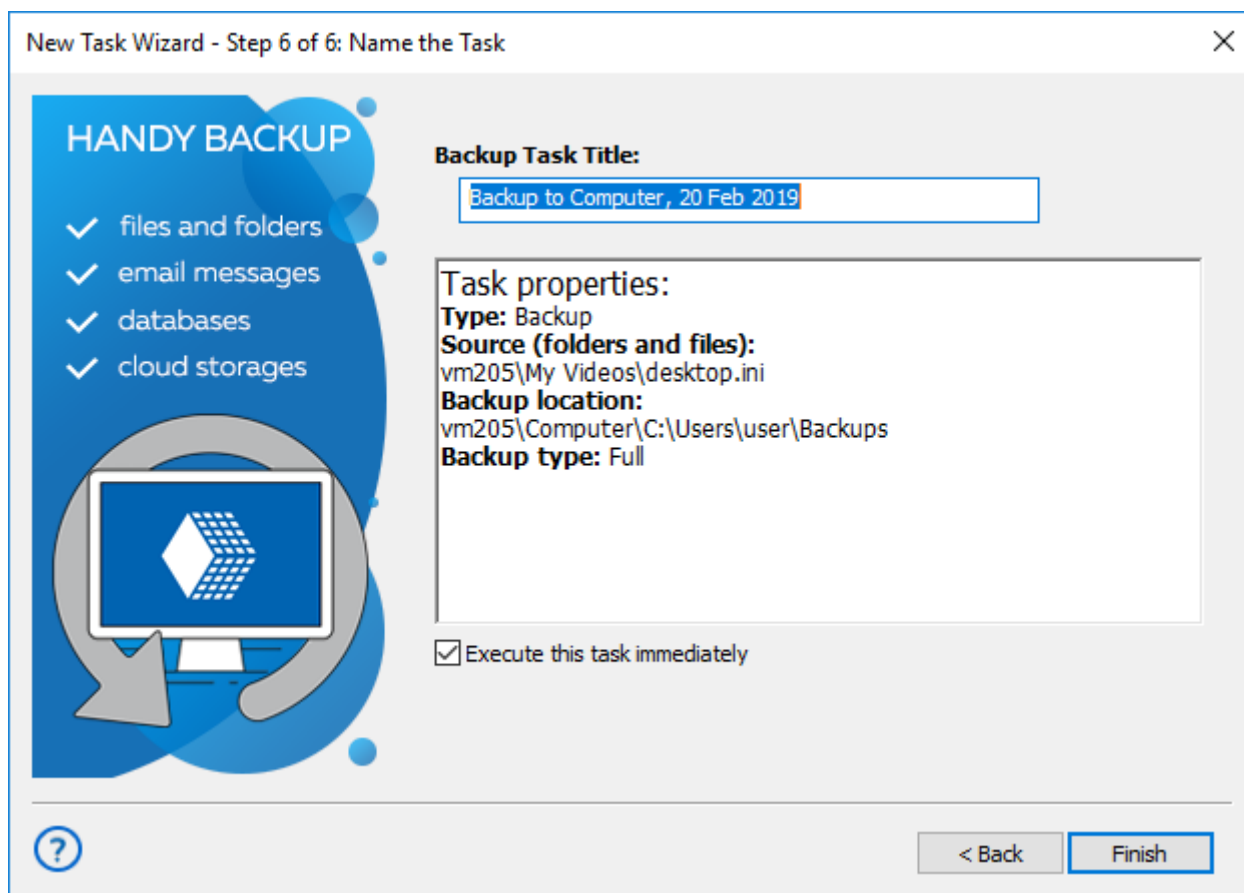
8. To compress your files, mark a checkbox against this option. You can also mark the “Single ZIP Archive” option to make all backup in one single, consistent ZIP file.
9. To encrypt your backup data, mark this option and then enter a password for your new backup. After completing operations on this step, click “Next”.

Caution! Always store your backup passwords in a safe, trusted place! If you lose your password, recovery from backup will be impossible!

10. On Step 5 you can schedule your task. To run a task in a defined time and with an exact repeating interval, mark “Enable scheduler». Set up a starting time and a repeating period.



11. Click «Next» and go to the final step, where you can give a name for your task.
12. If you mark the «Execute this task immediately» option, the program will run this task just when you click «Finish».
13. In a central area of the final step window, you can view a short summary for all task parameters. Return to any of previous steps to make changes when you feel it necessary.



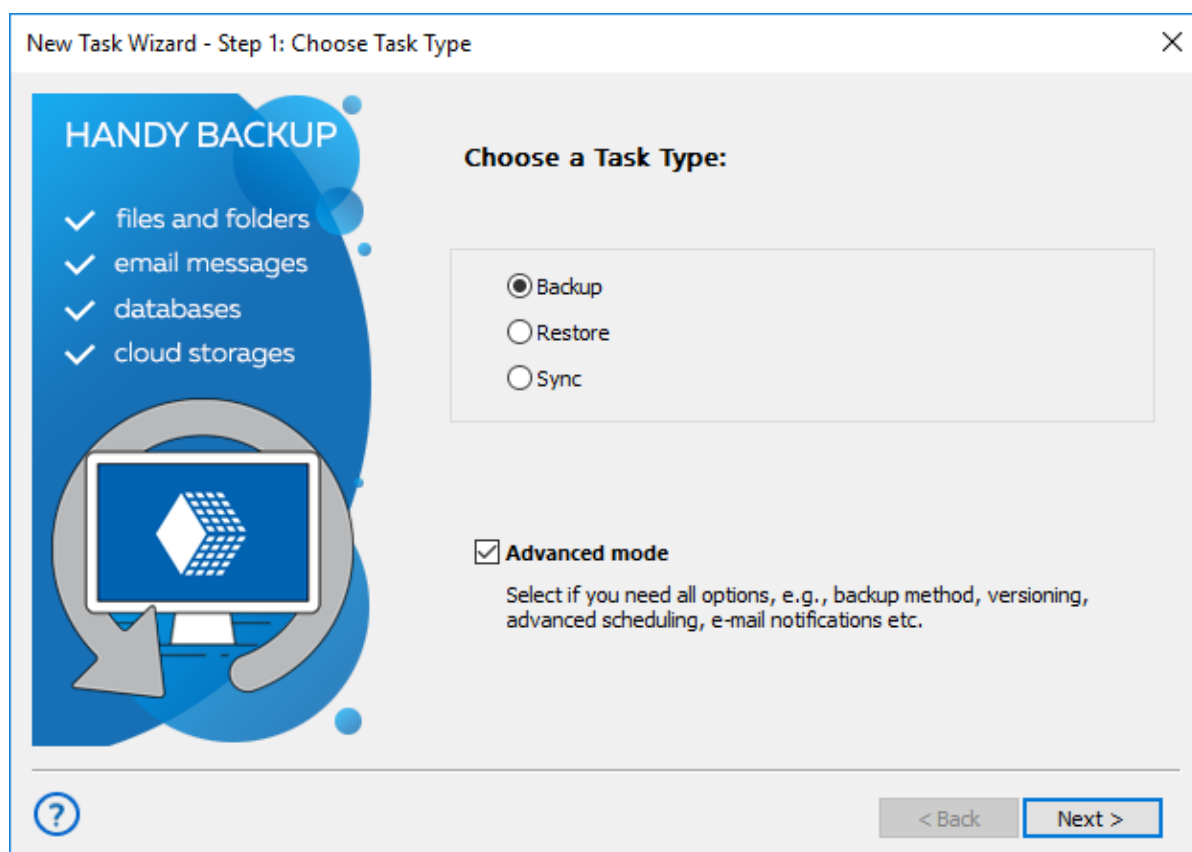
14. To complete your part of job, click “Finish”.

Congratulations! You just complete your first backup task in simple wizard mode! Now you can run this task from the main window when you want it, or change task properties when you feel it appropriate.

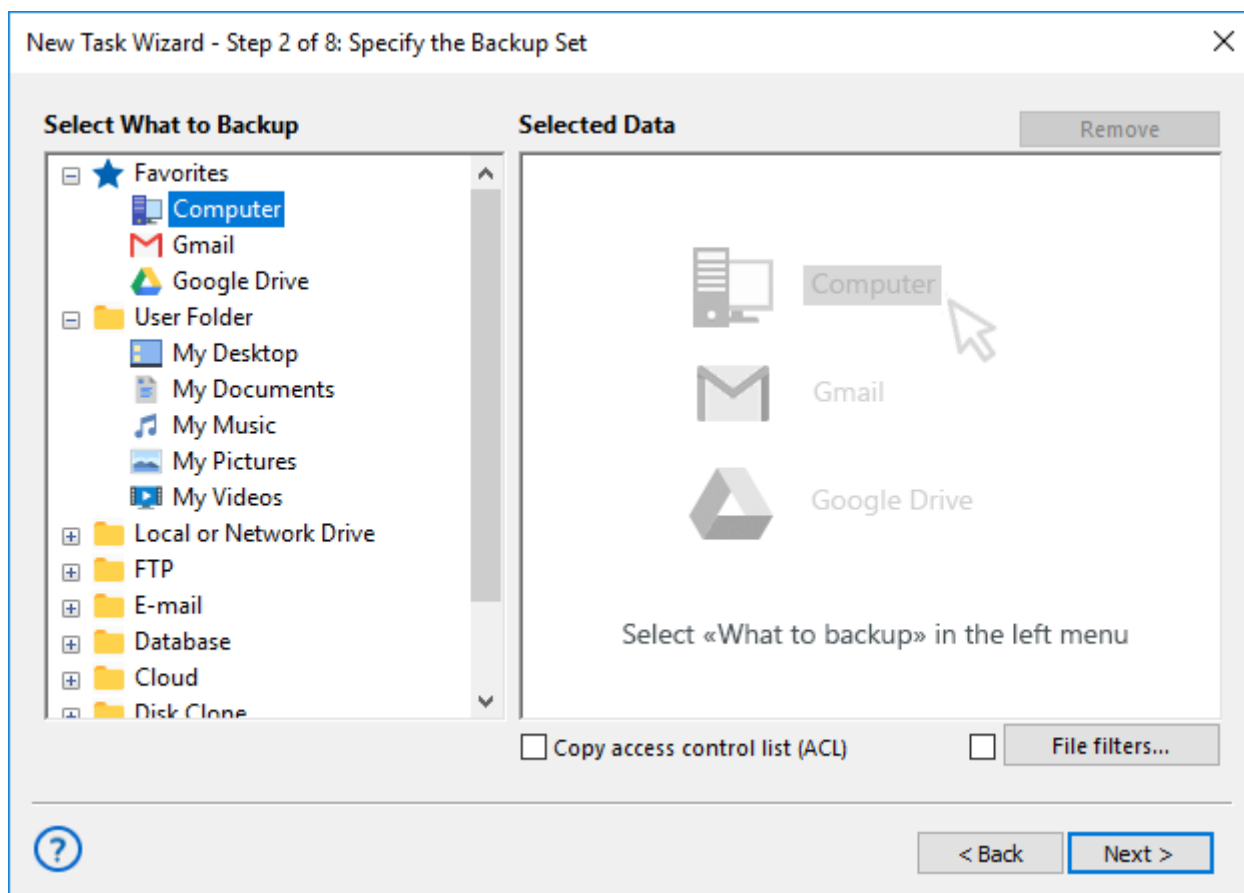
4.3 First Backup Task - Advanced Mode

To create a backup task in advanced wizard mode, please use next steps:

1. By clicking «Create» on the management panel, menu item or Ctrl+N keys, create a new task.
2. Select «Backup» on Step 1. Mark the «Use Advanced Wizard» option below to switch a wizard to an advanced mode. Click «Next».

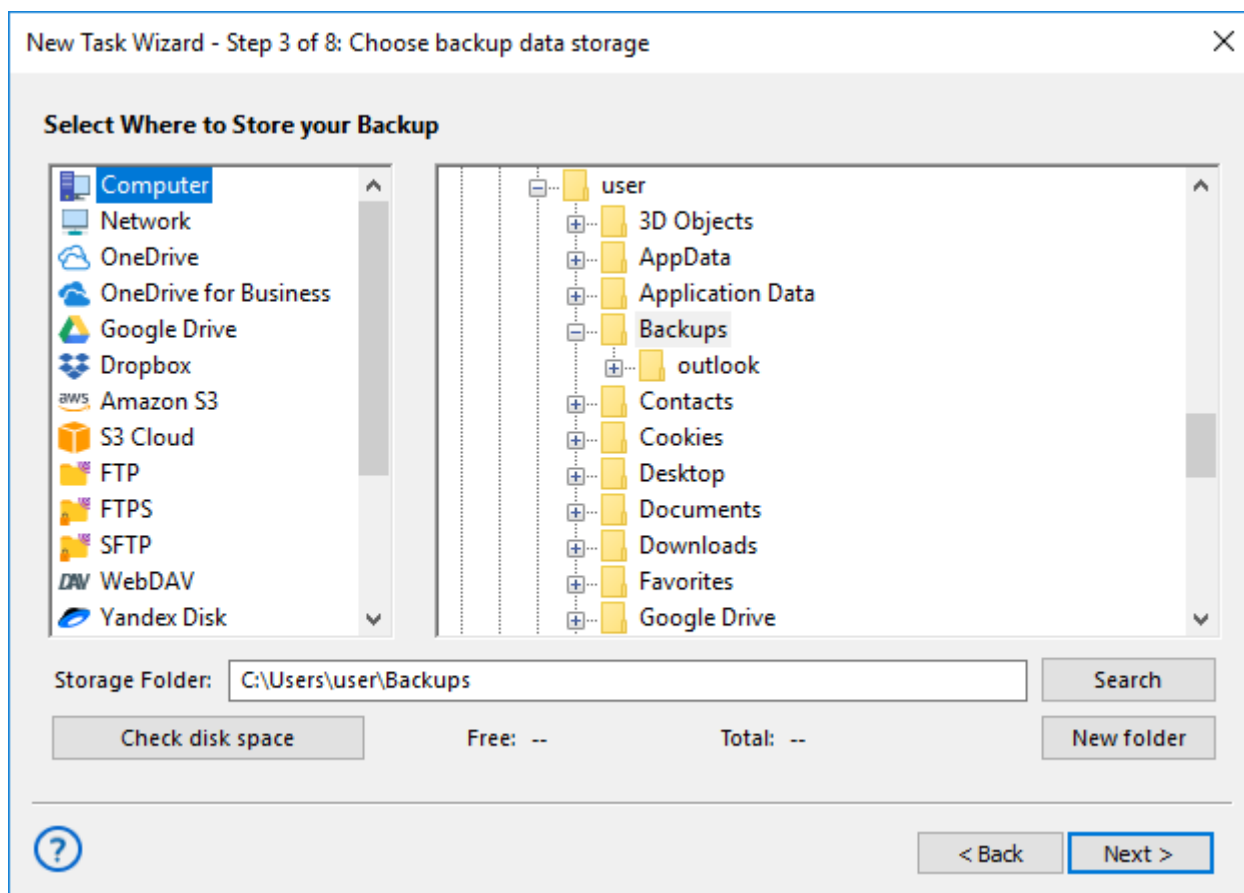


3. On Step 2 click onto an appropriate data source (you can expand any data group to get an access to data plug-ins that you need).

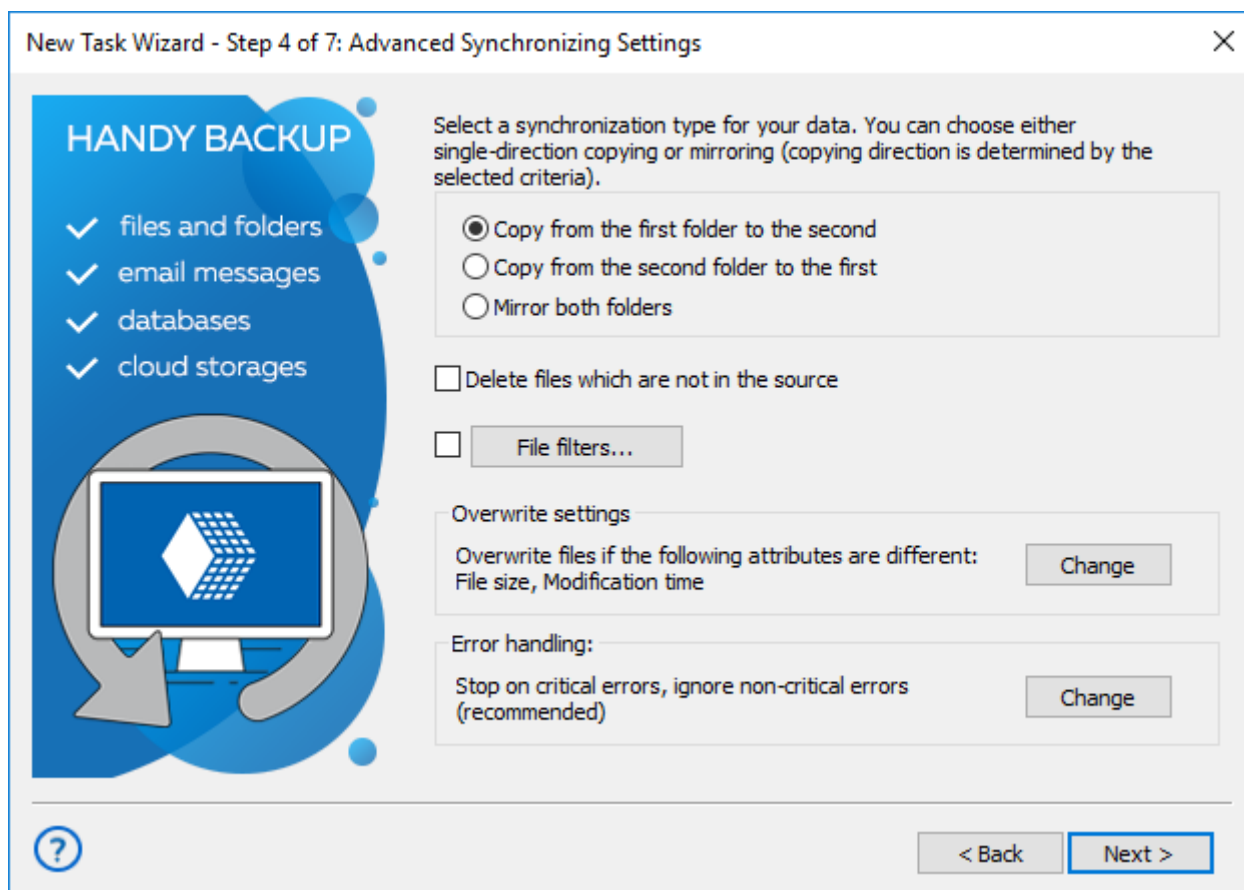


Note: Some plug-ins may require additional setup before first using. For detailed description of each particular plug-in, please read the «Plug-ins» chapter of this Manual.

4. In the “Select data...” dialog, mark checkboxes against names of data objects that you plan to back up. Click OK and then “Next” to proceed.
5. On Step 3, select storage that you plan to use for backups and click on it. You can find the list of available storage plug-ins on the left panel.

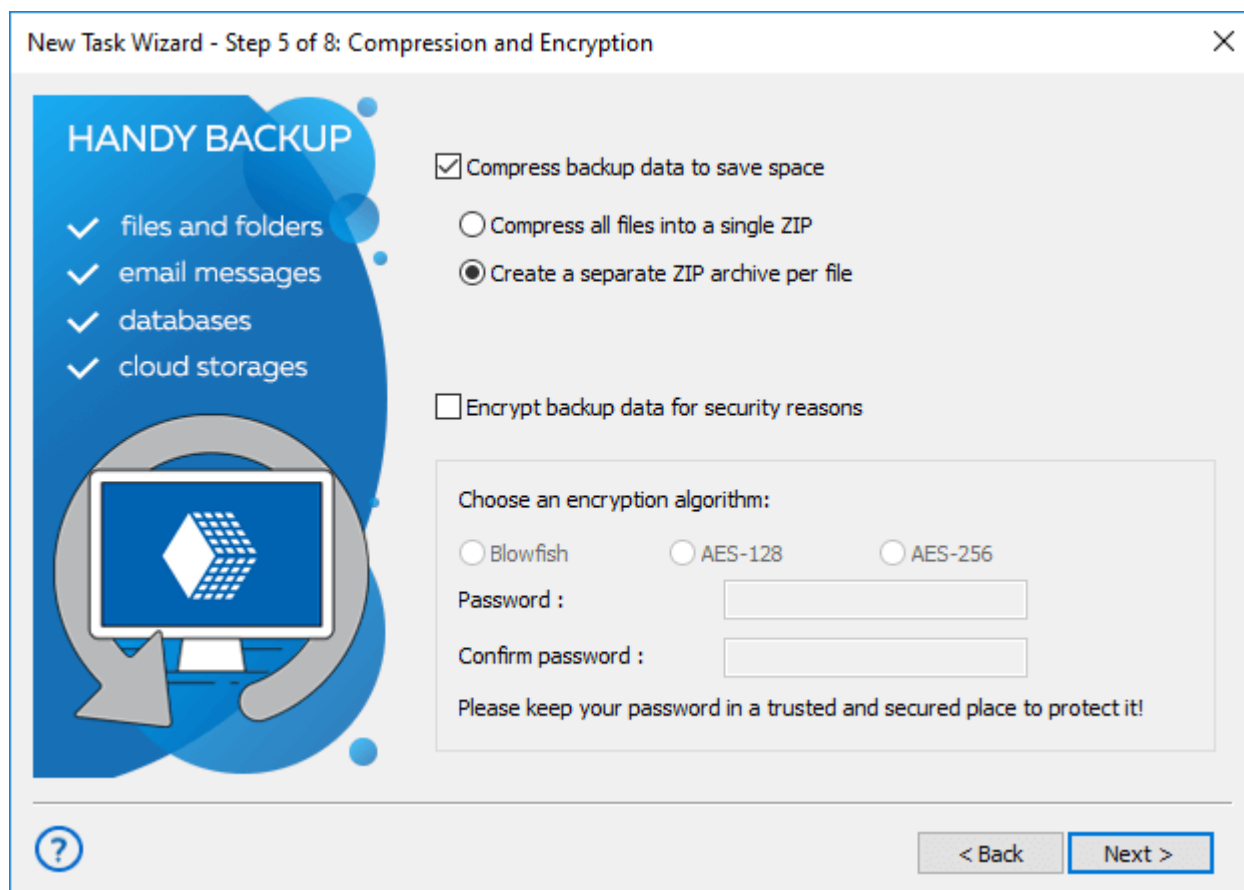


6. In a storage selection dialog, choose a folder where you will store backups. Click «Next».
7. On Step 4 you can select between full, incremental and differential backup, or used mixed (full and incremental or full and differential) backup mode.



Tip: Mixed backup consists of full backup and a defined quantity of partial (incremental or differential) backups following it. You can read more about different backup techniques in this Manual.

8. You can also add other parameters for storing some versions of the same backup dataset, such as creating time stamps for each version folder, selecting formats and keeping older versions of backups.
9. After finishing tuning backup methods, click «Next». Go to Step 5, where you can enable compression and/or encryption for your backup files.



10. To enable compression or encryption options, mark an appropriate option checkbox. For encryption, you must also provide a password to decrypt your backups later.
11. For compression, this is an option for creating a single ZIP file for all backup dataset (otherwise, your dataset will be compressed by separate ZIPs for each backup data object). After finishing, click «Next».
12. On Step 6 you can schedule or trigger your task. To run a task in a defined time and with an exact repeating interval, mark «Enable scheduler». Set up a starting time and a repeating period.

New Task Wizard - Step 6 of 8: Set the Backup Schedule

HANDY BACKUP

- ✓ files and folders
- ✓ email messages
- ✓ databases
- ✓ cloud storages

☐ Enable scheduler

Task run time: 2/20/2019 2:50:02 PM

How often to run the task?

- ☒ Once
- ☐ Every day
- ☐ On week days
- ☐ On month days
- ☐ Custom period

☐ Run the missed schedules

☐ Launch by USB insertion

☐ Run on logon

☐ Run on logoff

☐ Run on lock this computer

☐ Run on unlock this computer

< Back Next >

- For triggering a task by some system event (such as insertion of a task-related USB device into a PC), just mark a trigger option that you want.
- Click «Next». On the following step, you can enable some other external software or batch files to run before and/or after your task.

New Task Wizard - Step 7 of 8: Email Notifications and Running Apps before/after Backup

HANDY BACKUP

- ✓ files and folders
- ✓ email messages
- ✓ databases
- ✓ cloud storages

☐ Run a program before running the task

Browse...

☐ Wait for the program before proceeding

☐ Run a program after running the task

Browse...

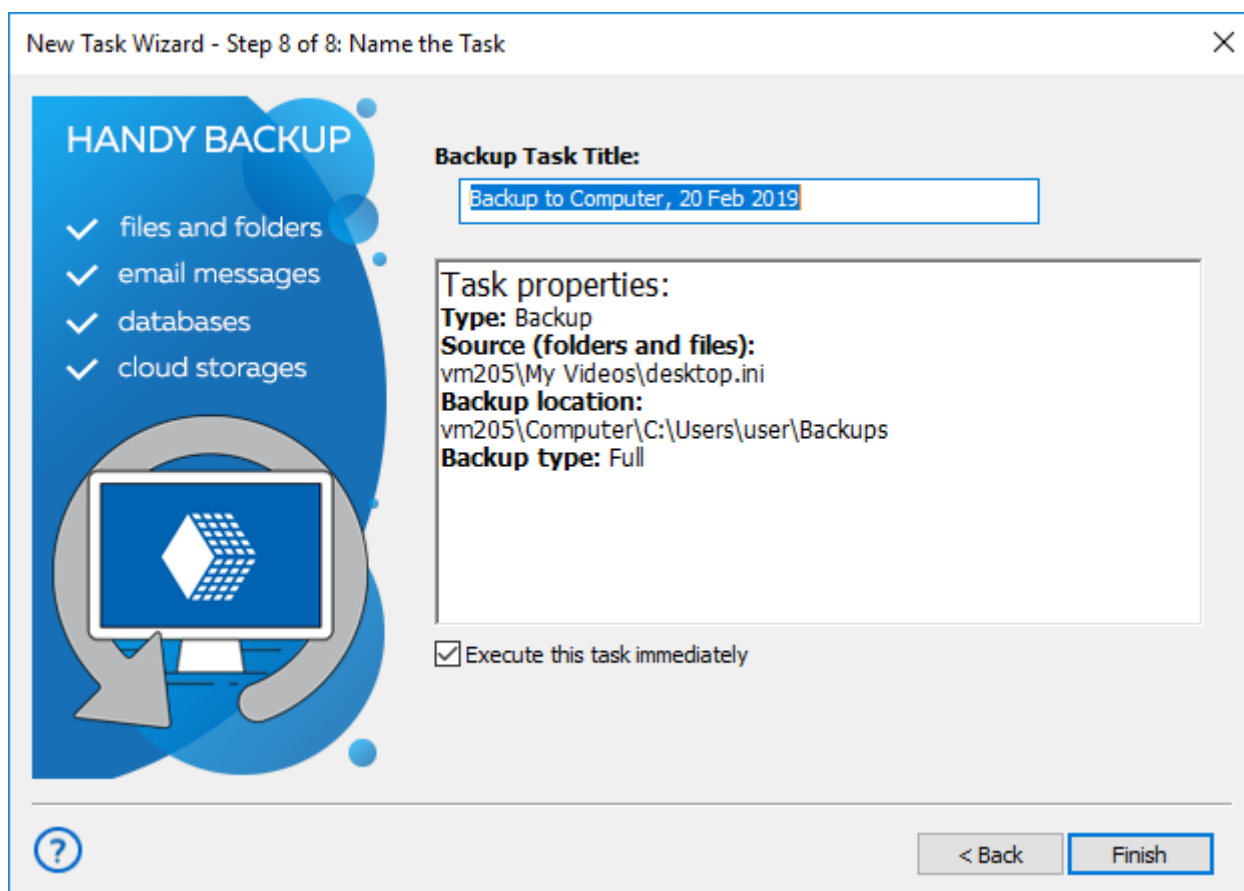
☐ Wait for the program before finishing

☐ Send an e-mail notification:

- ☒ When the operation finishes
- ☐ When the operation finishes with an error

< Back Next >

15. To run external software before or after a task, mark an appropriate option on the screen and then provide a path to execute particular software. After finishing, click “Next” and go to the final step.
16. There you can give a name for your task.
17. If you mark the «Execute this task immediately» option, the program will run this task just when you click «Finish».
18. In a central area of the final step window, you can view a short summary for all task parameters. Return to any of previous steps to make changes when you feel it necessary.



19. To complete your part of job, click “Finish”.

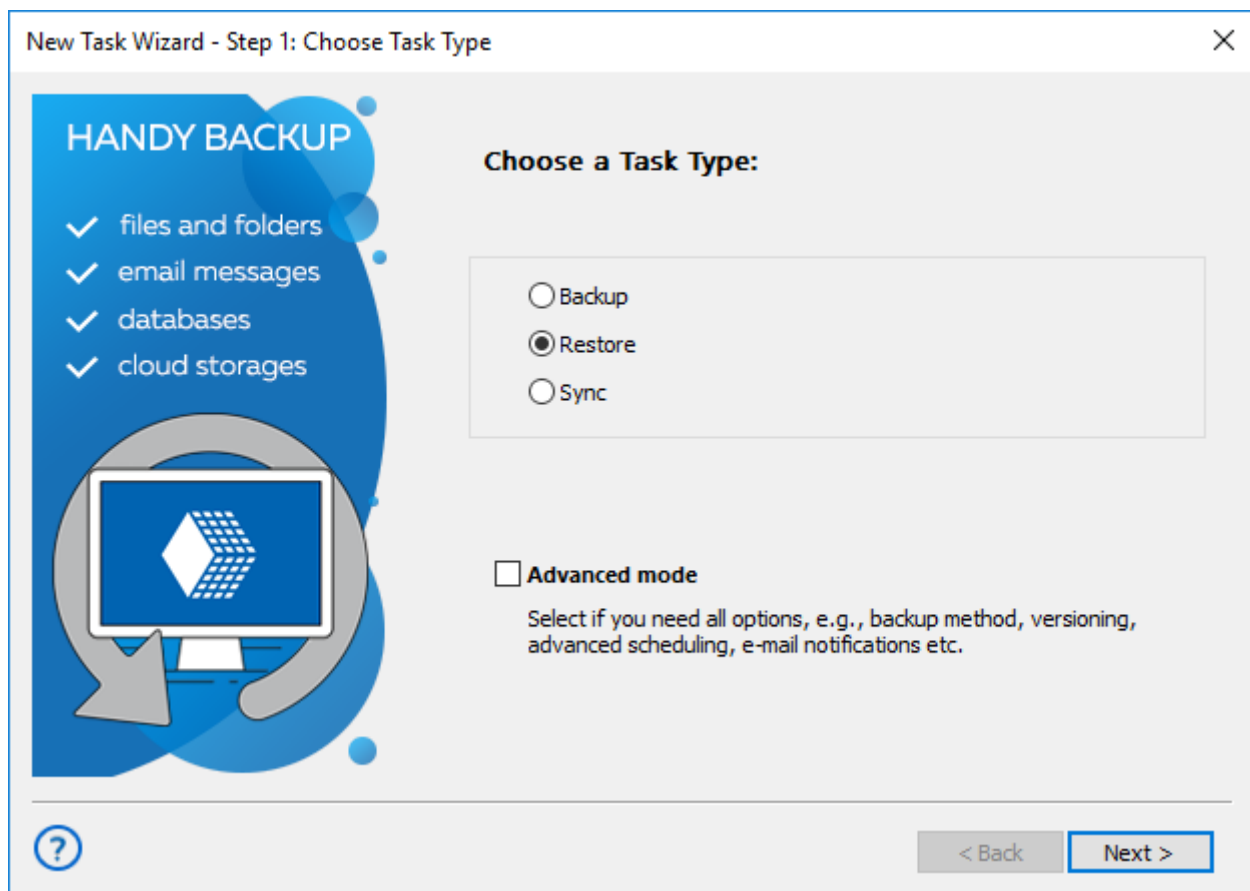
Well done! You just complete your first backup task in an advanced wizard mode! Now you can execute this task from the main window when you want it, or change any task properties if you feel it necessary.

4.4 First Recovery Task - Simple Mode

This article describes how to easily restore data from backup. To restore backup information, please follow these next steps:

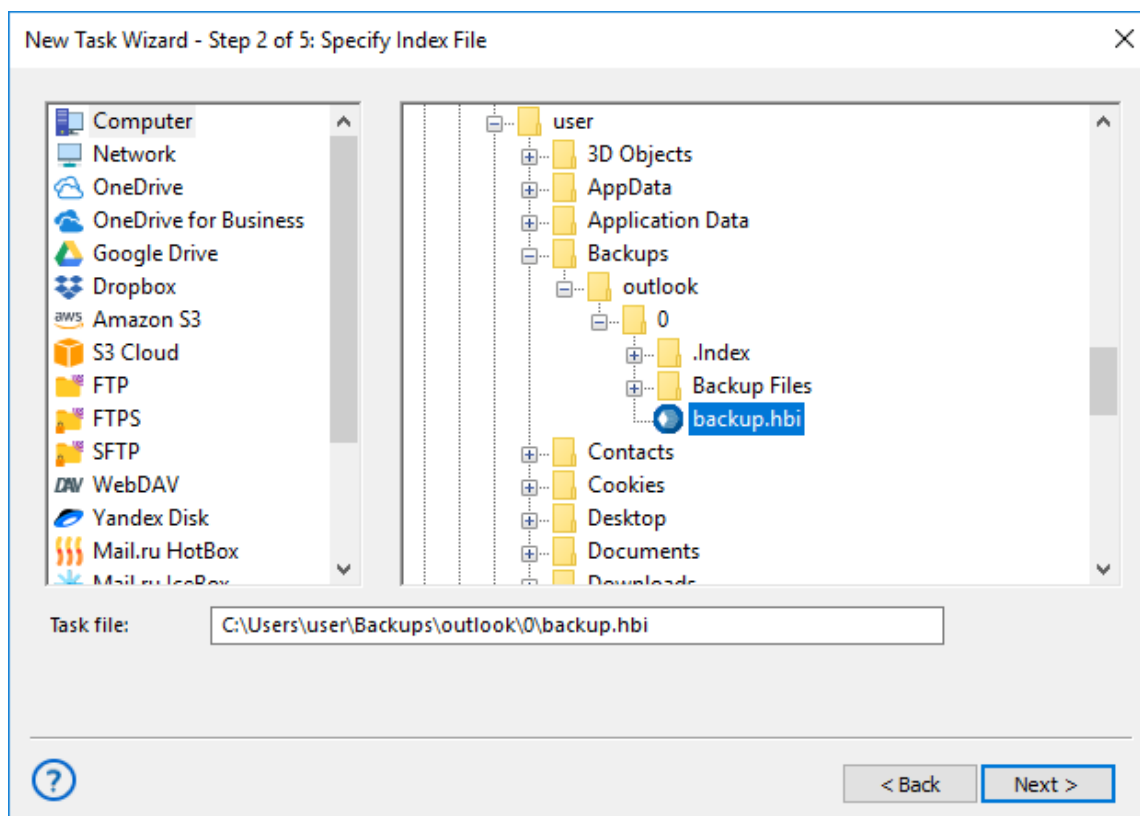
1. Run a New Task Wizard with a “New” button or by pressing Ctrl+N.

2. Select **Restore**, and then click “Next”.

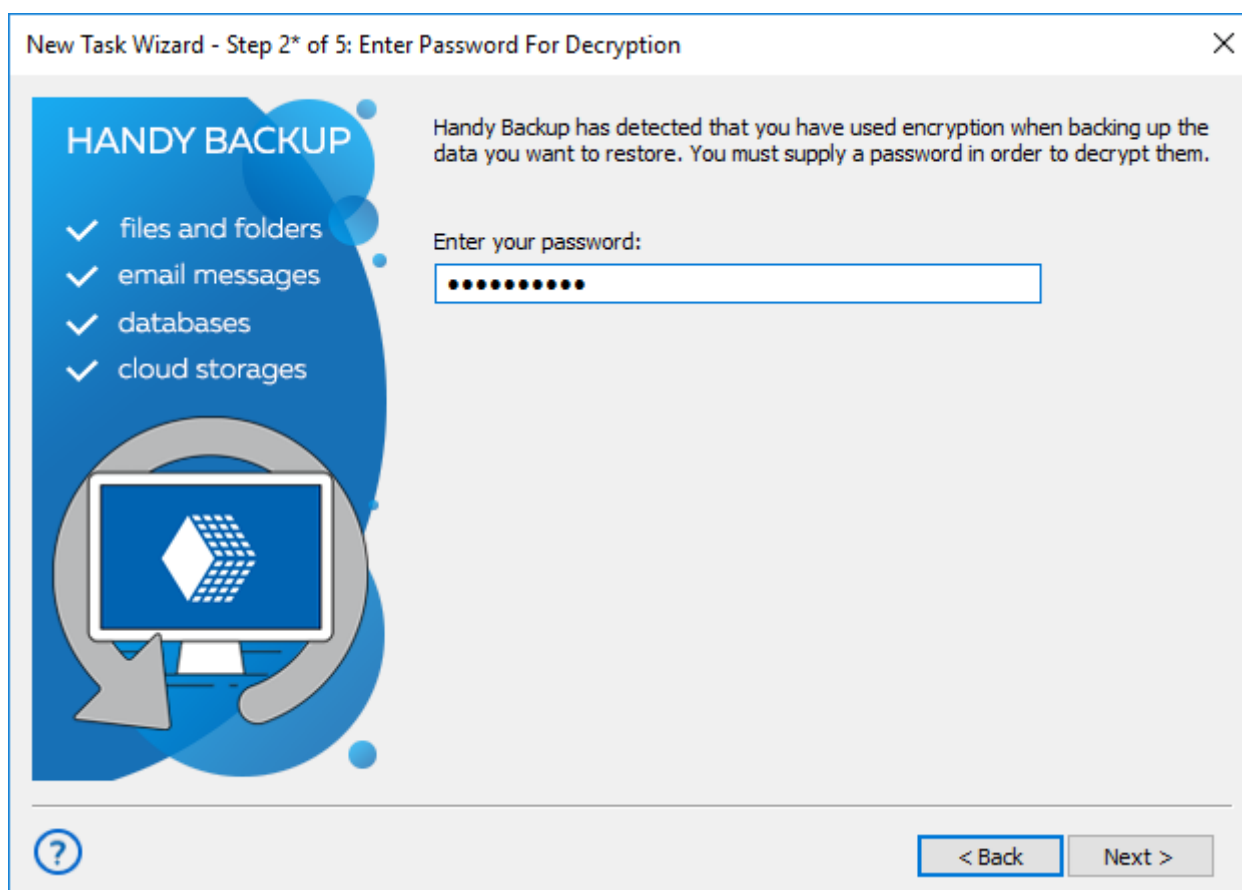


Caution! Do not mark “Use Advanced Wizard” if you will plan to stay in simple task mode.

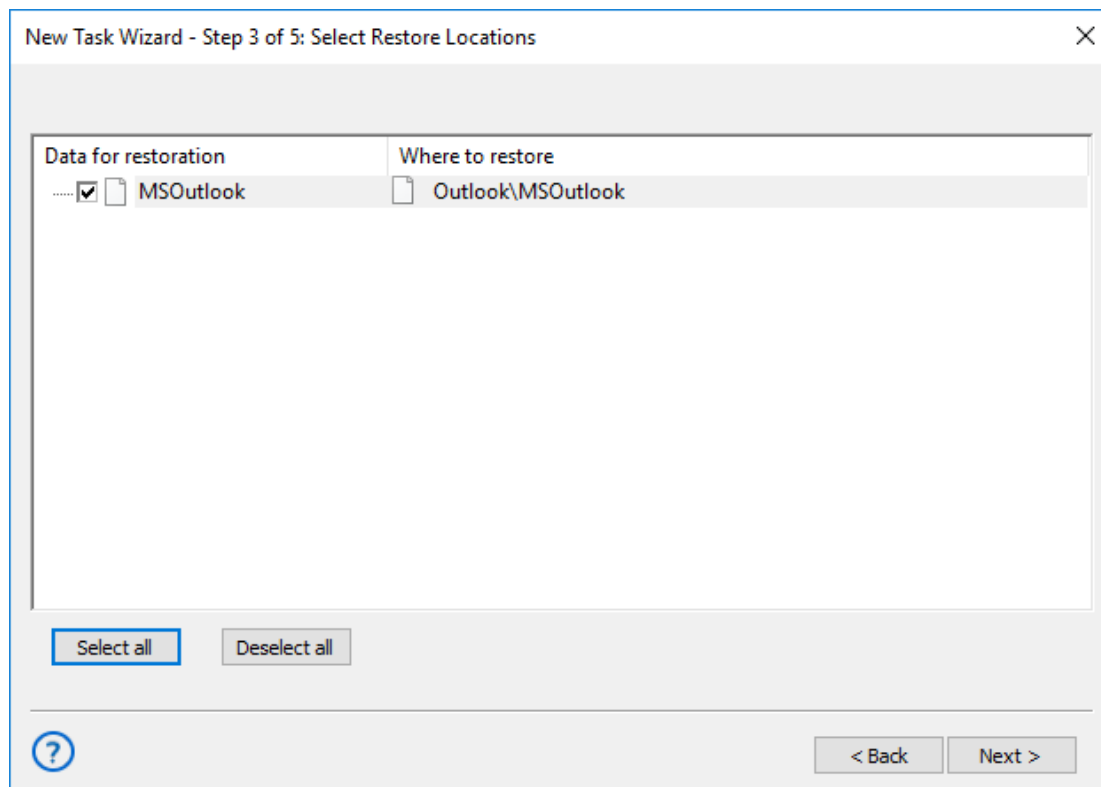
3. (**For network solution only**) In the upper left corner select a remote machine to use it as backup storage.
4. On the left panel, click on an appropriate data storage plug-in, e.g., **Computer for data stored on the local machine**.
5. Select a folder with your backup on the right panel.
6. Click on the index file (**backup.hbi**, always presents in backups), and then click “Next”.



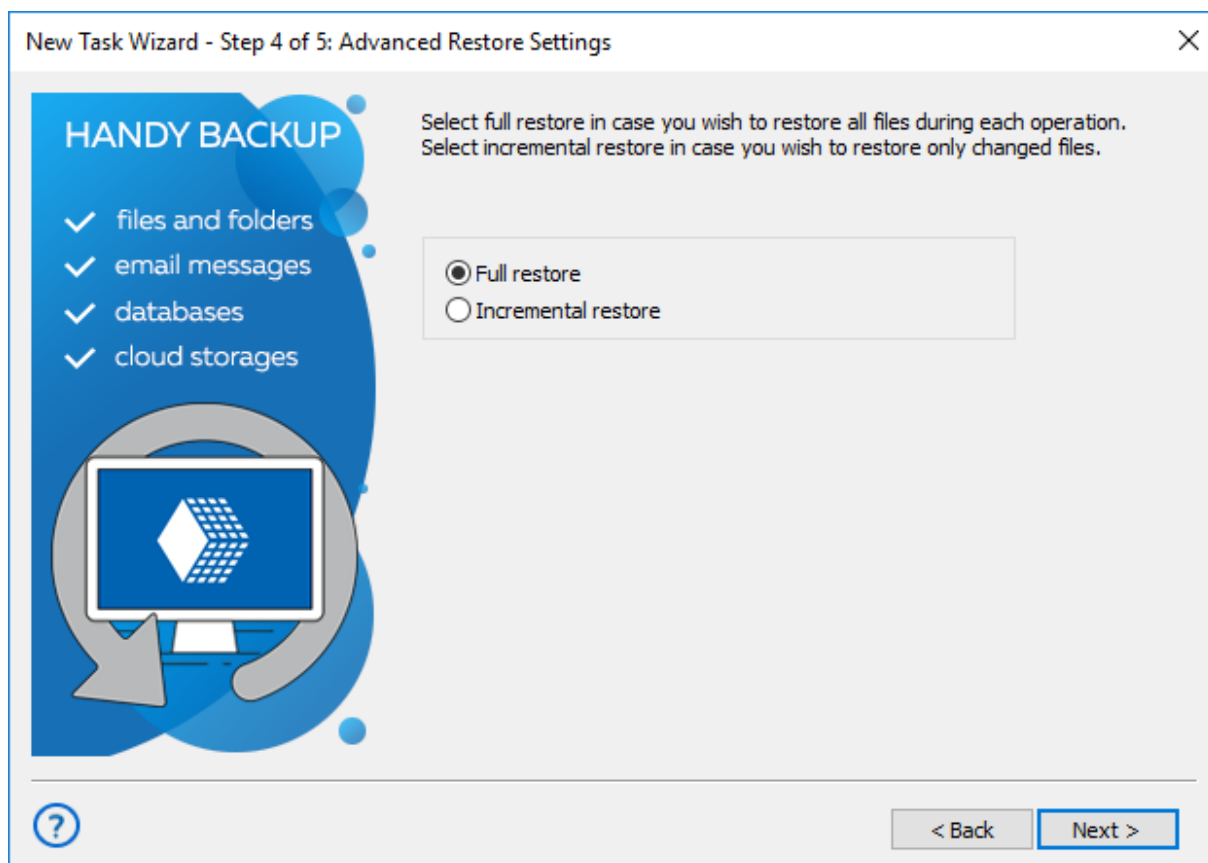
7. Here you must also enter a password for your backup, if you choose to encrypt your copy during creating a backup task.



8. Select a place to restore data. You can use "Select all" and "Deselect all" buttons to speed up complete selection or erasing. Click "Next".



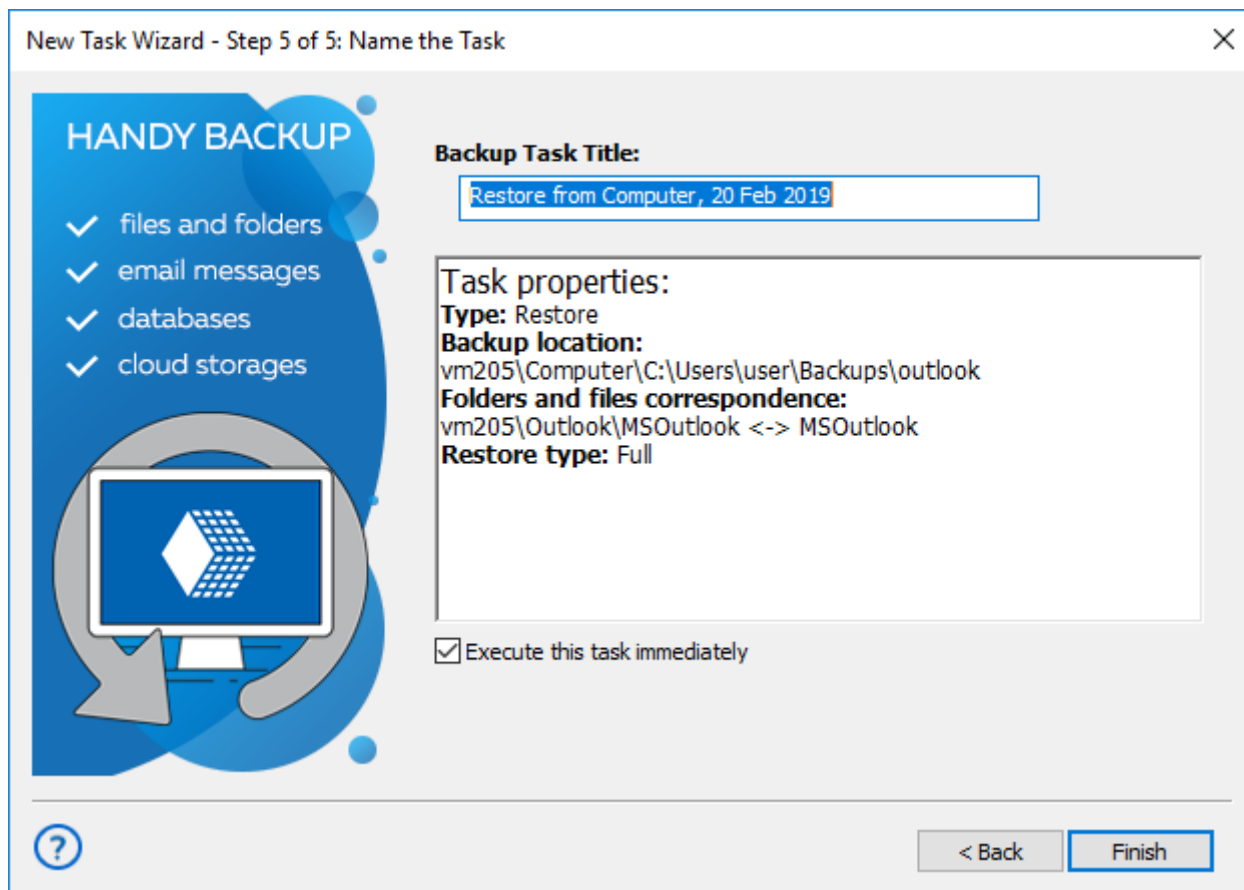
9. Select either full or incremental recovery, then click "Next" and proceed to the final step.



Handy Backup User Manual

Note: Full recovery will restore all data from backup. Incremental recovery will restore only those files that will be changed in backup since the previous restoration.

10. On the final step, give a name for your task, and mark an option to run this task immediately after creating it. Click “Finish” – well done!

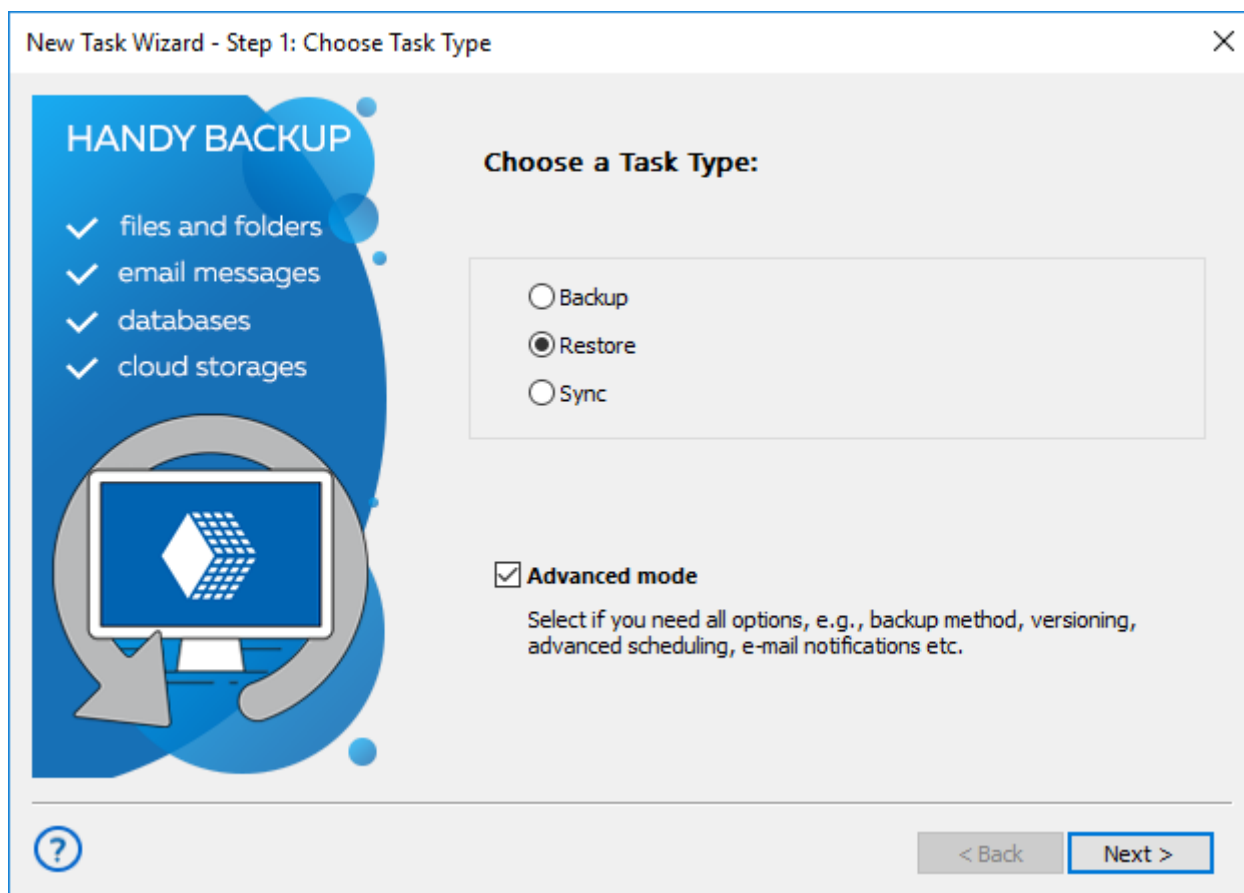


A new task will appear in the main program window. If you select immediate running for a task, you will see also the task results in the main window.

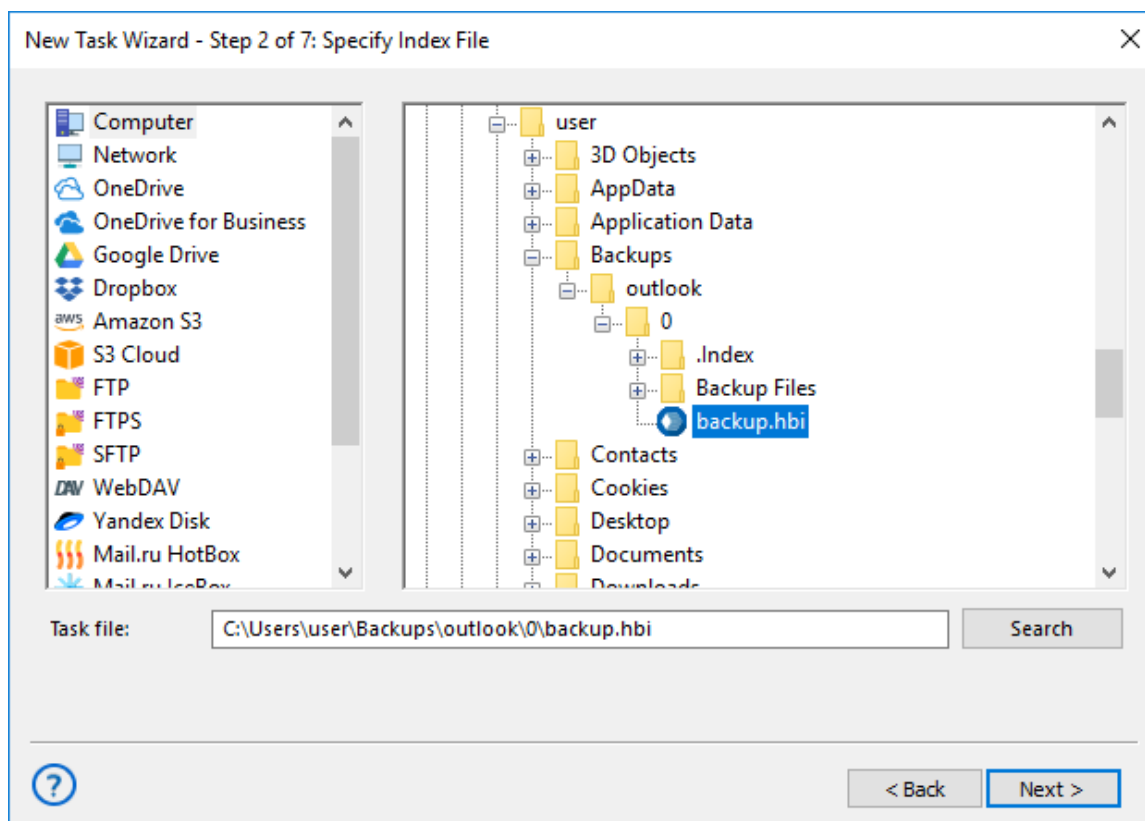
4.5 First Recovery Task - Advanced Mode

This article describes how to restore data from backup by using all functions and capabilities of Handy Backup. To restore backup information, please follow these next steps:

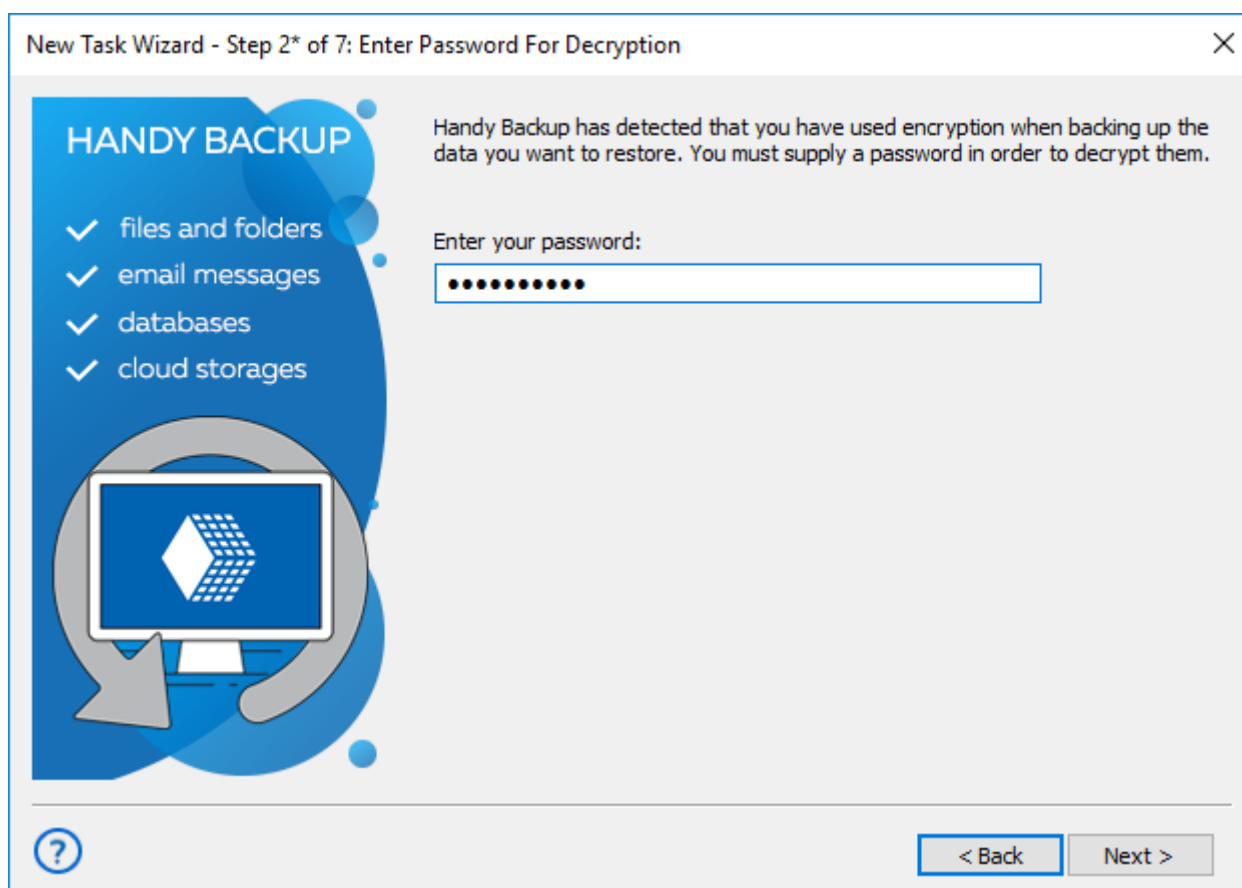
1. Run a New Task Wizard with a “New” button or by pressing Ctrl+N.
2. Select **Restore**, mark the “Use Advanced Wizard” option, and then click “Next”.



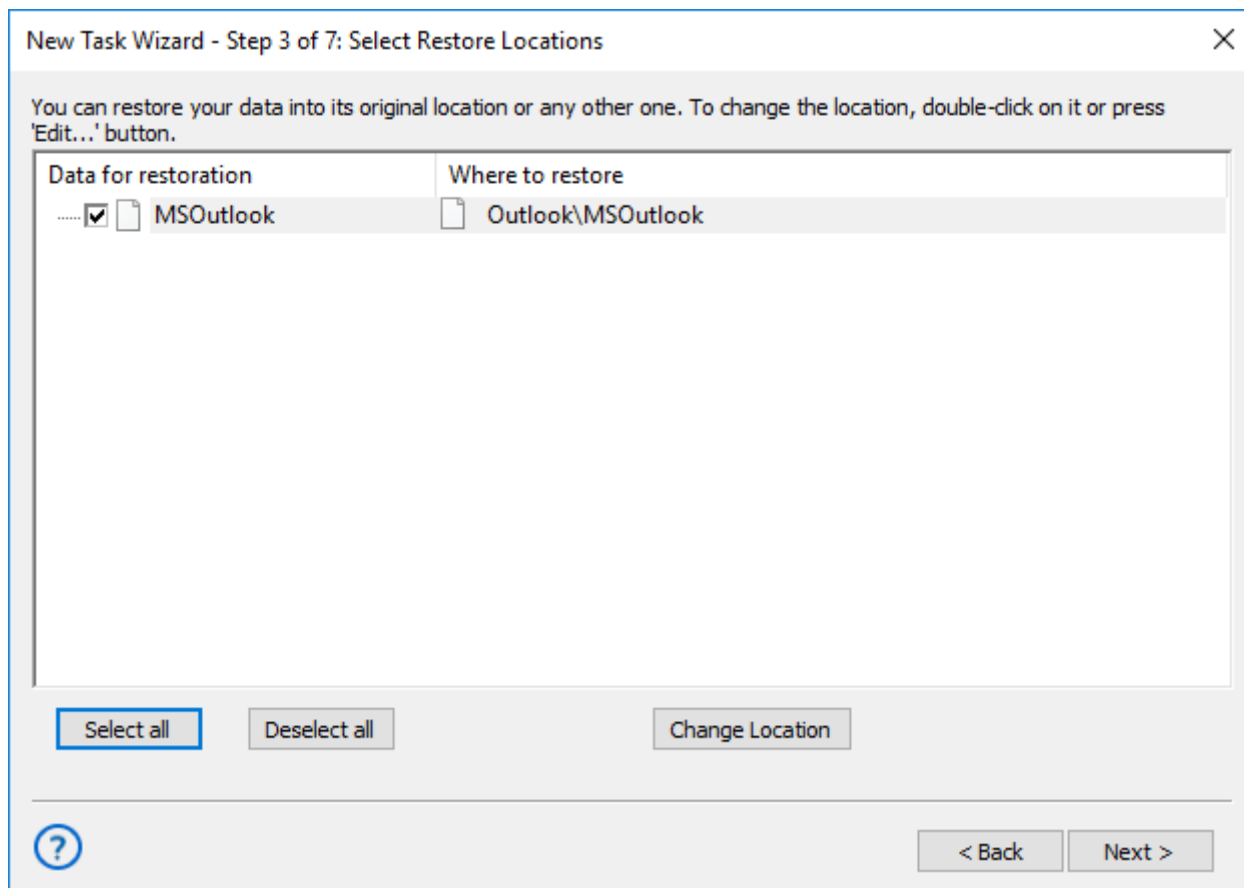
3. **(For network solution only)** In the upper left corner, select a remote machine to use it as backup storage.
4. On the left panel, click on an appropriate data storage plug-in, e.g., **Computer for data stored on the local machine**.
5. Select a folder with your backup on the right panel.
6. Click on the index file (**backup.hbi**, always presents in backups), and then click "Next".



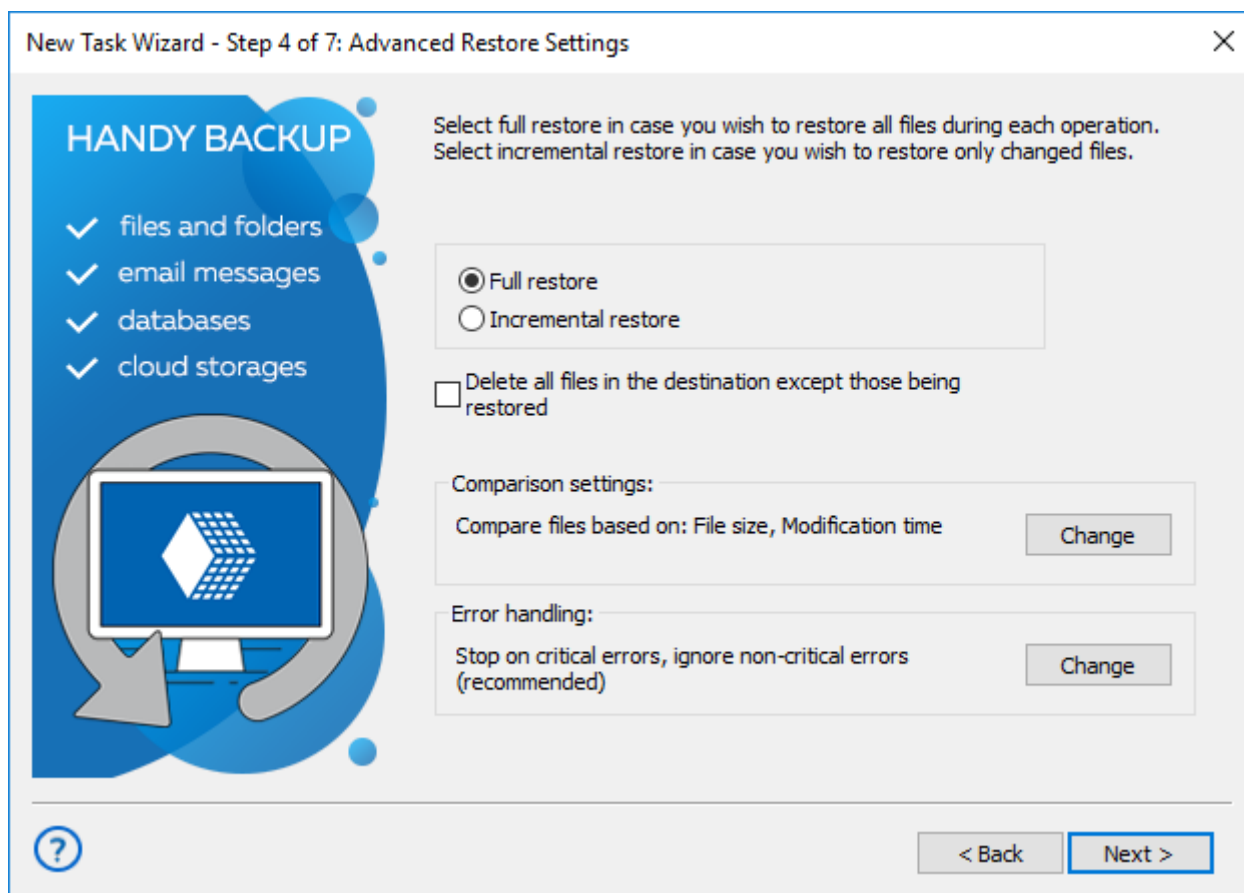
7. On this step, you must also enter a password for an encrypted backup if you choose the encryption option during creating a backup task.



8. Select a place to restore data. You can use “Select all” and “Deselect” all buttons to speed up complete selection or erasing.

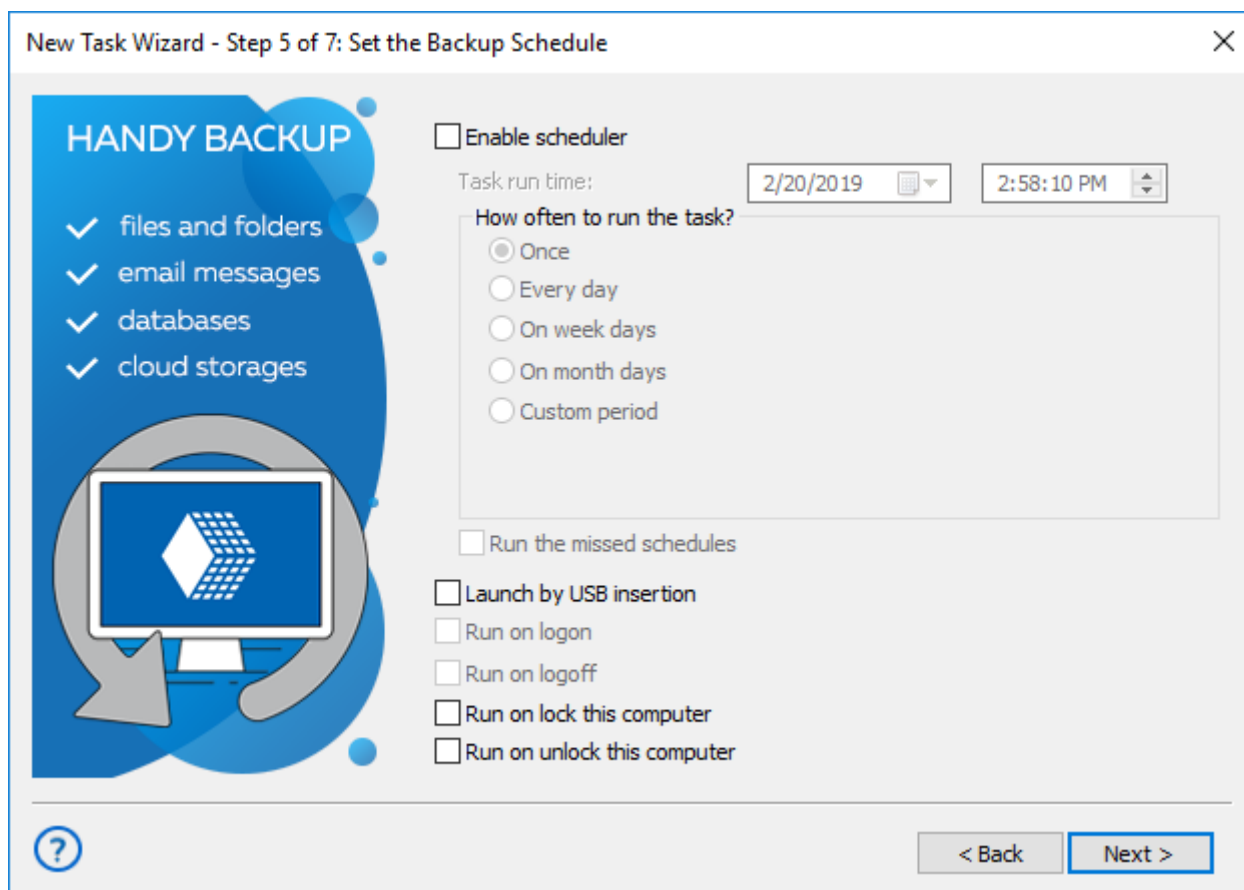


9. You can also change location for file recovery by clicking “Change Location” button. In the appearing dialog, choose a new place to restore your data, and then click OK.
10. Click “Next”. Select either full or incremental recovery on Step 4.

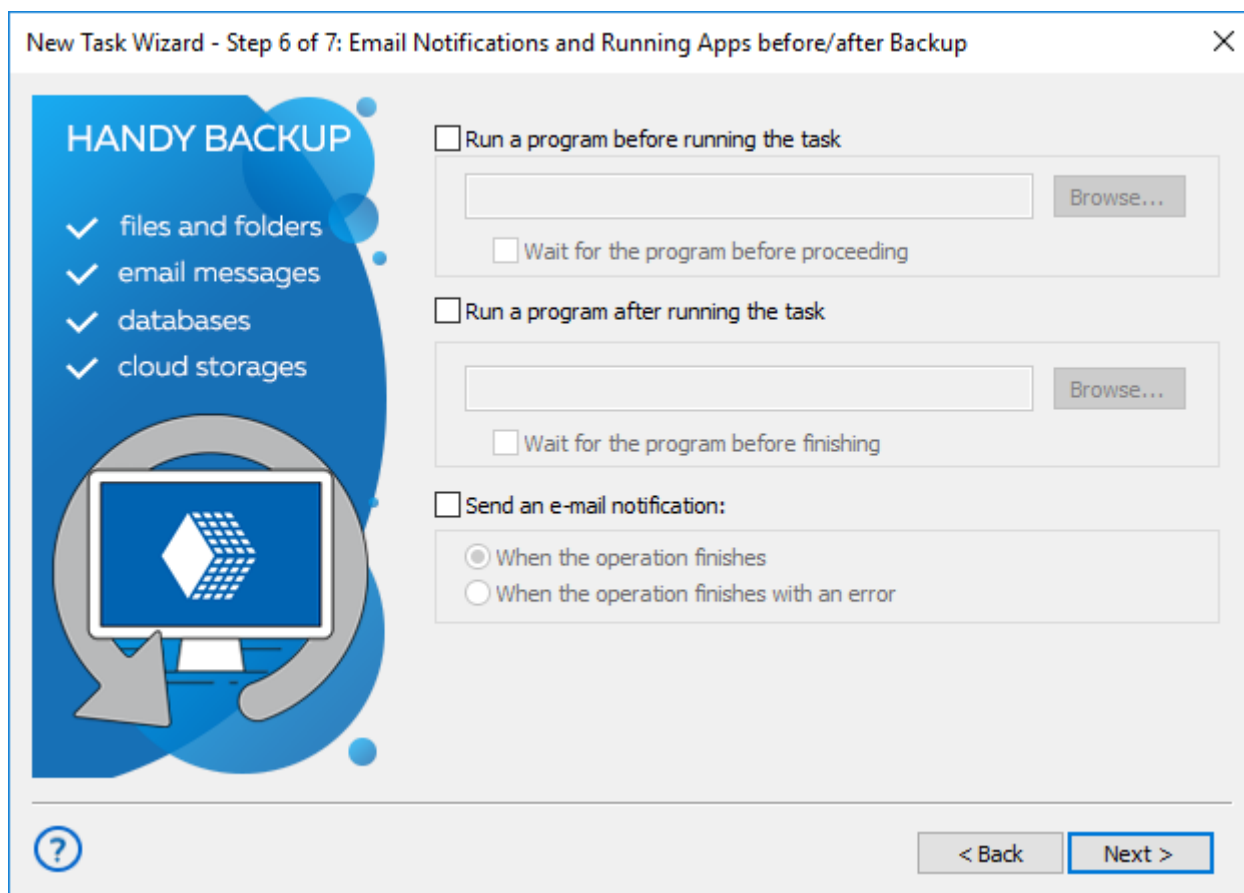


Note: Full recovery will restore all data from backup. Incremental recovery will restore only those files that will be changed in backup since the previous restoration.

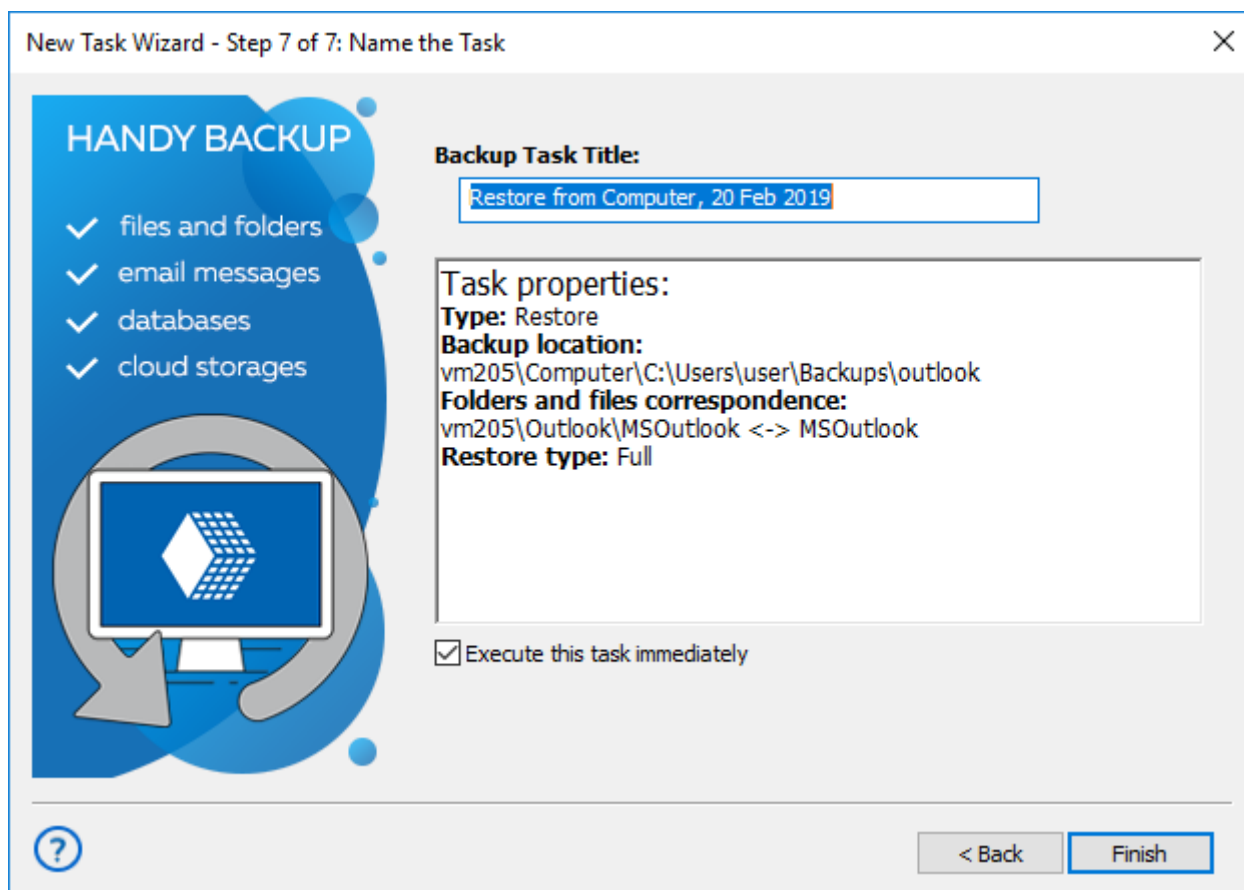
11. On this step, you can also set up error handling method, choose a method for file comparison (for incremental recovery), and check and option to delete all files in the destination folder except those being restored. Click "Change" to select properties, or else click "Next".
12. The next step allows you scheduling your recovery task. Mark the "Enable scheduler" option, and then select all parameters to run your task automatically: starting time and the repeating interval. It can be very useful for such tasks automatic cloning, mirroring and distributing data.



13. You can also trigger your recovery task by some system event in this step. To run a task each time when some event will occur, just mark a checkbox describing this event (e.g., user logon).
14. Click "Next" and go to next step. On this step, you can set up automatic execution of any external software before and/or after running your task. To make such setup, enable an appropriate option with a checkbox, and then enter a command string to run external software.



15. On this step, you can also set up an email notification about running a task and about its results. Enable an option to do it, select when to send a notification – Handy Backup will notify you about its activity via an email that you provide in the “Settings” section.
16. Click “Next”. On the final step, give a name for your task, and mark an option to run this task immediately after creating it. You can also see all parameters of your task in the middle of the setup window. Go back to change any parameters, or click “Finish” – well done!

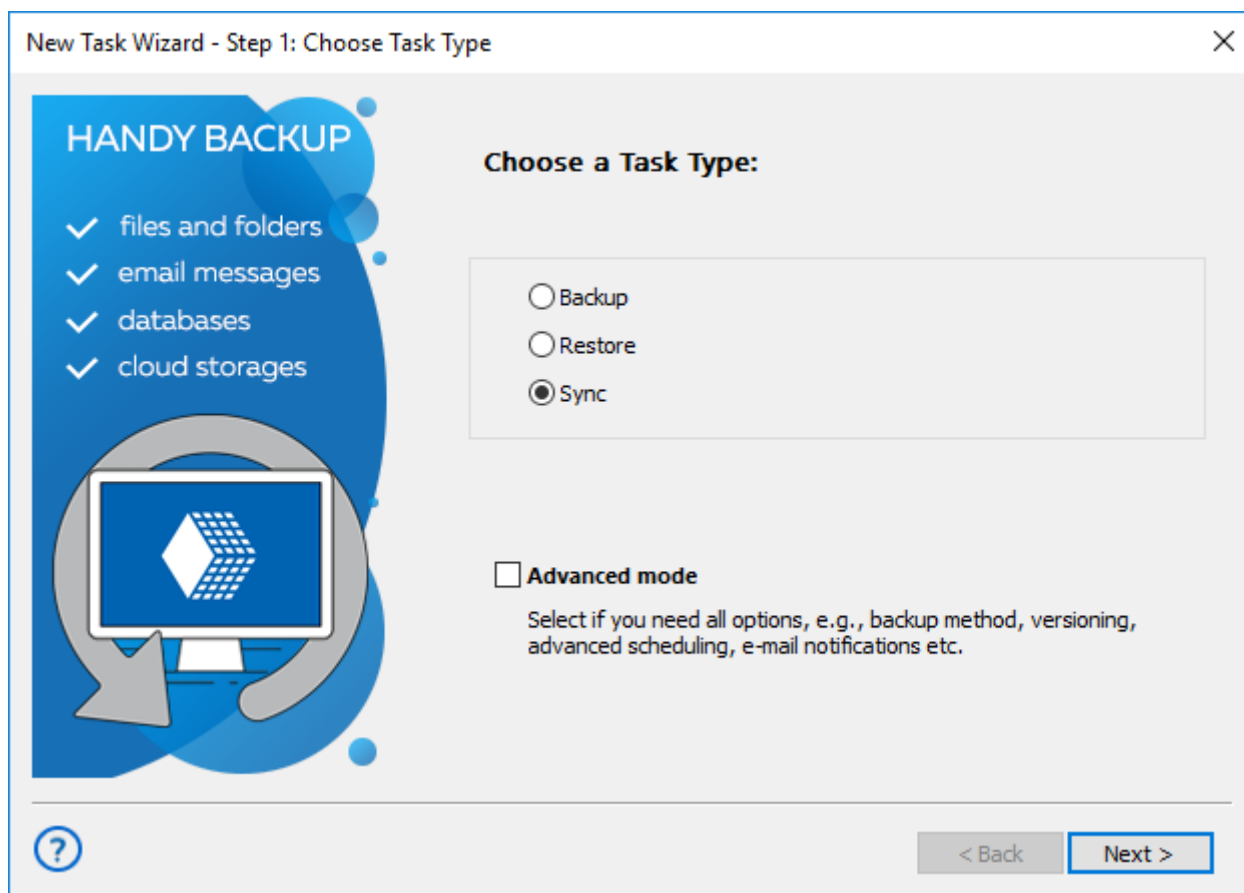


A new task will appear in the main program window. If you select immediate running for a task, you will see also the task results in the main window.

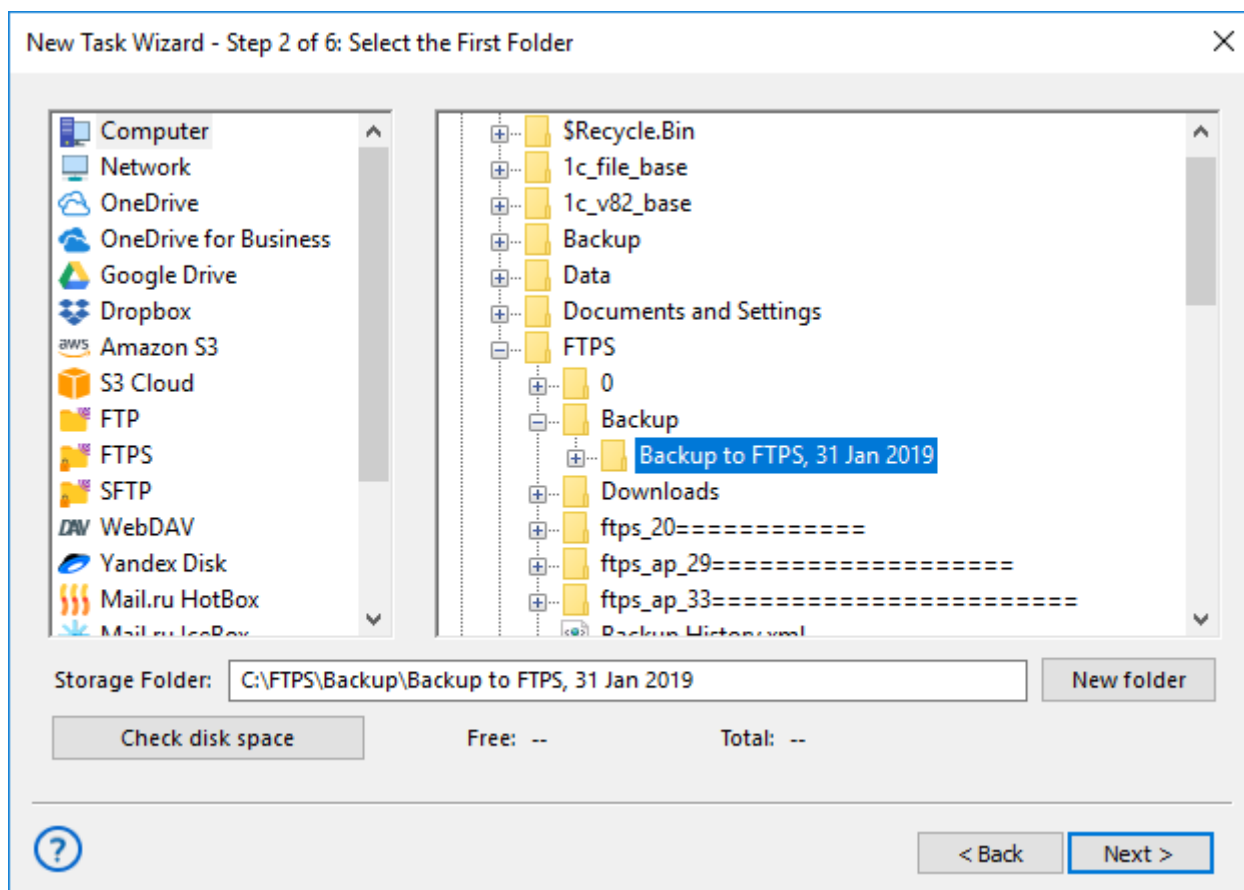
4.6 First Synchronization Task - Simple Mode

This article describes how to create a simple synchronization task. To do it, follow the next brief instruction:

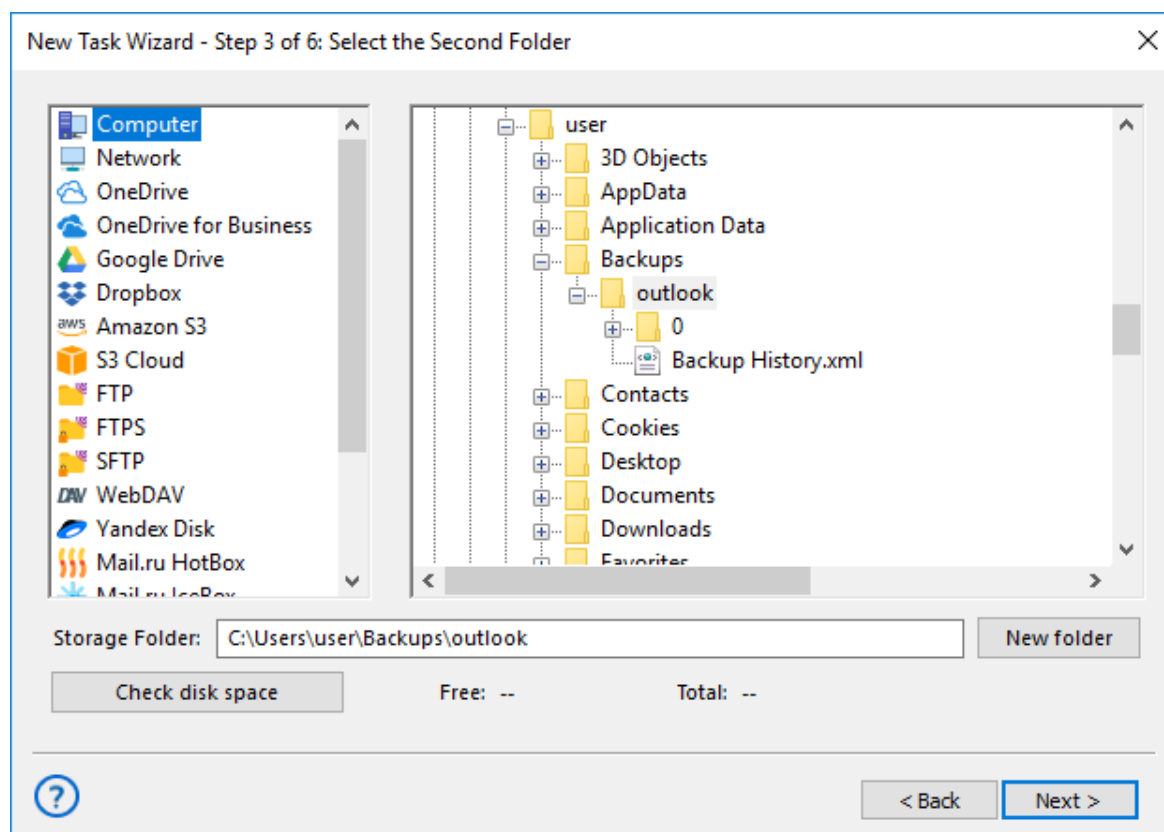
1. Run a New Task Wizard by the button on the main panel or by pressing Ctrl+N.
2. Select **Sync**, and then click **Next**. Do not mark "Use Advanced Wizard" if you plan to stay in a simple mode.



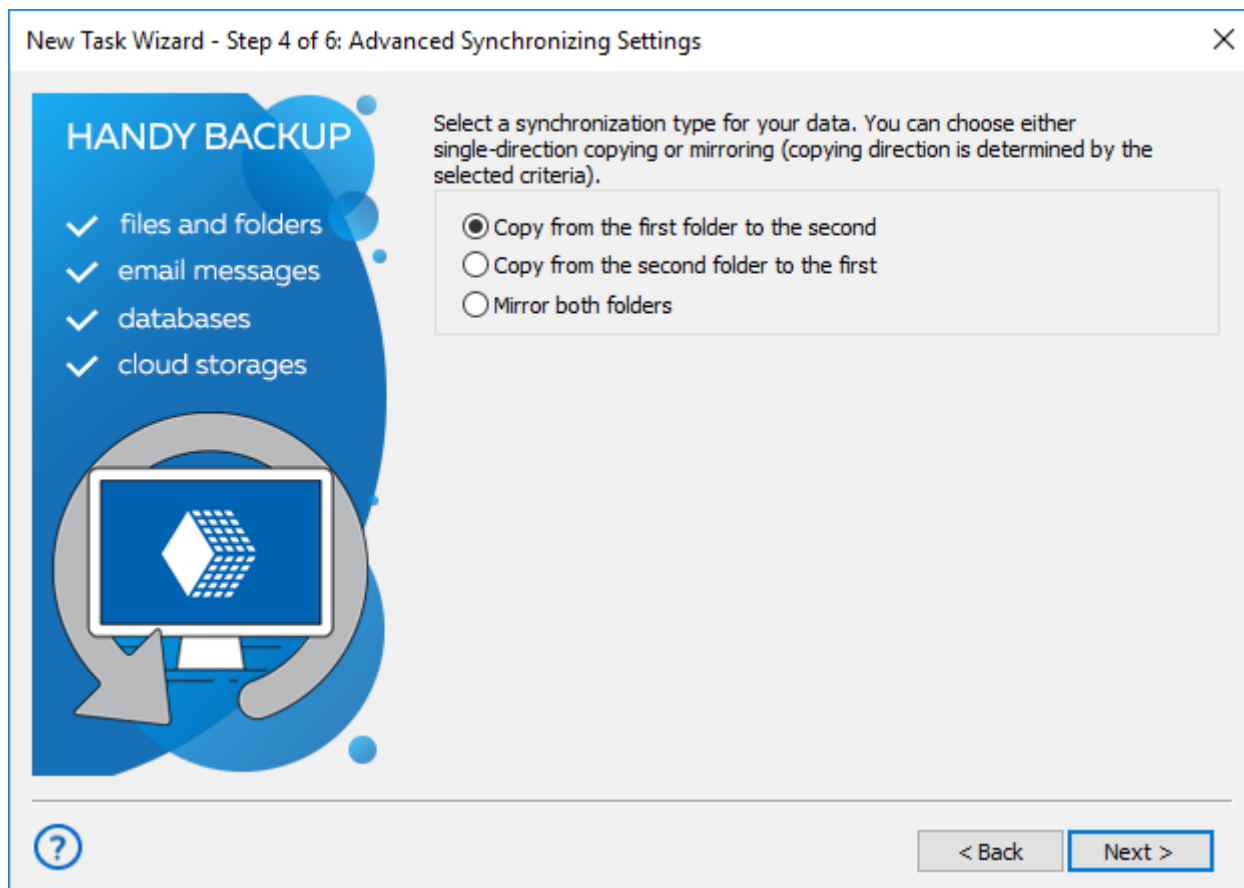
3. **(For a network solution only)** Select a remote machine to use it for sync a first folder in the upper left corner.
4. On the left panel, click onto a plug-in name to select a first folder; for example, to choose a local folder, click **Computer**.
5. On the right panel, select a folder for synchronization, and then click **Next**.



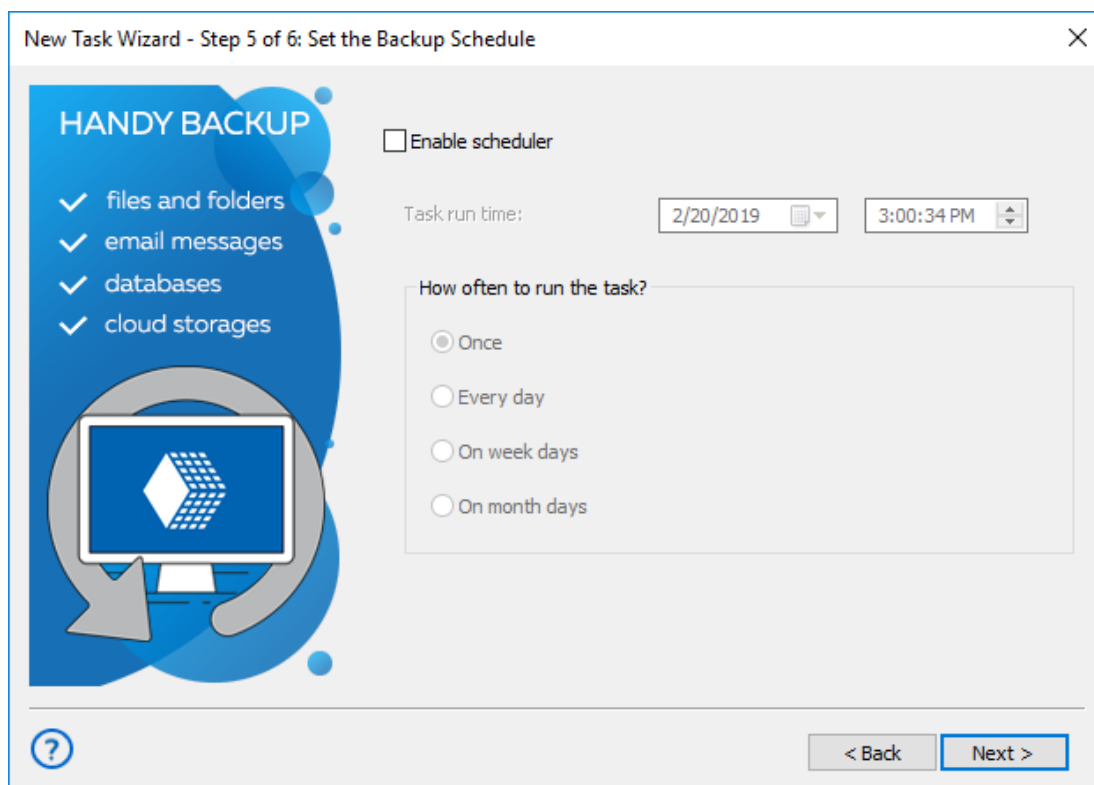
6. On the next step, select a second folder by repeating pp. 3-5 for choosing it among storage plug-ins and folders.



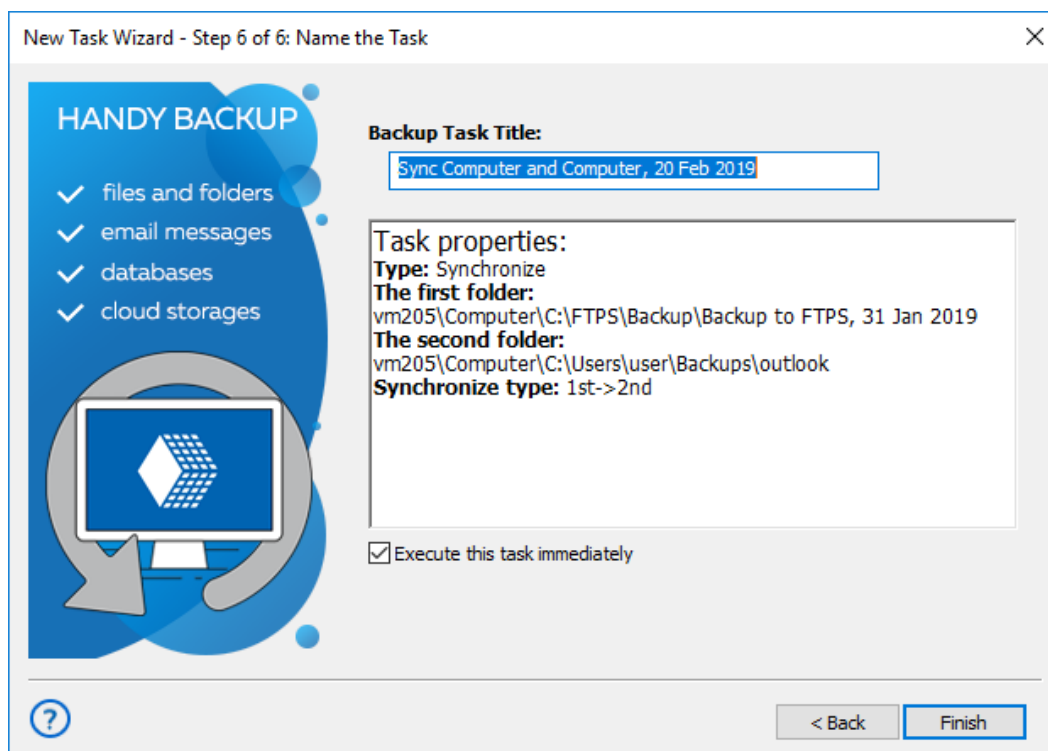
7. On the next step, select sync direction. You can copy a first folder to a second folder, or vice versa or just merge the two folders content.



8. On this step, you can also select what to do with identical filenames in the two folders: copy or skip. After setting up your sync options on this step, click **Next**.
9. The next step is for scheduling your task. If you plan to run a task in automatic mode, check the "Enable scheduler" option.



10. After enabling scheduling, you can choose a starting time and a repeating period for a task. When you finish, click **Next**.
11. On the final step of your task, give it a name. You can also mark an option to run a task immediately after finishing its creation. On the task wizard window, you can see all task parameters (return and change any of these parameters if you need it).

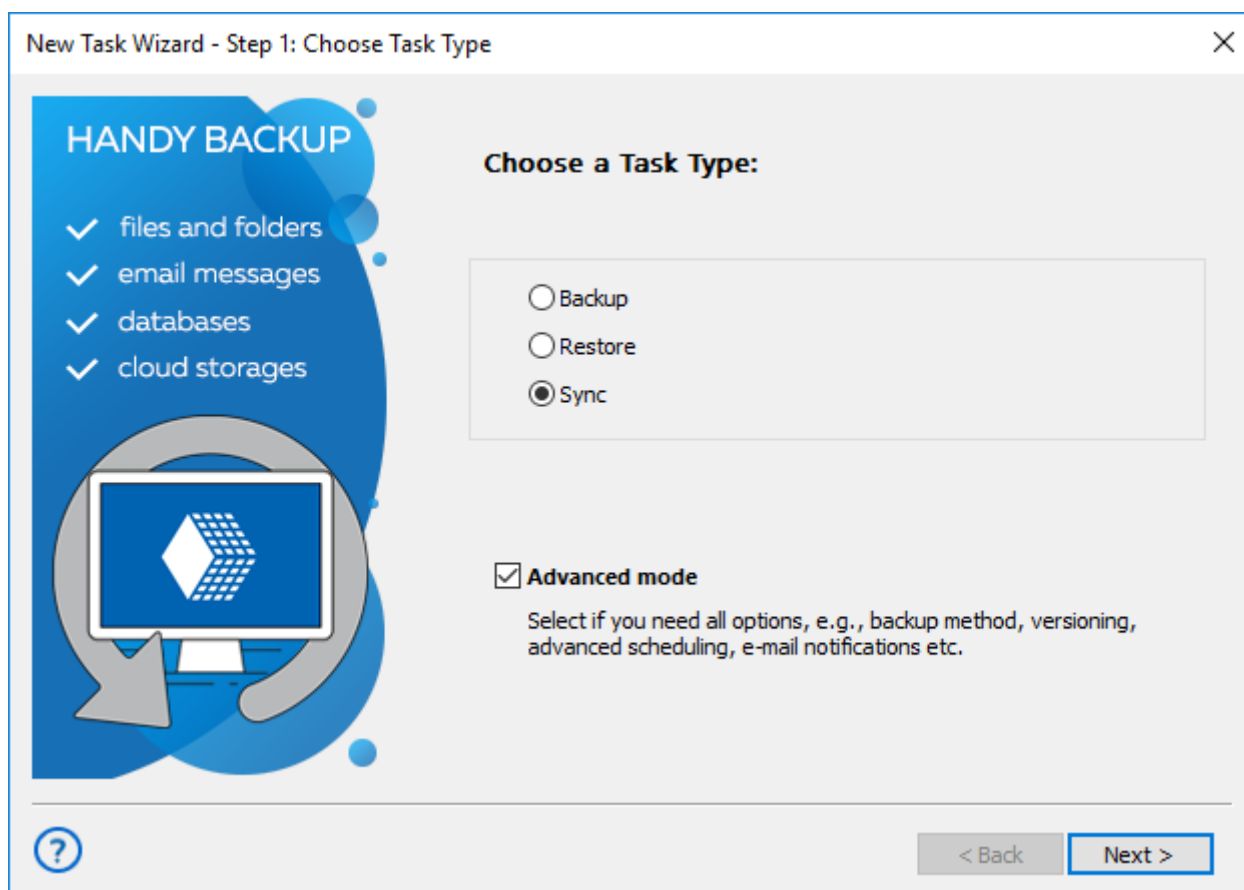


Data sync is similar to backup, although it works only between data storage plug-ins and folders, and lack many backup options such as encryption, compression and versioning. Its primary purpose is to establish identity and actuality of data in two synchronized folders.

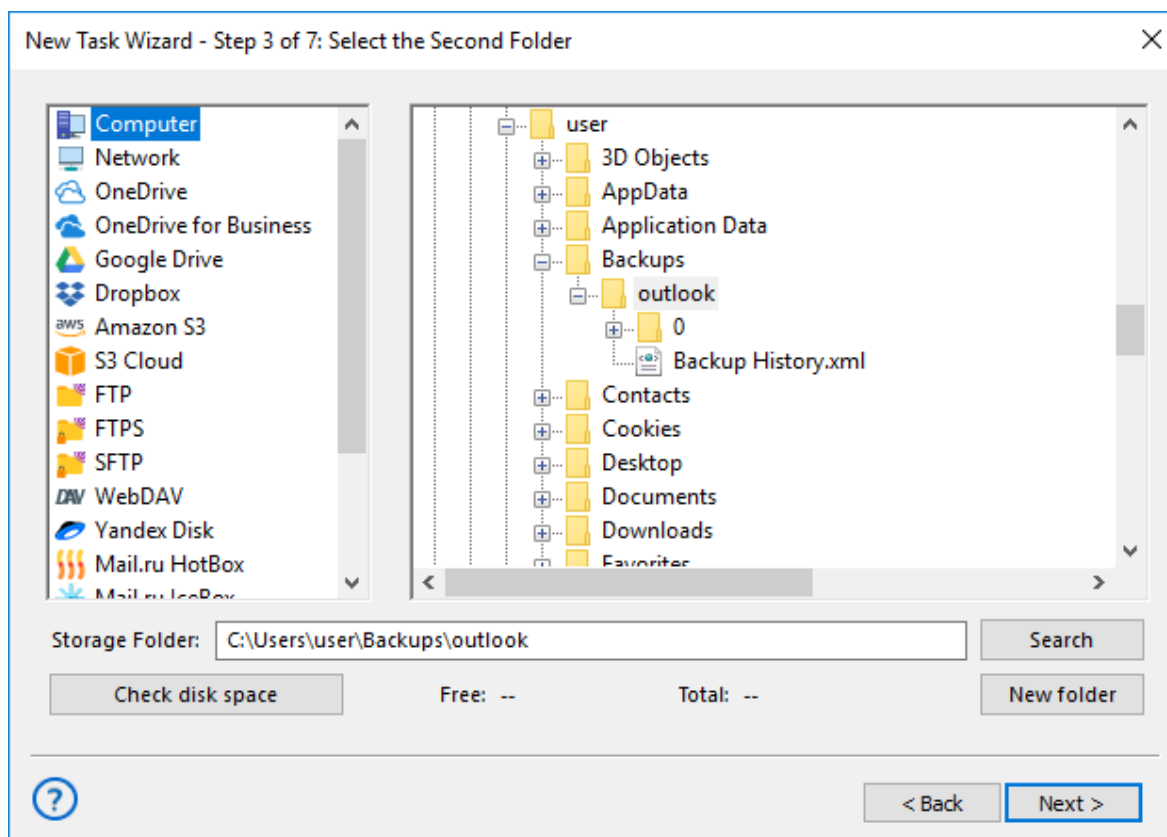
4.7 First Synchronization Task - Advanced Mode

This article describes how to create a data sync task by using all functions and possibilities of Handy Backup. To create such task, please follow the next instruction:

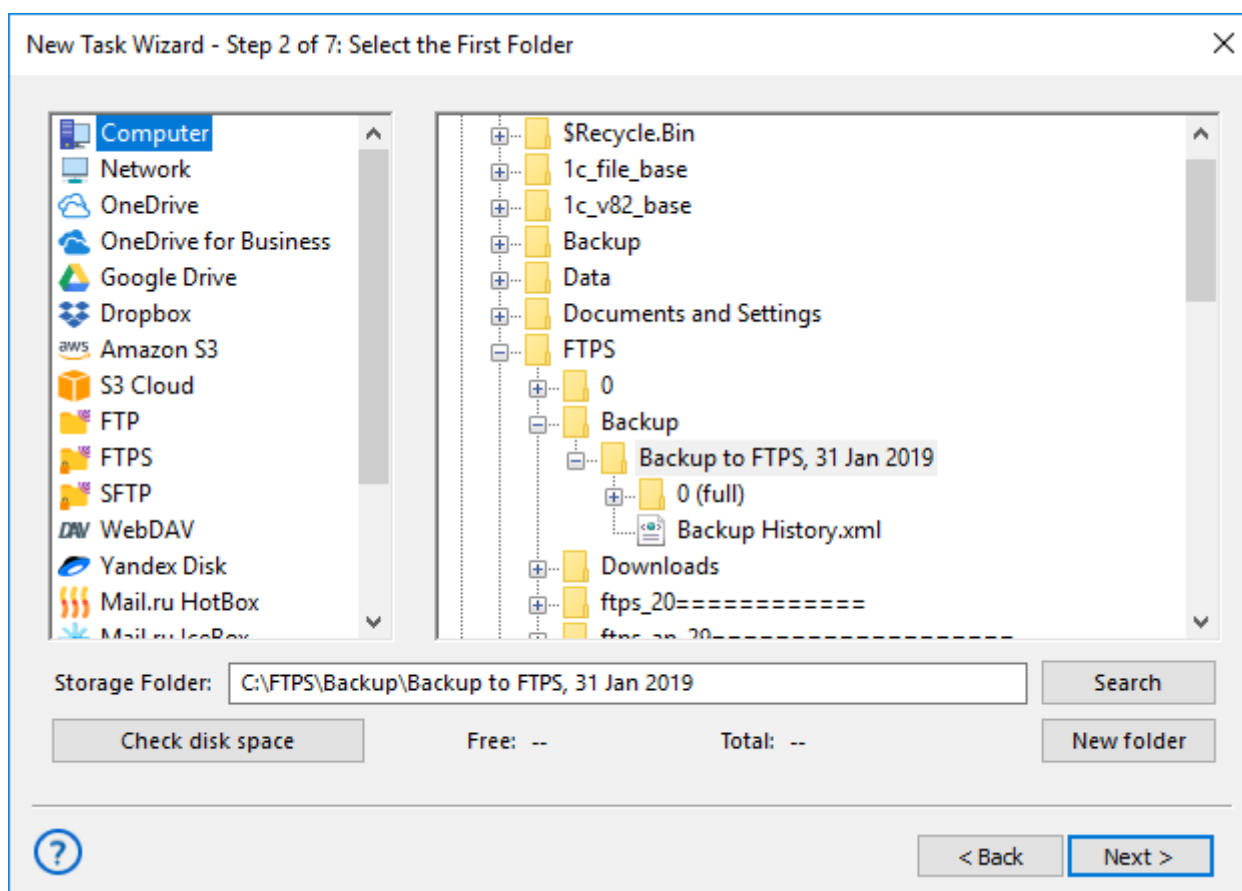
1. Run a New Task Wizard by the button on the main panel or by pressing Ctrl+N.
2. Select **Sync** and mark “Use Advanced Wizard”. Click **Next**.



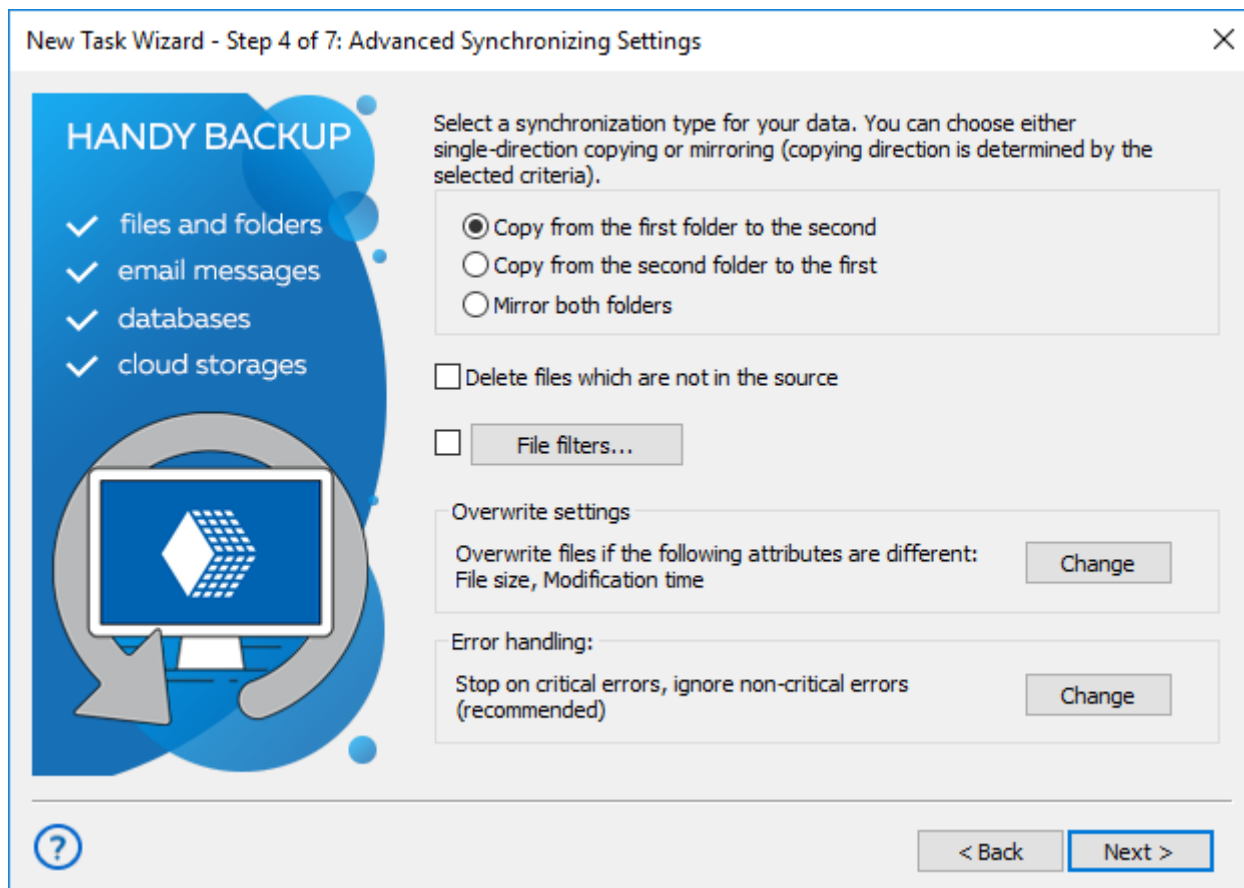
3. (**For a network solution only**) Select a remote machine to use it for sync a first folder in the upper left corner.
4. On the left panel, click onto a plug-in name to select a first folder; for example, to choose a local folder, click **Computer**.
5. On the right panel, select a folder for synchronization, and then click **Next**.



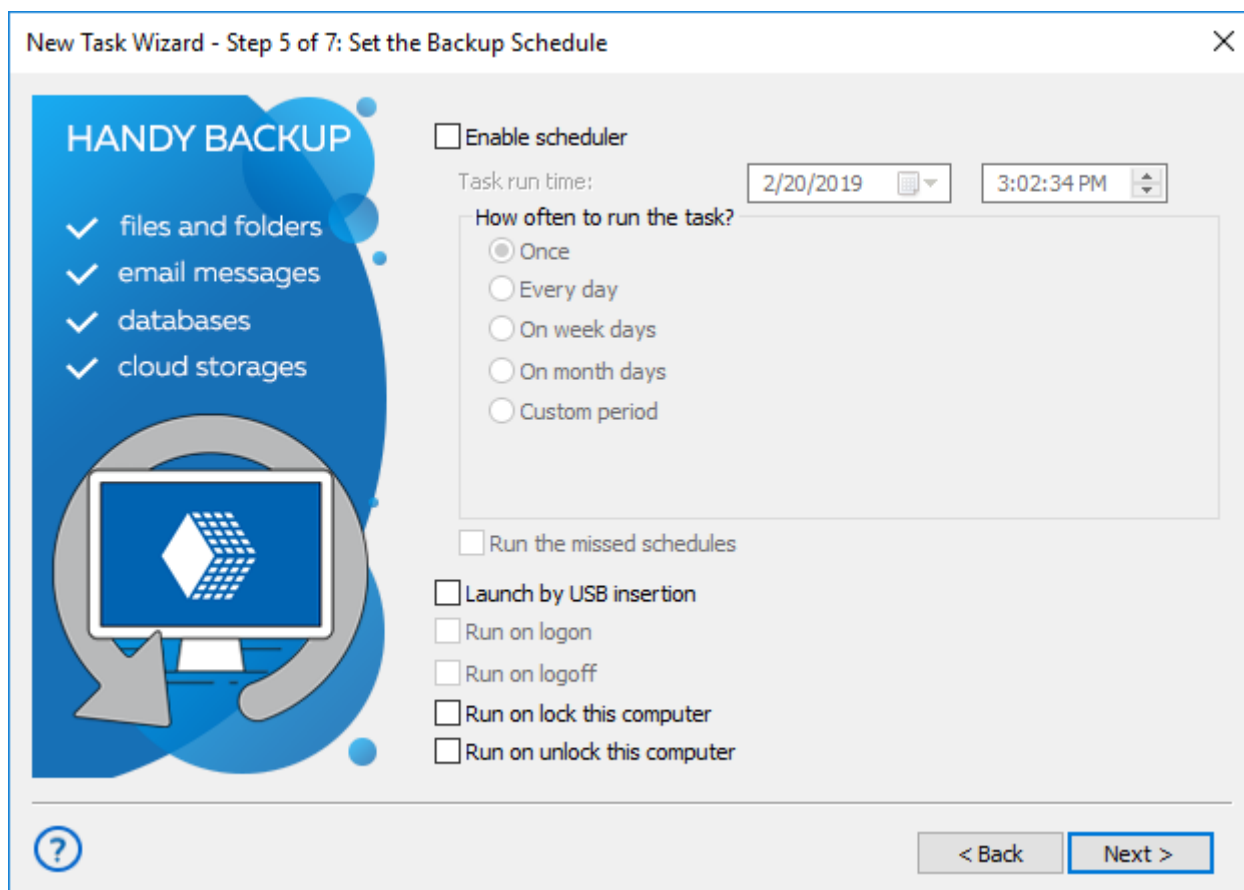
6. On the next step, select a second folder by repeating pp. 3-5 for choosing it among storage plug-ins and folders.



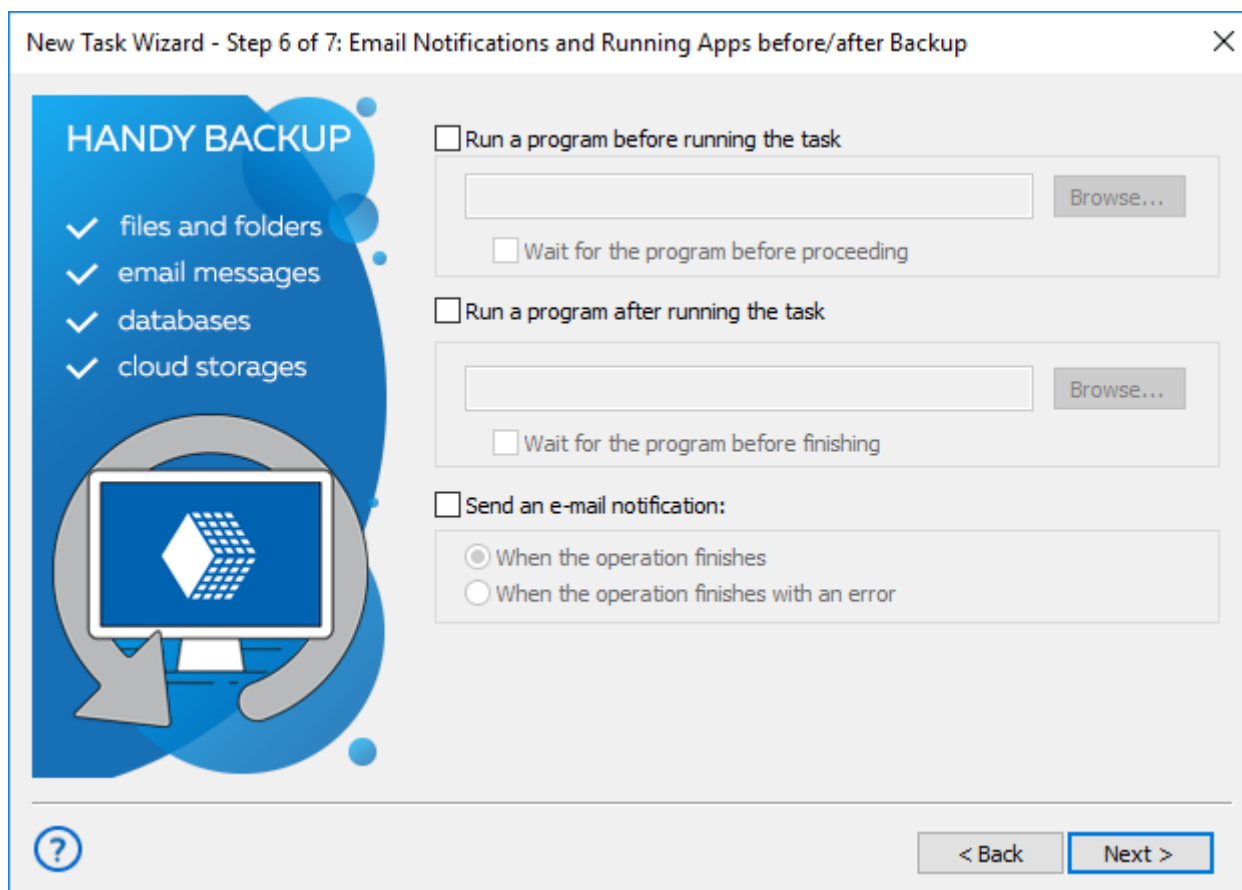
- The next step allows you selecting sync direction. You can copy a first folder to a second folder, or vice versa or just merge the two folders content.



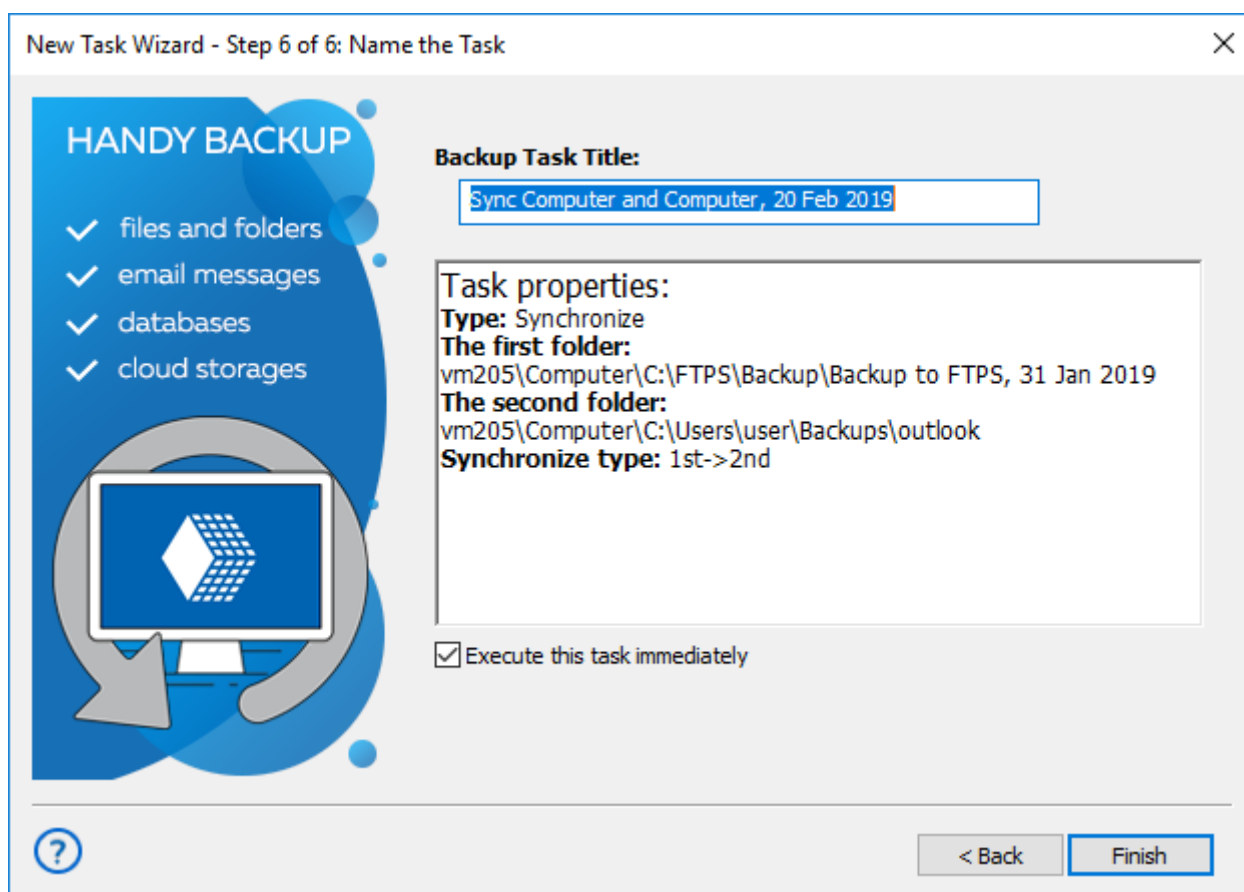
- For merging folders, you can also select what to do with identical filenames in the two folders: copy or skip. If you are copying one folder onto another, you can select an option for erasing all files except those existed in a “master” folder.
- This step also allows setting an error handling method and parameters for overwriting files with qualified attributes. Mark an option that you plan to use, and then click “Change” if you want to select another method.
- Finally, on this step you can create a file filter to seek files and subfolders for synchronization by mask of a name and/or attributes. To enable it, mark the “File filters” option and click the appropriate button to enter a setup dialog.
- After setting up your sync options on this step, click **Next**. The next step is for scheduling your task. If you plan to run a task in automatic mode, check the “Enable scheduler” option.



12. With a scheduler, you can choose a starting time and a repeating period for a task. You can also trigger your task to launch by some system event, such as USB drive insertion or system shutdown.
13. To trigger a task, just mark an appropriate event checkbox. When you finish, click **Next**.
14. The next step allows you starting an external program before or after a task. To enable it, mark an appropriate option checkbox and then enter a command to run external software or batch file in the corresponding string.



15. You can also set up an email notification here. Enable it, and the program will send you a message about a task activity with a frequency that you can set up here. An email address to receive such messages you can provide in the "Settings" section.
16. Click **Next**. On the final step of your task, give it a name. You can also mark an option to run a task immediately after finishing its creation. On the task wizard window, you can see all task parameters (return and change any of these parameters if you need it).
17. Click **Finish** when all done.



Data sync is similar to backup, although it works only between data storage plug-ins and folders, and lack many backup options such as encryption, compression and versioning. Its primary purpose is to establish identity and actuality of data in two synchronized folders.

4.8 Managing Remote Tasks (for the Server Network Edition)

To create a new task with the Server Network edition, you must have the pre-installed Management Panel on the central console machine and the configured Network Agent of an appropriate type on a remote computer. When you have the both component, you can easily create a remote task.

Creating a Sample Task for Remote Data Backup

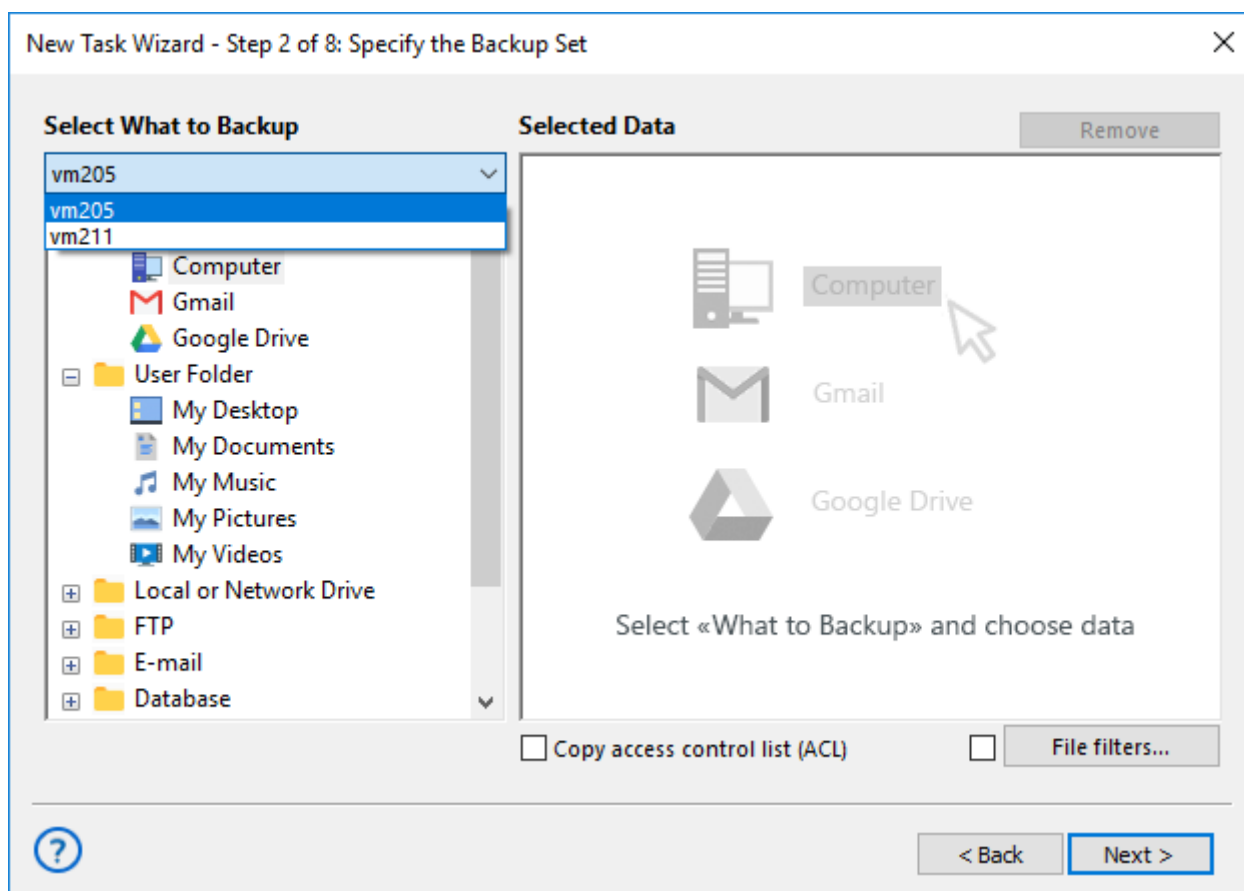
This example explains how to make a task for backup MySQL database from a remote server to a network NAS. This class of tasks is the one of most popular backup implementations for different corporate networks.

To make a remote backup task, please do the next things:

1. On the Management Panel, click "Create".
2. Select a backup task type on the first step. Toggle on the advanced mode checkbox to allow all options, and click "Next" to go to Step 2. Here you will select appropriate backup data.

Handy Backup User Manual

3. Select a remote machine from the drop-down list in the upper left corner.



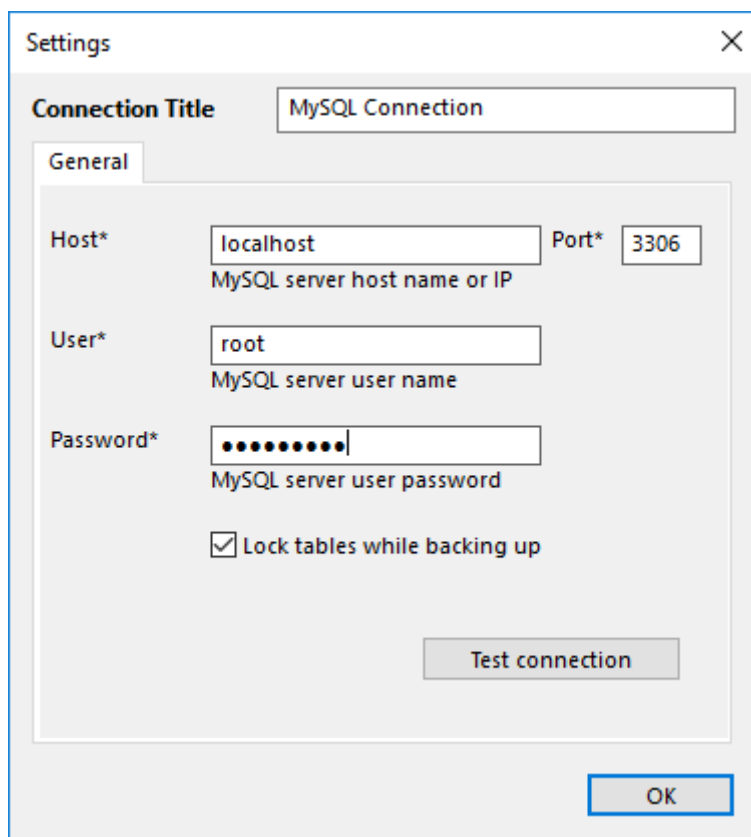
Note: The Server Network edition always works with a local machine with the Management Panel. Handy Backup will automatically choose a local machine unless you select a different computer from a drop-down list.

You will have a different set of available data plug-ins, depending on the type of a Network Agent installed on a local machine.

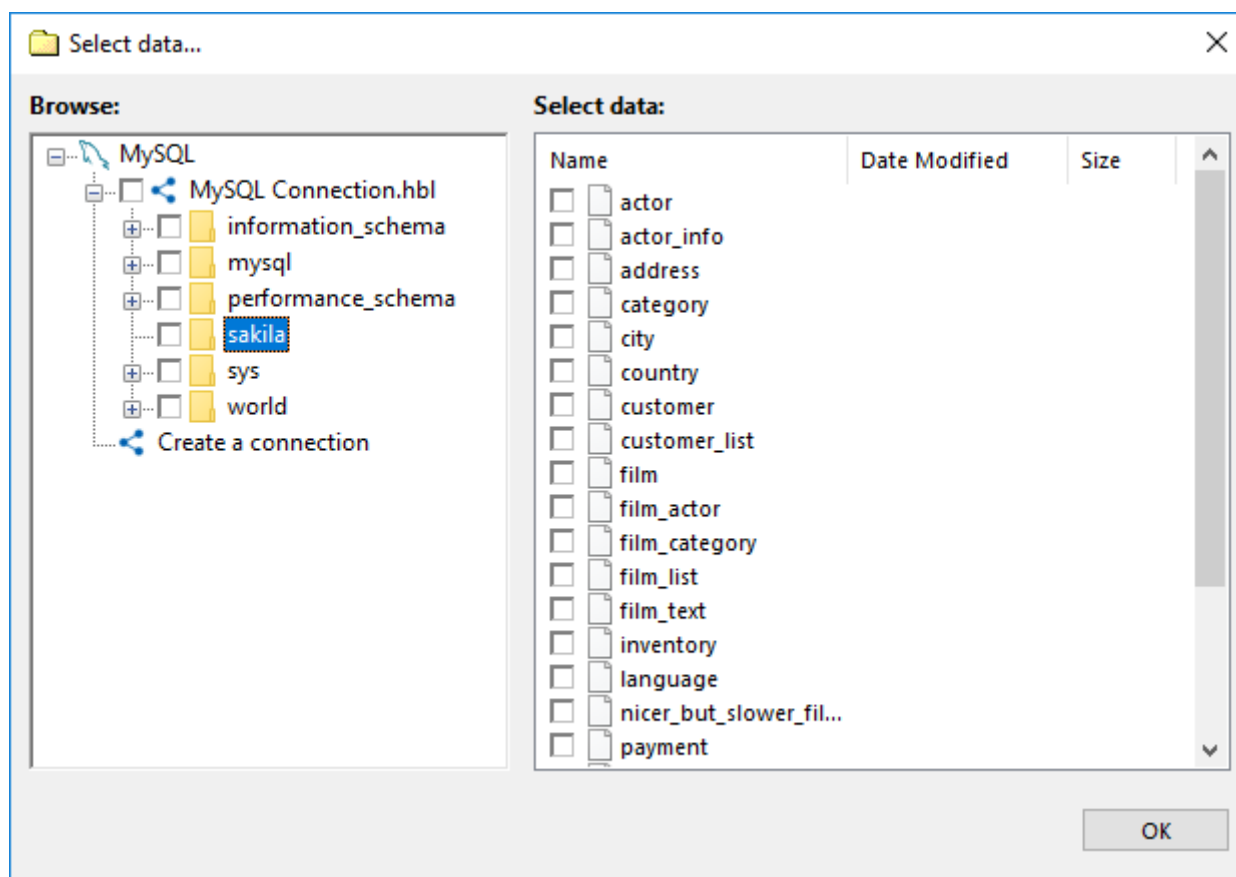
- The Network Agents for Workstations can copy files, folders and drive images.
- The Network Agents for Servers also back up databases and virtual machines.

In this case, you will need a Server agent installed on a remote machine. After choosing a computer, click onto the "MySQL" plug-in name in the "Database" group. Click "Create a connection". You will see the MySQL connection dialog.

4. Enter the new connection parameters (connection name, server name or IP, user login and password) into appropriate fields. Click OK.

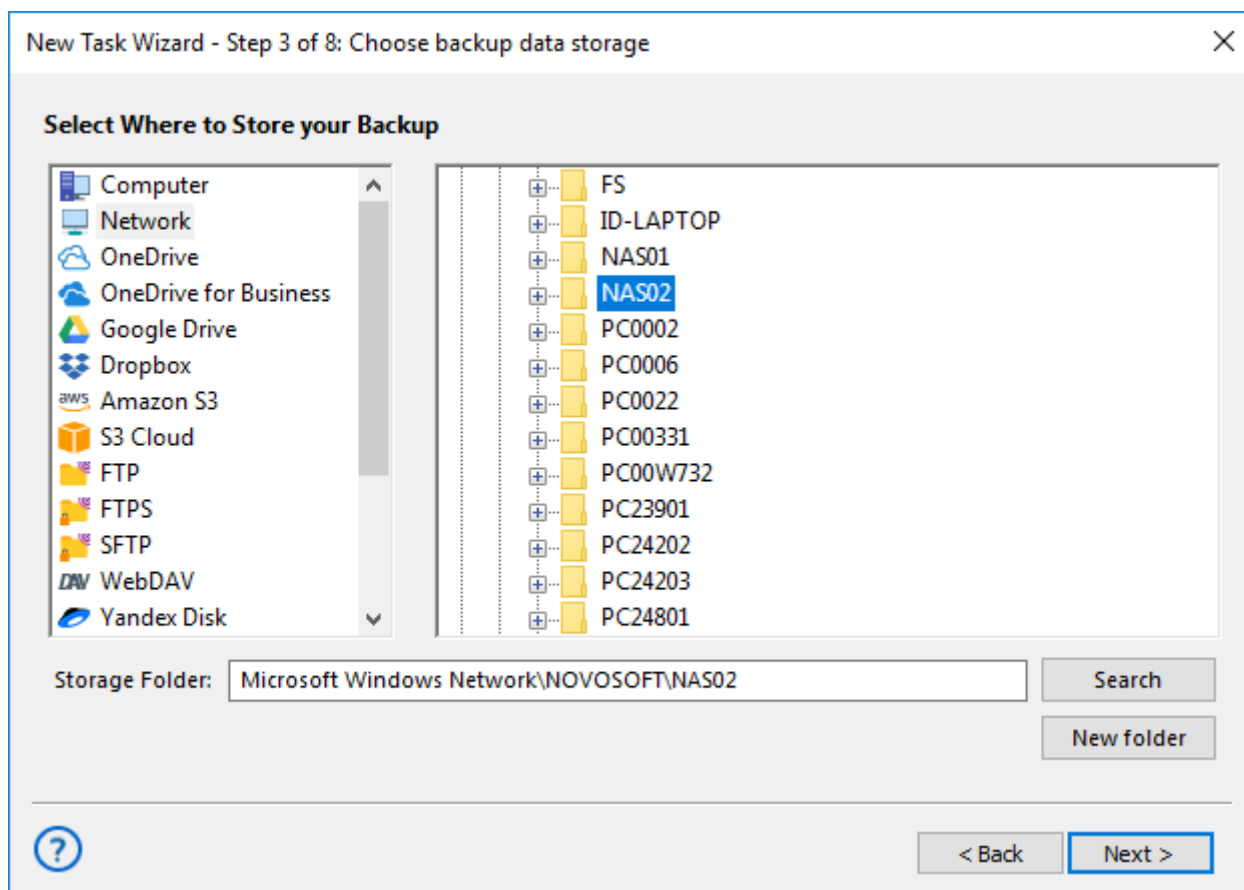


5. Click onto the new connection name in the data selection dialog. Select or unselect particular MySQL tables by marking checkboxes against the names of these tables. Click OK when finished. Now click "Next" and go to Step 3 to select storage for your remote backup.



Handy Backup User Manual

6. In this example, we will use the NAS storage unit as a backup destination (you can read more about [supported storage types](#)). Select a remote computer from the drop-down list on Step 3, and then click onto the "Network" plug-in name.
7. In the list of available network resources, select an appropriate folder on a NAS server.



8. Click "Next" to continue creating a task. All next steps will tune up your new task in details. You can skip these steps just by clicking "Next" until the final step; please read more about task setup in this [manual](#).
9. The final step allows you giving a name for a new task and viewing briefly on all its parameters. Click "Finish", and a task will run automatically, unless you turn the appropriate checkbox on Step 8 off.

Tip: The simple task wizard mode allows skipping Steps 4 and 7, as well as reduces some control options on other steps. This allows creating simpler backup tasks quickly, making no distractions by unused options and controls.

Recovering Data to a Remote Computer

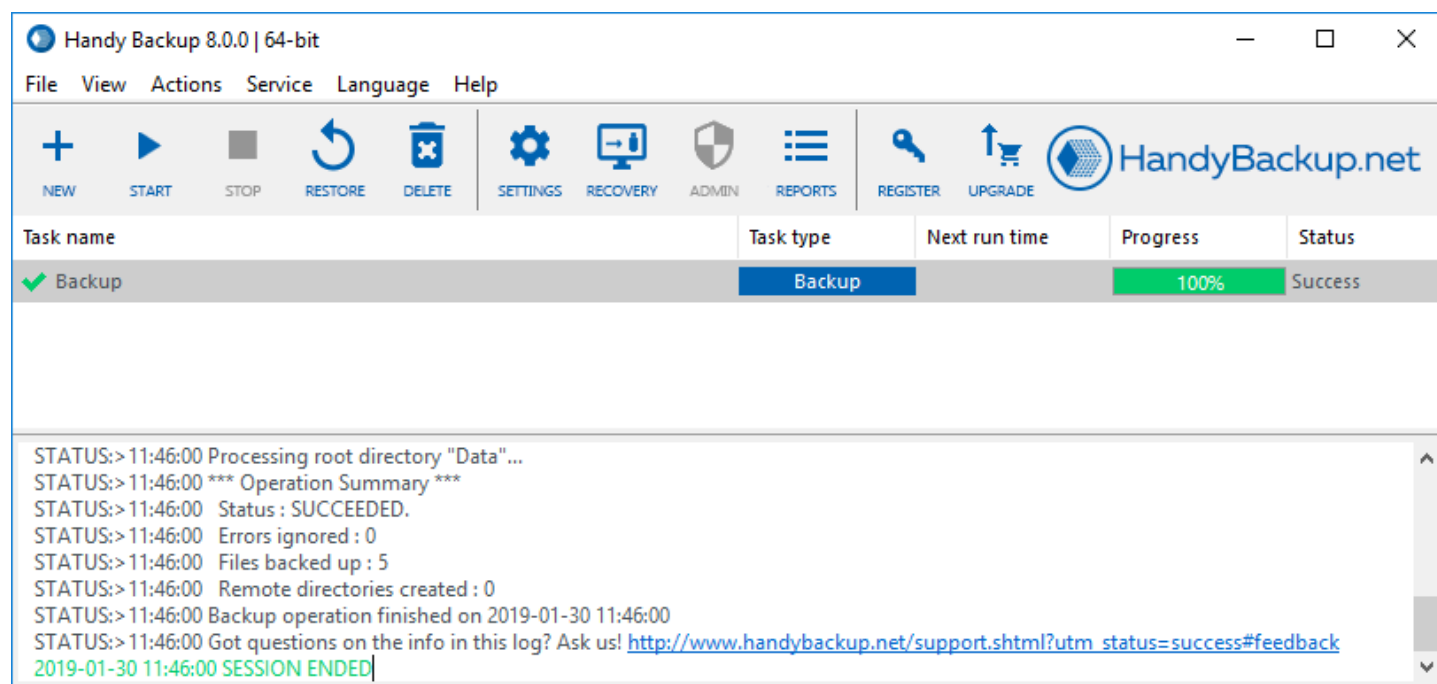
Data recovery on a remote machine is as easy as network backup. Note that we strongly recommend stopping all MySQL services before restoration, for avoiding possible transaction data loss.

To restore the information to a remote machine, you can just right-click on backup task name in the main window, and select "Restore..." from a context menu. You can also creating a more complex, detailed recovery task.

1. Create a new task and select recovery on Step 1. Turn on an advanced mode if you need it.
2. On Step 2, select a remote computer to restore data from a drop-down list. Go to your NAS storage with the "Network" plug-in, and select a folder containing backups.
3. Choose the file **hbi** here, and then click "Next".
4. On Step 3, select data to restore. In addition, you can choose a new data location in advanced task wizard mode by clicking "Change Location..." (for example, to clone or mirror MySQL databases).
5. Set up additional steps of data recovery, as described in the [User Manual](#) for restoration tasks.

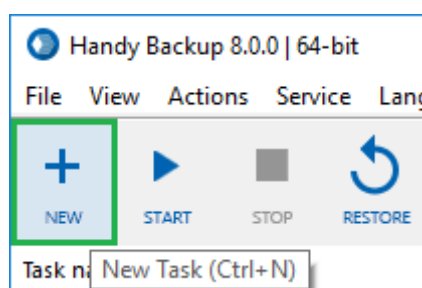
5 Managing Data

To back up, restore and synchronize your data you need to create the respective **task**. All tasks are displayed in the main window of the program, for each task you can see its current status, type, progress, log, and other parameters.



There are three most frequent things you will do in this window:

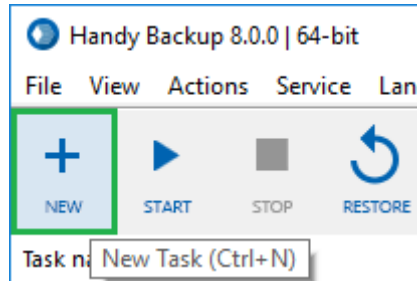
- **Running task.** To run a task, click the respective button in the **Action** column.
- **Reading task log.** Selecting a task automatically displays task log in the lower part of the window.
- **Creating new task.** To create a new task, click the **New Task** button on the toolbar, and follow steps of the New Task Wizard.



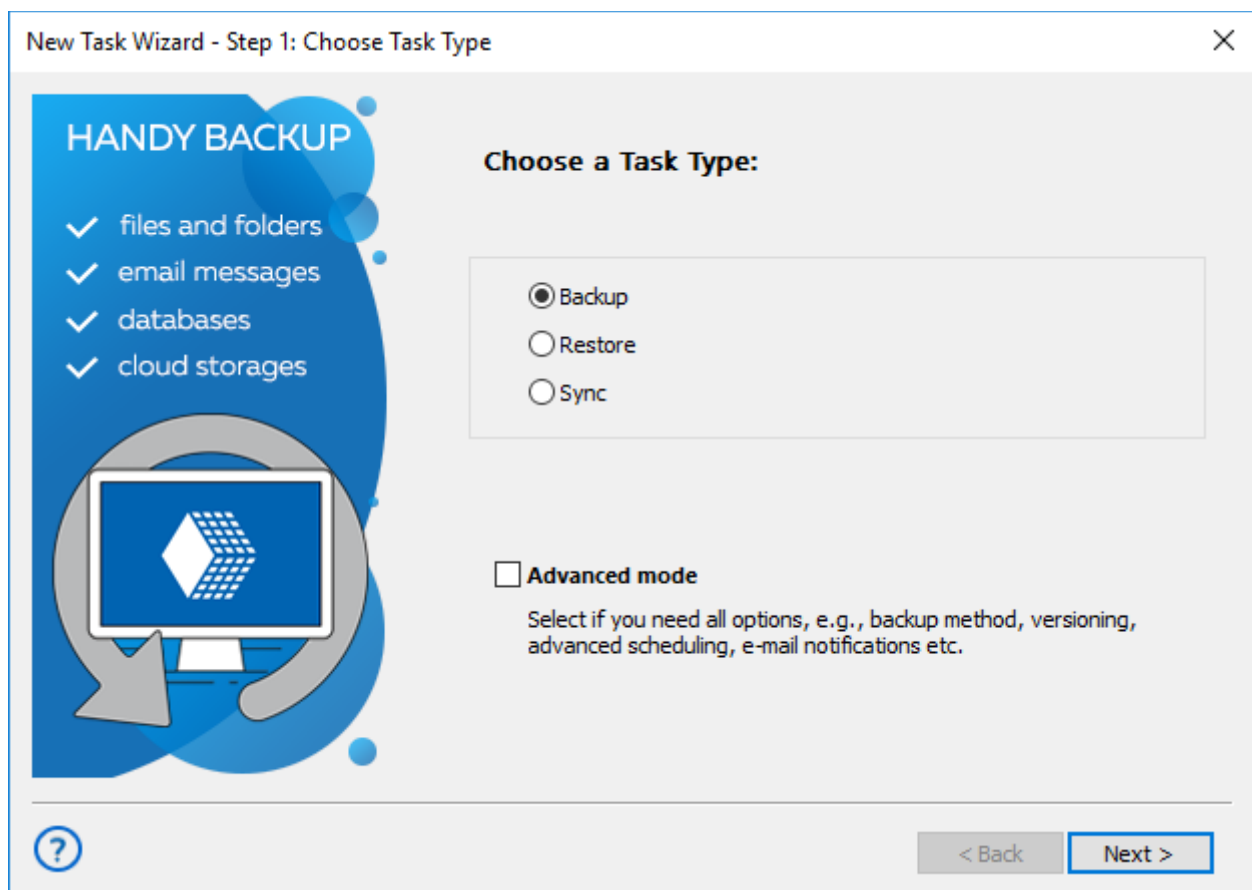
To learn more about the program's interface, please refer to [User Interface](#).

5.1 Step 1: Choose Task Type

Handy Backup creates all tasks through the New Task Wizard. To run the Wizard, click the New Task button on the program's toolbar. Alternatively, you can select a menu item called **New task** or just press Ctrl+N keys.



The New Task Wizard will open.



On the first step of the New Task Wizard, you need to select a task type.

- **Backup tasks** are for creating copies of data, with versioning, compression, encryption, and other options. For each backup, the program creates a number of control files required for restoration.

- **Restore tasks** will restore data backed up with the program, with automatic unZIPping, decryption, etc. To roll back to a previous version of your data, you need to select the respective **backup.hbi** file created during a **backup** task.
- **Synchronize tasks** instruct the program to synchronize files and folders, without much extra options. They are useful if you don't to save multiple copies of different versions of files, and need no compression or other options.

You can run each task manually, or schedule it by a time (including intervals) or by a system event. To create a task, you need to complete all steps of the New Task Wizard. See next chapters for detailed description of all steps.

Selecting Task Wizard Mode

To use all options of a New Task Wizard, please mark the checkbox "**Advanced mode**" at the bottom. To stay on a simplified mode, leave this checkbox empty.

Advanced mode allows you using more options for partial, mixed and versioned backup, encrypting and compressing data, using external software along with a task, scheduling and triggering a task by events and utilizing some other fine-tuning options.

5.2 Backup Task

There is the two ways to add a dataset to a backup task.

1. You can create a completely **new backup task**, using one of the next instructions:

- Select the **New task** item from the **File** menu.

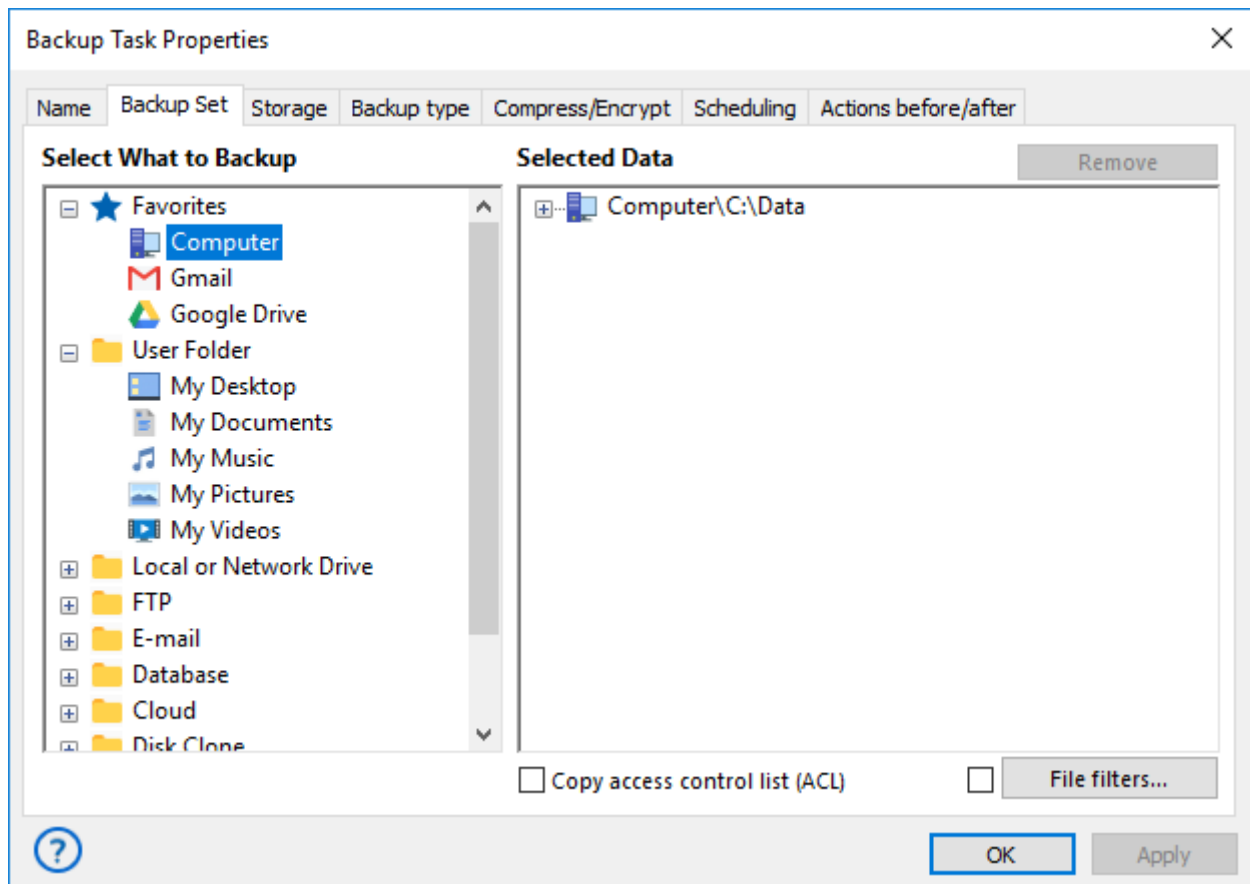


- Click on a "**New task**" button on the management panel.
- Press **Ctrl and N** simultaneously.
- Right-click on a task view section of the main window to call for a context menu, and then select "**New task**".

Each time the backup task is executed (manually or by schedule), all data included in the backup set will be saved.

Handy Backup User Manual

2. If you want just to add some data to an existing backup dataset, edit a backup task to include these data. To do it, follow the instruction below:
 1. In the task view section of the main window, select a backup task that you want to modify.
 2. Go to the **What to Back up** tab and select objects that you want to add to a backup list.



The program will copy all data that you add during the next run of this particular task.

Backup tasks have six main parameters:

- Backup set*
- Storage destination*
- Type of backup*
- Versioning
- Compression
- Encryption

*Required parameter

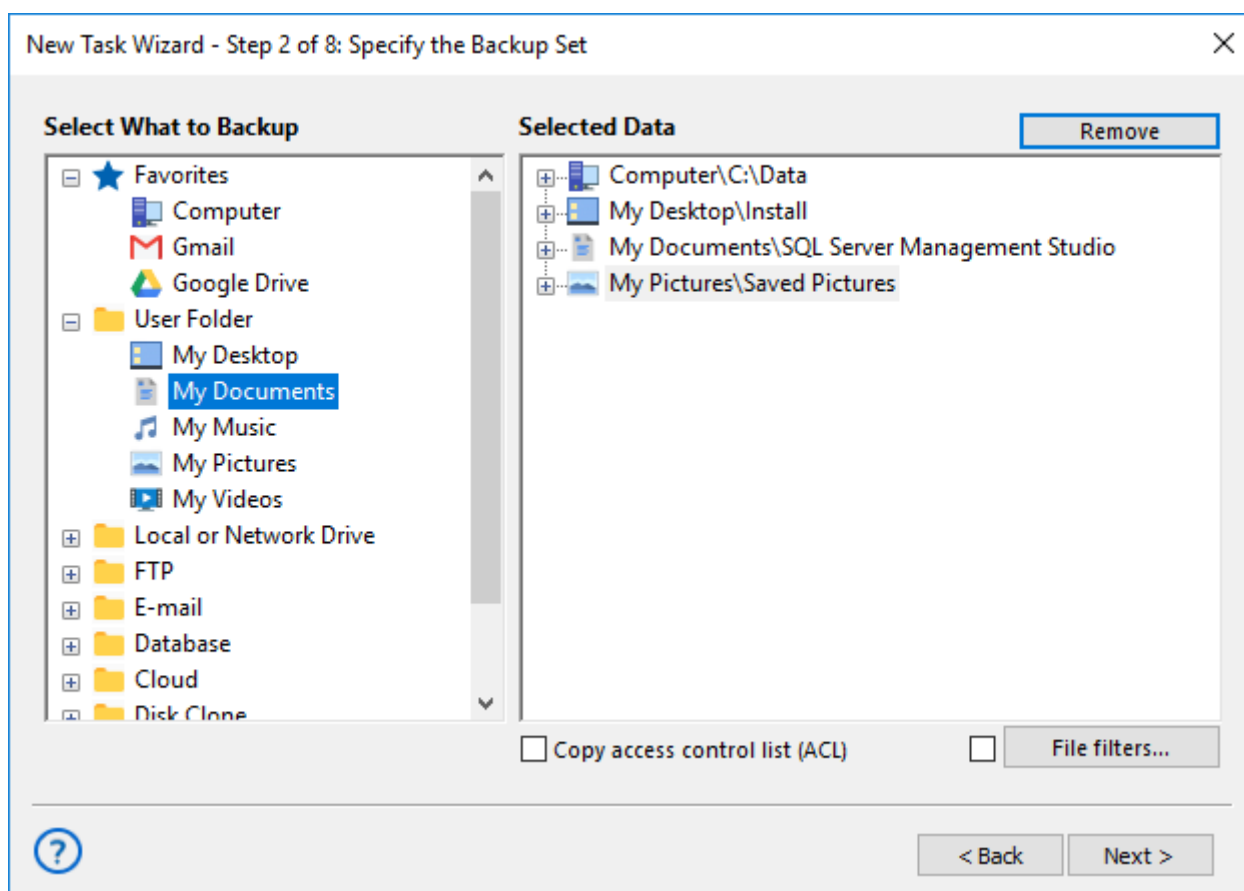
Handy Backup User Manual

The New Task Wizard guides you step-by-step through specifying these and other parameters. For quick start, you can only select what to back up and where to store the data, and skip all other steps by clicking **Next**. By default, the program will make a [full backup](#). For detailed description of all options, please refer to next chapters.

• Step 2: Specify the Backup Set

This page describes the second step of creating a backup task with the New Task Wizard.

On the second step of the New Task Wizard, you need to select data that you want to back up. The window consists of two panes: **Data Sources** and **Backup Set**.



- In the **Data Sources** pane, you can see the list of all different types of data that you can back up. For example, if you want to back up computer files and folders, you need to select **Computer**.

Technically, data sources are **plug-ins**. To make use of this or that plug-in, you need to have an appropriate license. During the trial period, you can use all plug-ins without any limitations. After registration, the list of plug-ins will be limited, respectively to the edition you register. To learn more, please refer to [Registration...](#)

Handy Backup User Manual

Some of the plug-ins are configurable. For example, to back up a MySQL database, you will need to create a MySQL configuration (specify server, login and password). To learn more, please refer to [Plug-in Configurations...](#)

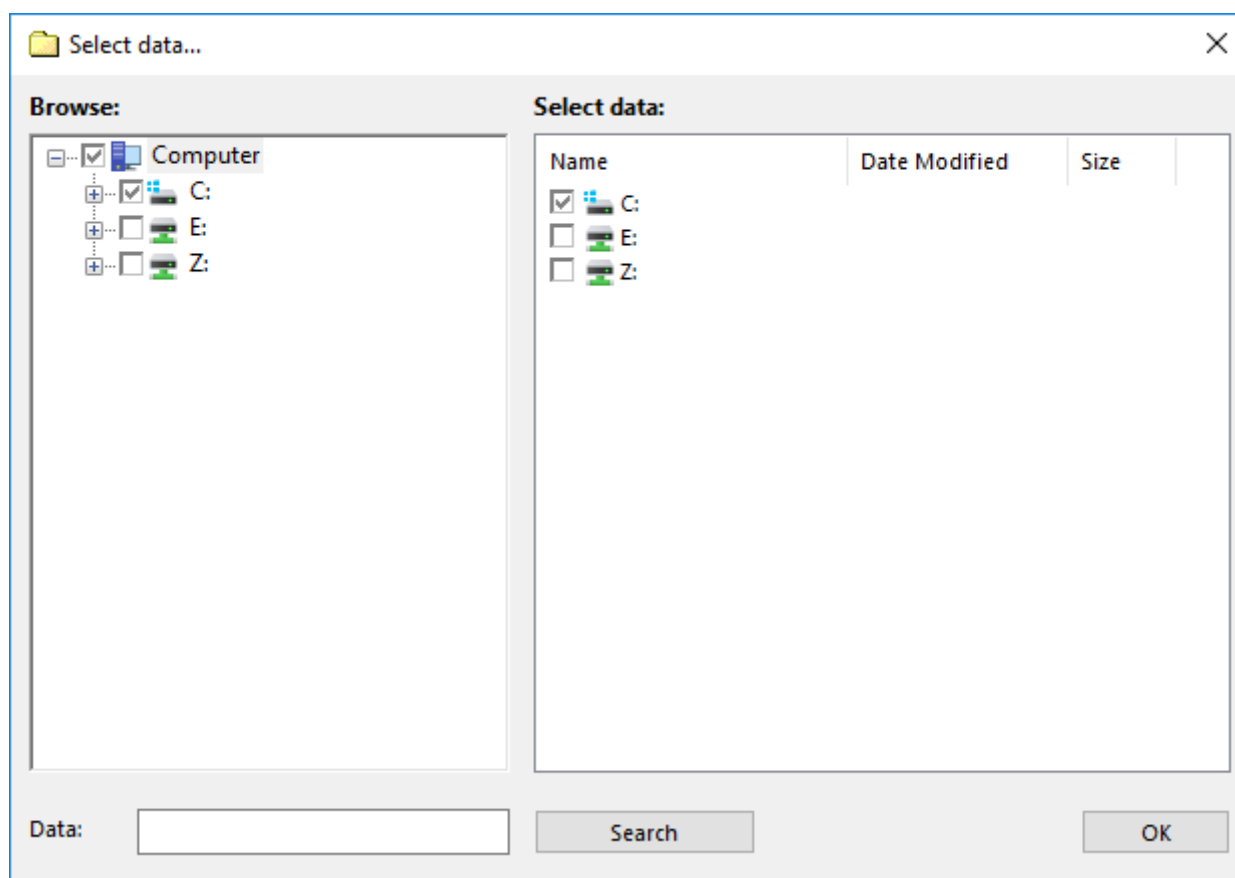
- In the **Backup Set** pane, you can see the list of paths added to backup. It is recommended to create individual tasks for each logical group of data that you want to back up. For example, to back up a website, you may want to select an FTP folder and a MySQL database.

Note: In this dialog, data is accessed through a Workstation (logical component responsible for retrieving, storing and processing data) that is launched from a specific user account and may be unable to access some data. For example, the **Disk Image** plug-in requires the Workstation to be launched with administrator privileges. To learn more, please see [Workstation](#).

Selecting Data for Backup

To add data to backup set, follow these steps:

1. (Server edition only) In the dropdown menu at the top left corner of the window, select Workstation that you want to back up.
2. In the **Data Sources** pane, select a plug-in and click on its name. The **Select data...** dialog opens.



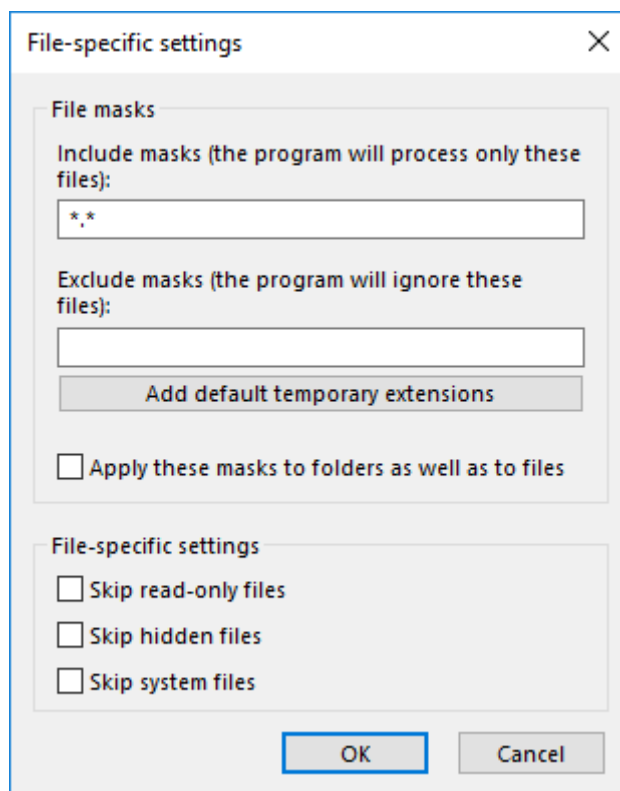
Handy Backup User Manual

The **Select data...** dialog shows what you can back up from the selected source. All data is presented as files and folders that correspond to different objects available in the data source. For example, files and folders of the **Computer** plug-in are common file system objects, while for **MySQL** plug-in, folders are databases, and files are database tables. To learn more, refer to [Plug-in File Systems](#).

Note: Selecting all objects in a folder is equal to selecting the entire folder. In this case, folder path is added to Backup Set without any information about its child items. All future files that may appear in the folder, will be backed up too.

3. In the **Select data...** dialog, check the boxes next to files and folders you want to back up. Left pane of the window displays folder tree view, and right pane displays contents of the folder selected in the left pane. You can do the selection in both panes.
4. When finished the selection, click **OK**. Selected data appears in the **Backup Set** pane of the New Task Wizard.
5. (Optional) Click the **File filters...** button below the **Backup Set** pane to set up filtering. The **File-specific settings** dialog opens.

In the **File-specific settings** dialog, you can specify filtering options that will be checked for each file backup.



Handy Backup User Manual

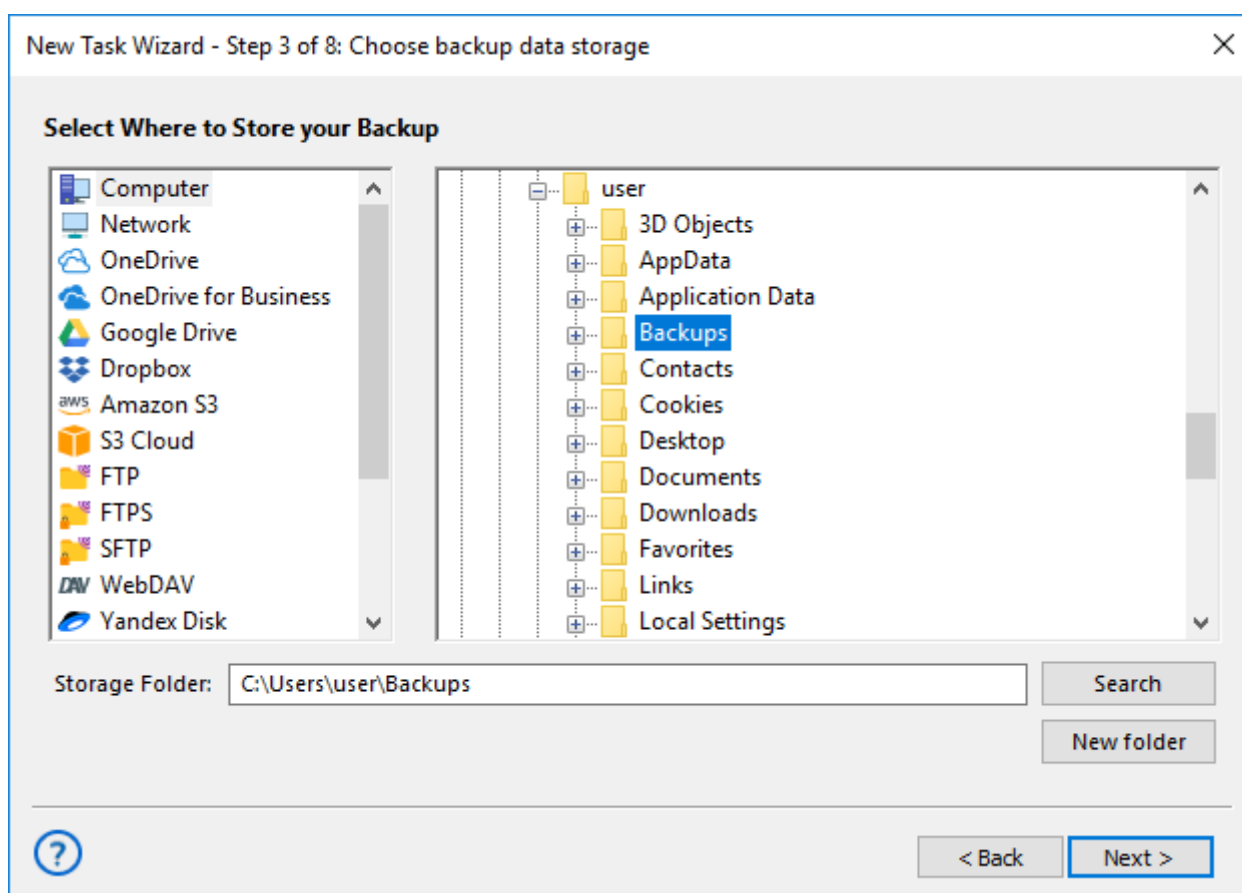
Include and Exclude masks: Filling out these fields enables you to back up only files matching to a specific file mask. Use * (asterisk) as a wildcard, separate different masks with | (vertical line). For example, *.avi|.mp4 will select files with any names and AVI and MP4 extensions only.

6. When finished with adding data to backup set, click **Next**.

• Step 3: Choose Backup Storage

This page describes the third step of creating a backup task with the New Task Wizard.

On the third step of the New Task Wizard, you need to select where you want to store the backup. The window consists of two panes: **Storage Destinations** and **Folder Selection**.



- In the **Storage Destinations** pane, you can see different types of storage where you can copy your data. For example, if you want to store backups in local file system, you need to select **Computer**.

Technically, storage destinations are **plug-ins**. During the trial period, you can use all plug-ins without any limitations. After registration, the list of plug-ins will be limited respectively to the edition you register. To learn more, please see [Registration...](#)

- In the **Folder Selection** pane, you can see folders available in the selected destination.

Note: Most of the storage plug-ins are configurable. For example, to store backups on FTP, you will need to create an FTP configuration. To learn more, please see [Plug-in Configurations...](#)

Selecting Destination

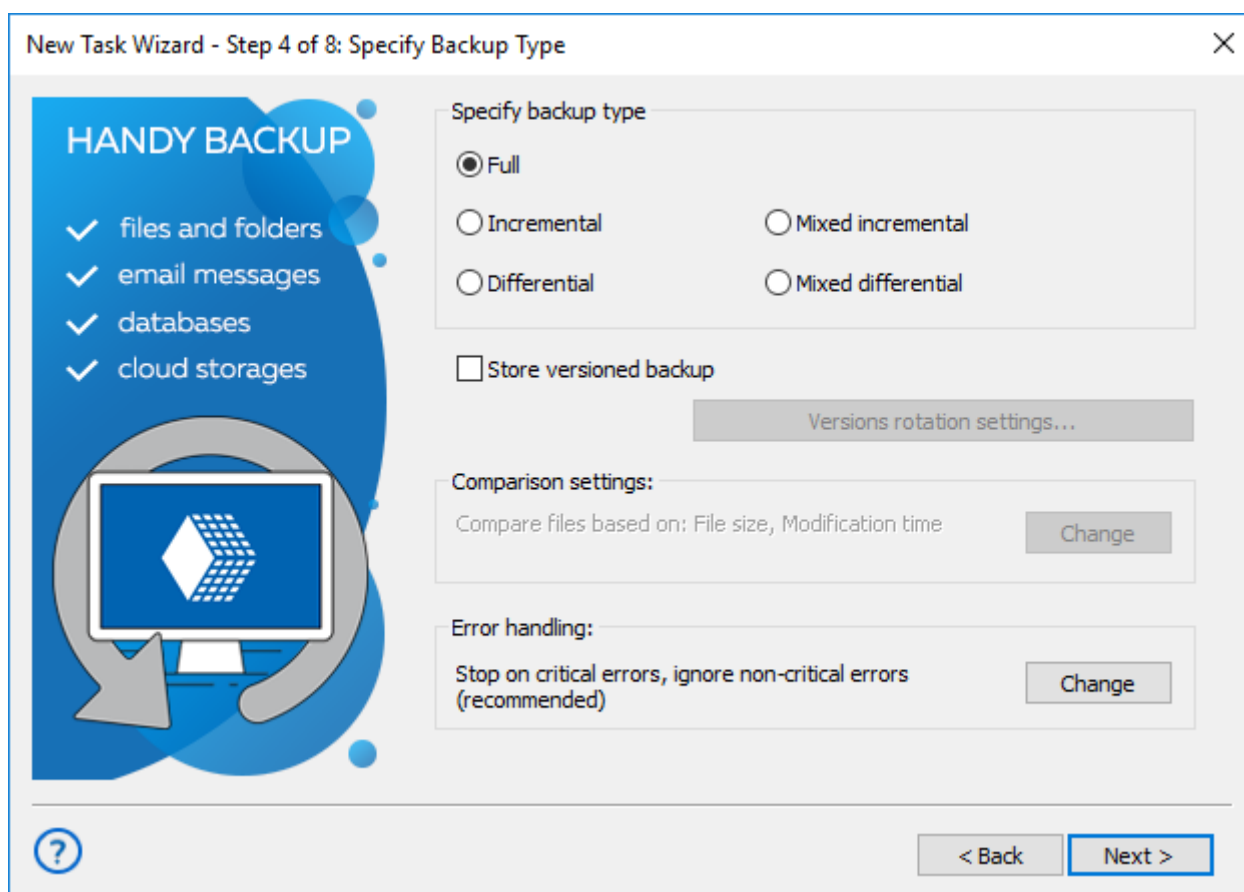
To select backup destination, follow these steps:

1. (Server edition only) In the dropdown menu at the top left corner of the window, select Workstation that will store the data.
2. In the **Storage Destinations** pane, select a plug-in. The list of folders appears in the **Folder Selection** pane.
3. In the **Folder Selection** pane, browse for a target folder. To create a new folder, use the **Create folder** button.
4. When finished selecting destination folder, click **Next**.

• Step 4: Advanced Backup Settings

This page describes the fourth step of creating a backup task with the New Task Wizard. Note that this step is available only in advanced mode of a New Task Wizard.

On the fourth step of the New Task Wizard, you need to select type of backup and versioning options. Advanced users can also change comparison settings and error handling settings (read below).



Selecting type of backup

Type of backup determines the program's behavior when running backups regularly on a schedule. There are three or five basic variants, depending from the basic or advanced wizard mode:

- **Full backup** copies all files from backup set to selected destination. If target folder already contains some backup files, they are overwritten.
- **Incremental backup** compares files in destination and files in backup set, and copies only new and modified files. It is faster than full backup, because existing backups are not overwritten.
- **Differential backup** calculates byte-level differences between all files in the backup set and the latest full backup, and then stores them to versioned folders. This type of backup is always versioned, and to restore it you need to have two backups: full and differential.
- **Mixed incremental backup (advanced backup mode options)** is a sequence of a full backup with a continuous chain of incremental backups. When the program reaches the preset quantity of backups (defined by a time or by a quantity of incremental backups), all chain repeats from start, making again a full backup and next cycle of incremental backups.

Handy Backup User Manual

- **Mixed differential backup (advanced backup mode options)** is a combination of a full backup with a chain of differential backups. When the program reaches the end of a chain (defined by a time or by a quantity of differential backups), all chain repeats, starting with a full backup again.

You can select the option: Store versions of the backup. This will allow you to use timestamps. Your backups will carry information about the time of their creation.

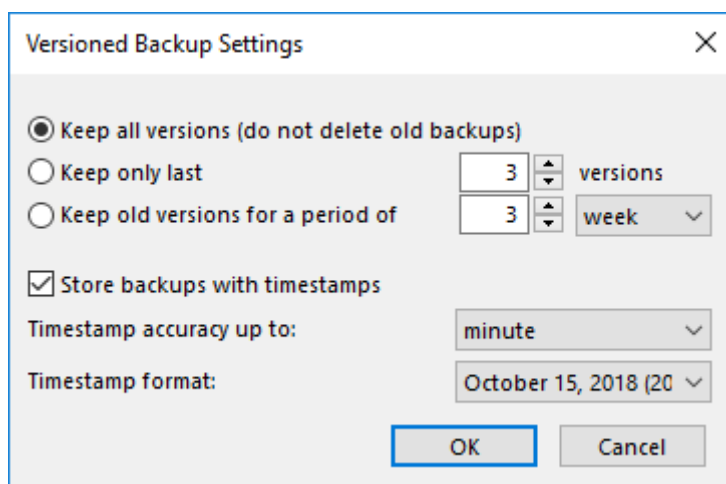
Attention: for differential and mixed backups, timestamps are set by default. You can't uncheck the "Store multiple backup versions" checkbox from the task in these cases!

Backup update options

Check the box marked **"Store versioned backup"** to backup with a timestamp.

The button **"Versions rotation settings"** will be available; press it.

The dialog window will appear, with all the parameters for time stamp backup settings.



For full and mixed backup types you can:

- Keep all versions of backups.
- Keep only the latest versions. You can configure the number of stored versions (cycles).
- Keep only older versions for the selected period

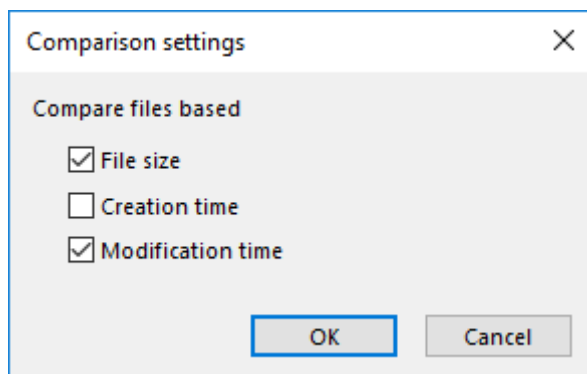
For incremental and differential backups, you can only save all versions of backups.

Check the **"Store backup with timestamp"** box to set the accuracy (months, days, etc.) and format of the [timestamp](#).

After setting the parameters, click **OK**.

Comparison Settings

By default, when running incremental or differential backup, the program will create a new version of file if **File size** or **Modification time** attributes are different. **Creation time** is not checked, because some storage file systems (for example, FTP) don't have this attribute.



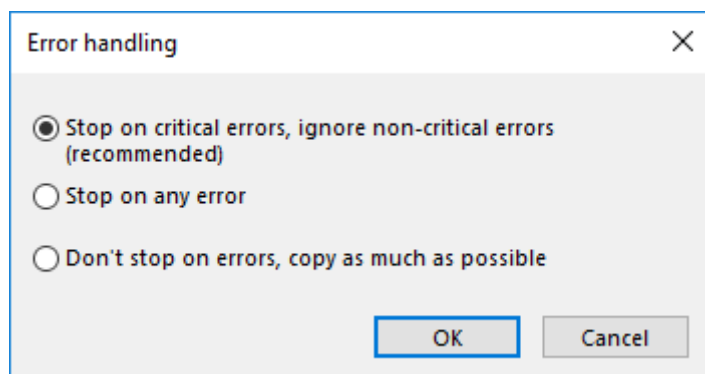
This behavior is task-specific, i.e. it can be different for different tasks. To change it, click the **Change** button in **Comparison settings**.

Error Handling

Error handling is an advanced mode option that lets you set the program's behavior when it encounters an error:

- **Critical errors** are plug-in specific. For example, failing to initialize Volume Shadow Copy service in **MS SQL** plug-in is a critical error, while in **Computer** plug-in it is not.
- **Non-critical errors** are one-time errors that are not specific to the entire backup set. For example, the "Access denied" error may be a result of a conflict with another application, and running the same task again will back up the same file successfully.

You can choose whether the task must stop on any error, stop only on critical errors, or don't stop on errors at all.



If there are any errors during backup, the task will end with an **Error** status.

When finished selecting type of backup and specifying advanced settings, click **Next**.

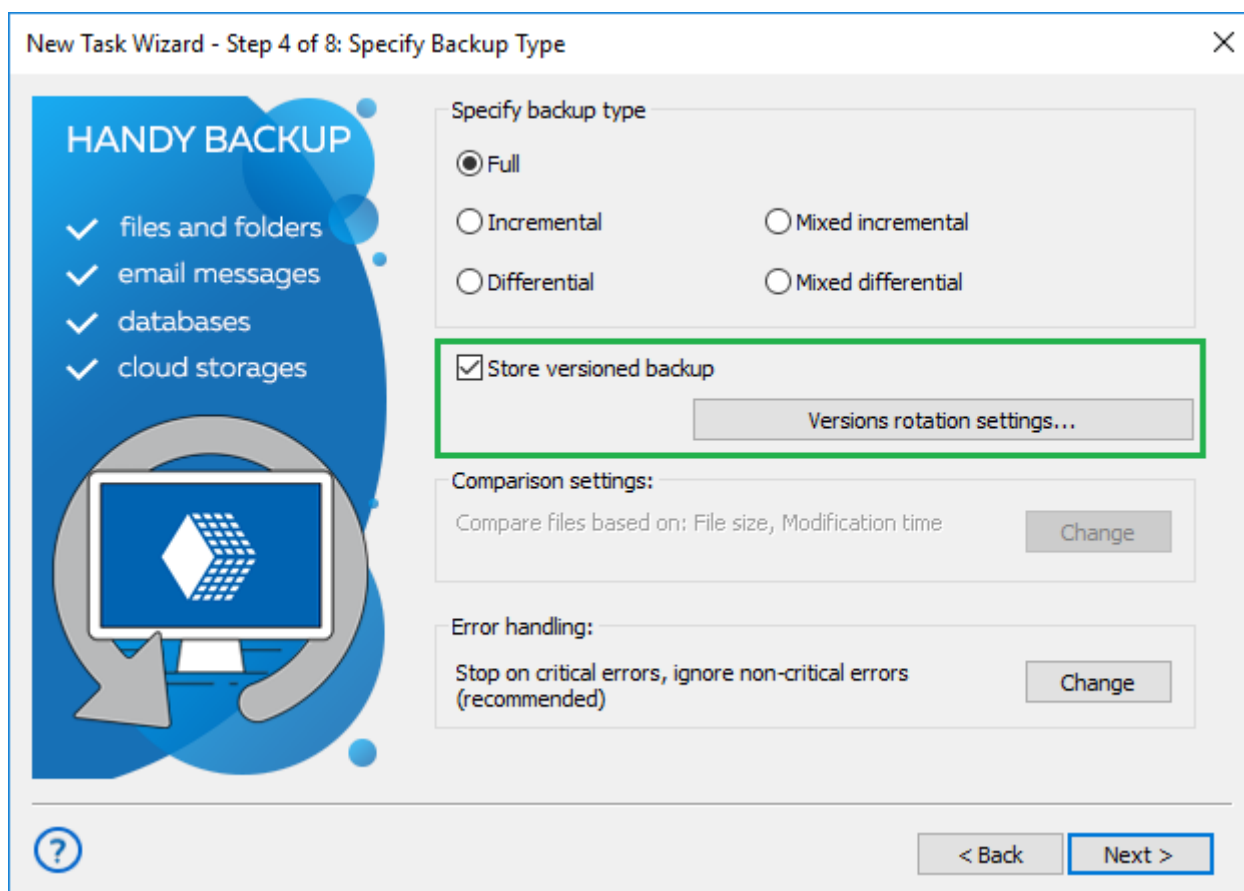
Creating Time Stamps

Before setting up backup task with time stamps, you may carefully plan the strategy of taking and keeping copies of your data. This may be necessary for both optimizing backup frequency and saving storage space from excessive flow of data.

Performing Time-Stamped Backup

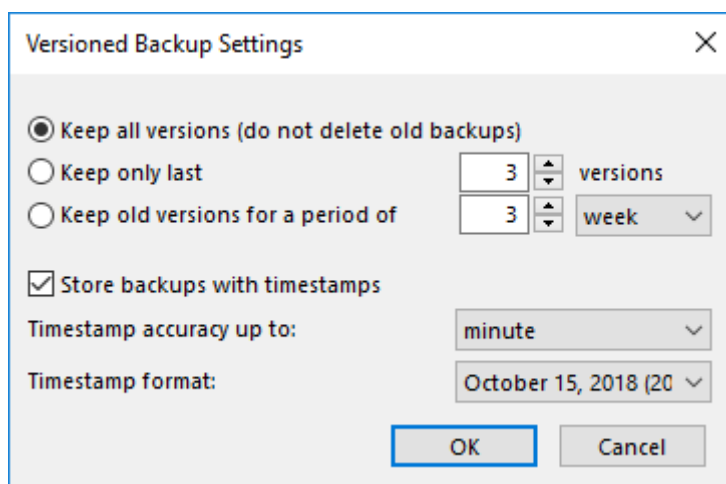
To create time stamp backup user can apply the following sequence:

1. Create a new task (using the main menu or clicking the button on a control panel).
2. Specify the backup task, set of data and the place to store backup file with a date-time stamp.
3. On Step 4, "Backup type", select the full, incremental or differential backup.



4. Check the box marked "Store versioned backup" to backup with time stamp.

5. The button “Versions rotation settings” will be available; press it.
6. The dialog window will appear, with all the parameters for time stamp backup settings.



7. Set up the parameters of time stamp backup and press OK.
8. Continue to set other parameters of the task. These steps are not specific for backup tasks performed with time stamp.

Adding Time Stamp to an Existing Backup Task

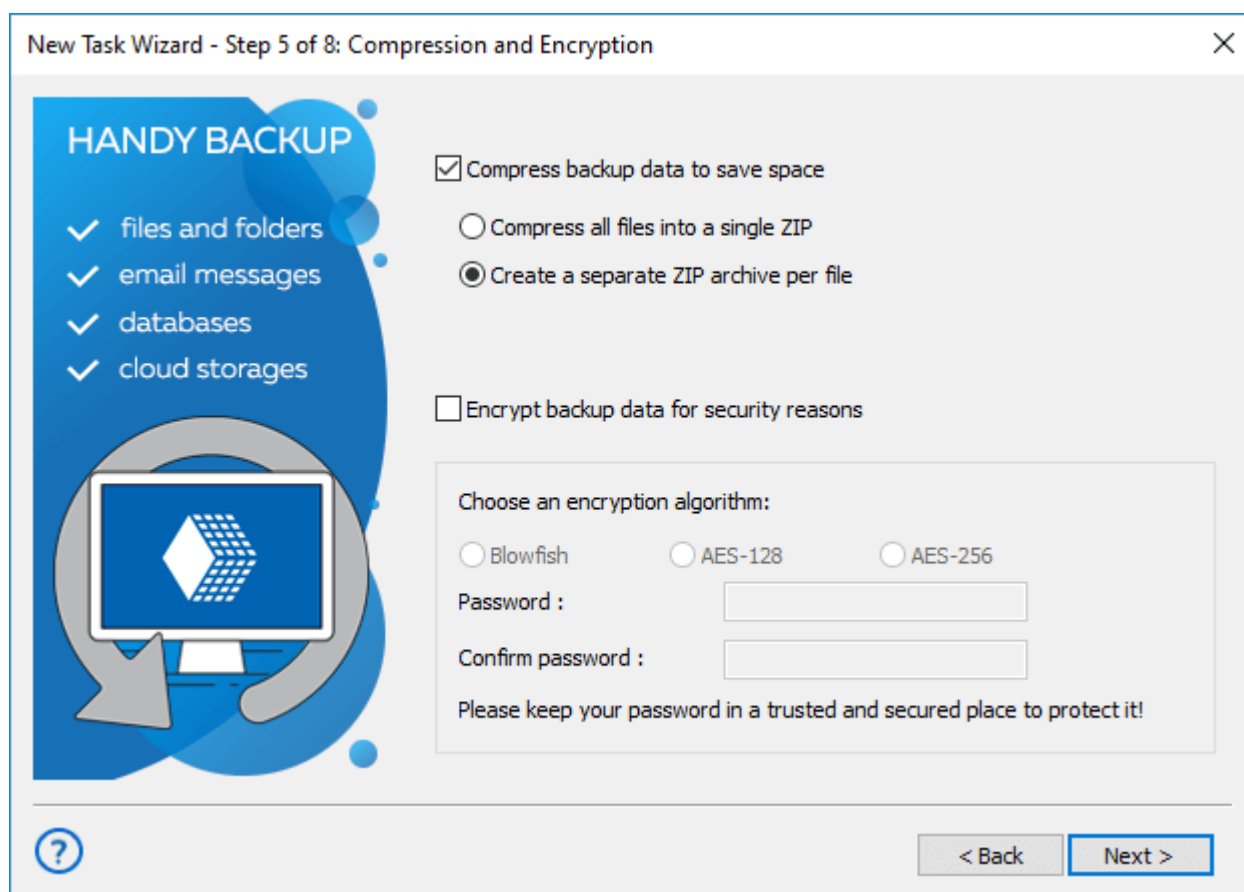
If you are planning to add time stamps to an existing backup task, do the same except editing properties of backup task (selecting “Properties...” in the main menu or the task context menu, or using the appropriate button).

Note: Removing the time stamp from the particular backup task is impossible for now. If you need to change some time stamp settings, edit the time stamp properties instead of completely removing it.

• Step 5: Compression and Encryption

This page describes the fifth step of creating a backup task with the New Task Wizard.

On the fifth step of the New Task Wizard, you can enable compression and encryption. Both options are applied to data stream “on-the-fly” and use no temporary files. This is especially useful if you back up very large files, e.g. HDD images



- To enable compression, check **Compress the backup data to save space**. There are two types of compression:
 - **“Many-to-one”**. If you want to create a SingleZIP archive for the entire backup set, select the first option.



By default, this option **creates a temporary directory**, providing more convenient compression. You can also force the program to **make no temp folder** by clearing a checkbox. Then, files are packed to the single ZIP directly, saving both the job time and resources of the operating hard drive.

- **“One-to-one”**. Select the second option (MultiZIP archive) if you want to create a separate ZIP archive for each file backed up.
- To enable encryption, check **Encrypt backup data with a modified BlowFish algorithm for security reasons** and specify password in the respective fields.

Note: Encryption of your backup don't depend on compression options selected earlier.

When finished, click **Next**.

5.3 Restore Task

Restore tasks have three main parameters:

- Backup index file* (contains information about data to restore)
- Restore location
- Type of restoration

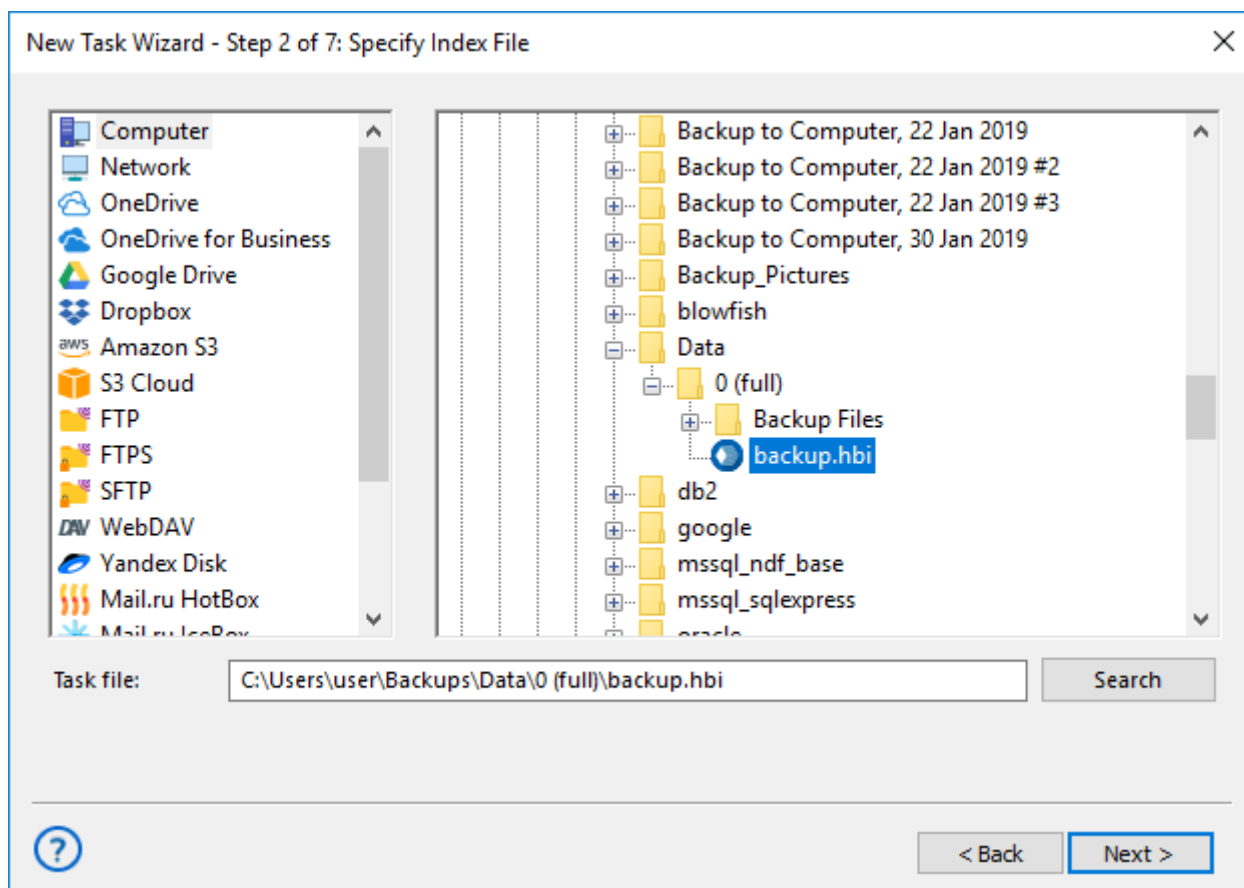
*Required parameter

The New Task Wizard guides you step-by-step through specifying these and other parameters. For quick start, you can only select index file to restore, and skip all other steps by clicking **Next**. For detailed description of all options, please refer to next chapters.

• Step 2: Specify Index File

This page describes the second step of creating a restore task with the New Task Wizard.

On the second step of the New Task Wizard, you need to select index file containing information about the backup you want to restore. The window consists of two panes: **Storage Destinations** and **Index File Selection**.



- In the **Storage Destinations** pane, you can see different types of storage where you can read your backups from. For example, if your backups are accessible on a local computer, you need to select **Computer**.

Technically, all destinations are **plug-ins**. During the trial period, you can use all plug-ins without any limitations. After registration, the list of plug-ins will be limited respectively to the edition you register. To learn more, please see [Registration](#).

- In the **Index File Selection** pane, you can see contents of the selected destination.

Note: Most of the storage plug-ins are configurable. For example, to restore backups from Amazon S3, you will need to create an Amazon S3 configuration. To learn more, please see [Plug-in Configurations...](#)

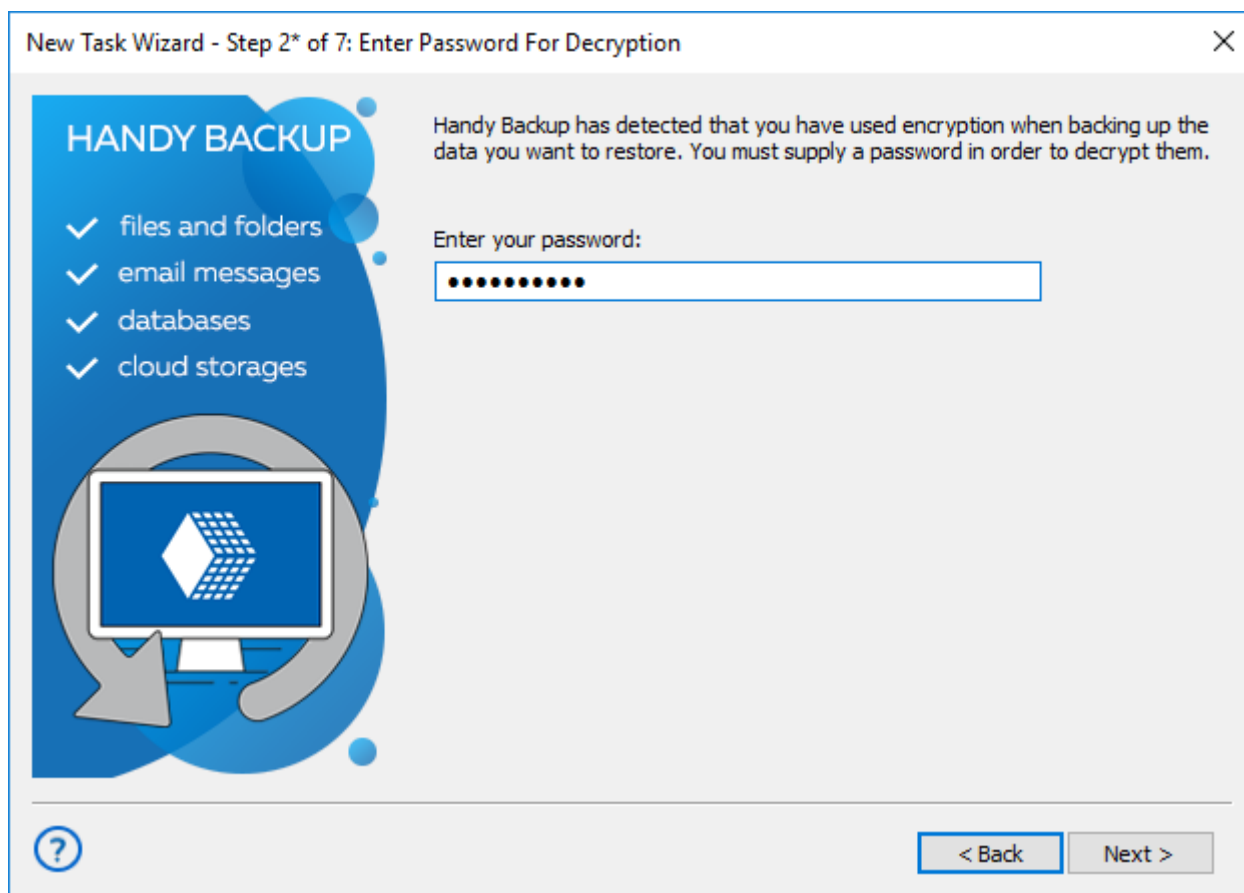
Selecting Data for Restoration

1. (Server edition only) In the dropdown menu at the top left corner of the window, select Workstation that can access the backup.
2. In the **Storage Destinations** pane, select destination where the backup is stored.
3. In the **Index File Selection** pane, browse for the backup and select index file.
4. When finished the selection, click **Next**.

• Step 2*: Enter Password for Decryption

This page describes the fifth step of creating a restore task with the New Task Wizard.

Fifth step of the New Task Wizard is optional. If backup is encrypted, you need to enter password for decryption.

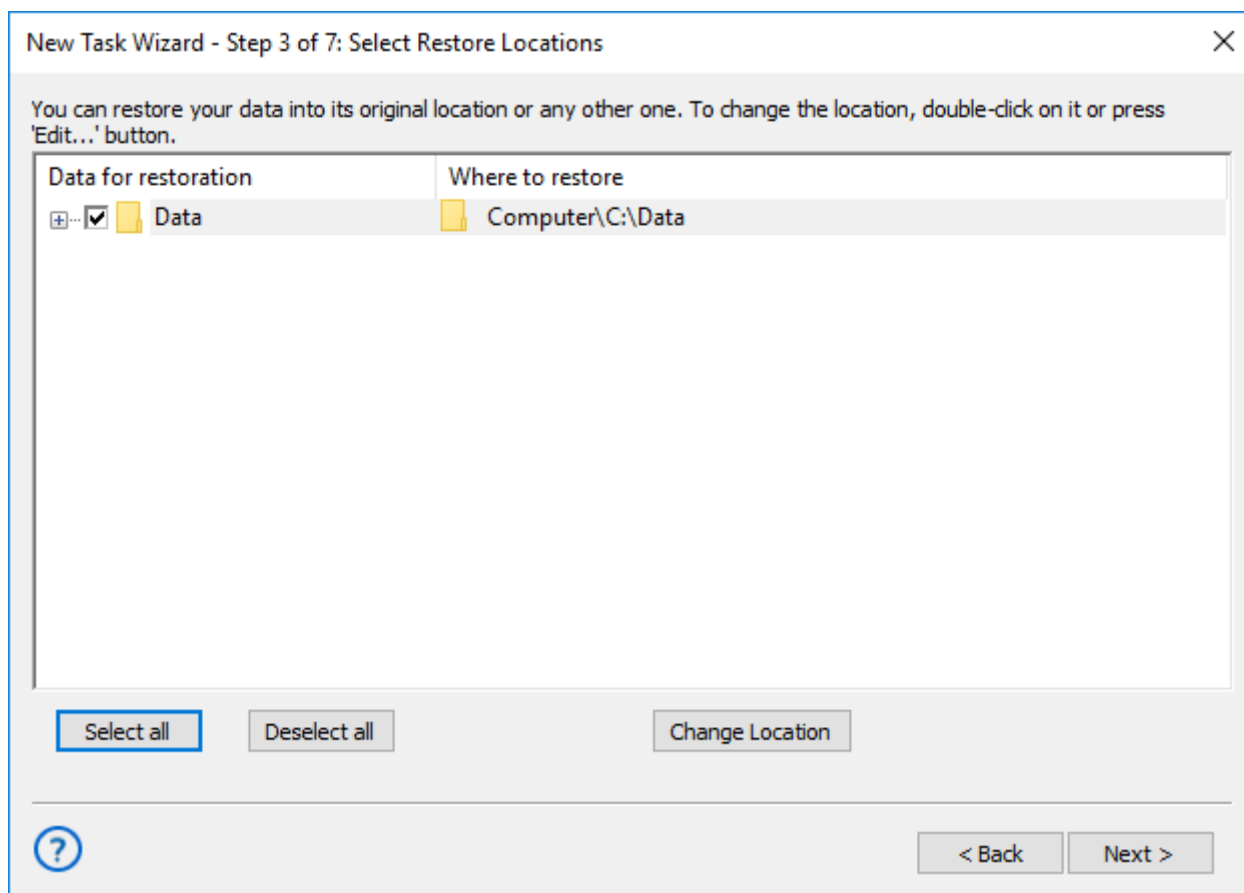


Enter the password, and then click **Next**.

• Step 3: Select Restore Locations

This page describes the third step of creating a restore task with the New Task Wizard.

On the third step of the New Task Wizard, you can select data for restoration and where you want to it. In the window, you can see all backed up files and default restoration paths.



By default, all backed up data is restored to its original location. If you want to restore the entire backup, skip this step by clicking **Next**.

Performing Selective Restoration

If you want to restore only specific files or folders*, follow these steps:

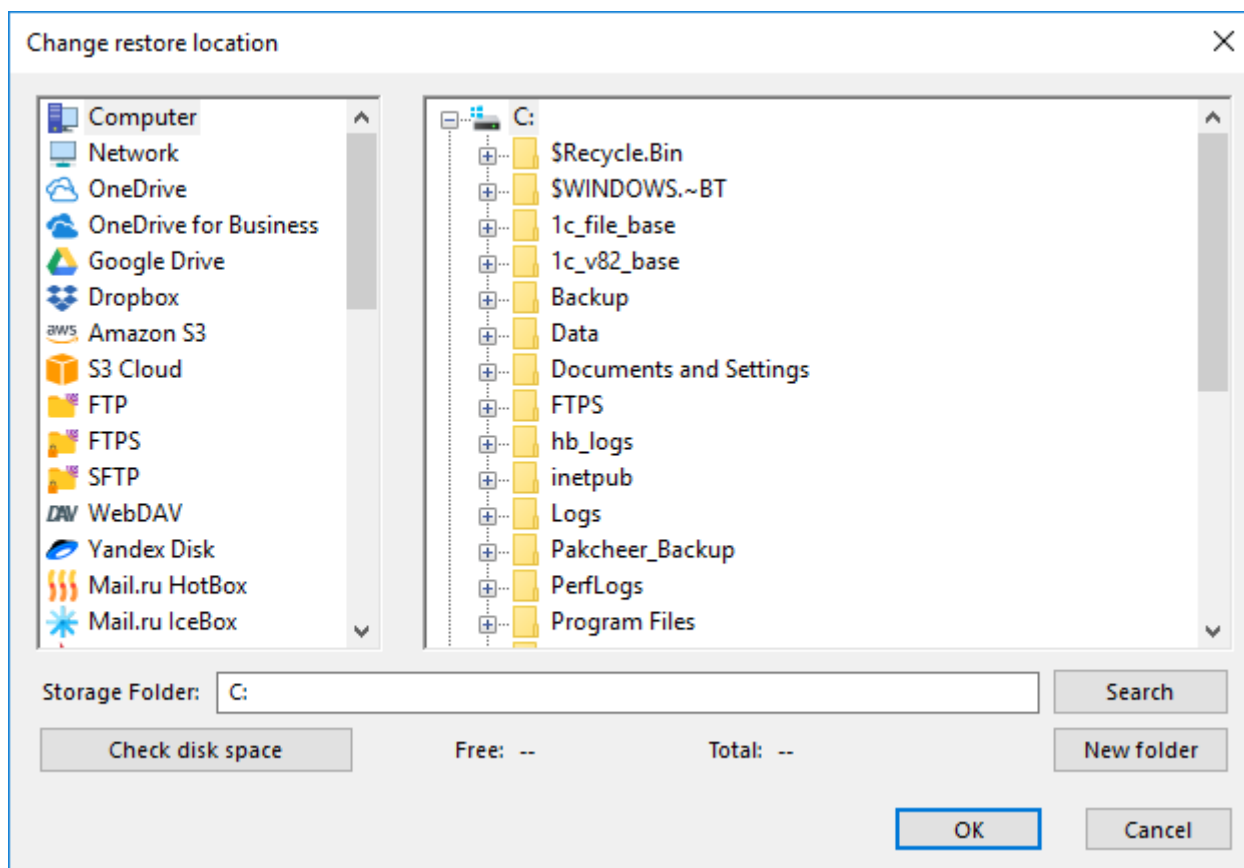
1. Expand the tree view, and browse for the data you want to restore.
2. Check or uncheck the boxes, so only the desired objects are selected. You can use **Select all** and **Deselect all** buttons.

***Note:** In these instructions, “files and folders” may also mean databases, tables, HDD partitions, and other objects. To learn more, please see [Plug-in File Systems...](#)

Changing Location of Restoration

To change restoration location, follow these steps:

1. Browse for a folder or file which you want to restore to a different place, and select it.
2. Click **Change Location**. The **Change restore location** dialog opens.



The **Change restore location** dialog consists of two panes, **Data Sources** and **Restore Location**.

- The **Data Sources** pane contains data sources.
- The **Restore Location** pane shows files and folders you can select as a restoration locations.

Technically, data sources are **plug-ins**. To make use of this or that plug-in, you need to have an appropriate license. During the trial period, you can use all plug-ins without any limitations. After registration, the list of plug-ins will be limited, respectively to the edition you register. To learn more, please refer to [Registration...](#)

When selecting a new restore location, you need to select a compatible plug-in. For example, you can't restore common files and folders to **MySQL** or **Disk Image** plug-in.

Some of the plug-ins are configurable. For example, to restore tables of a MySQL database, you will need to create the respective MySQL configuration (specify server, login and password). To learn more, please refer to [Plug-in Configurations...](#)

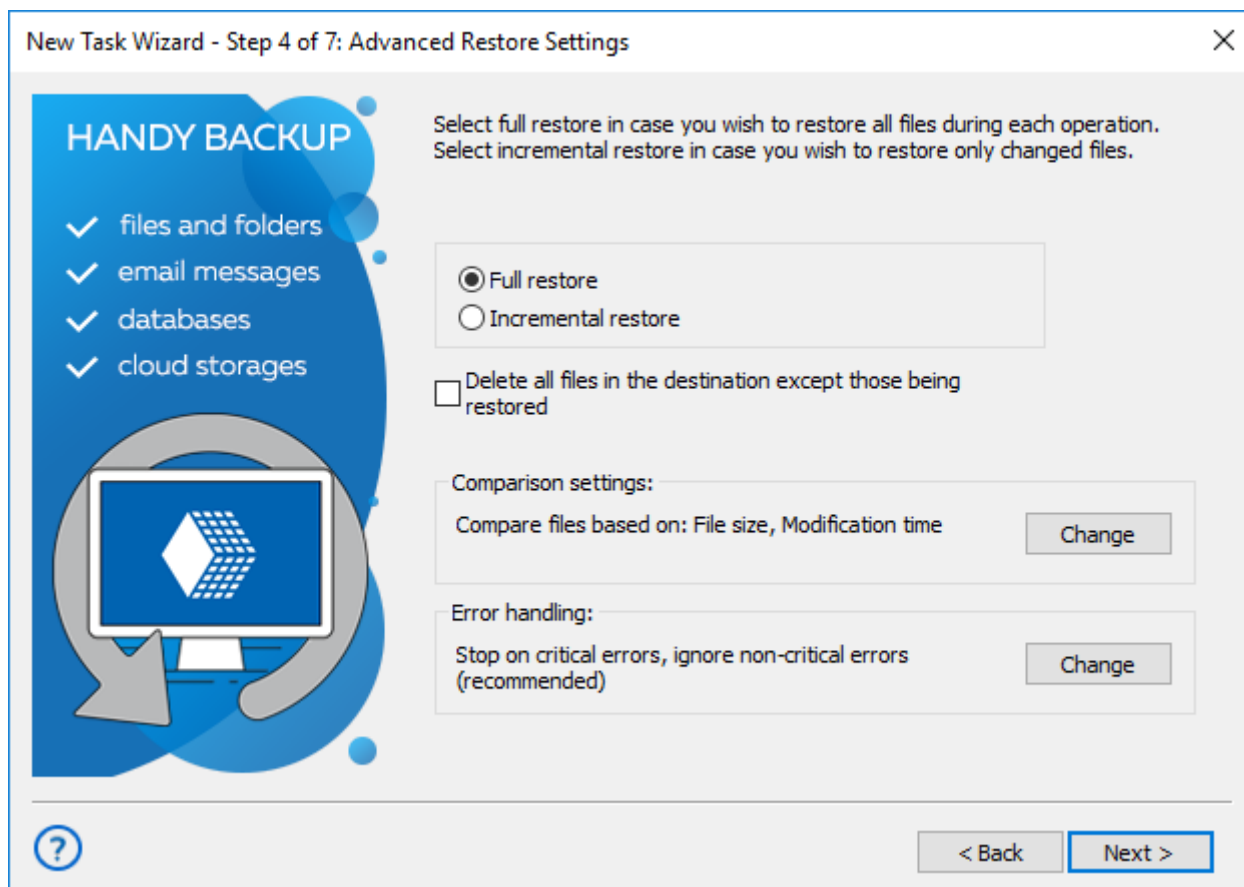
3. Select a new restore location. If you are changing path for a folder, then you need to select a folder. To change restore location for a file, select a file. Click **OK**.
4. Repeat steps 1-3 for each file you want to restore to a different place.

When selected data for restoration and restore paths, click **Next**.

• Step 4: Advanced Restore Settings

This page describes the fourth step of creating a restore task with the New Task Wizard.

On the fourth step of the New Task Wizard, you need to select type of restoration. Advanced users can also change comparison settings and error handling settings (read below).



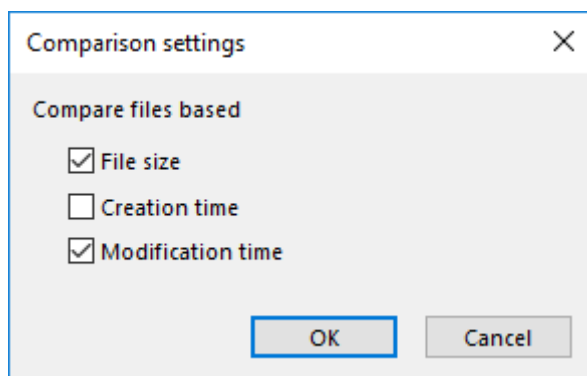
Type of restoration determines if the program must check files* that already exist in folder where you restore the backup.

- **Full restore** always restores all files, overwriting any data in the restoration folder.
- **Incremental restore** compares attributes of files in the backup with files in the target folder, and restores only missing and modified files. You can read about comparison settings below.

***Note:** In these instructions, “files and folders” may also mean databases, tables, HDD partitions, and other objects. To learn more, please see [Plug-in File Systems...](#)

Comparison Settings

By default, when running incremental restore, the program compares data in the backup and in the restoration folder, and copies only files with different **File size** or **Modification time** attributes. This behavior is task-specific, and can be changed in **Comparison settings**. To change it, click the **Change** button.

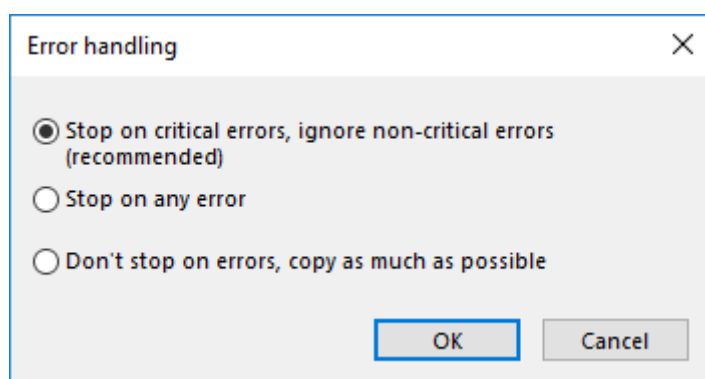


Error Handling

Error handling lets you set the program's behavior when it encounters an error:

- **Critical errors** happen, for example, when you try to restore an encrypted backup with a wrong password.
- **Non-critical errors** are one-time errors that are not specific to the entire restoration. For example, the "Access denied" error may be a result of a conflict with another application, and running the same task again will back up the same file successfully.

You can choose whether the task must stop on any error, stop only on critical errors, or don't stop on errors at all.



If there are any errors during restoration, the task will end with an **Error** status.

When finished selecting type of restoration and specifying advanced settings, click **Next**.

5.4 Synchronize Task

Synchronize tasks have three main parameters:

- First folder*
- Second folder*
- Type of synchronization*

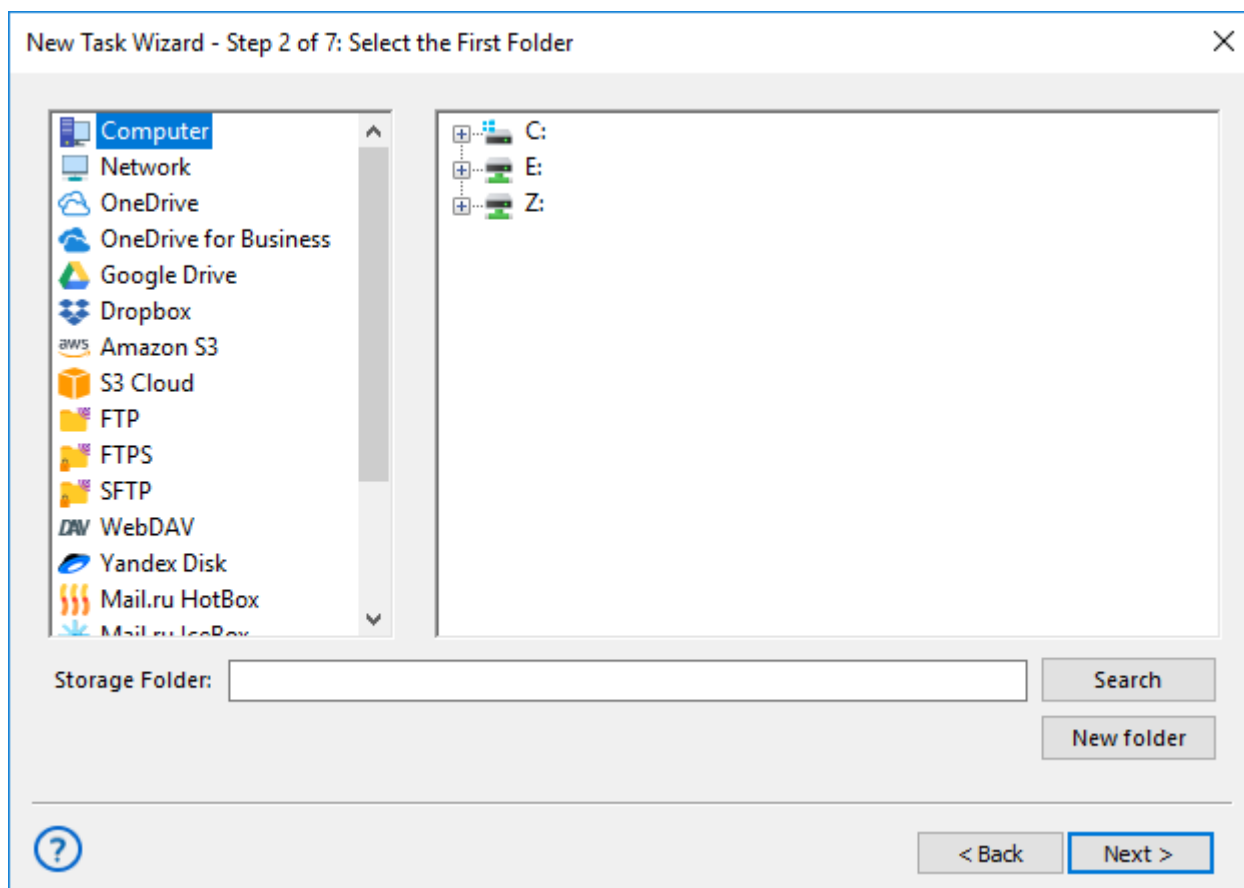
*Required parameter

The New Task Wizard guides you step-by-step through specifying these and other parameters. For quick start, you can only select first folder and second folder, and skip all other steps by clicking **Next**. Default type of synchronization is “first-to-second”, which means that all data from the first folder will be copied to the second one.

• Step 2: Select the First Folder

This page describes the second step of creating a synchronize task with the New Task Wizard.

On the second step of the New Task Wizard, you need to select a first folder for synchronization. The window consists of two panes: **Data Source** and **Folder Selection**.



- In the **Data Source** pane, you can see different types of storage file systems that may contain a folder you want to synchronize.
- In the **Folder Selection** pane, you can see folders available in the selected source.

Technically, all data sources are **plug-ins**, and usage of some plug-ins requires you to have an appropriate license. During the trial period, you can use all plug-ins without any limitations. After registration, the list of plug-ins will be limited, respectively to the edition you register. To learn more, please refer to [Registration...](#)

To select a folder for synchronization, follow these steps:

1. (Server edition only) At the top left corner of the window, select Workstation that contains the folder that you want to synchronize.
2. In the left pane (**Data Sources**), select a source of data. For example, if you want to synchronize a network folder, select Network.
3. In the right pane (**Folder Selection**), select a folder you want to synchronize. Don't worry about direction of synchronization: it is set in the next steps.
4. When finished, click **Next**.

• Step 3: Select the Second Folder

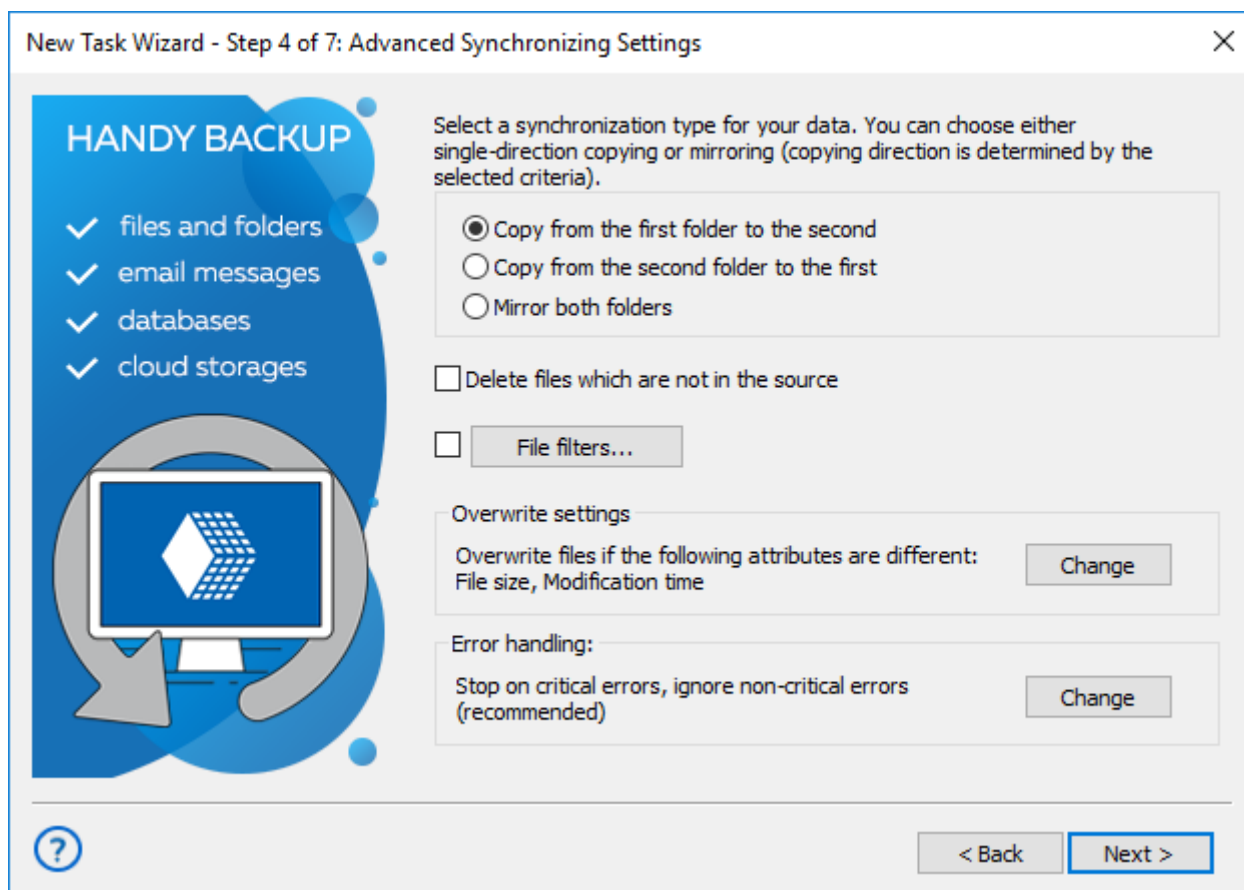
This page describes the third step of creating a synchronize task with the New Task Wizard.

On the third step of the New Task Wizard, you need to select a second folder for synchronization. This step is absolutely identical to the previous step, [Select the First Folder](#).

• Step 4: Advanced Synchronizing Settings

This page describes the fourth step of creating a synchronize task with the New Task Wizard.

On the fourth step of the New Task Wizard, you can select type of synchronization and set up filtering. Advanced users can also change comparison settings and error handling settings (read below).

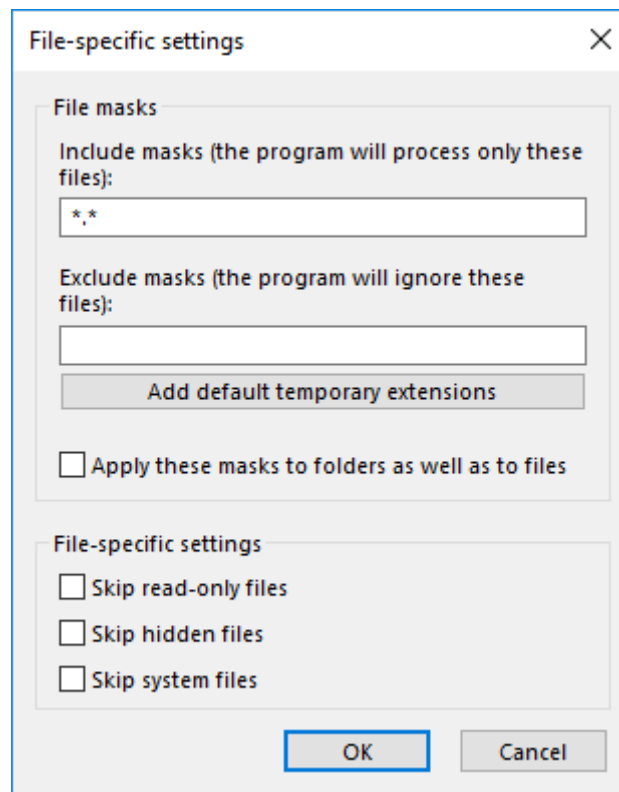


Type of synchronization determines the direction in which the program must copy contents:

- **Copy from the first folder to the second.** This option is used to synchronize contents of the second folder with the first one. For files with identical names, the program compares attributes, according to comparison settings (see below), and overwrites all different files.
- **Copy from the second folder to the first.** This option is used for synchronizing the first folder with the second one. Files with identical names are compared, different files are overwritten.
- **Mirror both folders.** This option performs two-way synchronization of two folders. For files with the same names, you can choose priorities: **copy newer**, **copy older**, **copy smaller**, **copy larger**, or **skip**.

If you want to synchronize files of specific type only, you can enable filtering. To do it, click **File filters...** The **File-specific settings** dialog opens.

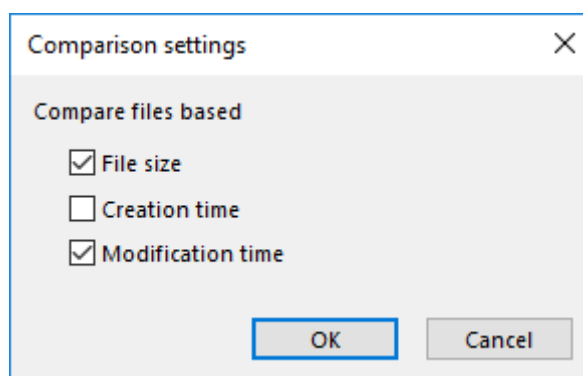
In the **File-specific settings** dialog, you can specify filtering options that will be checked for each file being copied.



Include and Exclude masks: Filling up these fields enables you to synchronize only files matching to a specific file mask. Use *(asterisk) as a wildcard, separate different masks with | (vertical line). For example, *.docx|*.xlsx will select documents with any names and of Microsoft Word and Microsoft Excel only.

Overwrite Settings

By default, when running synchronization, the program compares attributes of files in the first and in the second folder, and copies only files of different **File size** or **Modification** time. This behavior is task-specific, and can be changed in **Overwrite settings**. To change it, click the **Change** button.

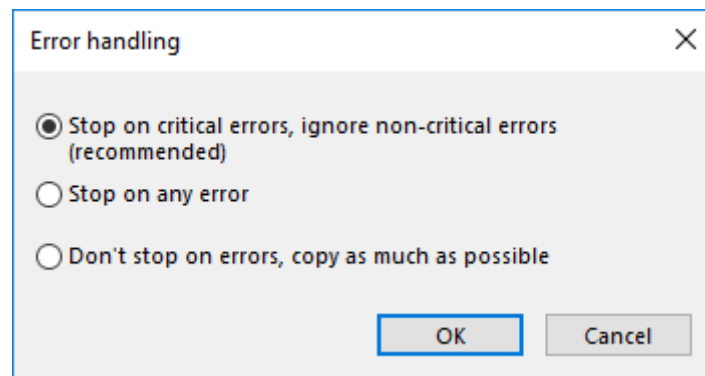


Error Handling

Error handling lets you set the program's behavior when it encounters an error:

- **Critical errors** happen, for example, when you try to synchronize an FTP folder, and enter a wrong password for authorization.
- **Non-critical errors** are one-time errors that are not specific to the entire synchronization. For example, the "Access denied" error may be a result of a conflict with another application, and running the same task again will back up the same file successfully.

You can choose whether the task must stop on any error, stop only on critical errors, or don't stop on errors at all.

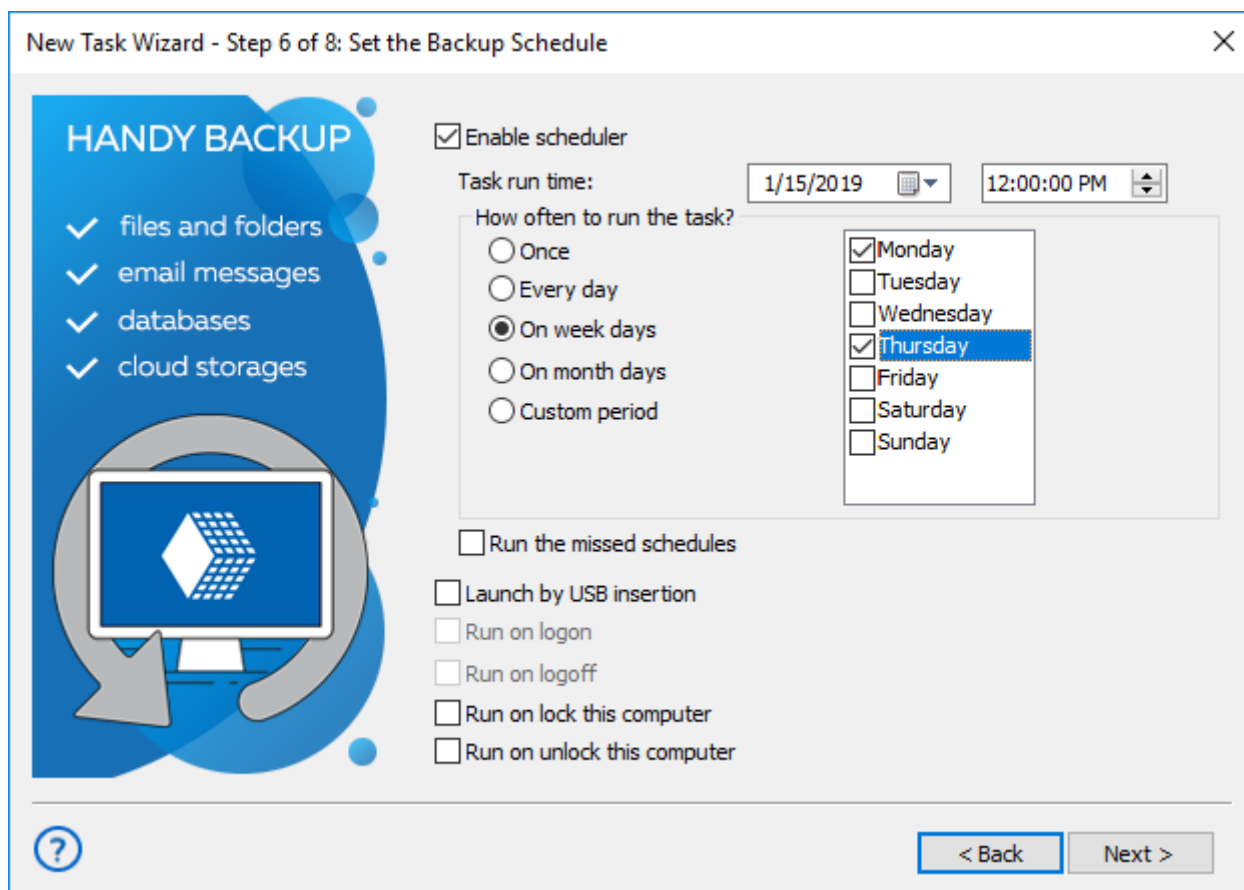


If there are any errors during synchronization, the task will end with an Error status.

When finished with this step, click **Next**.

5.5 New Task Wizard - Scheduling (Step 6 or 5)

This page describes task scheduling with the New Task Wizard. Depending from basic or advanced task wizard mode, you will see all or only part of scheduling options described here.



To set up a schedule, follow these steps:

1. Check **Enable scheduler**.
2. Select start date and time.
3. If you want the task to be repeated automatically, check **Repeat**.

You can repeat the task daily, weekly, monthly, or with any custom period.

4. Check **Run the missed schedules** if you want the program to automatically run missed tasks on program startup.

Besides time-based scheduling, you can also run the task on plugging a particular USB device (linked to a task) into a USB slot on your PC. The program will recognize the device regardless of a slot used.

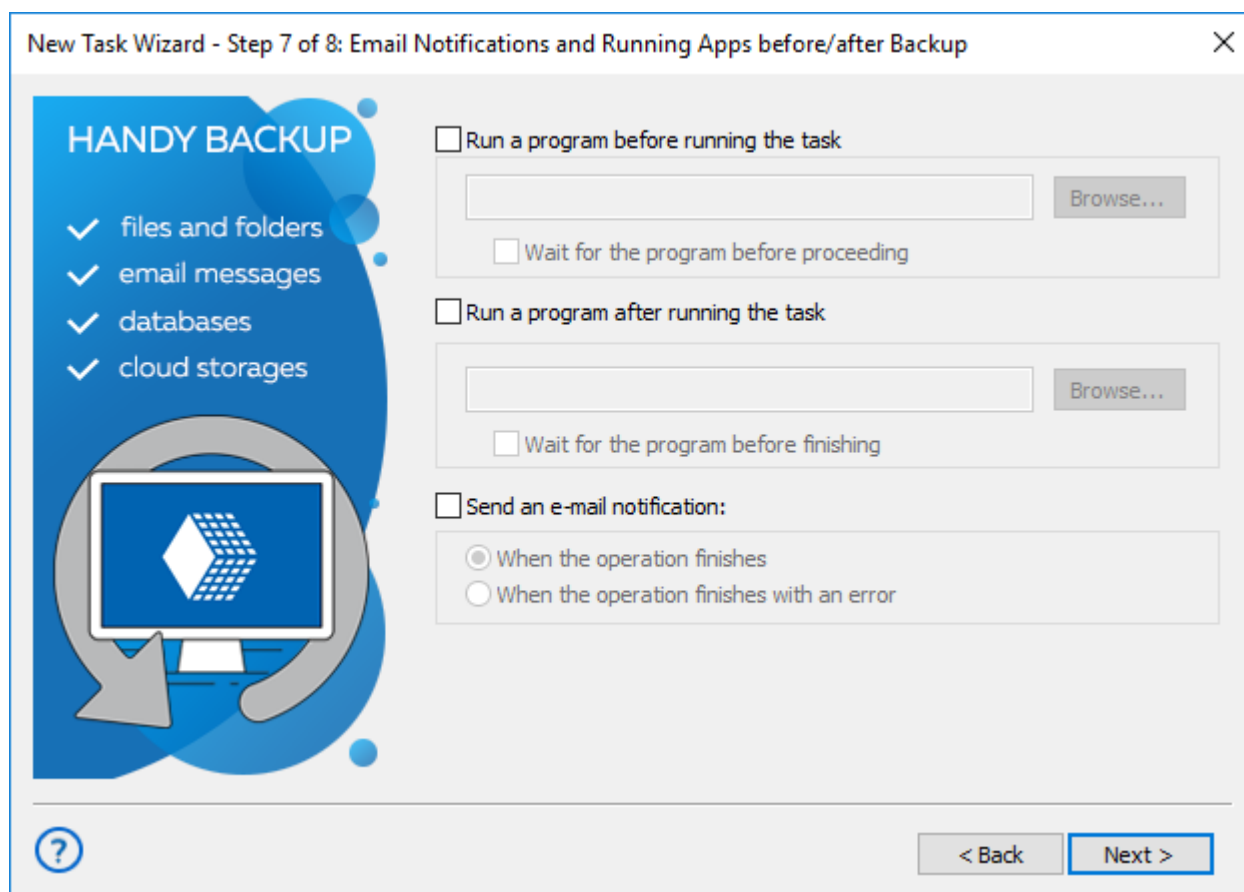
5. When finished, click **Next**.
6. Select **Run on logon / Run on logoff** to trigger a task after user logon or logoff onto a system.

Note: To make these triggers active, please [run the program as Windows service!](#)

7. Select **Run on lock this computer / Run on unlock this computer** for triggering a task to run when a user locks/unlocks the computer.

5.6 Pre-, Post-Operation Actions (Step 7 or 6)

To use this step, you must run a Task Wizard in an advanced mode. This page describes how to set pre- and post-operation actions with the New Task Wizard.



To enable pre- or post-action, follow these steps:

1. Check **Run a program before running the task** or **Run a program after running the task**.
2. Specify the program in the activated field.
3. Check **Wait for the progress before proceeding** or **Wait for the progress before finishing** to specify when the copying starts or ends.

Also, in this window you can enable e-mail notification about task results. To do it, follow these steps:

1. Check **Send an e-mail notification**.
2. Select **When the operation finishes** if you want to be notified of all tasks, or **When the operation finishes with an error** if you want to be notified of failed tasks only.

Handy Backup User Manual

E-mail notifications can be enabled only if you have configured mailing options in Settings. If you haven't done it, you can skip this step, and then turn it on later by modifying task properties. To learn more, see [E-mail Notification Settings](#).

5.7 Ready to Create New Task (Step 8 or 7)

This page describes the last step of the New Task Wizard.

This step is similar for all types of tasks: step 6 or 8 of **backup** task, step 5 or 7 of **restore** task, and step 6 or 7 of **synchronize** task.

New Task Wizard - Step 8 of 8: Name the Task

HANDY BACKUP

- ✓ files and folders
- ✓ email messages
- ✓ databases
- ✓ cloud storages

Backup Task Title:
Backup

Task properties:
Type: Backup
Source (folders and files): vm205\\Computer\\C:\\Data
Backup location: vm205\\Computer\\C:\\Users\\user\\Backups\\Data
Backup type: Full

☒ Execute this task immediately

[?](#) [< Back](#) [Finish](#)

1. Name the task. It is recommended that you give meaningful names, so you can then easier track overall status of your data.
2. Review task parameters. If some you want to change something, you can go to the previous steps and do it.
3. Check **Execute the task immediately** to run the task straight after you click **Finish**.
4. Click **Finish**.

Running a Task Manually

You can start any task at any time in a manual mode, regardless of existing schedule for this task.

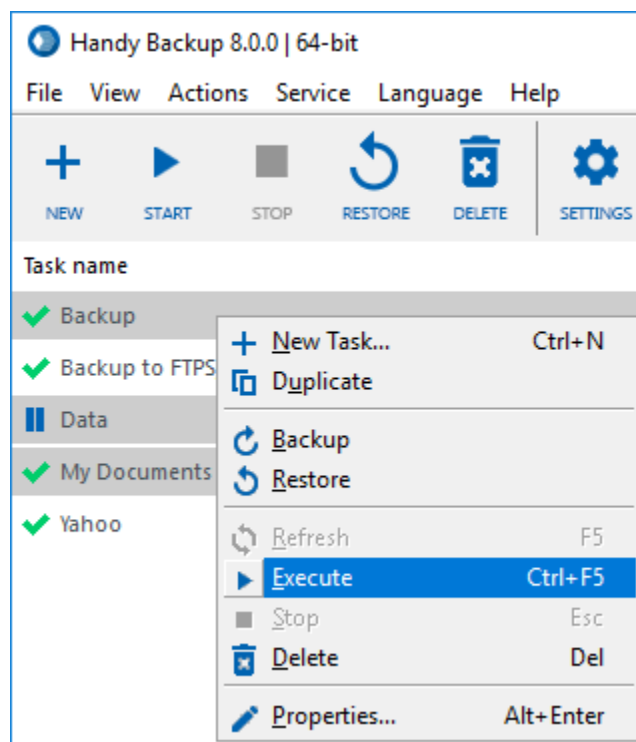
The Instruction

To start any task you want, please do the following sequence of actions.

1. In the Task View section of a main window, **select a task (or multiple tasks)** that you are planning to run now.

Note: You can use standard Windows selecting tools (i.e. **Shift** and **Ctrl** keys in a combination with mouse left clicks) to select groups of tasks easily.

2. When selected, click on an **execution button** on the Management Panel, or select the **"Execute"** item on the context (right-click) menu. (You can also just press **Ctrl+F5** to run selected tasks).



6 Technologies Behind the Software

In this chapter you can find the information about the key technologies of Handy Backup. The main parts of the section are here:

Architecture

This section describes the architecture of the program and the main features of it's work. You will learn more about what are the Client, Server, Workstation, and their role in the backup process. Also the technologies used by the program are described (CORBA, VSS, Linux Knoppix, and others).

Plug-ins

In this section you can find information about special built-in plug-ins that are used for backup and program's configuration. Handy Backup effectively makes a backup of different software with plug-ing:

Data Source Plug-ins. Data source plug-ins get the information from any data source, such as a database (Outlook, MySQL, MS SQL, PostgreSQL, MariaDB, Oracle, Database, MS Exchange, DB2, Lotus Notes) or the computer's hard drive (Computer, My Desktop, My Documents, Disk Image).

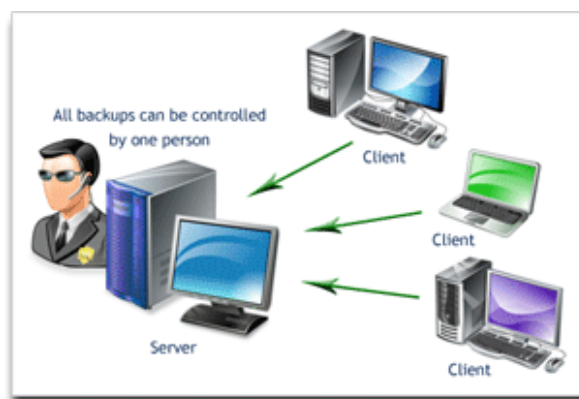
Storage Plug-ins. Storage plug-ins provide the access to the file system. These plug-ins are created for remote backup. At the moment there are the following plugins: FTP, FTPS, SFTP, Online, Network, Amazon S3, Google Drive, S3 Cloud, Dropbox, OneDrive, WebDAV.

6.1 Architecture

Handy Backup performance is based on several technologies. Here we will concentrate on most important information.

Client-Server

The backup in Handy Backup 8 is based on the principles of Client-Server technology. It's enough to have just one server to manage all the client computers.



In general, Users may not even know that their computer is under backup procedure. To perform a backup, it's sufficient to set up all the server-side settings and then backup will be done on all of the client-side computers.

Such efficiency is achieved by clever structural scheme of Handy Backup.

Handy Backup 8 components

Handy Backup 8 consists of several key components. **Handy Backup Server Network** is server-side software using the **Management Panel** as the interface, and both **Workstation agent** and **Server Agent** are client-side utilities called **Network Agents**. All the components together form a so-called “**Backup Network**”.

Workstation Agent

The Workstation Agent provides access to data located on the remote computer and has a special interface to the objects (file system, databases, FTP, e-mail servers). All the objects can be presented in the “files and folders” form, so you can perform different operations such as copy, delete, view attributes, etc. When you do a backup, Handy Backup accesses the file system through a Workstation Agent.

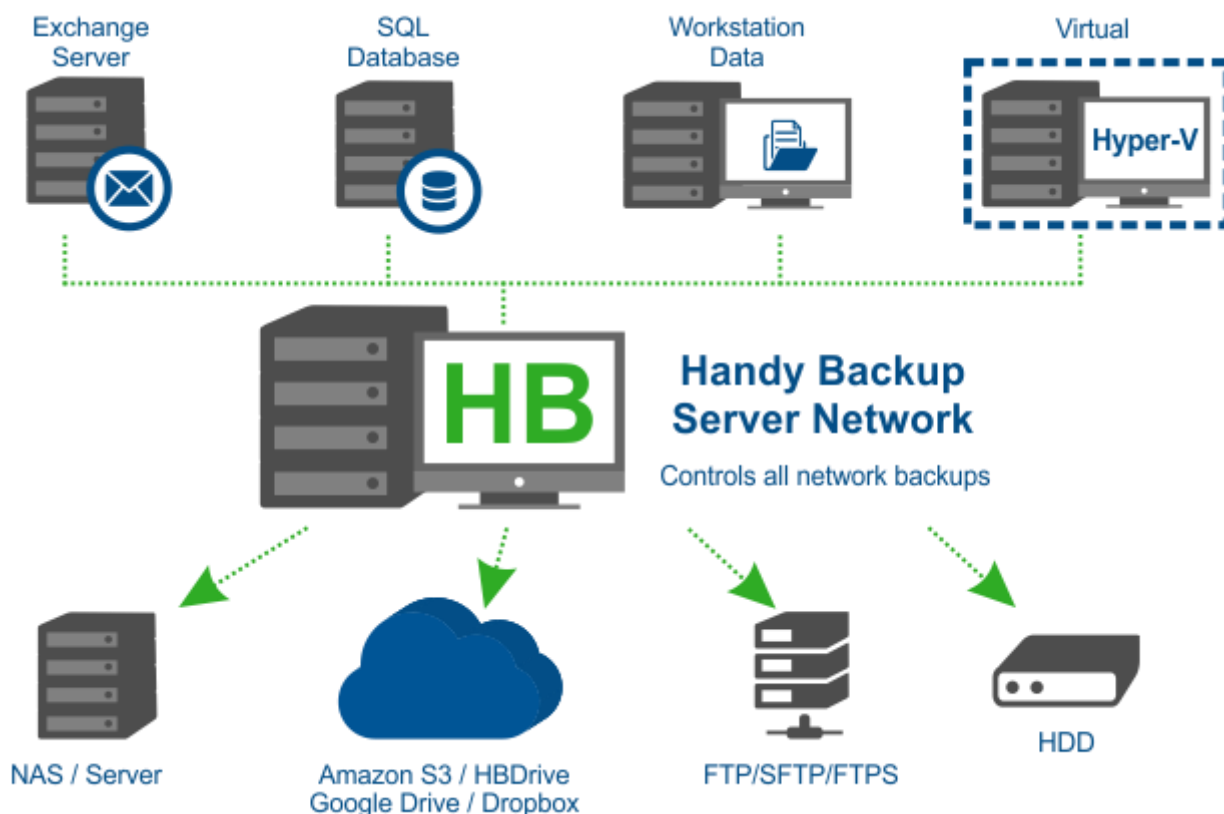
Workstation Agents allows backing up files and folders, Windows registry, disk images, generic databases via ODBC drivers, emails, cloud account data from services such as Google Drive, Amazon S3, Dropbox or OneDrive, as well as data from FTP, SFTP and FTPS servers (including websites).

Server Agent

A Server Agent contains all functions and possibilities of Workstation Agents. In addition, it can save server-level data, for example, Microsoft SQL Server, MySQL, MariaDB, Oracle, PostgreSQL, DB2, Lotus Notes, VMware Workstation and Hyper-V virtual machines etc.

Handy Backup Server Network

Handy Backup Server Network is more powerful software, because it has all the Handy Backup for Workstations features, but can manage not only Workstation Agents, but also Server Agents. Here is a brief look on how it works:



Management Panel

Management Panel is a special program that can be used as an interface to the administrator's computer (to simplify the configuration, monitoring or even perform data management). The Management Panel has the direct access to the files and folders where Workstation and Server Agents are running.

The interaction of all parts of the system is good via the use of CORBA technology. CORBA is a special standard that allows different operating systems, services and components to communicate with each other using common share.

Single Machine Solutions

Handy Backup editions for one computer, like Standard or Small Server, utilize the same client-server architecture as network-based editions. The Management Panel and a version of Network Agent somewhat simplified by connection methods (but not by functionality!) are both running on the same machine, using no network-based parts of protocols for data exchanging.

For more information about the system, you can also read about [client-server backup](#).

• Network Agents

Network Agents, divided on Workstation Agents and Server Agents, are the main components for data copying. The Agent provides access to the computer's resources and a uniform interface to objects (file system, databases, FTP, e-mail servers).

All objects are represented in the form of files and folders, thus you can do different operations such as copy, delete, view attributes, etc. When you perform backup tasks, **Handy Backup** accesses the file system through an Agent.

Both Workstation and Server Agents in simple explanation consist of two main components:

1. Filters

Filters are a special type of plug-ins for converting the data stream. Unlike file system plug-ins, filters do not provide access to the file system (file system plug-ins are terminal elements reading/writing data directly to the file system). The filters are logically built between the workstation and the plug-ins.

Here is an example how filters work in the case of data backup with compression and encryption options enabled:

1. File system manager creates an instance of the file system plug-in and opens a file for writing.
2. The data stream is sent through a chain of filters.
3. ZIP-filter archives the data file with ZIP compression.
4. BlowFish-filter encrypts that compressed data.
5. The plug-in gets ready (already packed and encrypted) data stream.

2. Plug-ins

Network Agents use Handy Backup's plug-in architecture. With the help of plug-ins the program has access to a particular file system. Agent provides a convenient interface to the computer's data via plug-ins. Thus, the details and features of the file system are "hidden" in the plug-in.

Agent controls the loading of plug-ins (and their properties), mounts and dismounts the file system, authenticates the users and checks the availability of specific functions. Agent receives all commands from the **Handy Backup Server Network**, although in some cases, it can check the user's authorization itself.

Differences between Workstation Agent and Server Agents

The main difference between Workstation and Server Agent is a built-in plug-in set. Workstation Agent aimed to do a full-featured backup of the computer's resources and has a special interface to the objects (file system, e-mail servers).

Server Agent is more powerful because it also has special plug-ins for backing up databases and server applications: MS SQL Server, MySQL, Oracle, PostgreSQL, DB2, Lotus Notes, and others.

Setting Up the Network Agent

Auto configuration this is the main method of setting up the backup network.

The Network Agent is installed as Windows service. When you create a backup network, try automatic installation of the Agent. As the all the Network Agent's depends entirely on the administrator server-side commands, the service will automatically look for proper server in your network, and will try to connect it.

In cases where the program can't connect to the server, refer to the [Network Agent Configuration](#).

Technologies behind Network Agents

Technologies used by Workstation and Server Agents include:

FUSE for Windows - a special module that allows any program to create their own file systems. FUSE is particularly useful for writing virtual file systems. Unlike traditional file system, a virtual file system does not store the data itself. It is a "presentation", essentially a "bridge" between the actual kernel and an application.

ZIP Backup. ZIP is an extremely popular method of the data compression. Currently, the ZIP format is the standard for many applications, including backup and data exchange.

Blowfish Cipher. Blowfish is an effective method of data encryption. It uses a 64 -bit block size and variable key length from 32 bits up to 448 bits. It provides a highly reliable data protection.

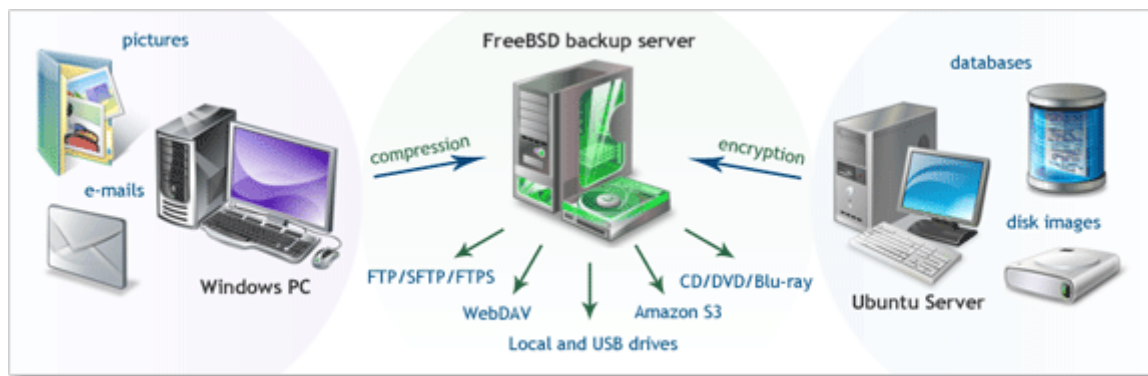
• Management Panel

The **Management Panel** is a very important component of Handy Backup program. **Handy Backup Server Network** software perform a role of server in Handy Backup. Next, the Management Panel and the computer hosting it will be called collectively as **server**, when the Management Panel will mean the software only.

Server is used for creating and starting tasks (and monitoring), storing logs, managing data setting, user authentication, system protection.

Handy Backup User Manual

Some of these tasks can be performed by other components of Handy Backup, but server has a number of unique features:



- **Manage Settings.** All settings of Handy Backup 8 are stored on a server in special files.
- **Data protection.** The server is responsible for data protection (for example, plug-ins do not encrypt the passwords, server does).
- **Access Control.** The server is responsible also for user's authenticating. Authorization is based on login and password. Only authorized users can access the Server.
- **Logging.** The server is responsible for maintaining log files. Log files contain the information about the start and the stop of the server and other events related to the tasks. This can be used to analyze the server's operation.

The Management Panel uses advanced technologies to ensure stable functioning of the all entire client-server Handy Backup structure.

The main technologies we should tell about are:

CORBA (Common Object Request Broker Architecture) - a special technology that allows you to create, distribute and control remote objects across a network. In the early 1990's it was a nightmare to link different computers into one communication network (because of different hardware, operating systems and programming languages). To solve that problem CORBA was presented.

CORBA is a standard that allows programs written in different languages and operating systems to communicate to each other using common shared services.

Today, CORBA often used to link different running components inside corporate networks.

RSYNC (Remote Synchronization) is a special program that allows you to synchronize files and directories. It minimizes the total traffic and enable data encryption if necessary. The minimality is achieved by using of the client-server architecture. This technology is often used for incremental and differential backups.

Handy Backup User Manual

The main advantage of this technology is that in a case of small changes in files, *rsync* will transmit only a few bytes (instead of rewriting the entire file).

• Client

Handy Backup client is the interface to the [server](#) (designed to simplify the configuration, as well as for monitoring or even perform data management). Client has the direct access to the files and folders via the Workstation and Server Agents.

Users can utilize the two clients for Handy Backup: the **GUI client** and the **Console client** (both included in the distributive). It is possible to run any client program for Handy Backup, because client doesn't have any kernel's function. It's used to setup the program, controlling the functionality and results.

GUI client

The **GUI (graphical user interface)** is a technology that allows users to control the system through a graphical interface that includes graphical icons and visual indicators. This technology is quite different from the old text clients where all the commands are entered from the keyboard via the command line.

The GUI client is the first and main client for Handy Backup. The graphical client allows users to connect remotely to the server, manage and start tasks, analyze the results. It's also simplifies the registration and configuration of the application.

Console client

The command-line client allows users to view a list of the tasks and to start/stop them, delete tasks, turn off Handy Backup Server, register the program.

• Other Services

Handy Backup uses other services to ensure it's stable and efficient operation.

Volume Snapshot Service (VSS)

This technology works under NTFS file system and allows accessing to files and other disk data locked by other applications. Using this service, Handy Backup 8 provides "hot backup" (i.e. backup without stopping any other data processing) for local disk data, including copying entire drive images.

Linux Knoppix

The **Knoppix** Linux is a special “portable” distributive of OS Linux requiring no installation on a computer or laptop. It has several built-in software packages (Internet browsers, file managers, text editors), that is necessary for fully utilizing all computer functions.

This system is the basic component for Handy Backup Disaster Recovery (HBDR) utility, designed for external re-installation of drive images saved by Handy Backup to a “bare” device, such as a new or recovered hard disk containing no OS.

6.2 Plug-ins

Plug-ins are responsible for retrieving, processing and storing data. Each time you run backup, restoration or synchronization, data stream is passed through a series of plug-ins.

There are three types of plug-ins:

- **Data Source** plug-ins can be used as source of data in **backup** tasks, and as target of restoration in **restore** tasks.
- **Storage** plug-ins can be used as both source of data and destination in **backup** tasks, as target of restoration in **restore** tasks, and can provide folders for syncing in **synchronize** tasks.
- **Processing** plug-ins, or **Filters** allow processing data streams during copying. They can't be used in **synchronize** tasks.

For convenience of terminology, term “plug-in” in this manual is used to refer to **Data Source** and **Storage** plug-ins, and all processing options are referred to as “filters”.

Understanding Plug-ins

Simply speaking, plug-ins contain instructions on what needs to be done to copy the data. Instructions are plug-in-specific and depend on direction of copying. For example, copying from a database plug-in (backing up) will use **SELECT** statements, and copying into a database (restoring) will use **CREATE** and **INSERT** statements.

Each plug-in creates a virtual file system and allows working with its data as with “common” files and folders. All plug-ins support the same set of operations, which allows the program's core to work with abstract data stream without knowing any details about it. To learn more, please see [Plug-in File Systems](#).

Plug-ins and Filters in the Architecture

Plug-ins are a part of **Workstation**, and therefore are platform-specific. For example, 32-bit version of Workstation will not be able to access data of 64-bit version of Microsoft Exchange Server.

Say that you want to back up a local file to an FTP server, with ZIP compression. To perform this operation, **Workstation** must have the **Computer** and **FTP** plug-ins, and the **ZIP** filter. Also, **Server** must have a valid **FTP Configuration** for the **FTP** plug-in. Architecturally, the scheme works as follows:

1. **Workstation** receives a command to copy **Computer**\[Path to Local File] to **FTP****FTP Configuration**\[Path to FTP Folder], with ZIP filter.
2. **Workstation** requests a file from the file system of the **Computer** plug-in.
3. The **Computer** plug-in starts reading the file from the local computer's hard drive. The respective data stream is sent to **Workstation**.
4. **Workstation** sends the data stream to the **ZIP** filter.
5. The **ZIP** filter performs "on-the-fly" compression and sends the data stream back to **Workstation**.
6. **Workstation** sends the compressed data stream to the **FTP** plug-in.
7. The **FTP** plug-in receives the data stream and a path the data must be written to. The path includes **FTP Configuration** which contains server address and authorization parameters. The plug-in connects to the FTP server and uploads the respective file.

Technically, **Workstation** doesn't "know" anything about the data it copies and about filters it uses to process it. It takes a data stream from **Data Source** plug-in, passes it through **Filters**, and then sends it to **Storage** plug-in.

• Plug-in File Systems

To understand how the program works, it is important to get the concept of plug-in file systems. Each plug-in creates a virtual file system that allows working with its data as with "common" files and folders:

- **Data Source** plug-ins map computer information to files and folders, and translate all file system operations (reading folder contents, creating files, and other) to plug-in-specific context. For example, creating a new file in a file system of the **MySQL** plug-in makes it connect to the MySQL database and use a **CREATE TABLE** statement.
- **Storage** plug-ins provide one-to-one access to the respective file systems. For example, reading files of the **FTP** plug-in is the same as downloading them with any other FTP client.

Handy Backup User Manual

The main idea of plug-in file systems is to provide the program's core with "abstract" files and folders that support common operations, while hiding their implementation.

Attributes

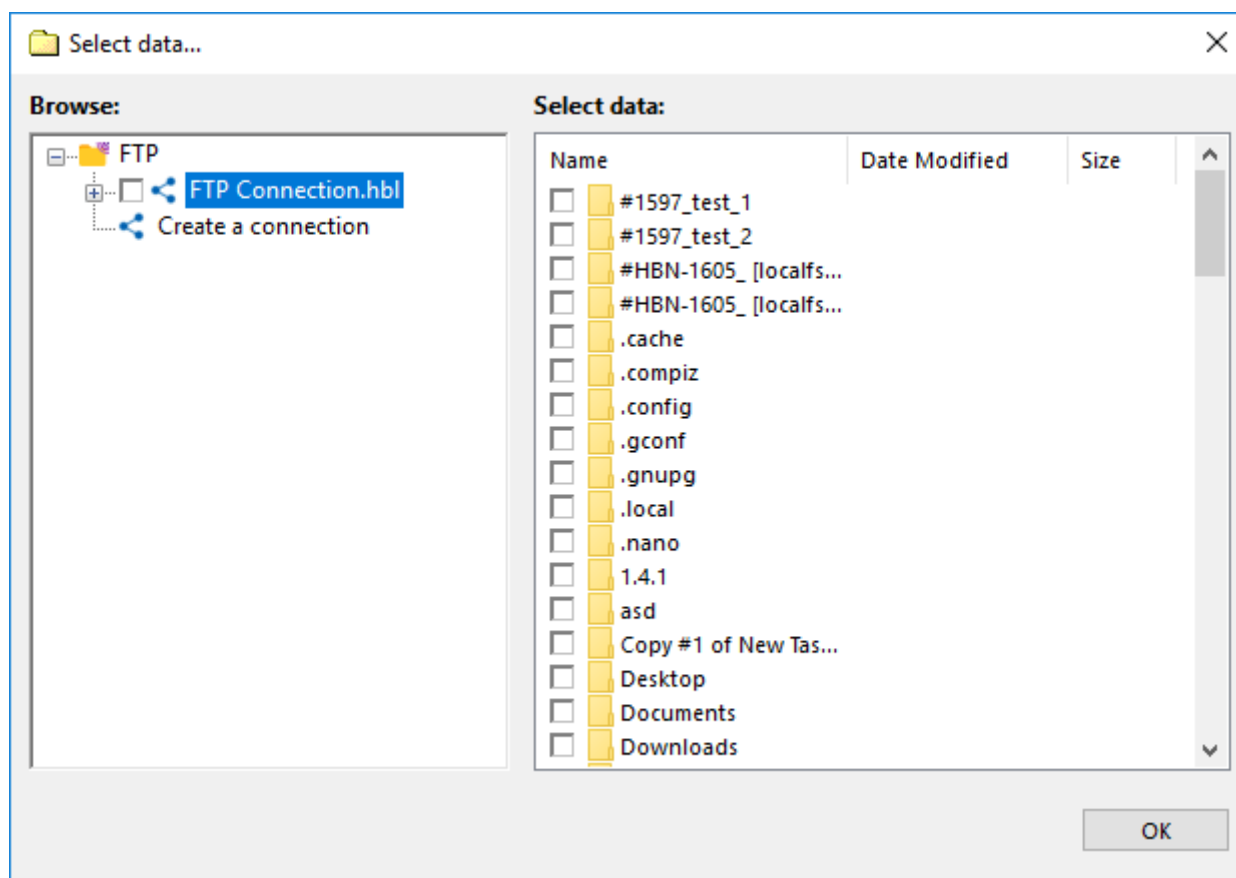
Files and folders in plug-in file systems have attributes:

- File size
- Creation time
- Modification time
- (and other)

Generally, file systems are not obliged to support all of them. For example, there is no exact way to determine size of a database table, so the respective files will have zero size. In the practice, this doesn't have much effect, except for some inconvenience when calculating total size of backup.

Configurations

Some plug-ins are configurable. For example, to work with a remote FTP folder, you need to specify server address and authorization parameters. To do it, you need to create a **Configuration** for the **FTP** plug-in.

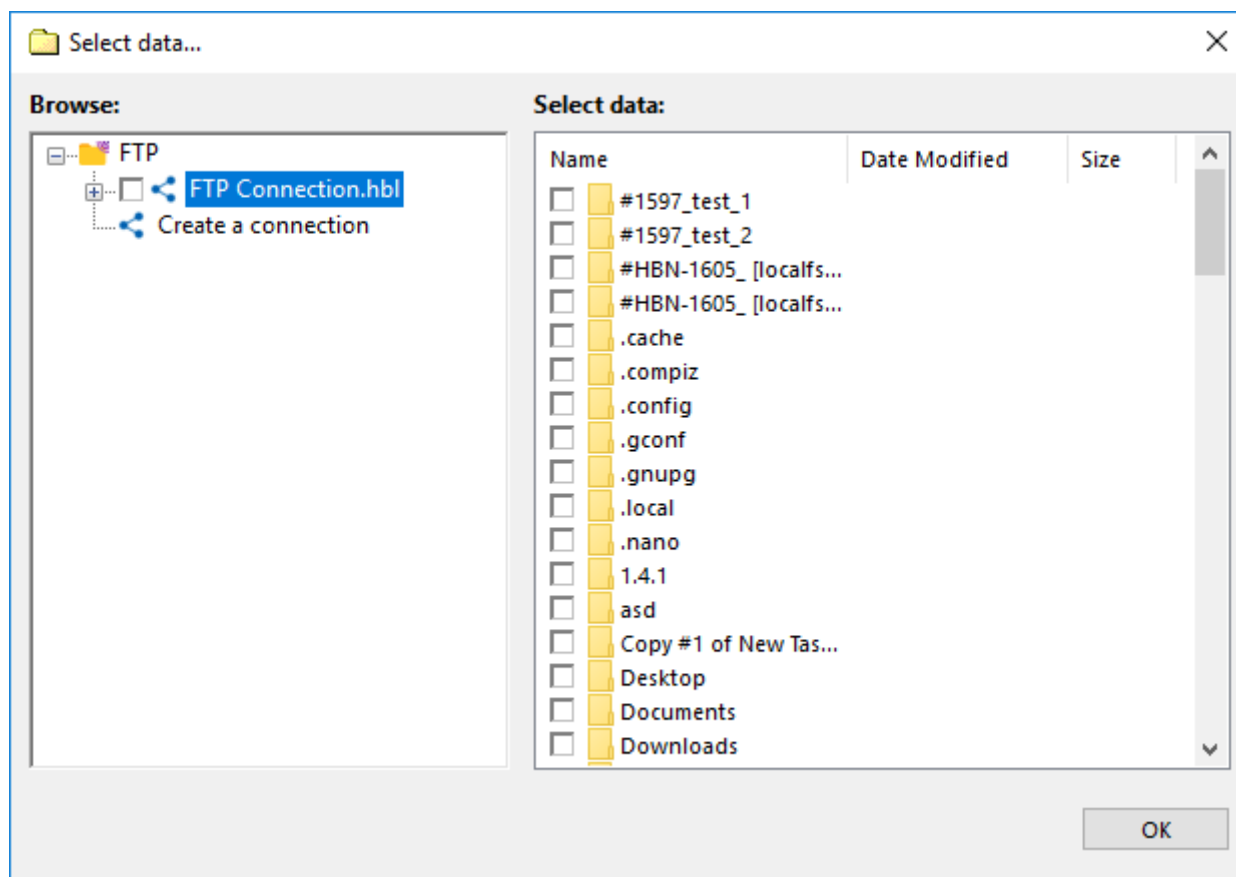


Handy Backup User Manual

In terms of plug-in file system, each configuration is a top-level folder. Expanding this folder makes the plug-in read settings from the configuration file and initiate connection to the respective data source (e.g. FTP server, MySQL database, and other).

• Plug-in Configurations

Some plug-ins are configurable. To use them, you need to determine parameters of data source or storage by creating a configuration.



Configurations appear in plug-in file systems as top-level folders. Expanding the configuration initiates connection with data source or storage and reads contents of the respective folder.

Creating Plug-in Configurations

To create a plug-in configuration, you need to open any dialog displaying file system of a configurable plug-in. To create a new configuration, follow these steps:

1. Click **New configuration**. The **Settings** dialog opens.

Each plug-in has its own unique options, and the **Settings** dialog is different for each plug-in.

Settings

Connection Title: FTP Connection

General Proxy Advanced

Server* Port: 21
FTP server name or IP

User*
FTP server user name

Password*
FTP server user password

Remote dir ...
FTP working directory path

Test connection

OK

2. Fill in parameters of the configuration.
3. Click **Test connection** to make the plug-in connect to data source. This button is available for all configurable plug-ins.
4. When finished, click **OK**.

Modifying Plug-in Configurations

Existing configurations are displayed in plug-in file system as top-level folders. To modify a configuration, right-click the configuration name, and then click **Edit...** The **Settings** dialog is the same as during creation of a new configuration.

Modifying configurations can be tricky. When the program copies files from one plug-in file system to another (i.e. when you run a task), the files are taken from a specific path. For configurable plug-ins, the path always starts with configuration name, i.e. renaming the configuration will result in a **“Path not found”** error. When modifying plug-in configurations, you should also modify tasks using them.

• Data Source and Storage Plug-ins

Data Source plug-ins are components of the program that contain instructions on how to retrieve information from different sources of data, and how to store it back. For example, a database plug-in may use the **SELECT** statement to back up tables, and **CREATE-INSERT** statements to restore them.

Handy Backup User Manual

Storage plug-ins are components of the software that provide one-to-one mapping to different file systems. They can be used as a source of data, as a target destination for backups, or provide folders for synchronization.

Note: In our software, the term "**plug-in**" is used to refer to a certain type of features that can be updated independently from the program's core. These features are not "minor" or "supplementary" in any way. Plug-ins are used for all operations: for example, copying of local HDD files relies on the [Computer plug-in](#).

To learn more about the concept of plug-ins, see [Plug-ins](#).

File Systems

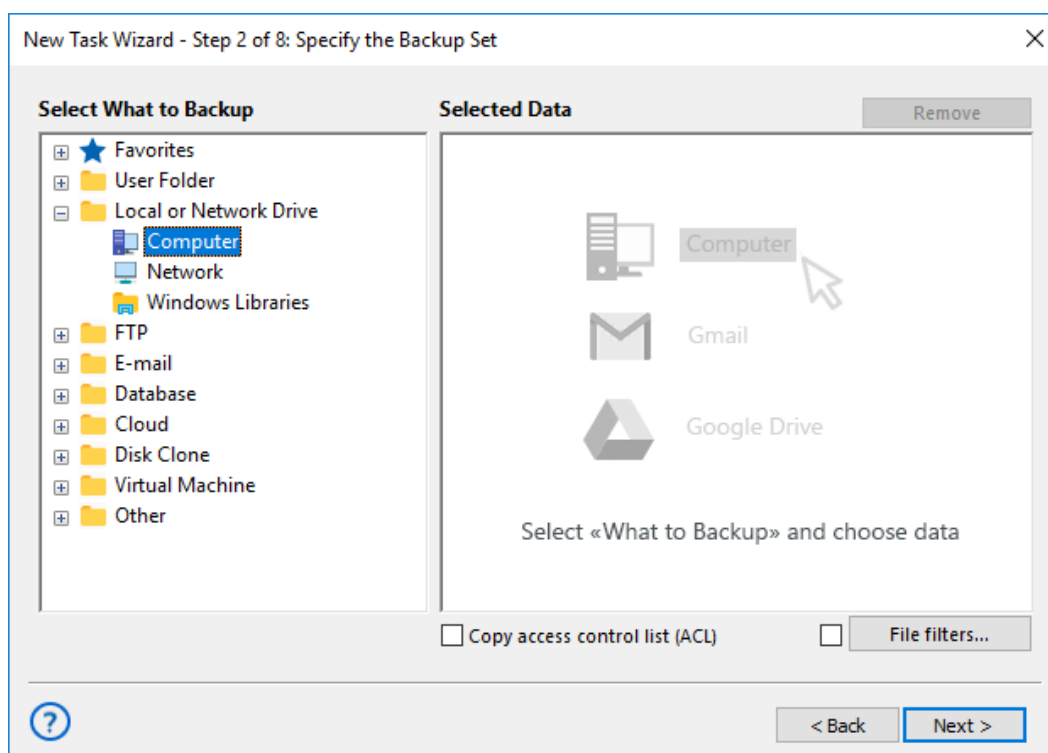
Each plug-in creates a virtual file system with hierarchical structure. Files and folders of the file system correspond to objects of the respective data source: for example, files of the [Disk Image plug-in](#) are used to access HDD partitions. When the program runs backup, restore or synchronization, it works with objects provided by plug-ins as if they were common files and folders.

You can learn more about virtual file systems in [Plug-in File Systems](#).

List of Plug-ins

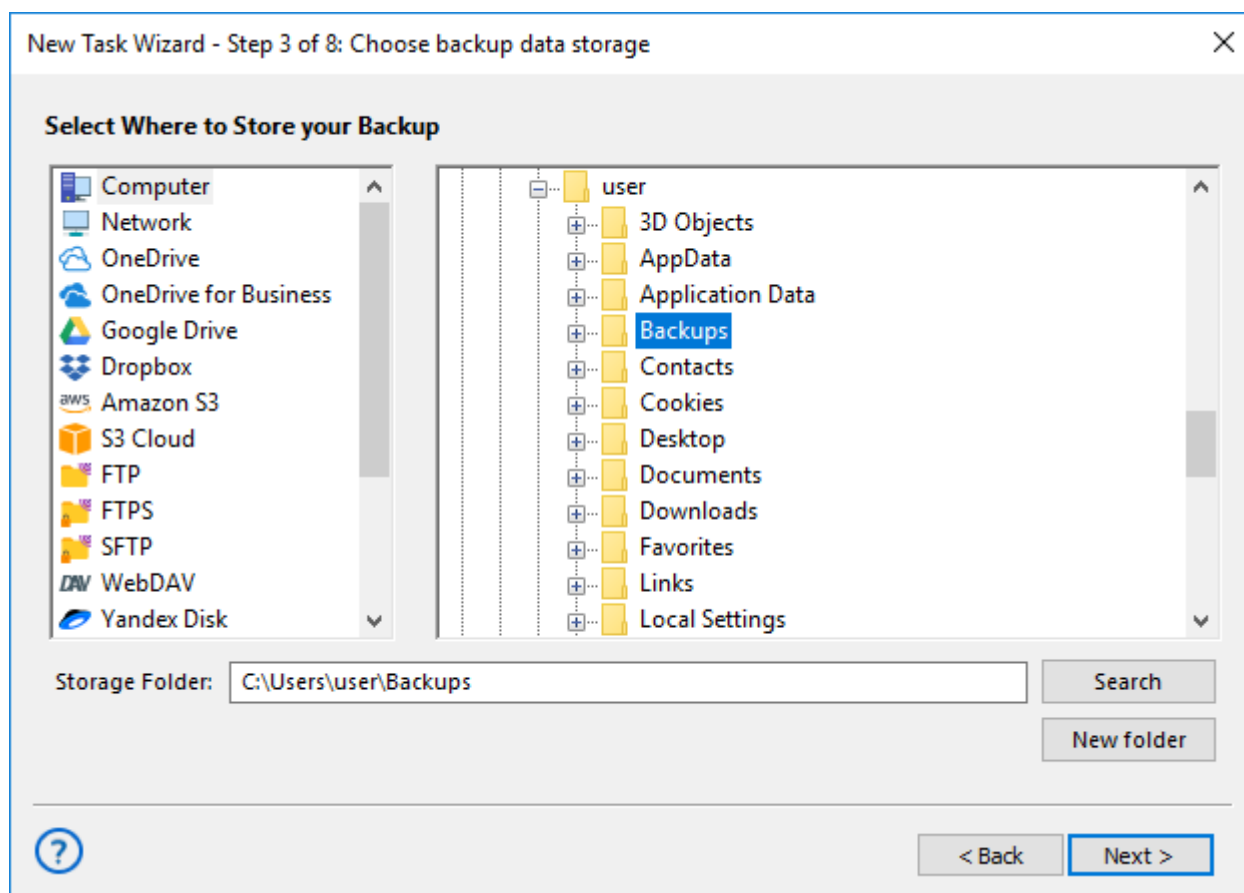
Generally, there are two types of plug-ins:

- **Data source plug-ins** provide access to local PC objects. You can see all plug-ins on the second step of the New Task Wizard, in the Data Sources pane to the left.



Handy Backup User Manual

- **Storage destination** plug-ins provide one-to-one mapping to storage file systems (e.g. local HDD, or remote FTP location). You can see all storage plug-ins on the third step of the New Task Wizard, in the Storage Destinations pane to the left.



Both types of plug-ins can be used as a source of data. You can see a full list of plug-ins in the table below.

Plug-in	Type	Edition	32-bit/64-bit	User-specific
Computer	Storage	All	both	Yes*
Windows Libraries	Source	All	both	Yes
User Folders	Source	All	both	Yes
Online Backup	Storage	All	both	No, configurable
Database	Source	Small Business+	both	No, configurable with ODBC Connector
MSSQL	Source	Small Business+	both	Yes**
MySQL	Source	Small Business+	both	No, configurable

Handy Backup User Manual

Plug-in	Type	Edition	32-bit/64-bit	User-specific
MariaDB	Source	Small Business+	both	No, configurable
PostgreSQL	Source	Small Business+	both	No, configurable
Oracle	Source	Small Business+	both	Yes
Lotus Notes	Source	Small Business+	32-bit only	Yes
DB2	Source	Small Business+	both	Yes
E-mail	Source	All	both	No, configurable
MS Exchange	Source	Small Business+	both	Yes**
Outlook	Source	All	both	Yes
Disk Image	Source	Professional+	both	No*
System Recovery	Source	Professional+	both	No, configurable
Registry	Source	All	both	Yes
VMware	Source	Small Business+	both	No, configurable
Hyper-V	Source	Small Business+	both	No, configurable
Network	Storage	All	both	Yes
FTP	Storage	All	both	No, configurable
SFTP	Storage	Professional+	both	No, configurable
FTPS	Storage	Professional+	both	No, configurable
WebDAV (Multi-cloud)	Storage	All	both	No, configurable
Amazon S3	Storage	Professional+	both	No, configurable
Google Drive	Storage	All	both	No, configurable
Microsoft OneDrive	Storage	All	both	No, configurable

Plug-in	Type	Edition	32-bit/64-bit	User-specific
Dropbox	Storage	All	both	No, configurable
BackBlaze	Storage	All	both	No, configurable
Box	Storage	All	both	No, configurable
4Shared	Storage	All	both	No, configurable
Yandex.Disk	Storage	All	both	No, configurable
1C	Source	Small Business+	both	Yes

Value in the **User-specific** column indicates if access to data depends on the user account that the **Workstation** component runs from. To learn more, please see [Workstation...](#)

*To use the **Disk Image** plug-in and to back up open files with the **Computer** plug-in, Workstation must be launched from a user account with administrator privileges, and you need to have a running **Volume Shadow Copy Service**. Without the service, the **Computer** plug-in will not be able to copy files that are opened by other applications.

Workstation must be launched from a user account with administrator privileges, and you need to have running **Volume Shadow Copy Service and **SQL Writer Service** (for the **MSSQL** plug-in) or **Exchange Writer Service** (for the **MS Exchange** plug-in).

Note: The above information may change from the time of publication (version 8, November 2019).

User Folders Group (My Desktop, Documents, Music, Pictures, Videos)

The **User Folders** group contains plug-ins that allow working with standard Windows folders (Documents, Desktop, Pictures, Videos and Music) located at **C:\Users\[Username]**. These plug-ins are user-specific, and depend on account under which the Workstation component runs.

Prerequisites

These plug-ins are “children” of the [Computer plug-in](#), and inherit all of its properties. Particularly, plug-ins can back up files that are exclusively opened by other applications, through the use of the **Volume Shadow Copy Service**. If you want to back up open files, then you need to have this service running on your system, and Workstation must be launched from a user that can access it.

Handy Backup User Manual

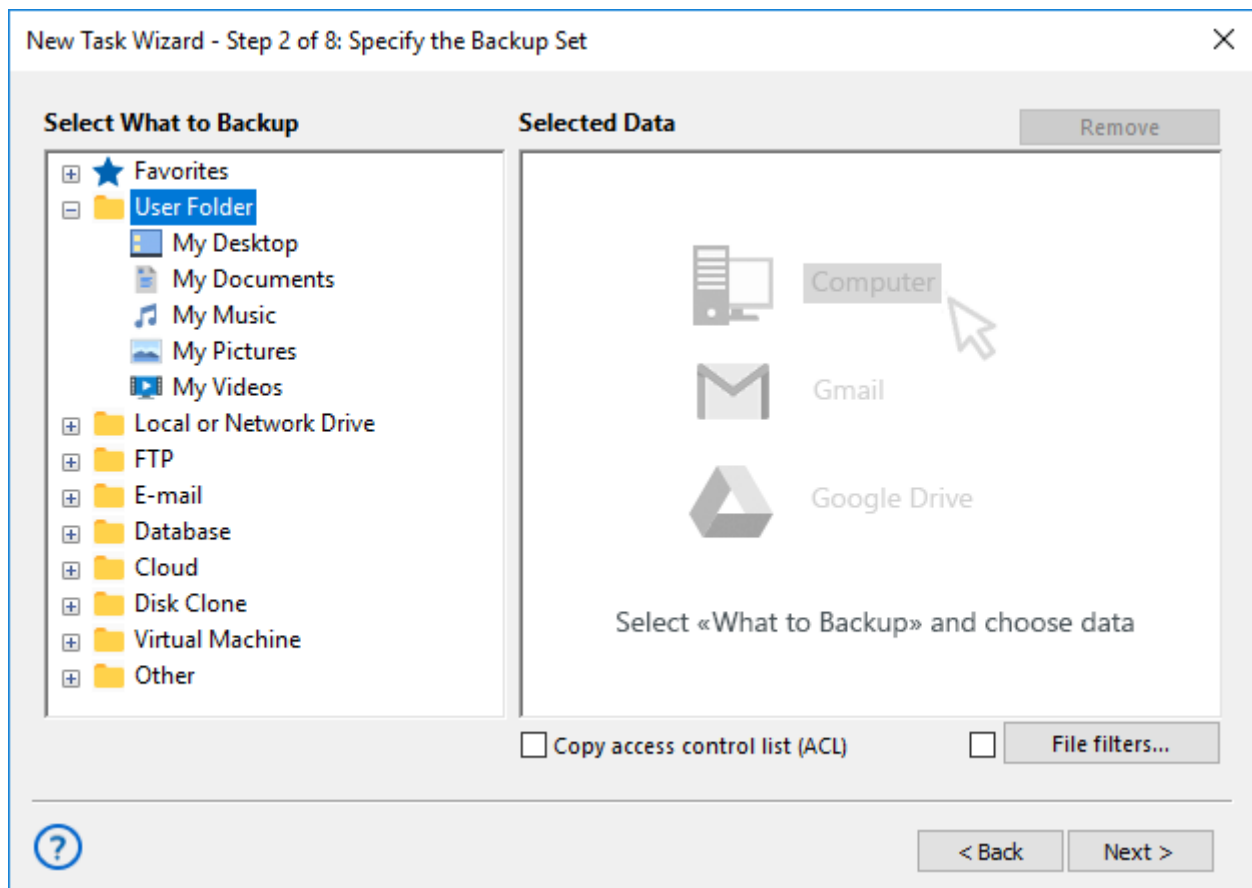
File system: Plug-ins from the **User Folders** group provide one-to-one mapping to common file system. Files and folders support all attributes, such as file size, modification time, and other.

Backing up

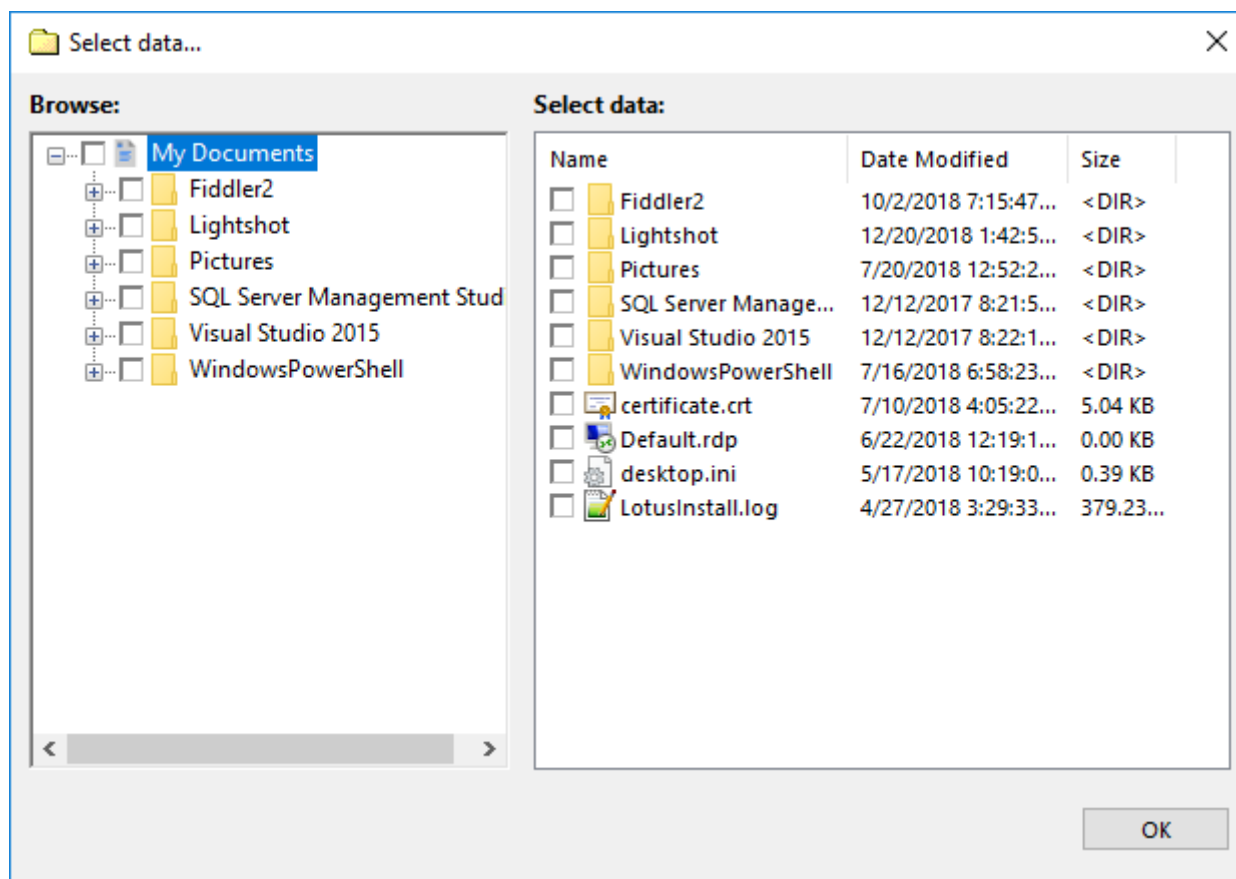
Any of the **User Folders** plug-ins can be used either as source of data for **backup** tasks or as a target for **restore** tasks.

To add data from some user folder to backup set, follow the steps described below by an example of **My Documents** plug-in:

1. Create a new backup task.
2. In the Data Sources pane, click onto **My Documents** in the User Folder group. The **Select data...** dialog will open.



3. Check the boxes next to files and folders that you want to back up.



4. When finishing selection, click **OK**. Selected data appears in the **Backup Set** pane of the New Task Wizard.

For general instructions on selecting data for backup, please see [Specify Backup Set](#).

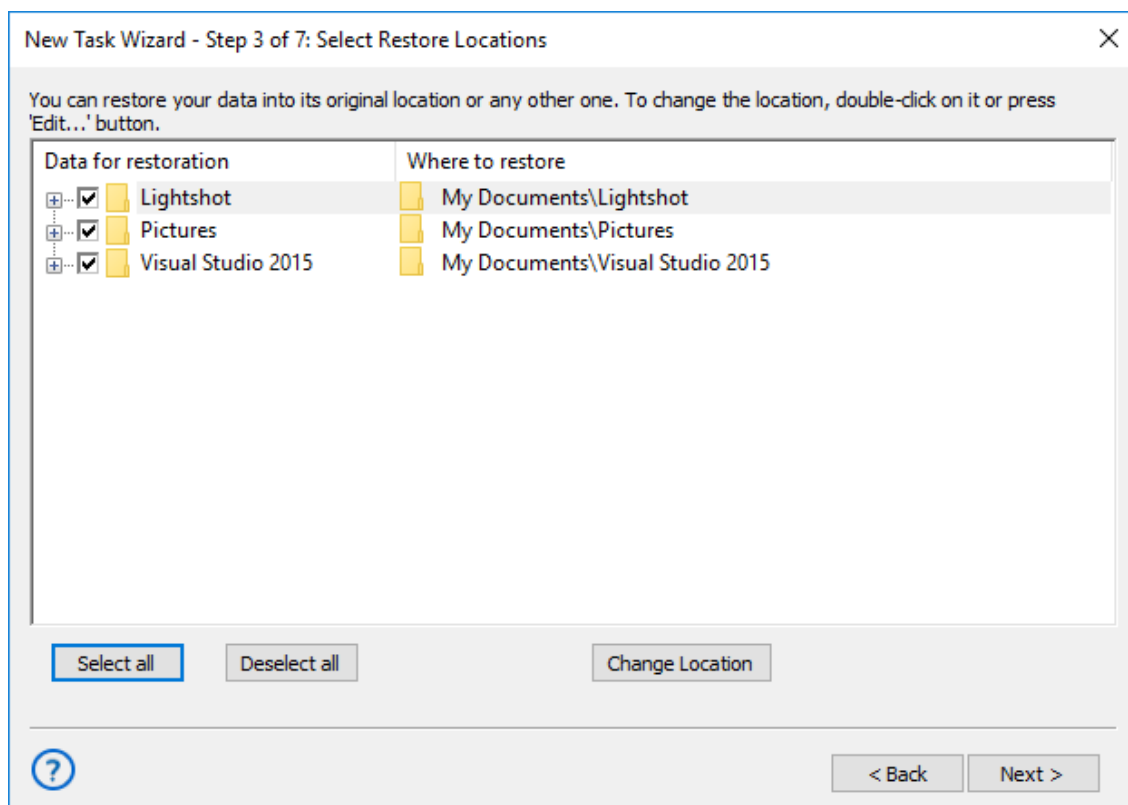
Restoring

To restore a backup made with plug-ins from the **User Folders** group, please follow these steps:

1. Open the New Task Wizard.
2. Select **Restore task**, and then click **Next**.
3. In the **Specify Index File** dialog, browse for the backup, select an index file (**backup.hbi**), and then click **Next**.

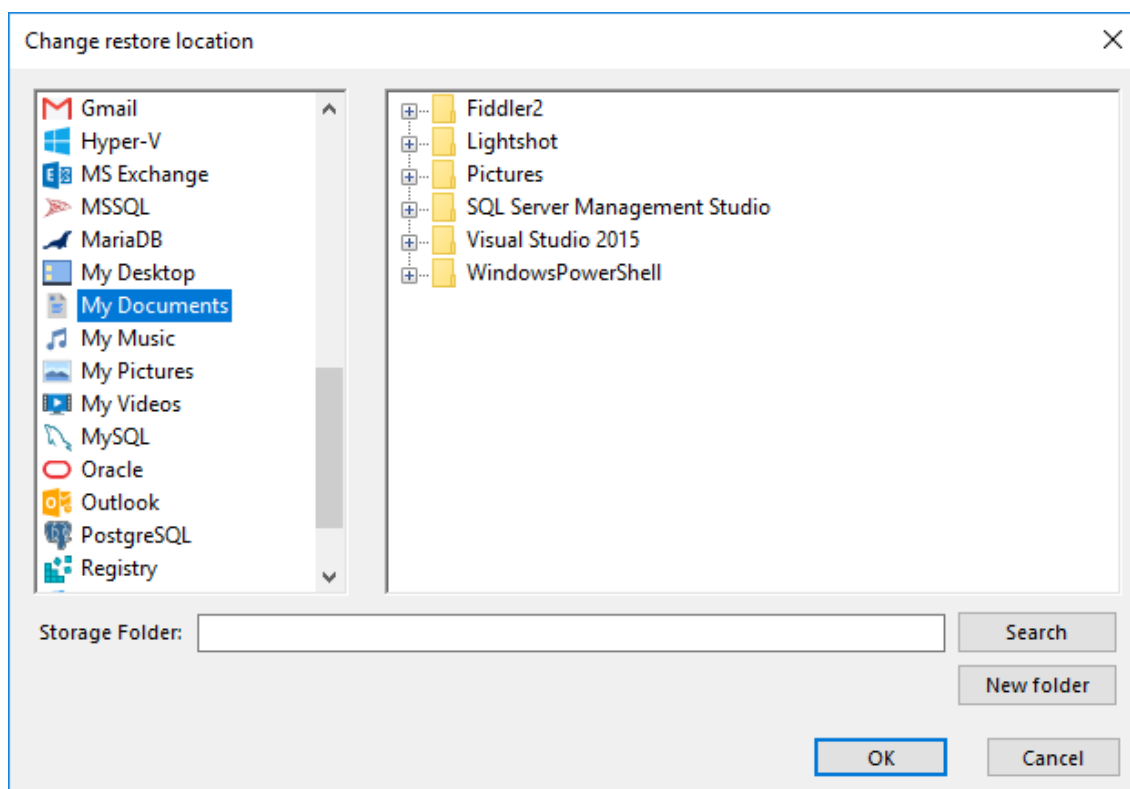
For example, if your backups are stored in a local file system, then you need to select **Computer** in the **Storage Destinations** pane to the left, and then browse for the backup in the **Index File Selection** pane to the right.

4. In the **Select Restore Locations** dialog, verify details of the restoration.



By default, files are restored to their original location in an appropriate user folder. If you want to restore them to a different folder, follow these steps:

- 4.1 Select a file, or a folder for which you want to change restore path, and then click **Change Location**. The **Change restore location** dialog opens.



4.2 4.2. In the **Change restore location** dialog, select where you want to restore file or folder, and then click **OK**.

Note that in this dialog you can select a different file system than the one provided in the **User Folders** group, e.g. **Computer** or **FTP**.

After verifying paths for restoration, you need to select type of restoration, enter password for decryption (if the backup is encrypted), schedule the task, and name it. These steps are not specific to using the **User Folders** plug-in group. To learn about restoring data, please see [Restore Task](#).

Computer Plug-in

The **Computer** plug-in is used to work with local computer's file system. It can be used as both source of data and storage destination.

Files and folders of the plug-in file system correspond to common files and folders. They support all attributes, such as file size, creation time, modification time, and other.

Prerequisites

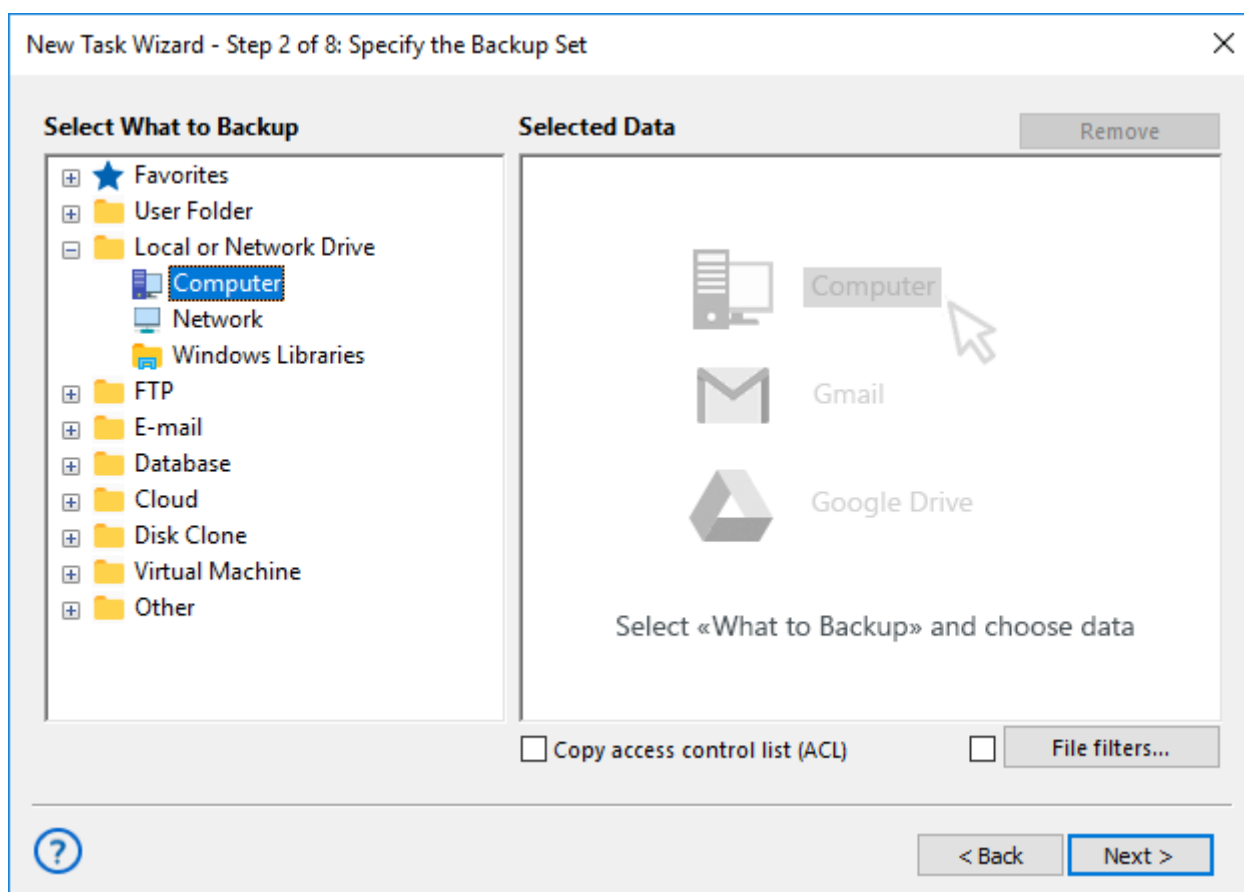
The plug-in can back up open files, i.e. files that are locked by other applications. This is made with the use of the **Volume Shadow Copy Service**. If you want to back up open files, then you need to have this service running on your system.

Using Computer Plug-in as Data Source

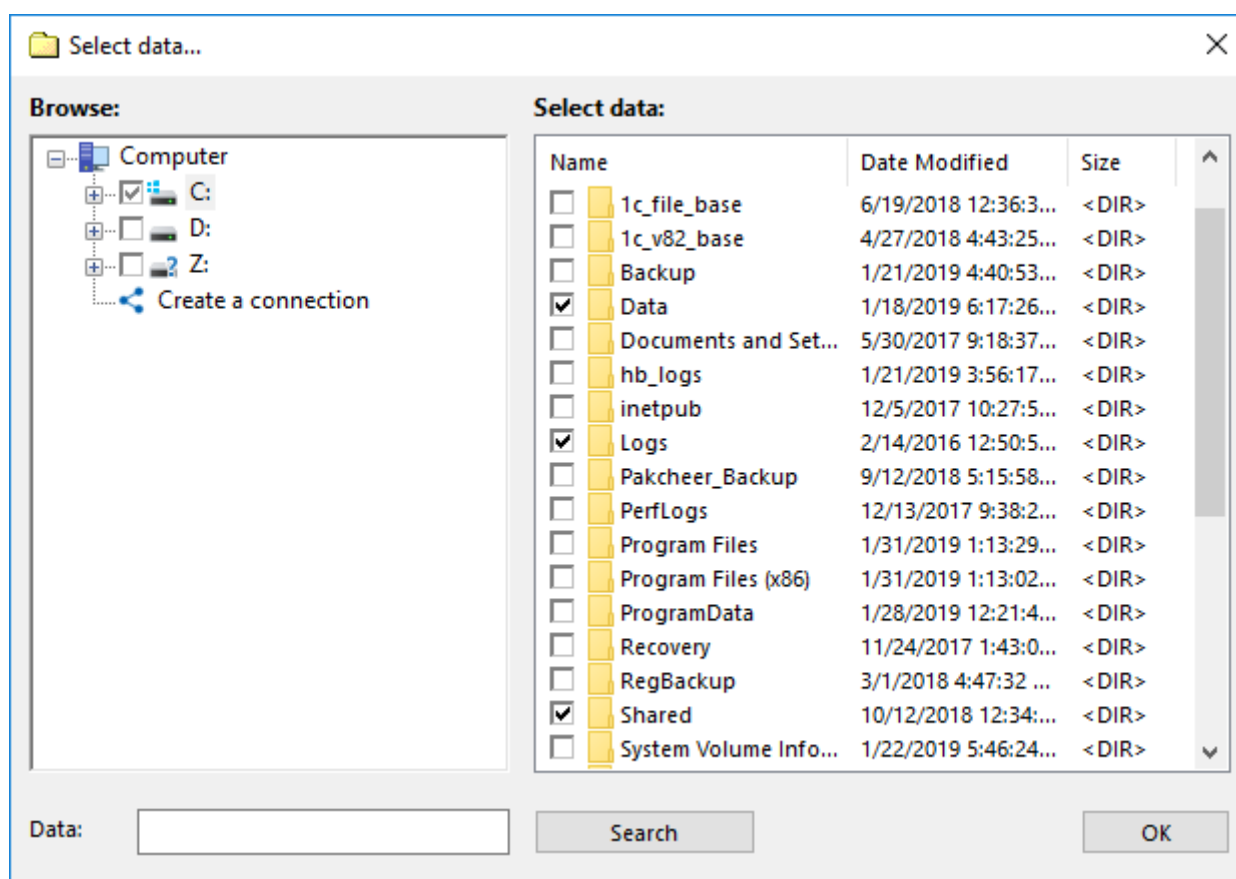
The **Computer** plug-in is the main way to back up local files and folders.

To add data to backup set, follow these steps:

1. In the Data Source pane, click **Computer** in the Local or network drive group.



2. The **Select data...** dialog will open.



2. Check the boxes next to files and folders that you want to back up.
3. When finished the selection, click **OK**. Selected data appears in the **Backup Set** pane of the New Task Wizard.

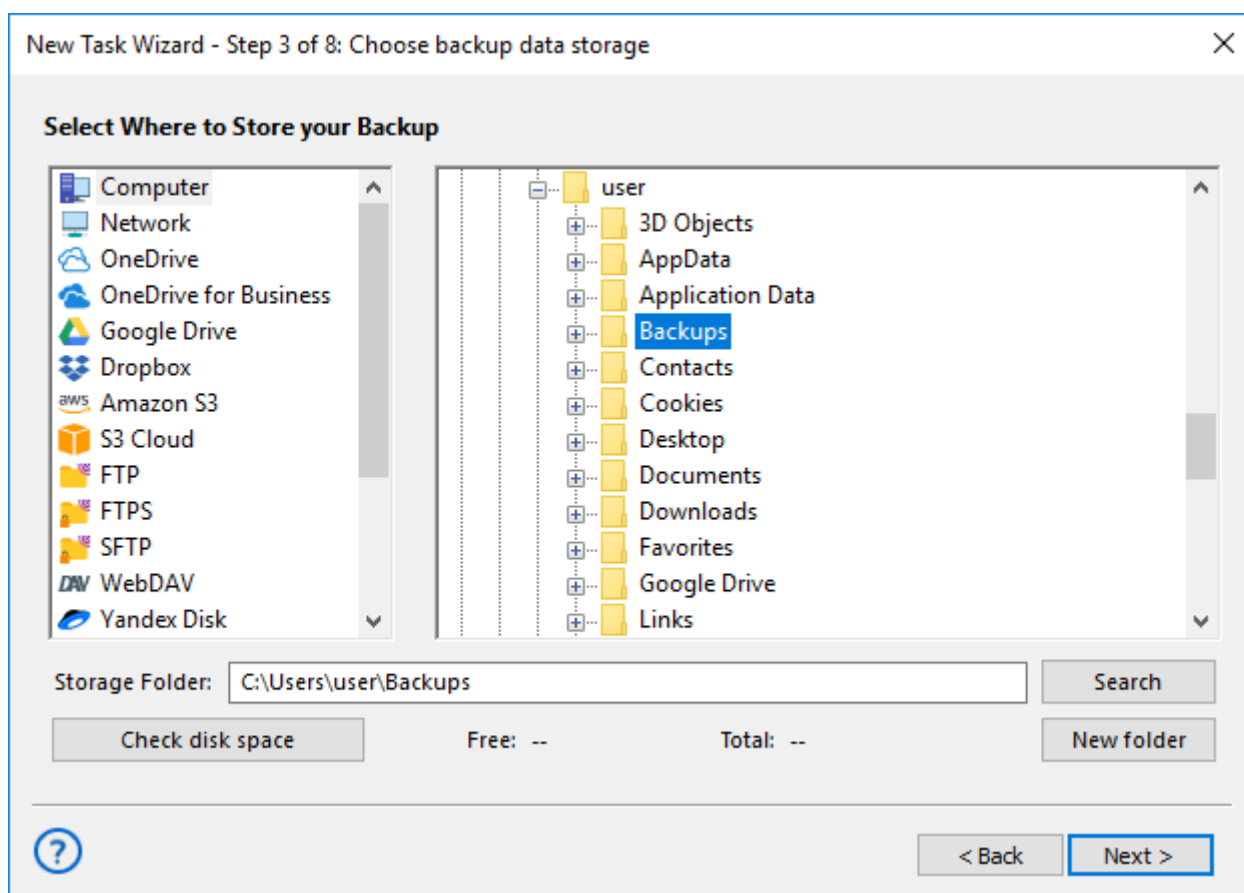
You can find more information about selecting data for backup in the [Specify Backup Set](#) chapter.

Using Computer Plug-in as Destination

Using the **Computer** plug-in as storage (i.e. copying backups to a local folder) is made in a very straightforward way. After selecting data for backup, you need to select destination.

To select a local destination, follow these steps:

1. In the Storage Destinations pane, select **Computer**. Your local file system is displayed in the **Folder Selection** pane.



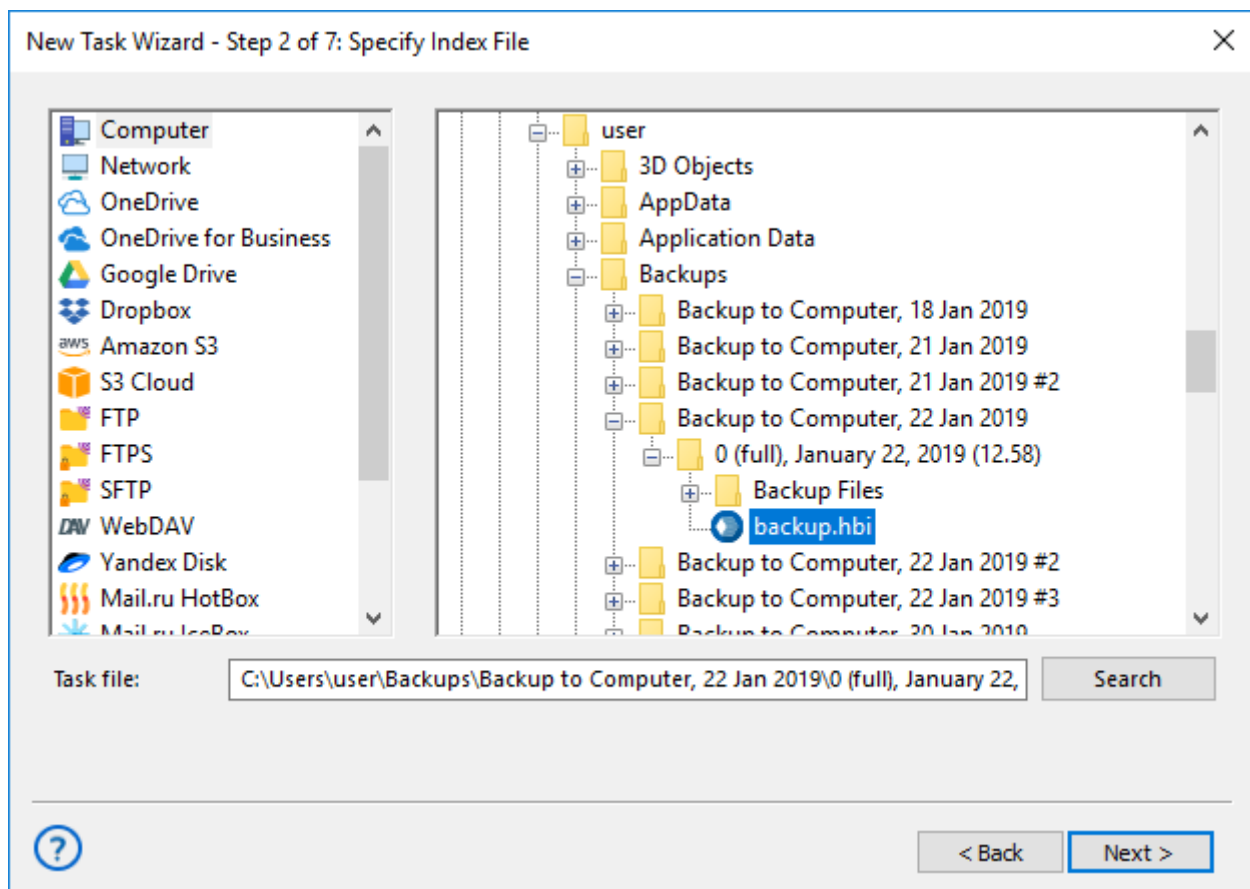
2. In the **Folder Selection** pane, browse for a target folder.
3. Click **Next**.

You can read general description of this step of the New Task Wizard in the [Select Destination](#) chapter.

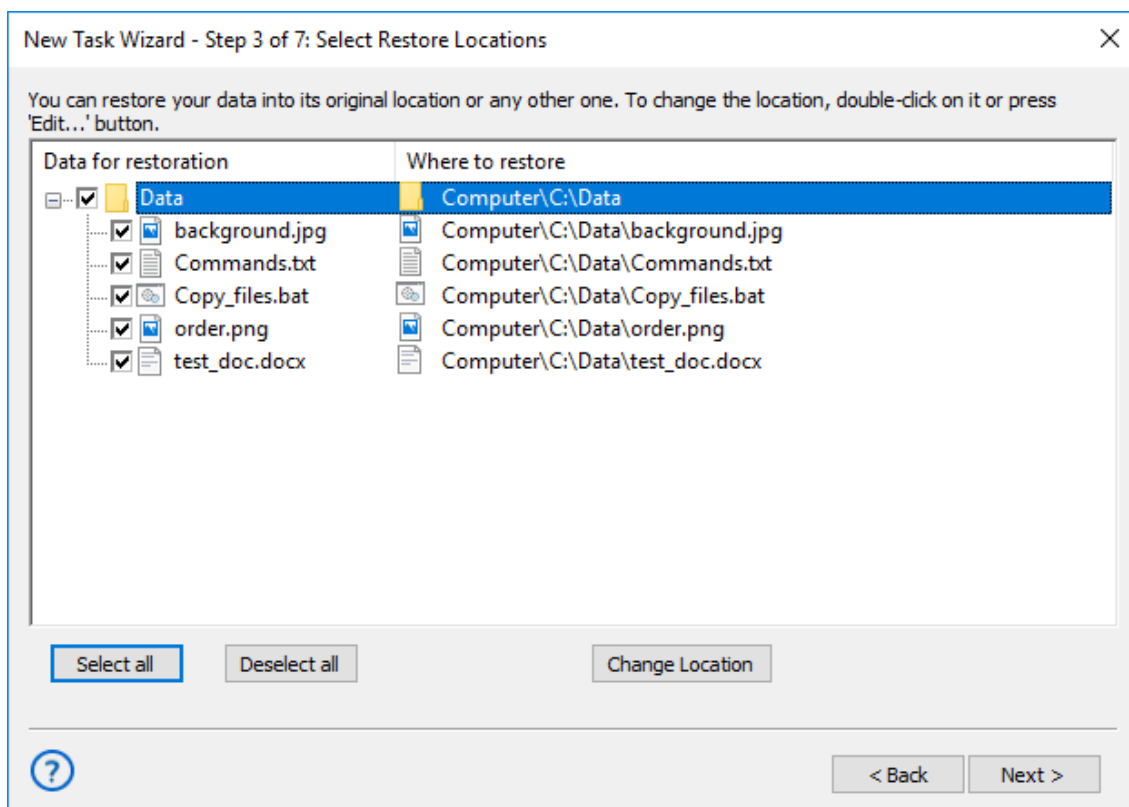
Using Computer Plug-in in Restore Tasks

General scheme of restore task creation is as follows:

1. Open New Task Wizard.
2. Select **Restore task**, and then click **Next**.
3. Browse for the index file (**backup.hbi**). If your backups are located in a local file system, then you need to select **Computer** in the **Storage Destinations** pane to the left, and browse for the index file in the **Index File Selection** pane to the right. Click **Next**.

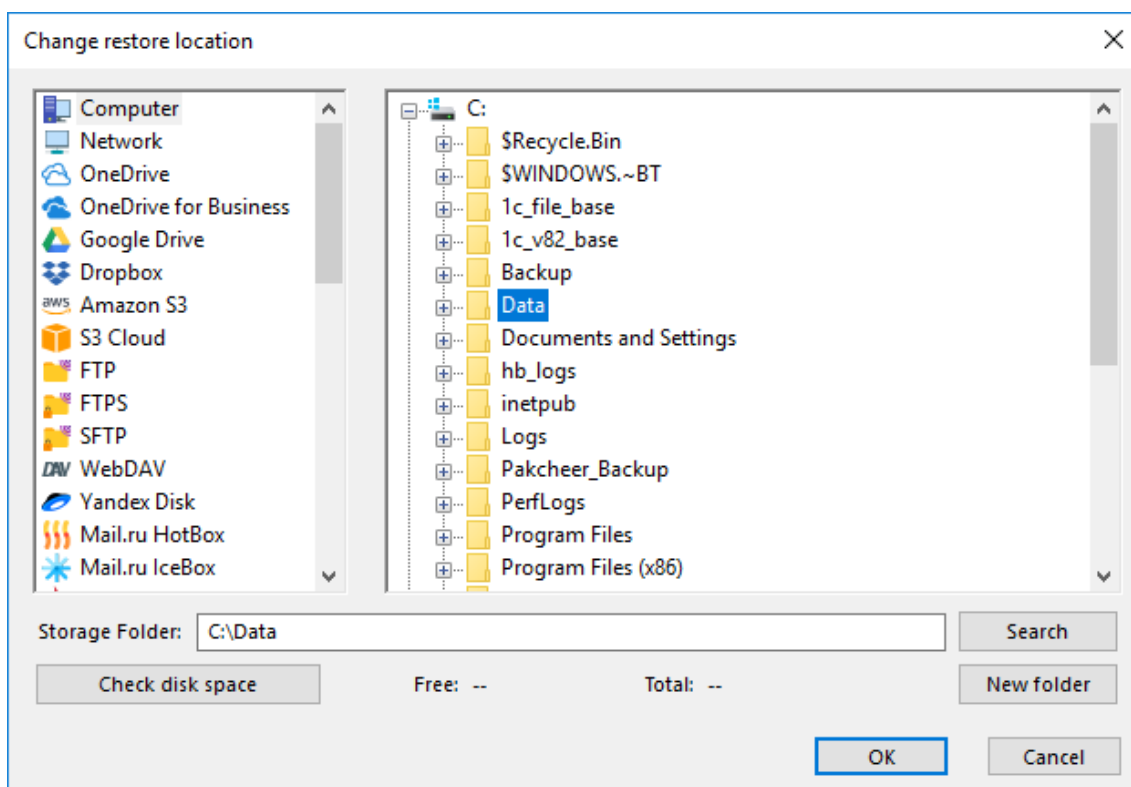


4. If you are restoring backups of local files and folders, default path of restoration will have the **Computer** plug-in.



If you want to restore your files to a different folder, follow these steps:

- 4.1 In the **Select Restore Locations** dialog, select a file or a folder, and then click **Change Location**. The **Change restore location** dialog opens.



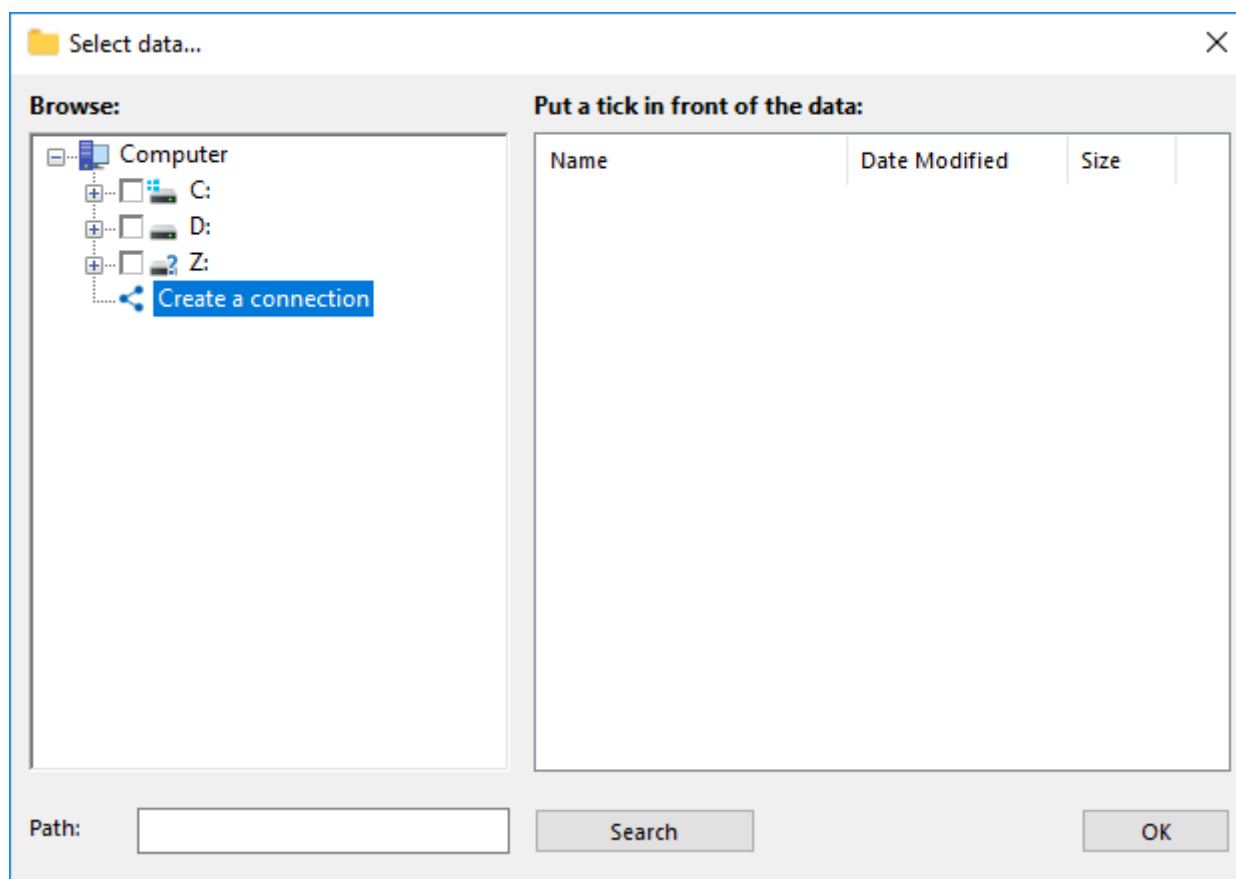
- 4.2 In the **Change restore location** dialog you can also select other file systems than the one provided by the **Computer** plug-in, e.g. FTP or WebDAV. Select a new location, and then click **OK**.

After verifying paths of restoration, you need to select type of restoration, enter decryption password (optional), and name the task. These steps are not specific to the **Computer** plug-in. To learn more, please see [Restore Task](#).

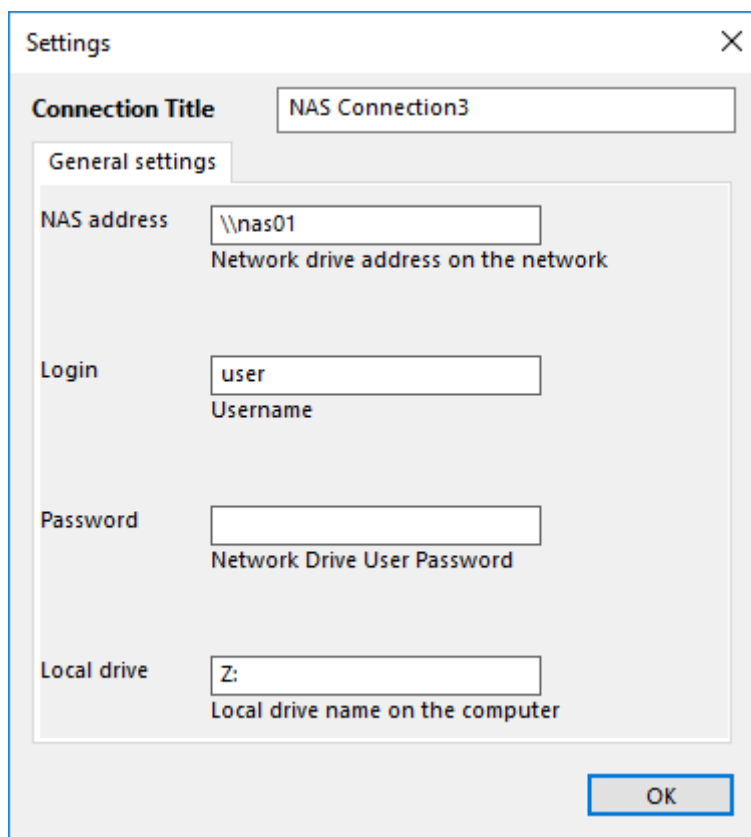
Mounting a Protected NAS Unit via the Computer Plug-in

To use a mapped drive on a NAS unit protected by password, you can mount its drive via the **Computer** plug-in, as described in the next instruction.

1. On Step 2 or 3, select **Create a connection** on the right panel of the **Computer** plug-in.



2. In the dialog window, please enter the connection parameters:
 - **Connection Title:** Any name that you want to assign to this connection.
 - **NAS address:** Network drive address on the network.
 - **Login:** A user login to a protected NAS.
 - **Password:** A corresponding user password to this NAS unit.
 - **Local drive:** A letter that Handy Backup must assign to a NAS drive as a mapped disk.



3. Click **OK**. Handy Backup will mount a NAS protected drive as a mapped disk.
4. Now you can see the drive in the **My Computer** section of a file system list.

You can use this mapped drive as usual storage device.

Note: The program will unmount a drive automatically after finishing a task wizard. Starting from this point, Handy Backup will mount a drive every time before executing this particular task, and unmount it after finishing a task. This approach adds to security of protected data.

Network plug-in

Network Backup is available in v7. By default, you can make a backup of the objects for two types of Windows networks - **Microsoft Windows Terminal Server** and **Microsoft Windows Network**.

Prerequisites

Microsoft Windows Terminal Server (presented in Microsoft Windows Server) provides computer's resources (memory, disk space) for various tasks. Technically, the terminal server is a very powerful computer (or cluster) connected on a network with terminal clients (for remote maintenance via user desktops).

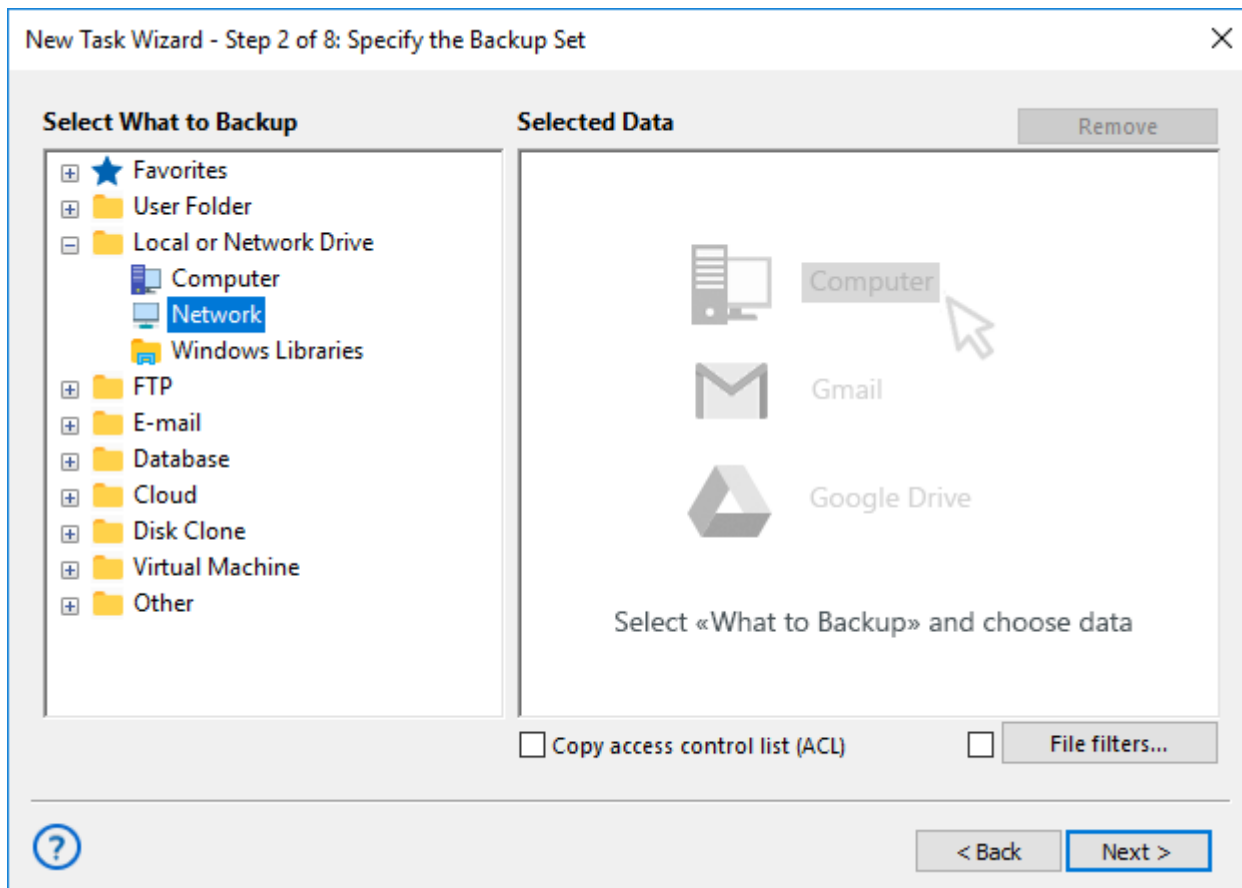
Backup of Microsoft Windows Network is a built-in Windows network-based connection to the necessary objects.

To make a backup:

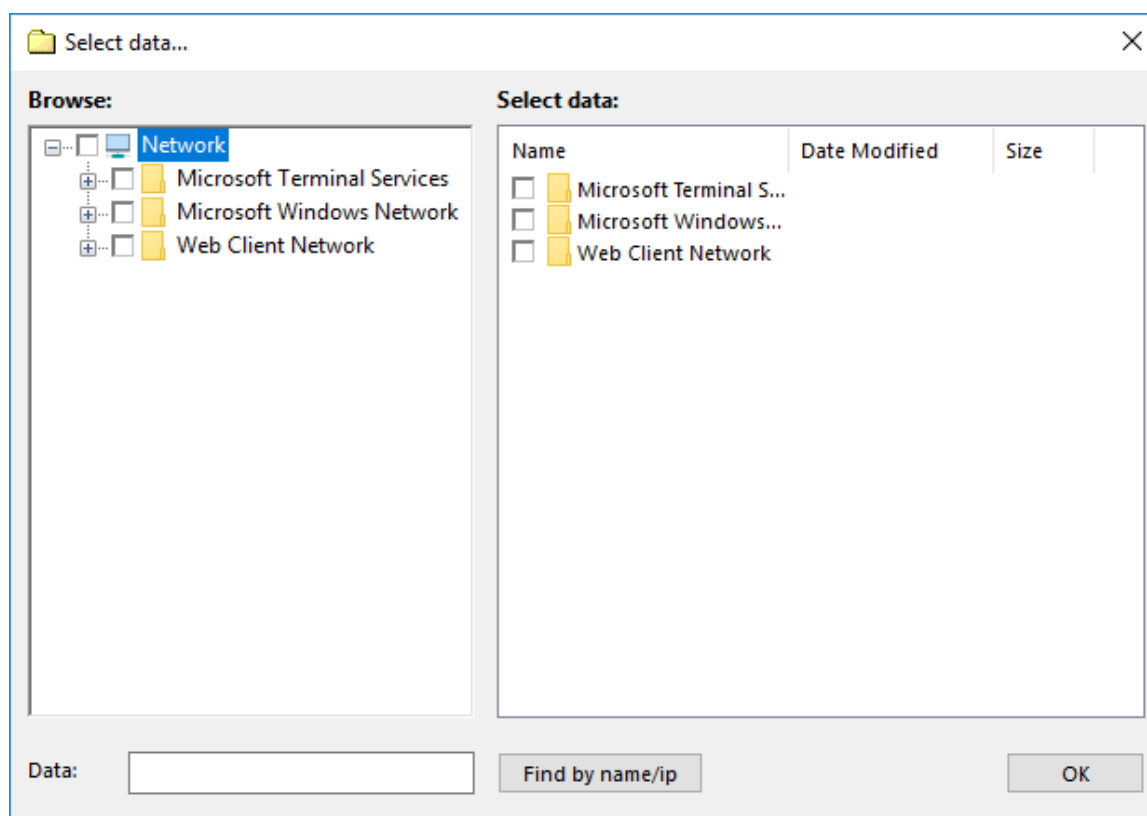
Handy Backup User Manual

1. Select the **Backup task** in New Task Wizard.
2. Select **Network** option in the **Local or network drive** group on Step 2 of the New Task Wizard.

Click on it to add **Network** to backup set.



3. Select **Network** for backing up: click **Microsoft Windows Terminal Server** or **Microsoft Windows Network** and find objects for backup, then click OK.



4. Select **backup destination** and set up other parameters.

Windows Libraries Plug-in

The **Windows Libraries** plug-in provides fast access to folders added to Windows libraries. It is user-specific and depends on access rights and privileges of the account under which the [Workstation](#) component runs. This plug-in can act as a source of data for **backup** tasks, and as a target for **restore** tasks.

Prerequisites

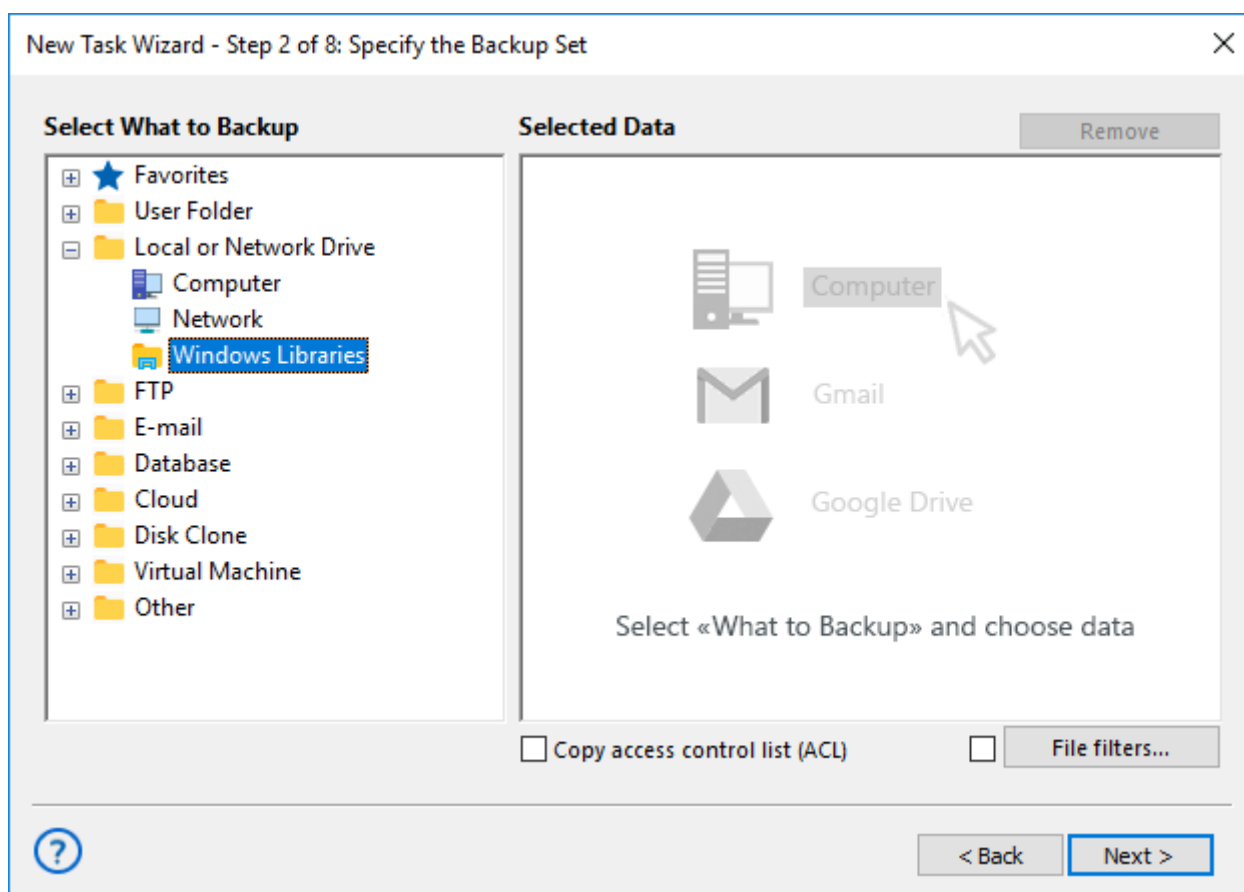
The plug-in is based on the [Computer plug-in](#), and inherits its functionality. It allows working with files locked by other applications, and copying them with the **Volume Shadow Copy Service**. To use this feature, you need to have the VSS service running on your system, and run **Workstation** from a user that can access it.

The plug-in provides one-to-one mapping to common HDD file system. Files and folders support all common attributes, such as file size, time of creation, and other.

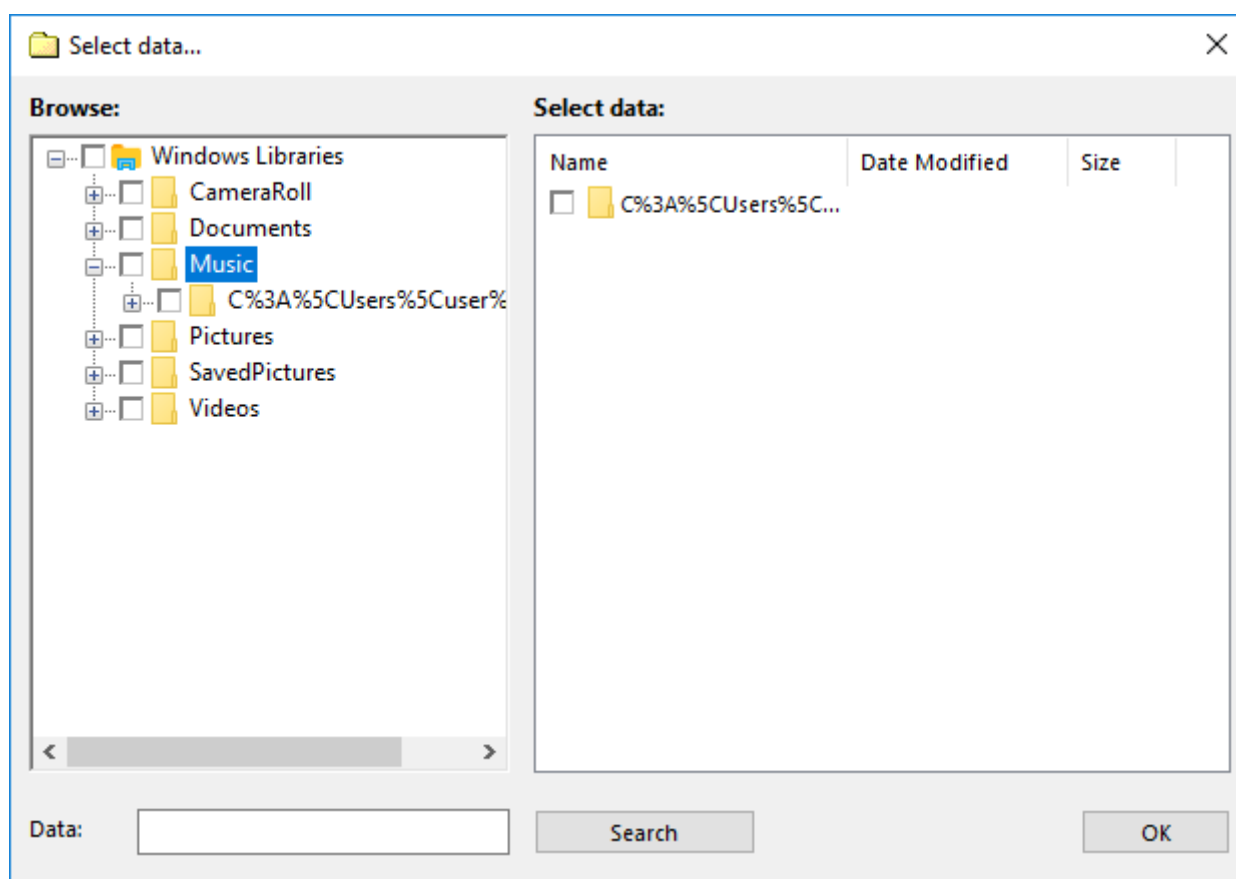
Backing up

When creating a new backup task, to add data from Windows Libraries to backup set, follow these steps:

1. In the Data Sources pane, click on the **Windows Libraries** in the Local or network drive section.



2. The **Select data...** dialog will open.



Handy Backup User Manual

Each library contains folders that are named respectively to the paths of folders added to the library. Inside these folders, you can find the actual contents of each library.

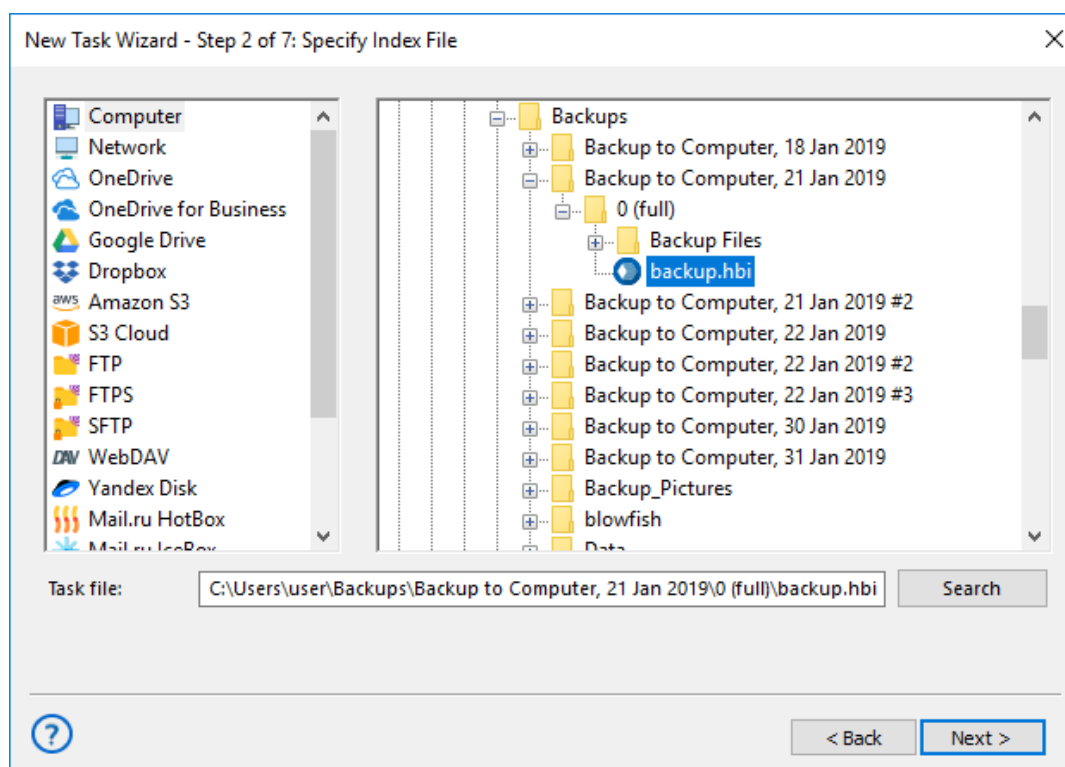
3. Check the boxes next to files and folders that you want to back up.
4. When finished the selection, click **OK**. Selected data appears in the **Backup Set** pane of the New Task Wizard.

For a detailed description of creating backup tasks, please refer to [Specify Backup Set](#).

Restoring

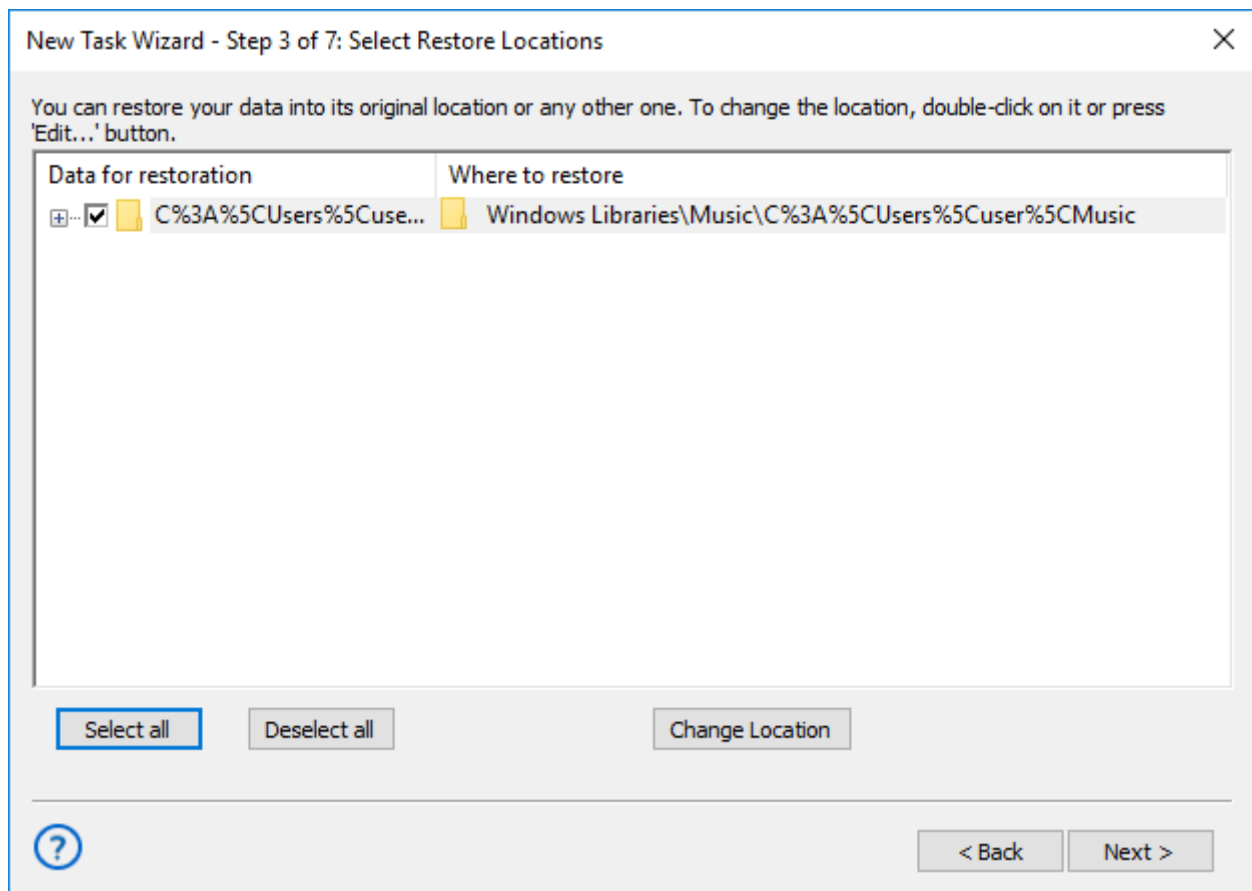
To restore a backup made with the **Windows Libraries** plug-in, follow these steps:

1. Open the New Task Wizard.
2. Select **Restore task**, and then click **Next**.
3. In the **Specify Index File** dialog, browse for a backup index file (**backup.hbi**), and then click **Next**.



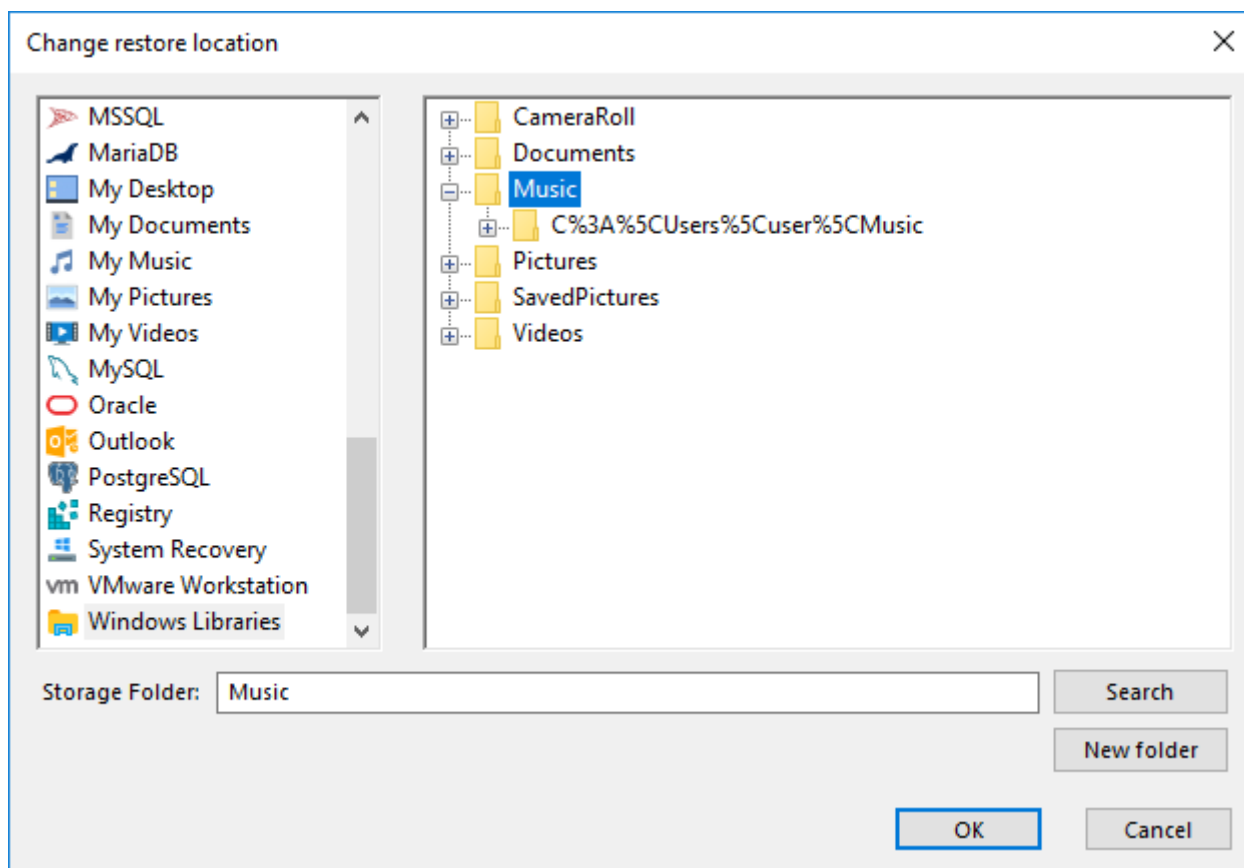
For example, to restore backups from local HDD, select **Computer** in the **Storage Destinations** pane to the left, and then browse for **backup.hbi** in the **Index File Selection** pane to the right.

4. In the **Select Restore Locations** dialog, check details of the restoration.



By default, you will see original restore paths starting with the **Windows Libraries** plug-in. To restore data to a different folder, follow these steps:

- 4.1 Select a file, or a folder that you want to restore to a different place, and then click **Change Location**. The **Change restore location** dialog opens.



4.2 In the **Change restore location** dialog, you can select a folder located in any plug-in file system, for example **Network** or **FTP**. Select a new path for restoration, and then click **OK**.

After verifying restoration details, you will need to select type of restoration, schedule it (optionally), and name the task. These steps are common for all restore tasks, and not specific to the Windows Libraries plug-in. You can learn about restoring data in the [Restore Task](#) chapter.

FTP, SFTP and FTPS Plug-ins

The FTP plug-in, and its secured SFTP and FTPS counterparts, transfers files to a remote server using the FTP (File Transfer Protocol) and a SSH. A user can utilize these configurable plug-ins for saving data from an FTP server, to an FTP server, or for restoring data from a FTP vault.

Plug-in File System

The file system provided by the plug-in is organized as follows:

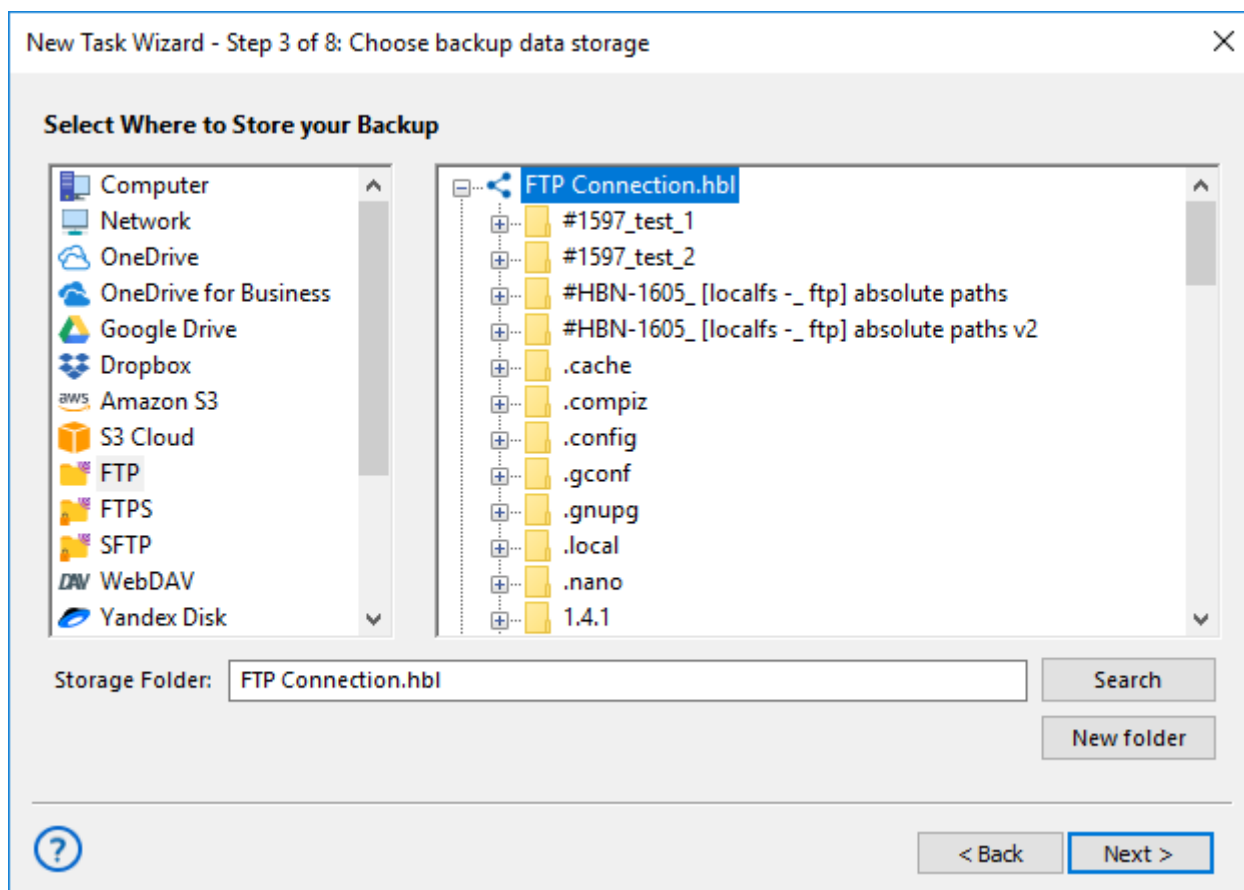
- **Top-level folders** are FTP/SFTP/FTPS configurations
- **Folders** correspond to common folders on the FTP/SFTP/FTPS server. They have no attributes.
- **Files** correspond to common files on the FTP, SFTP or FTPS server. Supported attributes: file size, modification time.

Handy Backup User Manual

To learn about virtual file systems and file and folder attributes, please see [Plug-in File Systems](#).

Using FTP/SFTP/FTPS Plug-in as Destination

In most cases, the FTP/SFTP/FTPS plug-in is used as a target destination for backups.



Destination selection is made on the third step of the New Task Wizard (see [Select Destination](#) for more details). To select an FTP, SFTP or FTPS as a target destination, follow these steps:

1. In the **Storage Destinations** pane to the left, select FTP, SFTP or FTPS. The list of configurations appears in the **Folder Selection** pane to the right.
2. If you don't have a configuration for your FTP/SFTP/FTPS server, click **Create a connection**. The **Settings** dialog will appear.
 - In the **Settings** dialog, fill in the fields, and then click **OK**. Learn more about [FTP configuration](#), [SFTP configuration](#) or [FTPS configuration](#).
3. In the **Folder Selection** pane, expand a top-level folder (configuration) to make the program connect to the respective FTP/SFTP/FTPS server, and then browse for a target folder.
4. Select a folder of the FTP, SFTP or FTPS server, and then click **Next**.

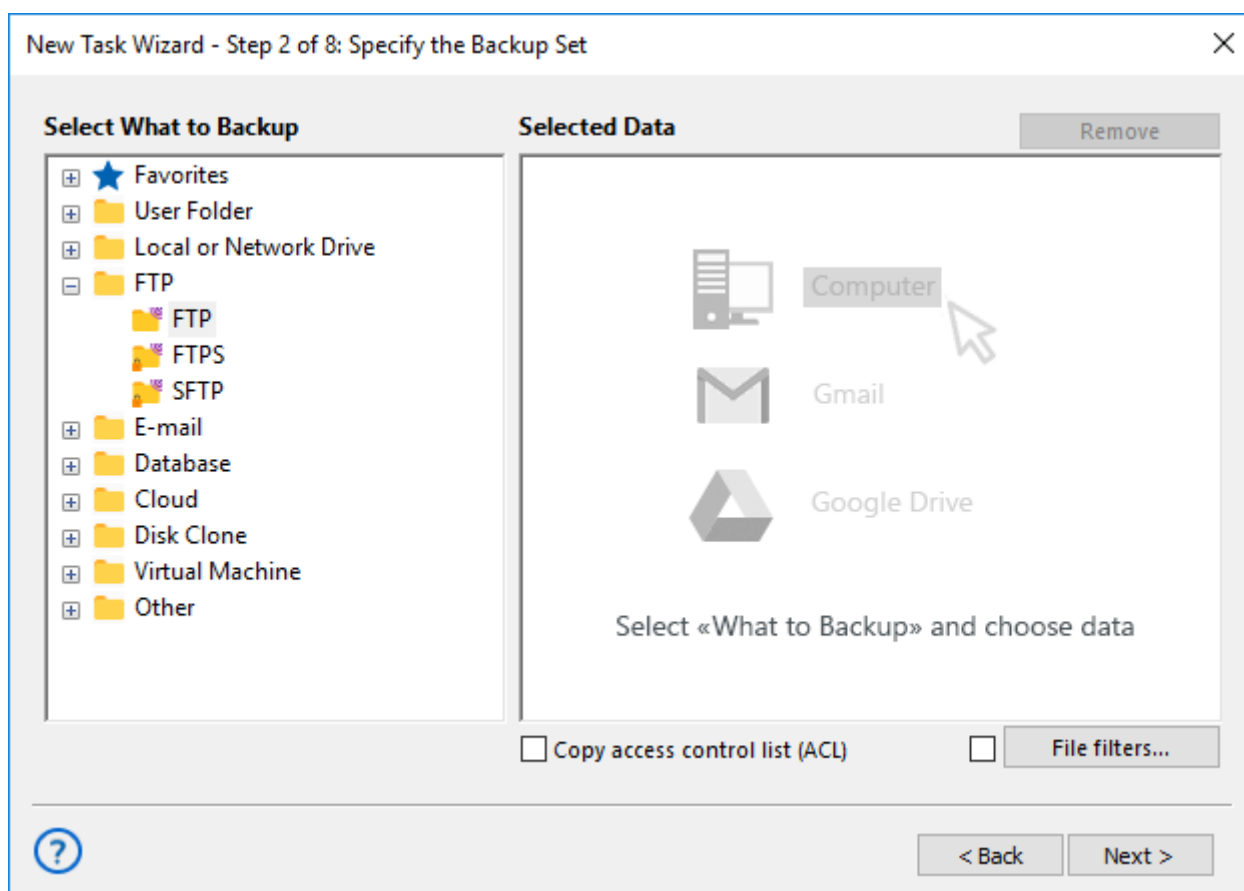
Handy Backup User Manual

All next steps are common for all backup tasks (not specific to the plug-in). To learn more, please see [Backup Task](#).

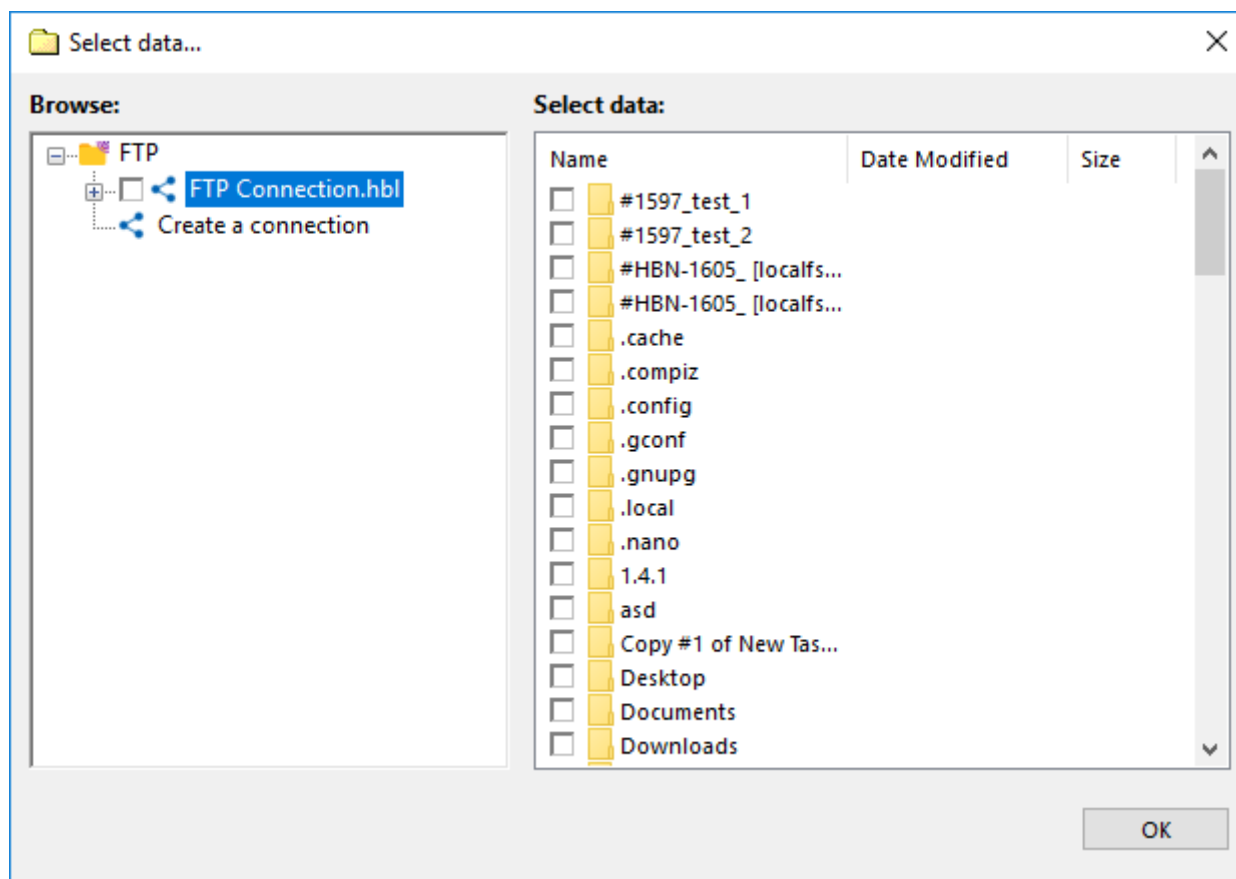
Using FTP/SFTP/FTPS Plug-ins as Data Sources

FTP, **SFTP** and **FTPS** can be used not only to store backups, but also as data sources. To back up FTP/SFTP/FTPS files and folders, please follow these steps:

1. Open the New Task Wizard.
2. Select **Backup Task**, and then click **Next**.



3. In the Data Sources pane to the left, click onto **FTP**, **SFTP** or **FTPS** in the FTP group. The **Select data...** dialog will open.
4. If you don't yet have a configuration for the FTP/SFTP/FTPS server you want to back up, click **Create a connection**. The **Settings** dialog will appear.
 - In the **Settings** dialog, fill in server and authorization parameters, and then click **OK**. Learn more about [FTP configuration](#), [SFTP configuration](#) or [FTPS configuration](#).
5. Check the boxes next to FTP/SFTP/FTPS files and folders that you want to back up.



6. When finished selection, click **OK**. Selected data appears in the **Backup Set**.

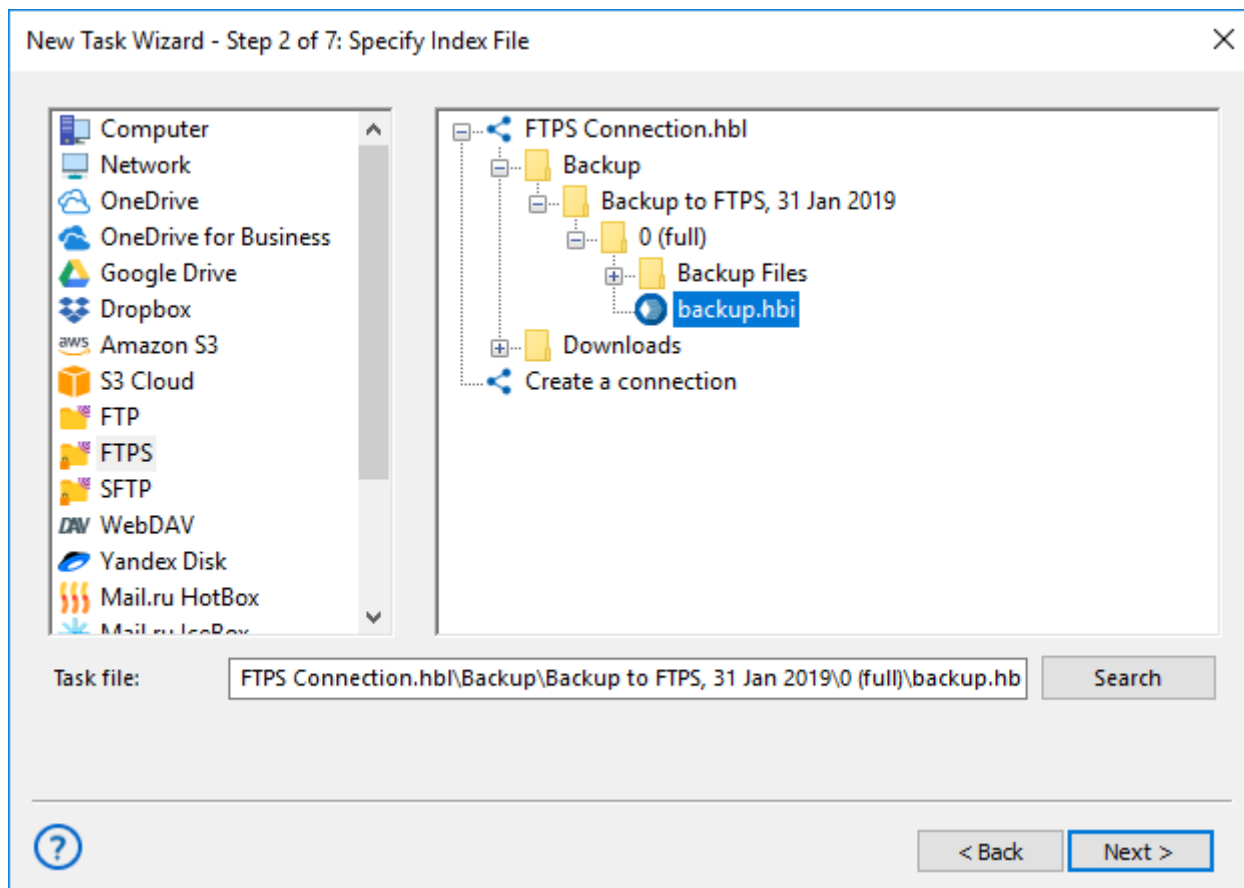
Next steps of New Task Wizard are common for all backup tasks, and are not specific to the plug-in. Please see [Backup Task](#) for more details.

Restoring Copies from FTP, SFTP or FTPS Server

To restore a backup stored on an FTP/SFTP/FTPS server, follow these steps:

1. Open the New Task Wizard.
2. Select **Restore task**, and then click **Next**.
3. In the **Storage Destinations** pane to the left, select **FTP, SFTP or FTPS**. The list of your FTP configurations will appear in the **Index File Selection** pane to the right.
4. If you don't have a configuration for the particular FTP/SFTP/FTPS server where your backups are located, click **New configuration**. The **Settings** dialog appears.
 - In the **Settings** dialog, specify server address, user and password, and then click **OK**. Learn more about [FTP configuration](#), [SFTP configuration](#) or [FTPS configuration](#).

5. Browse for the index file (**backup.hbi**) located in the destination folder on your FTP, SFTP server. Select it, and then click **Next**.



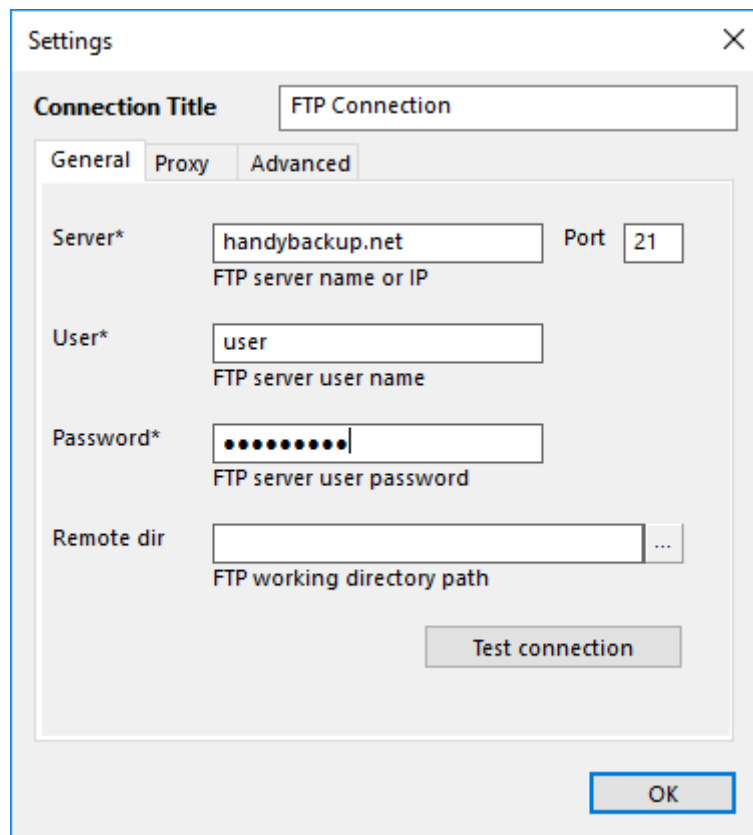
In the next steps of New Task Wizard, you need to verify restoration details, specify different options, and name the task. These steps are common for all restore tasks, and are not specific to the plug-in. For more details, see [Restore Task](#).

• FTP Plug-in Configurations

To perform backup, restoration, or synchronization with the **FTP** plug-in, you need to create a configuration defining how to connect to an FTP server. The configuration dialog consists of three tabs: **General**, **Proxy** and **Advanced**.

FTP Configuration: General

Under the **General** tab, you need to specify server address, authorization parameters and, optionally, remote FTP folder.



The screenshot shows the 'Settings' dialog box for an FTP connection. The title bar says 'Settings' with a close button. Below the title bar, there's a 'Connection Title' field with the text 'FTP Connection'. Underneath, there are three tabs: 'General' (selected), 'Proxy', and 'Advanced'. The 'General' tab contains several fields: 'Server*' with the value 'handybackup.net' and a description 'FTP server name or IP'; 'Port' with the value '21'; 'User*' with the value 'user' and a description 'FTP server user name'; 'Password*' with a masked password '.....' and a description 'FTP server user password'; and 'Remote dir' with an empty field and a description 'FTP working directory path'. There is a 'Test connection' button below these fields. At the bottom right, there is an 'OK' button.

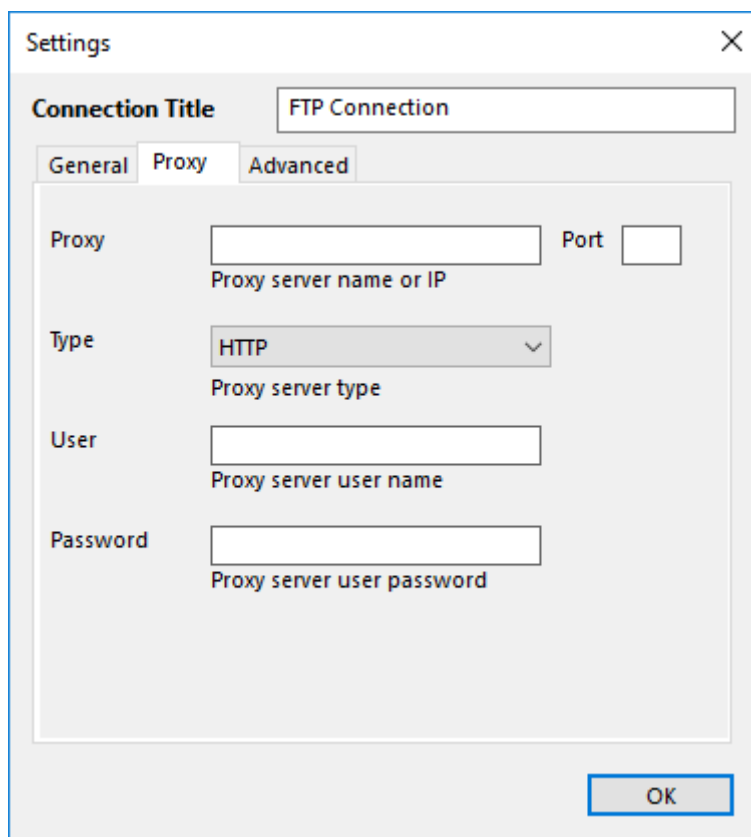
There are five fields, most of which don't require additional explanation:

- **Server**
- **Port**
- **User**
- **Password**
- **Remote dir.** If you leave this field empty, the FTP configuration (top-level folder in plug-in file system) will act as a root folder provided by the FTP server for the given user. To select a different root folder, click the **Select Folder** button and browse for it.

The only required fields are **Server**, **User** and **Password**. To test that everything is filled correctly, click the **Test connection** button.

FTP Configuration: Proxy

Under the **Proxy** tab, you can specify settings of a proxy server. Proxy settings in configuration override general proxy settings set in the program (see [Proxy Settings](#) for more details).



The screenshot shows the 'Settings' dialog box with the 'Proxy' tab selected. The 'Connection Title' is 'FTP Connection'. The 'Proxy' section has five fields: 'Proxy' (text input), 'Port' (text input), 'Type' (dropdown menu set to 'HTTP'), 'User' (text input), and 'Password' (text input). Each field has a descriptive label below it: 'Proxy server name or IP', 'Proxy server type', 'Proxy server user name', and 'Proxy server user password'. An 'OK' button is at the bottom right.

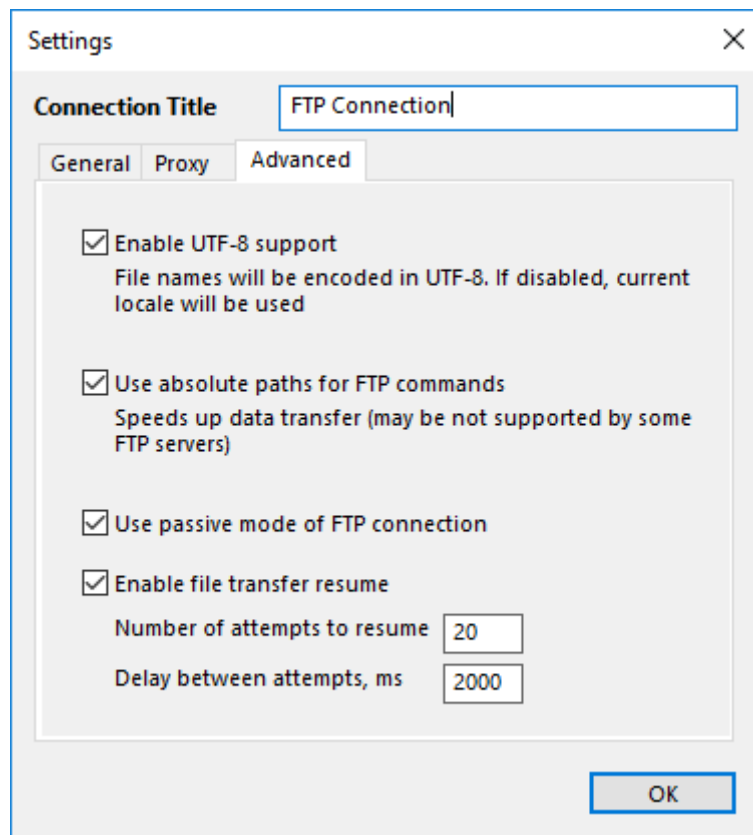
There are five fields:

- **Proxy**
- **Port**
- **Type** - HTTP, SOCKS4 or SOCKS5
- **User**
- **Password**

If your proxy server doesn't require authorization, leave **User** and **Password** empty.

FTP Configuration: Advanced

Under the **Advanced** tab, you can change how the plug-in must interact with the FTP server specified under the **General** tab. The default settings should work well for most servers, but there may be situations when you want to change them.



There are the four main options:

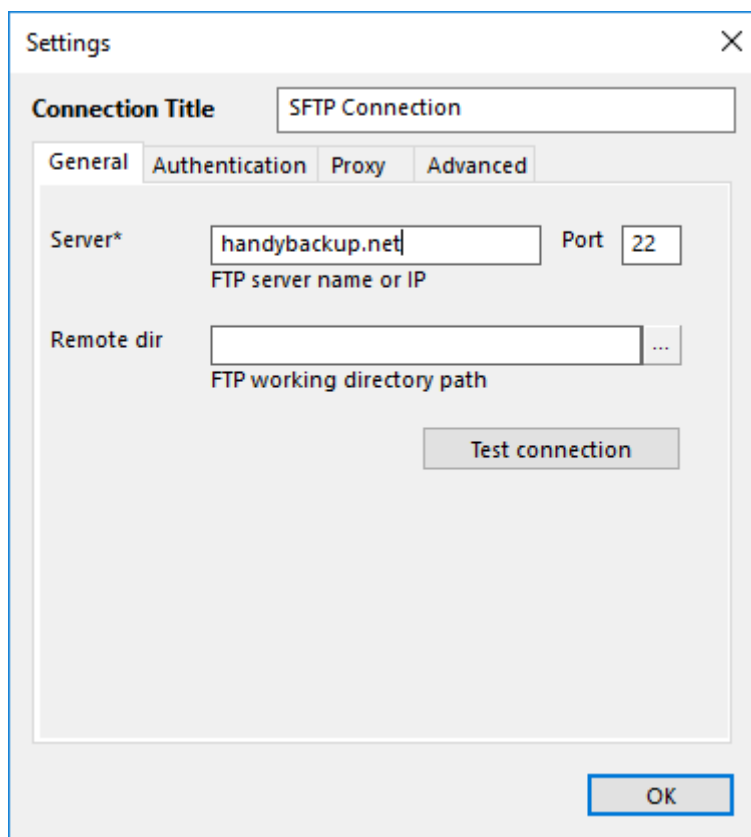
- **Enable UTF-8 support**
- **Use absolute paths for FTP commands.** If the default settings don't seem to work for your FTP server, uncheck this box and try again.
- **Use passive mode of FTP connection.** Again, if you failed to connect to your chosen your FTP server, uncheck this box and try to reconnect.
- **Enable file transfer resume.** The two fields after this option allow to select a pause between reconnection attempts and a quantity of these attempts, respectively.

- **SFTP Plug-in Configurations**

To use the plug-in in your backup, restore or synchronize tasks, you need to create SFTP configurations. Basically, each configuration contains parameters determining how to work with a remote server. Configuration dialog consists of four tabs: **General**, **Authentication**, **Proxy** and **Advanced**.

Configuration: General

Under the **General** tab, you need to enter SFTP server address, and select a folder that the configuration will point to.



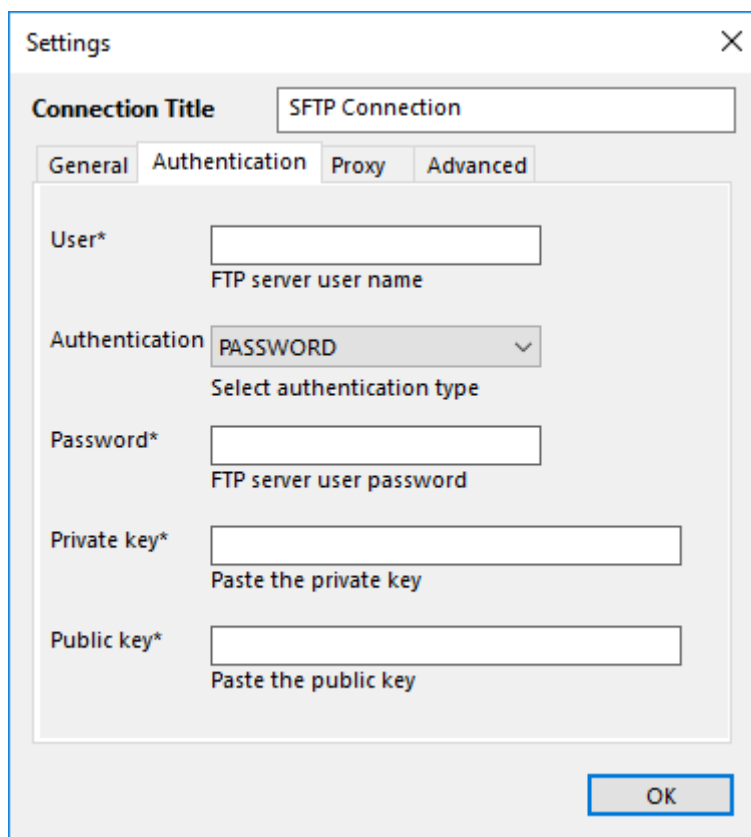
There are three fields:

- **Server**
- **Port**
- **Remote dir.** By default, the configuration will provide access to a root folder provided by the SFTP server. If you want, you can change it to an inner folder: in this field, you can enter a path to an SFTP directory, or click the **Select Folder** button to browse for it.

Click **Test connection** to test the connection. To enter login and password, go to the **Authentication** tab.

SFTP Configuration: Authentication

Under the **Authentication** tab, you need to specify how to connect to your SFTP server.



The screenshot shows the 'Settings' dialog box with the 'Authentication' tab selected. The 'Connection Title' is 'SFTP Connection'. The 'Authentication' dropdown is set to 'PASSWORD'. The 'User*' field is empty, with the label 'FTP server user name' below it. The 'Password*' field is empty, with the label 'FTP server user password' below it. The 'Private key*' field is empty, with the label 'Paste the private key' below it. The 'Public key*' field is empty, with the label 'Paste the public key' below it. An 'OK' button is at the bottom right.

Field	Label
User*	FTP server user name
Authentication	PASSWORD
Authentication	Select authentication type
Password*	FTP server user password
Private key*	Paste the private key
Public key*	Paste the public key

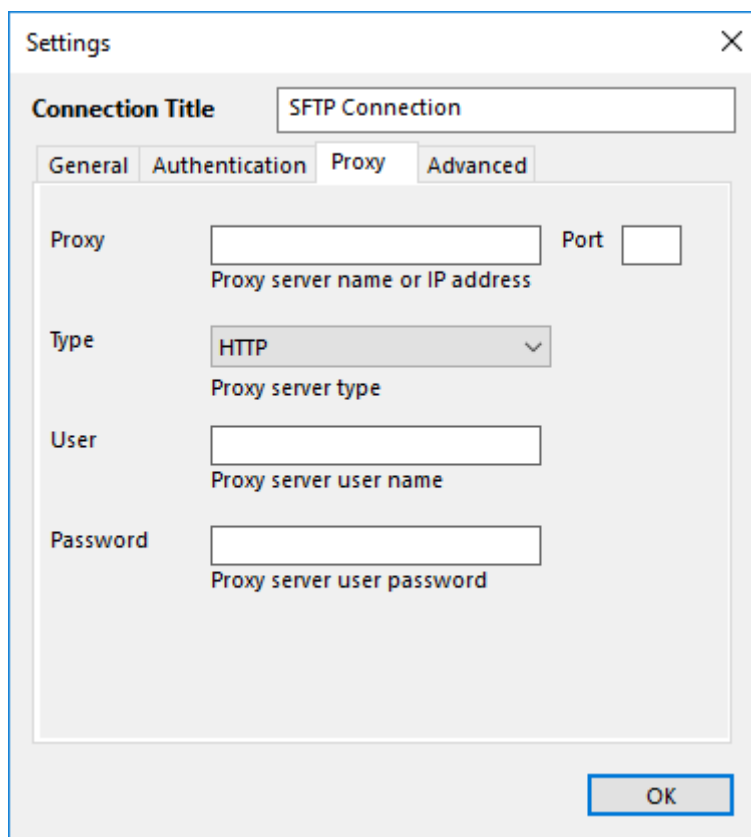
The fields are as follows:

- **User**
- **Authentication.** In this menu, you can select type of authentication: **PASSWORD** or **PUBLIC_KEY**.
- **Password**
- **Private key**
- **Public key**

After specifying authorization parameters, you can check connection under the **General** tab.

SFTP Configuration: Proxy

Under the **Proxy** tab, you can specify proxy settings. These settings override general proxy settings of the program (see [Proxy Settings](#) for more details).



The screenshot shows the 'Settings' dialog box with the 'Proxy' tab selected. The 'Connection Title' is 'SFTP Connection'. The 'Proxy' section has four fields: 'Proxy' (text box), 'Port' (text box), 'Type' (dropdown menu), 'User' (text box), and 'Password' (text box). The 'Type' dropdown is set to 'HTTP'. The 'OK' button is at the bottom right.

Field	Label	Value
Connection Title	Connection Title	SFTP Connection
Proxy	Proxy server name or IP address	
Port	Port	
Type	Proxy server type	HTTP
User	Proxy server user name	
Password	Proxy server user password	

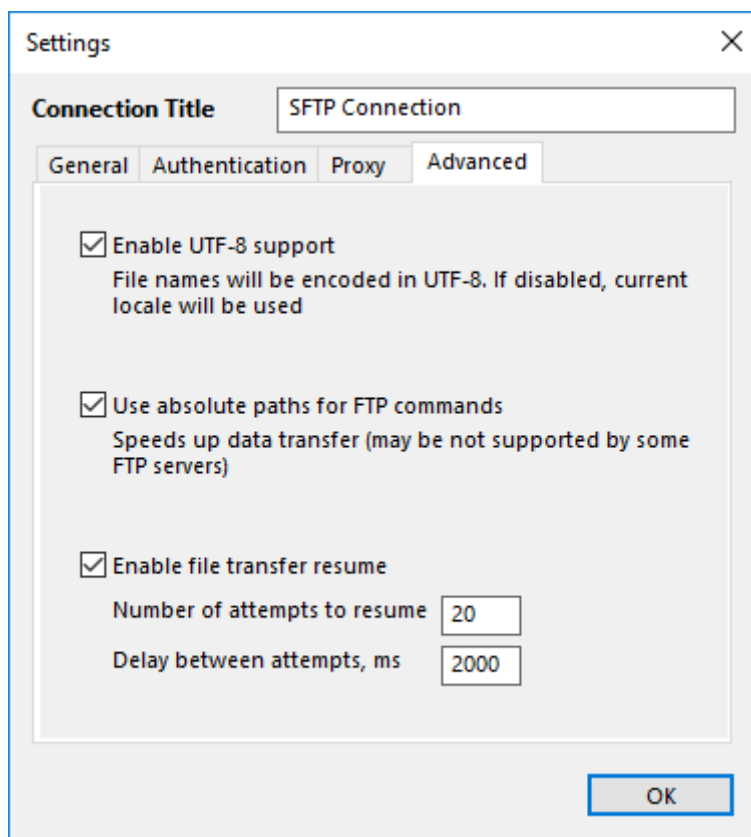
There are five options:

- **Proxy**
- **Port**
- **Type** – HTTP, SOCKS4 or SOCKS5
- **User**
- **Password**

If you are behind a proxy server that doesn't require authorization, leave **User** and **Password** empty.

SFTP Configuration: Advanced

Under the **Advanced** tab you can change some advanced specifics of the plug-in's work. For most SFTP servers, default settings should work well, but there are situations when you may want to change them.



There are three options:

- **Enable UTF-8 support**
- **Use absolute paths for FTP commands.** If changing SFTP folders doesn't seem to work correctly, uncheck this box.
- **Enable file transfer resume**

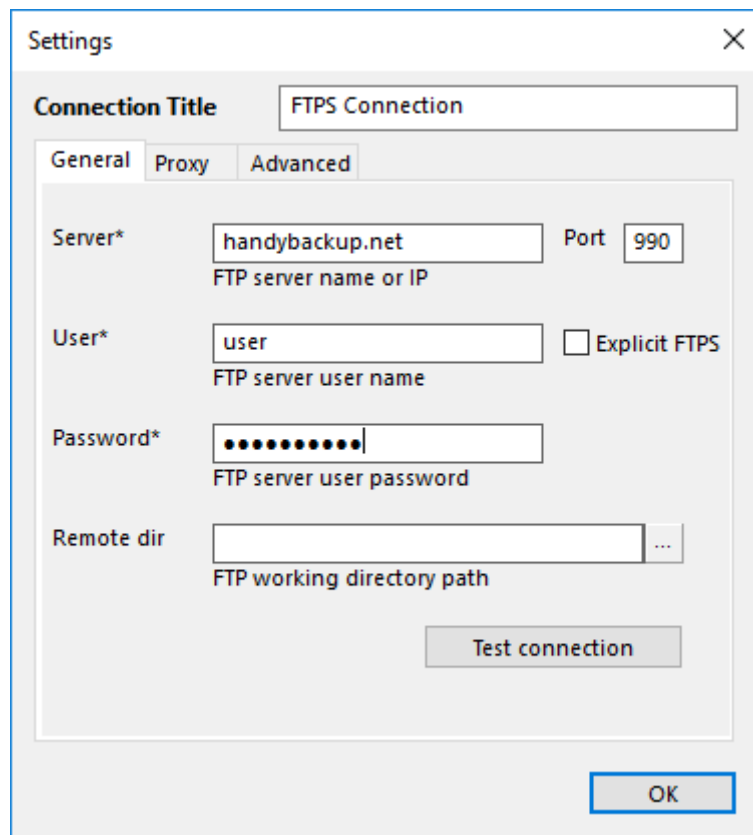
You can read about general concept of configurations in [Plug-in Configurations](#).

- **FTPS Plug-in Configurations**


To create backup, restore, or synchronize tasks with the use of the **FTPS plug-in**, you need to create the respective configuration. Configuration defines how to connect and work with your FTPS server. The configuration dialog contains three tabs: **General**, **Proxy** and **Advanced**.

FTPS Configuration: General

Under the **General** tab, you need to specify FTPS server address, authorization parameters, and remote FTPS folder (optionally).



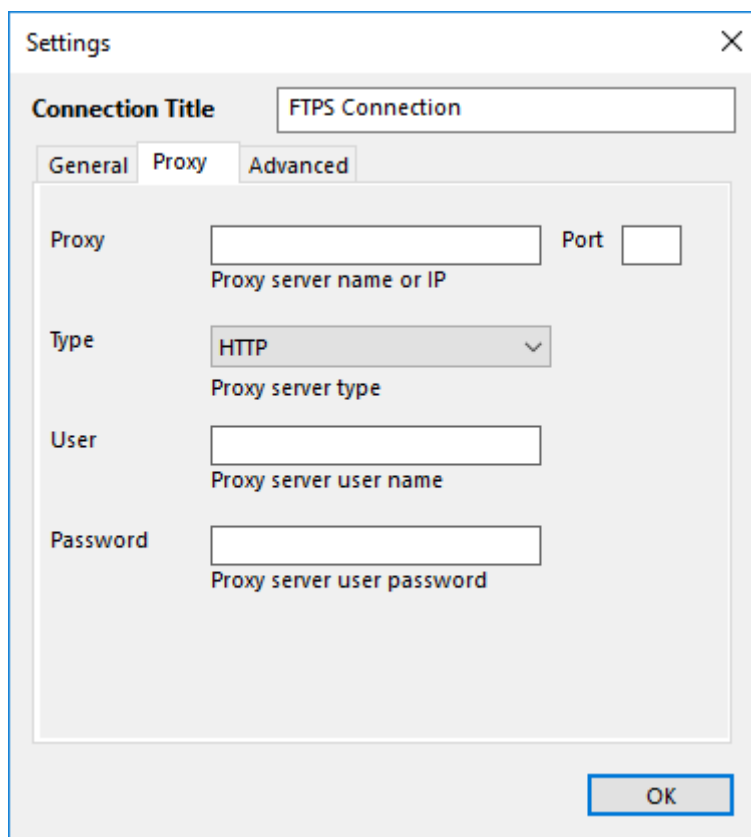
The dialog consists of five fields:

- **Server**
- **Port**
- **User**
- **Password**
- **Remote dir.** In this field, you can specify FTPS folder that configuration will point to. This is the folder that you will see when expanding top-level folder in the **FTPS** plug-in file system. You can enter a path manually, or click the **Select Folder**  button and browse for it. If you leave this field empty, then the configuration will point to a root folder provided by the server for the given user.

To test that server parameters are correct, click the **Test connection** button.

FTPS Configuration: Proxy

If you are behind a proxy, you can specify its parameters under the **Proxy** tab. If you leave these field empty, the program will use general settings set in the program (refer to [Proxy Settings](#) for details). Settings in plug-in configuration override general settings.



The screenshot shows the 'Settings' dialog box with the 'Proxy' tab selected. The 'Connection Title' is 'FTPS Connection'. The 'Proxy' section contains five fields: 'Proxy' (text input), 'Port' (text input), 'Type' (dropdown menu set to 'HTTP'), 'User' (text input), and 'Password' (text input). Each field has a descriptive label below it: 'Proxy server name or IP', 'Proxy server type', 'Proxy server user name', and 'Proxy server user password'. An 'OK' button is at the bottom right.

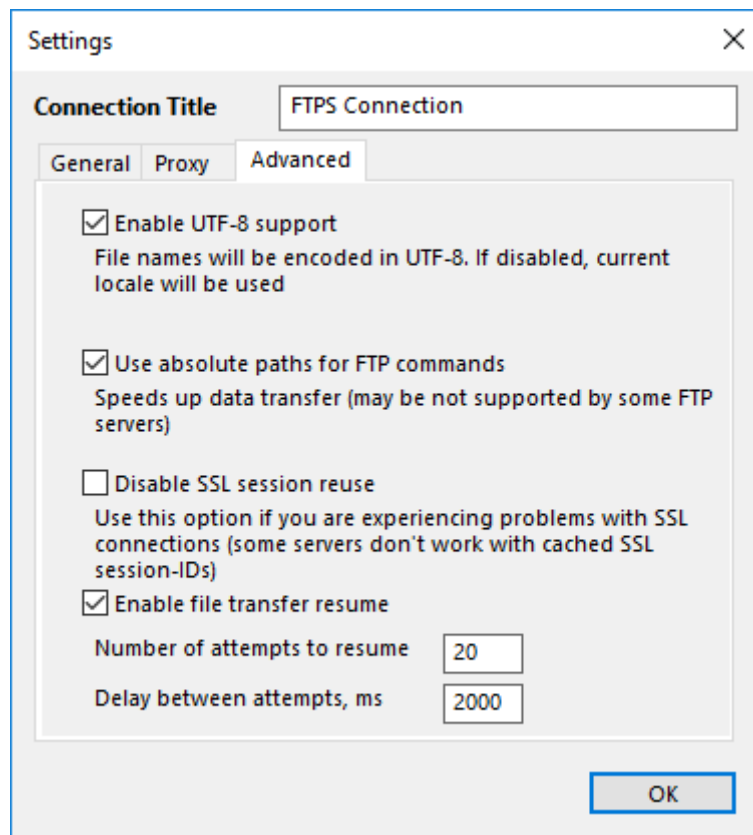
There are five fields:

- **Proxy**
- **Port**
- **Type** – HTTP, SOCKS4 or SOCKS5
- **User**
- **Password**

If your proxy server doesn't require authorization, leave the **User** and **Password** fields empty.

FTPS Configuration: Advanced

Under the **Advanced** tab, you can tune how the plug-in interacts with a remote server. Default settings should work well with all popular FTPS servers, but if something doesn't work for you, you can change them.



There are four options:

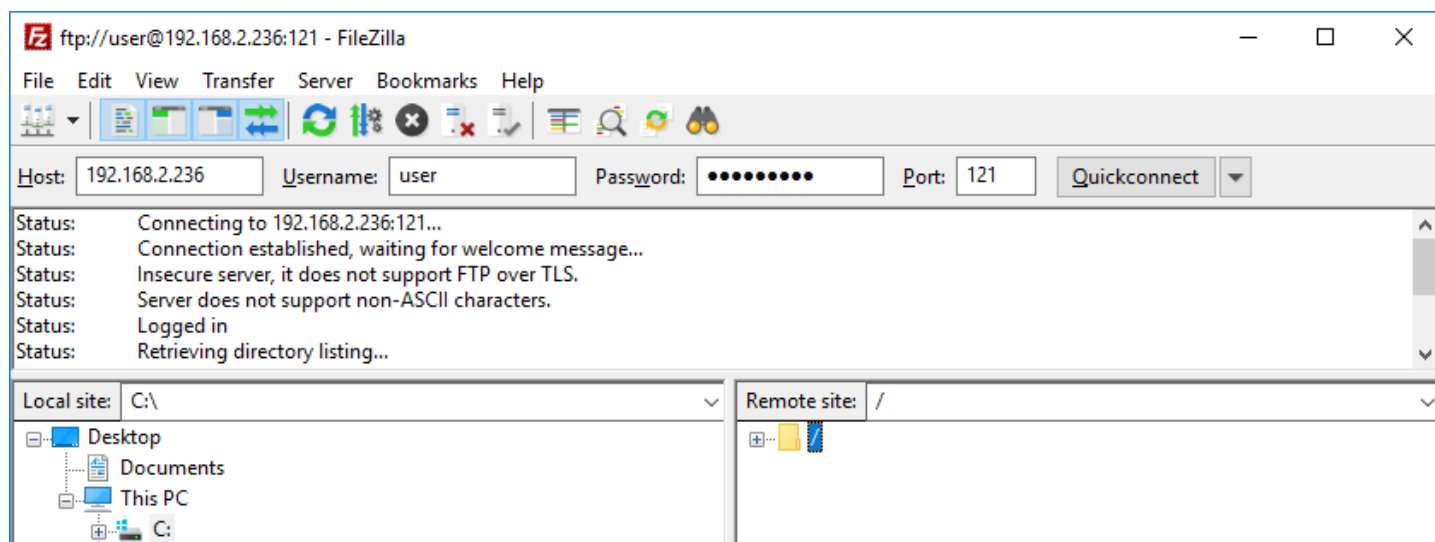
- **Enable UTF-8 support**
- **Use absolute paths for FTP commands.** If the default settings don't seem to work with your FTPS server, try unchecking this box.
- **Disable SSL session reuse**
- **Enable file transfer resume**

You can read general description of configurations in [Plug-in Configurations](#).

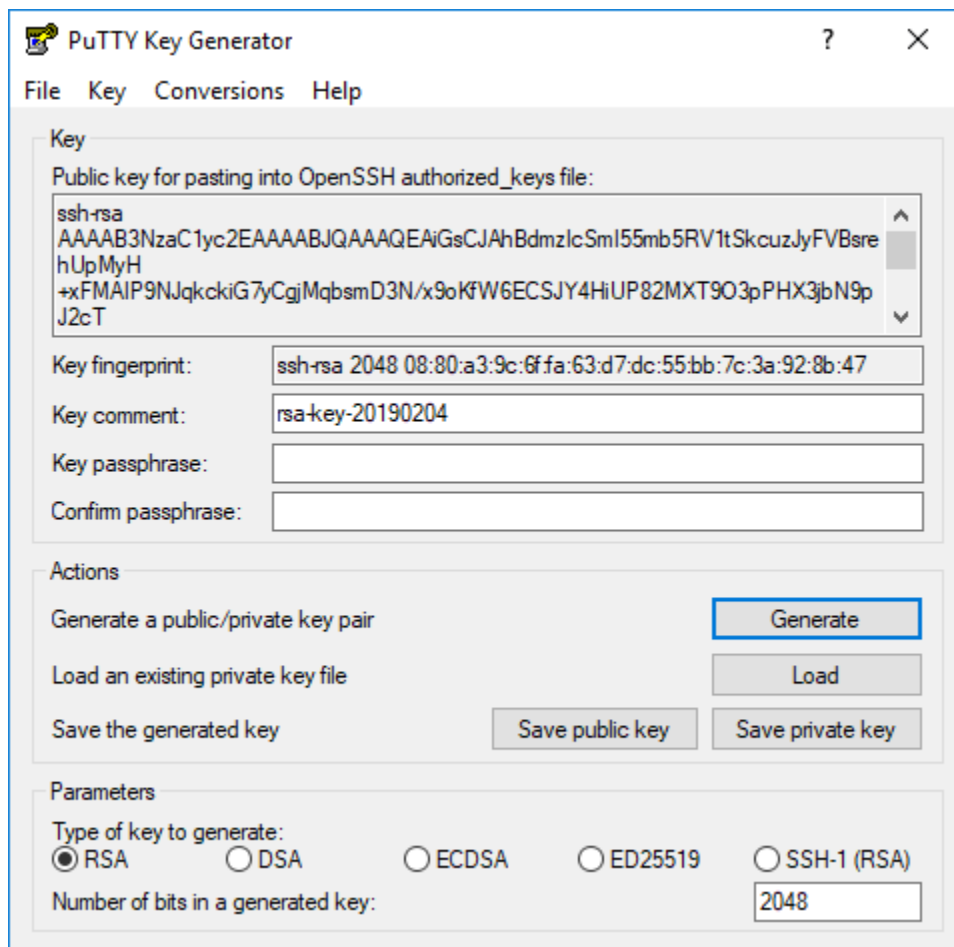
- **Using Security Keys for SFTP**

To back up data using SFTP, please follow the next instruction:

- Check your SFTP connection using any external SFTP client. E.g. in [FileZilla](#), enter the server IP address, your login and password, port number; then press "Quickconnect". If connection is successful, continue; else remove connection problems and try the test again.



- Next you must authorize in Handy Backup using a pair of private and public keys. For example, you can use the following sequence with the PuTTYgen utility:
 - 1 Open **PuTTYgen** and press “Generate”. Move mouse cursor to and fro in the dedicated area; then save your new keys using the “Save private key” and “Save private key” options.
 - 2 Then select “Conversions”. Choose the “Import key” option (File -> Load private key). Copy the generated public key to the “Public key” field in Handy Backup SFTP configuration dialog.



- 3 Now choose “Export open SSH key”. Save the key to the file.
- 4 Open **Handy Backup** and select SFTP (as the data source or backup vault). Click “New configuration” to continue.
- 5 These are four tabs on the configuration window, called “General”, “Authentication”, “Proxy” and “Advanced”. Let us start with “General” tab. (Other tabs are described in [previous chapter](#).)

Settings

Connection Title: SFTP Connection

General | Authentication | Proxy | Advanced

Server*: handybackup.net Port: 22
FTP server name or IP

Remote dir:
FTP working directory path

Test connection

OK

- 6 On the “General” tab, enter the IP address of the SFTP server. Switch to the “Authentication” tab. Enter the user name.

Settings

Connection Title: SFTP Connection

General | Authentication | Proxy | Advanced

User*:
FTP server user name

Authentication: PASSWORD
Select authentication type

Password*:
FTP server user password

Private key*:
Paste the private key

Public key*:
Paste the public key

OK

- 7 In the fields for **Private Key** and **Public Key**, specify the paths to the files created in Step 1.
- 8 Press the "Test connection" button to validate SFTP parameters.

Note: Different key-generation utilities uses different algorithms for creating private and public keys. If you are following all instructions but can't connect the SFTP server using Handy Backup, you may use **PuTTYgen** as default keygen utility.

E-mail Plug-in

This plug-in [backups email messages](#) from web services over the IMAP protocol.

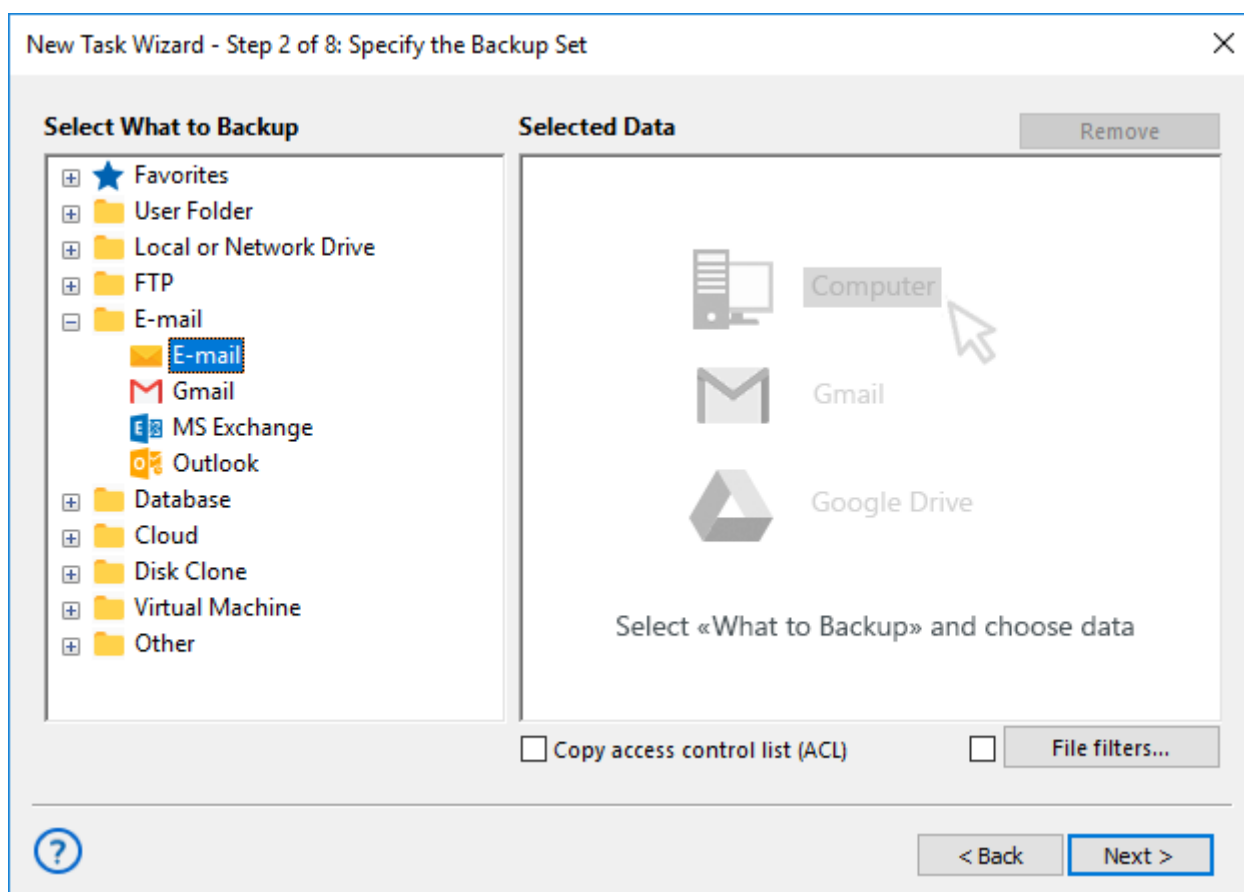
Before Backup or Recovery

Many Web mail servers require an additional permission for using a local client (which Handy Backup is in this context). To give this permission, you can open your email account in a browser and click a button or mark a checkbox in account settings to give this permission.

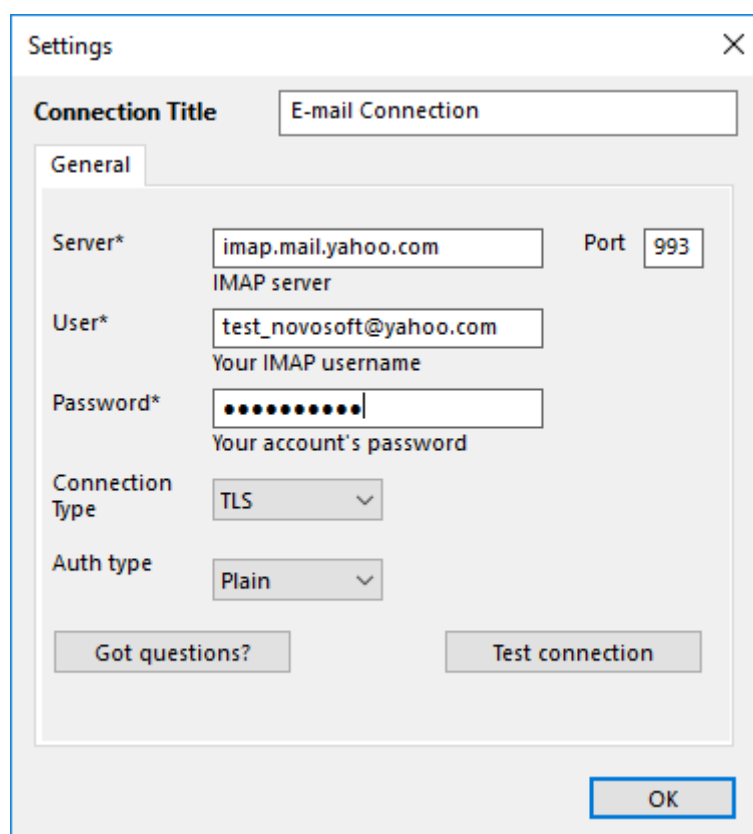
Using the "E-mail" plug-in

To use the plug-in (on an example of Gmail backup here) please follow the instruction below:

1. Create a new Handy Backup task. Select a backup task on the Step 1.
2. On the Step 2, select the "Email" plug-in from "Email" group.



3. In the appearing dialog window, create an email access configuration.



4. Give your configuration some name, typing it in the "Configuration" string at the top.
5. In the "IMAP Server" string, enter a particular IMAP configuration for your server.

For IMAP connections, the typical server name is

imap.(yourserveraddress)

or

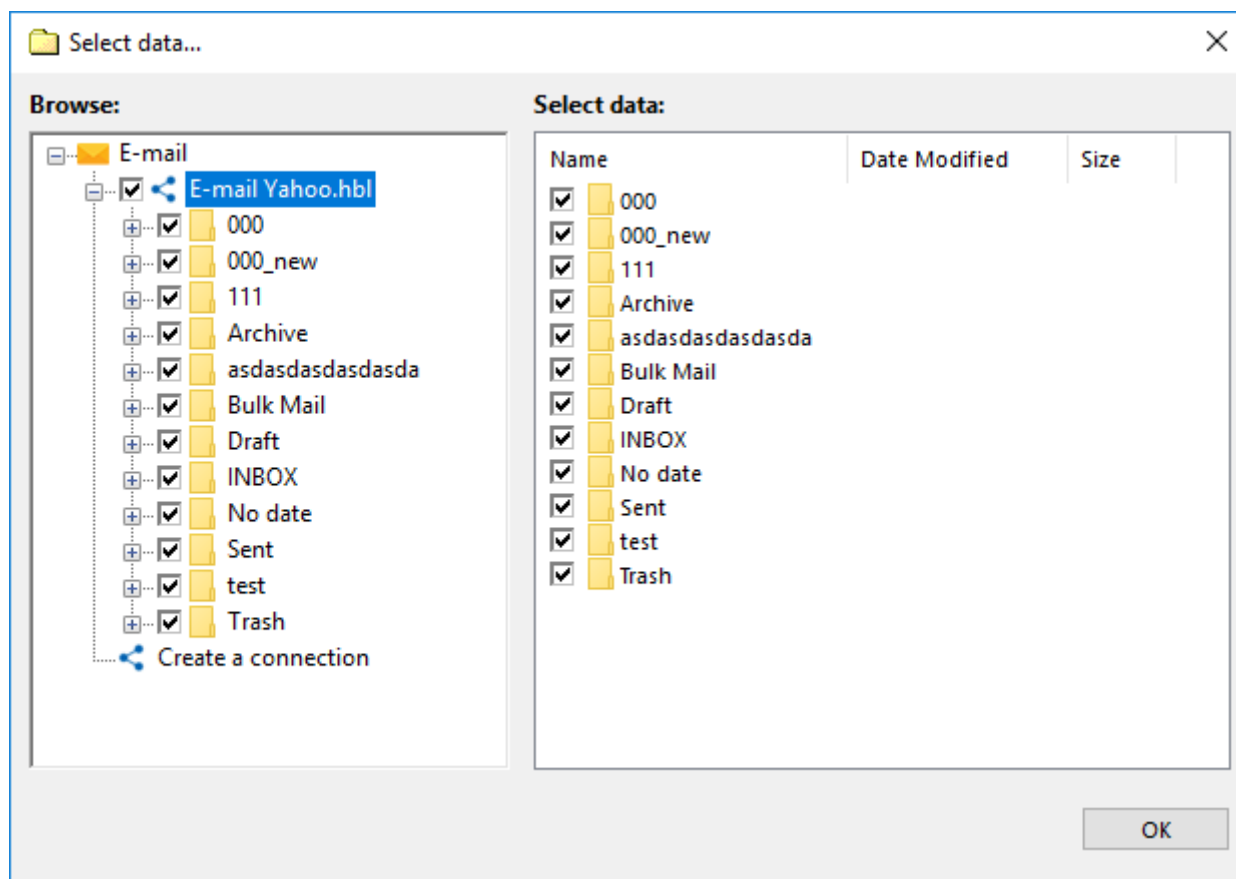
mail.(yourserveraddress)

Here the (yourservername) is a substitution for your webmail server address, without parenthesis or any prefixes over the "imap".

6. Enter the port number (the default port for encrypted IMAP is 993, for unencrypted IMAP is 143).
7. Provide your username and password for an email account onto the appropriate fields.

Note: The server can either require a short username (only a name before "@") or a full name with a server name after "@". For details about server name, please refer to a setup manual for a particular server settings.

8. Select the connection type according to your particular server requirements: TLS, StartTLS or other.
9. Select an authorization type (you can learn what to use from a server settings or via the Internet). The default type is "Plain".
10. Now you can either test your connection, open this page from the program, or just click OK and return to the plug-in window.



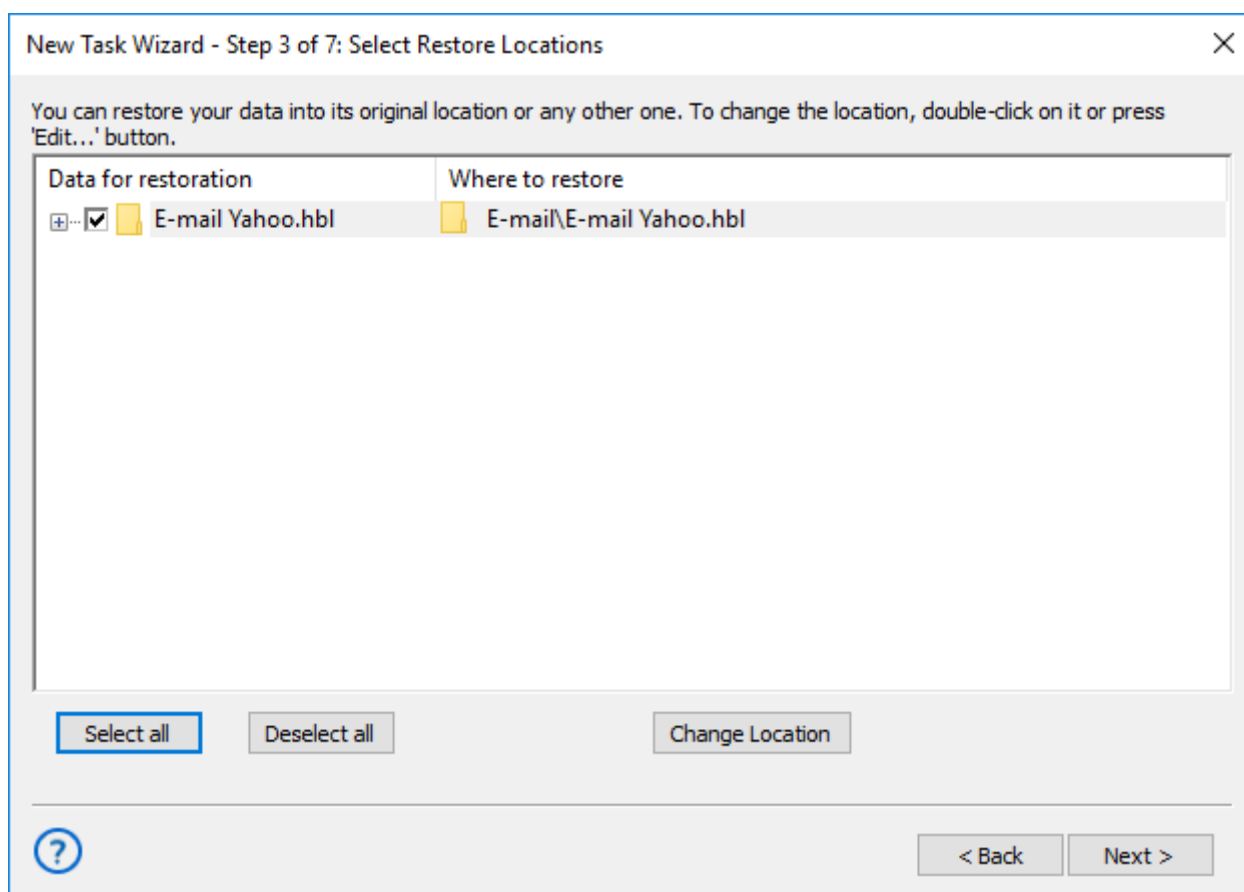
11. You will see the plug-in window with email folders in an account you entered.
12. Check/uncheck the boxes against the particular data you will plan to back up/exclude.
13. Click OK button to return to the Step 2.
14. Now you may add another data to a task; then proceed to next steps.
15. All next steps are unspecific to webmail backup. Read the User Manual for detailing these steps.

Restoring Emails from Backup

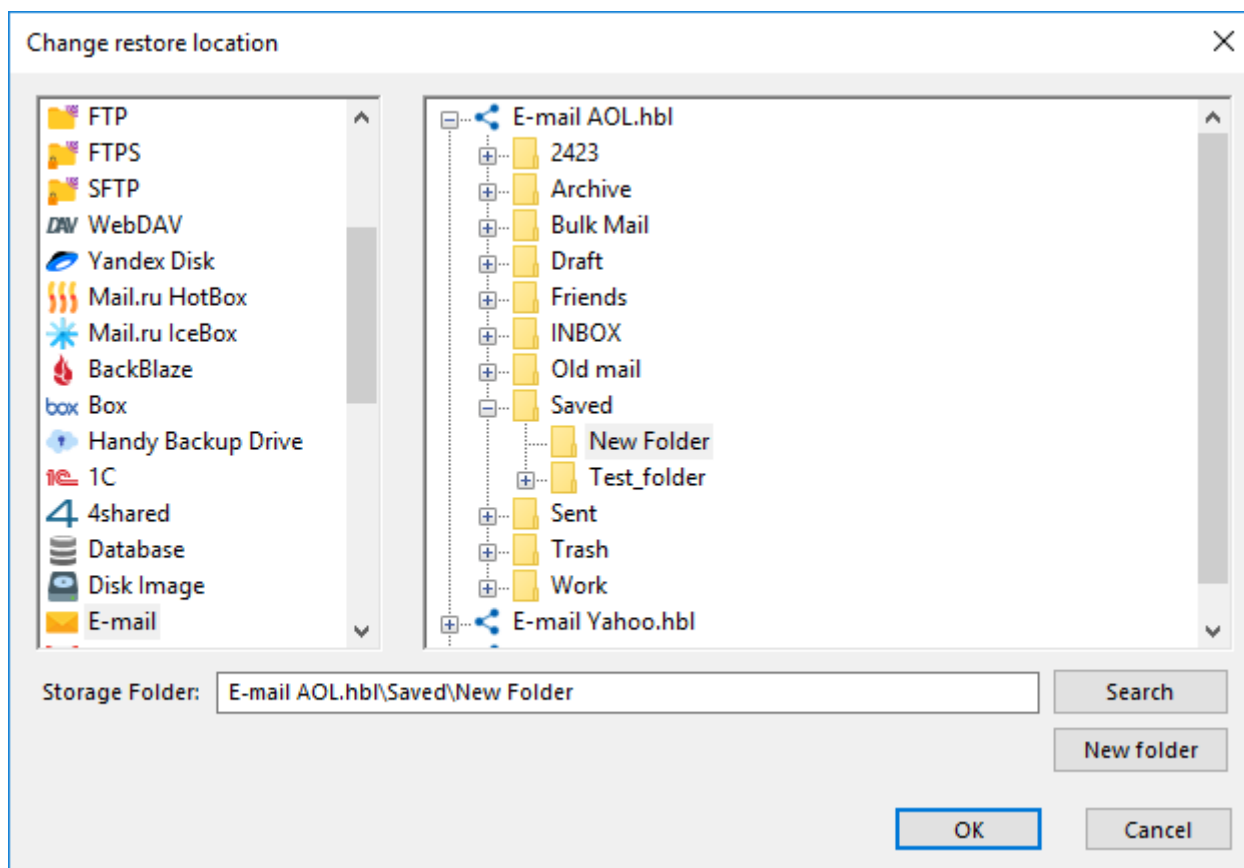
The Email plug-in also allows automatic restoration. To do it, create a restoration task on the Step 1 of the new task wizard. Then select a backup vault on the Step 2 and find the file **backup.hbi**, which contains all the data about restoring email messages.

Duplicating or Moving Email Content

Sometimes, you may have a need to restore some or all of your messages to a different mailbox, or even to a different webmail server than an original copy backup. For these cases, click on the "**Change restore location...**" button in the restoration dialog when creating a new task, and select a new destination.



After selecting this option, you will see a data locations window. Select the "**Email**" plug-in, and then choose a new server to restore your data. We are strongly recommending saving the information moved to another server in a new folder – click the "**Create folder**" to do it!



Plug-in Architecture

The Email plug-in uses the IMAP protocol for data connection. Almost all modern webmail services, including Gmail, Yahoo! and Outlook mail, support IMAP. This protocol allows both backup and restoration of email bases.

Saving Email Backups

Handy Backup stores email copies in the dedicated EML file format, supported by many email local clients. Therefore, you can read, modify, sort or change the backups, assuming these backups are uncompressed and/or unencrypted. You can even restore EML just by moving it with a file manager!

MS Exchange Plug-in

The **MS Exchange** plug-in allows backing up and restoring Information Stores of Microsoft Exchange Servers. The plug-in allows working with Exchange Server located on local computer only. Its work relies on the following Windows services:

- **Exchange VSS Store Writer** (always installed as a part of an Exchange Server)
- **Volume Shadow Copy Service**

Backup is made without stopping the server (the use of the VSS service ensures consistency and recoverability of snapshots). To restore data, the plug-in firstly stops Exchange Store Service and all dependent services, then copies the files, and then re-launches them.

Supported Versions

The plug-in supports all versions of Microsoft Exchange Server 2003, 2007, 2010, 2013 and 2016. It is important that your version of Handy Backup match your operating system, i.e. for 64-bit version of Windows Server, you need to use 64-bit version of the program.

Privileges

To use the **MS Exchange** plug-in, Workstation must be launched from a user account that can make API calls to the **Exchange VSS Store Writer** and **Volume Shadow Copy Service** services.

Plug-in File System

In the file system provided by the plug-in, any path starts with **Microsoft Exchange Server\Microsoft Information Store**. Inside these folders, the file system is organized as follows:

- **Folders** correspond to Exchange Servers and carry the respective names. They have no attributes.
- **Files** correspond to Stores (databases) available on the respective Exchange Server. File names correspond to internal identifiers of the databases. They have no attributes.

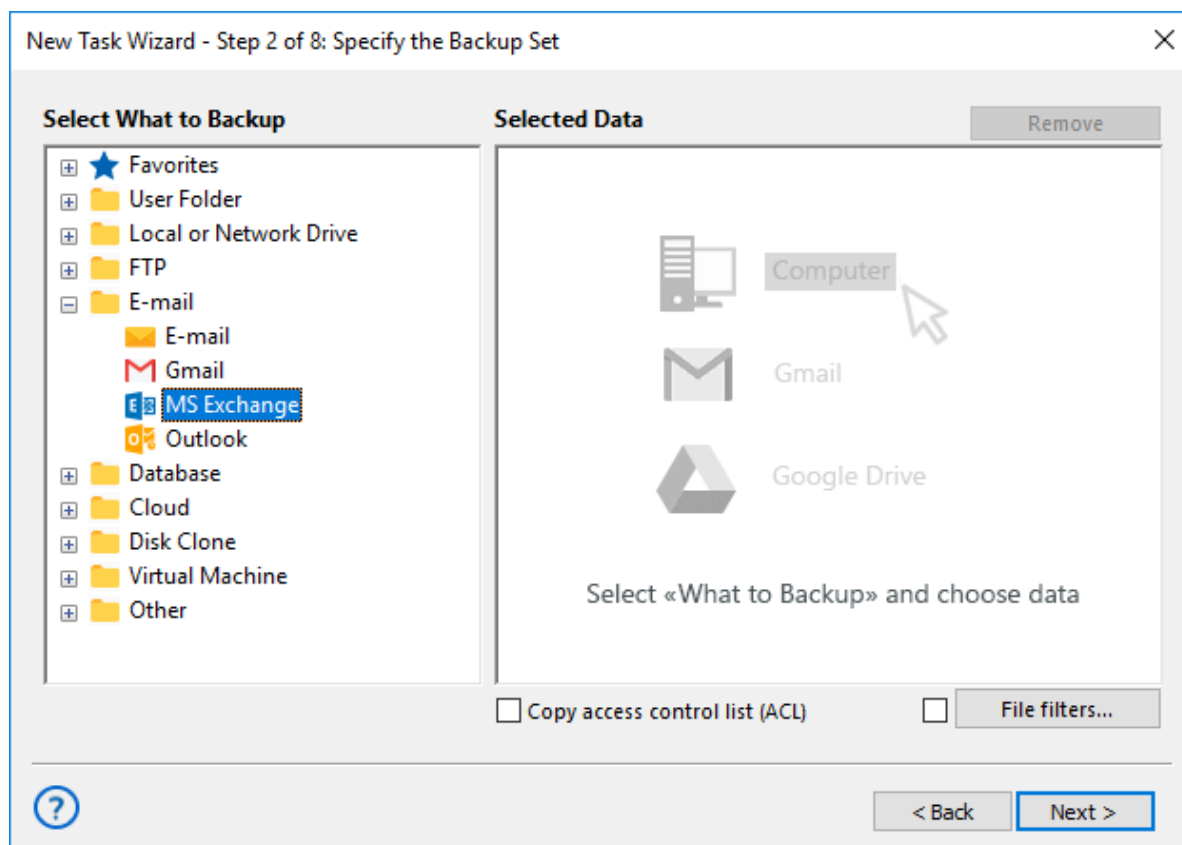
Since the plug-in provides no attributes for files and folders, it cannot be used with incremental backup option. When files of the **MS Exchange** file system are compared to files already backed up, they are always considered as new, which means that each increment is effectively a full backup. To optimize the usage of disk space, use differential type of backup.

Format of Backup Files

During backup, the software creates files that are named similarly to identifiers of databases. Each file is basically an archive that contains all data files and logs of the respective database.

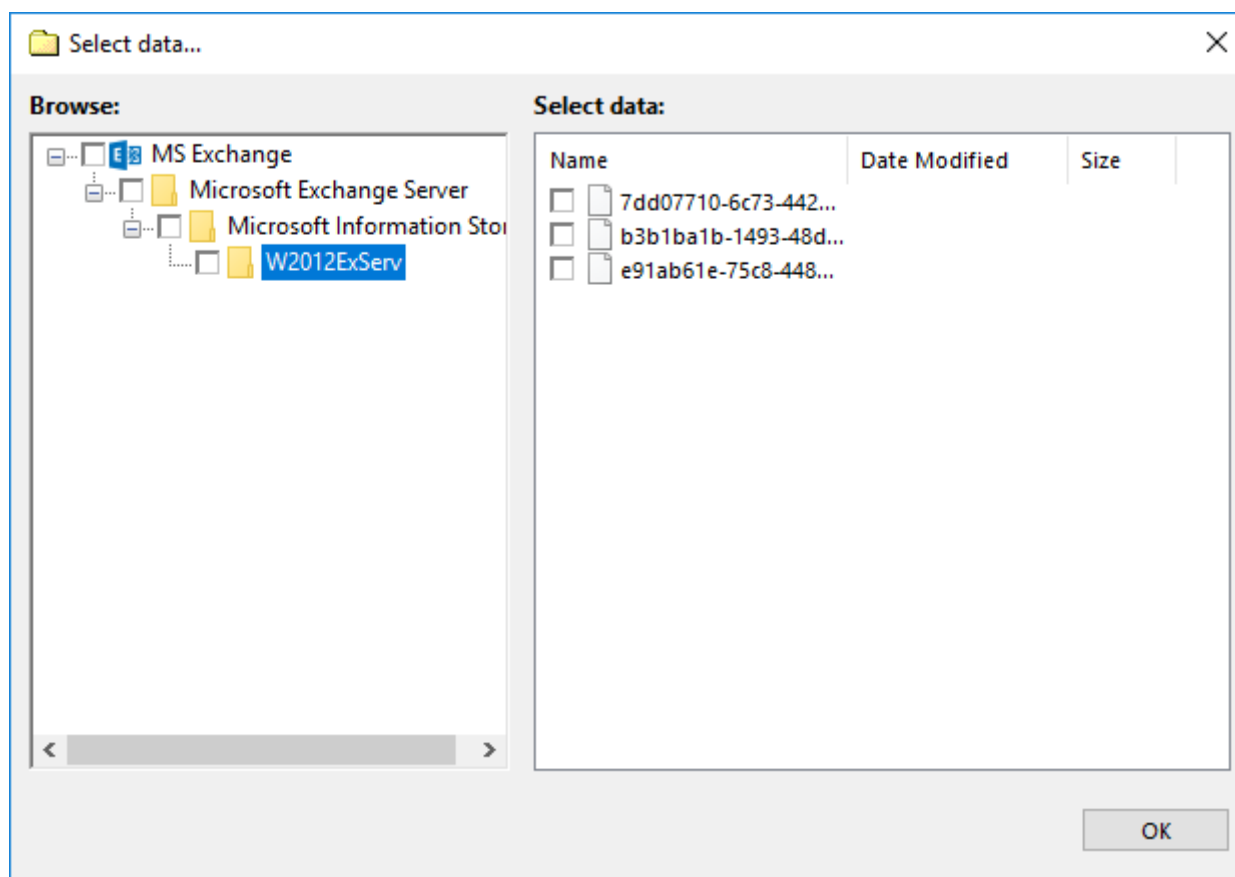
Backing Up

The **MS Exchange** plug-in can only be as a source of data for backup tasks. See [Specify Backup Set](#) for more details.



To add an Exchange Server Store to backup set, follow these steps:

1. In the **Data Sources** pane, select **MS Exchange** in the **Email** group. The **Select data...** dialog will open.



2. Check the boxes next to databases (files of the **MS Exchange** plug-in) that you want to back up.
3. When finished the selection, click **OK**. Selected data appears in the **Backup Set** pane of the New Task Wizard.

Restoring

At present, you can only restore backups made with the **MS Exchange** plug-in only to their original locations. Because of this, the process of restoration is very straightforward:

1. Open New Task Wizard.
2. Select **Restore task**, and then click **Next**.
3. Browse for the index file (**backup.hbi**) located in the destination folder. Select it and click **Next**.
4. Skip the **Select Restore Locations** dialog by clicking **Next** (as there is no way to restore data to a different location).
5. Skip the next steps by clicking **Next**.

When you run the restoration, the plug-in firstly stops the Exchange Store Service and all Windows services that depend on it. Then it copies the files to their original locations, and re-launches the services.

Outlook Plug-in

The **Outlook plug-in** lets you quickly access data files of Microsoft Outlook. The main idea is that you can back up all e-mails without knowing exactly where the files are located. The plug-in is user-specific and depends on the account under which the [Workstation](#) component runs. This plug-in can be used as a source of data for **backup tasks**, and as a target folder for **restore tasks**.

Prerequisites

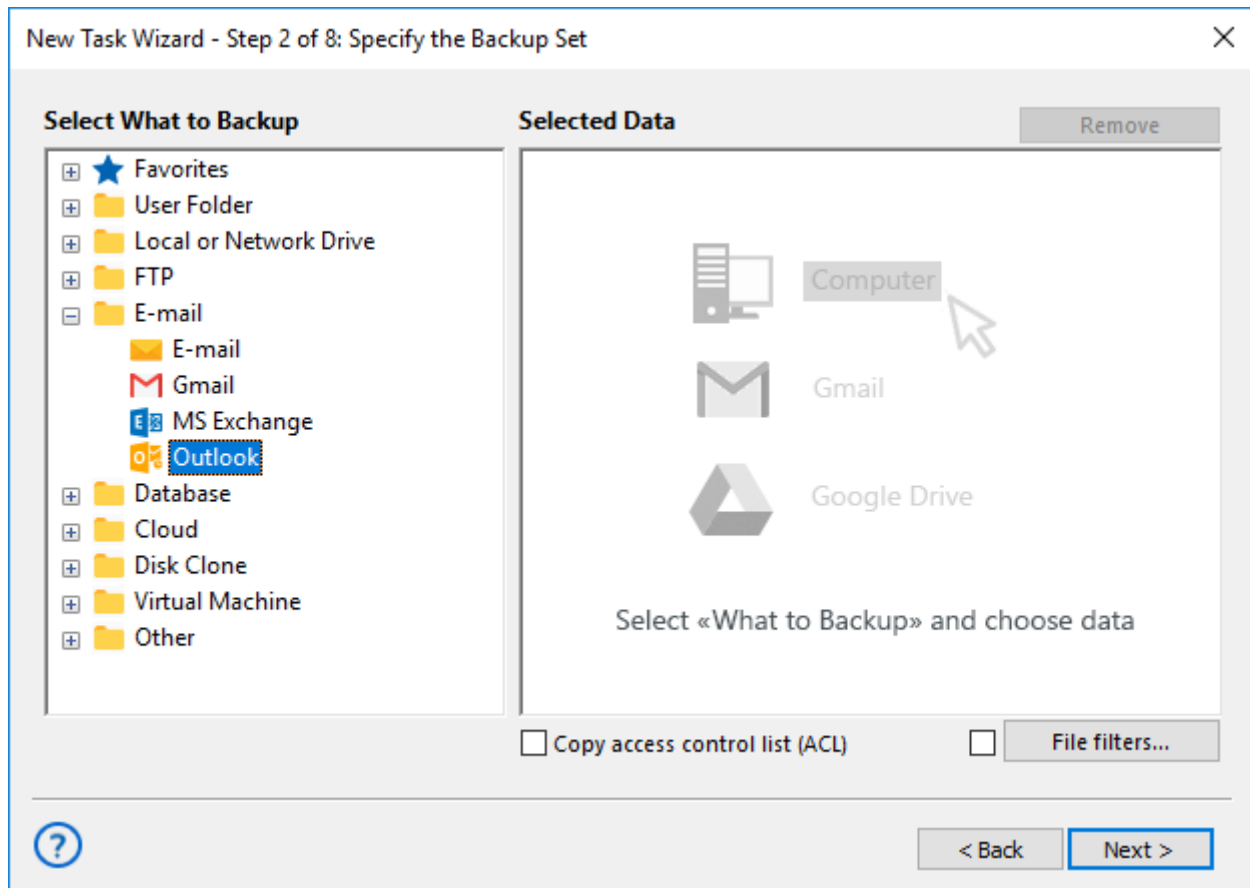
The **Outlook plug-in** inherits some functionality from the [Computer plug-in](#). Particularly, if the files are locked by other applications, it copies them with the use of the **Volume Shadow Copy Service**. If you don't have this service running, then you need to close your e-mail client to perform a backup. If you want to run backups without closing e-mail client, you need to have the VSS service running on your system, and the **Workstation** component must run from a user that can access it.

Plug-in File System

The plug-in file system is organized as follows:

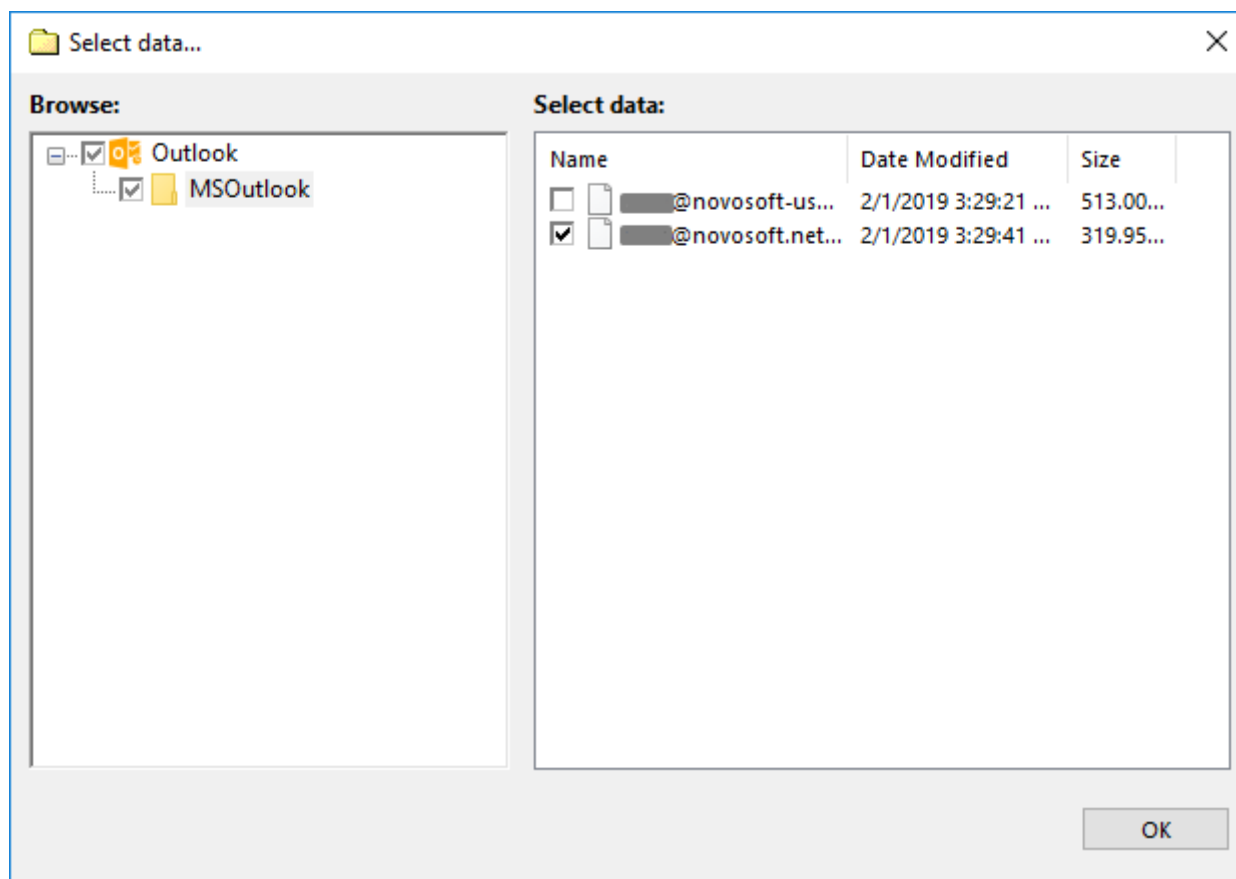
Handy Backup User Manual

- **The top-level folder** corresponds to an **MSOutlook** e-mail clients installed on your system. It has no attributes.
- **Files** in the top-level folders correspond to data files of the Outlook e-mail client. They have all common file system attributes, such as file size, time of creation and modification, and other.



To use the plug-in in a **backup task** (in [Step 2: Specify the Backup Set](#) of the New Task Wizard), follow these steps:

1. In the **Data Sources** pane, click **Outlook** in the **E-mail**. The **Select data...** dialog will open.



If your e-mail client has several accounts, the respective folder will have several data files (even if they are physically located in different places).

2. Mark the checkboxes next to files and folders that you want to back up.
3. When finished the selection, click **OK**. Selected data appears in the **Backup Set** pane.

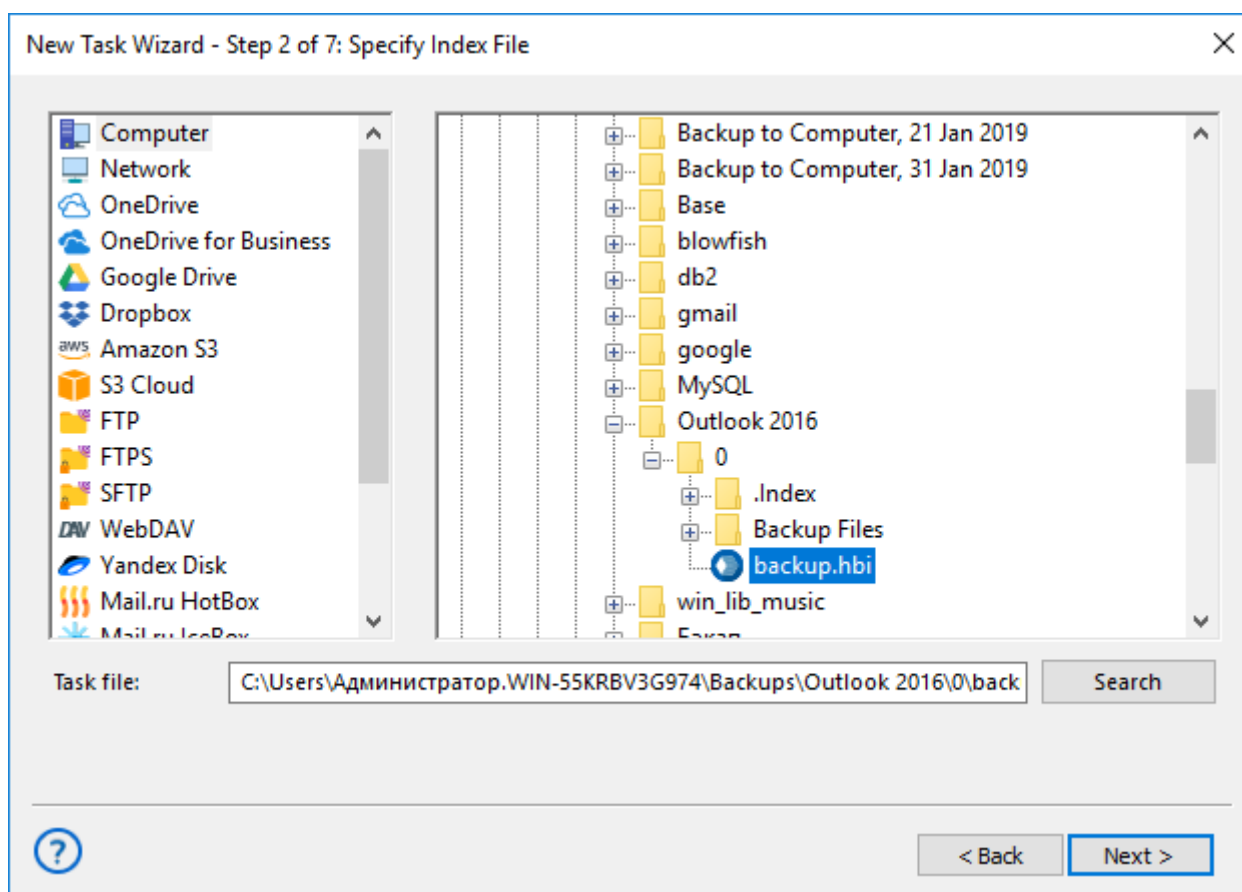
For a complete instruction on how to create a backup task, please refer to [Backup Task](#).

Restoring

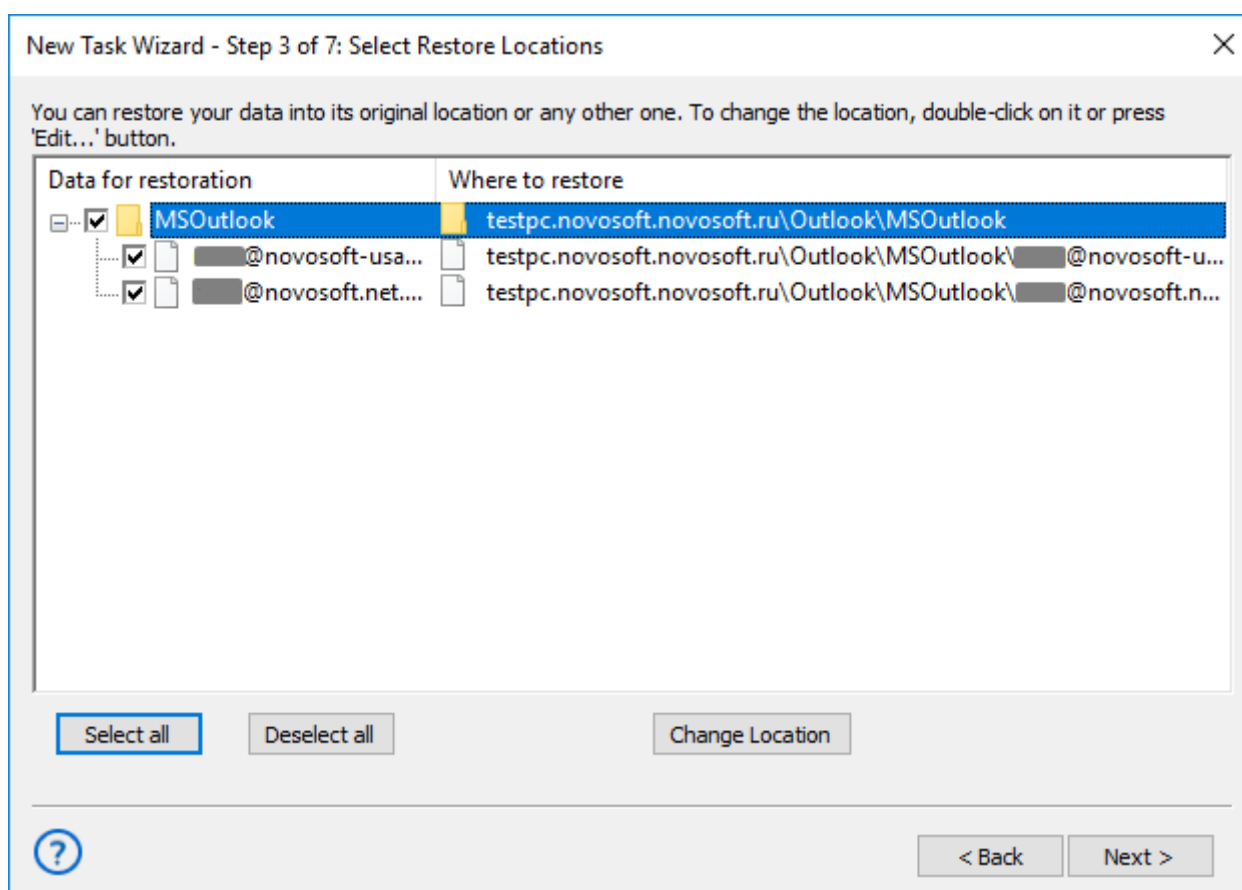
To restore files copied with the **Outlook** plug-in, follow these steps:

1. Open the New Task Wizard.
2. Select **Restore task**, and then click **Next**.
3. In the **Specify Index File** dialog, browse for a backup index file (**backup.hbi**), and then click **Next**.

For example, if backups are stored on a local hard disk, select **Computer** in the **Storage Destinations** pane to the left, and then browse for **backup.hbi** in the **Index File Selection** pane to the right.



4. In the **Select Restore Locations** dialog, check details of the restoration.



At the moment, you can restore files of the **Outlook** plug-in only to their original locations.

After verifying restoration details, you will need to select type of restoration, specify scheduling and task name. These steps are not specific to the **Outlook** plug-in. For more details on restoration, please see [Restore Task](#).

Database Plug-in

The **Database** plug-in allows backing up and restoring different databases through the use of standard ODBC (Open Database Connectivity) drivers.

Prerequisites

To use the plug-in, you need to have the respective ODBC driver installed on your system.

A Note about Versions

You may need a 32-bit version of Handy Backup to work properly with some databases, including versions of MS Access etc. To ensure that the plug-in will work properly, please force the [32-bit installation](#) of Handy Backup!

File System

File system of the plug-in is organized as follows:

- **Folders** display different ODBC data sources. Folders have no attributes.
- **Files** correspond to database tables. Files have no attributes.

When you open a folder, the program connects to the respective ODBC data source. If it is for some reason not valid (e.g. if you change a password), the program opens a configuration dialog.

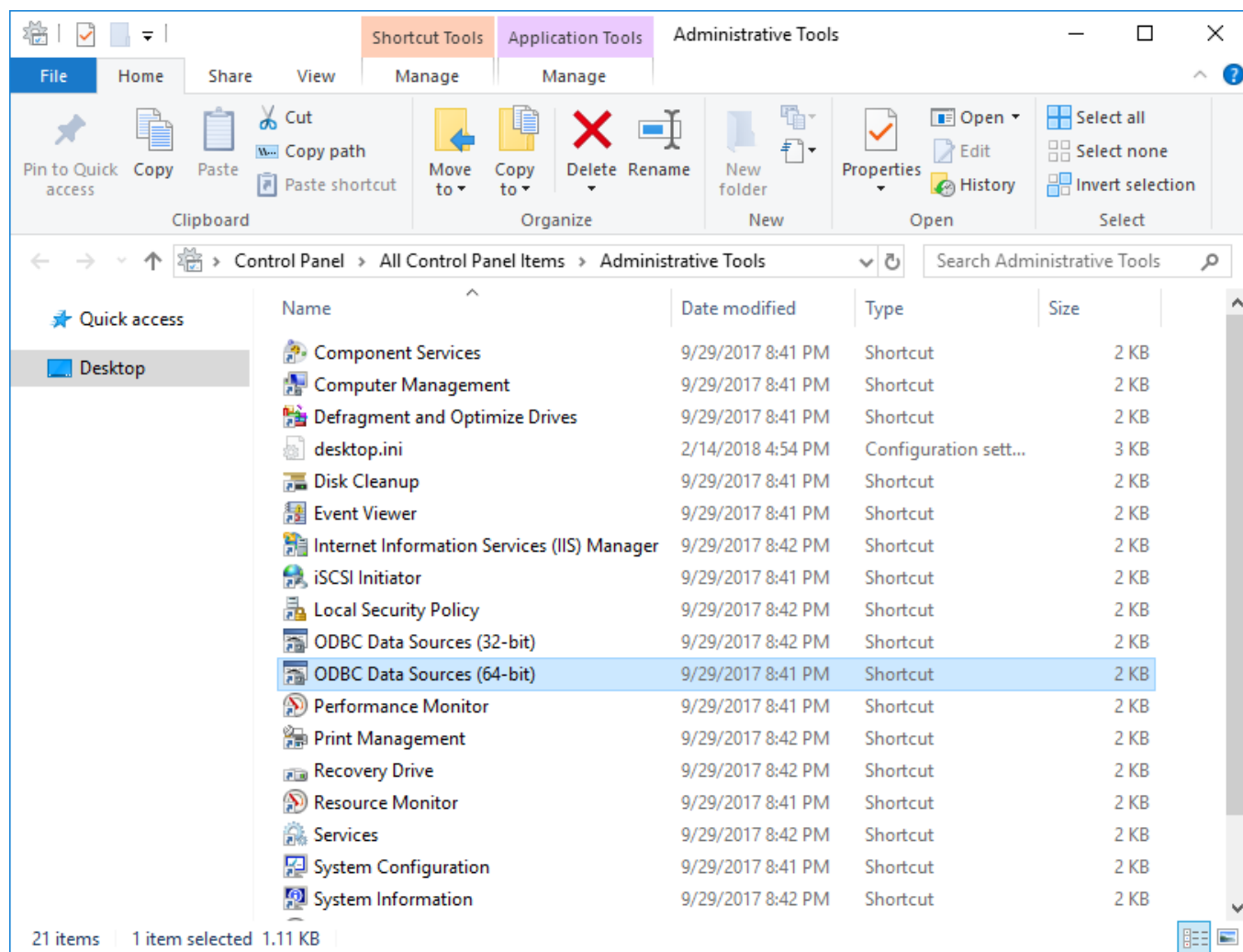
See instructions on adding ODBC data sources below.

Adding ODBC Data Sources

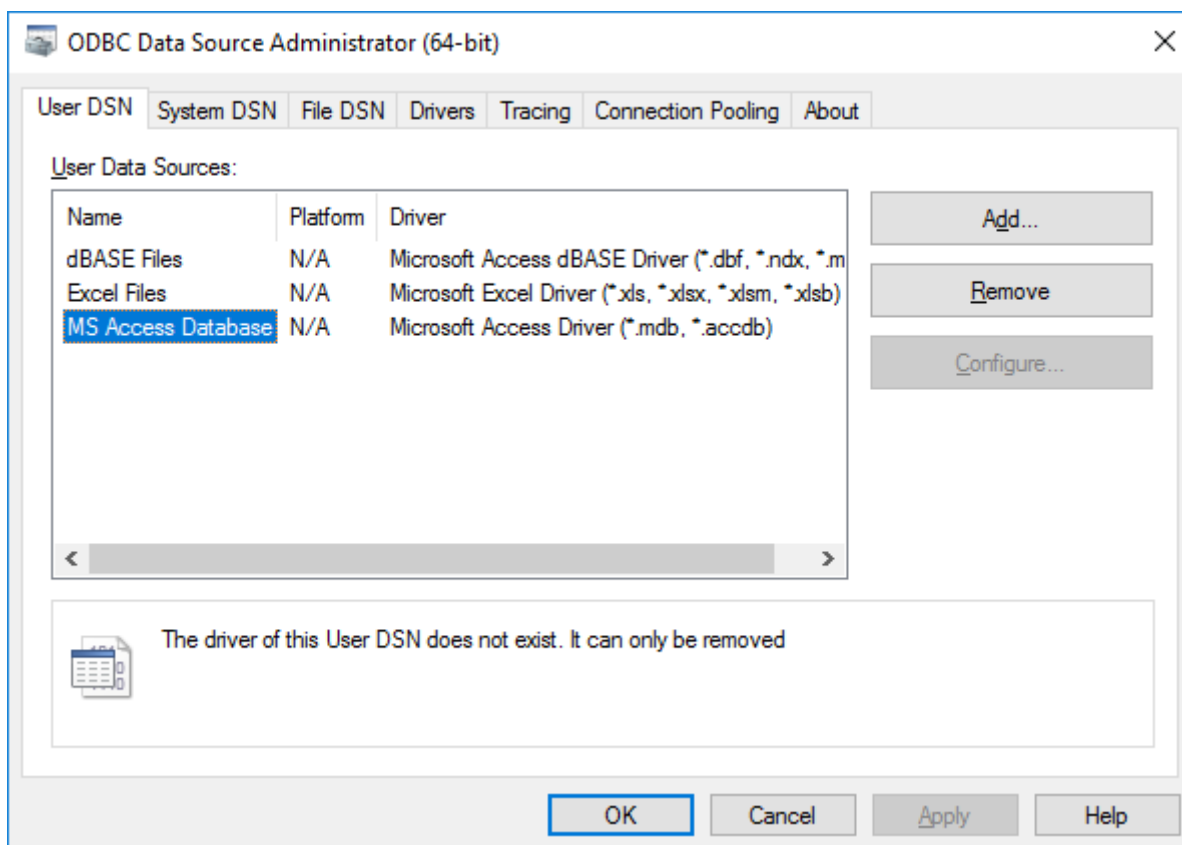
To add a new ODBC data source, follow these steps:

1. Open **Control Panel**, then go to **System and Security**, and then go to **Administrative Tools**.

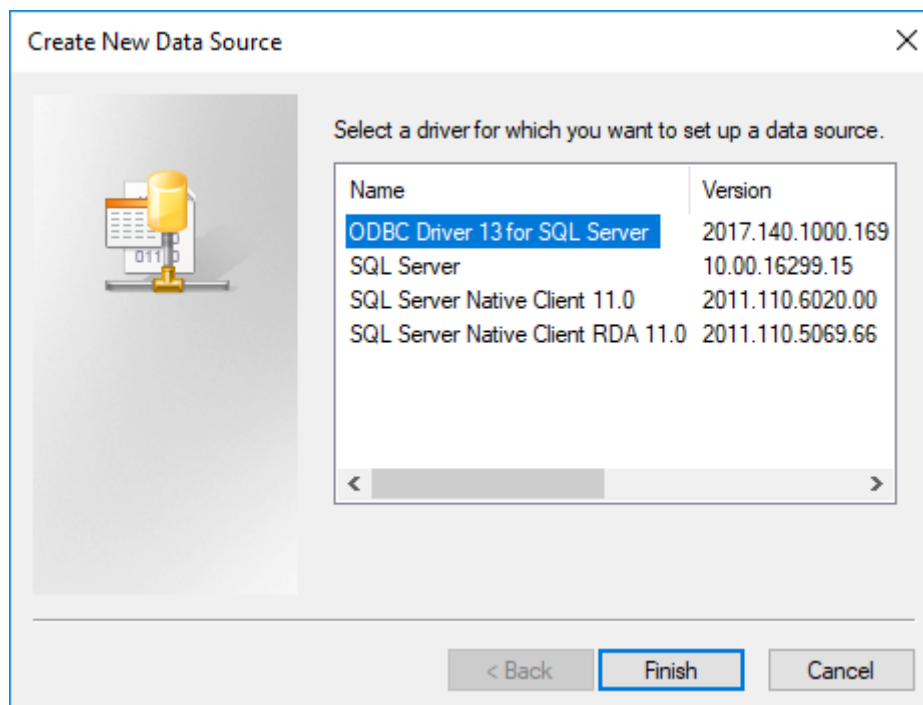
Handy Backup User Manual



2. Double-click **Data Sources (ODBC)**. The **ODBC Data Source Administrator** opens.



3. In **ODBC Data Source Administrator**, click **Add**. The **Create New Data Source** dialog opens.

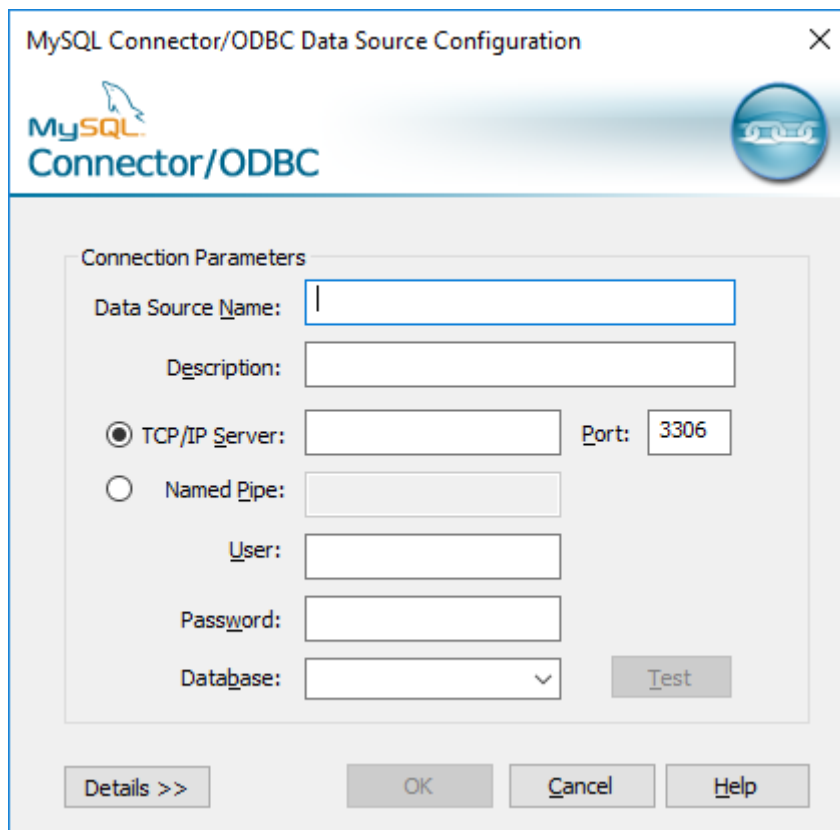


4. Select an ODBC driver, and click **Finish**. The **ODBC Data Source Configuration** dialog opens.

Note: The above instructions are valid for Windows 7, and may slightly vary for other systems.

Handy Backup User Manual

Then you need to configure a data source for your database. For example, the MySQL configuration dialog looks as follows:



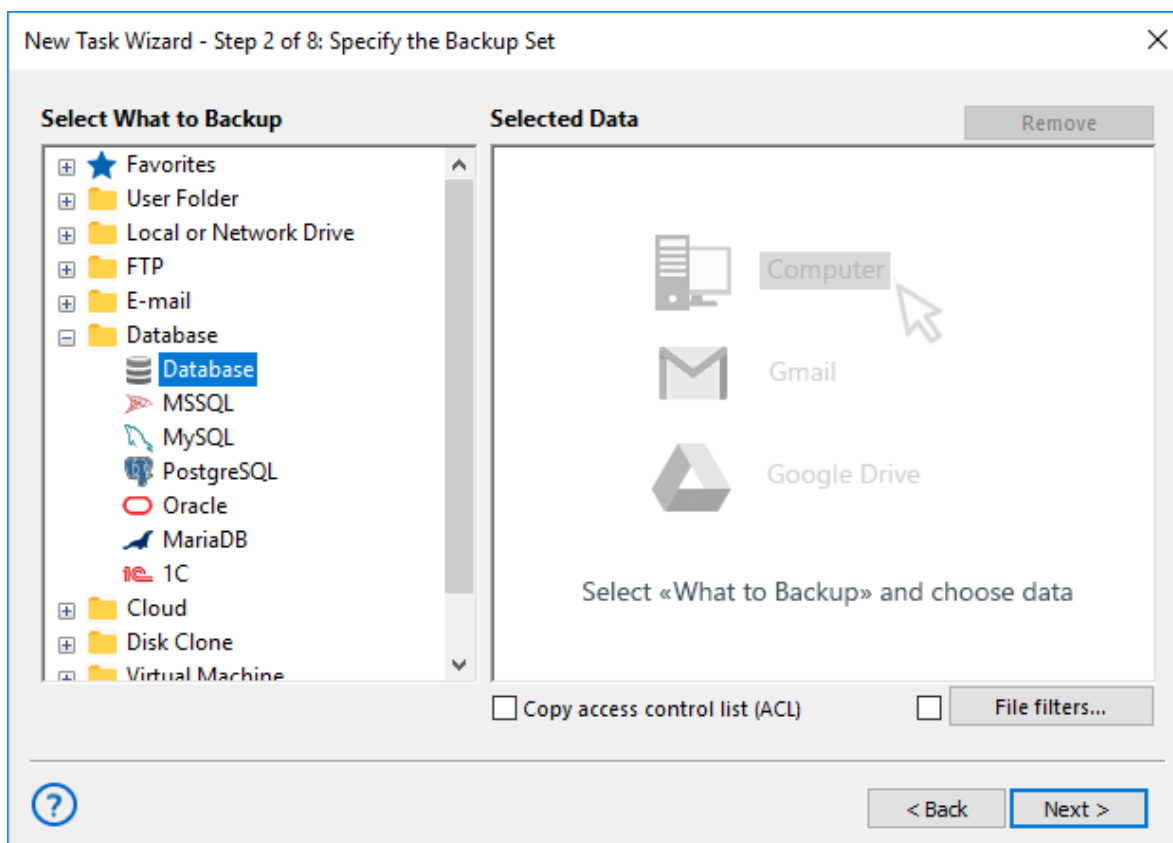
Format of Backup Files

The **Database** plug-in creates files that are named similarly to the names of tables. Each file stores data in a binary format provided by the ODBC connector.

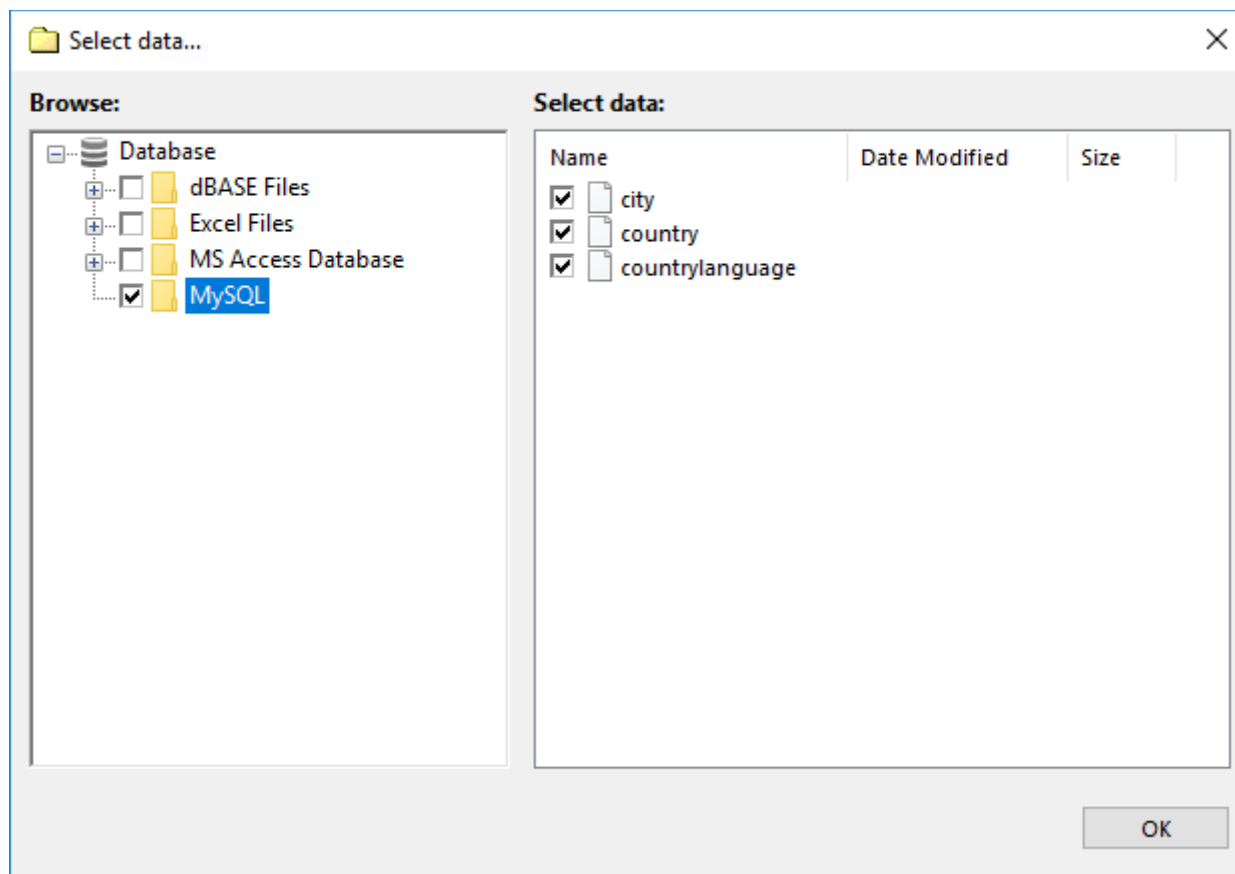
Backing Up

To create a backup task with the use of the **Database** plug-in, follow these steps:

1. Open New Task Wizard.
2. Select **Backup task**, and then click **Next**.



3. In the Data Sources pane, click on the **Database plug-in** in the Database group. The **Select data...** dialog will open.



Handy Backup User Manual

4. Check the boxes next to files and folders (tables and ODBC data sources) that you want to backup.
5. When finished the selection, click **OK**. Selected data appears in the **Backup Set** pane.

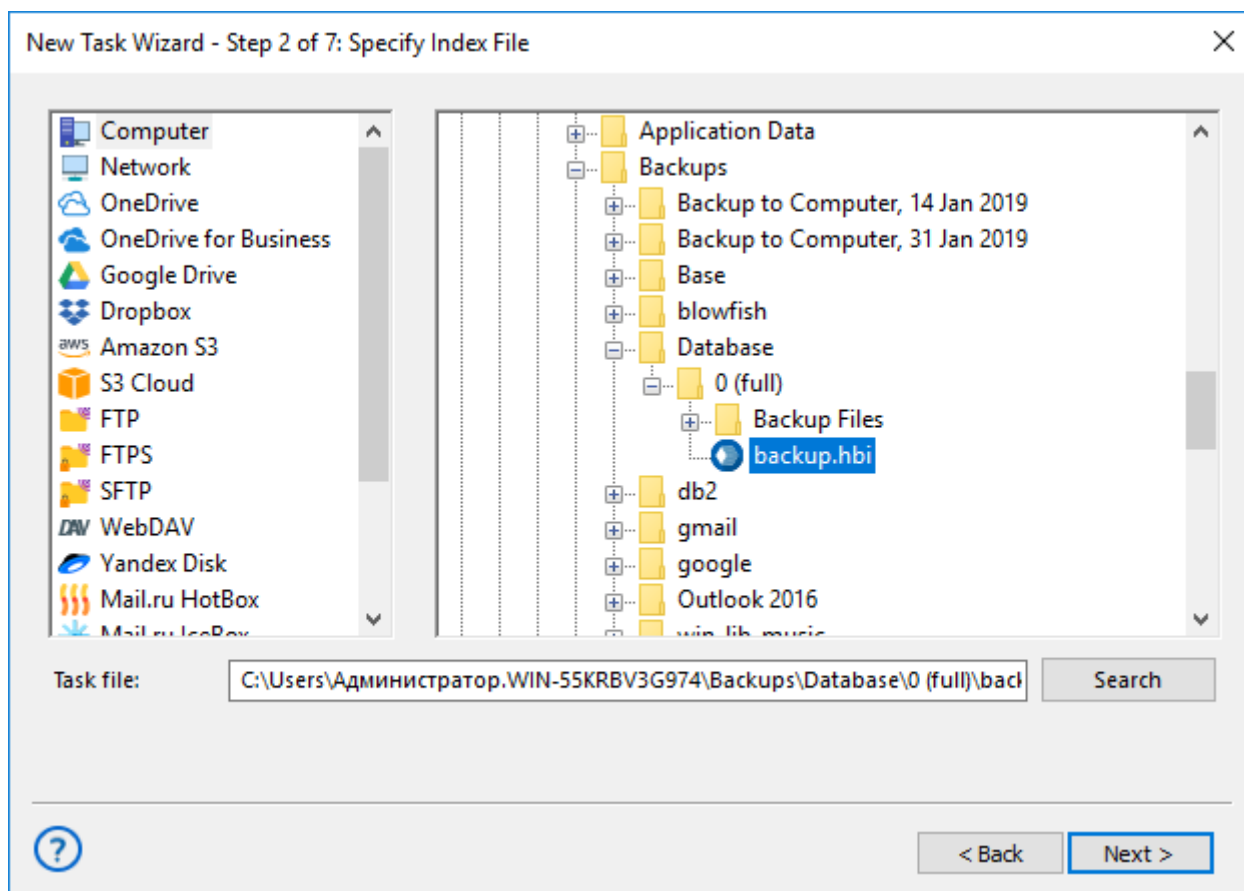
Next steps are common for all backup tasks and are not specific to the **Database** plug-in. For detailed instructions on creating backup tasks, refer to Backup Task.

Restoring

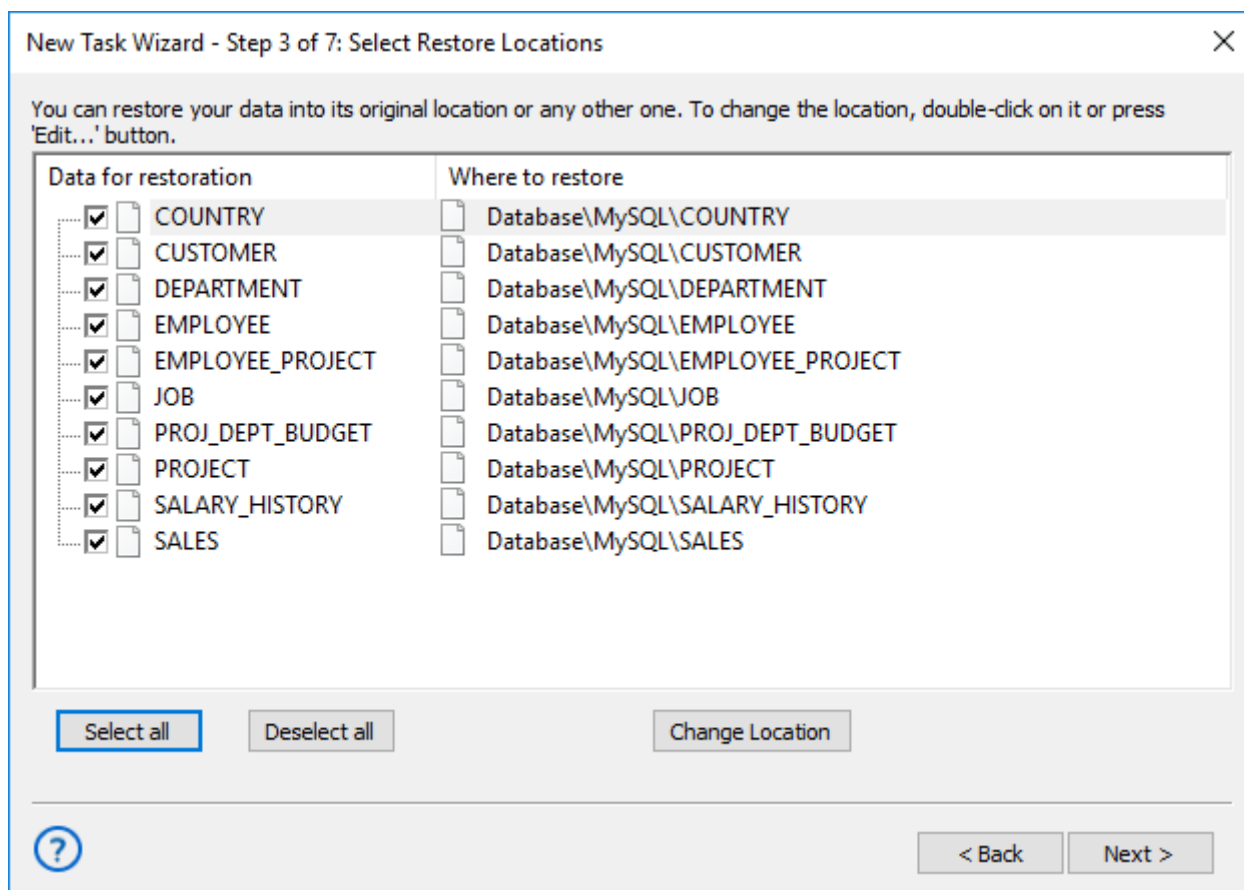
To restore a backup made with the **Database** plug-in, follow these steps:

1. Open New Task Wizard.
2. Select **Restore task**, and then click **Next**.
3. Browse for the index file (**backup.hbi**) located in the destination folder. Select it, and click **Next**.

For example, if your backups are stored on a local hard disk, then you need to select **Computer** in the Storage Destinations pane to the left, and then browse for **backup.hbi** in the Index File Selection pane to the right.



4. In the **Select Restore Locations** dialog, verify details of restoration.



In this dialog, you can uncheck data that you don't want to restore. At present, backups made with the [Database backup](#) plug-in can be restored only to their original locations, and you can't change it.

In the next steps of the New Task Wizard, you need to specify restoration options and name the tasks. They are not specific to the **Database** plug-in. To learn more, please see [Restore Task](#).

MSSQL Plug-in

The **MSSQL** plug-in allows backing up and restoring databases of Microsoft SQL Servers. The plug-in allows working with SQL Server located on local computer only. Its work relies on the following Windows services:

- **SQL Writer Service** (always installed as a part of an SQL Server)
- **Volume Shadow Copy Service**

Snapshots of databases are made without interrupting the server's work (Volume Shadow Copy Service provides recoverability of backups). To restore a database, the plug-in stops the respective SQL instance, then copies the files, and then re-launches it.

Supported Versions

You can use the **MSSQL** plug-in to back up and restore all versions of Microsoft SQL Server 2005, 2008, 2012 and 2016. Note that for 32-bit and 64-bit versions of Windows Server, you need to use 32-bit and 64-bit version of Handy Backup, respectively.

Privileges

To use the **MSSQL** plug-in, Workstation must have enough privileges to make API calls to **SQL Writer Service** and **Volume Shadow Copy Service**.

Plug-in File System

The file system provided by the plug-in is organized as follows:

- **Folders** correspond to SQL Servers and carry the respective names. They have no attributes.
- **Files** correspond to databases available on the selected SQL Server, and carry the respective names. They have no attributes.

Since the plug-in's files and folders have no attributes, during comparison with files that are already backed up, they will be always considered as different. This means that incremental backup (backing up of new and changed files) won't work: for effective versioning, use differential backup.

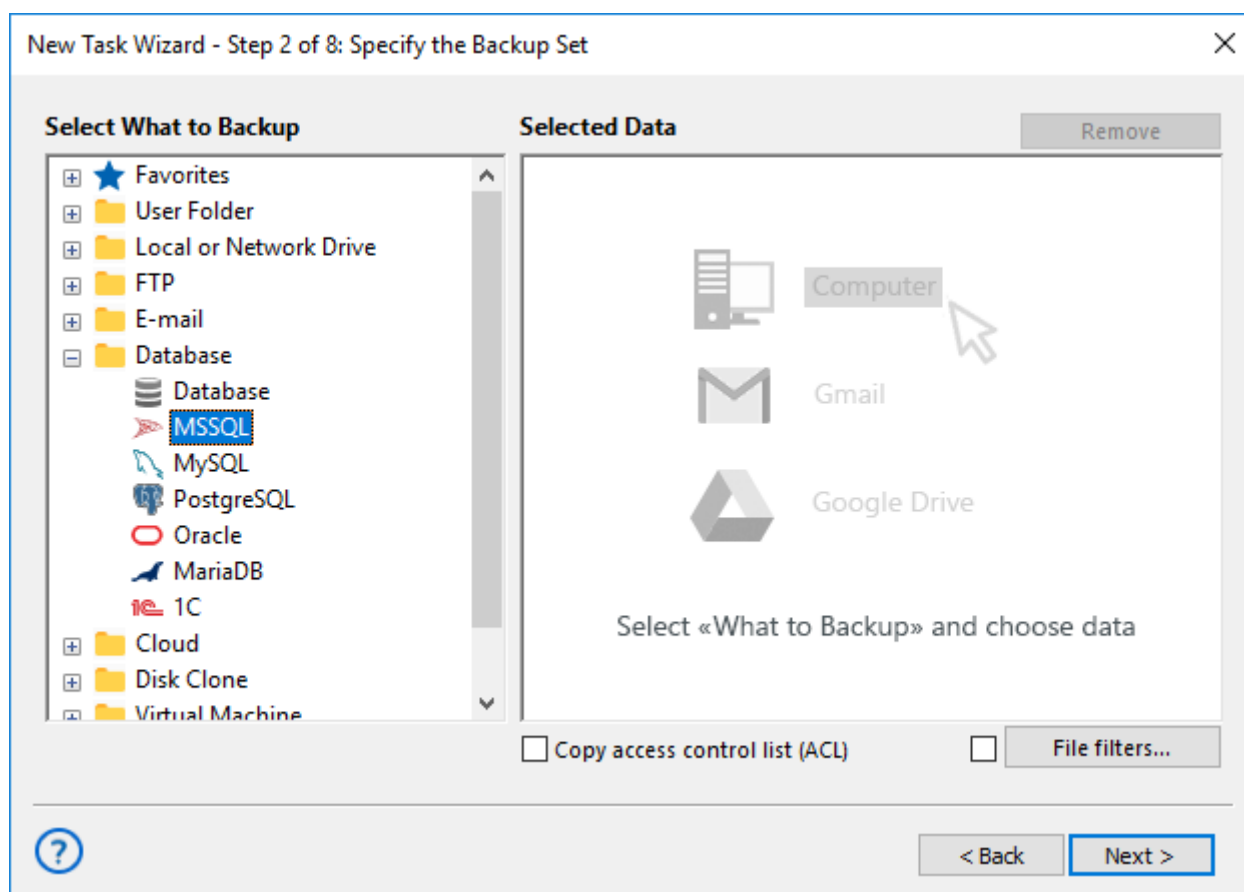
As a result of backup, you will have files that are named similarly to databases. Each file is basically a ZIP archive with all data files and transaction logs of the respective database.

Backing Up

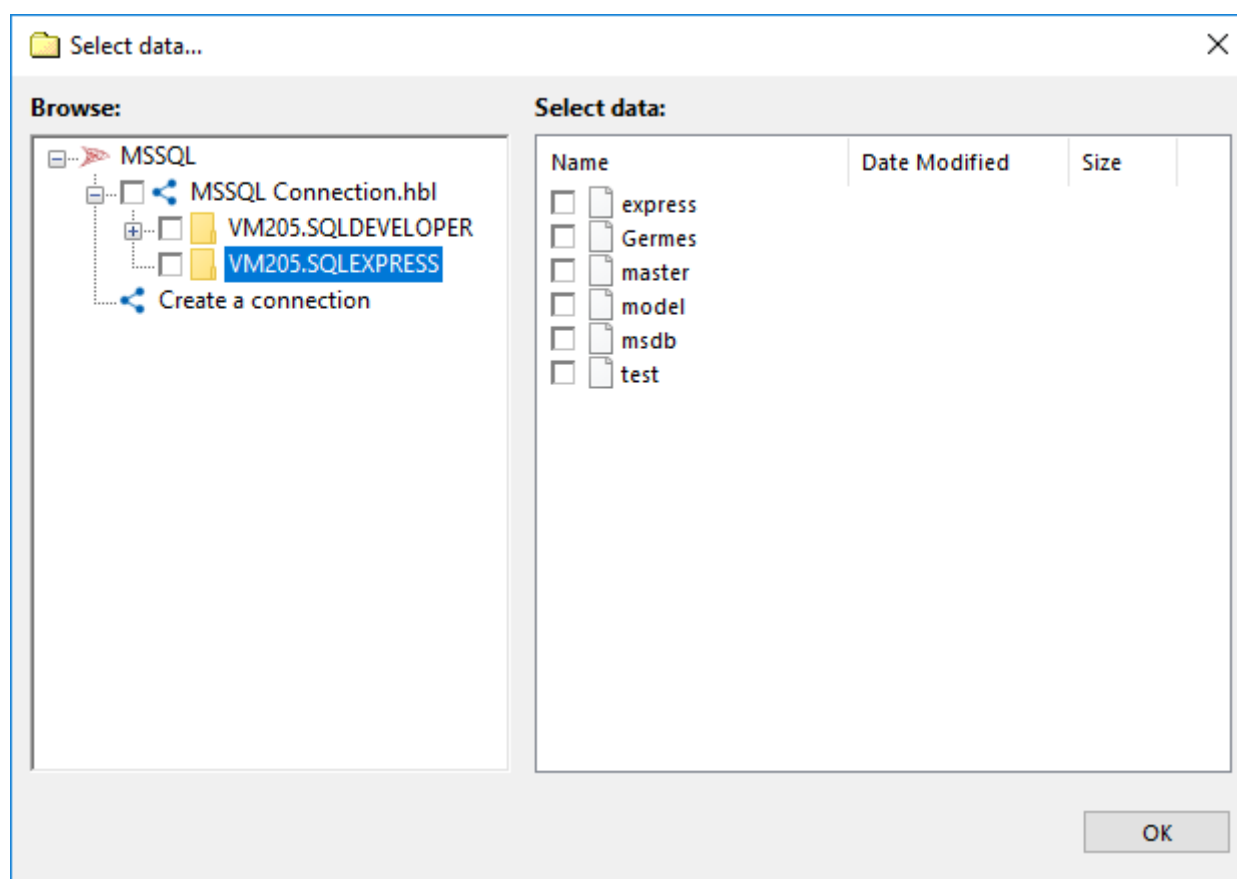
The **MSSQL** plug-in can only be used as a source of data for **backup** tasks. To learn more, please refer to [Specify Backup Set](#).

To add an SQL database to backup set, follow these steps:

1. In the **Data Sources** pane, click on the plug-in name **MSSQL**.



2. The **Select data...** dialog will open.



3. Select a connection to MSSQL Server. If you still have no one, click **Create a connection....**
4. In a connection dialog, provide the parameters to connect with a MSSQL server. Give a name for your connection.



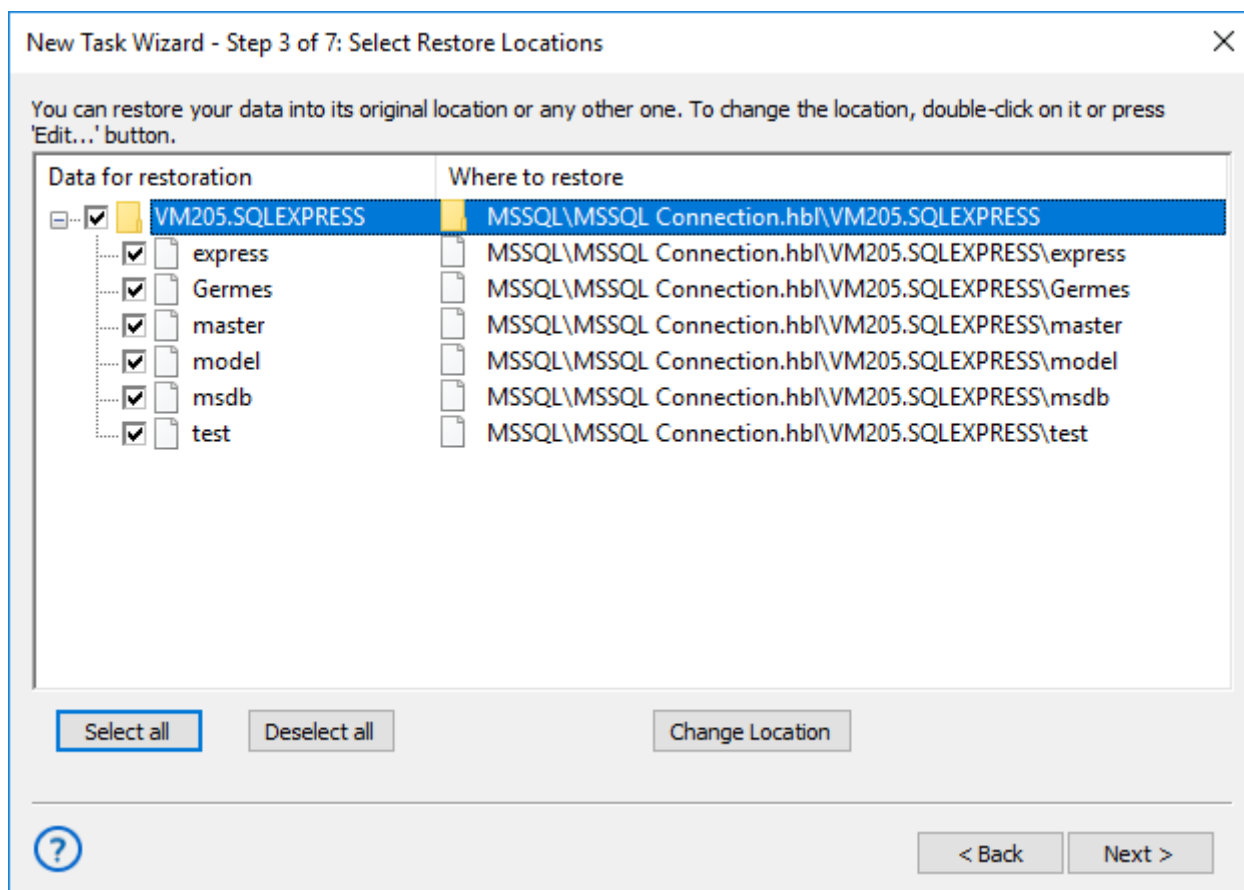
The screenshot shows a 'Settings' dialog box with a close button (X) in the top right corner. The 'Connection Title' field is set to 'MSSQL Connection'. Below this, the 'General' tab is selected. It contains two text input fields: 'User' with the placeholder text 'MSSQL user name in configuration' and 'Password' with the placeholder text 'MSSQL user password in configuration'. At the bottom of the General tab, there is a checkbox labeled 'Use Windows authentication' with the text 'Ignore User and Password fields' below it. An 'OK' button is located at the bottom right of the dialog box.

5. Choose a connection to backup MSSQL. A data selection window will open
6. Mark the checkboxes next to files (i.e. databases) that you want to back up.
7. When you finish, click **OK**. Selected data will appear in the **Backup Set** pane of the New Task Wizard.

Restoring

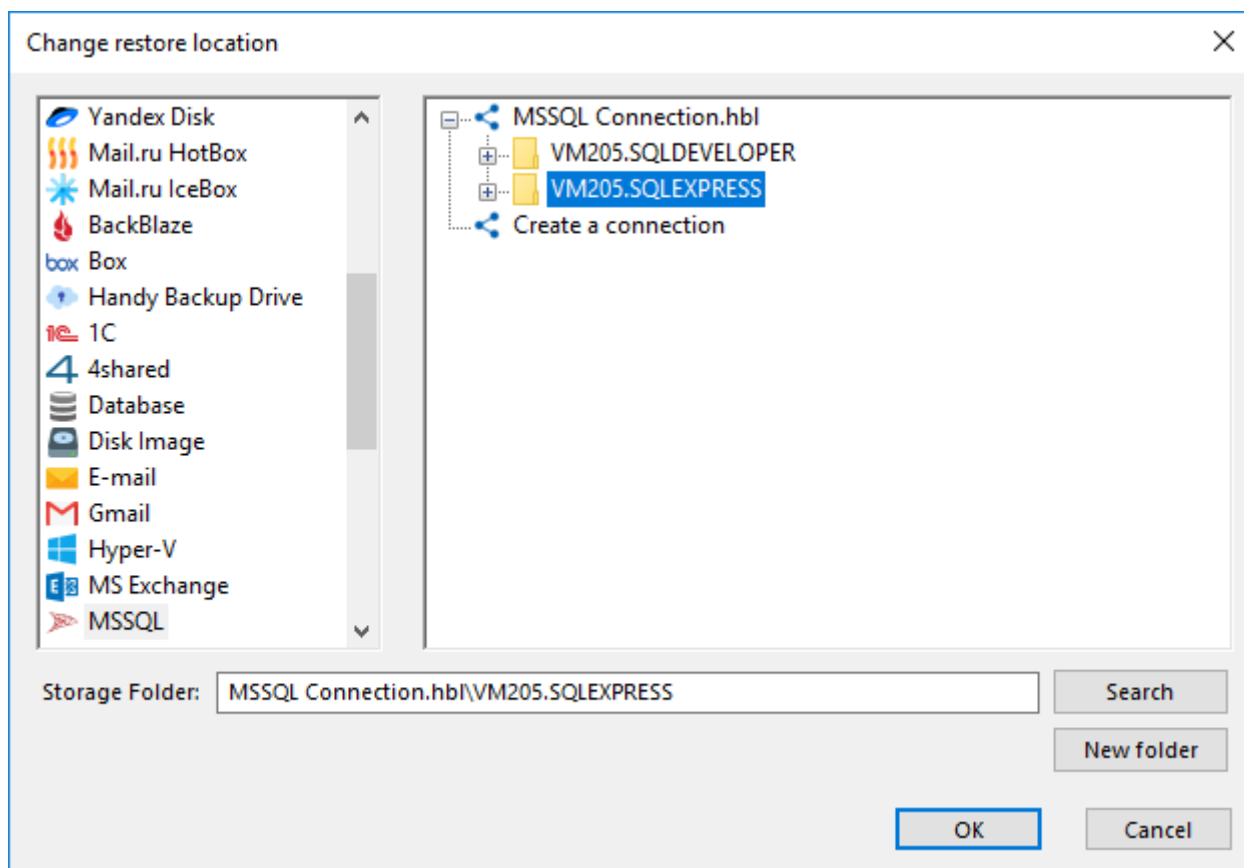
When the plug-in restores databases, it queries the **SQL Writer Service** to identify paths of the respective files. If new paths don't correspond to the ones in backup files, restoration will be performed to the new paths. This means that if you want, you can restore databases to a different place.

1. Open New Task Wizard.
2. Select **Restore task**, and then click **Next**.
3. Browse for the index file (**backup.hbi**) located in the destination folder. Select it, and then click **Next**.
4. In the **Select Restore Locations** dialog, verify the details of restoration.



If you want to restore a database to a different place, follow these steps:

- 4.1 In the Select Restore Locations dialog, select a database (file of the **MSSQL** plug-in file system), and then click **Change Location**. The Change restore location dialog opens.



4.2 Select a new path for the database, and then click **OK**.

After verifying paths of restoration, you need to select type of restoration, enter decryption password (optional), and name the task. These steps are not specific to the **MySQL** plug-in. To learn more, please see [Restore Task](#).

When you run the restoration, the plug-in firstly stops the respective SQL instance and all Windows services that depend on it. Then it copies the files to their original locations, and re-launches the services.

MySQL Plug-in

The **MySQL** plug-in acts as a common MySQL client application and provides access to MySQL databases and tables. File system provided by the plug-in is organized as follows:

- **Folders** correspond to MySQL databases. Folder attributes are not supported.
- **Files** correspond to tables. File attributes are not supported.

Since the plug-in provides no attributes for folders and files, it cannot be effectively used with incremental backup option, i.e. allows for differential backup only. To learn how the software works with file attributes, please refer to [Plug-in File Systems](#).

Format of the Backup Files

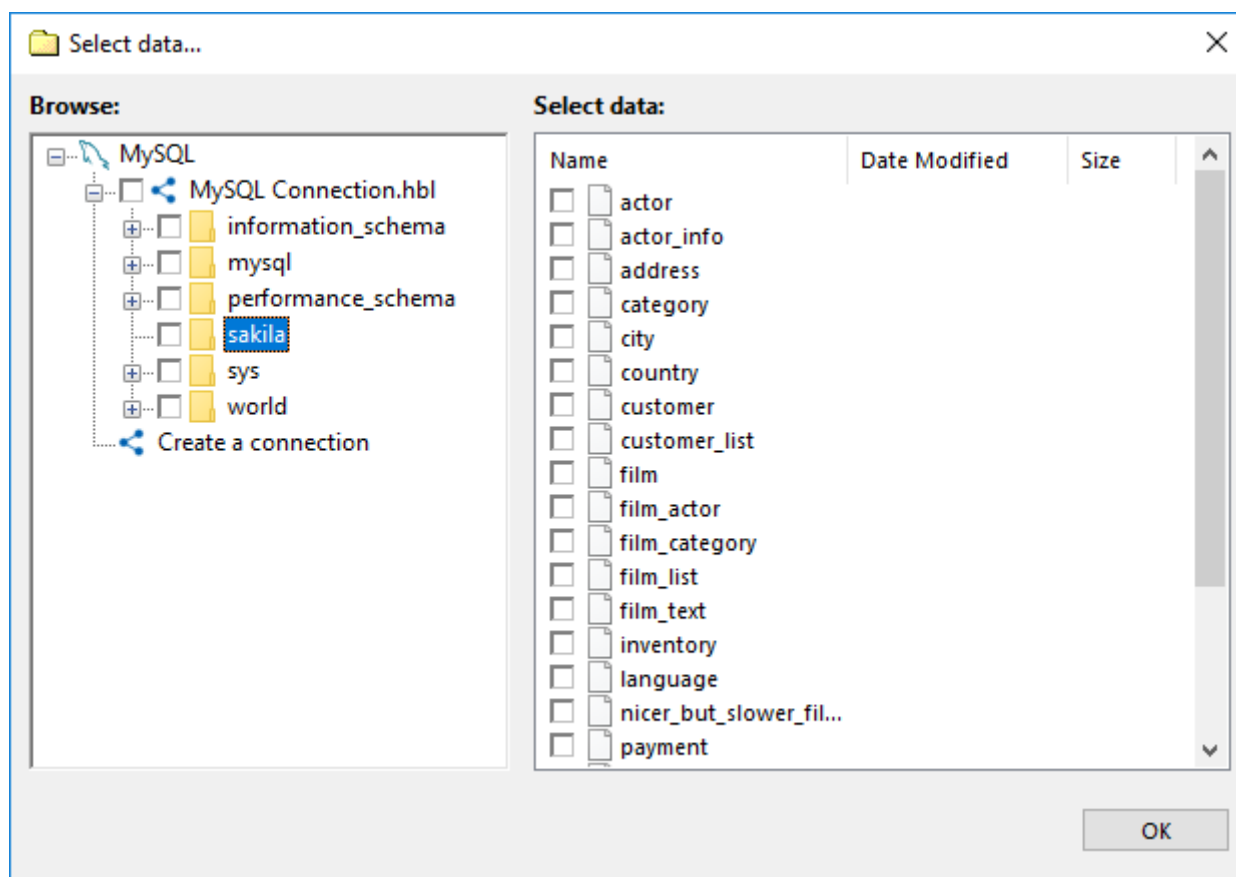
The software creates [database dump files](#), one file per table. Each backup file is named after the respective table and contains all SQL statements required to create the table and fill it up with data. The format is very understandable and can be easily modified prior to restoration (provided that you keep the SQL syntax correct).

At present, the plug-in supports only the **DROP-CREATE** method that suggests that restoration of the backup will firstly delete database or table, and then rebuild it from zero.

Backing up

To back up a MySQL database, follow these steps:

1. Click the **New Task** icon on the toolbar.
2. Select **Backup** task, and then click Next.
3. Click on the **MySQL** in the **Database** group to add MySQL to backup list. The **Select data...** dialog will open.
4. Select a MySQL configuration, and click the plus **[+]** sign control next to it. When a connection is established, a list of available databases appears.



Handy Backup User Manual

Note: If you have no MySQL configurations, then you need to create one. To learn how to do it, please see [Creating MySQL Configurations](#).

5. Navigate through the list of databases by expanding and collapsing the tree structure through the plus **[+]** and minus **[-]** sign controls.
6. Check the boxes next to the databases and tables that you want to back up.
7. When finished, click **OK**.
8. Click **Next** to finish data selection.

After selecting data for backup, you will need to select destination, enable compression and other options, and name the task. These steps are not specific to MySQL, and you can find the respective instructions in the [Backup Task](#) chapter.

User Privileges

To browse the databases, select data, and run backups, the MySQL user must have enough privileges to run the SHOW DATABASES, SHOW TABLES and statements for each object that you are planning to back up.

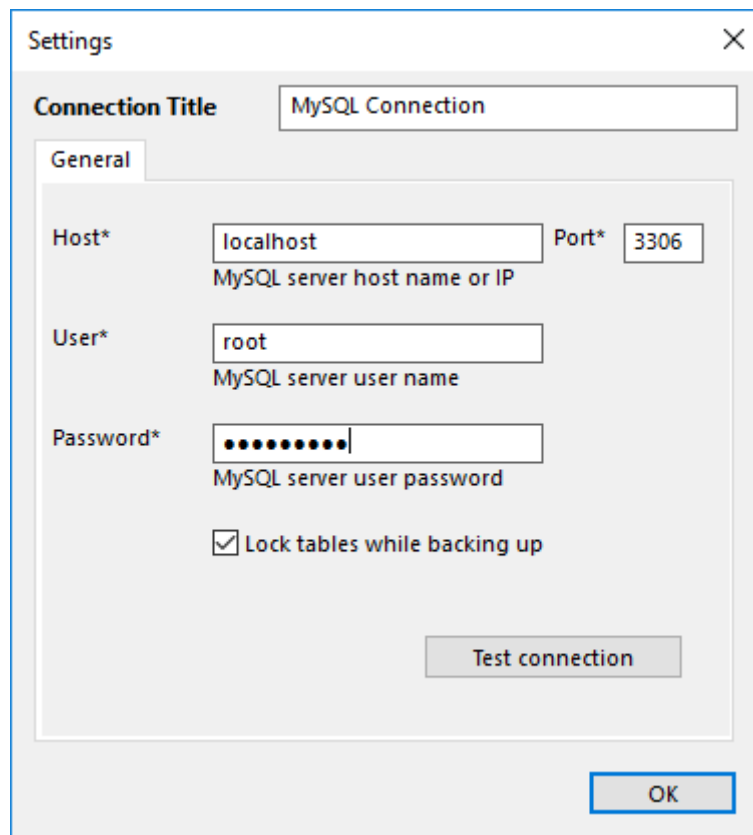
Configurations

To perform backup or restoration with the **MySQL** plug-in, you need to create a configuration defining how to connect to your databases.

To create a configuration for the **MySQL** plug-in, follow these steps:

1. Click **New configuration** during creation of a backup or a restore task. The **Settings** dialog opens.
2. In the **Configuration** field, enter a name for the configuration.
3. In the **Host** field, enter host name or IP address of your MySQL server.
4. In the **Port** field, enter port number to connect to MySQL. The default port is **3306**.
5. In the **User** field, enter MySQL user name.
6. In the **Password** field, enter MySQL password.
7. Click **Test connection** to verify that all fields are filled correctly.
8. When finished, click **OK**.

The configuration dialog looks as follows:



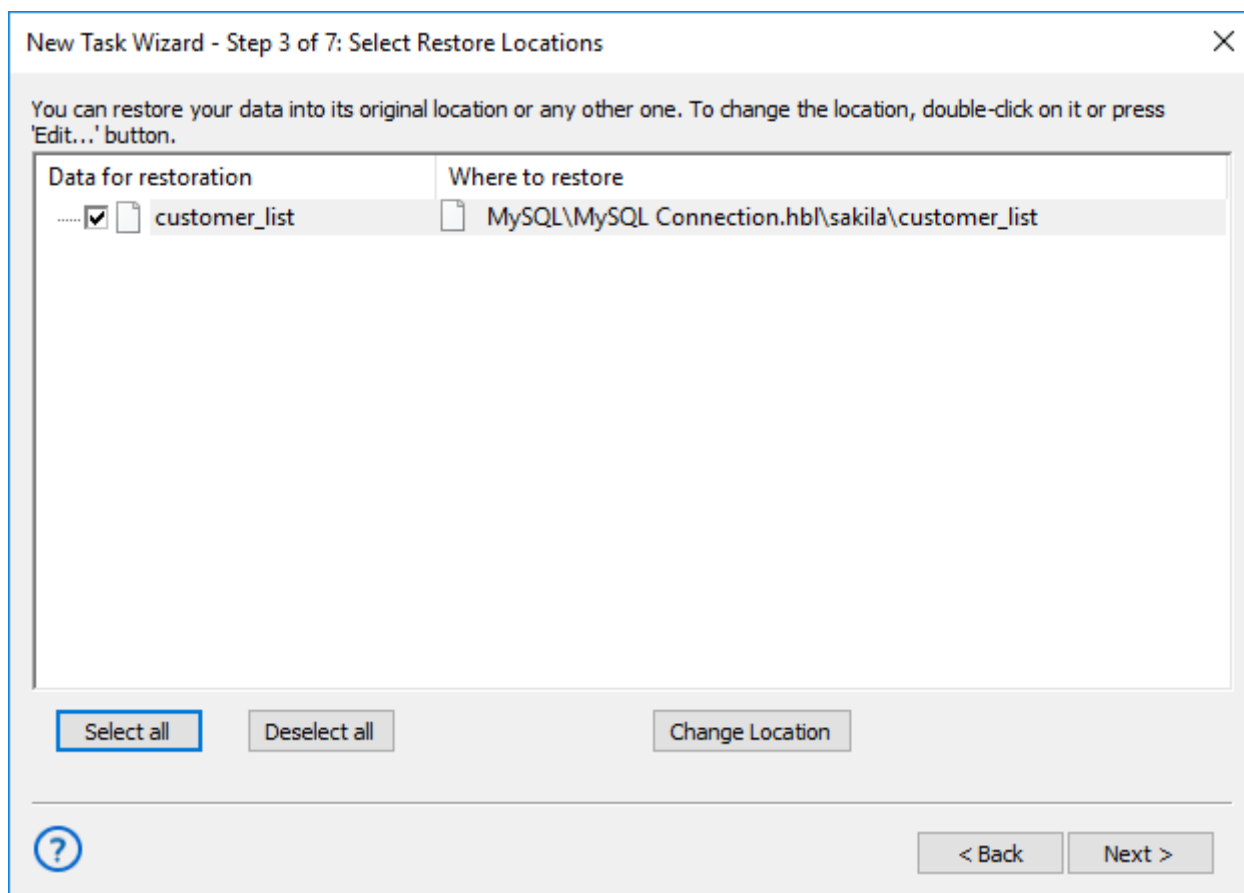
The MySQL user must have sufficient privileges to perform the desired actions:

- To open plug-in listings, browse through the list of databases and select data to be backed up, the MySQL user must be allowed to run the SHOW DATABASE and SHOW TABLES statements.
- To create backups, the MySQL user must have the privileges to run the SELECT statements for each database and table that you want to back up.
- To restore data, the MySQL user must have full privileges to drop databases and tables and restore them from zero.

Restoring

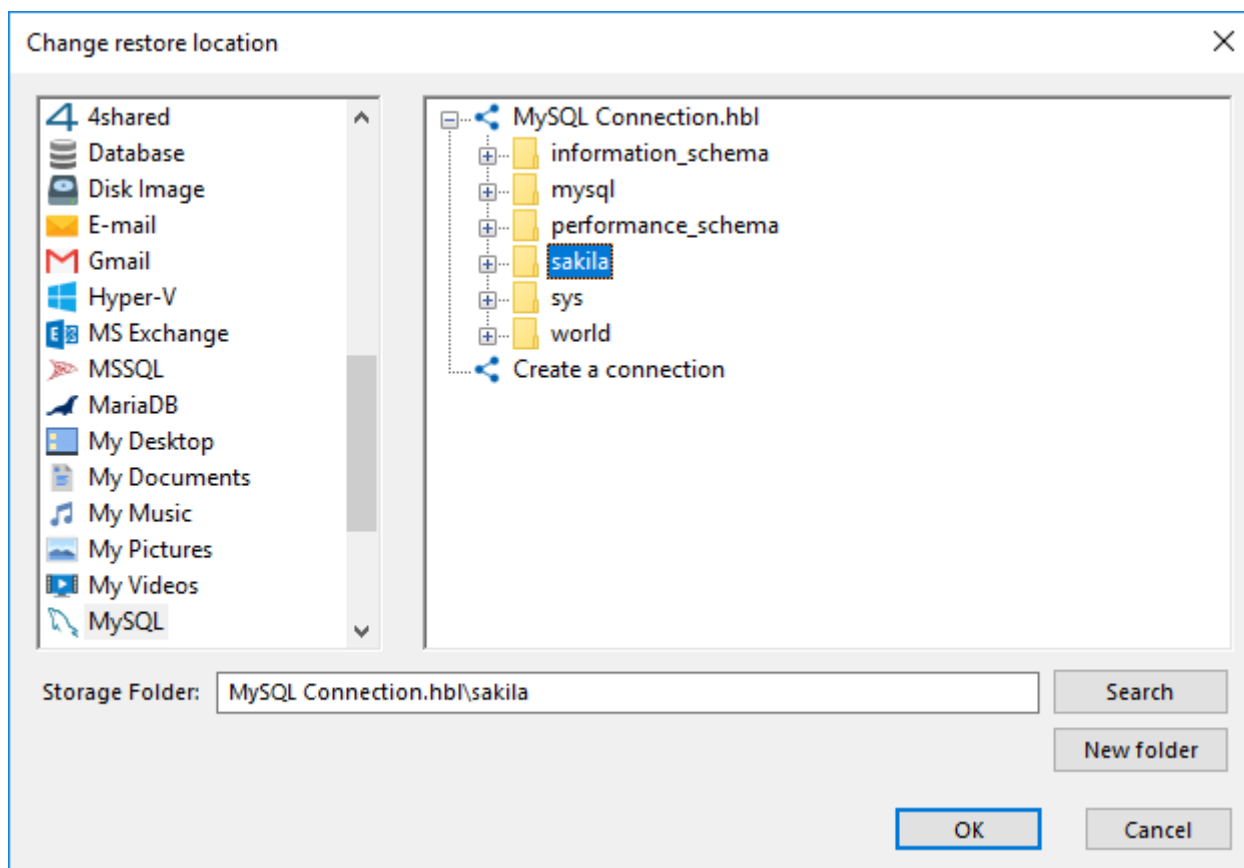
To restore a backup made with the **MySQL** plug-in, follow these steps:

1. Click the **New Task** icon on the toolbar.
2. Select **Restore** task, and then click **Next**.
3. Browse for the index file (**backup.hbi**) located in the destination folder. Select it, and then click **Next**.
4. In the **Select Restore Locations** dialog, verify the details of restoration.



Note: The **MySQL** plug-in requires you to have a configuration that defines how to connect to the database. If you are restoring the backup on the same machine where it was made, then you should already have it. If you want to restore the backup with a different or fresh installation of Handy Backup, you need to create it. To do it, follow these steps:

- 4.1 In the **Select Restore Locations** dialog, select any object (database or table), and then click **Change Location**. The **Change restore location** dialog opens.



4.2 Make sure that **MySQL** is selected in the left pane. In the right pane, double-click **New configuration**. The Settings dialog opens.

4.3 Create a MySQL configuration named identically to the original configuration. To learn how to do it, please see [MySQL Plug-in: Configurations](#).

4.4 After creating the configuration, click **Cancel** to return to the **Select Restore Locations** dialog. You don't need to actually change restore location, only create the configuration.

After selecting the backup to be restored, you will need to select type of restoration, enter decryption password (for an encrypted backup), etc. These steps are not specific to MySQL, and you can find the respective instructions in the [Restore Task](#) chapter.

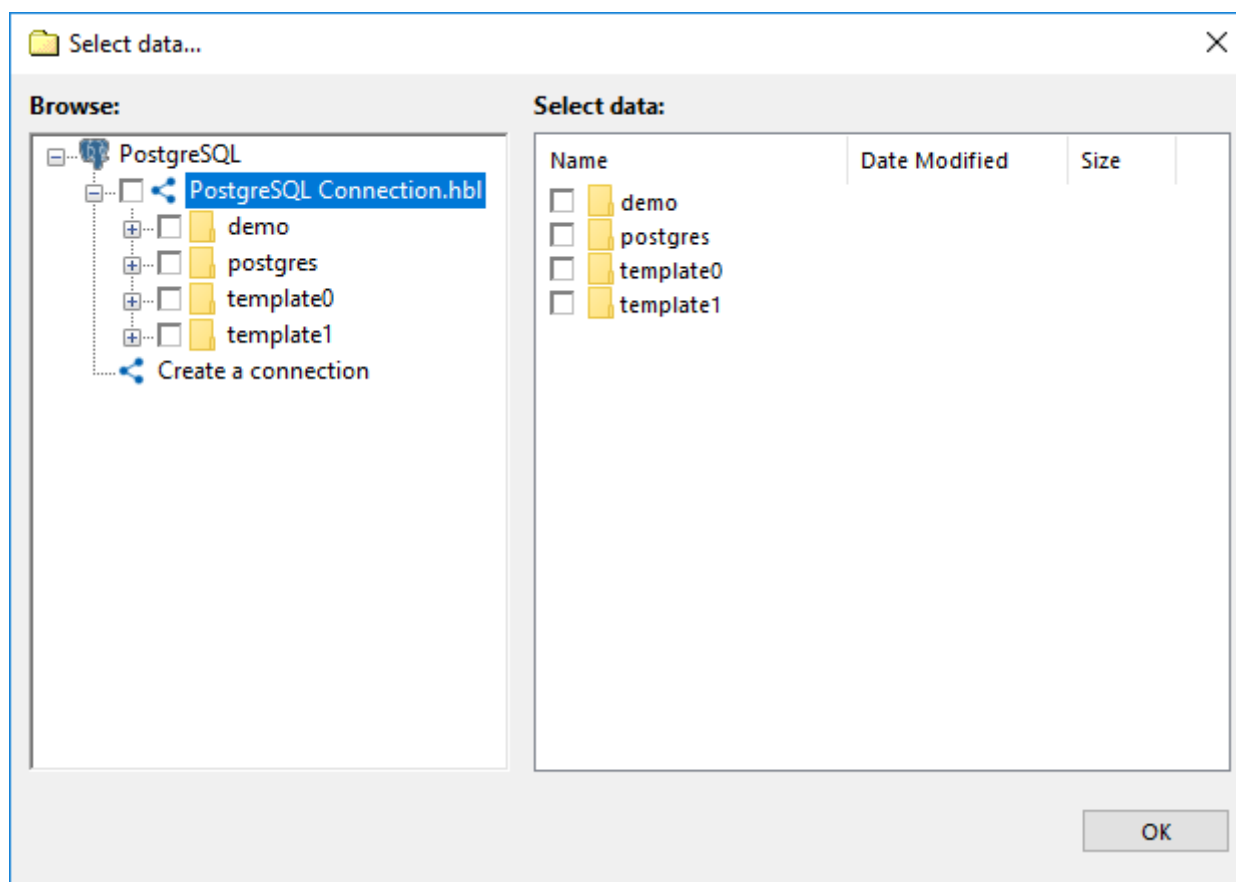
PostgreSQL Plug-in

The **PostgreSQL** plug-in operates as the standard PostgreSQL client application. It provides the software with access to all declared PostgreSQL databases and tables. The resulting file system provided by this plug-in looks like this structure:

- **Folders** correspond to PostgreSQL databases. Folder attributes are not supported.
- **Files** correspond to tables. File attributes are not supported.

Handy Backup User Manual

Since the plug-in provides no attributes for folders and files, it cannot be effectively used with incremental backup option, i.e. allows the differential backup only. To learn more about how the software works with file attributes, please refer to [Plug-in File Systems](#).



Format of the Backup Files

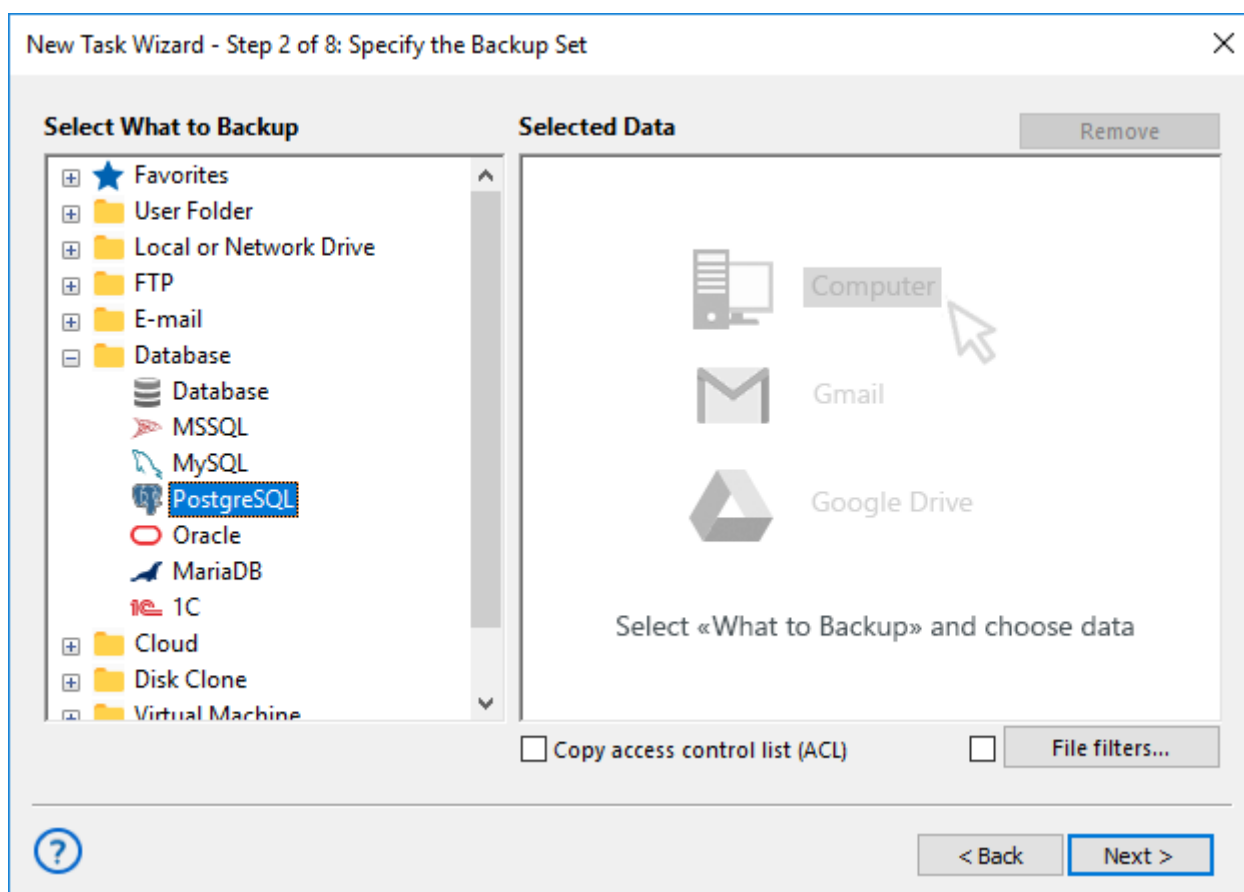
The PostgreSQL plug-in creates [database dump files](#), one file per table. Each backup file is named after the respective table and contains all the PostgreSQL statements and actions required to create and fill up the table with data. This format is completely understandable and readable. It can be easily modified prior to restoration (provided that you keep the SQL syntax correct).

At present, the plug-in supports only the **DROP-CREATE** restoration method, deleting the table before restoration and then rebuilding it from zero.

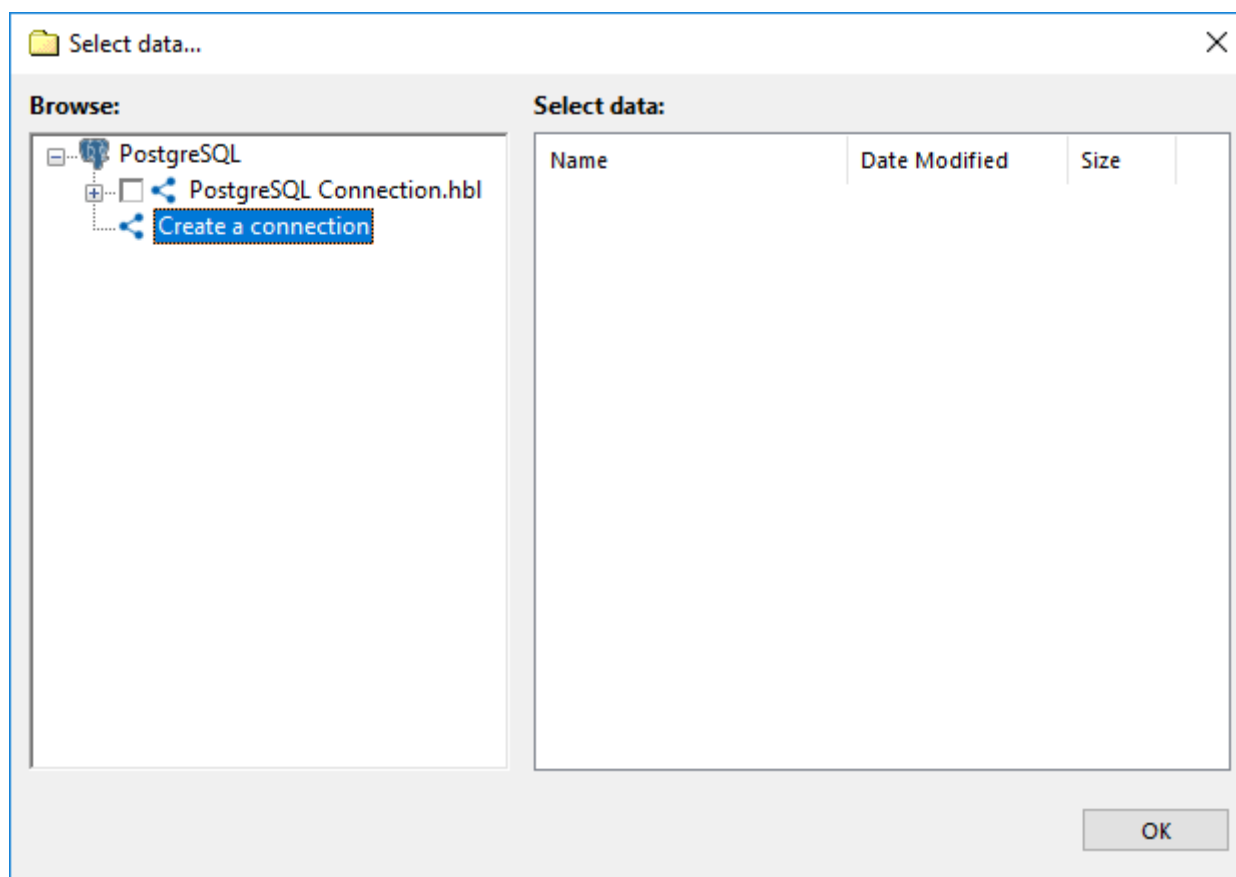
Backing Up Using PostgreSQL Plug-in

To back up a PostgreSQL database, follow these steps:

1. On the toolbar, click the **New Task** icon.
2. Select the **Backup task**, and then click **Next**.



3. Click on the **PostgreSQL** option in the **Database** group. The **Select data...** dialog will open.



4. Select a PostgreSQL configuration, and click the plus **[+]** sign control next to it. When a connection is established, a list of available databases appears.

Note: If you have no PostgreSQL configurations, then you need to create one. To learn how to do it, please see about [creating PostgreSQL Configurations](#).

5. Browse through the list of databases by expanding and collapsing the tree structure through the plus **[+]** and minus **[-]** sign controls.
6. Check the boxes next to the databases and tables that you want to back up.
7. When the selection finished, click **OK**.
8. Click **Next** to finish data selection.

After selecting data for backup, you will need to select destination, enable compression and other options, and name the task. These steps are not specific to PostgreSQL, and you can find the respective instructions in the [Backup Task](#) chapter.

User Privileges

To browse PostgreSQL databases, select data and run backups, the PostgreSQL user must have enough privileges to run the SELECT statements for each object that you are planning to back up.

Configuration

To use **PostgreSQL** plug-in properly for backing up or restoring data, you will need to create a plug-in configuration specifying the connection to your databases.

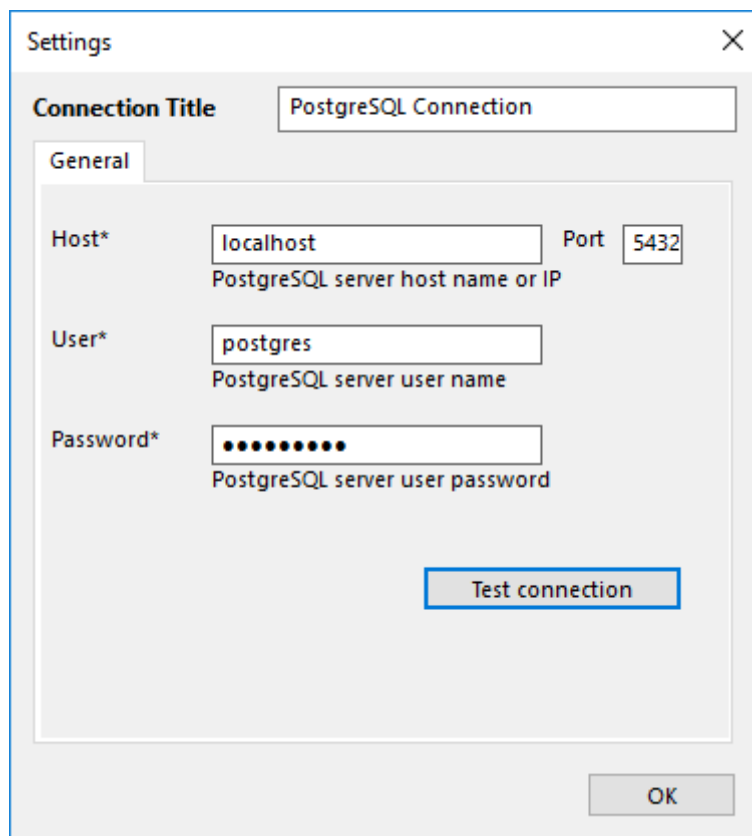
To specify the configuration for the **PostgreSQL** plug-in, please follow these steps:

1. Click on the **New configuration** option during creation of a backup or a restore task. The **Settings** dialog opens.
2. In the **Configuration** field, enter a name for the configuration created.
3. In the **Host** field, enter host name or IP address of your PostgreSQL server.
4. In the **Port** field, enter the port number to connect to PostgreSQL. The default port is **5432**.
5. In the **User** field, enter your PostgreSQL user name.
6. In the **Password** field, enter the PostgreSQL password specified for you.

Handy Backup User Manual

7. Click the **Test connection** to verify that all fields are filled correctly.
8. When all these steps finished, click **OK**.

The configuration dialog looks like the picture shown:



The screenshot shows a 'Settings' dialog box with a title bar containing a close button (X). The dialog has a 'Connection Title' field with the text 'PostgreSQL Connection'. Below this is a 'General' tab. Inside the 'General' tab, there are three input fields: 'Host*' with the value 'localhost', 'Port' with the value '5432', 'User*' with the value 'postgres', and 'Password*' with masked characters (dots). Below each input field is a descriptive label: 'PostgreSQL server host name or IP', 'PostgreSQL server user name', and 'PostgreSQL server user password'. At the bottom right of the 'General' tab is a 'Test connection' button. At the bottom right of the entire dialog is an 'OK' button.

The user configuring PostgreSQL plug-in must have sufficient privileges to perform these actions:

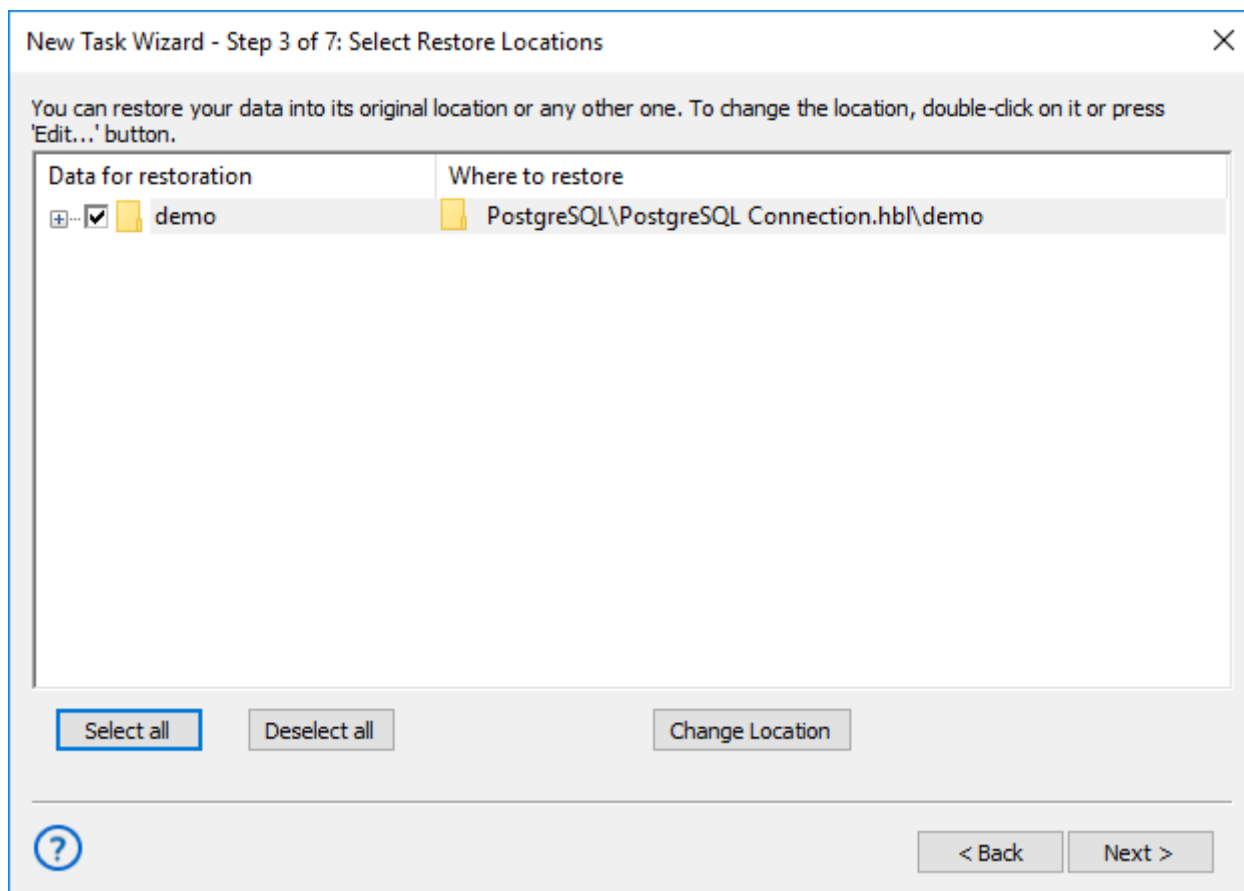
- To create backups, the PostgreSQL user must have the privileges to run the **SELECT** statements for each database and table that you want to back up.
- To restore data, the PostgreSQL user must have full privileges to drop databases and tables and restore them from zero.

PostgreSQL Restoration

To restore a backup made with the **PostgreSQL** plug-in, follow these steps

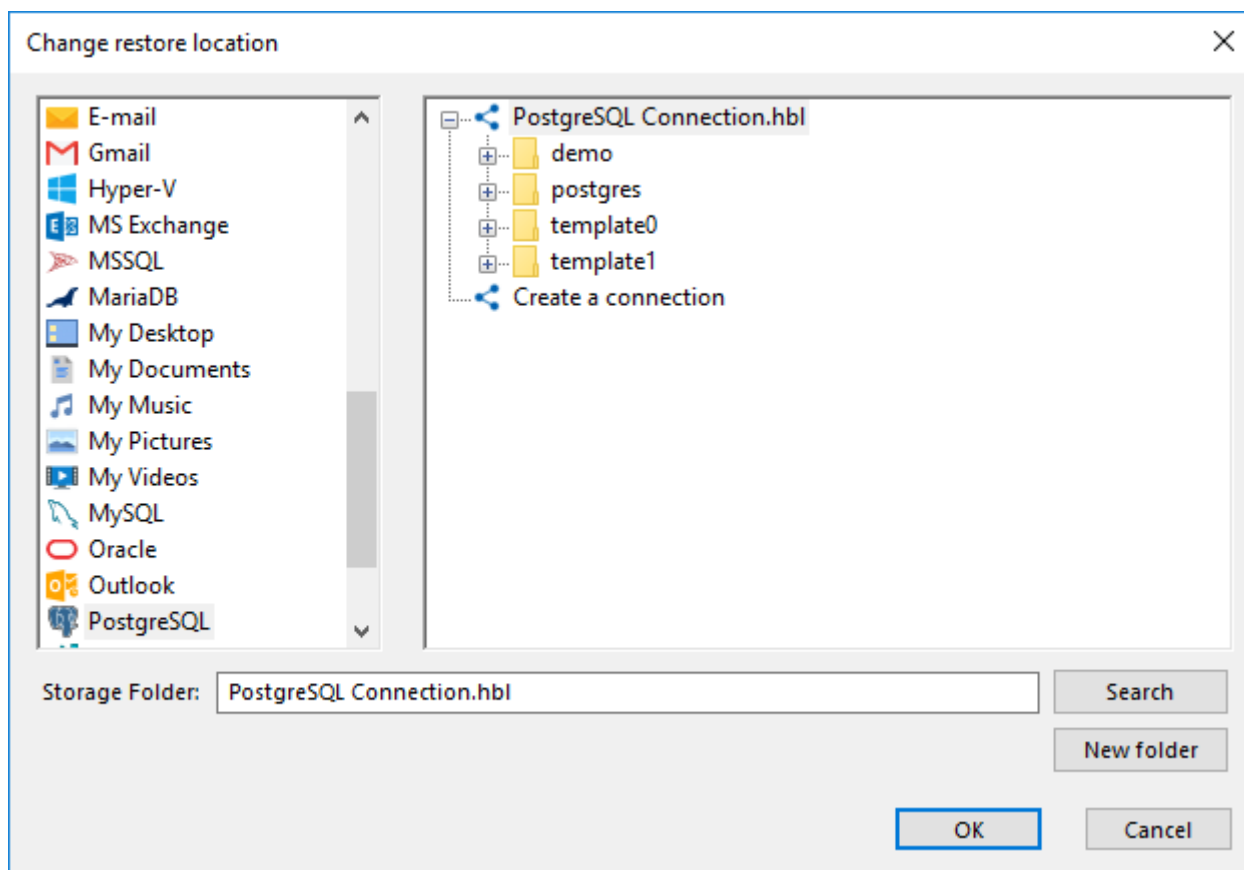
1. On the toolbar, click the **New Task** icon.
2. Select **Restore** task, and then click **Next**.
3. Browse for the index file (**backup.hbi**) located in the destination folder. Select it, and then click **Next**.

4. In the **Select Restore Locations** dialog, verify the details of restoration.



Note: Using the **PostgreSQL** plug-in you must have a configuration that defines how to connect to the database. If you are restoring the backup on the same machine where it was made, then you should already have it. If you want to restore the backup with a different or fresh installation of Handy Backup, then you will need to create it. To do it, follow these steps:

- 4.1 In the Select Restore Locations dialog, select any object (database or table), and then click **Change Location**. The **Change restore location** dialog opens.



- 4.2 Make sure that **PostgreSQL** is selected in the left pane. In the right pane, double-click **New configuration**. This action will open the Settings dialog.
- 4.3 Create a PostgreSQL configuration named identically to the original configuration. To learn how to do it, please see about configuring PostgreSQL plug-in.
- 4.4 After creating the configuration, click **Cancel** to return to the **Select Restore Locations** dialog. You don't need to actually change restore location, only create the configuration.

After selecting the backup data for the restoration, you will need to select the type of restoration, to enter the decryption password (for an encrypted backup), etc. These steps are not specific to PostgreSQL, and you can find the respective instructions in the [Restore Task](#) chapter.

Oracle plug-in

Oracle Database is a database management system produced and marketed by Oracle Corporation. Oracle Database software have been translated into more than 60 languages.

The [Oracle Backup](#) plug-in allows protecting data stored and used by Oracle database, without stopping the service.

Handy Backup User Manual

Before using Oracle plug-in you must configure the Oracle database engine first, and then add a specific user in a **ORA_DBA** group allowing him or her to run Oracle backup and restoration procedures.

Configuring the Oracle Plug-in

In order to make "hot backups" without stopping an Oracle engine, it is necessary first to enable the **ARCHIVELOG** mode. If the database runs in the **NOARCHIVELOG** mode, then it will be backed up in "cold" mode only (after stopping it).

To check which mode is active just now, use the following SQL operation:

```
SQL> select log_mode from sys.v$database;
```

If the value of **LOG_MODE** is **NOARCHIVELOG**, then you need to change it applying the following query:

```
SQL> alter database archivelog;
```

Note: To change the mode, your Oracle database instance must be mounted but not open. If it is open, you need to shutdown it, startup it with the **mount** option, enable the **ARCHIVELOG** mode, and then open the database for normal use:

```
SQL> shutdown immediate;
```

```
SQL> startup mount;
```

```
SQL> alter database archivelog;
```

```
SQL> alter database open;
```

Configuring of Remote Backup

If you use the **Server Network** edition of this software, it is possible to work with Oracle databases located on a workstation connected with the server via network. Follow these steps to set up this option properly:

1. First, install **Workstation Agent** on the computer with Oracle database.
2. Add the user account under which the Workstation will be launched to the **ORA_DBA** group.

Backups of local database can be created with any edition that has the **Oracle** plug-in available. The user account under which the program runs must have membership of the **ORA_DBA** group.

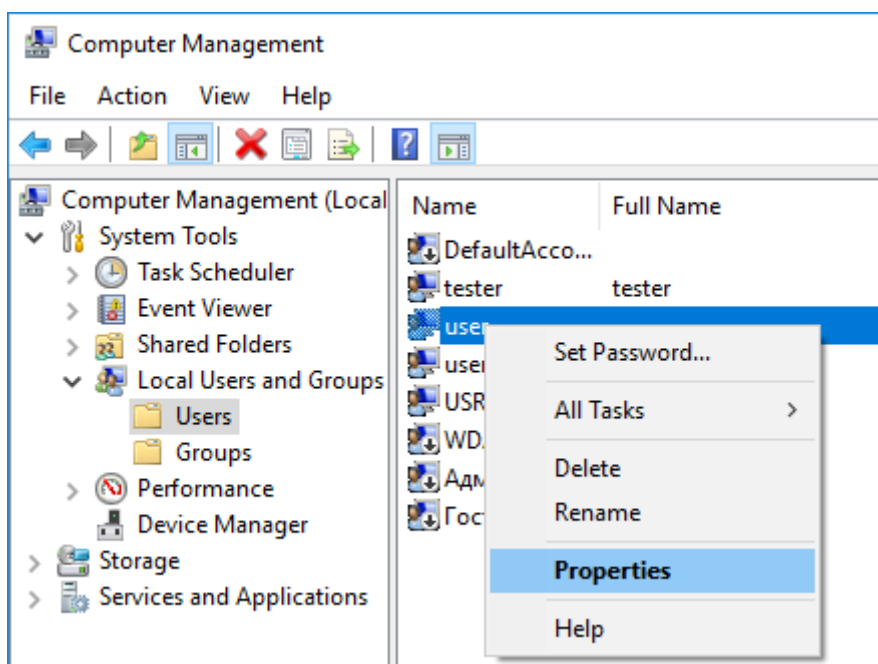
Adding Users to the ORA_DBA Group

To add a user to the **ORA_DBA** group, you must perform these next operations:

1. Make sure that you have Oracle installed on your PC.

Handy Backup User Manual

2. On the **Windows Start** menu, right click **Computer**, and then click **Manage**. The **Computer Management** dialog opens.
3. In the left pane, expand **System Tools**, then expand **Local Users and Groups**, and then click **Users**.
4. In the right pane, right-click the desired user account, and then click **Properties**. The **User Properties** dialog opens.



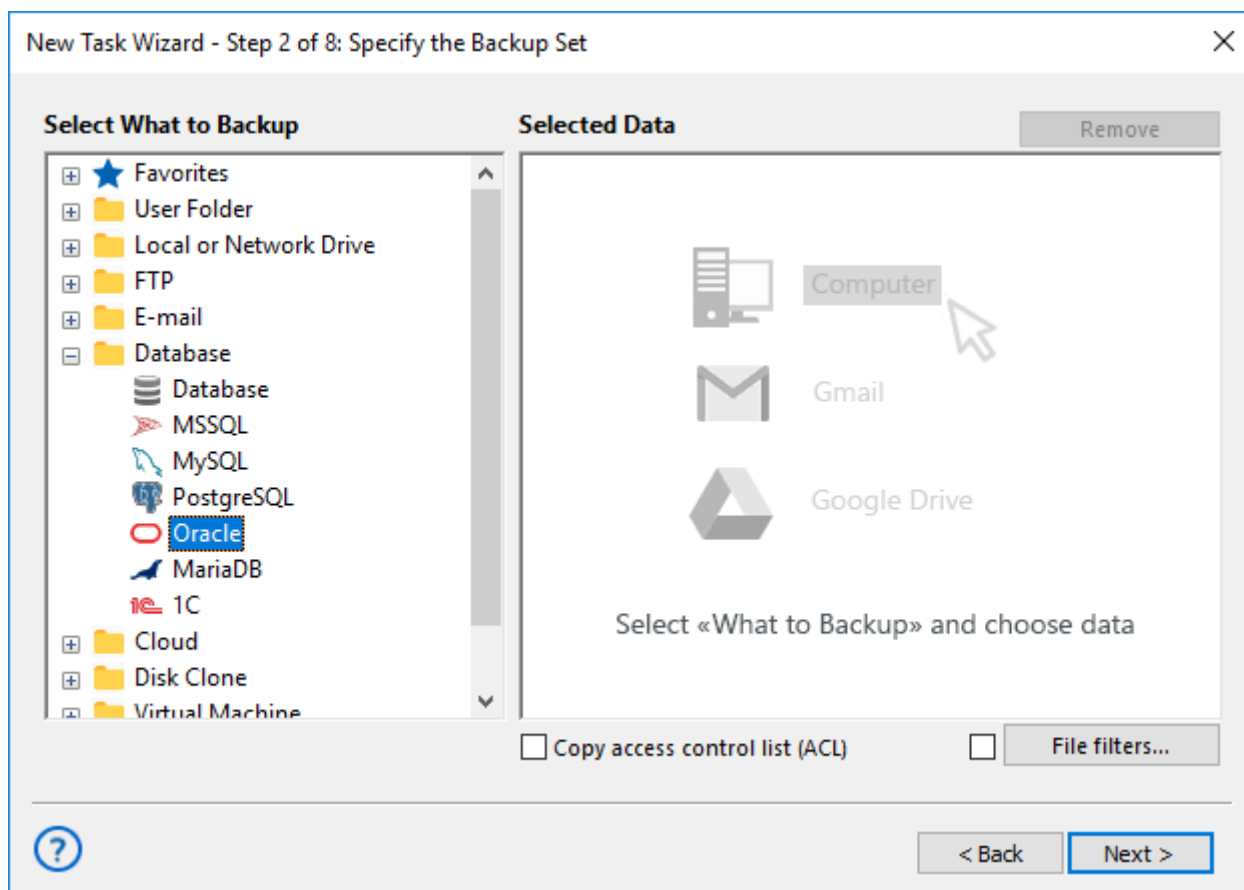
5. Under the **Member Of** tab, click **Add**.
6. In the bottom pane, select **ORA_DBA**, and then click **OK**.

Backing up Oracle databases

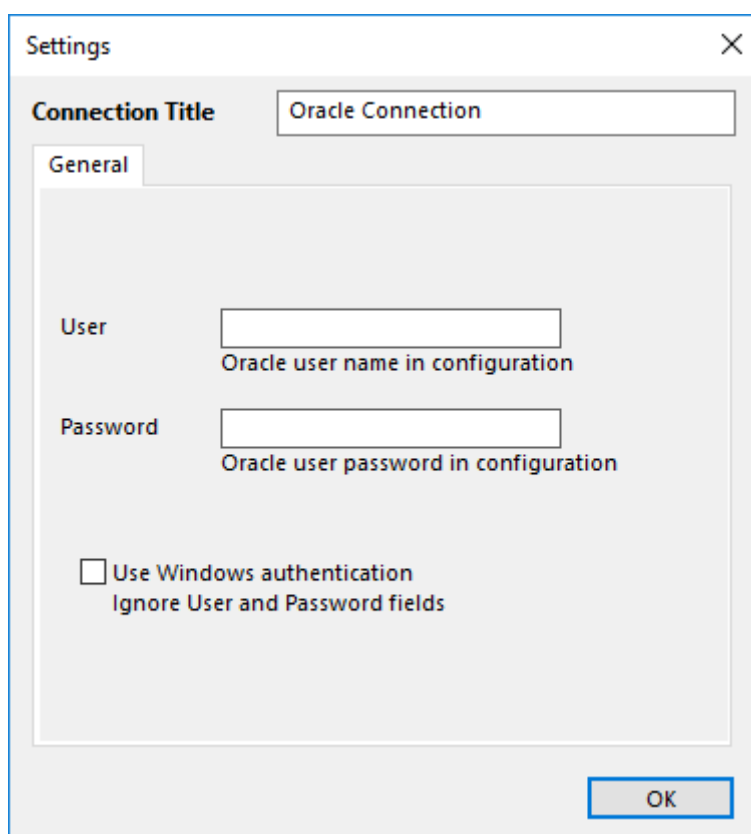
After an Oracle engine has tuned properly, you can easily make backup or restoration tasks using Oracle databases as target data type.

To make a backup, do the following:

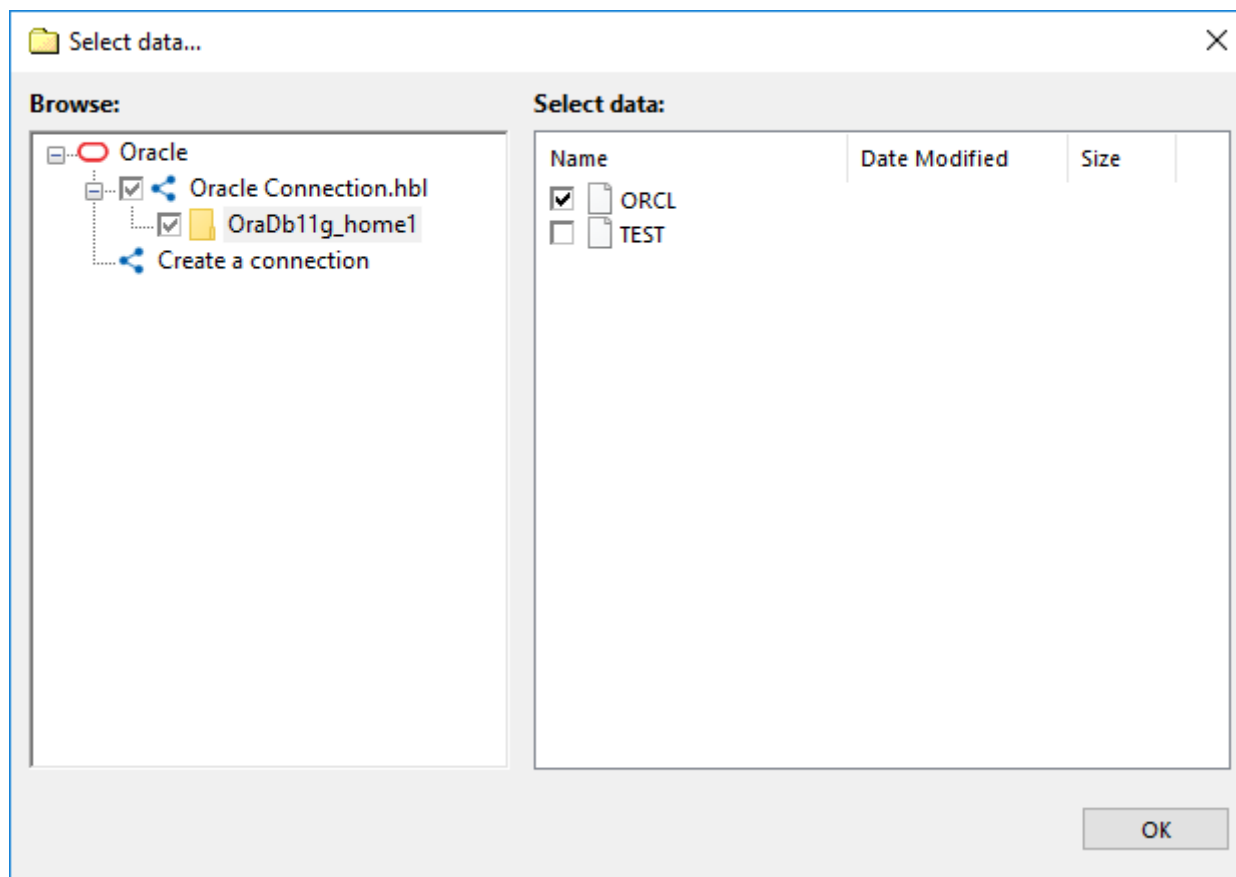
1. Select **Backup task** in New Task Wizard.
2. Select **Oracle** option in the **Database** group on Step 2 of New Task Wizard. Click on **Oracle** plug-in name.



3. If you still have no Oracle connection, click onto **Create a connection** string.



4. In the connection setup dialog, provide all parameters to access an Oracle server.
5. Click on a chosen connection name. In a data selection dialog, mark checkboxes against Oracle data that you plan to back up.



6. Set up all other task parameters and click OK. Your backup is ready.

Restoring - Preparing Oracle to Accept a Lost Database

To make a destination for a lost or moved Oracle database, please follow the next instruction.

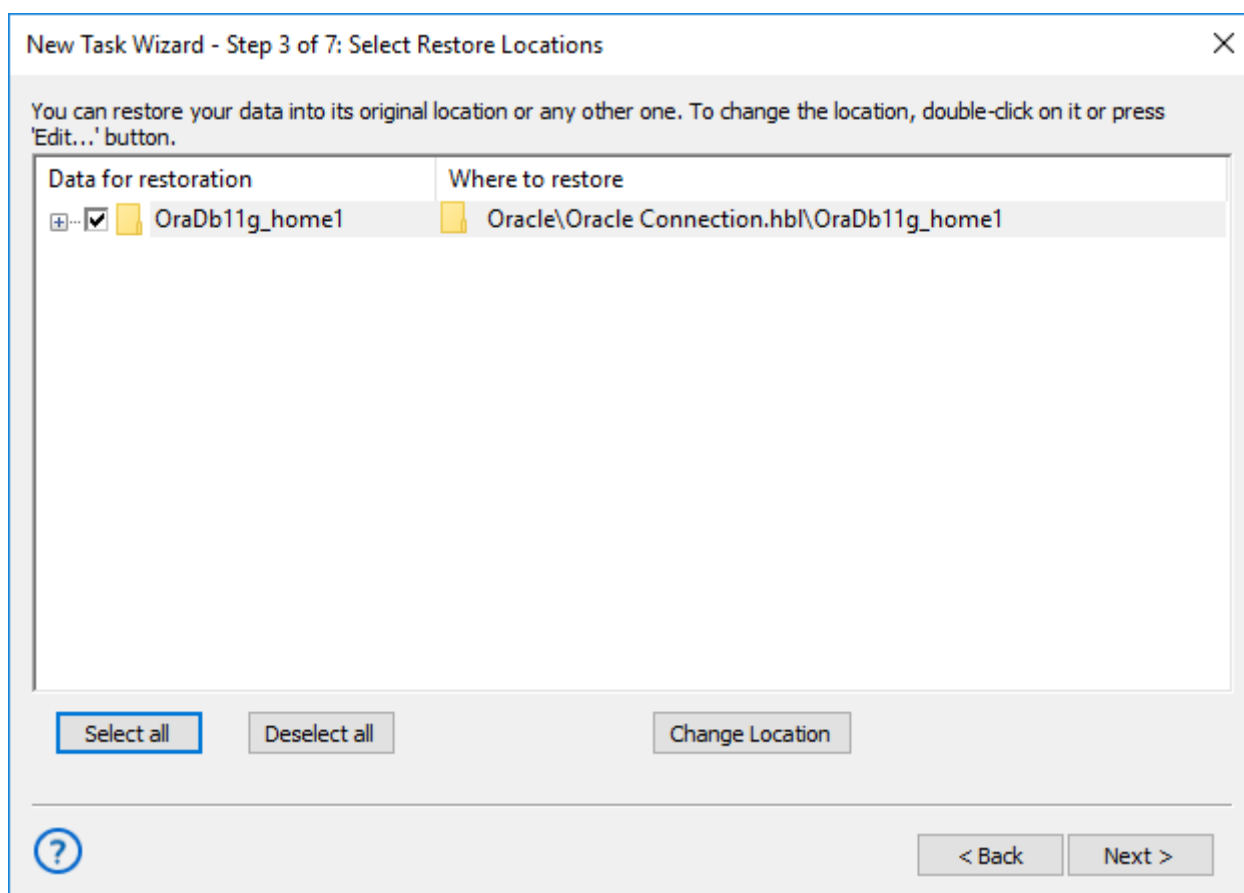
1. Make a new database with the same **BASE_NAME** and **SID** as for your database backup. You can use the **Database Configuration Assistant** to make a new database. Please check that the paths for data keeping correspond to the paths for a backup base.
2. Stop the database instance service and all control processes (**controlfile**) for a newly created database.
3. Restart this service again.
4. Restore the database content as described below.
5. Wait until finishing the restoration process.

If an auto restoring does not complete by some reason, we are recommending restoring the lost database manually using Handy Backup files. In this cause, please report to our technical support by sending an email at an address: support@handybackup.net.

Restoration

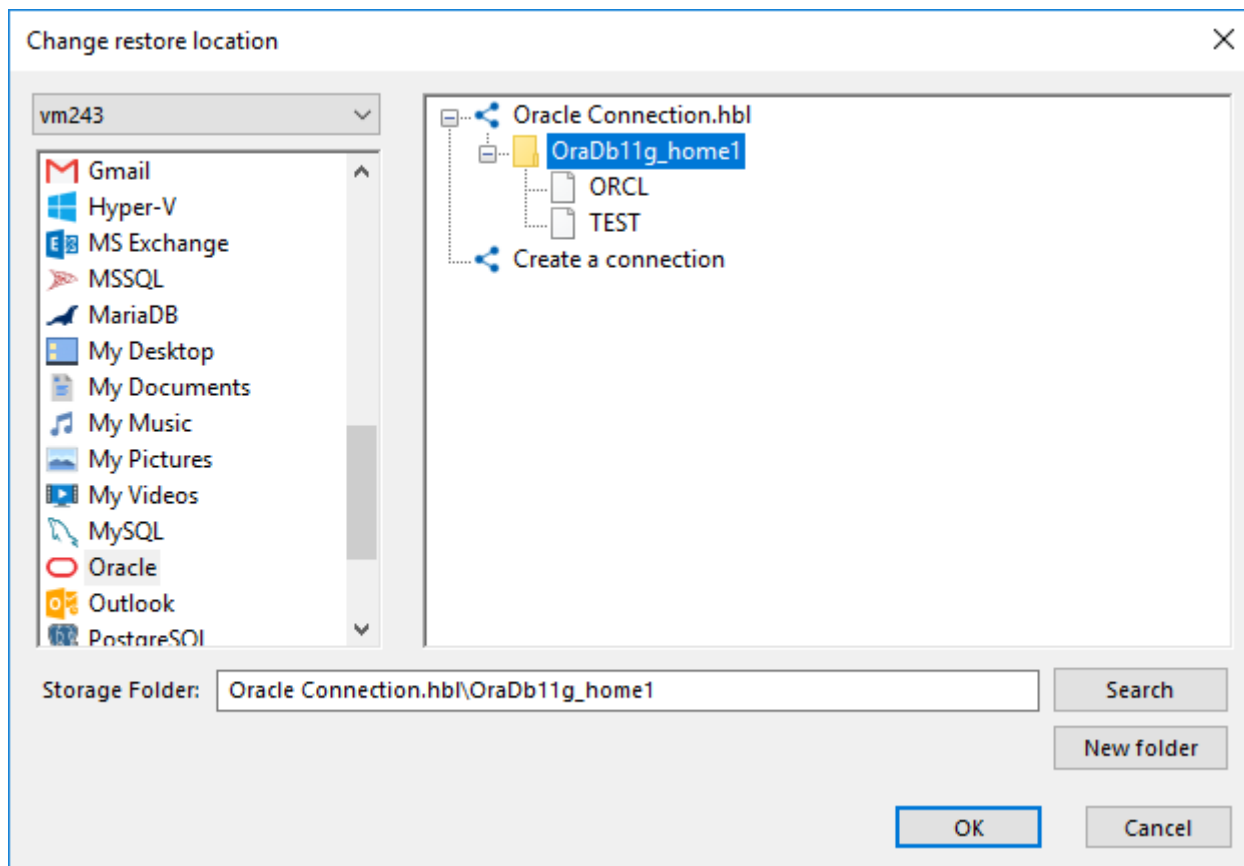
To restore an Oracle database from backup using the **Oracle** plug-in, please follow these steps:

1. Click the **New Task** icon on the toolbar.
2. Select **Restore** task, and then click **Next** to go to the Step 2.
3. Browse your backup destination for the index file (**backup.hbi**) located in the destination folder. Select it, and then click **Next**.
4. In the **Select Restore Locations** dialog, verify the details of restoration.



Note: To connect to Oracle DBMS, the **Oracle** plug-in requires a ready database. If you are restoring the backup to the same location from which it was taken, then you should already have at least one database opened for backup and restore in this location. Else, or for a freshly installed Handy Backup, you must to prepare a database for restoring. To do it, please follow these steps:

- In the Select Restore Locations dialog, select any object (database or table), and then click **Change Location**. The **Change restore location** dialog opens.



- Make sure that **Oracle** is selected in the left pane.
- Prepare an Oracle database for working with, as described for general Oracle plug-in using.
- Select a database where you will plan to restore an Oracle backup content among the database list in the right pane.

After selecting the backup file to restore, you will need to select other task parameters, such as the type of restoration, enter decryption password (for an encrypted backup), etc. These steps are not specific to Oracle, and you can find the respective instructions in the [Restore Task](#) chapter.

MariaDB Plug-in

The **MariaDB plug-in** acts as a common MariaDB client application and provides access to MariaDB databases and tables. File system provided by the plug-in is organized as follows:

- **Folders** correspond to MariaDB databases. Folder attributes are not supported.
- **Files** correspond to tables. File attributes are not supported.

Handy Backup User Manual

Since the plug-in provides no attributes for folders and files, it cannot be effectively used with incremental backup option, i.e. allows for differential backup only. To learn how the software works with file attributes, please refer to [Plug-in File Systems](#).

Format of the Backup Files

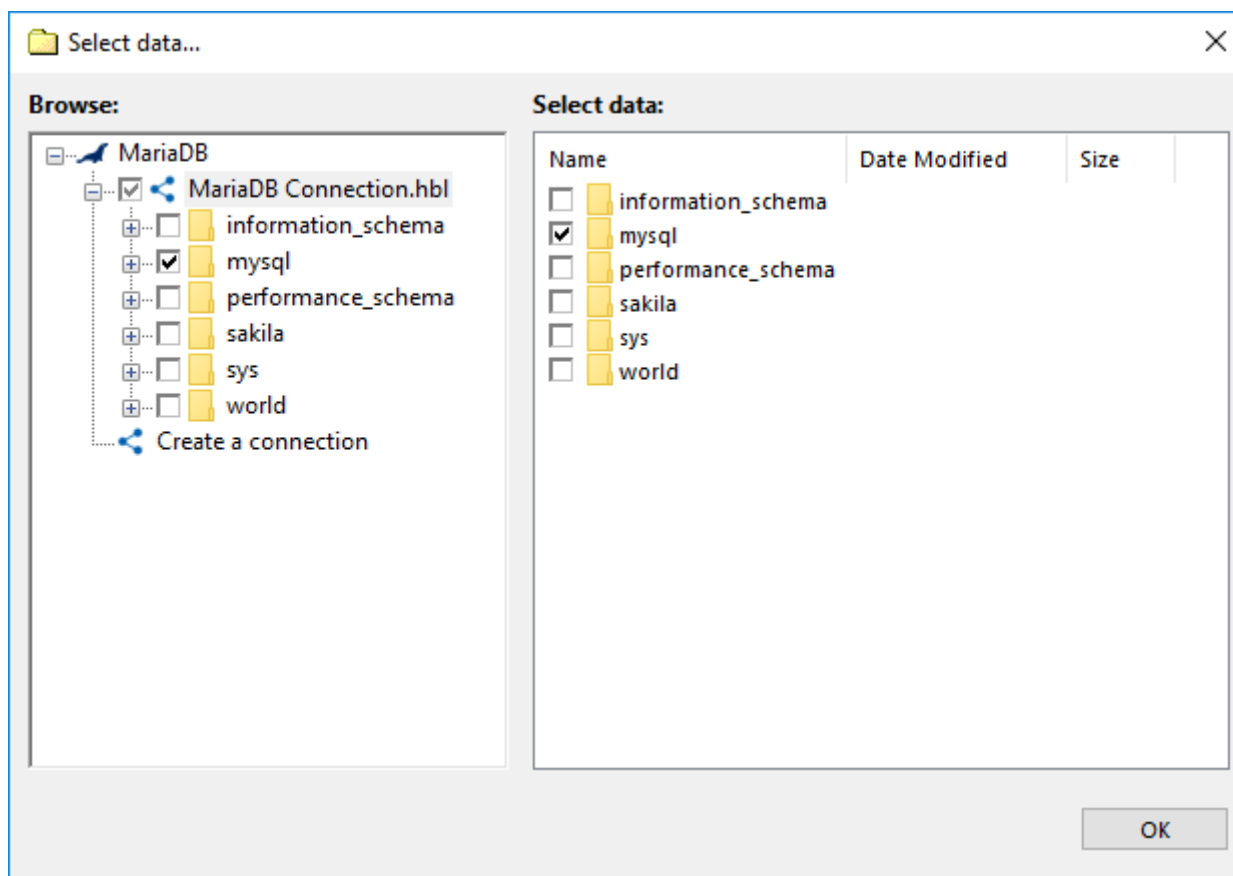
The software creates [database dump files](#), one file per table. Each backup file is named after the respective table and contains all SQL statements required to create the table and fill it up with data. The format is very understandable and can be easily modified prior to restoration (provided that you keep the SQL syntax correct).

At present, the plug-in supports only the **DROP-CREATE** method that suggests that restoration of the backup will firstly delete database or table, and then rebuild it from zero.

Backing up

To back up a MariaDB database, follow these steps:

1. Click the **New Task** icon on the toolbar.
2. Select **Backup** task, and then click Next.
3. Click on the **MariaDB** plug-in name in the **Database** group. The **Select data...** dialog will open.



Note: If you have no MariaDB configurations, then you need to create one. To learn how to do it, please see [Creating MariaDB Configurations](#).

4. Select a MariaDB configuration, and click the plus **[+]** sign control next to it. When a connection is established, a list of available databases appears.
5. Navigate through the list of databases by expanding and collapsing the tree structure through the plus **[+]** and minus **[-]** sign controls.
6. Check the boxes next to the databases and tables that you want to back up.
7. When finished, click **OK**.
8. Click **Next** to finish data selection.

After selecting data for backup, you will need to select destination, enable compression and other options, and name the task. These steps are not specific to MariaDB, and you can find the respective instructions in the [Backup Task](#) chapter.

User Privileges

To browse the databases, select data, and run backups, the MariaDB user must have enough privileges to run the **SHOW DATABASE**, **SHOW TABLES** and **SELECT** statements for each object that you are planning to back up.

Configurations

To perform backup or restoration with the **MariaDB** plug-in, you need to create a configuration defining how to connect to your databases.

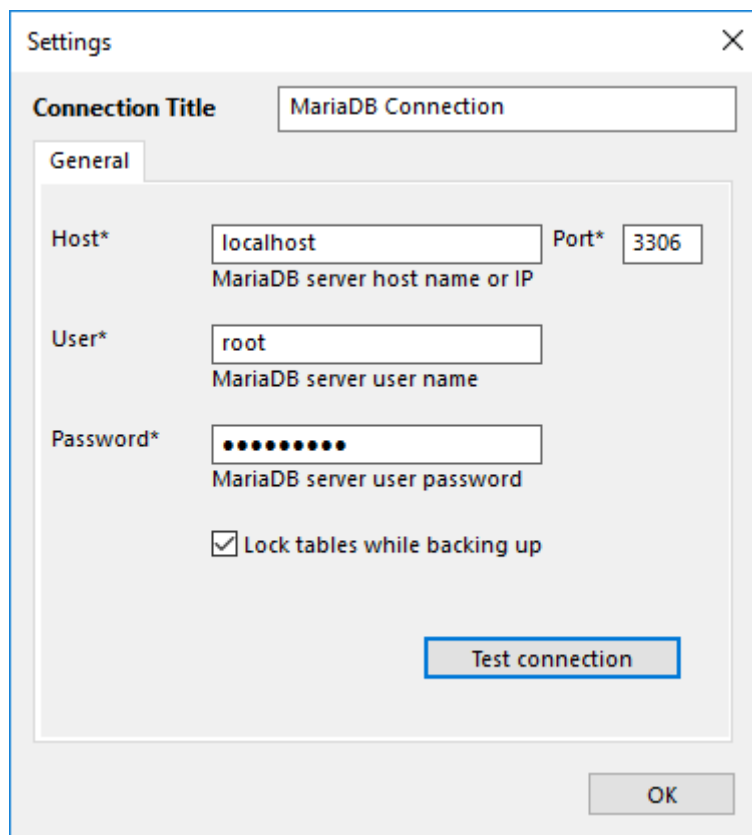
To create a configuration for the **MariaDB** plug-in, follow these steps:

1. Click **New configuration** during creation of a backup or a restore task. The **Settings** dialog opens.
2. In the **Configuration** field, enter a name for the configuration.
3. In the **Host** field, enter host name or IP address of your MariaDB server.
4. In the **Port** field, enter port number to connect to MariaDB. The default port is **3306**.
5. In the **User** field, enter MariaDB user name.
6. In the **Password** field, enter MariaDB password.
7. Click **Test connection** to verify that all fields are filled correctly.

Handy Backup User Manual

8. When finished, click **OK**.

The configuration dialog looks as follows:



The screenshot shows a 'Settings' dialog box with a title bar containing a close button (X). The dialog has a 'Connection Title' field at the top with the text 'MariaDB Connection'. Below this is a 'General' tab. Inside the 'General' tab, there are three input fields: 'Host*' with the value 'localhost', 'Port*' with the value '3306', and 'User*' with the value 'root'. Each input field has a descriptive label below it: 'MariaDB server host name or IP', 'MariaDB server user name', and 'MariaDB server user password' respectively. The password field is masked with dots. Below these fields is a checkbox labeled 'Lock tables while backing up' which is checked. At the bottom right of the 'General' tab is a 'Test connection' button. At the bottom right of the entire dialog is an 'OK' button.

The MariaDB user must have sufficient privileges to perform the desired actions:

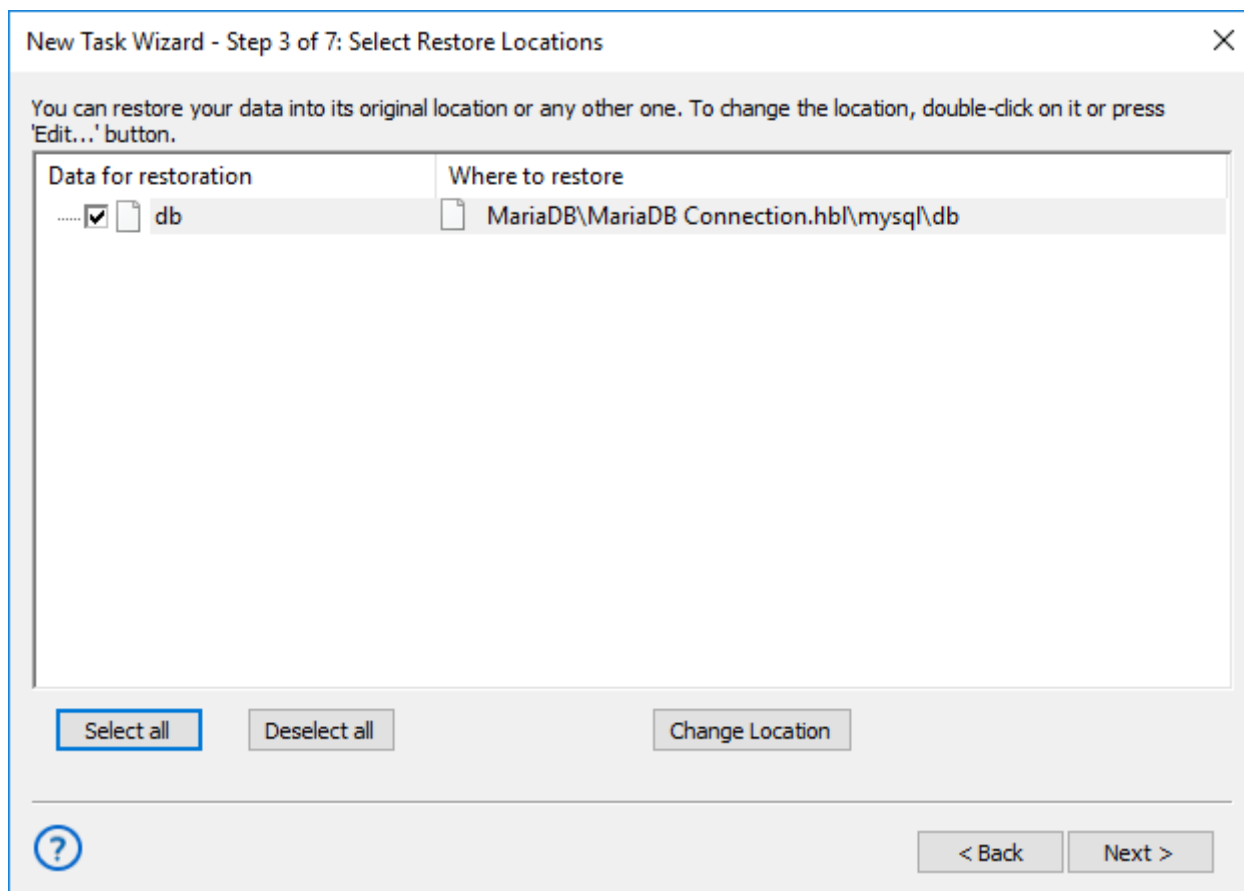
- To open plug-in listings, browse through the list of databases and select data to be backed up, the MariaDB user must be allowed to run the **SHOW DATABASE** and **SHOW TABLES** statements.
- To create backups, the MariaDB user must have the privileges to run the **SELECT** statements for each database and table that you want to back up.
- To restore data, the MariaDB user must have full privileges to drop databases and tables and restore them from zero.

Restore

To restore a backup made with the **MariaDB** plug-in, follow these steps:

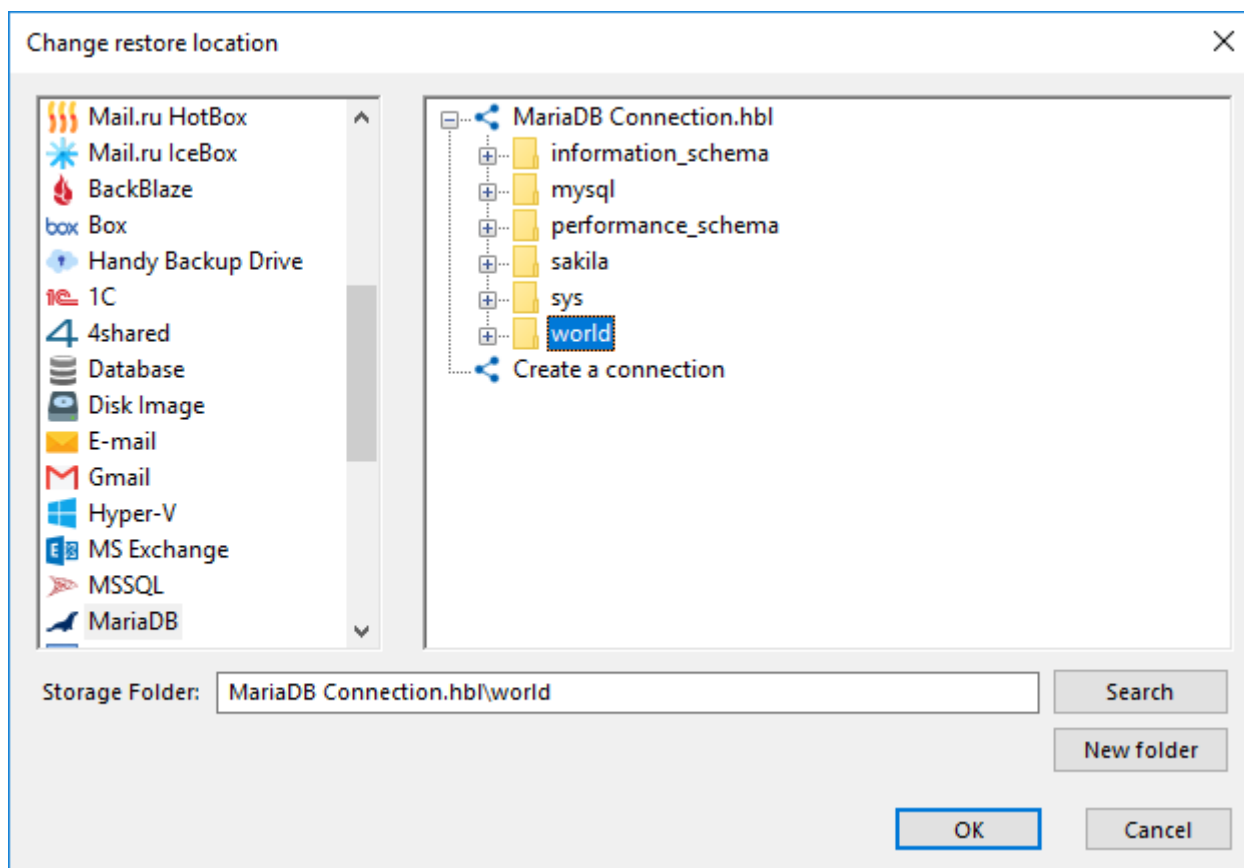
1. Click the **New Task** icon on the toolbar.
2. Select **Restore** task, and then click **Next**.
3. Browse for the index file (**backup.hbi**) located in the destination folder. Select it, and then click **Next**.

4. In the **Select Restore Locations** dialog, verify the details of restoration.



Note: The **MariaDB** plug-in requires you to have a configuration that defines how to connect to the database. If you are restoring the backup on the same machine where it was made, then you should already have it. If you want to restore the backup with a different or fresh installation of Handy Backup, you need to create it. To do it, follow these steps:

- 4.1 In the Select Restore Locations dialog, select any object (database or table), and then click **Change Location**. The **Change restore location** dialog opens.



4.2 4.2. Make sure that **MariaDB** is selected in the left pane. In the right pane, double-click **New configuration**. The **Settings** dialog opens.

4.3 4.3. Create a MariaDB configuration named identically to the original configuration. To learn how to do it, please see [MariaDB Plug-in: Configurations](#).

4.4 4.4. After creating the configuration, click **Cancel** to return to the **Select Restore Locations** dialog. You don't need to actually change restore location, only create the configuration.

After selecting the backup to be restored, you will need to select type of restoration, enter decryption password (for an encrypted backup), etc. These steps are not specific to MariaDB, and you can find the respective instructions in the [Restore Task](#) chapter.

Lotus Notes plug-in

The **Lotus Notes/Domino** (IBM Notes) plug-in is a dedicated tool for [Lotus database backup](#). To utilize it properly, please follow the next instruction.

Preparing for Backup

To save Lotus Domino databases, you must prepare the system firstly. Do this sequence only once per a new or re-installed system configuration before executing the first backup task.

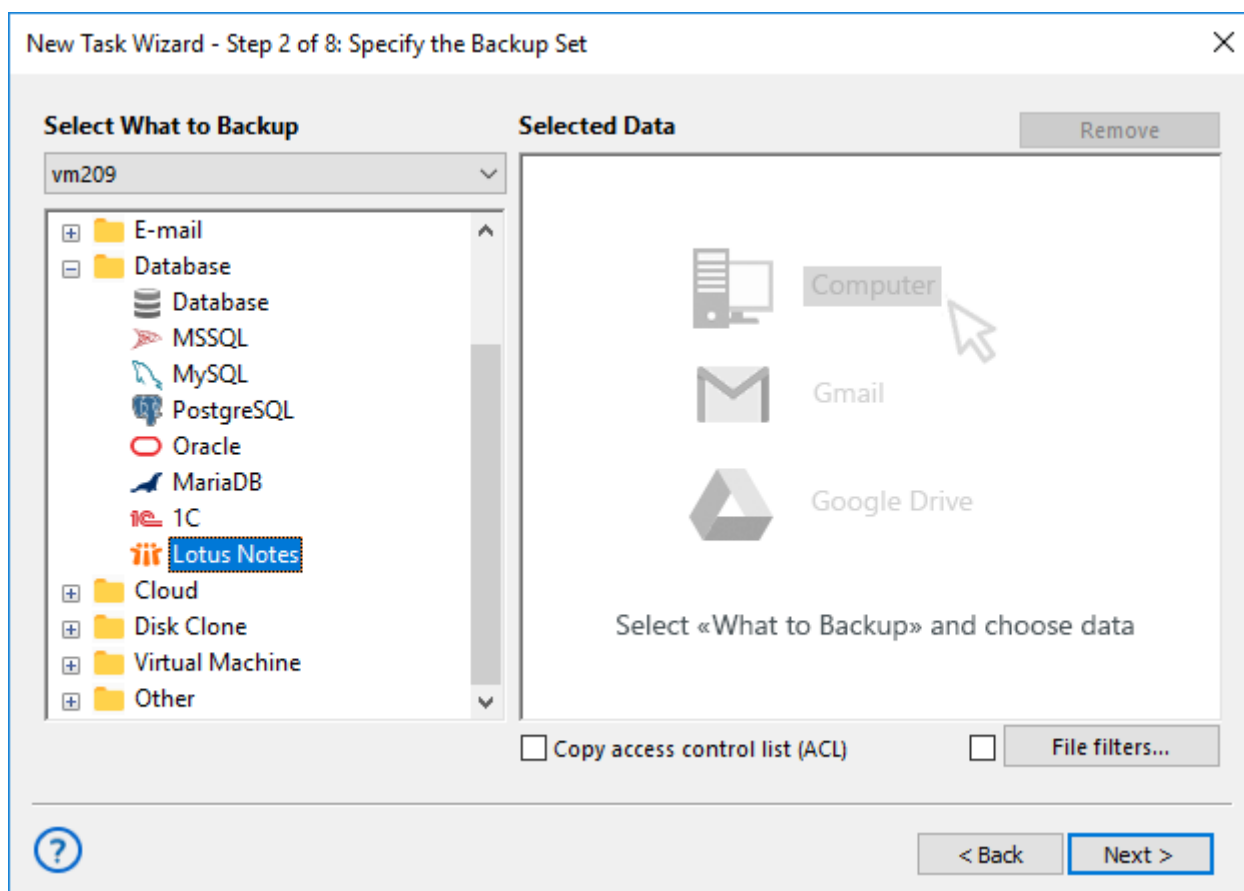
Handy Backup User Manual

1. Open the "System" section on the Windows Control Panel.
2. Click on the "Advanced settings" in the "settings" section.
3. In the next dialog, select and view the list of environment variables.
4. If the PATH has no way for Lotus folders, add the paths to these folders to the list.
5. Click OK and restart Windows.

Making Backup

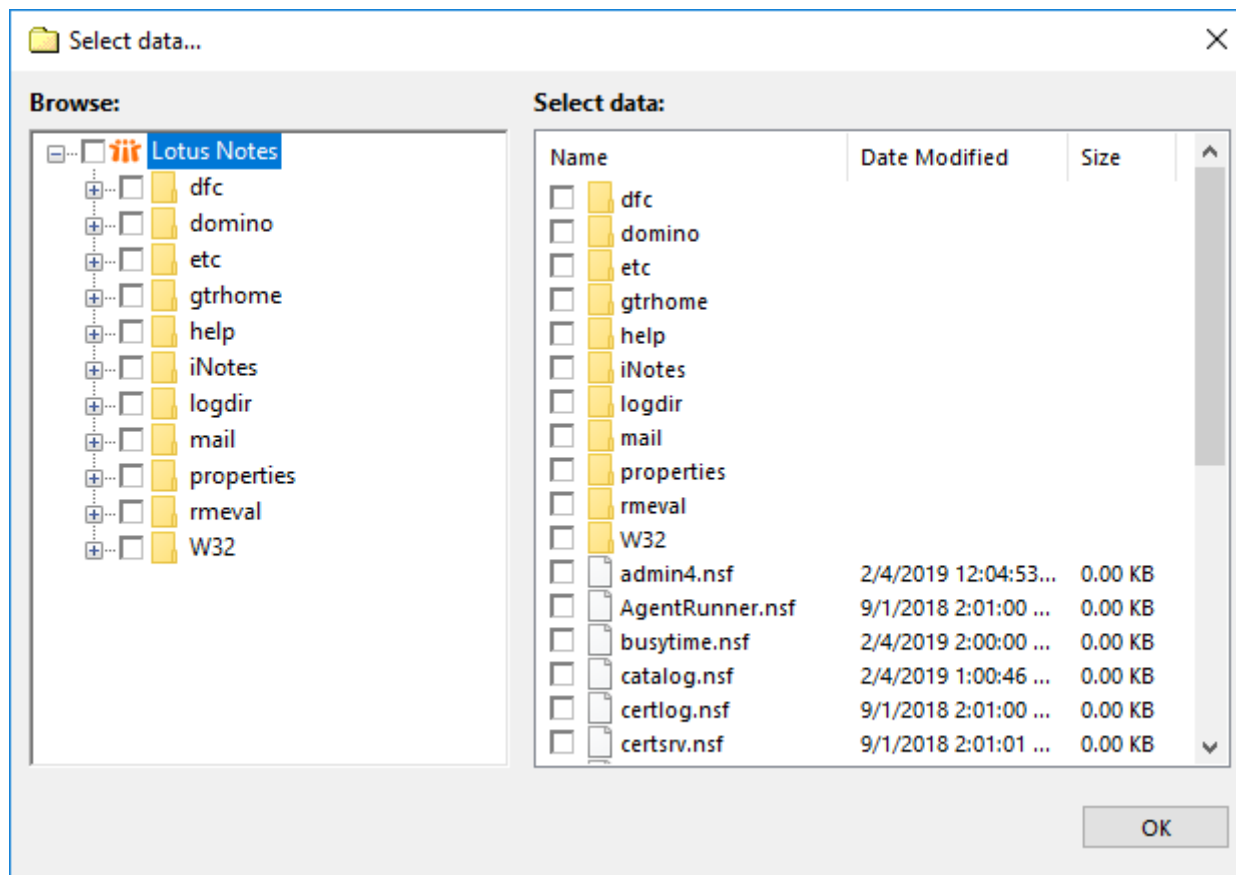
To make a backup, do the following:

1. Select **Backup task** in New Task Wizard.
2. Select the **Lotus Notes** option in the **Database** section on the Step 2 of New Task Wizard.
3. Click once on this option to open a data selection dialog.



Note: Handy Backup will show the Lotus Notes option only when you properly install Lotus into the system (see above). If everything is OK, you will see the folder structure of Lotus Notes.

4. Choose the folders of **Lotus Notes** software for backup. You can select all the folders or only one/several of them. Click **OK** after finishing.

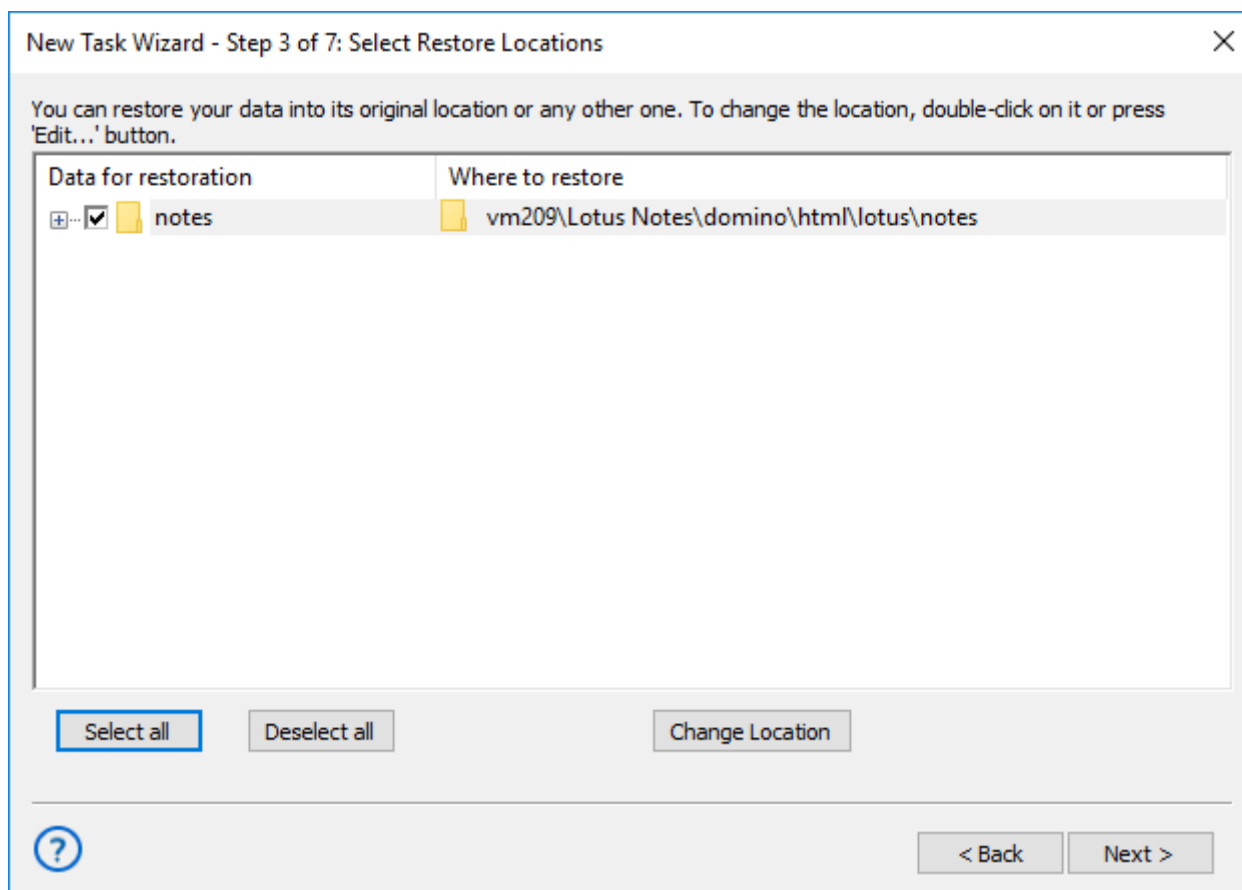


5. Set up destination and other parameters of the task step by step, as shown in the "Backup Task" section of this manual.

How to Restore

To restore Lotus Notes from backup, please follow this instruction:

1. Open the New Task Wizard.
2. Select **Restore task** on the Step 1, and then click "Next".
3. Find the index file (**backup.hbi**) located in the backup storage folder on the Step 2. Select this file, and then click "Next".



4. On the Step 3, you may change the restore location for Lotus databases by clicking the "Change Location" button and then selecting another destination for Lotus backup.
5. Other steps of restoration task are standard for this task type. Please read this manual for advanced guides.

This task will restore your Lotus Notes database from backup.

DB2 Plug-in

DB2 (IBM DB2) is a family of database servers developed by IBM. It provides stable relation-based database engine suitable for many commercial software, including business databases, web services etc.

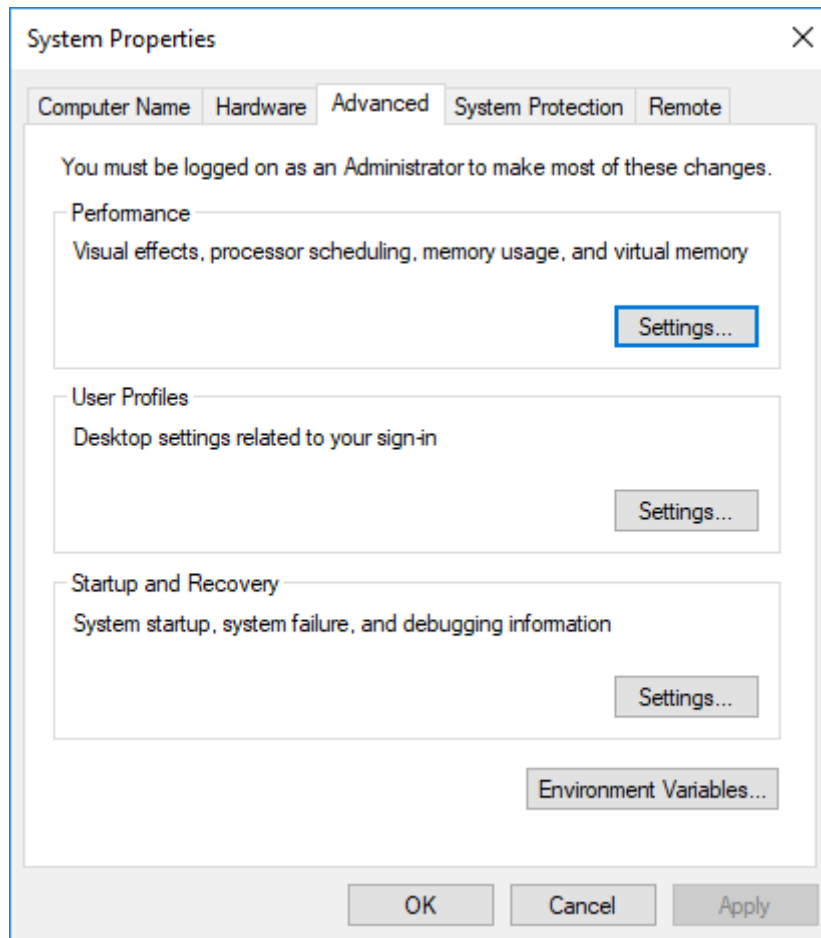
Preparing your system for DB2 backup

To make your DB2 engine accessible for Handy Backup, you must specify first the environment variable providing the correct path to your DB2 SQL libraries. By default, this way is **C:\Program Files\IBM\SQLLIB\lib**, but it can be varied depending on installation considerations and settings.

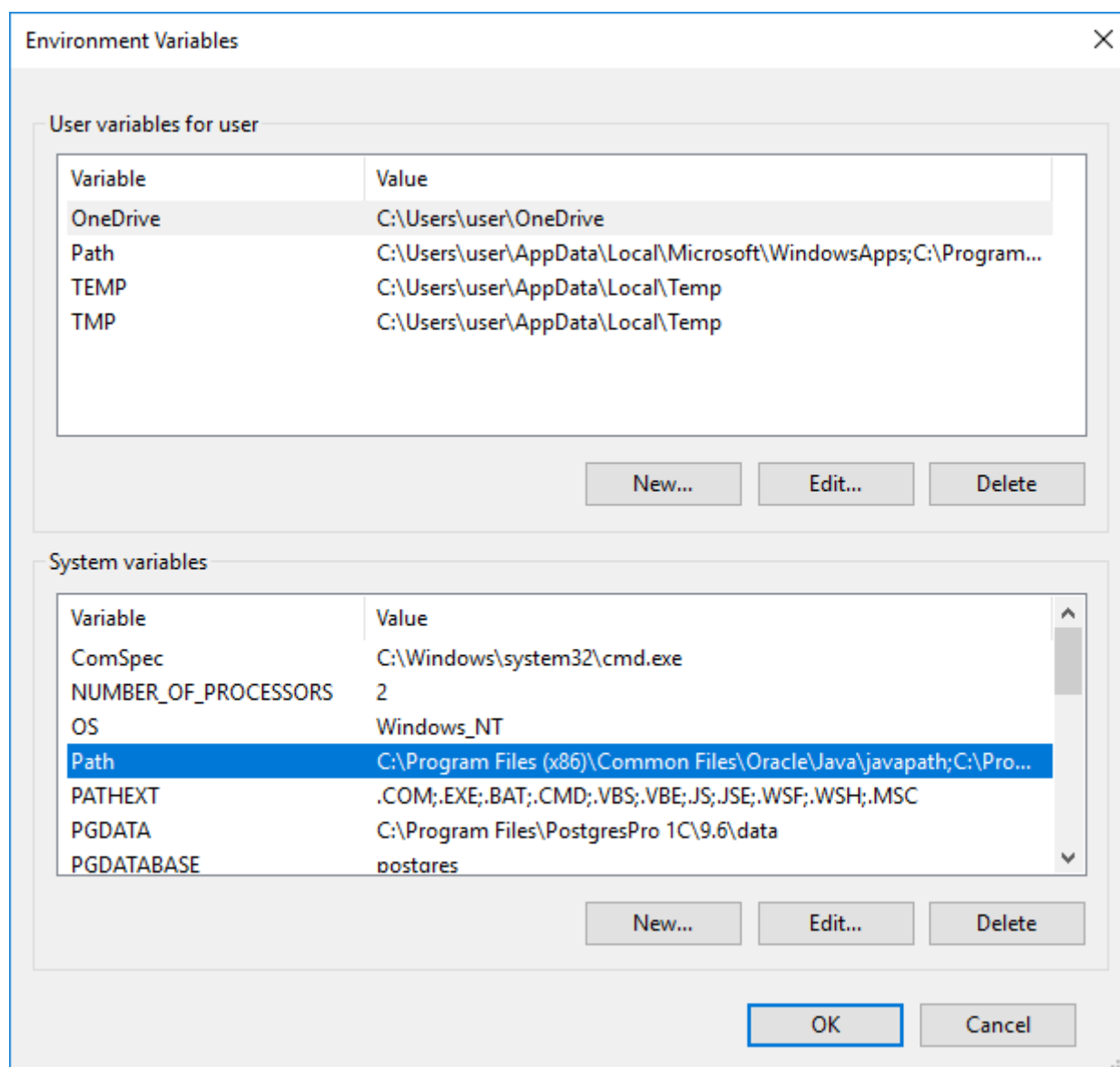
All you must to do is to find environment variables called LIB and PATH on your Windows. Then write a character ";" at the end of each value string. After that, add the path **C:\Program Files\IBM\SQLLIB\lib**; for both strings. To find and edit environment variables, please perform the next actions depending on your system:

Handy Backup User Manual

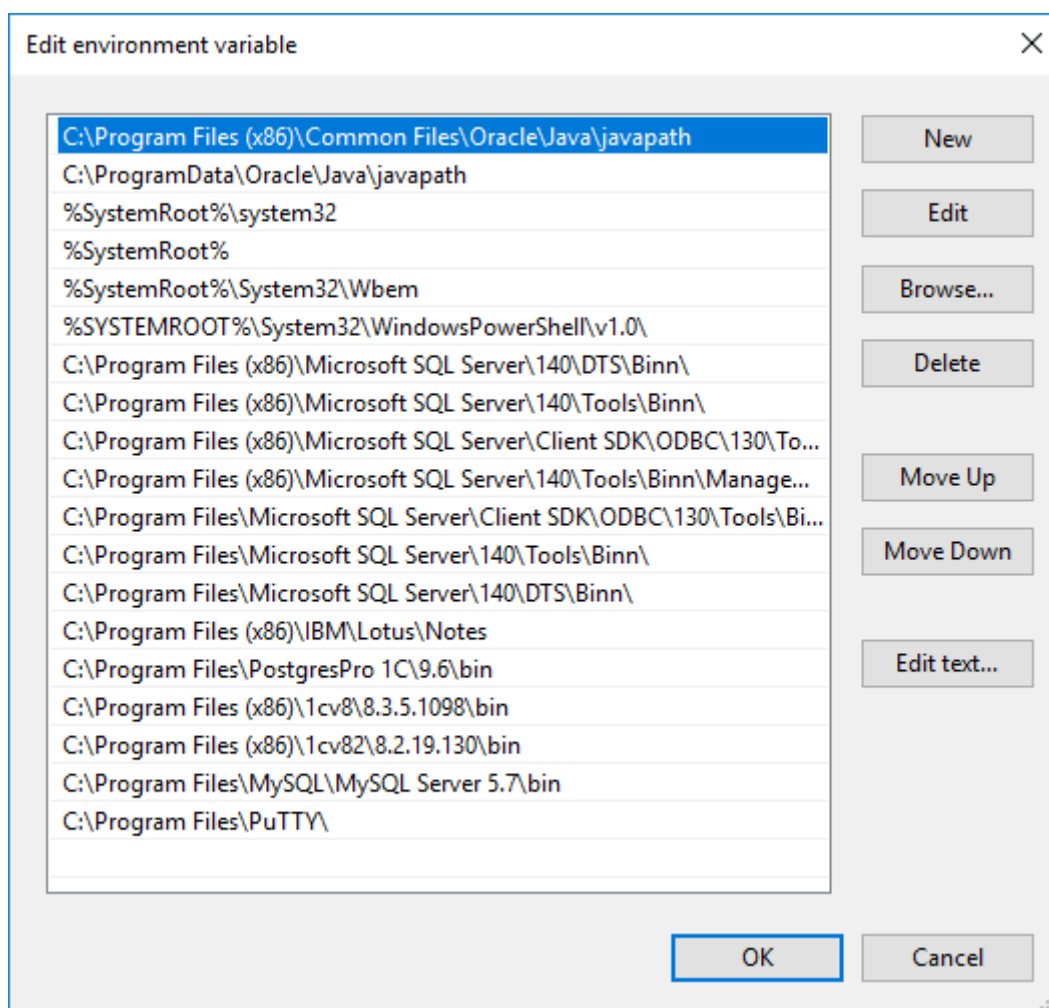
- **For Windows 10**, click Start -> Computer -> Properties -> Advanced System Settings -> Environment Variables.



Advanced System Settings screen in Windows 10



Environment variables list in Windows 10



*Changing the value of **PATH** variable in Windows 10*

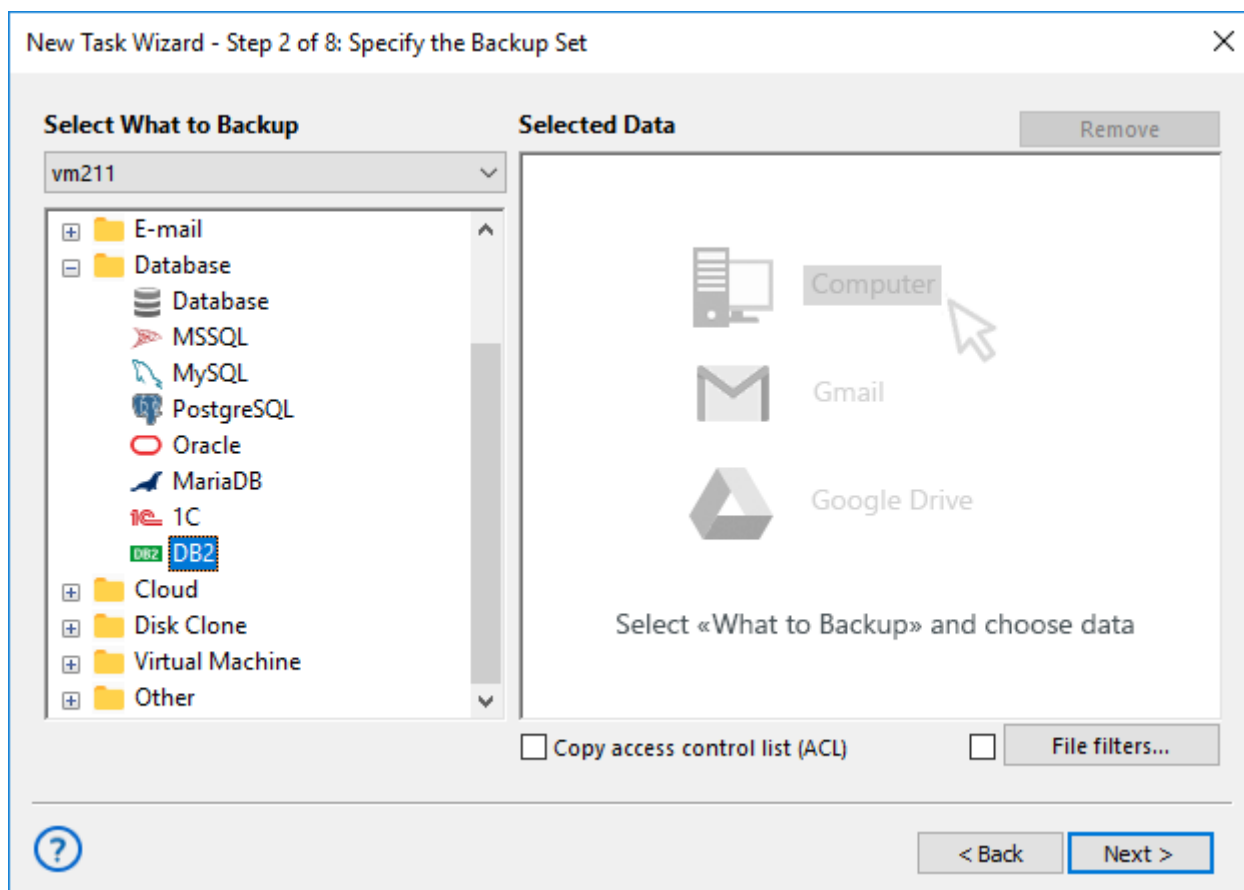
- **For Windows 7**, click Start -> Computer -> Properties -> Advanced System Settings -> Environment Variables.
- **For Windows Server 2008** you must be eligible to change system variables before you try. Go to Control panel -> System and Security -> System and then jump to **Advanced** tab for original 2008 version, or click the "Advanced system settings" on Windows Server 2008R2. Then change variables LIB and PATH as described above.

After the variables are changed, you can back up or restore your DB2 data freely using DB2 plug-in. If you still have any troubles seeing DB2 plug-in operating, try to restart the computer; after the system loading up again, problems will be surely fixed.

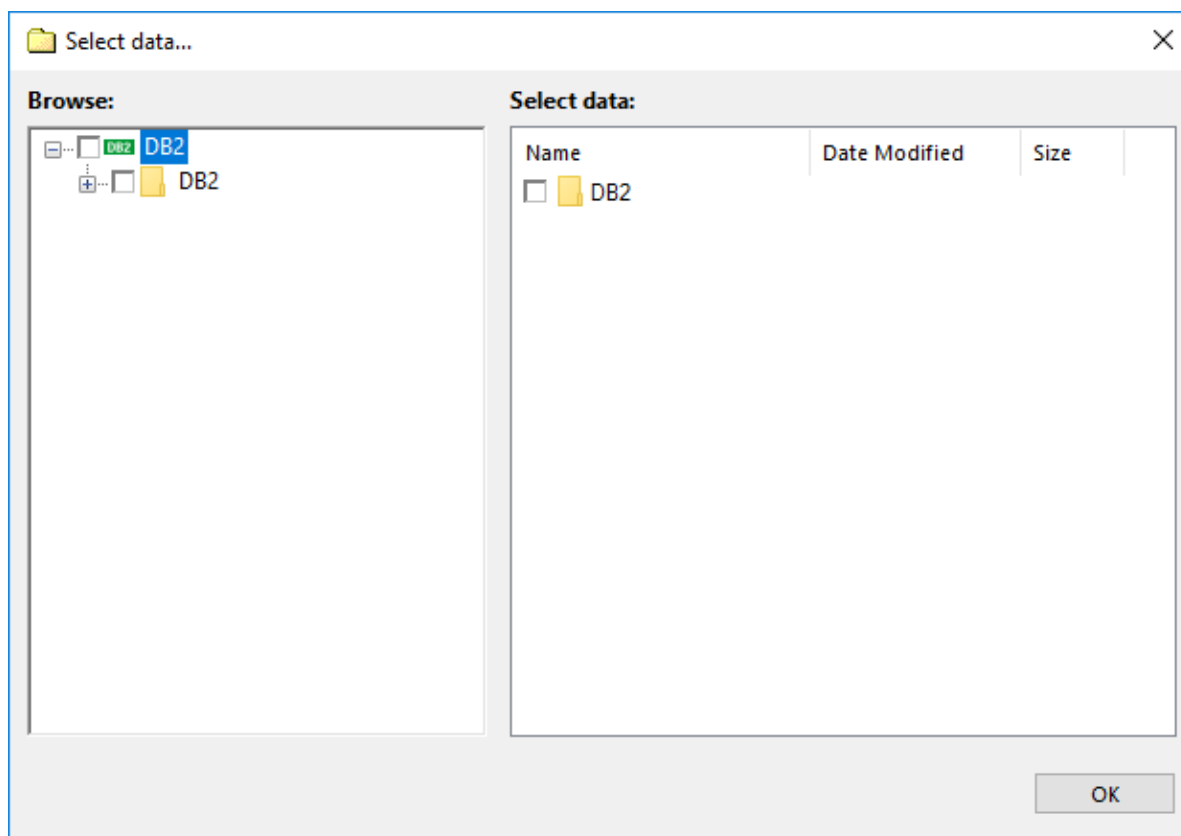
Performing DB2 Backup

To make a backup, do the following:

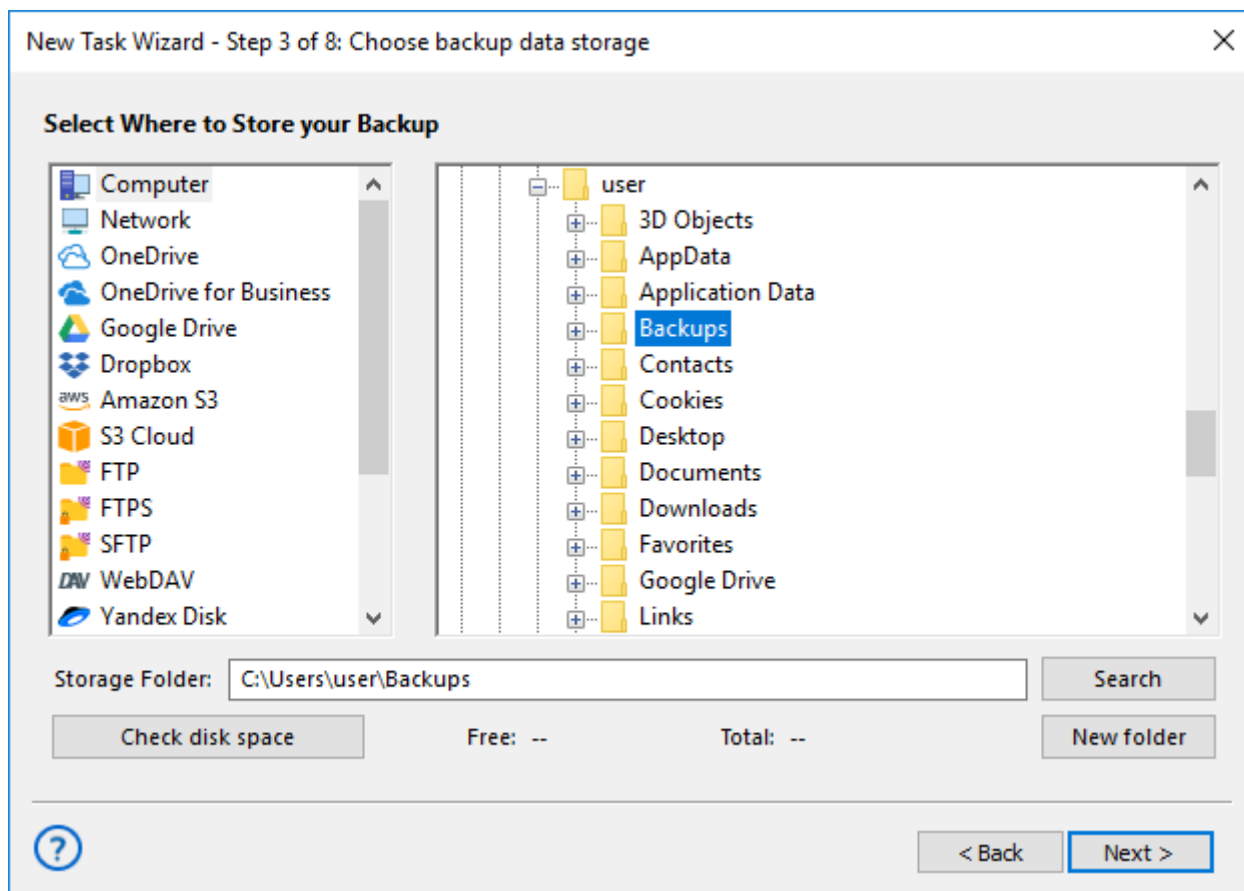
1. Select the **Backup** task in New Task Wizard.
2. Select **DB2** option on step 2 of New Task Wizard. Now you will see the folder structure of DB2.



3. Choose the folders of DB2 for backup. You can select all the folders or only one/several of them. When you are ready click OK.



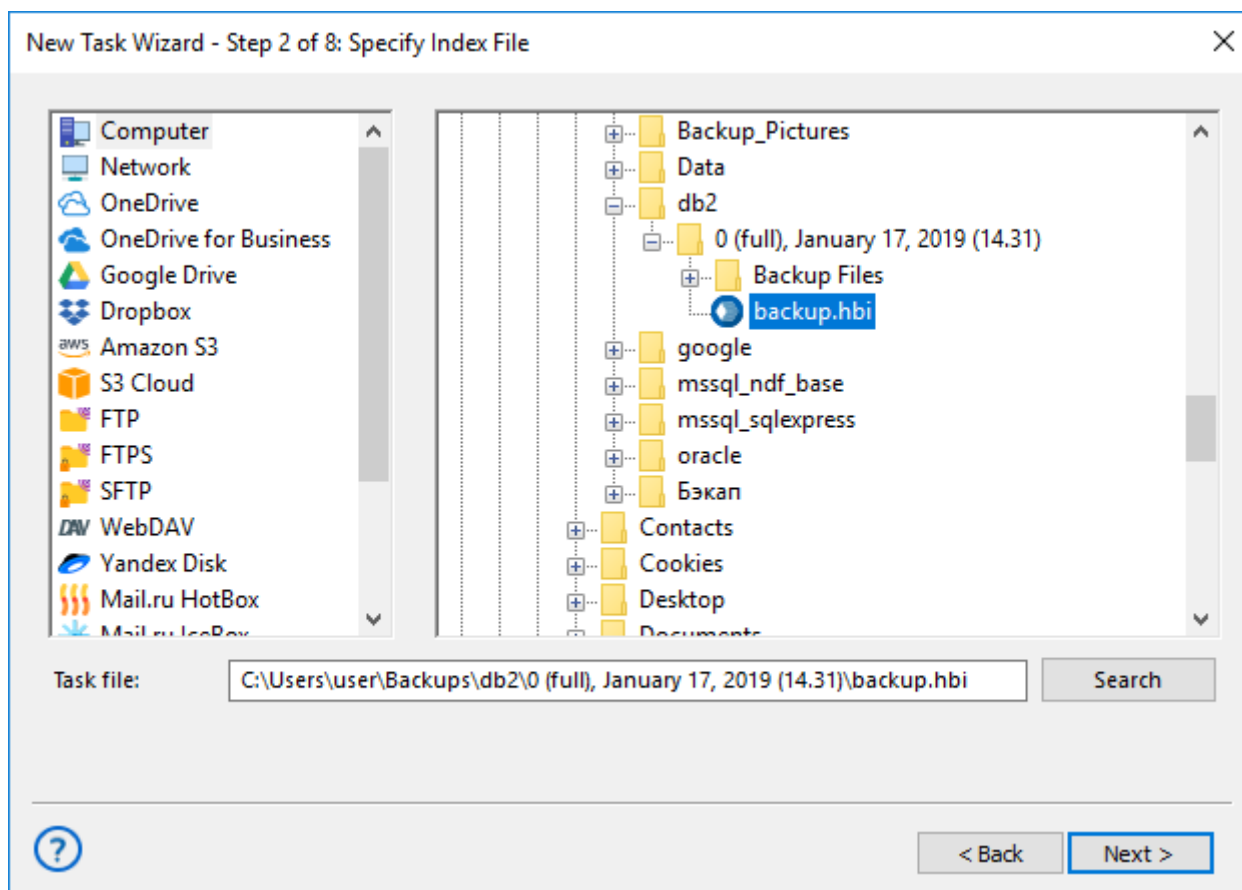
4. Select destination for Backup. Select option for backup destination, then click **Next**.



DB2 Restore

To restore DB2 from the backup, follow this instruction:

1. Open **New Task Wizard**.
2. Select **Restore task**, and then click **Next**.
3. Find the **index file** (backup.hbi) located in the destination folder. Select it, and then click **Next**.

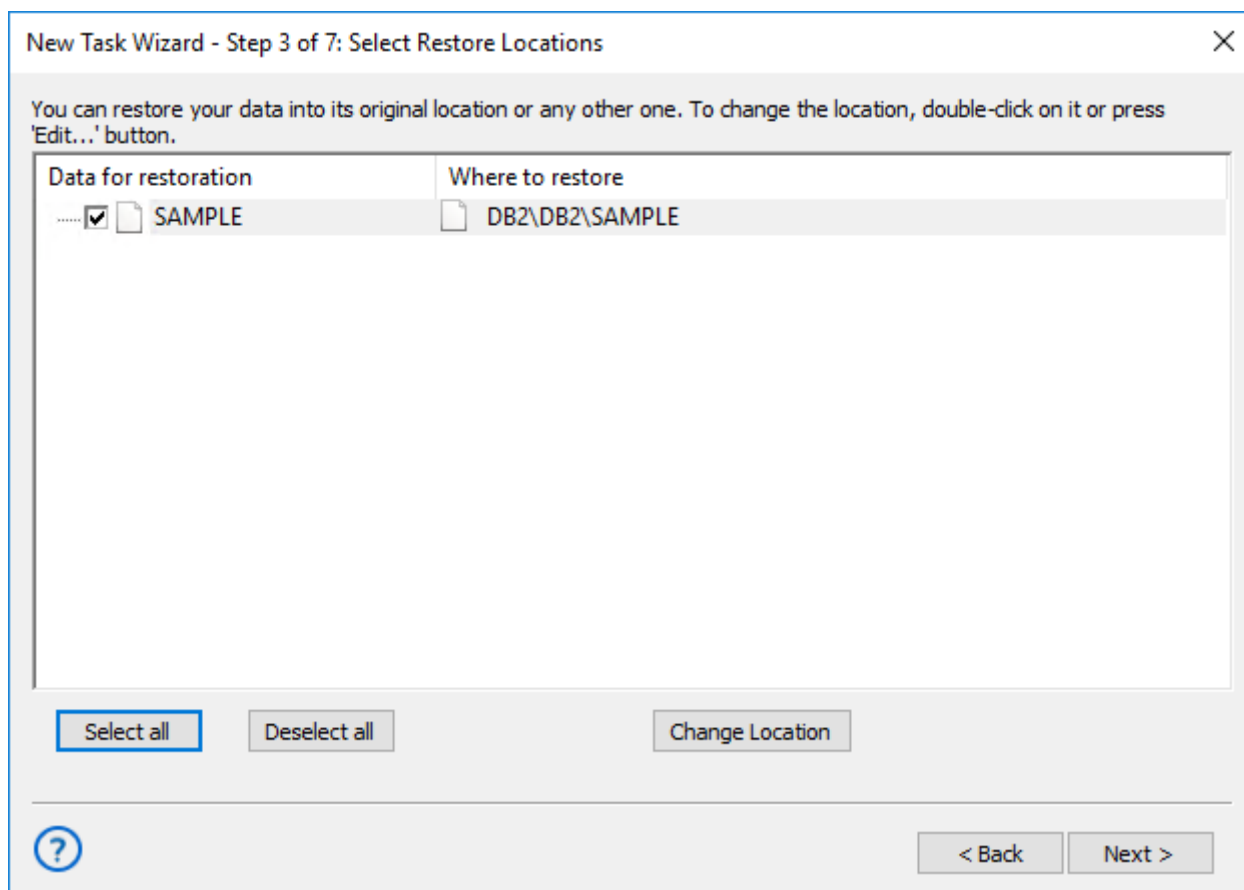


4. Select **Restore Location**.

Your DB2 data will be restored from backup.

If you want to restore a database to a different place, follow these steps:

- 4.1 In the Select Restore Locations dialog, select a database (file of the DB2 plug-in file system), and then click **Change Location**. The **Change restore location** dialog opens.



4.2 Select a new path for the database, and then click **OK**.

After verifying paths of restoration, you need to select type of restoration, enter decryption password (optional), and name the task. These steps are not specific to the DB2 plug-in. To learn more, please see [Restore Task](#).

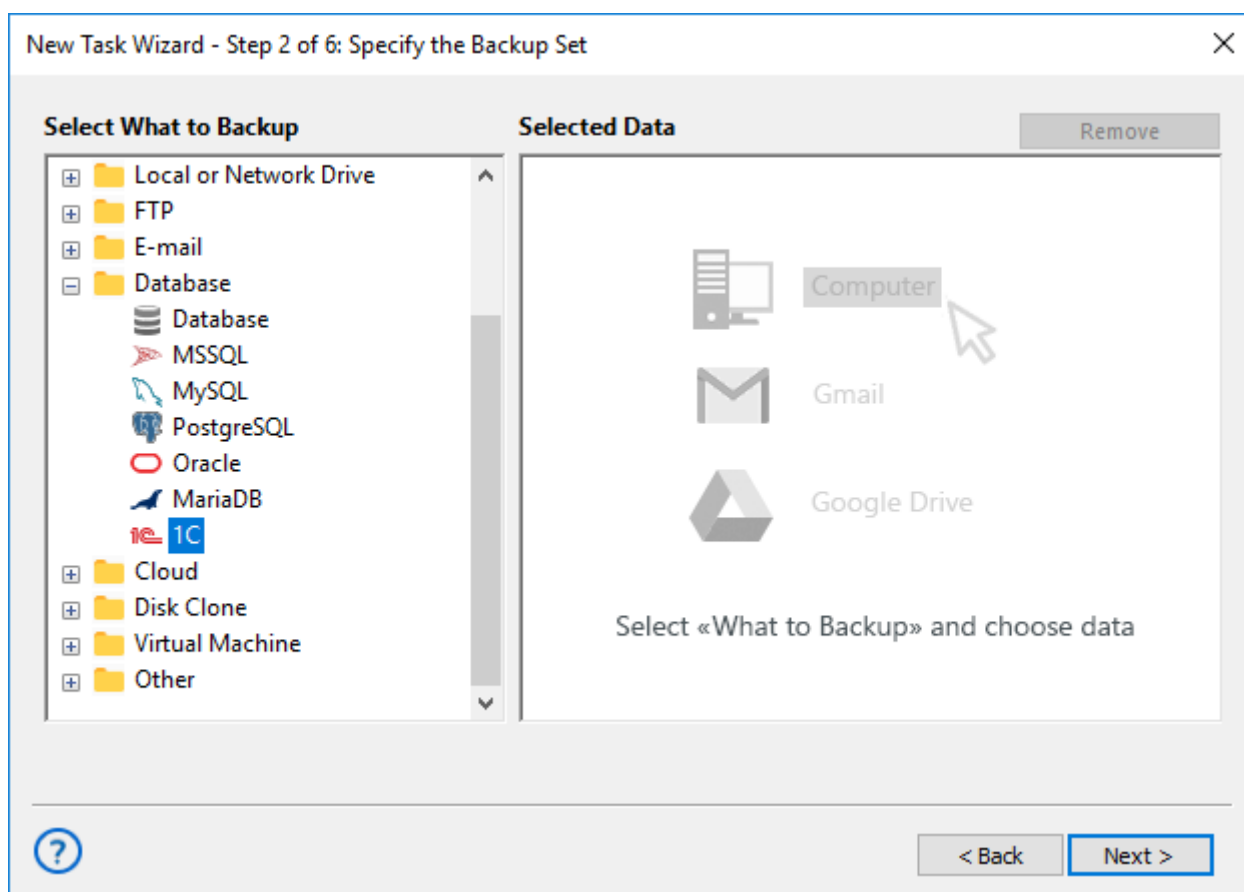
When you run the restoration task, the PostgreSQL plug-in firstly stops the respective SQL instance and all Windows services that depend on it. Then it copies the files to their original locations, and re-launches the services.

1C:Enterprise plug-in

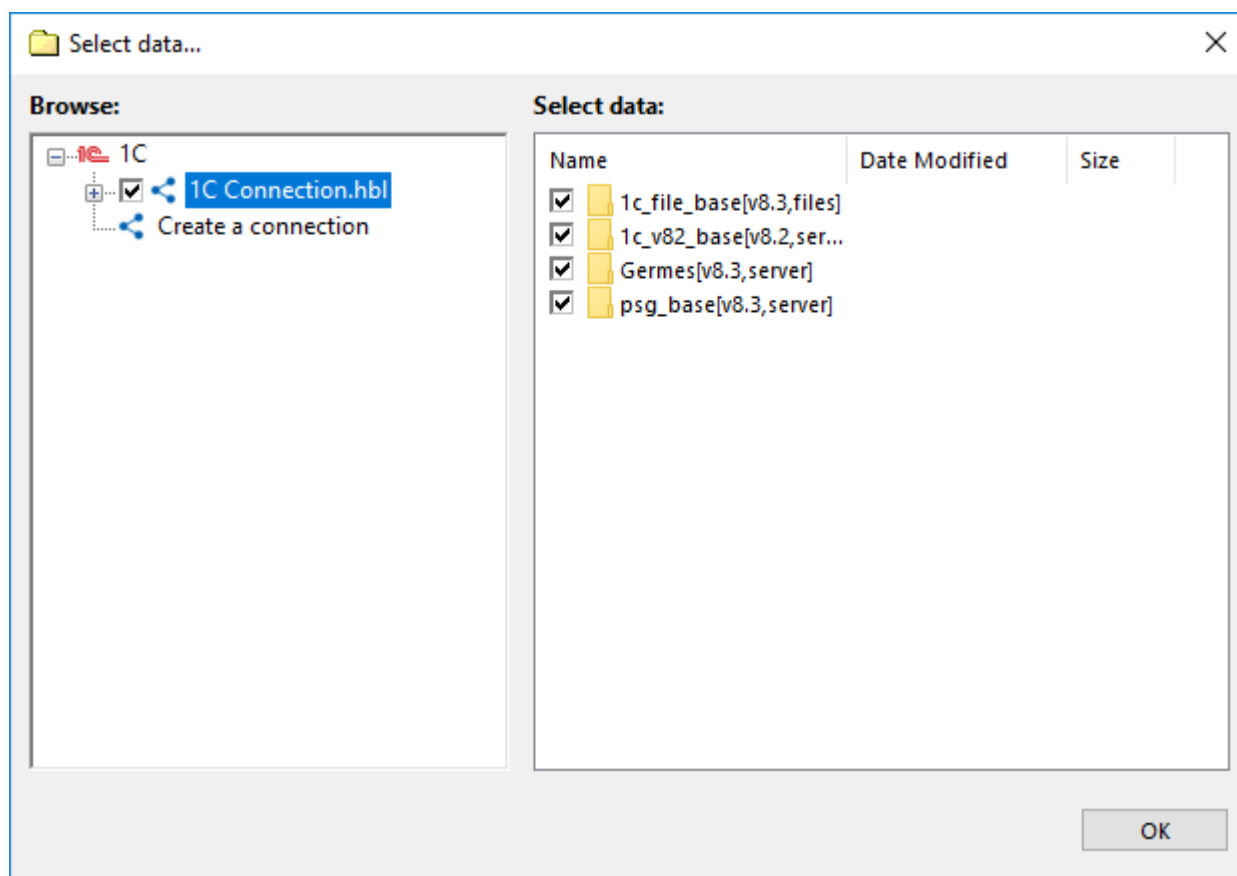
1C:Enterprise is the name of the accounting products of “1C” company. Number of solutions implemented under “1C” is about half a million. This system does not have a localized English version, but it is widespread in CIS countries.

To make a backup, do the following:

1. Select **Backup task** in New Task Wizard.
2. Select **1C plug-in** on step 2 of New Task Wizard.



3. **Select data** for Backup.



There are two options:

- **Existing 1C configuration.** You can select ready 1C data configuration.
- **New configuration.** Click onto the **Create a connection...** string, or select it and click OK.

4. Set up other parameters and click OK. Your backup is ready.

Restoring

To restore 1C:Enterprise form backups, follow this instruction:

- Open **New Task Wizard**.
- Select **Restore task**, and then click **Next**.
- Find the **index file** (backup.hbi) located in the destination folder. Select it, and then click **Next**.
- Select **Restore Location**.

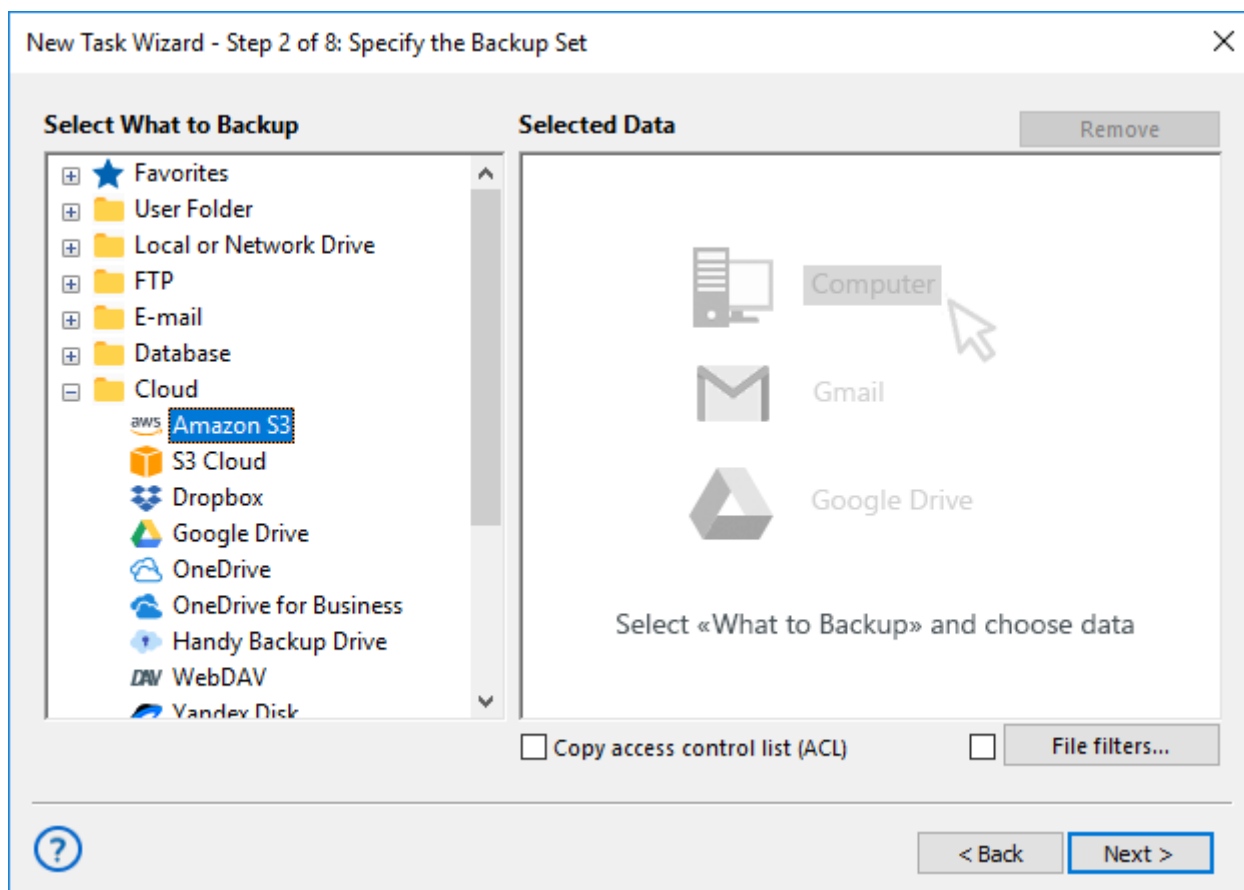
You 1C files will be restored form backup.

Amazon s3 plug-in

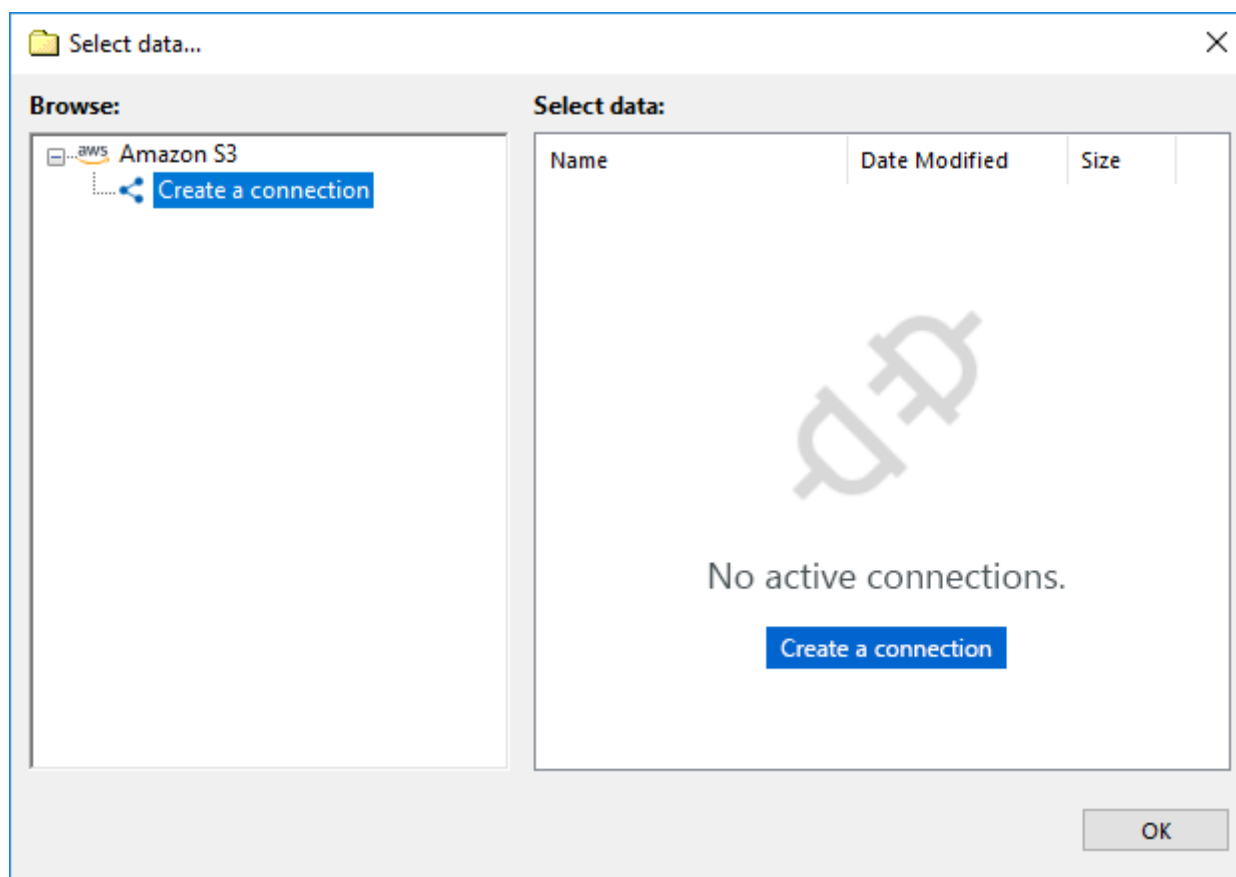
Amazon S3 plug-in allows backup to and from the Amazon S3 cloud storage. That storage uses the "bucket" principle: it is like a virtual folder with a name and a key. To get an access to Amazon S3, you must have an Amazon S3 account.

To make a backup, do the following:

1. Select **Backup task** in New Task Wizard.
2. Click on the **Amazon S3** option in the **Cloud** group on Step 2 of New Task Wizard.

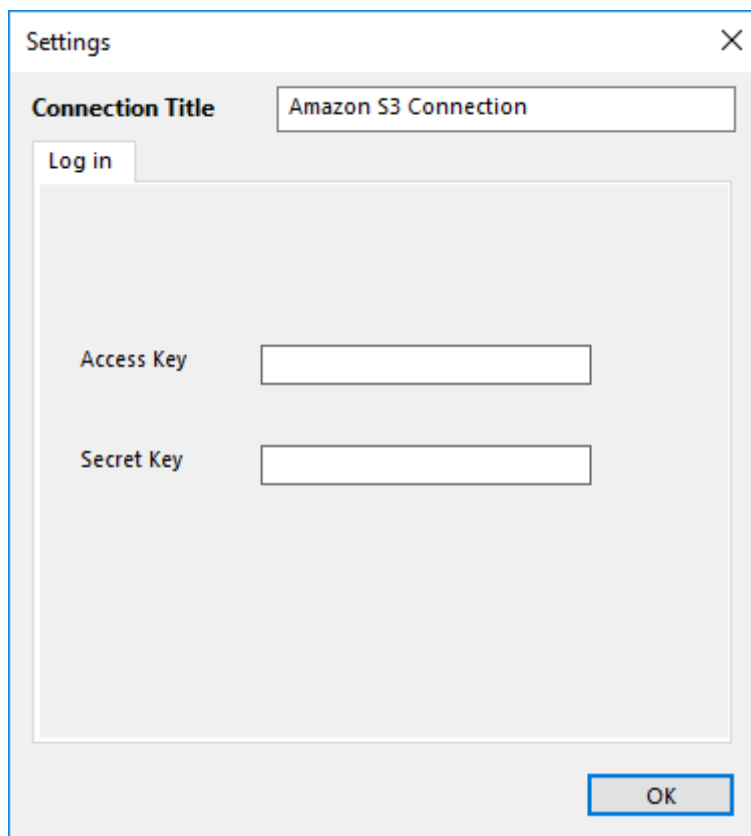


3. In the new window, click **Create a connection**, or select it and then click OK.



4. Set up Amazon S3 Access settings.

- **Access key.** Enter your Amazon S3 access key (take this from your Amazon S3 account).
- **Secret key.** Enter your Amazon S3 secret key (take this from your Amazon S3 account).



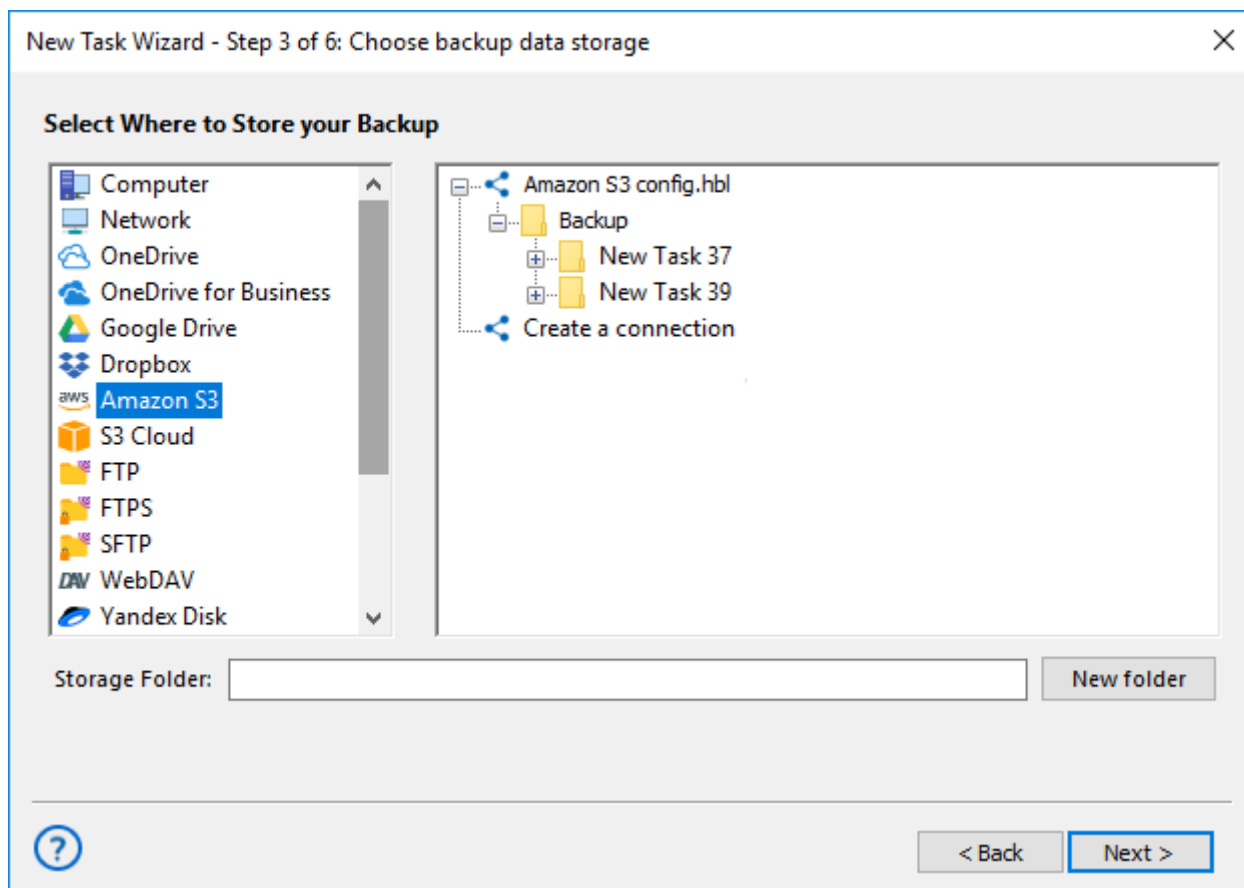
The screenshot shows a 'Settings' dialog box with a close button (X) in the top right corner. Inside the dialog, there is a 'Connection Title' field with the text 'Amazon S3 Connection'. Below this is a 'Log in' button. Underneath the button is a large, empty rectangular area. At the bottom of this area, there are two labels: 'Access Key' and 'Secret Key', each followed by an empty text input field. At the bottom right of the dialog box is an 'OK' button.

Note: If you want to create a new account during connection setup, please just click the "Create an account" button to do it. A browser window will open for Amazon S3 setup page. Follow the website instructions to create a new bucket. (Obviously, this action has no use for [backup from Amazon S3!](#))

5. Click OK to return to the plug-in window. You will see the list of data stored on your chosen Amazon S3 bucket.
6. Check the boxes against names of files or folders that you plan to back up. When you finish, click OK and return to the Step 2.
7. Continue creating a backup task as usual. No other step will be specific by any way for backing up from Amazon S3.

Using as Backup Destination

To backup to Amazon S3, choose it as a destination on the Step 3 of a new task wizard. This is a very simple action.



Note: If you still have no configuration for your preferred Amazon S3 bucket, click on the "Create a connection..." string and enter the parameters for appropriate bucket, as described above.

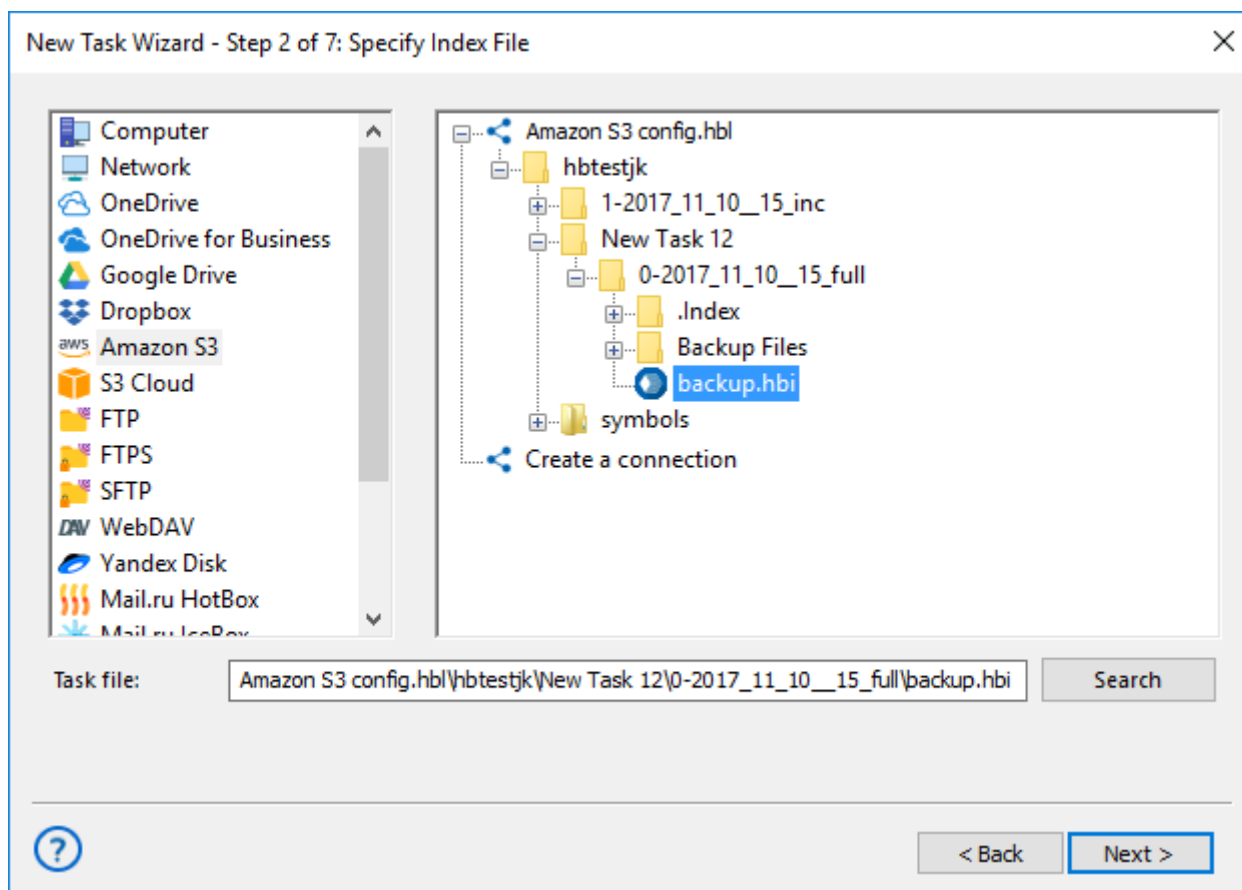
- At this step, creating a new Amazon S3 account is a viable solution! Just click the "Create an account" button and follow the Amazon S3 website instructions to make a new bucket for storing your backups!

After choosing a configuration for being a backup destination, select a folder in your bucket to store backups, then click OK and continue creating a backup task as usual. There are no any specific limitations or options to back up to Amazon S3.

Restoring

To restore data from Amazon S3, create a new restoration task. Then follow the next instruction:

1. On the Step 2, select "Amazon S3" as the backup storage. Choose an appropriate connection.
2. On the connected bucket, find a folder containing your backup data.



3. Select a file **backup.hbi**, which contains all necessary restoring information, and click "Next".
 - Choose a place to restore your backup from Amazon S3.
4. If you need to change data destination, click at the "Change location" button.
5. Continue creating a task as described in the User Manual.

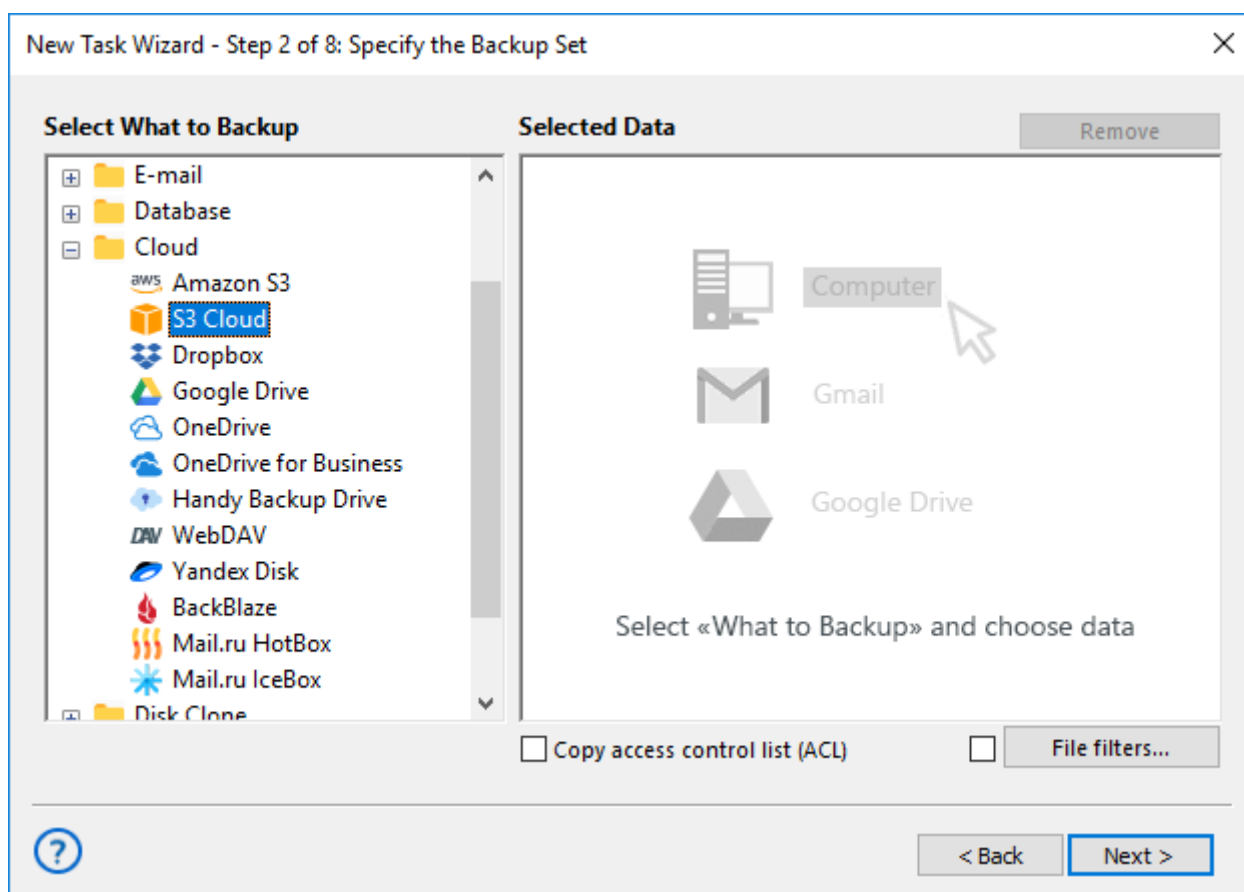
S3 Cloud Plug-in

The S3 plug-in allows storing data to and from any storage that supports the S3 protocol (example, [backup to Wasabi](#), Zenko CloudServer etc.).

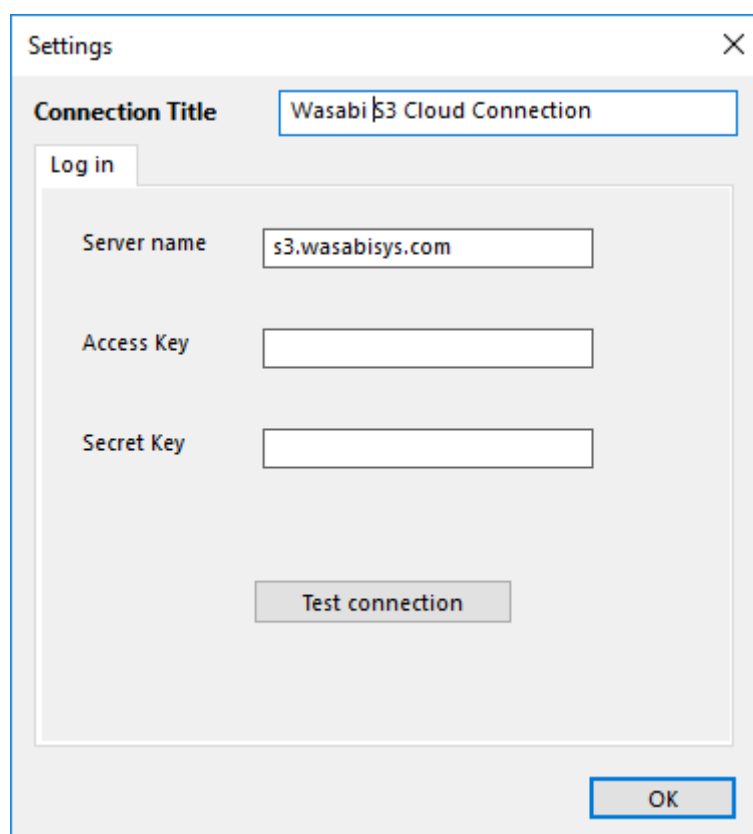
Using the S3 Cloud Storage as Data Source

To make a backup from an S3-driven cloud, do the following:

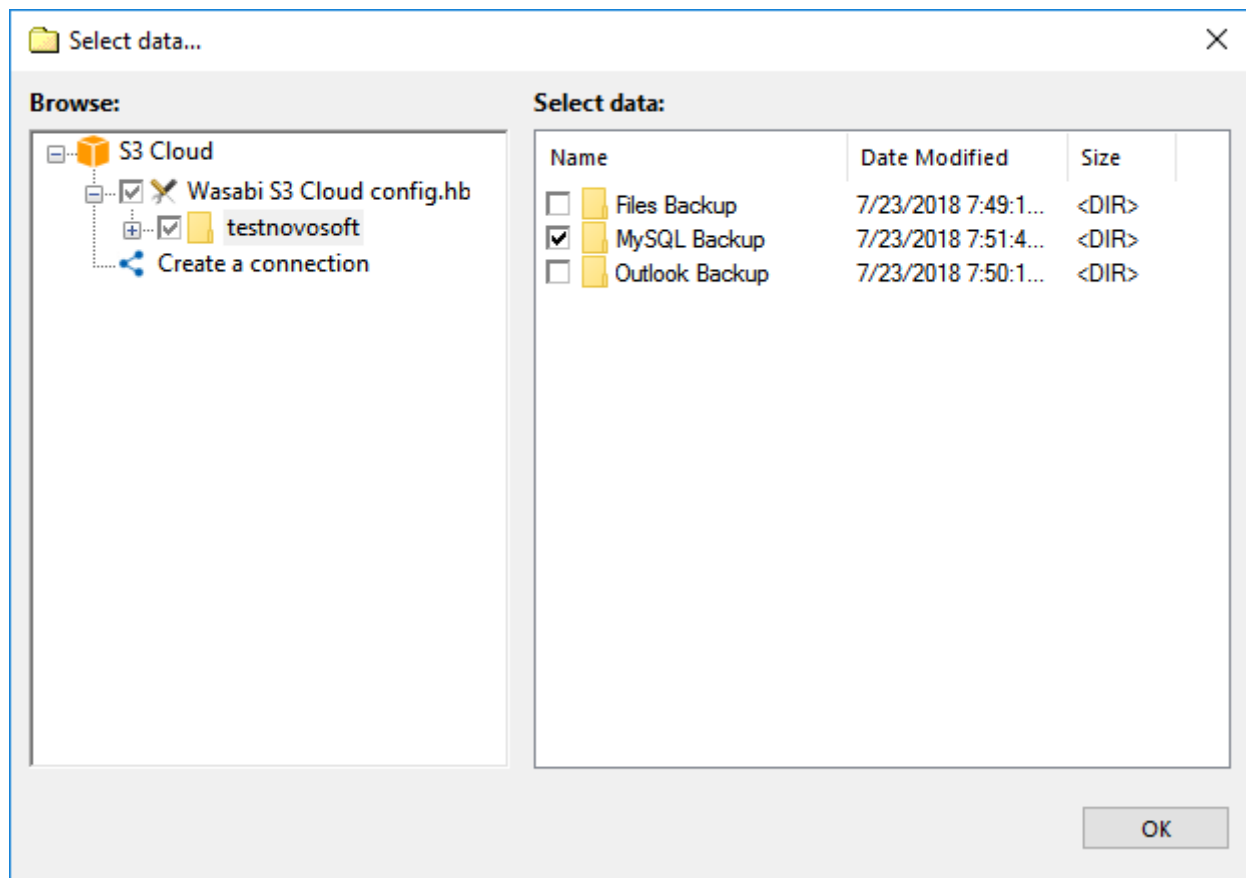
1. Select **backup task** in New Task Wizard.
2. Click on the **S3 Cloud plug-in** in the Cloud group on the Step 2.



3. In the new window, click **Create a connection** option.



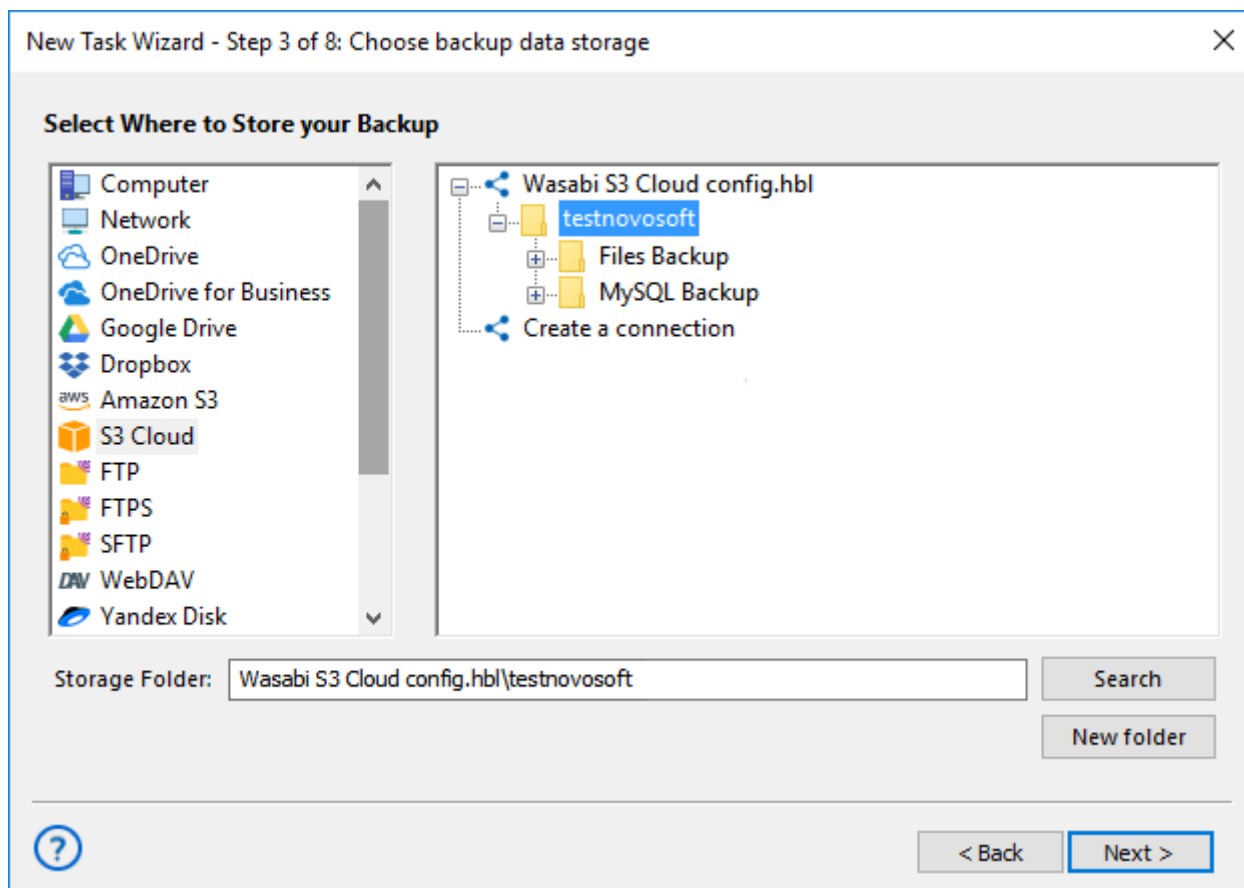
4. Set up the access settings to an S3 storage:
 - **Server name.** Enter here a name of an S3 storage server.
 - **Access key.** Enter your S3 access key (according to your particular S3 storage account).
 - **Secret key.** Enter your S3 secret key (again, from your S3 account).
5. Test your connection if you want to do it. Then click OK to return to the plug-in window. You will see the list of data stored on your selected S3 storage bucket.



6. Check the boxes against names of different files or folders that you plan to back up. When finishing, click OK and return to the Step 2.
7. Continue creating a backup task as usual. No other step will be specific for backup from S3.

Using the S3 Cloud Storage as Destination for Backups

To back up to some S3 storage, choose it as a destination on the Step 3 of a new task wizard. This is a very simple action.



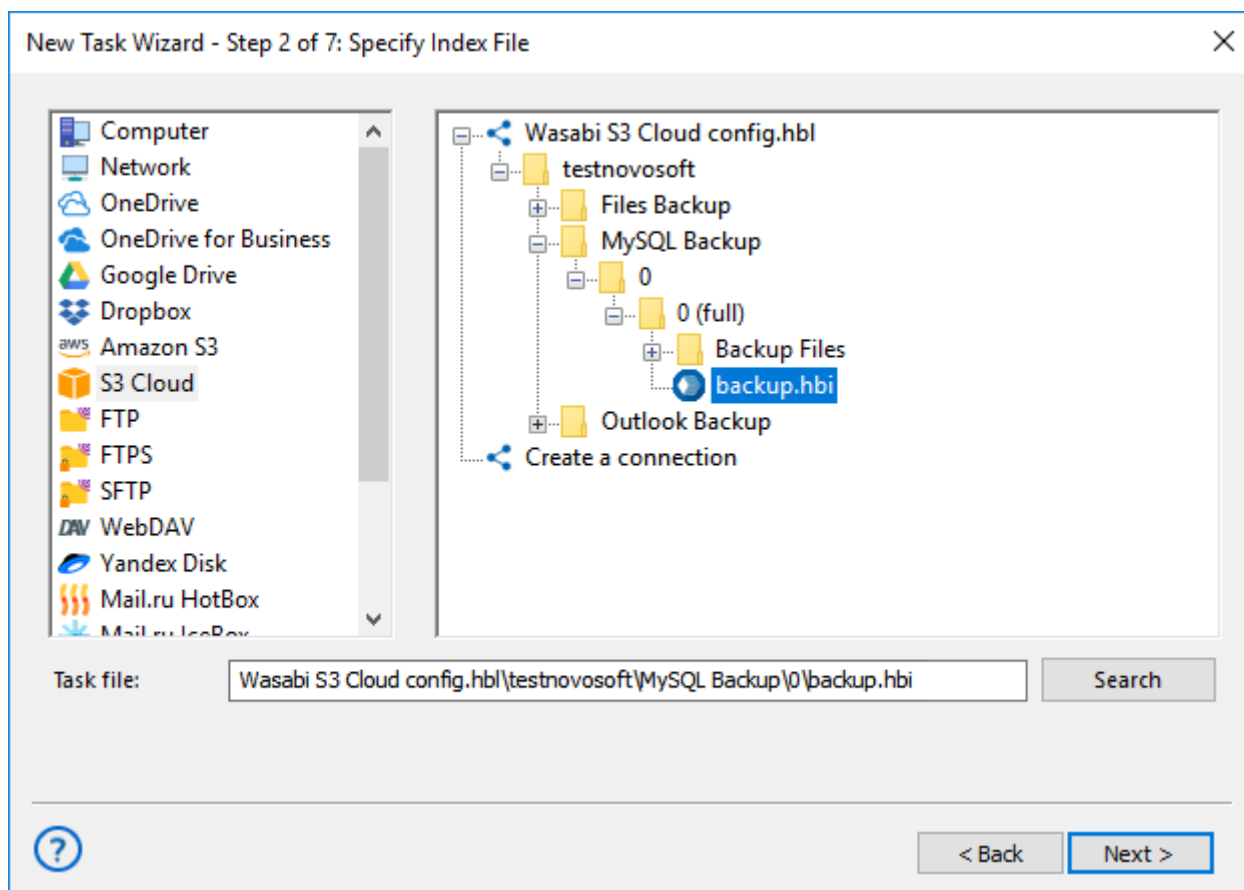
Note: If you still have no configuration for your particular S3 storage, double-click on the "Create a connection..." string and enter the parameters for an appropriate bucket, as described above.

After completing a configuration for an S3 backup destination, please select a folder in your bucket to store your backups, and then click OK to continue creating a backup task. There are no any specific limitations or options to back up to S3-driven storages.

Restoring Data from S3 Storage

To restore your backups from an S3 cloud, please create a new recovery task as described above (just select a restoration task type on the Step 1). Then follow the next sequence of actions:

1. On the Step 2, select S3 Cloud as backup storage. Choose an appropriate connection by name.
2. On the connected S3 bucket, find a folder that contains your backup data.



3. Select a file called **backup.hbi**, with all necessary data for restoration. Click Next.
4. Choose a place to restore your backup data from an S3 service.
 - If you need to change data destination, click at the "**Change location**" button.
 - **Select a new destination** for your restored dataset, and then click OK.
5. Continue creating a recovery task, as described in the User Manual.

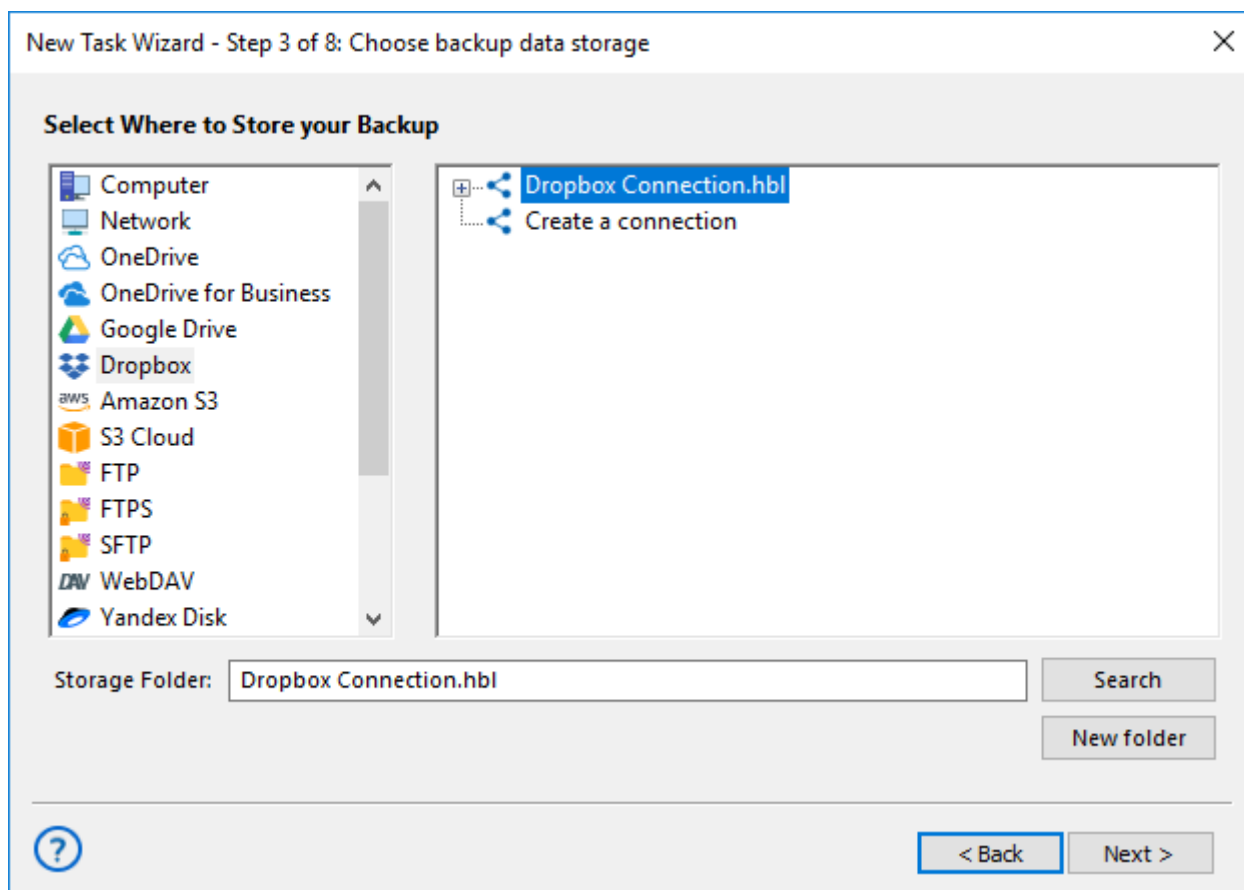
Dropbox Plug-in

Dropbox feature allows saving Dropbox files and, reversely, store your backup copies to Dropbox.

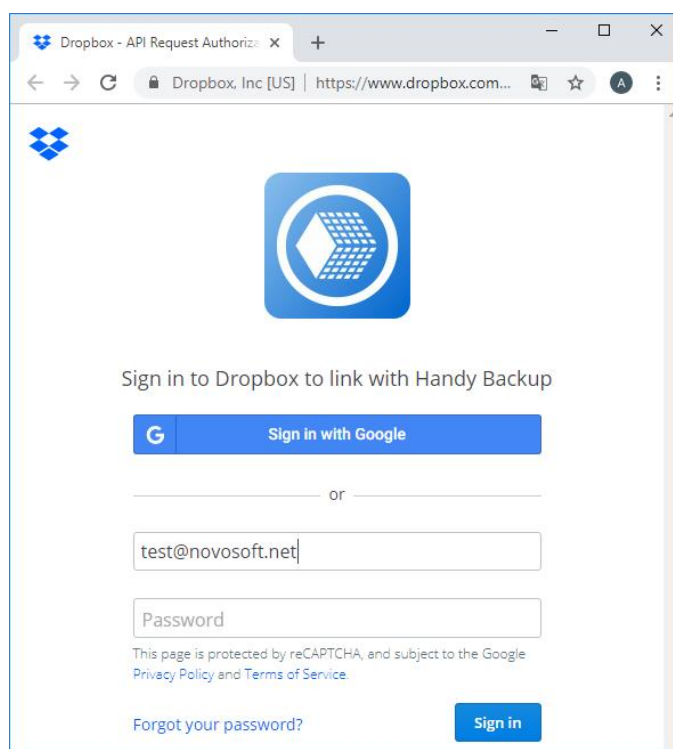
Using the Dropbox Plug-in as a Backup Storage

To create a backup task using a particular Dropbox account as a storage, please use the following instruction:

1. Create a new backup task by selecting a menu item or by pressing Ctrl+N.
2. On a Step 2, choose data you want to save to Dropbox.
3. On a Step 3, select the "Dropbox" feature. Use the **Create a connection** option.

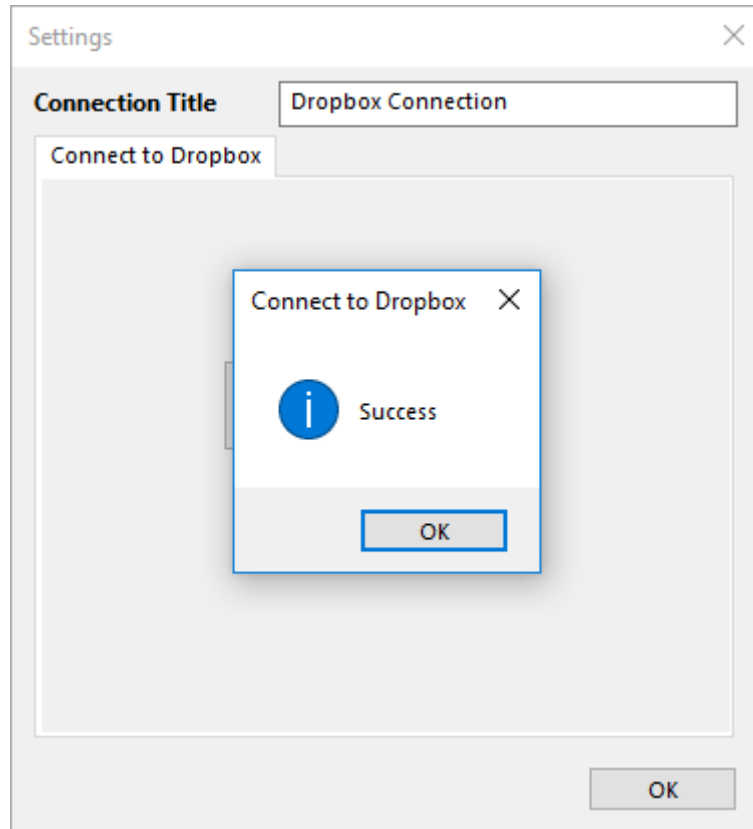


4. Click "Create a connection..." option and enter to the account settings dialog.
5. Click on the "Connect to Dropbox" button. The program will redirect you to the browser and open a Dropbox login window.



Handy Backup User Manual

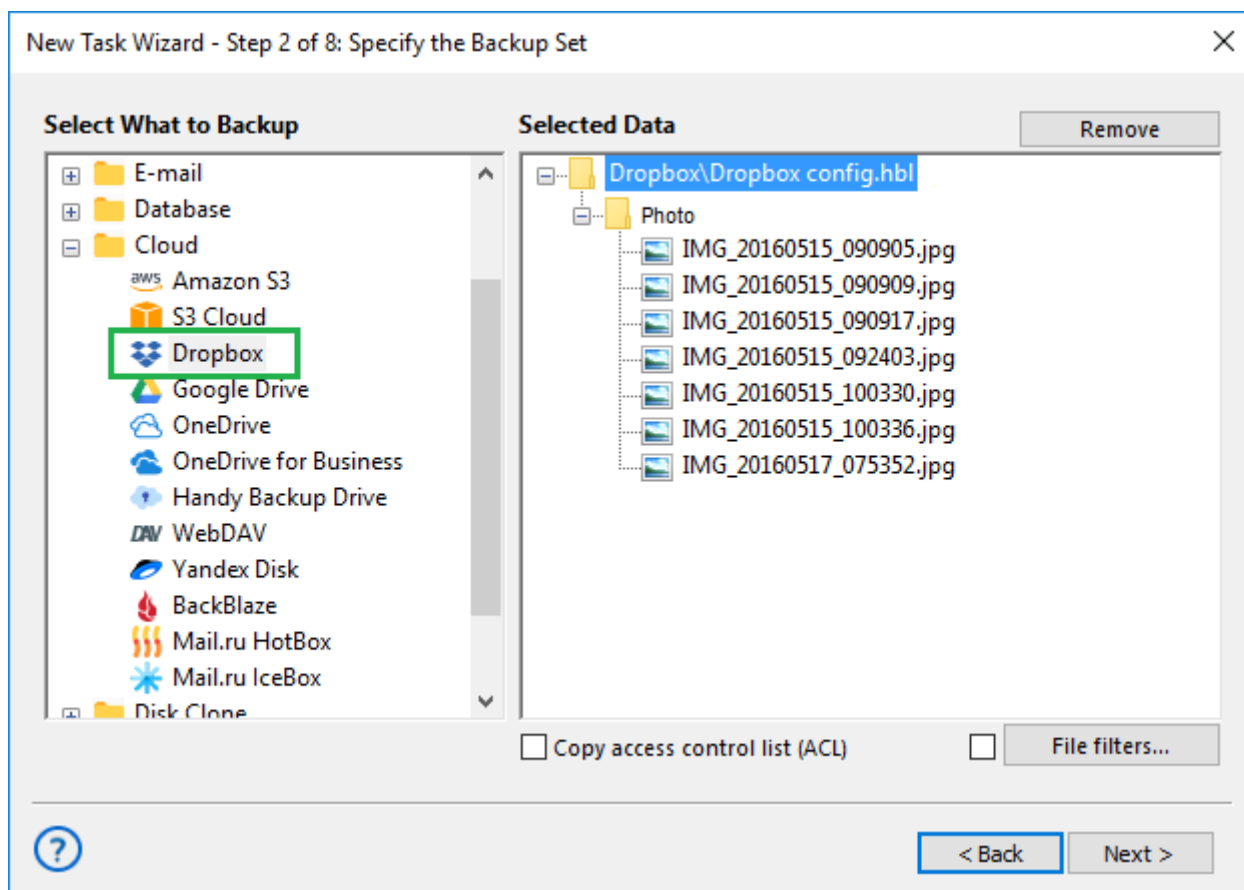
6. Enter your Dropbox account connection parameters, e.g. username/email and password.
7. Allow Handy Backup to connect with this particular Dropbox account.
8. Return to Handy Backup. The program will test your established Dropbox connection.
9. If the connection has a success, click on OK to return, then click twice on your Dropbox configuration to use it as a data storage.



10. Click on the "OK" button to continue creating your tasks. All next steps of the task creation are unspecific for Dropbox-using tasks.

Backup Dropbox Account Content

Use an existing Dropbox configuration created as described above, or create a new configuration on a Step 2 instead of a Step 3 to save Dropbox files from your account. You can [backup Dropbox](#) to an external hard drive, save files online (e.g. on a NAS) or into a folder somewhere on your computer.



Restoring from a Dropbox Account

Users can apply the “Dropbox” feature for auto recovery from Dropbox. In case of restoration, the task often uses the Dropbox configuration created previously for backing up; in this case, just select a needed configuration from a list that opens in the “Dropbox” feature.

Dropbox Business Plug-in

The Dropbox Business plugin empowers administrators to generate backups of files and directories within workgroups. Leveraging this plugin, users can configure [backup to Dropbox Business](#) and automate data restoration from their accounts, leveraging all functionalities of Handy Backup software.

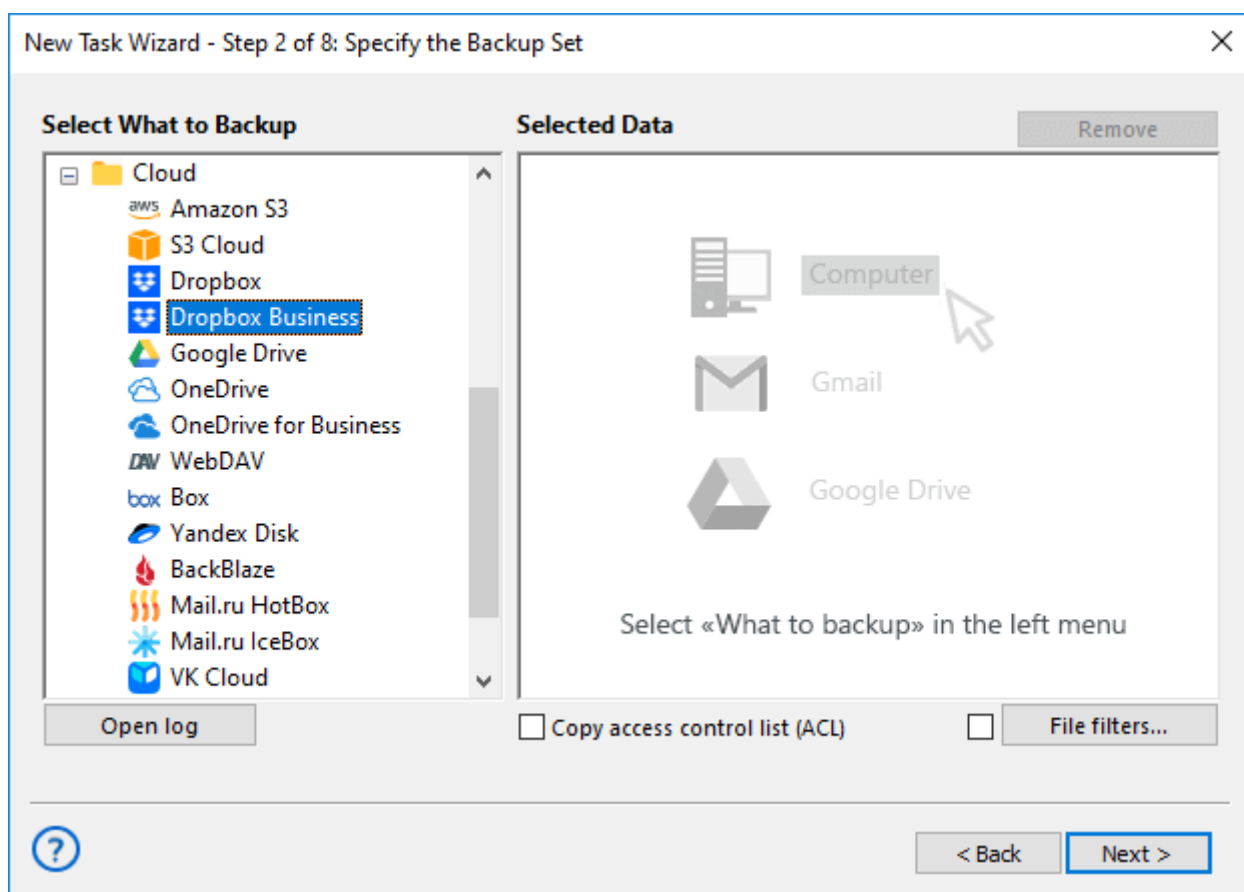
Creating Backups for Dropbox Business Data

To initiate a backup task for files from personal and work folders within your Dropbox Business account, adhere to these steps:

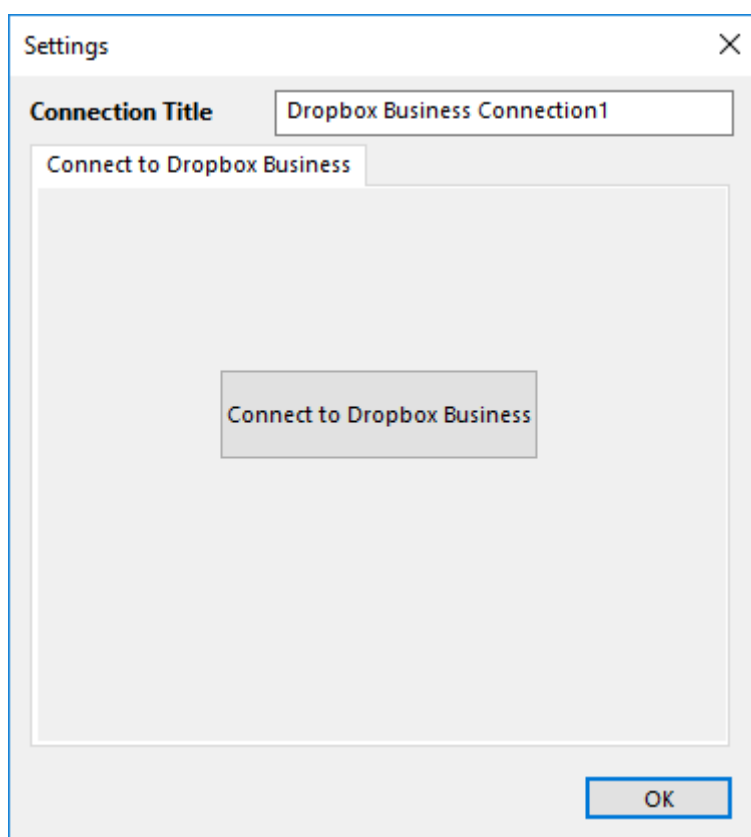
1. Open the Handy Backup program and initiate a new backup task.

Note: By selecting the “Advanced Mode” option, denoted by a checked checkbox, all task creation settings become accessible. However, this example illustrates the task creation process in normal mode.

2. During the second step, within the Cloud section, locate Dropbox Business and click on it.



3. A new dialogue window will emerge, prompting you to establish a fresh connection to Dropbox for Business.



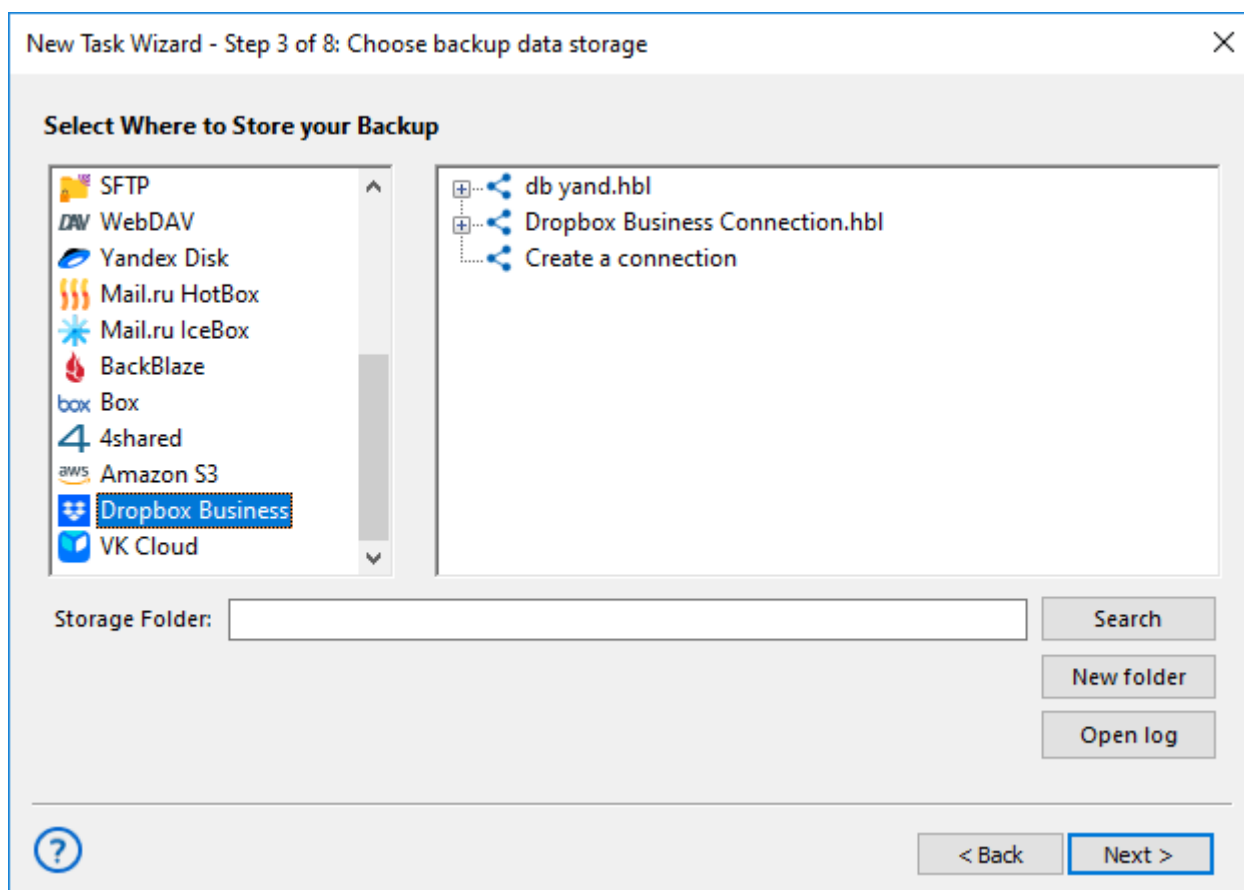
Handy Backup User Manual

Note: A successful connection mandates authentication by the account administrator.

4. Upon doing so, a browser window will open where you'll need to confirm access to the account.
5. Following successful connection establishment, personal and group files and folders will be accessible.
Proceed to select the requisite data for backup creation.
6. In the third step, designate a storage location for housing the backups.
7. Subsequent task creation steps align with the overarching procedures delineated in [this guide](#).

Storing Backup Copies in Dropbox Business

To save backup copies of files on Dropbox, you must first select the data to be copied on Step 2. Then, **on Step 3, choose the Dropbox Business storage** and specify the folder where the backup will be conducted. The detailed process of establishing a new connection is described above.



Restoring Backup Copies from Dropbox Business

To restore data from a backup stored on Dropbox Business, you need to create a restoration task. On the second step, select the folder where the backup file **backup.hbi** is located. Then, follow the restoration instructions provided in [this guide](#).

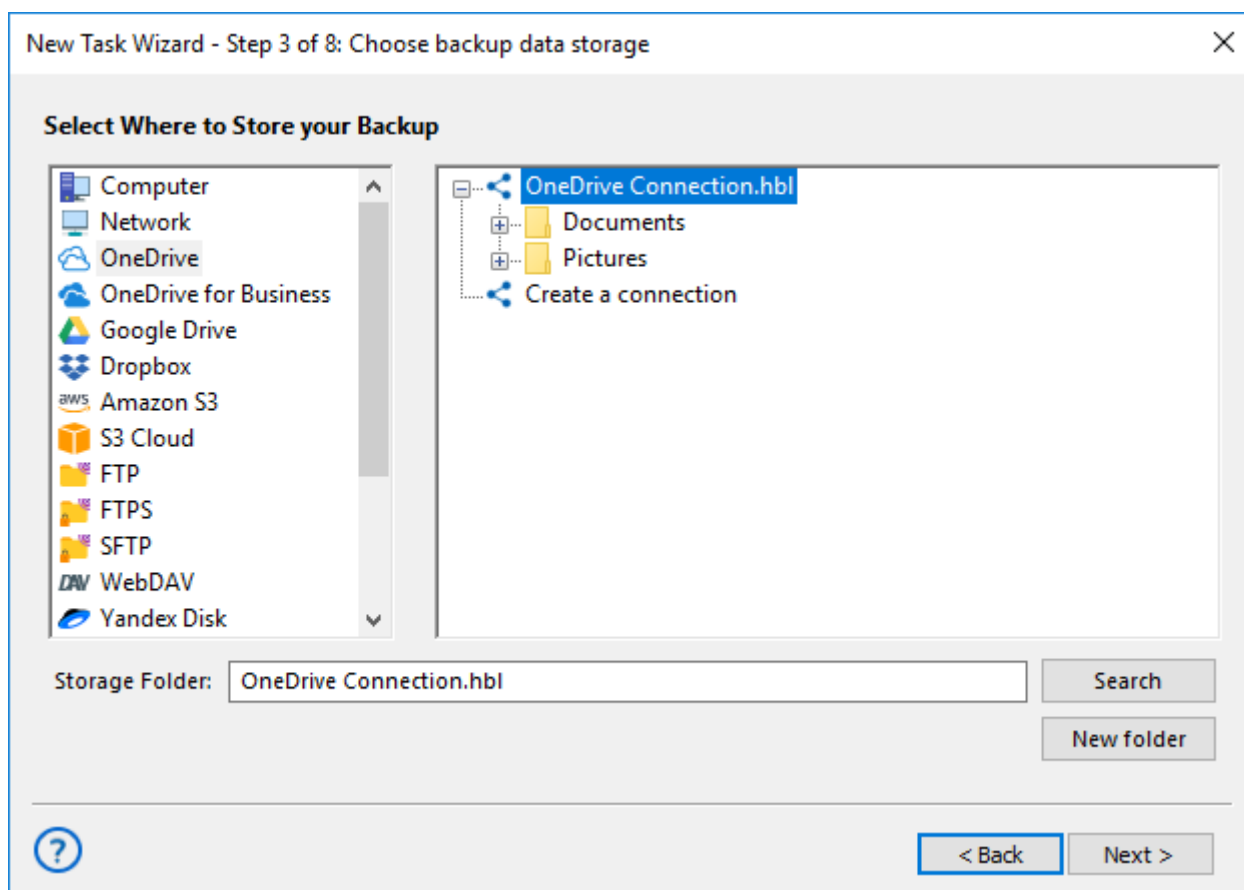
OneDrive Plug-in

The **OneDrive** feature allows Handy Backup using OneDrive cloud accounts both as a backup data source and as a vault for copies of the information.

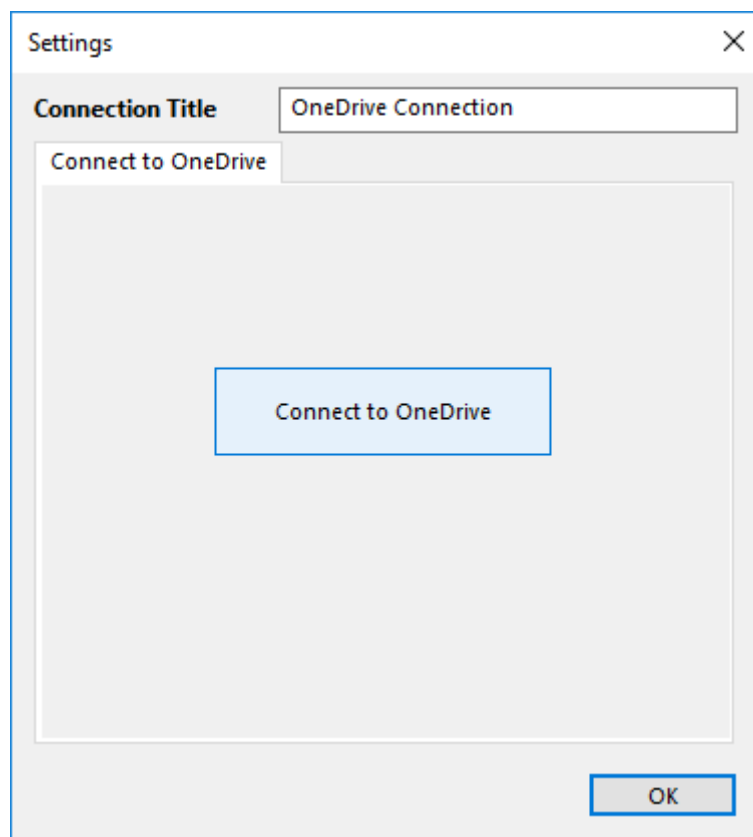
Using the OneDrive Feature as the Backup Vault

To use the [OneDrive backup software](#) plug-in for backing up data to a particular account, please follow the instruction below:

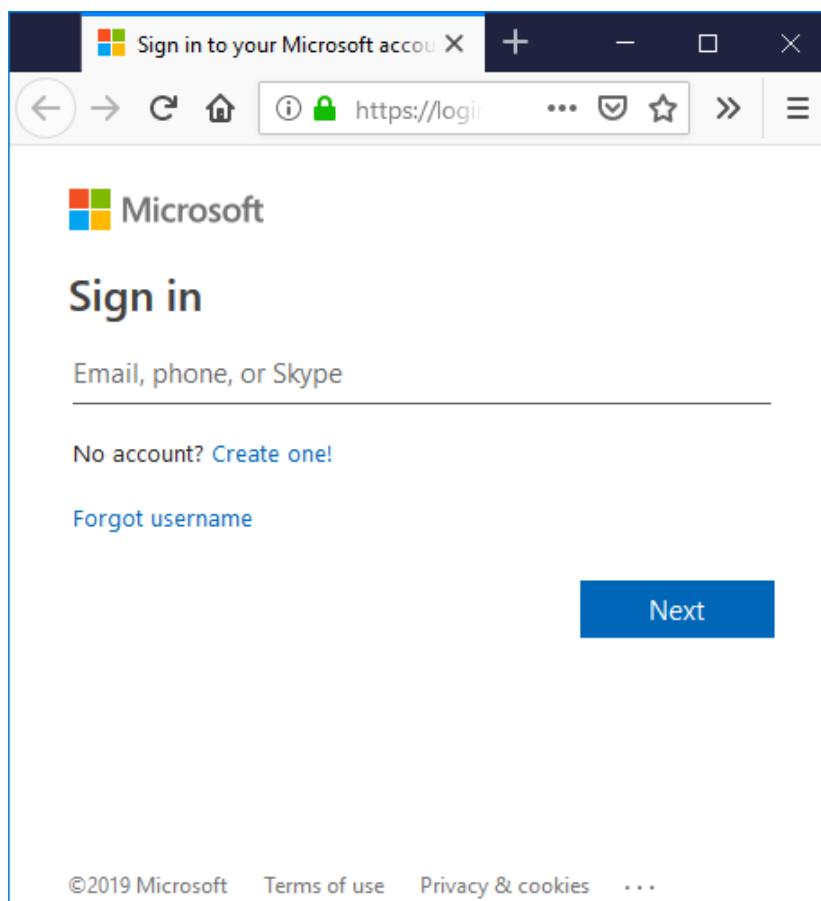
1. Make a new **backup task**, and on a **Step 2**, choose the dataset you want to back up.
2. On a Step 3 and select the “**OneDrive**” option. You will see the OneDrive list of options:



3. Click on a “**Create a connection...**” string; it will open an account settings dialog.



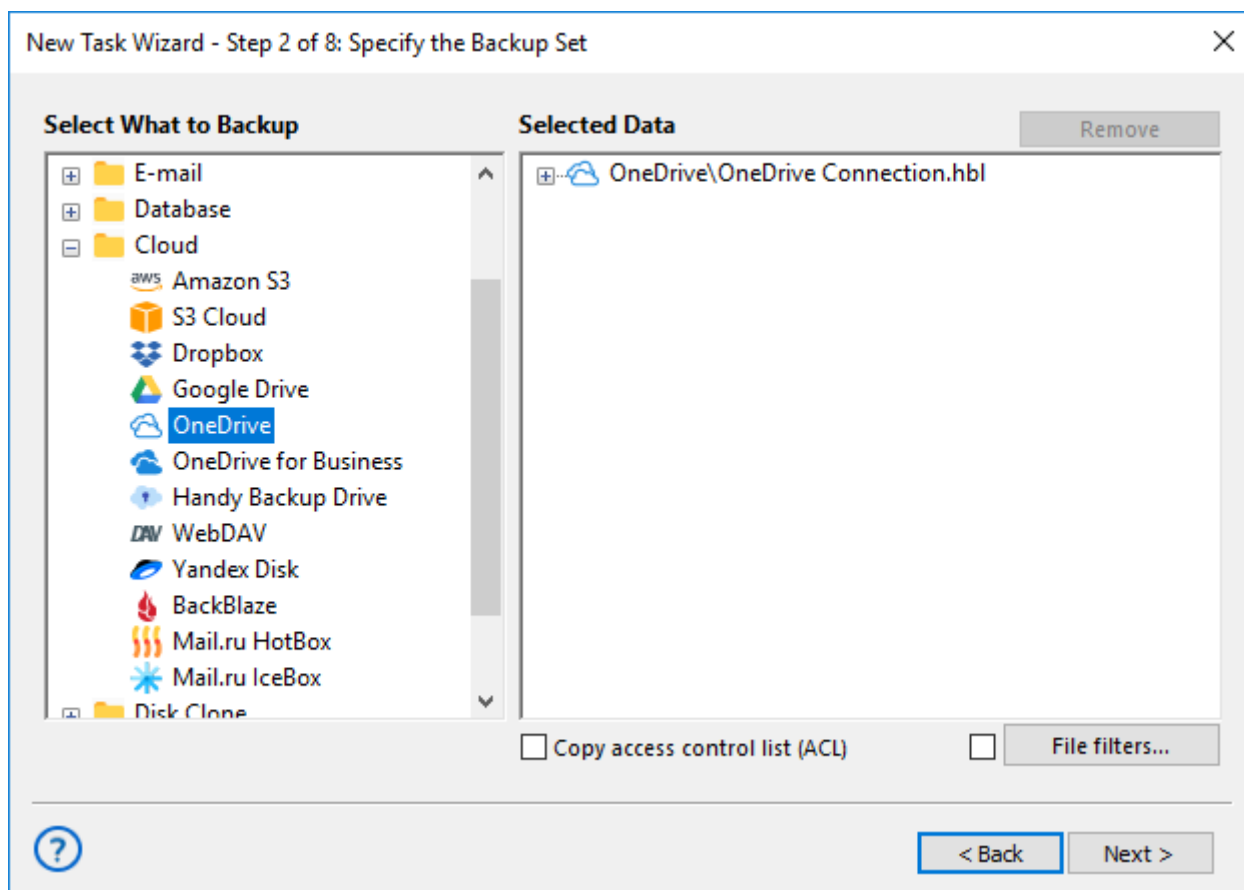
4. Click on the button "**Connect to OneDrive**". You will see the browser window, where you must enter your OneDrive connection parameters. After entering the parameters, just sign in.



5. Return to Handy Backup. The program will test your established OneDrive connection.
6. Click on your obtained OneDrive configuration to use it as a data storage.
7. Click on the “OK” button to continue creating your tasks. Other steps of the task creation are unspecific for backing up to OneDrive cloud.

Backing up from the One Drive Account

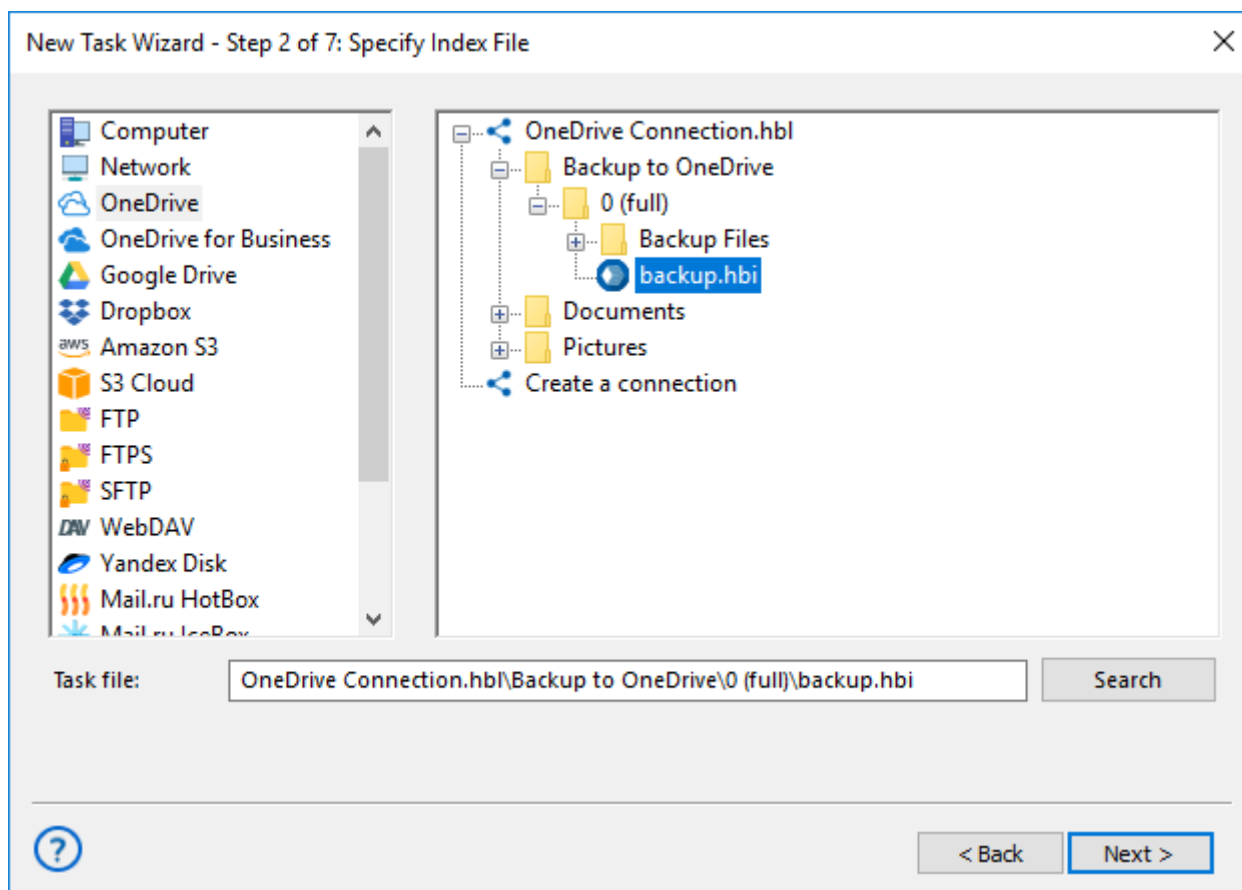
All steps described earlier are also actual for using your **OneDrive** account **as a backup source**. Just select and configure the “OneDrive” feature as a data source on a **Step 2**, then set up a new configuration or use an existing connection like described before.



Restoring Data from OneDrive Account

To restore data from OneDrive, please use the next sequence of actions.

1. Open Handy Backup, create a new task and select a restoration task on the Step 1.
2. On the Step 2, select the OneDrive plug-in and choose a configuration you need.
3. Browse your OneDrive content for a file called **backup.hbi**, which is the index file.



4. Select this file to restore your data to its original place.
5. If you want to restore data from OneDrive to another location, click “**Change Location**”.
 - Select a new location for your information to restore (or just to clone) it.
6. Click OK and return to the task creation wizard.
7. Continue to create the restoration task as described in the User Manual. That is all.

Utilizing OneDrive for Business Plug-in

If you have a version of Handy Backup that supports OneDrive for Business plug-in, then all operations and action sequences described here are fully compatible with OneDrive for Business.

WebDAV plug-in

WebDAV (Web-based Distributed Authoring and Versioning) is a special secure network-level protocol that runs over the HTTP. WebDAV provides generic access for different online storages such as private clouds based on OwnCloud technology.

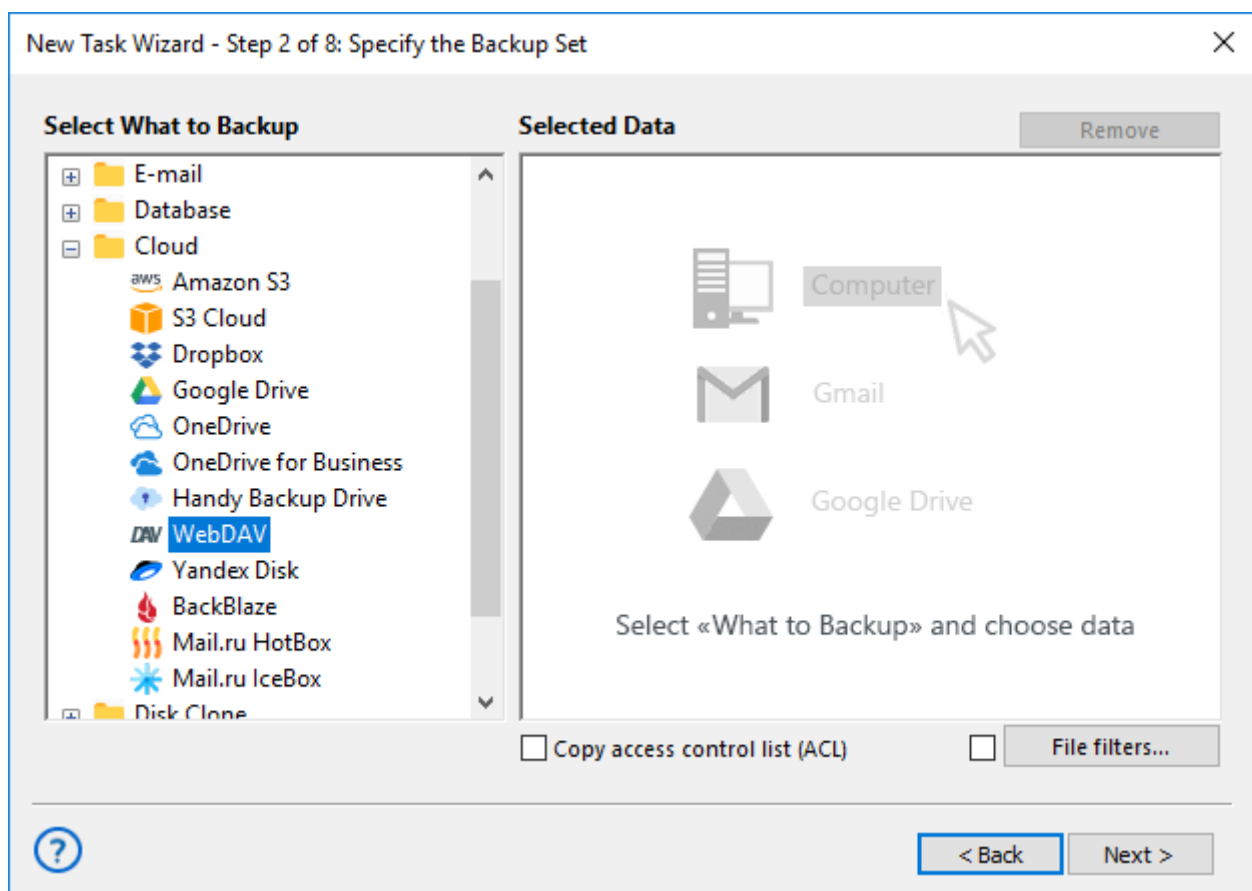
Prerequisites

WebDAV can perform basic and advanced file object-operations on a remote server, and also has build-in support of simultaneous-users working. This allows you to use WebDAV for backups in the rather same way as the local computer. You can make copies in two directions: backup from WebDAV share and backup to WebDAV.

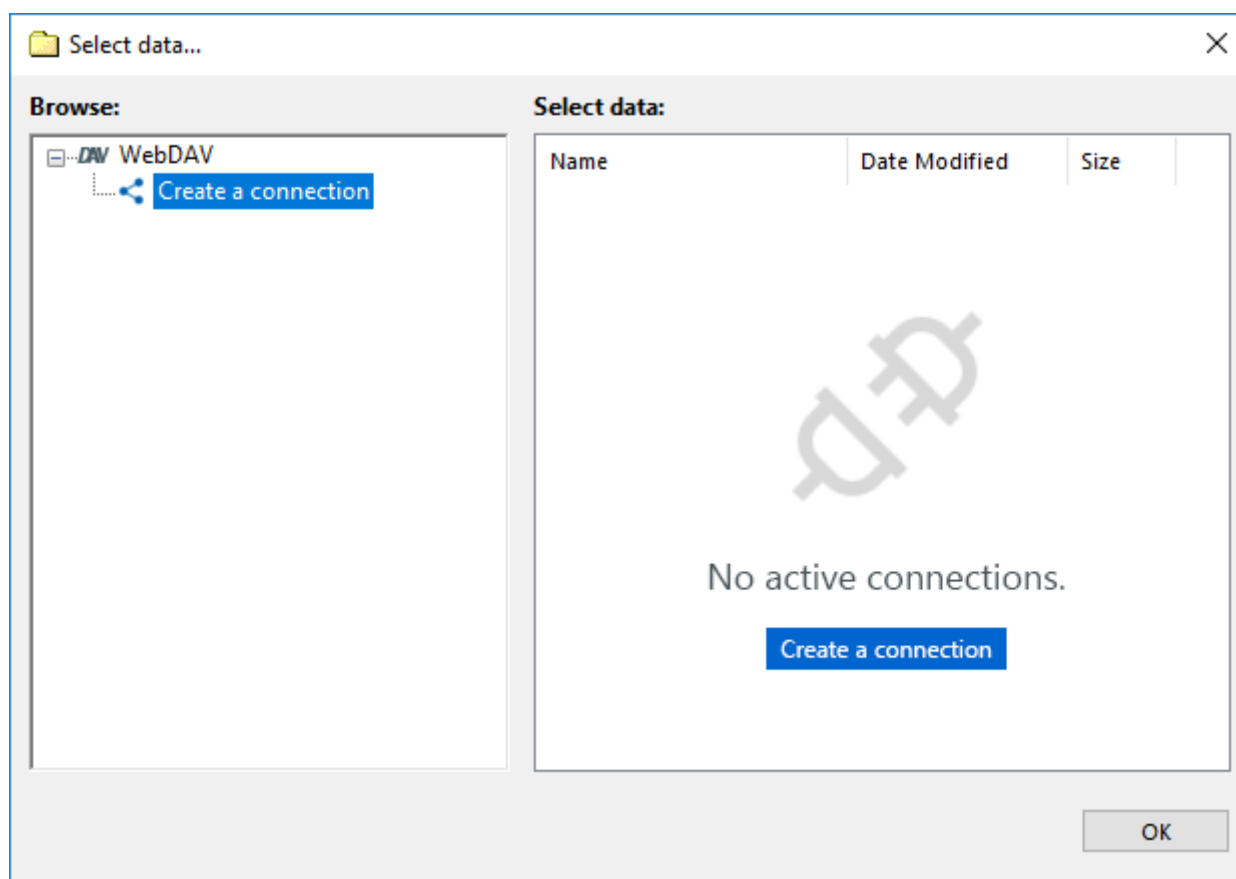
Using WebDAV Plug-in

To make a **backup via WebDAV**, please follow the next instruction.

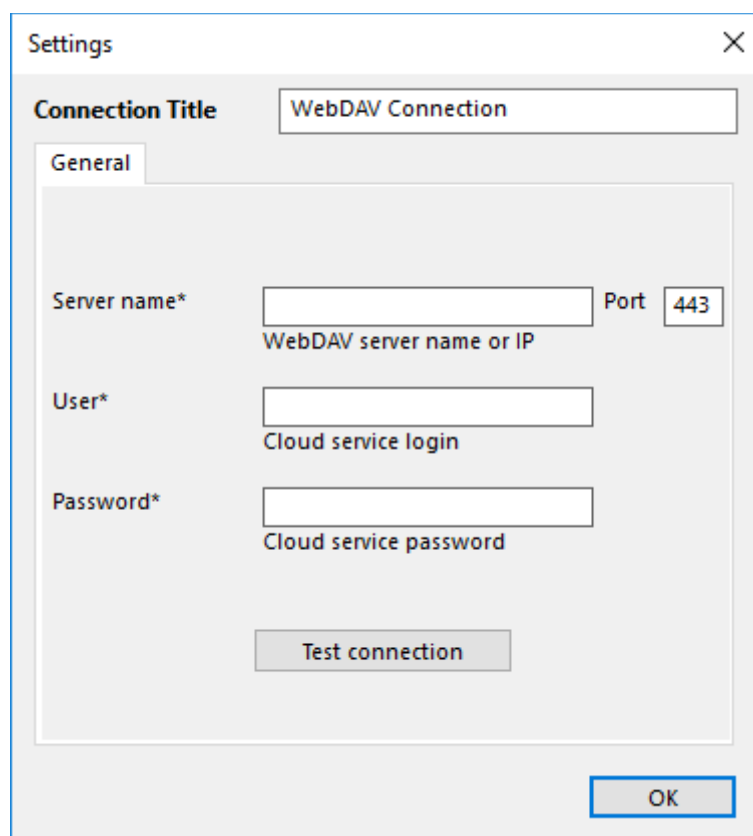
1. Go to Step 2 of New Task Wizard and select the **WebDAV** option in the **Cloud** group.



2. Click **Create a connection** string to open a connection setup dialog.



3. Configure the connection via WebDAV by providing appropriate connection parameters.



- Enter the name or IP address in the **Server Name** field.

Handy Backup User Manual

- **Set up the port.** Default port for WebDAV is 443 (over SSL) or 80.
 - Enter your **User** and **Password** into corresponding fields.
 - Mark the "Use temp folder to transfer data" option if a server side of your service doesn't support receiving files of unknown size.
4. After finishing, click OK. Return to the plug-in window.
 5. Click onto a connection name to enter the **Select data** dialog. Here mark all data that you plan to back up.
 6. When you finish, click OK and continue creating a backup task according to this Manual.

Now you can use WebDAV connection for backing up your folders and files.

Utilizing WebDAV as Storage

To do it, select WebDAV on **Step 3** instead of Step 2. Create a new connection to your cloud resource as described above if you need it. After connecting, select a folder to store your backups and continue creating a task as usual.

Restoring from WebDAV Clouds

Presumably, to restore some data from WebDAV, you already have a connection to a cloud, although you can establish it as described before during creating a recovery task (e.g., after re-installing Handy Backup). Select **WebDAV** on the Step 2 of recovery task creation, and find a file **backup.hbi** inside it.

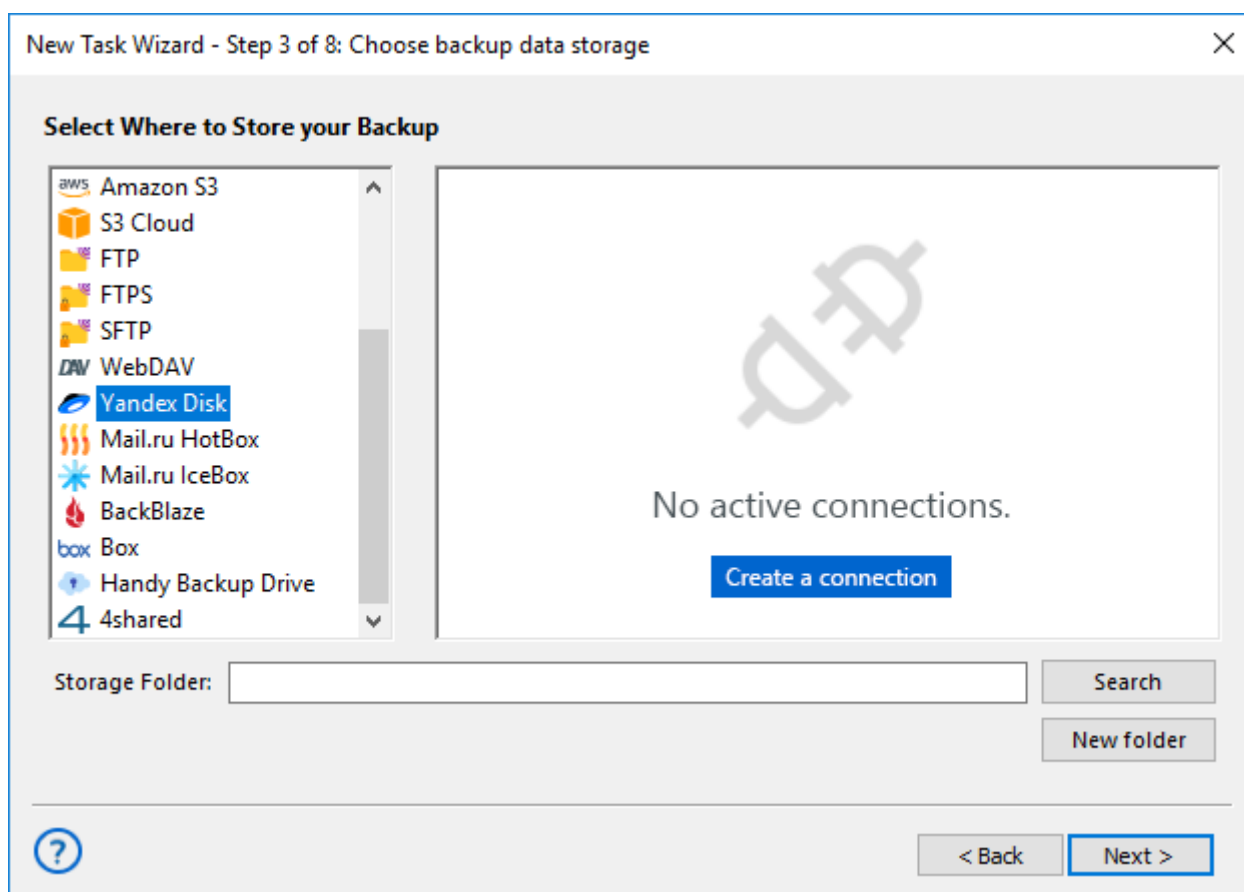
Yandex.Disk Plug-in

Handy Backup uses the **Yandex.Disk** to save copies of Yandex.Disk cloud storage content, as well as for using this cloud storage for saving backups from other sources.

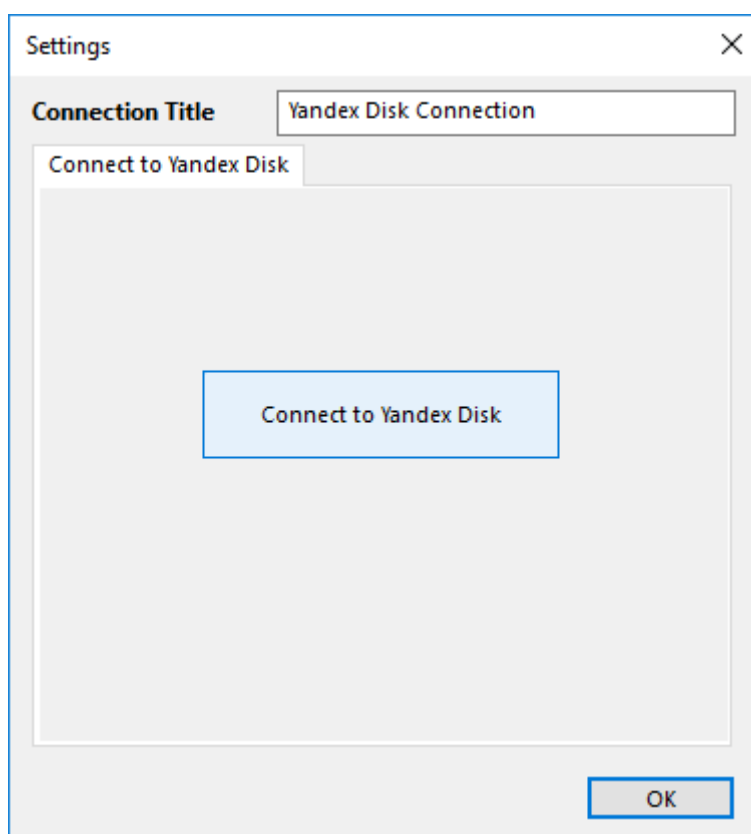
Using Yandex.Disk as Backup Destination

To save backup data on Yandex.Disk cloud storage, please follow the instruction below:

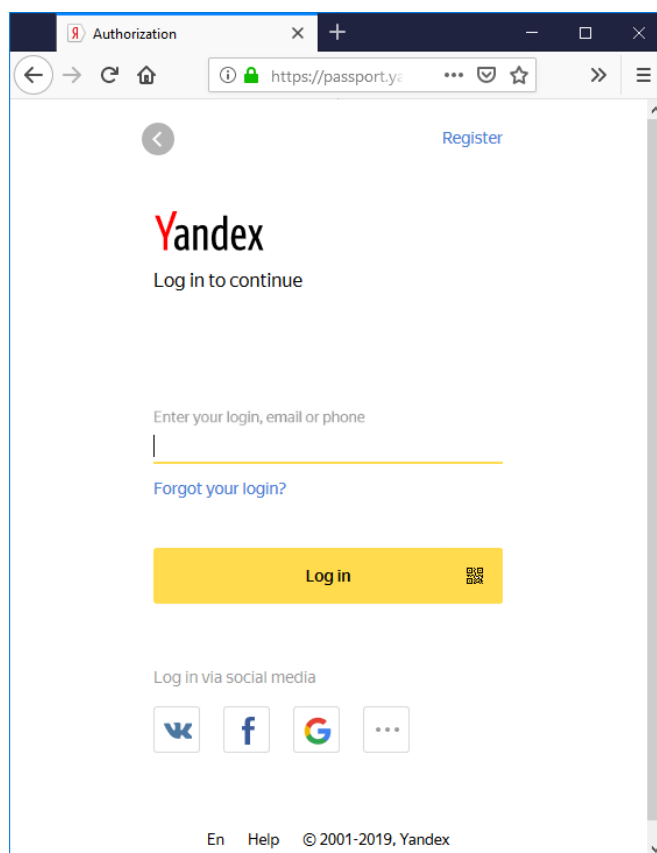
1. Create a **backup task** and select your backup data on the Step 2.
2. Select "**Yandex.Disk**" on the Step 3 by clicking on it.
3. You will see a list of available Yandex.Disk configurations on the right panel.



4. To create a new connection, double-click on the **"Create a connection..."** option. It opens a dialog.



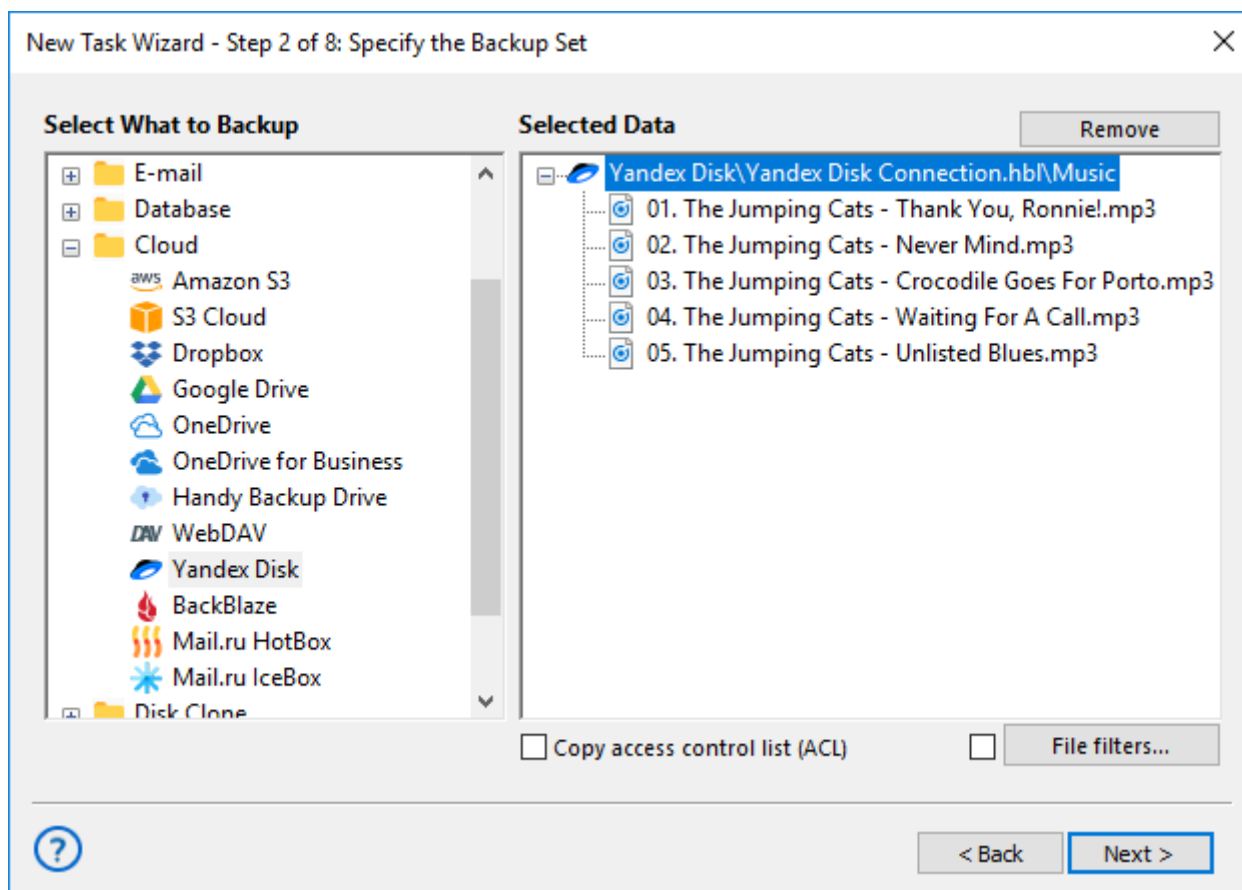
5. Click the button “**Connect to Yandex Disk**”. It will open a browser window, where you must enter the login and password data to your Yandex account. After entering Yandex, please confirm usage of Handy Backup for accessing Yandex.Disk:



6. Return to Handy Backup. The program will test your new connection.
7. Click twice on the name of your new Yandex.Disk configuration, to select it as a backup storage.
8. Click OK and continue creating your task. No steps are specific for using Yandex.Disk.

Backing up Yandex.Disk Itself

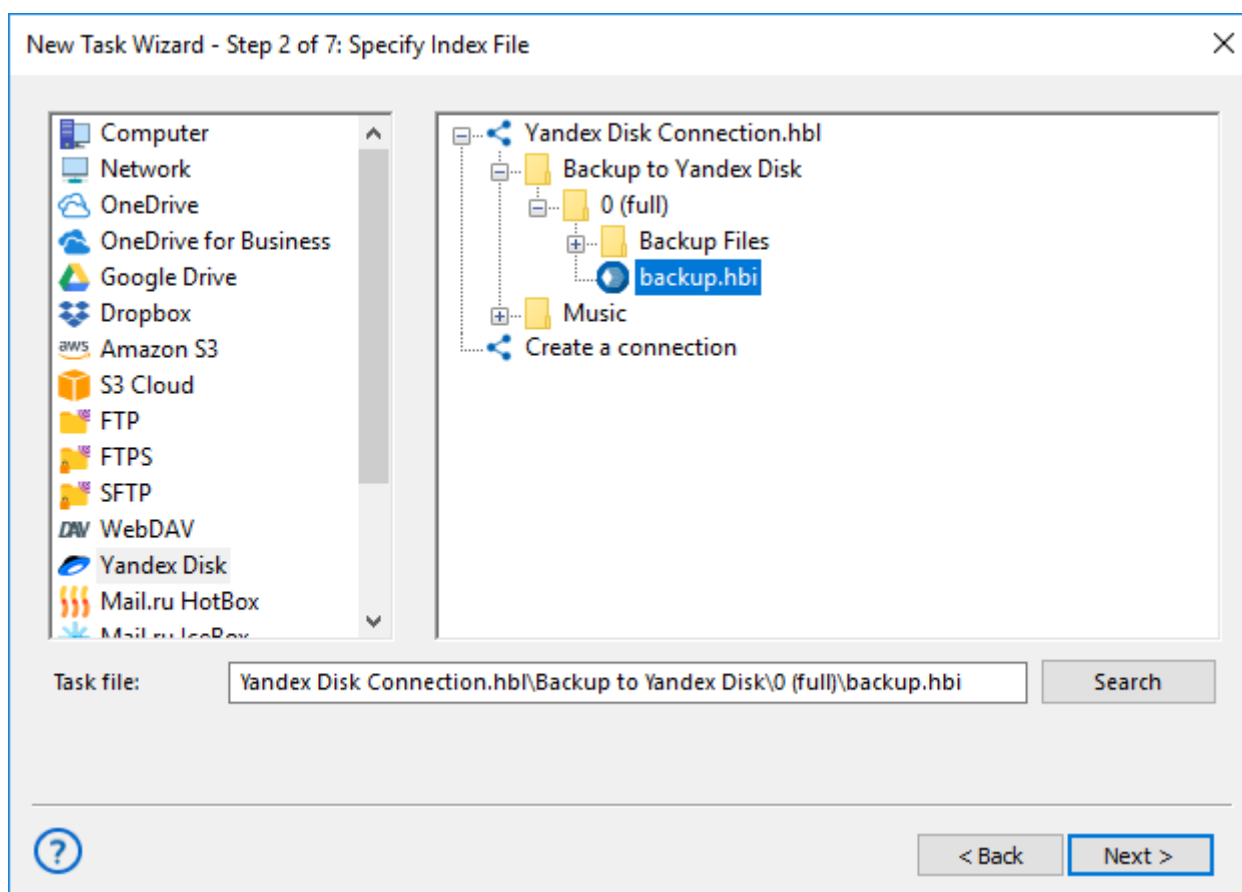
All the actions described above are correct for using **Yandex.Disk** as data source. Select the Yandex.Disk plug-in from the “Clouds” list on the **Step 2** instead of the Step 3, then create a new connection as shown before, and use it as a data source, selecting particular datasets for backup from it.



Restoring Data from a Yandex.Disk Account

To restore your information from backup on Yandex.Disk, please follow the next sequence of actions:

1. Open Handy Backup and create a new task, selecting **restoration** on the Step 1.
2. On the Step 2, select the **Yandex.Disk** and an appropriate configuration to access data.
3. Find the index file called **backup.hbi** in the data content on the account.



4. Select it to restore the backup dataset from Yandex.Disk to its original location.
5. If you want to move the backup dataset to another place than original, click the “**Change location**” button.
 - In the dialog opened, select a new destination for your data.
6. Click OK to return to the task wizard.
7. Continue creating a restoration task as described in the User Manual.

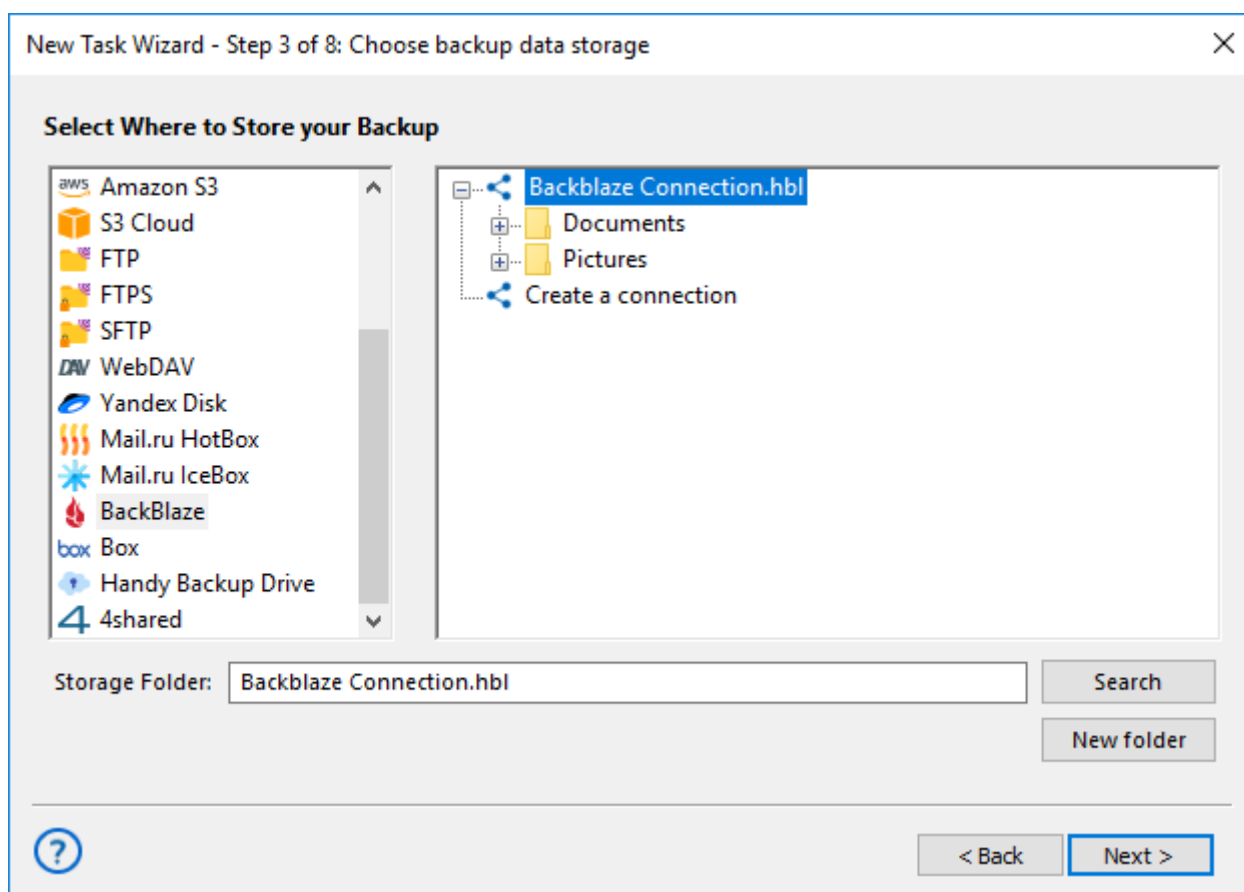
Backblaze Plug-in

The **Backblaze** plug-in allows Handy Backup using Backblaze cloud accounts both as a backup data source and as a storage for data copies.

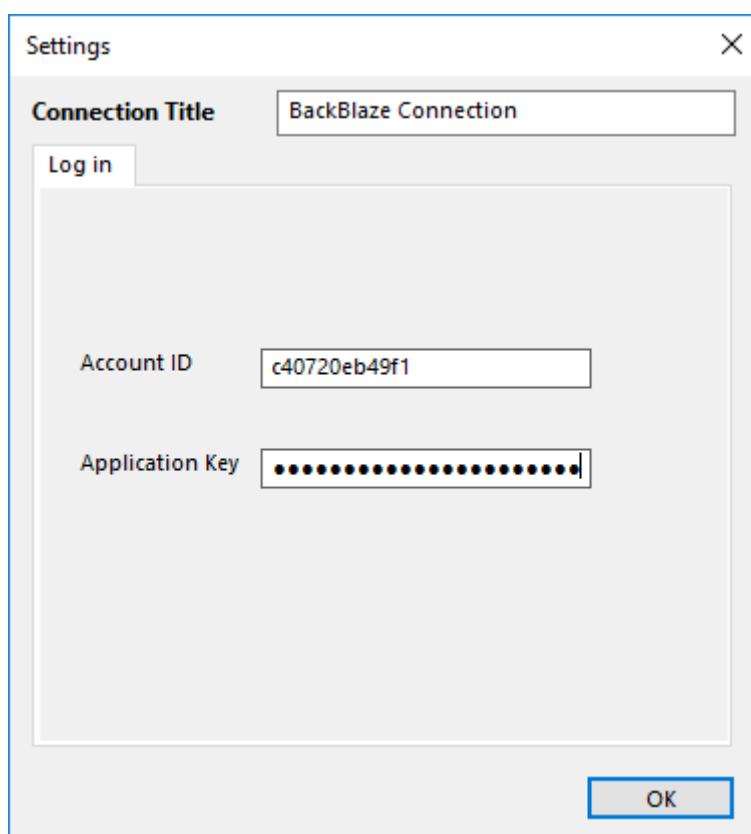
Using the Backblaze Feature as the Backup Vault

To use the Backblaze plug-in for saving the dataset to a particular Backblaze cloud account, please follow the instruction below:

1. Make a new **backup task**, and on a Step 2, choose the dataset you want to back up.
2. On a Step 3 and select the “**BackBlaze**” option. You will see the BackBlaze list of options:



3. Double-click on a "Create a connection..." string; it will open an account settings dialog.

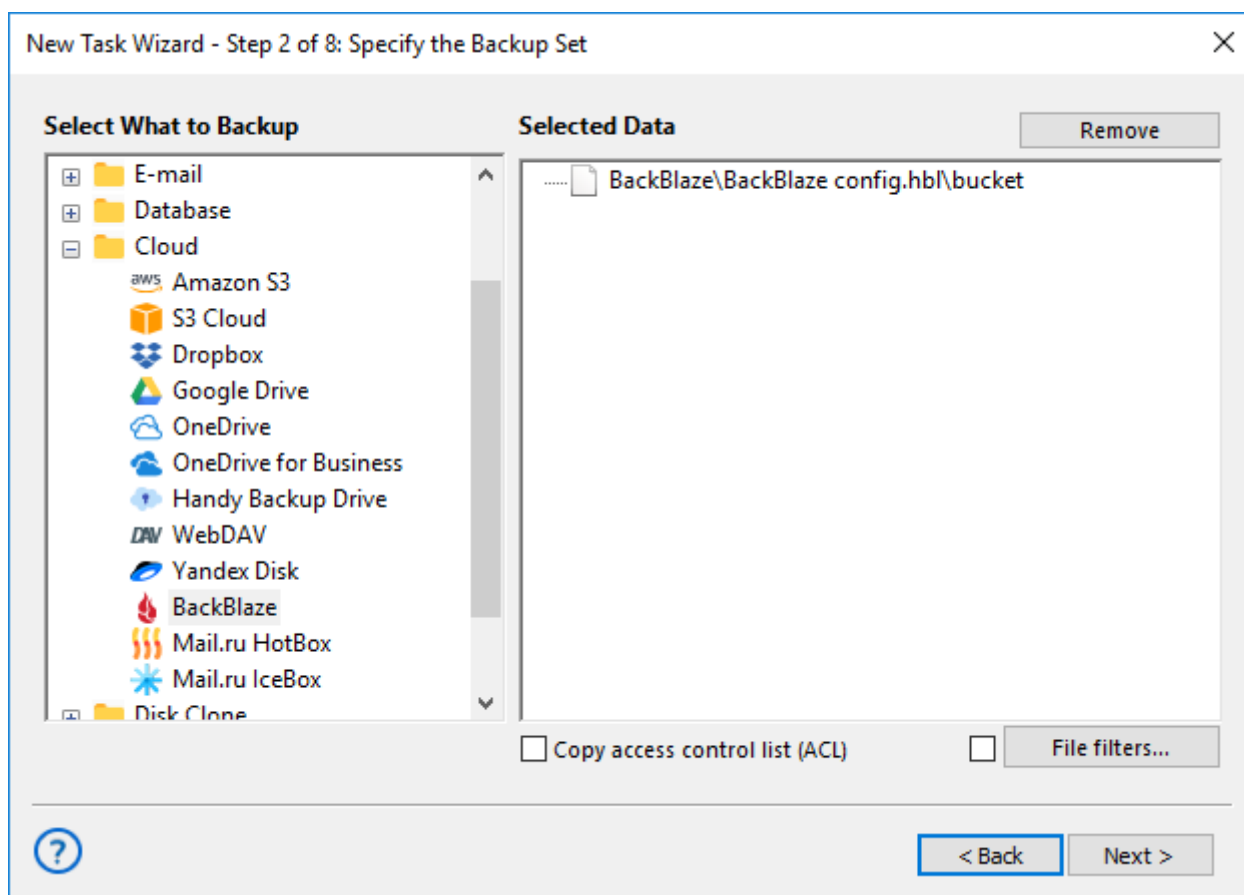


Handy Backup User Manual

4. Create a new configuration (i.e. login and password for a Backblaze account) to set a connection between Backblaze and Handy Backup. Click OK after finishing.
5. Click on your obtained Backblaze configuration to use it as a data storage.
6. Click on the "OK" button to continue creating your tasks. Other steps of the task creation are unspecific for backing up to Backblaze cloud.

Backing up from the Backblaze Account

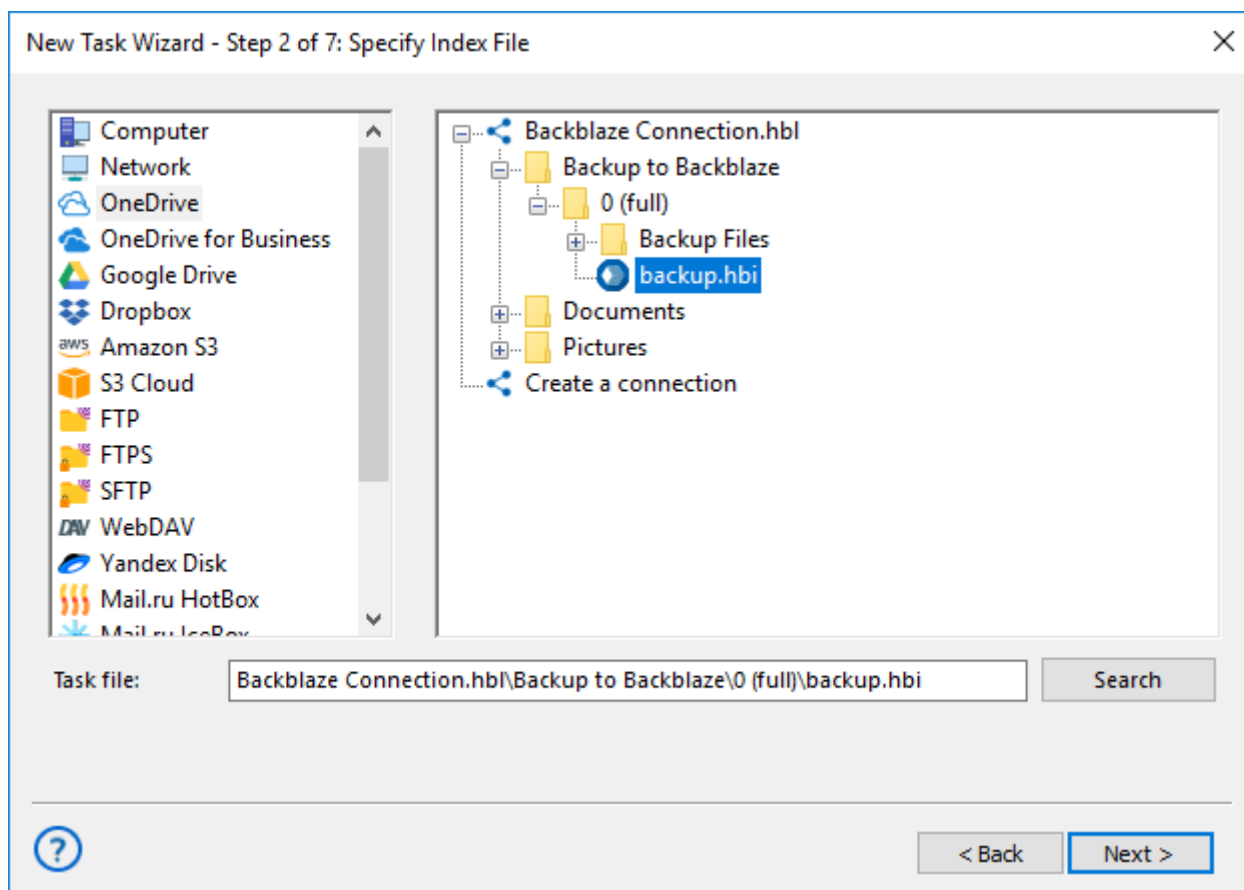
All steps described earlier are also actual for using your Backblaze account as a backup source. Just select and configure the **"BackBlaze"** feature in the **Cloud** list as a data source on **Step 2**, then set up a new (or use an existing) connection like described before.



Restoring Data from Backblaze Account

To retrieve data from a Backblaze cloud account, please use the next sequence of actions.

1. Open Handy Backup, create a new task and select a restoration task on the Step 1.
2. On the Step 2, select the **BackBlaze plug-in** and choose a configuration you need.
3. Browse your Backblaze account for a file called **backup.hbi**, which is the index file.



4. Select this file by clicking on it to restore your data to its original place.
5. If you want to restore data from a BackBlaze cloud to another location, click “Change Location”.
 - Select a new location for your information to restore (or just to clone) it.
6. Click OK and return to the task creation wizard.
7. Continue to create the restoration task as described in the User Manual. That is all.

Mail.ru Hotbox Plug-in

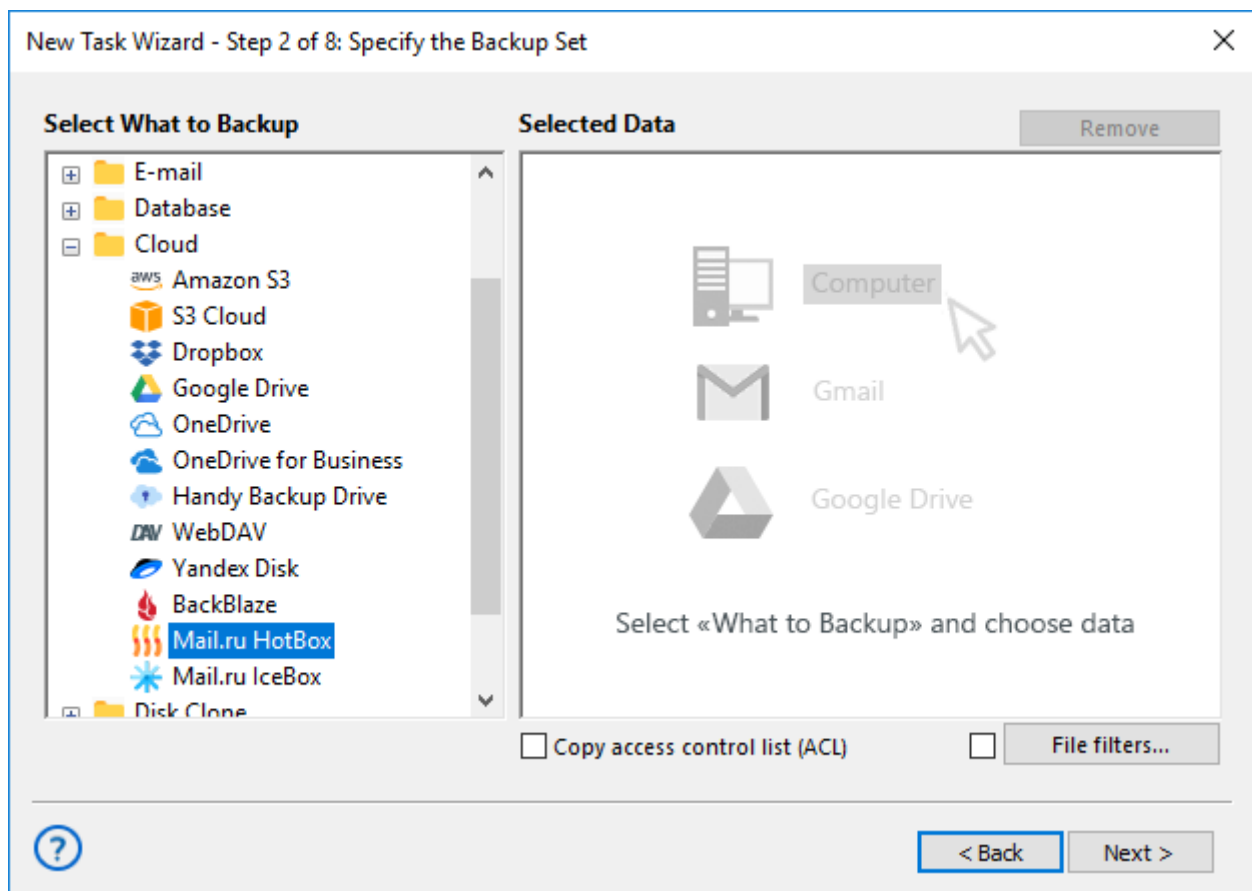
Mail.ru Hotbox cloud is the business-oriented cloud service provided by Mail.ru. The **Mail.ru Hotbox** plug-in allows Handy Backup using Mail.ru Hotbox accounts as both backup sources and storage destinations, using the own cloud’s API to access data.

Using the Hotbox Tool as Backup Data Source

To use the Hotbox backup plug-in for saving data from a particular account, please follow the instruction provided below:

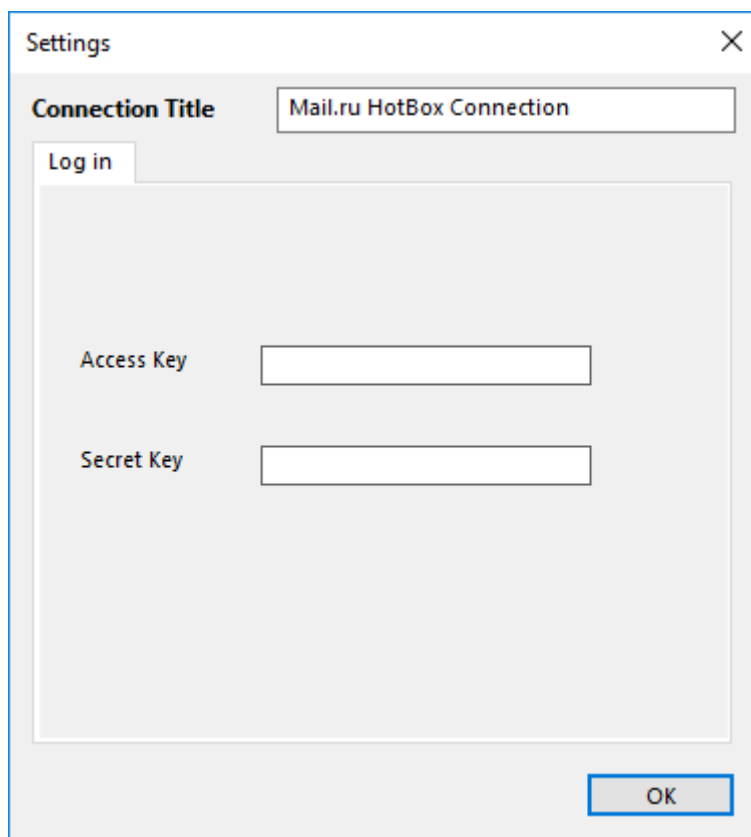
1. Make a new **backup task**, and go to the Step 2, where you must choose data to back up.

2. Select the "**Mail.ru Hotbox**" option in the left panel (you will find the plug-in in the "Cloud" group).



3. Add it to the list of data sources by clicking and select a configuration for backing up your data from a particular plug-in.
4. If you still have no configuration to access your Mail.ru Hotbox account, click on the "**Create a connection...**" string.

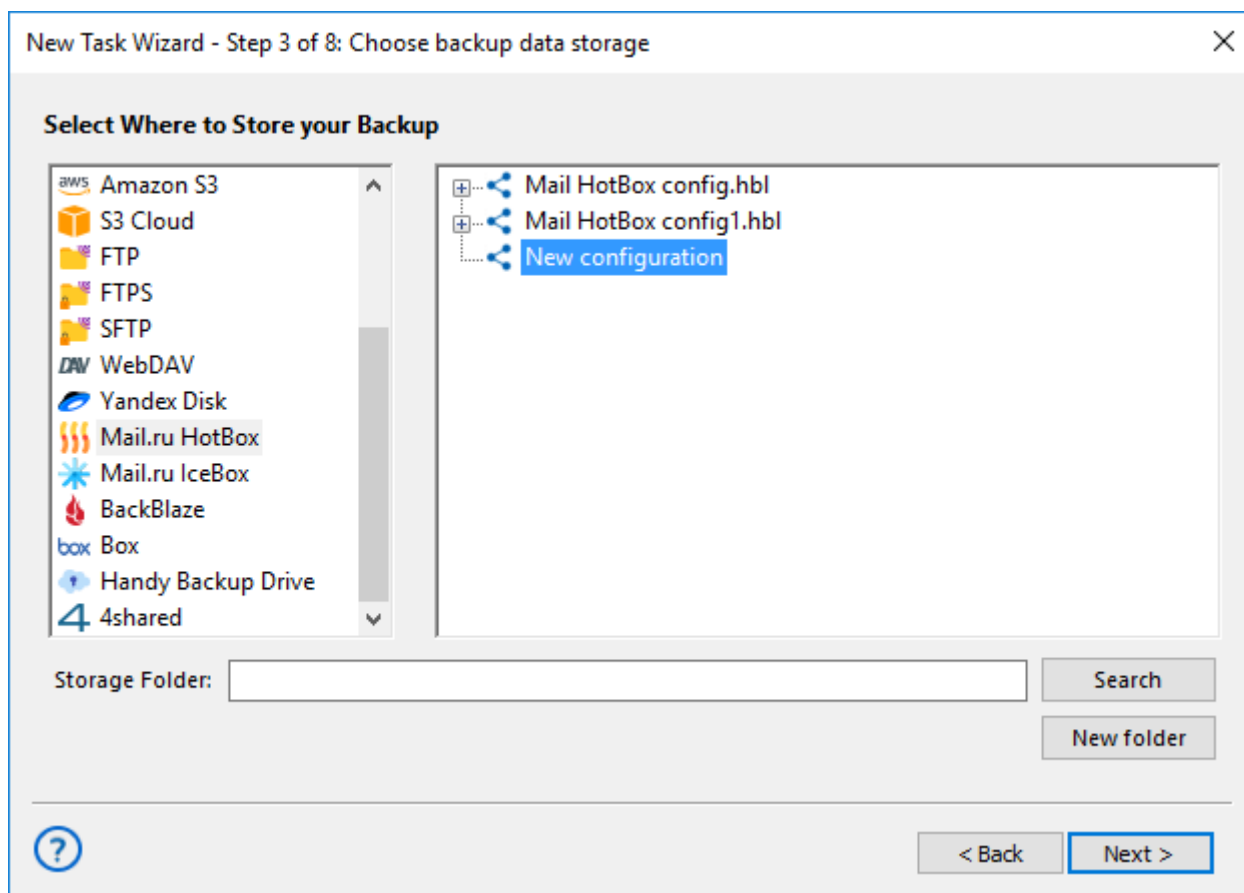
In the next dialog window, provide **both access and secret keys for your Hotbox account**, and give a name for this particular configuration to use it later on Steps 2 or 3.



5. Return to data selection dialog. The program will test your new Mail.ru Hotbox connection.
6. Click on your obtained Hotbox configuration to use it as data source.
7. Select content from your account to backup by marking files and folders with checkboxes.
8. Click OK to continue creating your tasks. Other steps of the task creation are unspecific for backing up from Mail.ru Hotbox cloud.

Backing up to Hotbox

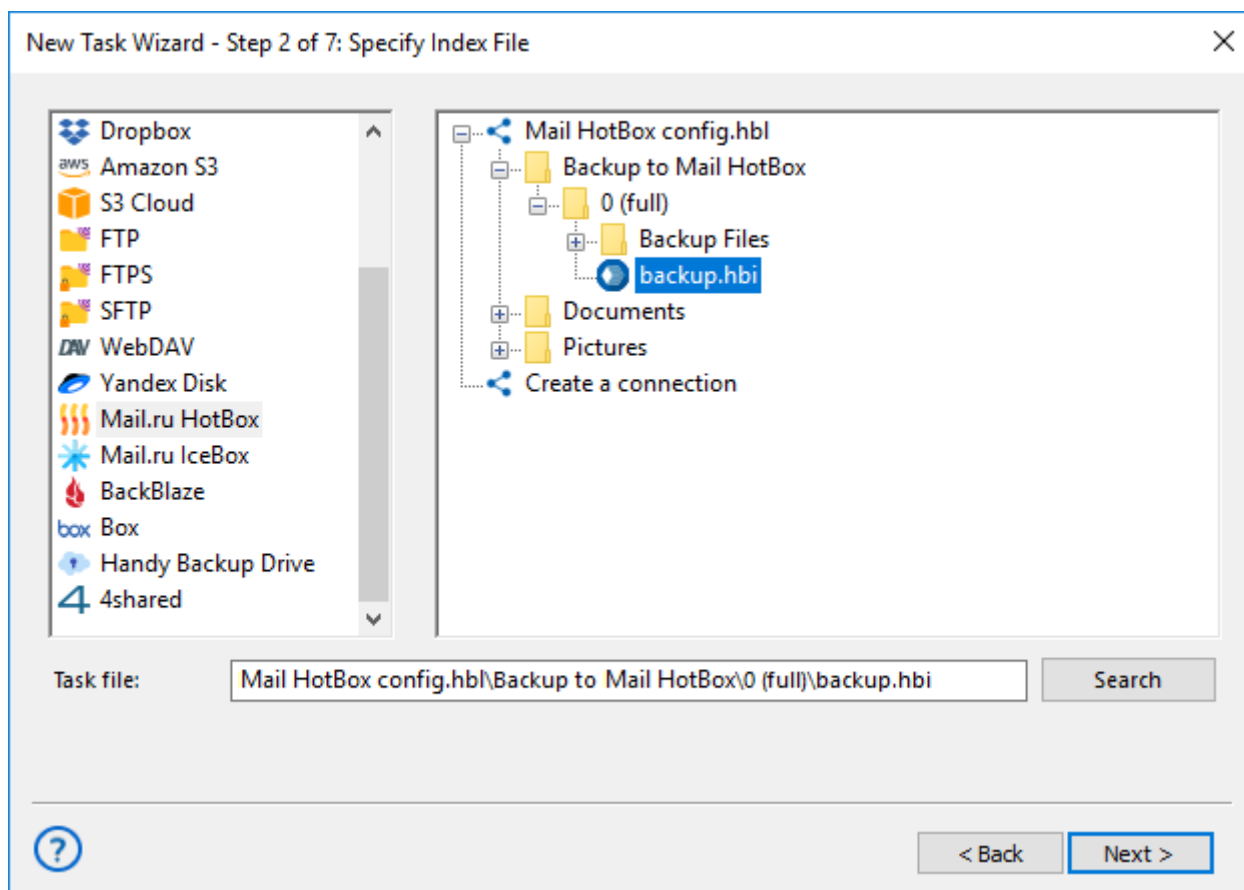
If you want to use Mail.ru Hotbox as backup storage, select it on the **Step 3** of the task creation wizard.



Restoring Data from Mail.ru Hotbox Account

To restore data from Hotbox, please use the next sequence of actions.

1. Open Handy Backup, create a new task and select a restoration task on the Step 1.
2. On the Step 2, select the Mail.ru Hotbox plug-in and choose a configuration you need.
3. Browse your Hotbox account content for a file called **backup.hbi**, an index file containing all necessary information about restoring data.



4. Select this file to restore your data to its original place.
5. If you want to restore data from Mail.ru Hotbox to another location, click "Change Location".
 - Select a new location for your dataset to restore or clone it.
6. Click OK and return to the task creation wizard.
7. Continue creating the restoration task as described in the User Manual. These other steps are not specific by anyway for restoration from Mail.ru Hotbox cloud.

Mail.ru Icebox Plug-in

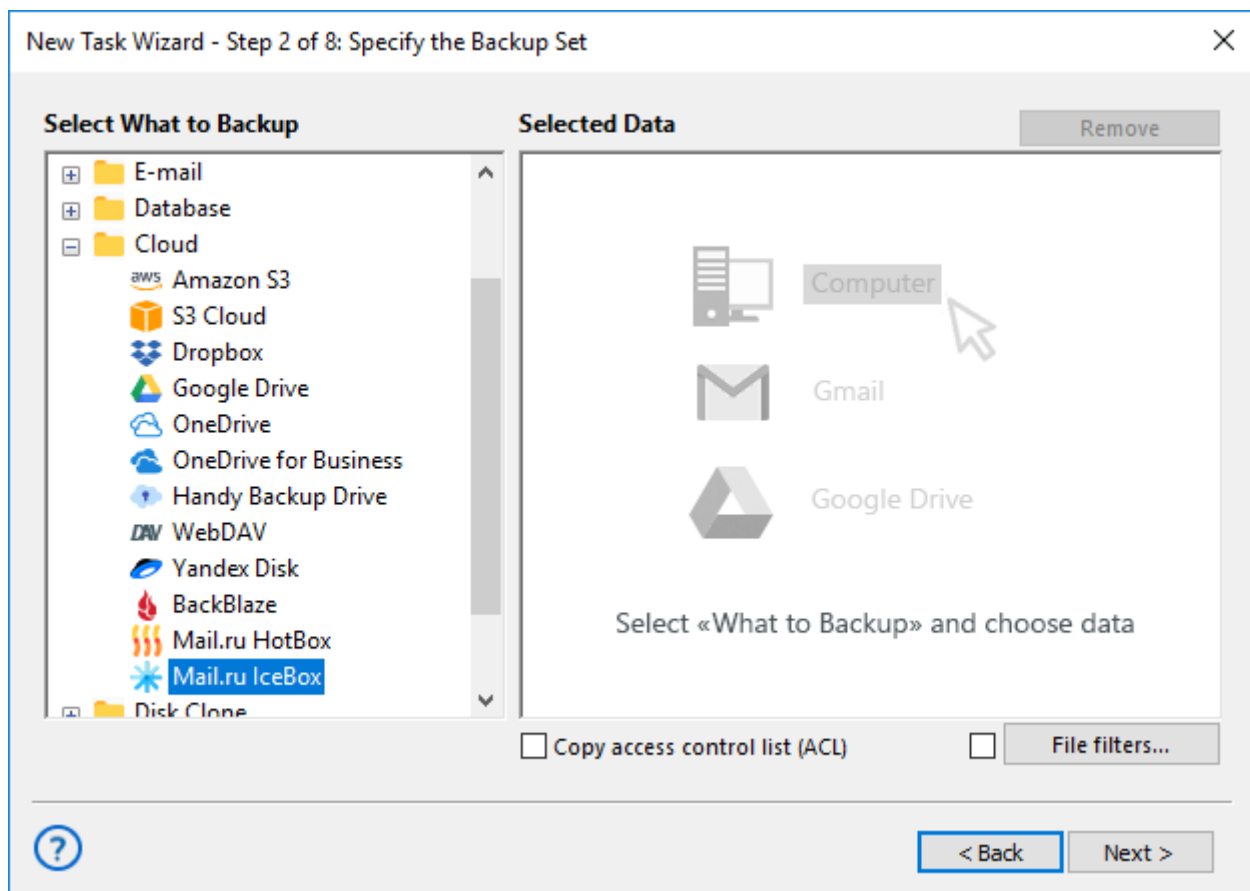
Mail.ru Icebox cloud is the "slow" cloud service for keeping big amounts of data for relatively rare access, like magazine archives and old website copies. It is provided by Mail.ru cloud service. The **Mail.ru Icebox plug-in** lets Handy Backup using Mail.ru Icebox accounts either as backup sources or as data storages, using the cloud API to make data exchange.

Using the Mail.Ru Icebox Plug-In as Data Source

To back up data from a particular account on the Mail.ru Icebox, please follow the short instruction provided below:

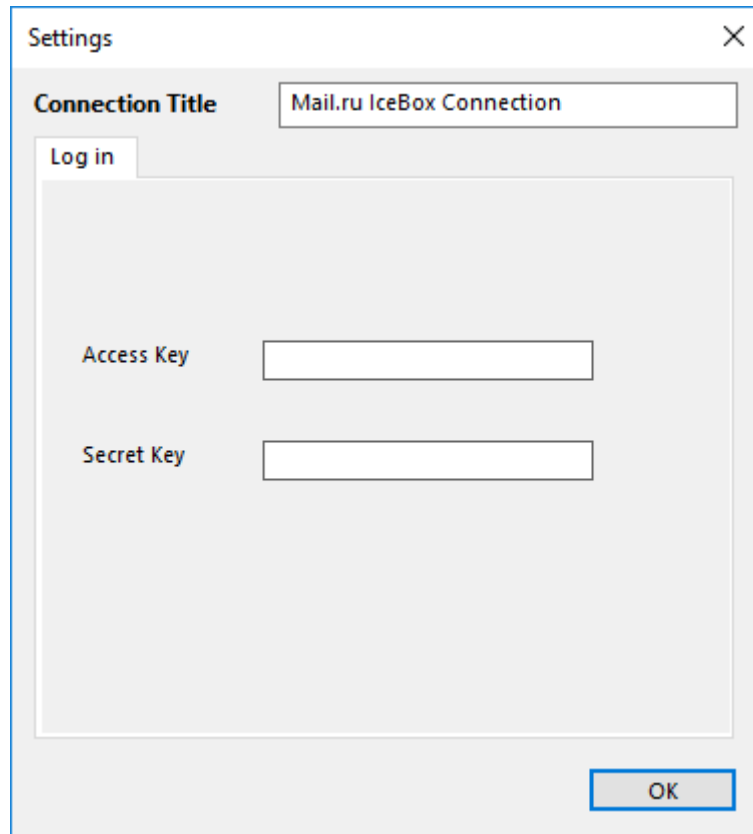
Handy Backup User Manual

1. Make a new **backup task**, and go to the Step 2 to select a backup dataset.
2. Select the "**Mail.ru Icebox**" option in the "Cloud" group on the left panel.



3. Add it to the list of data sources by clicking on it, and select a configuration for backing up your data from a particular plug-in.
4. If you have no configuration to access your Mail.ru Icebox account yet, click on the "Create a connection" option.

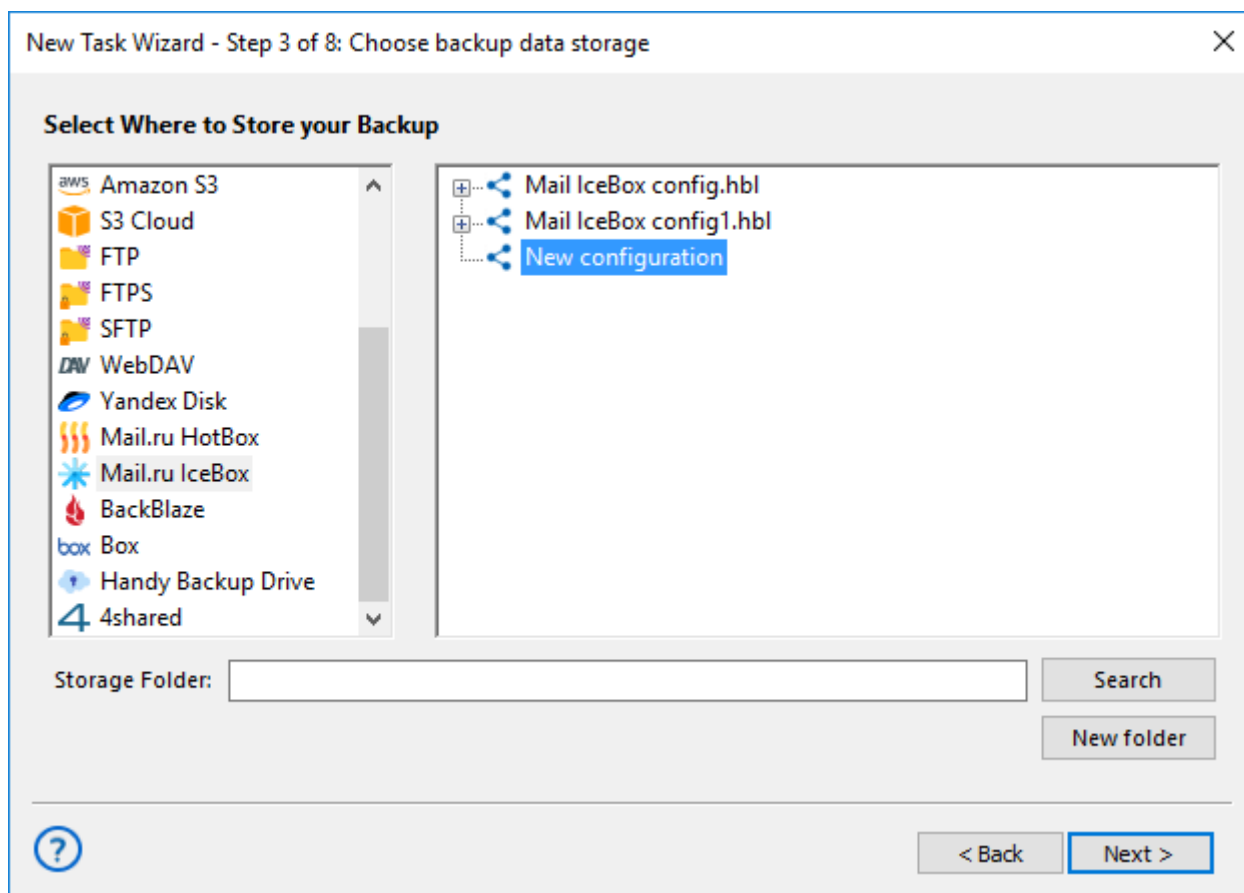
In the next dialog window, enter your keys (access and secret) to a Mail.ru Icebox account, and give some definitive name for this configuration to use it later on Steps 2 or 3.



5. Return to data selection dialog. The program will test your new Mail.ru Icebox connection.
6. Click on your new Icebox configuration to use it as data source.
7. Select the content from your account to backup by marking files and folders with checkboxes.
8. Click OK to continue creating your tasks. Other steps of the task creation are unspecific for backing up from Mail.ru Icebox cloud.

Backup Data to Mail.ru Icebox

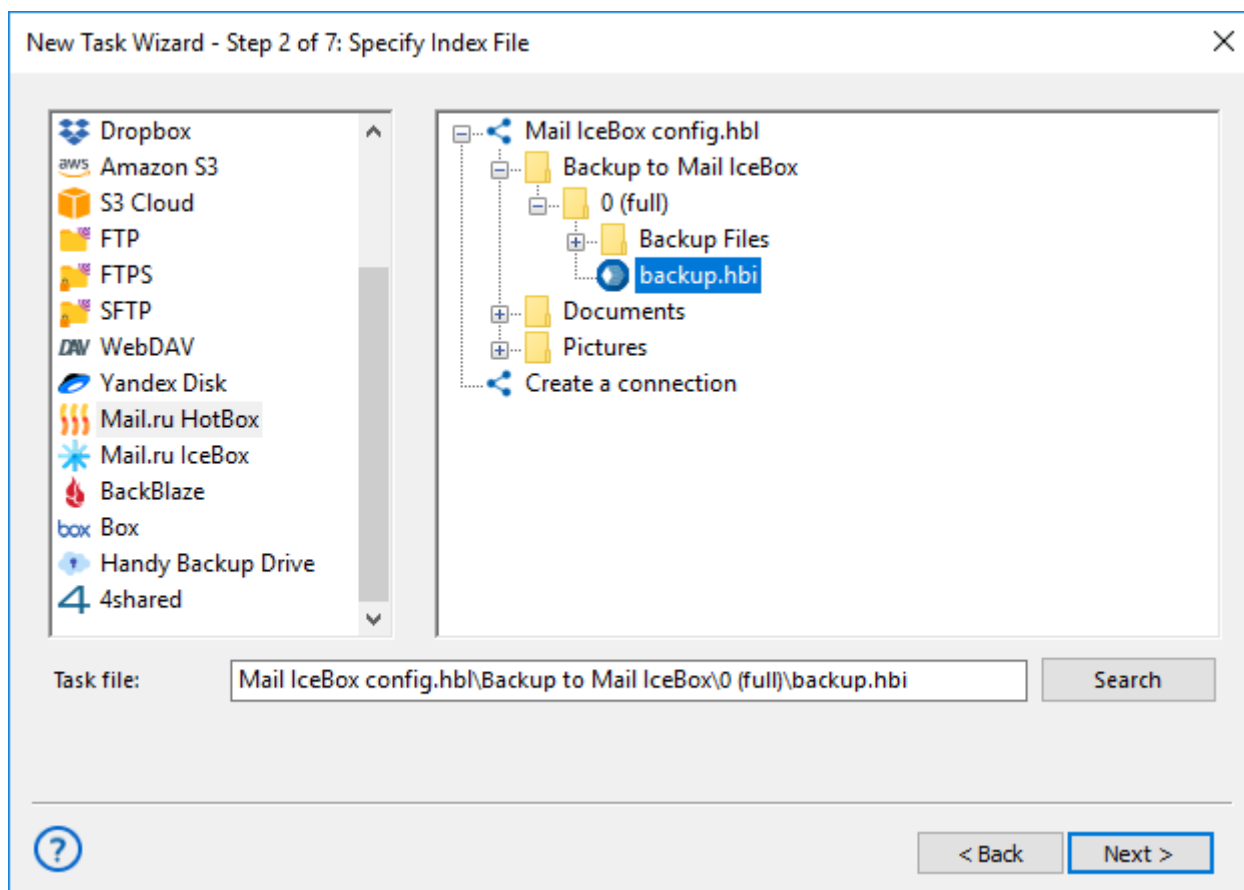
If you want to use Mail.ru Icebox as a vault for data copies, select it on the Step 3 of the task creation wizard.



Recovering Backups from Icebox

To restore information from a backup on the Mail.ru Icebox, please use the following instruction.

1. Open Handy Backup and create a new restoration task on the Step 1.
2. On the Step 2, select the Mail.ru Icebox plug-in with a configuration that you need.
3. Browse your Icebox content for a file **backup.hbi**, which is an index file that contains all necessary information about automatic data recovery.



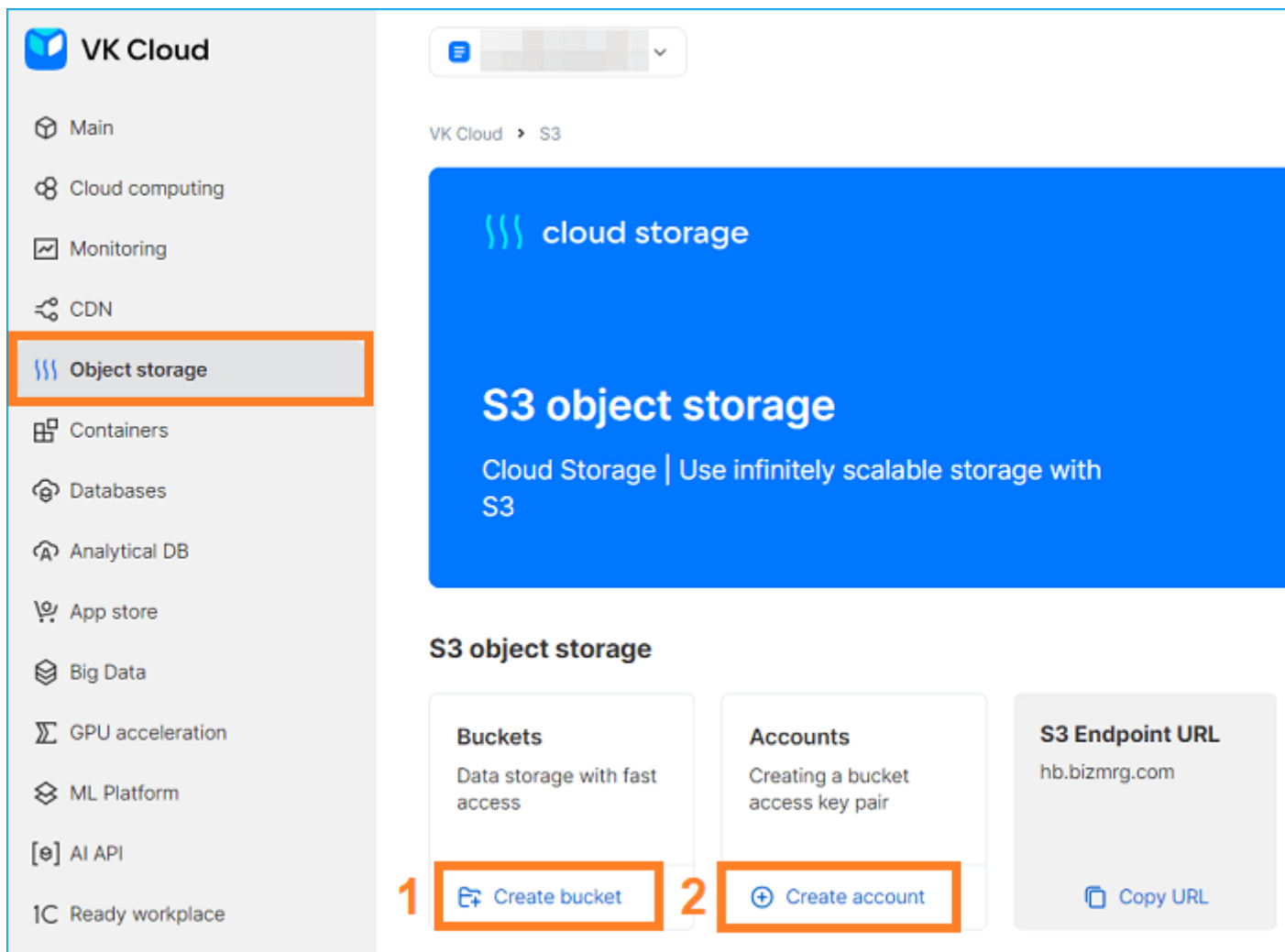
4. Select this file and click "Next" until a final step to restore your data to its original place.
5. If you want to restore data from Mail.ru Icebox to some other place, click "Change Location".
 - Select a new place for data recovered from your backup, to copy or clone it automatically.
6. When finishing selection, click OK and return to the task creation wizard.
7. Continue creating the restoration task according to this User Manual. All other recovering steps are not specific for obtaining data from Mail.ru Icebox cloud accounts.

VK Cloud Plug-in

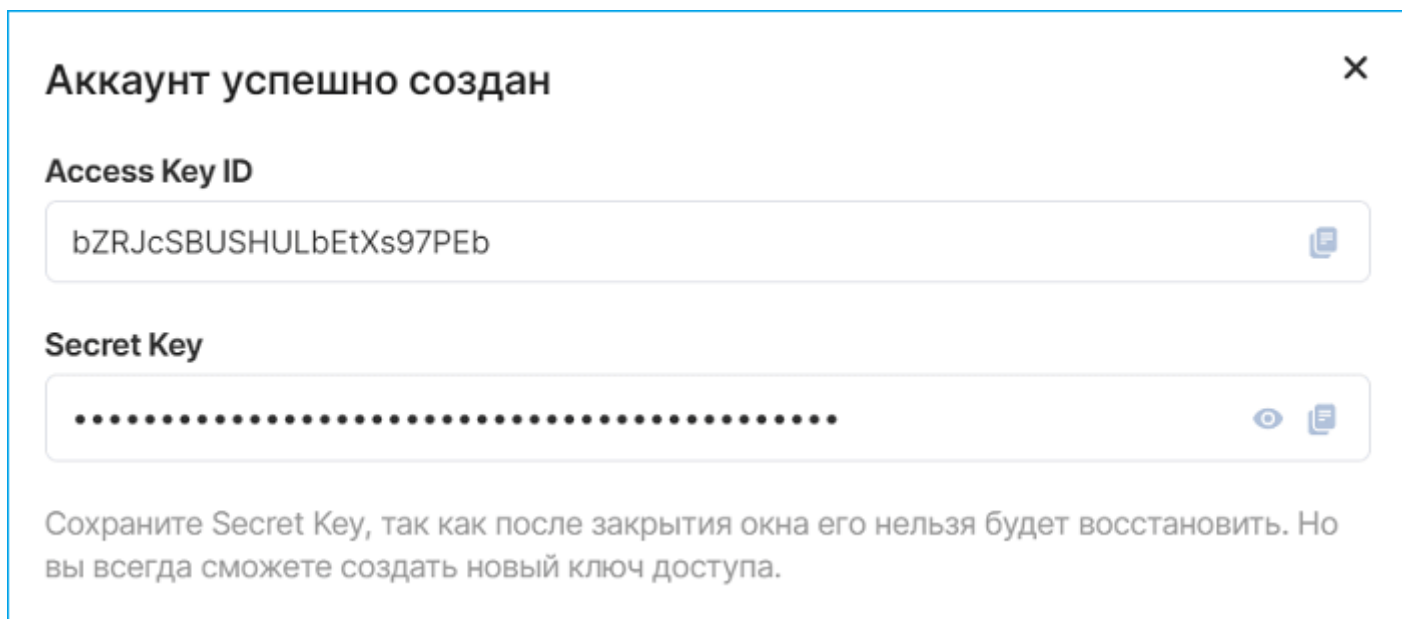
You can create backup tasks using **VK Cloud Plug-in** as a source or storage for backups.

Creating a bucket in VK Cloud

Before you start creating a backup task to the VK Cloud, you need to create a bucket and an account to access the Handy Backup program. To do this, create a bucket in your personal account in the "**Object storage**" section.



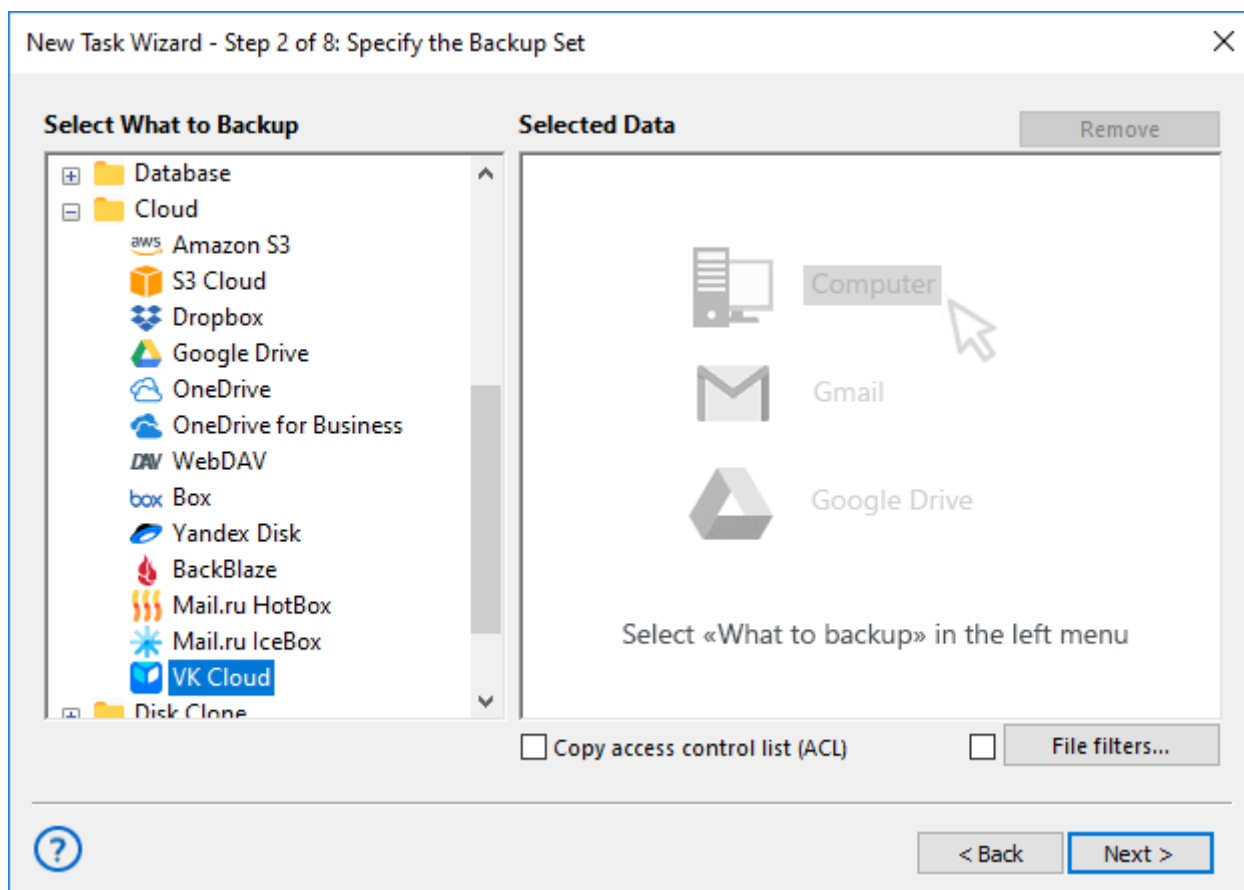
Create an account with **Access** and **Secret keys**, which are needed to set up a connection in Handy Backup:



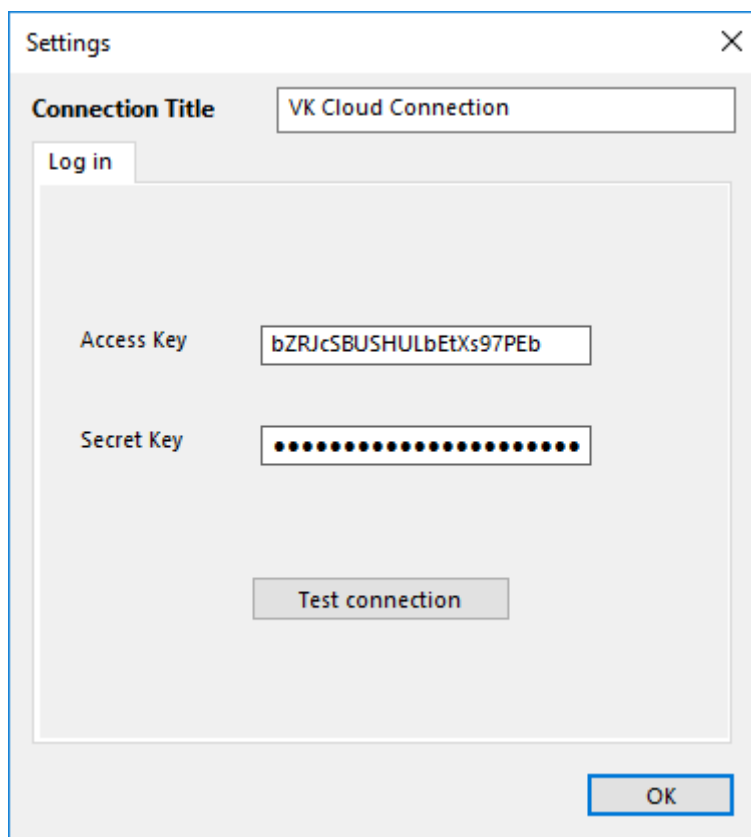
Creating a copy of the VK Cloud bucket

To create a copy of the data stored on the VK Cloud, use the following instructions:

1. Create a new task by clicking the "Create" button on the main window panel. Select "Create a backup" and proceed to the next step.
2. In Step 2, select and click on the **VK Cloud plugin** in the Cloud group.



3. Next, click on the "**Create connection ...**" button and in the new dialog box enter the Access key and Secret key received when creating an account for Handy Backup access to VK Cloud.



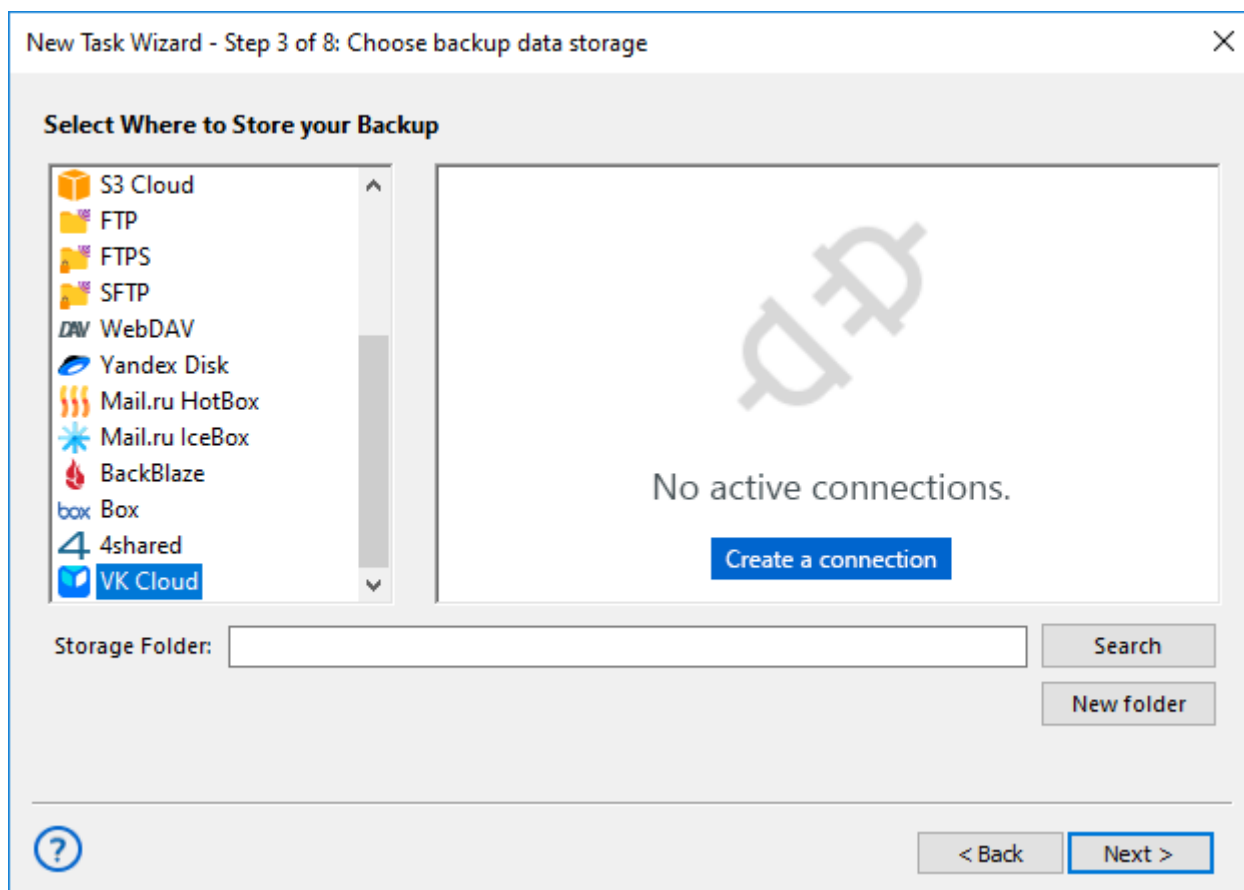
The screenshot shows a 'Settings' dialog box with a close button (X) in the top right corner. Inside the dialog, there is a 'Connection Title' field containing 'VK Cloud Connection'. Below this is a 'Log in' button. Underneath the 'Log in' button is a large rectangular area containing two input fields: 'Access Key' with the value 'bZRJcSBUSHULbEtXs97PEb' and 'Secret Key' with a masked value represented by 16 dots. Below these fields is a 'Test connection' button. At the bottom right of the dialog is an 'OK' button.

4. Click OK, then you will see a list of folders and files in the opened VK Cloud account.
5. Check the boxes next to the data that you want to include in the backup. Click OK.
6. Continue creating a data backup task as described in this User Guide.

Creating a copy in the VK Cloud storage

To use VK Cloud as a backup storage, please follow the instructions:

1. Create a new backup task and select the data to backup in Step 2.
2. Select "**VK Cloud**" storage in Step 3.



3. If you have not set up a connection to the VK Cloud yet, then click on the "**Create connection ...**" button, a new dialog box will open to establish a connection with the VK Cloud storage.
4. In the settings window, enter the Access key and Secret key received when creating an account to access the Handy Backup program in VK Cloud.
5. All subsequent steps are nonspecific for copying to VK Cloud. You can read more about them in the User Manual.

Data recovery from VK Cloud

To restore your data from the VK Cloud, use the following instructions:

1. Create a new recovery task in Step 1.
2. At Step 2, select VK Cloud as your backup storage. Select the appropriate connection from the available list. Find the folder containing your backup.
3. Select the **backup.hbi file**, which contains all the information you need to restore. Click next.
4. Continue creating a data recovery task as described in this User Guide.

Disk Image Plug-in

The **Disk Image** plug-in allows creating and restoring snapshots of hard drives and individual partitions. It supports “live” disk imaging, i.e. allows performing the backup without stopping Windows.

Snapshots can be restored only to a “cold” hard drive that has no software running on it. If you want to restore a system partition, it is recommended to boot from a recovery USB drive. See [Disaster Recovery Module](#) for more details.

Prerequisites

The plug-in requires you to have **Volume Shadow Copy Service** running on your system.

Privileges

To use the **Disk Image** plug-in, Workstation must run from a user account with administrator privileges.

The file system provided by the plug-in is organized as follows:

- **Top-level folders** represent physical drives (hard disks) available for backup. Inside them, there always is a file called **full drive image** and a folder called **Partitions**. They have no attributes.
- The **full drive image** file is used to back up the entire drive as a whole. It has no attributes.
- **Files** in the **Partitions** folder allow backing up individual partitions and partition table. They have no attributes.

Files and folders in the plug-in’s file system don’t have any attributes, which means that when compared to other files and folders, they will be always considered as different. Incremental backup will always copy the entire set of data; if you want to optimize usage of disk space, use differential backup.

Format of Backup Files

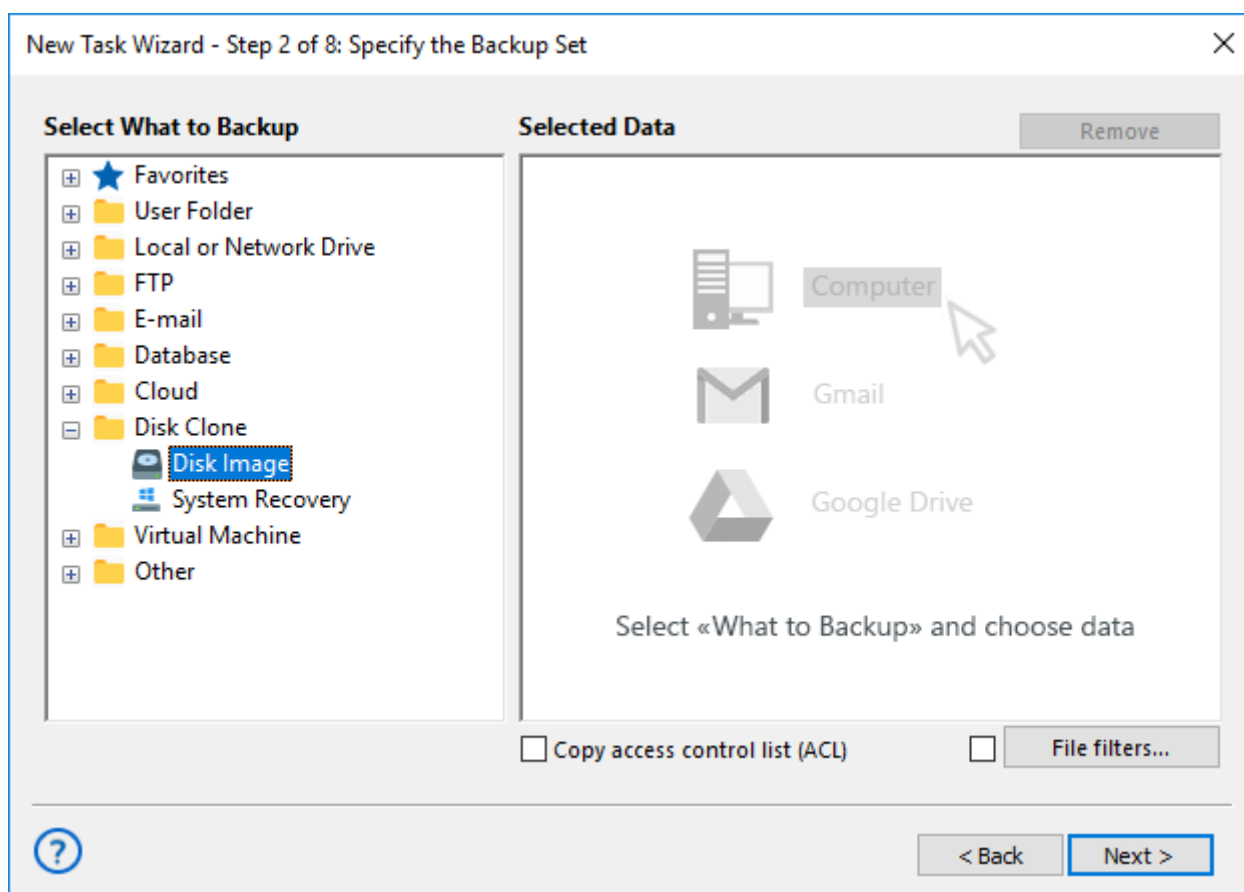
As a result of backup, you will have binary snapshots of the objects you selected. At present, these images cannot be mounted or browsed (you can only restore them completely).

Backing Up

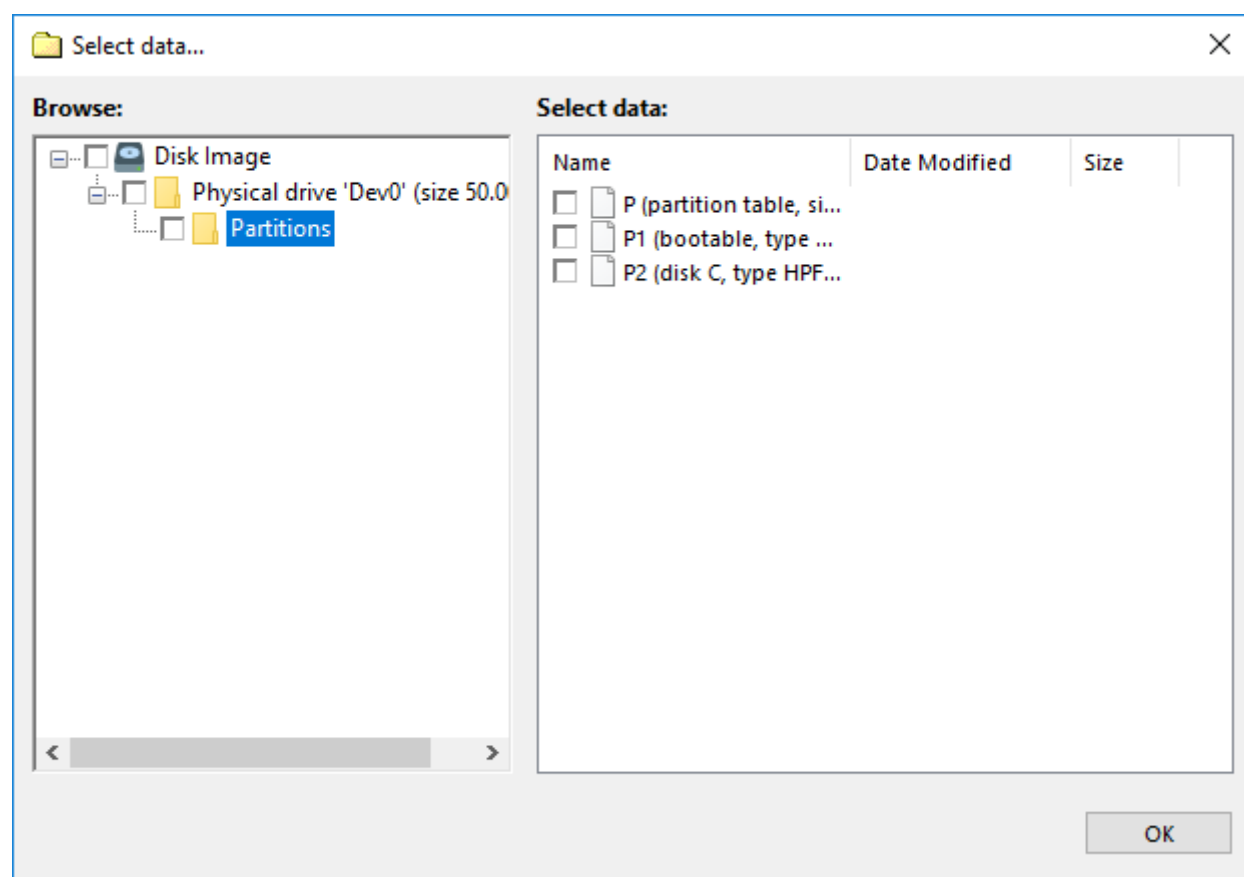
The **Disk Image** plug-in can only be used as a source of data for backup tasks. To learn more, please refer to [Specify Backup Set](#).

To add an image to backup set, follow these steps:

1. On the left pane, click on the **Disk Image** plug-in in the **Disk Clone** group.



2. The **Select data...** dialog will open.



3. Check the boxes next to disk images that you want to back up.

Note: The **full drive image** file (located in the **Physical drive** folder) is used to access all HDD data, i.e. it also includes all objects from the **Partitions** folder. When adding data to backup, make sure you don't do double selection.

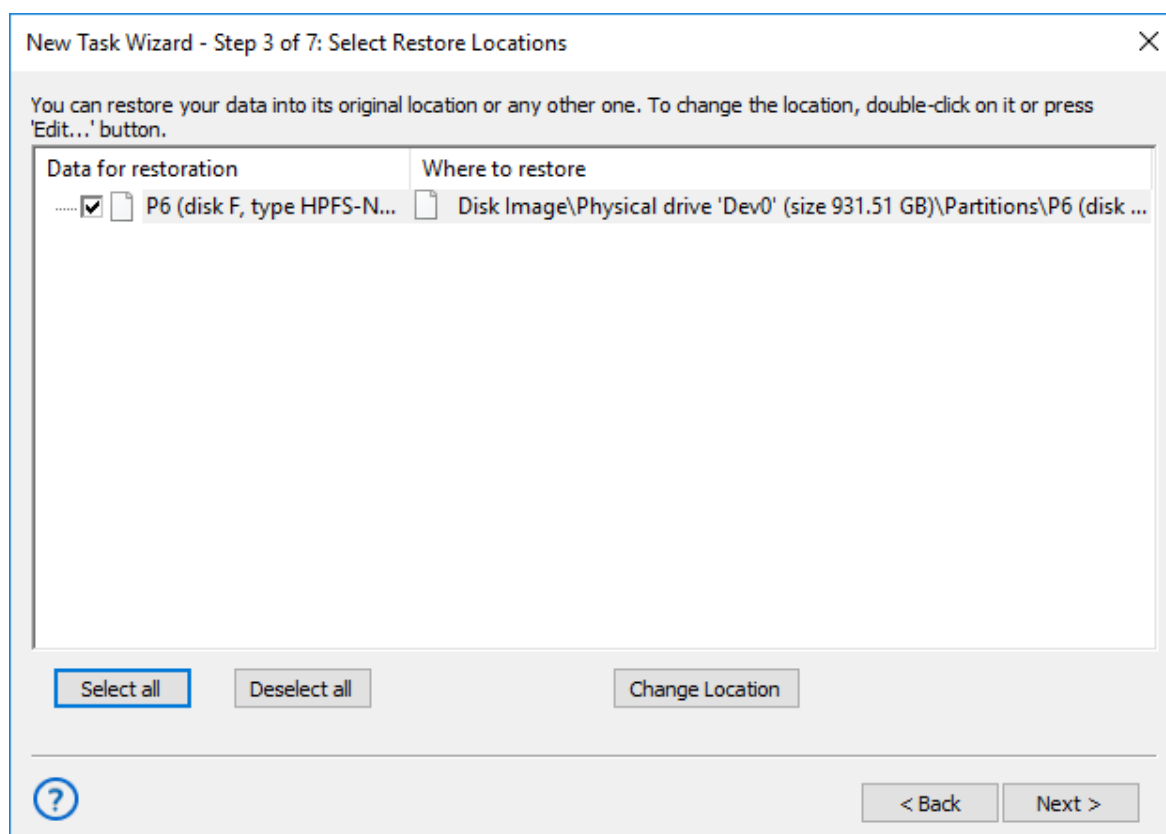
4. After finishing selection, click **OK**. Selected data appears in the **Backup Set**.

Restoring

When restoring a disk image backup, target drive must be a "cold" media, i.e. have no applications working with it. When you run a restore task, the plug-in firstly locks the drive, then performs the copying, and then unlocks it.

To restore a disk image, follow these steps:

1. Open New Task Wizard.
2. Select **Restore task**, and then click **Next**.
3. Browse for the index file (**backup.hbi**) located in the destination folder. Select it, and then click **Next**.
4. In the **Select Restore Locations** dialog, verify the details of restoration.



If you want to restore a snapshot to a different drive, follow these steps:

- 4.1 In the **Select Restore Locations** dialog, select an object, and then click **Change Location**. The **Change restore location** dialog opens.
- 4.2 Select a physical drive and a new path, and then click **OK**.

Note: By restoring a snapshot to a different place, you can effectively clone your HDD.

After verifying paths of restoration, you need to select type of restoration, enter decryption password (optional), and name the task. These steps are not specific to the **Disk Image** plug-in. Learn more about [Restore Task](#).

System Recovery Plug-in

The **System Recovery** plug-in allows saving an image of a whole system as a VHD file. User can open this file later for browsing its content, use it as an image for a VirtualBox machine, or just restore it as a whole. It allows backing up a system from inside without stopping it.

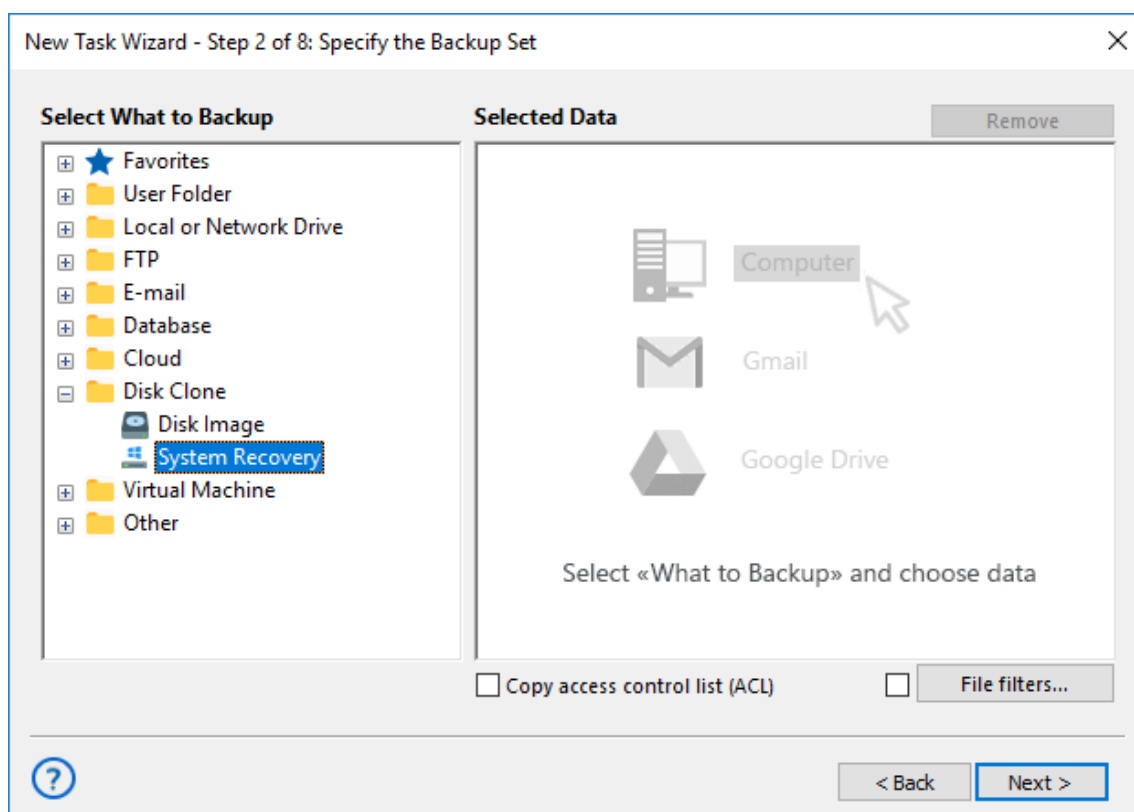
Privileges

A user must have an administrative privileges on the system assigned to backup, to grant Handy Backup a full access to an entire system data.

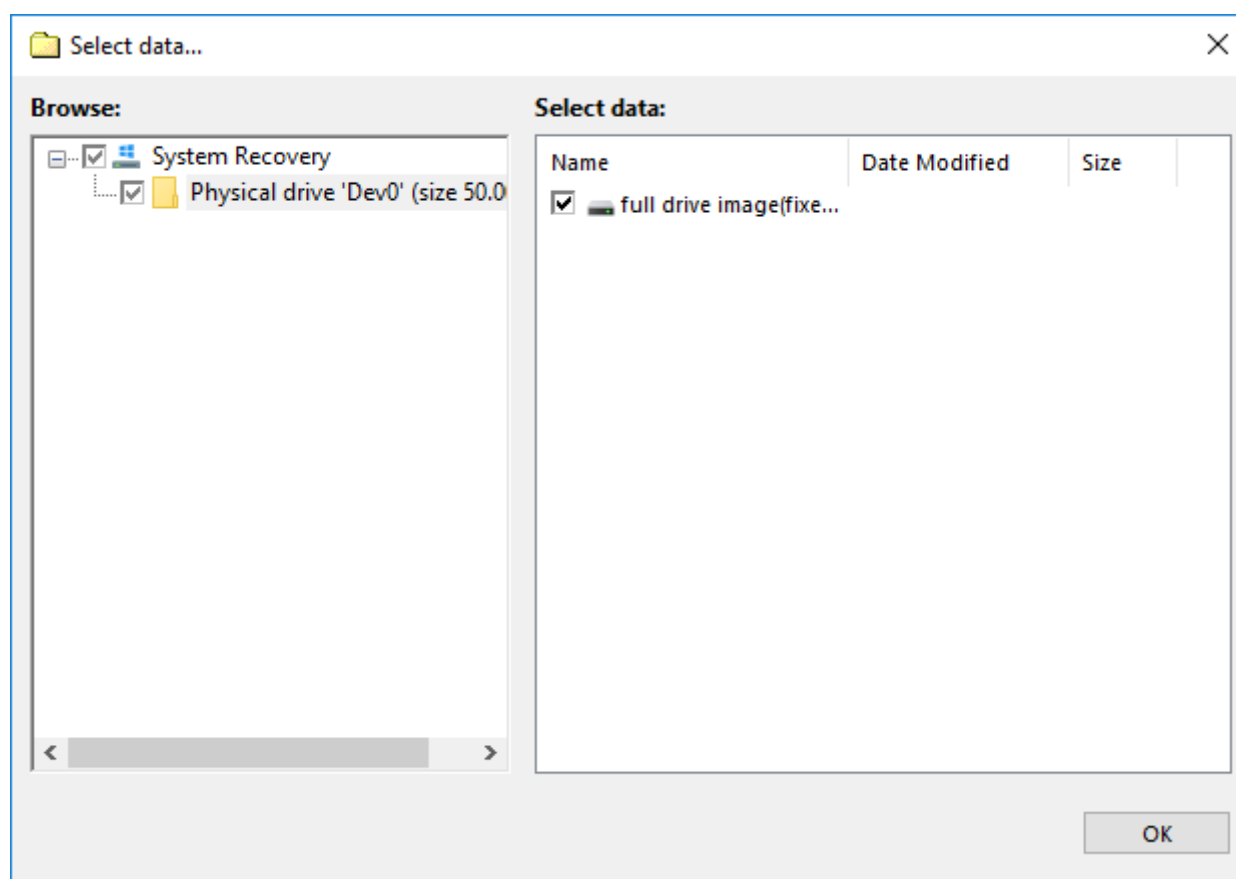
Backing up a System Image

To save a copy of your system using the **System Recovery** plug-in, please follow the instruction below:

1. Open Handy Backup as an administrator and create a new backup task.
2. On the Step 2, select a “System Recovery” data source on the left panel.



3. You will see a new window called "Select data..." with the list of drives attached to your system.
4. Select drive(s) you are planning to back up by marking checkboxes against these drives.



5. Press “OK” to return to the data selection window. Continue to create your task as usual.

Restoring a System Recovery Image

To restore a system drive from backup with this tool, please follow the next steps:

1. Open Handy Backup and make a new restoration task.
2. On the Step 2, select a file **backup.hbi** located in your backup folder.
3. In the “Select Restore Location...” dialog, you can click OK to restore a file to an original place, or a “Change location” button to call for a destination-changing dialog.

Note: To restore a system from your VHD file to a different drive, this drive must have at least a storage capacity of an original drive, or more.

4. Click OK to proceed a restoring task creation as usual.

Using VHD Files

The two ways to use a VHD image file besides its complete restoration are the next methods:

- Mounting a VHD to a VirtualBox as the executable system image;
- Browsing a file as a folder containing different data.

Both of these methods are not parts of Handy Backup.

Using a VHD Drive Image without Restoring It

To use a VHD-type disk image created by **System Recovery** plug-in, you can just write it to some data storage to make a bootable media; therefore, these are the other methods of using these files for different purposes, i.e. browsing for specific information and starting as a virtual machine.

Note: Both these options are not parts of Handy Backup! Use these methods according to recommendations and detailed instructions of external software manufacturers; we are providing these extra possibilities, not an external software.

Attaching a VHD File to VirtualBox Machine

To use your VHD system image as a VirtualBox virtual machine, please follow the next instruction:

1. Create a new VirtualBox machine, with an OS type and memory size matching your original system.
2. Use your VHD file as a bootable virtual hard disk, instead of creating a new hard disk (the default option for making a new VirtualBox machine).
3. Adjust some settings of a new virtual machine using the “Settings” section of main VirtualBox control panel. Enable I/O APIC, disable PAE/NX features and configure your VHD disk as a SATA device if you need it.

Well done; you can use your virtual machine with an original system image. Fine-tuning VirtualBox machines will open many possibilities for you!

Browsing a VHD File as a Virtual Drive

To attach your VHD file to your Windows file system, please use the next sequence of actions:

1. Open “Start” menu, right-click on the “Computer” item and call to a “Management” in the context menu appearing.
2. Select the “Disk Management” section.
3. In the “Action” menu, click on the “Attach VHD” item.
4. Select a VHD file in an opening dialog appearing. Mark the “Read-only” option to prevent changing your VHD file by accidental writing to it.
5. Your virtual disk will appear in the list of system drives, marked by blue. You may use it as a common drive to browse the information stored on it.
6. When you finish, go to the disk management section again and use the “Detach VHD” option in the “Action” menu to unmount a VHD file.

Again, that is all you need to browse your system recovery image.

Hyper-V Plug-in

Using a "Hyper-V" feature, you can save any number of Hyper-V virtual machines from one physical node. This is no need to install a copy of Handy Backup into a machine to make this plug-in works.

Before the Backup

It is to be mentioned the specialized Hyper-V servers have no GUI to operate with standalone editions of Handy Backup.

Handy Backup User Manual

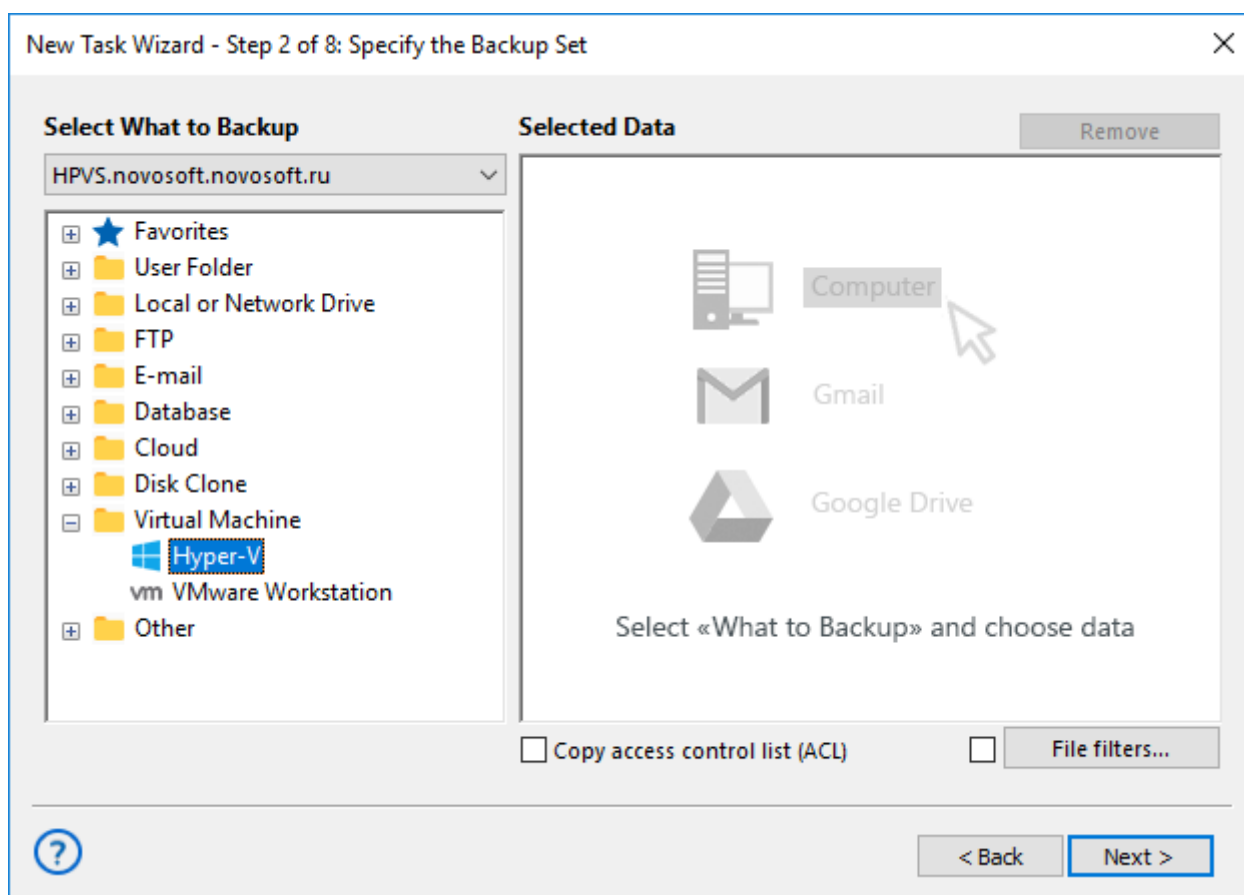
- Therefore, the most convenient way to use Handy Backup and a Hyper-V tool is to install a Network Agent on a Hyper-V physical server, linked to a Management Panel somewhere else.

Note: For any practical purposes, backup from standalone is almost identical to the process described here. Just skip the selection of a remote machine.

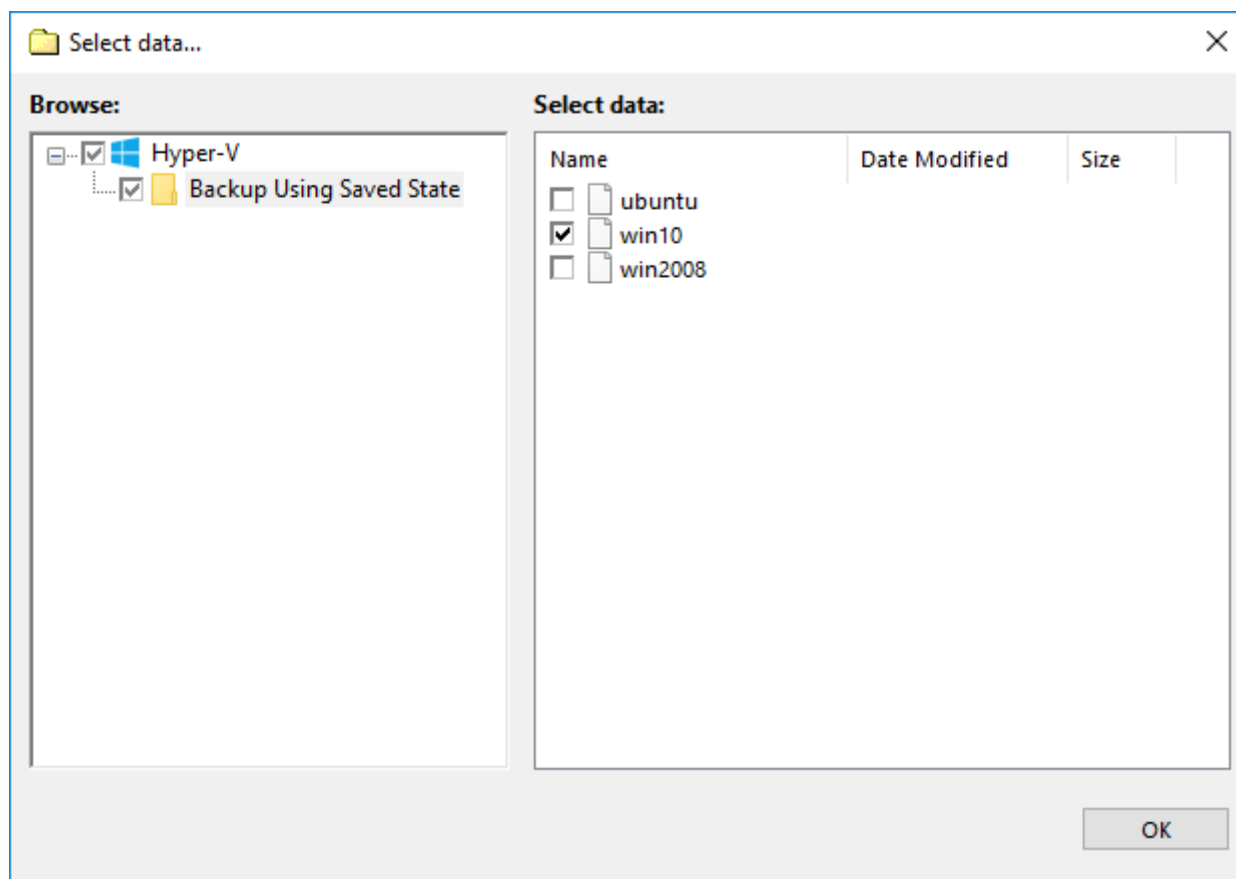
Backing up Hyper-V Machines

To save a copy of these data, use the following sequence:

1. Create a new backup task.
2. On a Step 2, choose the "**Hyper-V**" feature on the left panel. Click on a machine server name appeared on the right.



3. A new window will appear. Select any virtual machines you will plan to back up with the new task.



Note: this plug-in makes snapshot of particular virtual machines, not of entire arrays. To back up all Hyper-V machines on the server, please select them all, not just mark a "Hyper-V" on the left panel.

4. Press "OK" when you finish selecting data, returning to the task creation window.
5. Now you may select where your backups will be placed.
6. Set up other task parameters, such as encryption and compression; choose the backup type, control pre- and post-actions within the task, etc.
7. Finish the task creation wizard. Your Hyper-V backup task is ready to use.

Restoring Hyper-V Data

At present, you can only restore backups made with the Hyper-V plug-in only to their original locations. Because of this, the process of restoration is very straightforward:

1. Open a New Task Wizard. Select **Restore task**, and then click Next.
2. Browse for the index file (**backup.hbi**) located in the destination folder. Select it, and then click the "Next" button.

3. Skip the Select Restore Locations dialog by clicking Next (as there is no way to restore data to a different location).
4. Skip the next steps by clicking Next, until you finish the task creation.

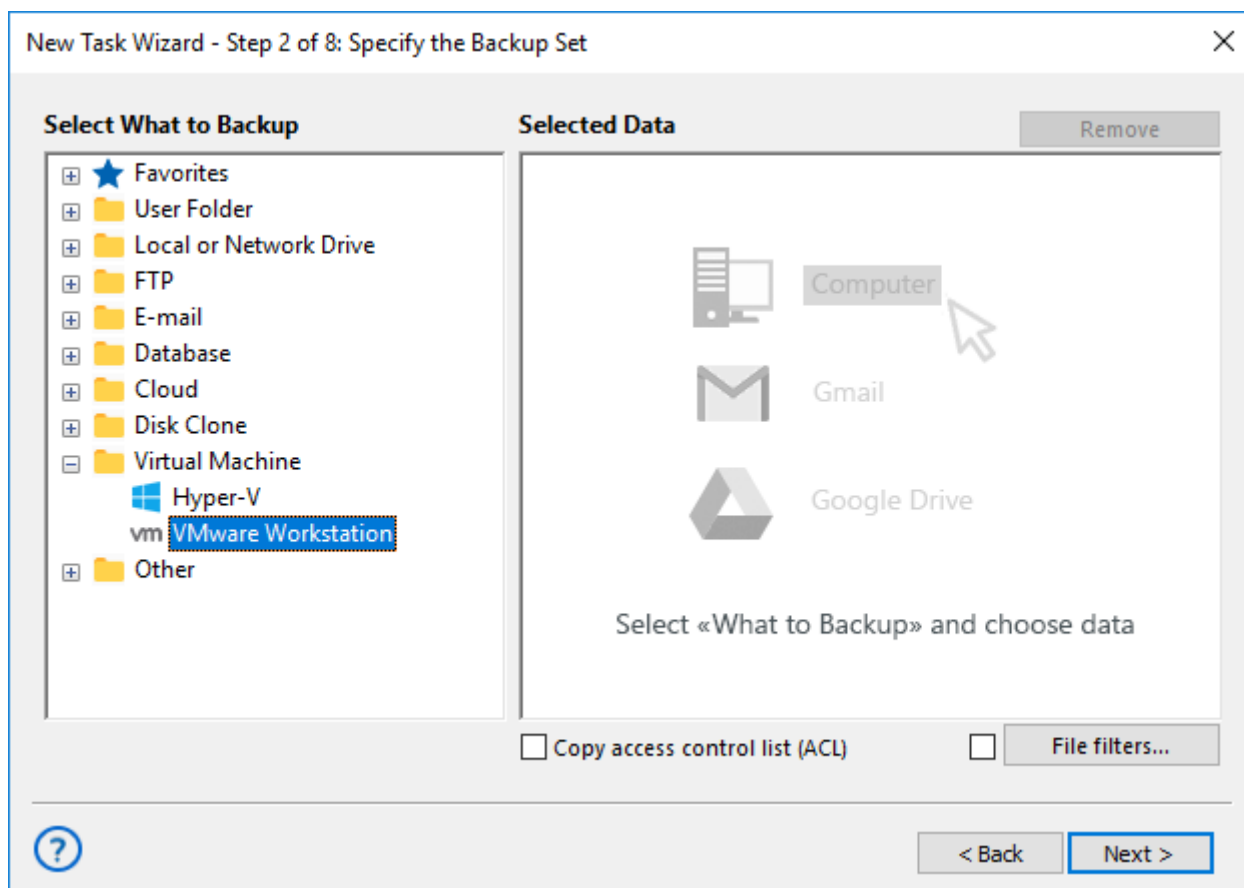
When you run the restoration, the plug-in firstly stops the current instances of Hyper-V machines and all Windows services that depend on it. Then it copies the files to their original locations, and re-launches the services.

VMware Workstation Plug-in

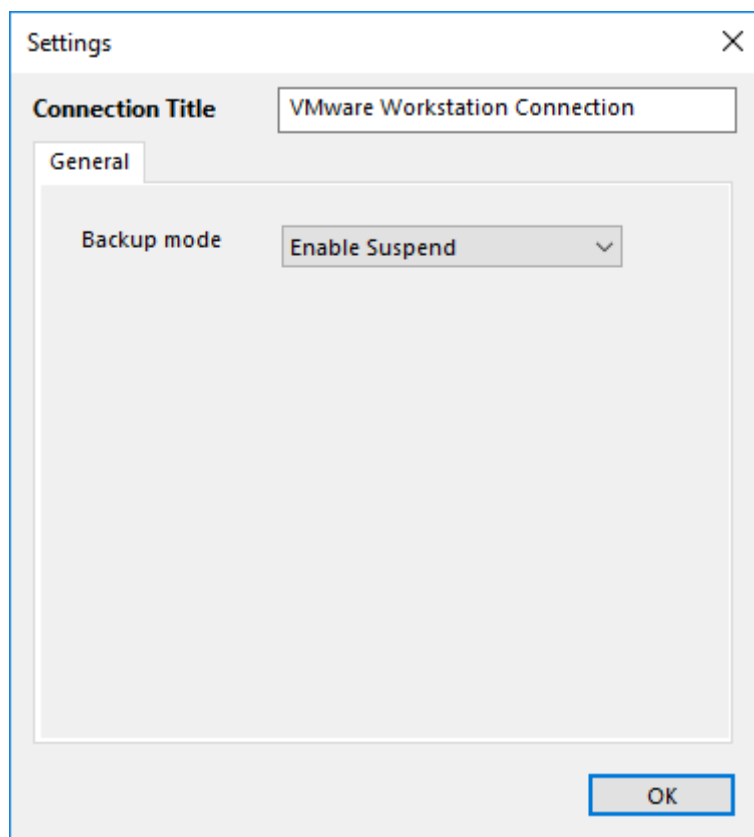
This dedicated plug-in allows saving images of VMware virtual machines. In this chapter, we are describing how to backup VMware images from outside using the plug-in.

Backup Task

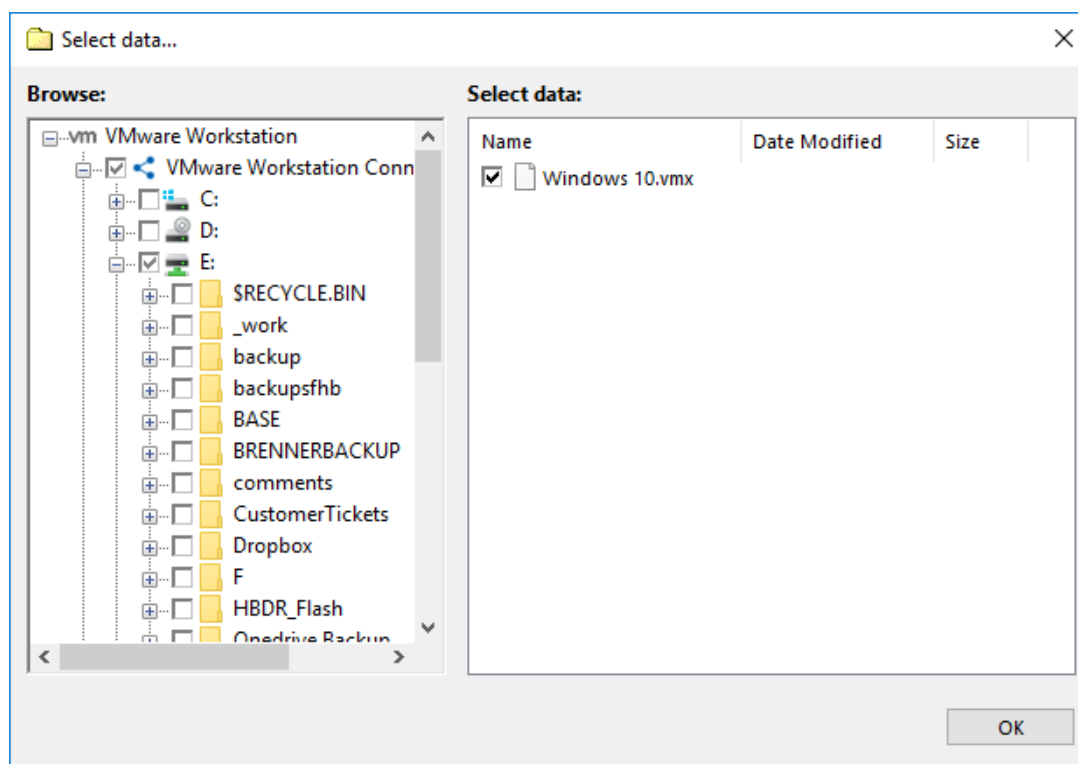
1. Open Handy Backup, call a New Task Wizard and create a new backup task on the Step 1.
2. On the Step 2, click onto the "**VMware Workstation**" data source from the "Virtual Machine" group on the left panel.



3. Select the "**Create a connection...**" option by double-clicking on it.



4. In a new dialog window, select either a "Hot" mode (without stopping a virtual machine) or an "Enable suspend" mode (with stopping a VM to take a perfect snapshot).
5. Then click OK. In a new window, mark checkboxes against names of particular VMware workstation instances.

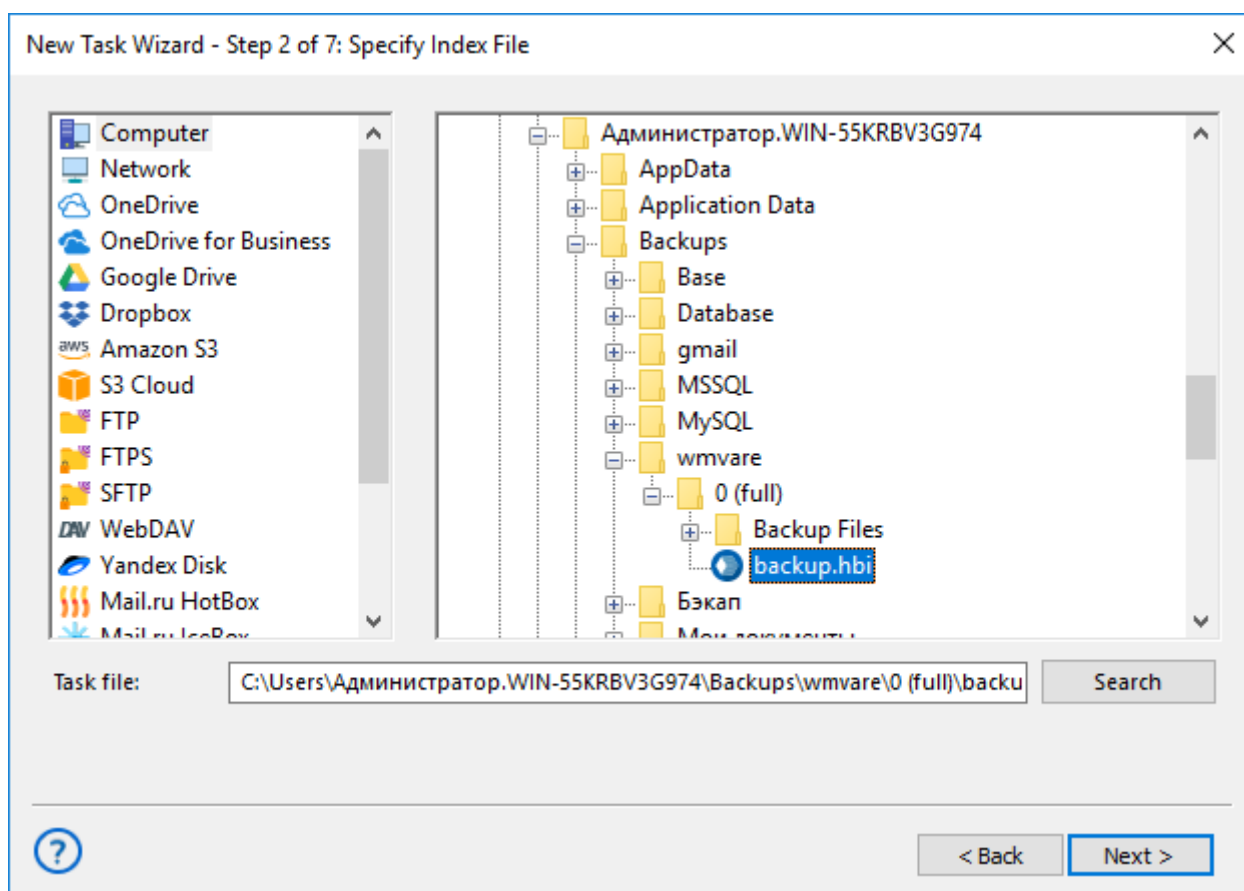


6. Proceed the task creation as usual.

Restoring Task from a VMware Image

The current version of Handy Backup 8 does not allow restoration of VMware workstations to another place. You can automatically restore a VMware snapshot only only to its original location. To create a restoration task, please follow the next steps:

1. Open a New Task Wizard. Select the “Restore” task type on the Step 1, then click “Next”.
2. On the Step 2, search for the index file (**backup.hbi**) located in the storage folder.



3. Select the file mentioned above, and then click the “Next” button.

Attention: Do not click the "Change Location" button on the restoration dialog – it would not work for VMware workstations.

4. Skip all next steps of a restoration task wizard by clicking the “Next” button on each step, until you will give your task a name and complete creating your task.

Handy Backup User Manual

When starting VMware restoration, the plug-in firstly stops all running instances of VMware virtual machines and all Windows services relating to these instances. Then the plug-in copies VMware backup images to their original locations, and restarts the services it stop earlier.

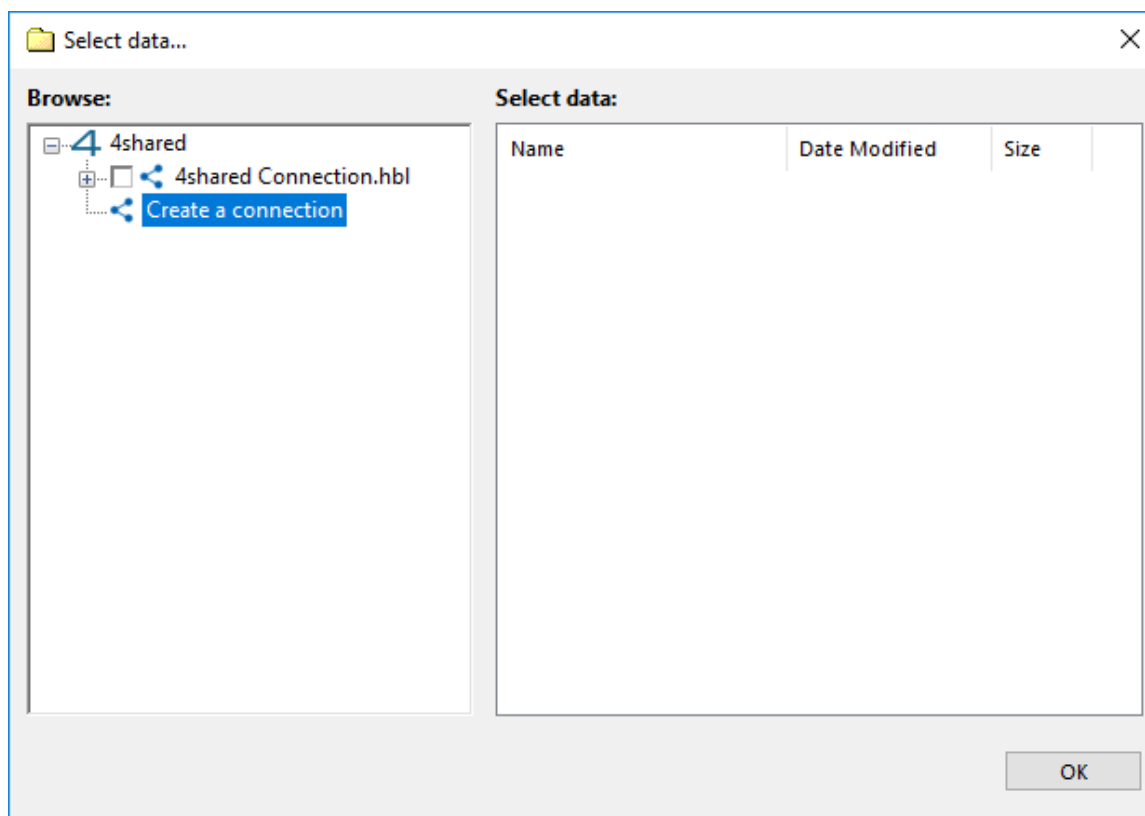
4shared Service

The **4shared** instrument provides Handy Backup an access to accounts on a 4shared.com service.

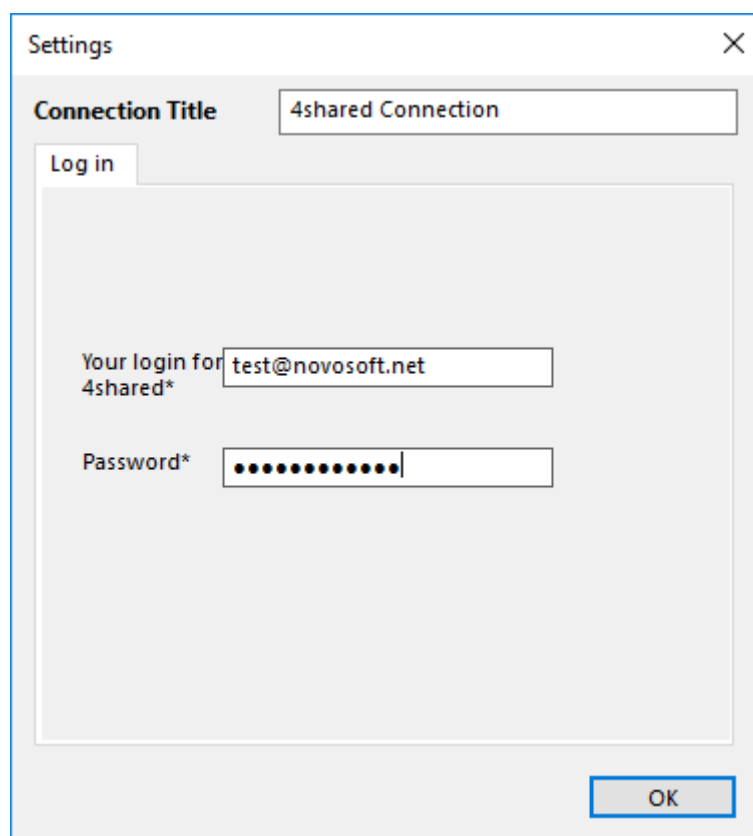
Making 4shared.com Backups

To use a 4shared account as a source, please use the following sequence:

1. Create a new backup task.
2. On a Step 2, select the “4shared” feature on the left panel in the Other group. You will see a new window.

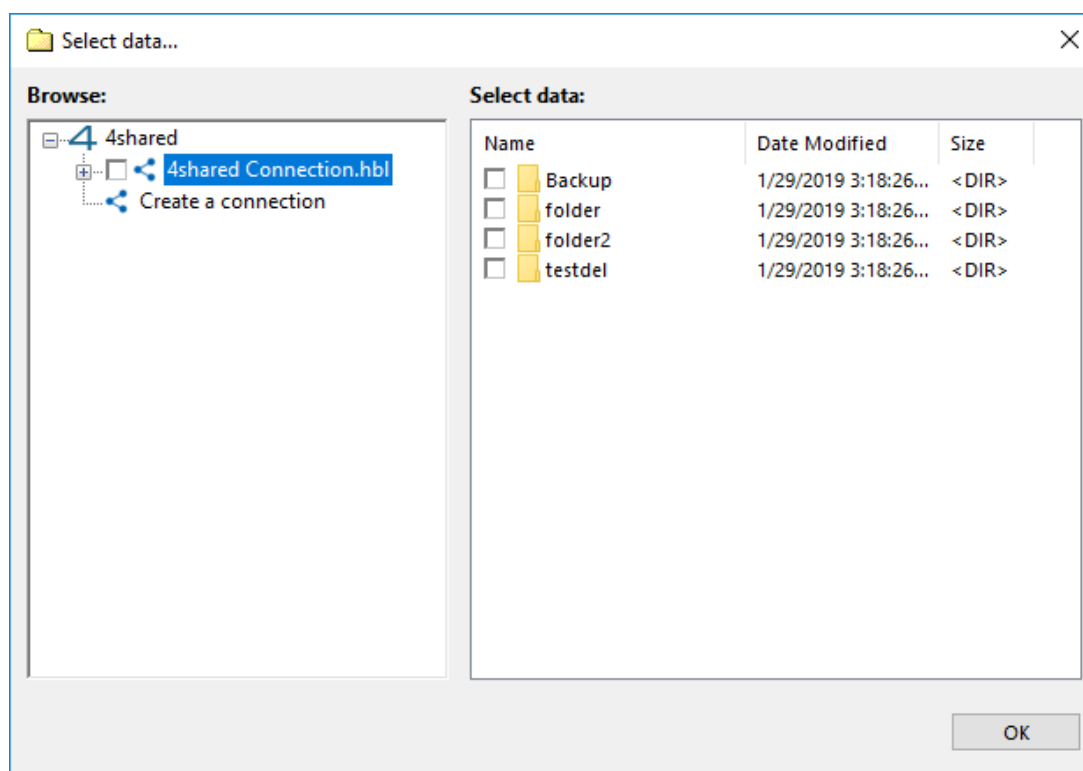


3. Choose a “Create a connection...” string to open a dialog providing an access for a 4shared.



Note: At this point, by clicking on the appropriate button in this dialog you can create a new 4shared account.

4. Enter your 4shared.com account data into the provided fields, then press "OK".
5. Click twice on a new string in the 4shared tool window, containing your account name.



6. Select data you need to save from 4shared by marking these data with checkboxes.
7. Press “OK” to return to the data selection and proceed to make a new task as usual.

Using a 4shared Service as a Data Destination

You can imply the steps described above for making a 4shared.com account your data destination, specifying all the information described before on a Step 3 instead of a Step 2. Connecting to an account is quite a same procedure than for choosing 4shared account as a data source.

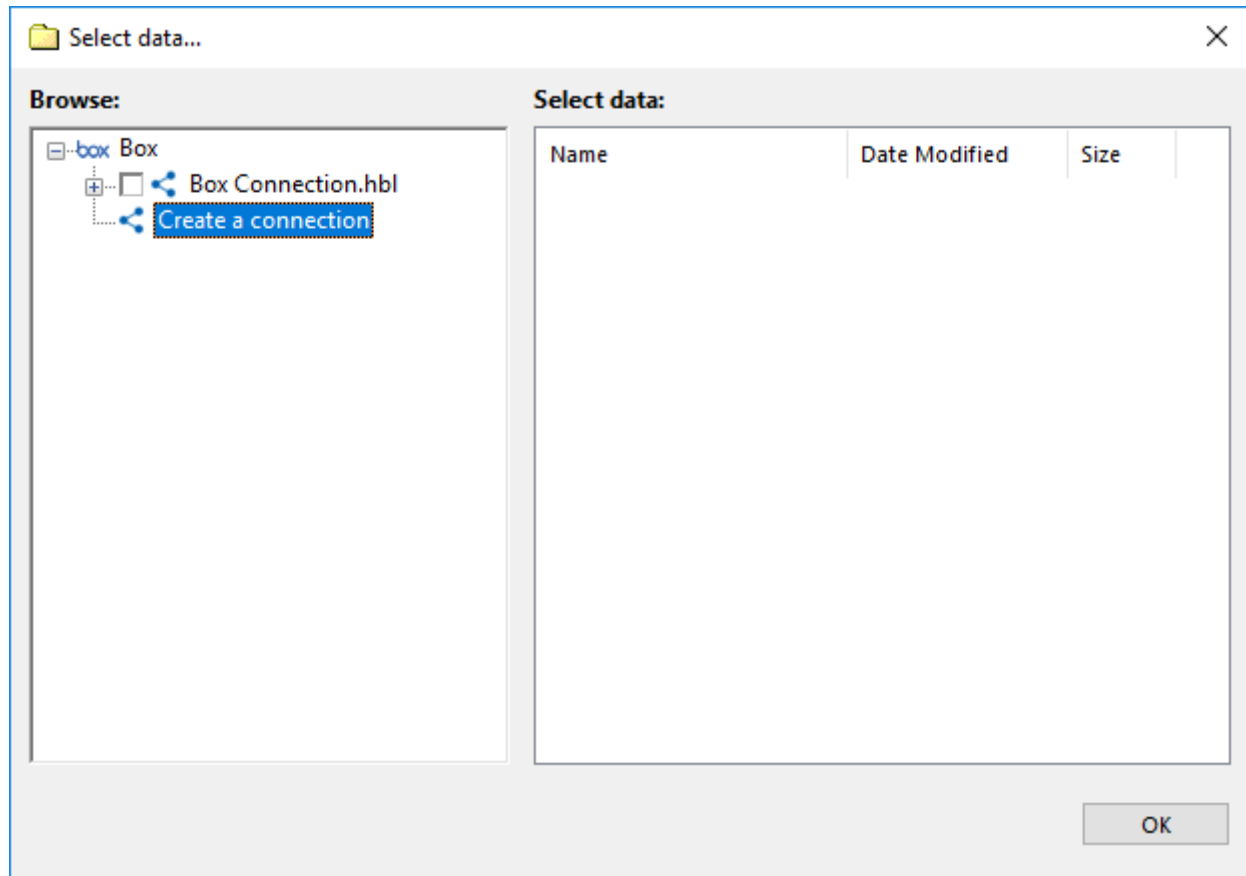
Box Cloud Data Storage

By using the **Box** feature, Handy Backup allows a direct access to data stored in a Box cloud account. You can use this option as either a data source for backups or a storage media.

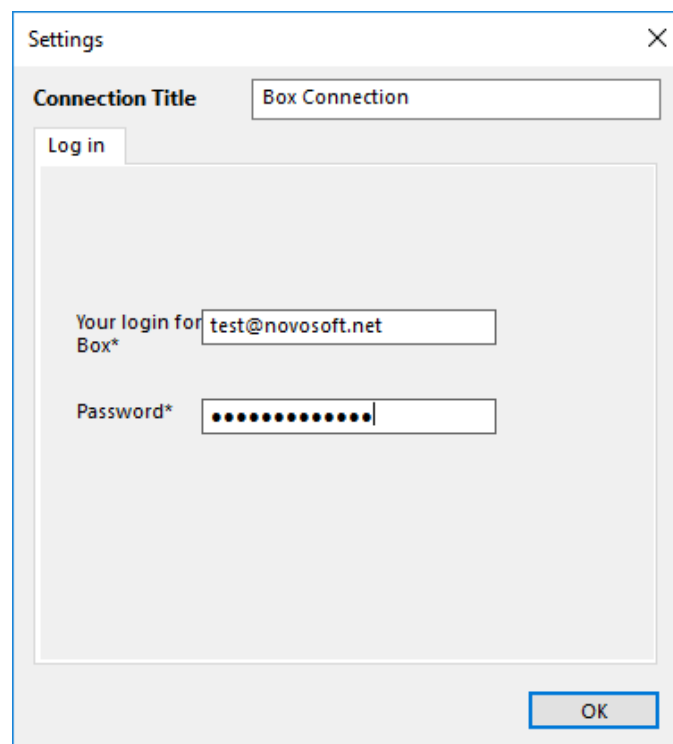
Backing up from a Box Account

To save data from an account on a Box cloud using a typical Handy Backup automated approach, please follow the instruction below:

1. Create a new task and choose the backup task type.
2. On a Step 2, select the “Box” data source in the **Other** group on the left panel. A new window will appear.



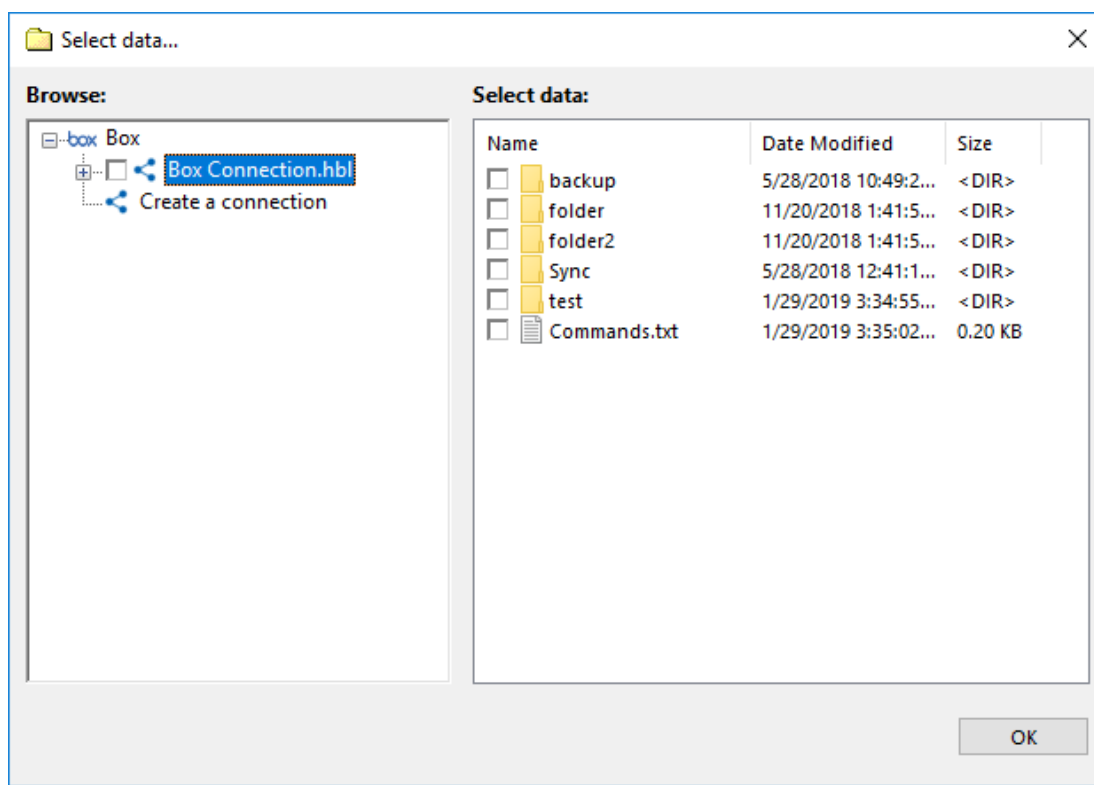
3. Choose a “Create a connection.....” option to open a Box account dialog.



Note: You can create a new Box account at this step, by clicking on the appropriate button in this dialog.

Handy Backup User Manual

4. Enter your Box.com account email and password into the appropriate fields. Press “OK”.
5. You will see the account name you entered in the Box feature window. Click twice on it.



6. Select data you need to back up from your Box, by marking checkboxes on these data.
7. Press “OK” to return to the data selection step. Continue to make a new task as usual.

Using a Box Account as a Backup Storage

The overall sequence of actions is quite same as for backing up from a Box account, although you must specify a Box feature as the data destination on the Step 3. All other actions (new configuration, selecting an account) are unchanged from a previous instruction.

You can even copy one Box account content to another, by using the Box feature with different accounts specified on both Step 2 and Step 3.

Box Feature and WebDAV Interface

To access a Box account, you can use a WebDAV feature, but this way, as any other “generic” approach, is somewhat slower and more difficult to configure an access properly than a specialized **Box** feature. We are recommending using always a dedicated **Box** option to access your Box accounts.

Registry Plug-in

The **Registry** plug-in provides access to Windows Registry keys and values. It is user-specific and depends on privileges and account under which the [Workstation](#) component runs.

Primary use case of the plug-in is to back up configuration and installation information of Windows applications. It is generally used in combination with the [Computer](#) plug-in.

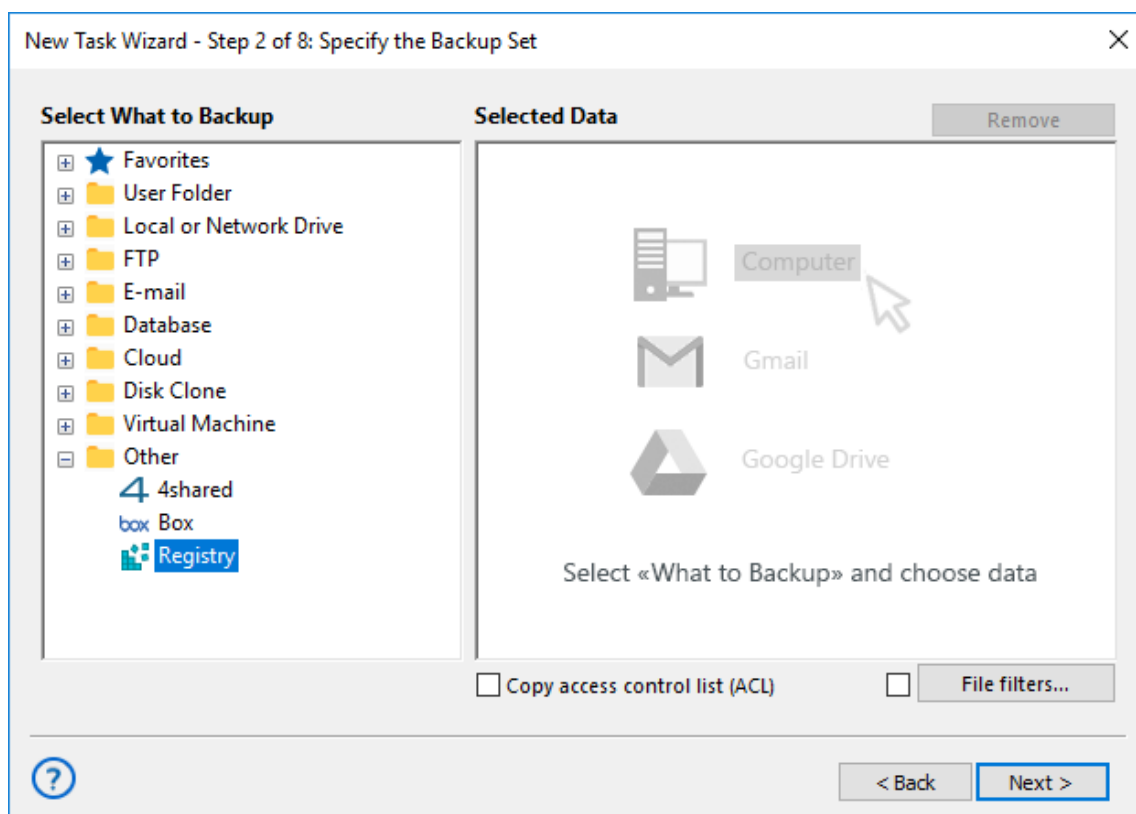
Plug-in File System

File system provided by the **Registry** plug-in is organized as follows:

- **Folders** correspond to registry keys. Supported attributes: time of modification.
- **Files** correspond to registry values. Supported attributes: file size.

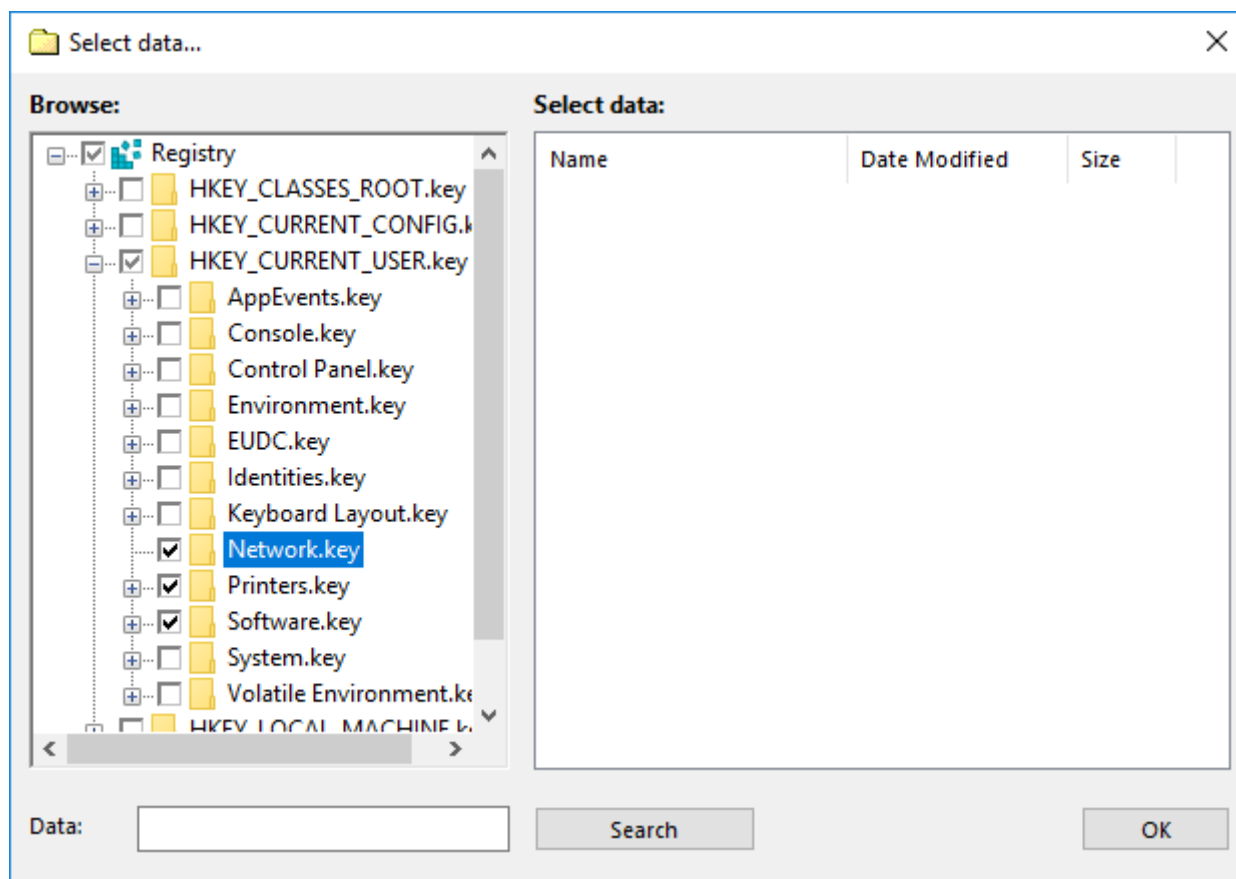
Backing up

The **Registry** plug-in can be used as a data source in **backup** tasks, and as a target in **restore** tasks.



To add Windows Registry to backup (see [Step 2: Specify the Backup Set](#)), follow these steps:

1. In the **Data Sources** pane, find and click on the **Registry** item. The **Select data...** dialog will open.



2. Check the boxes next to files and folders (registry values and keys) that you want to back up.
3. When finished the selection, click **OK**. Selected data appears in the **Backup**.

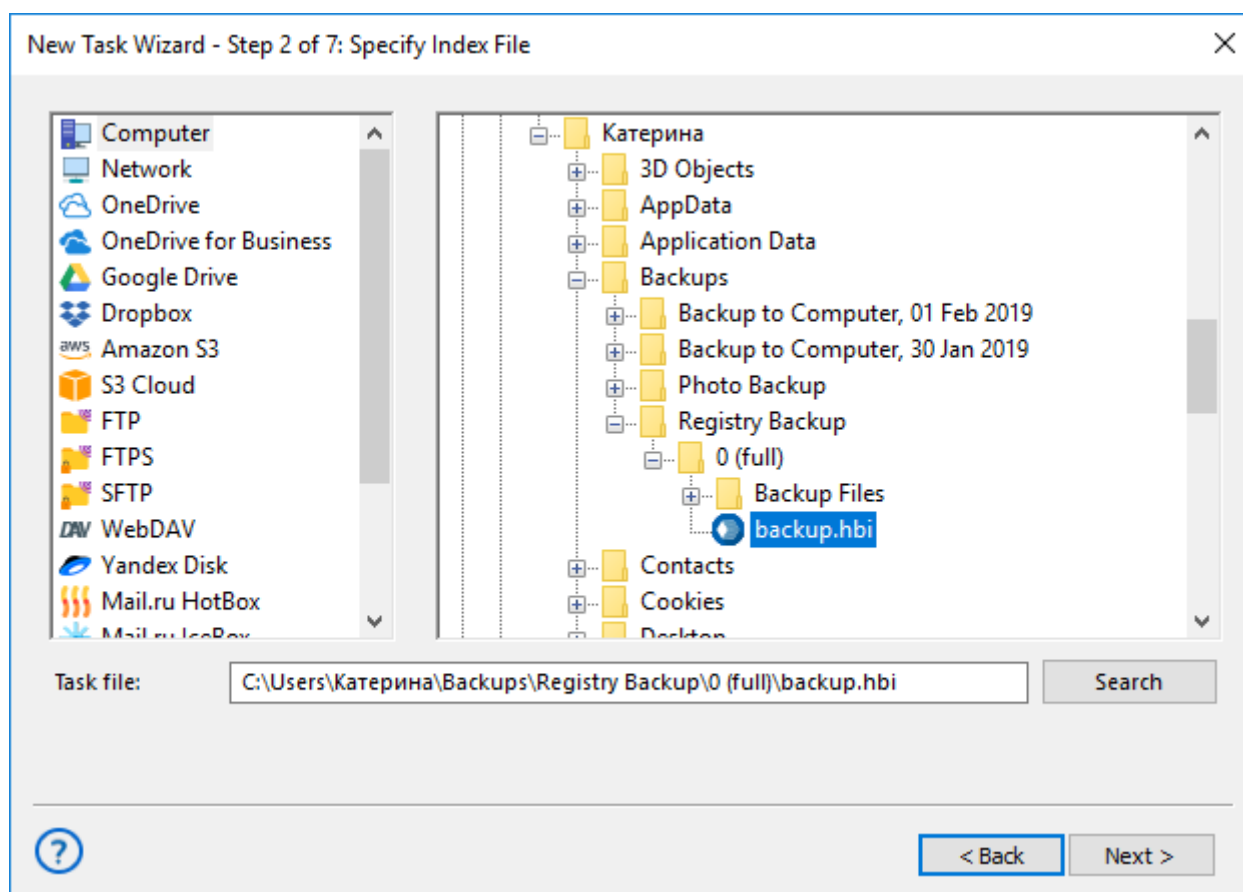
For detailed information on creating backup tasks, please see [Backup Task](#).

Restoring

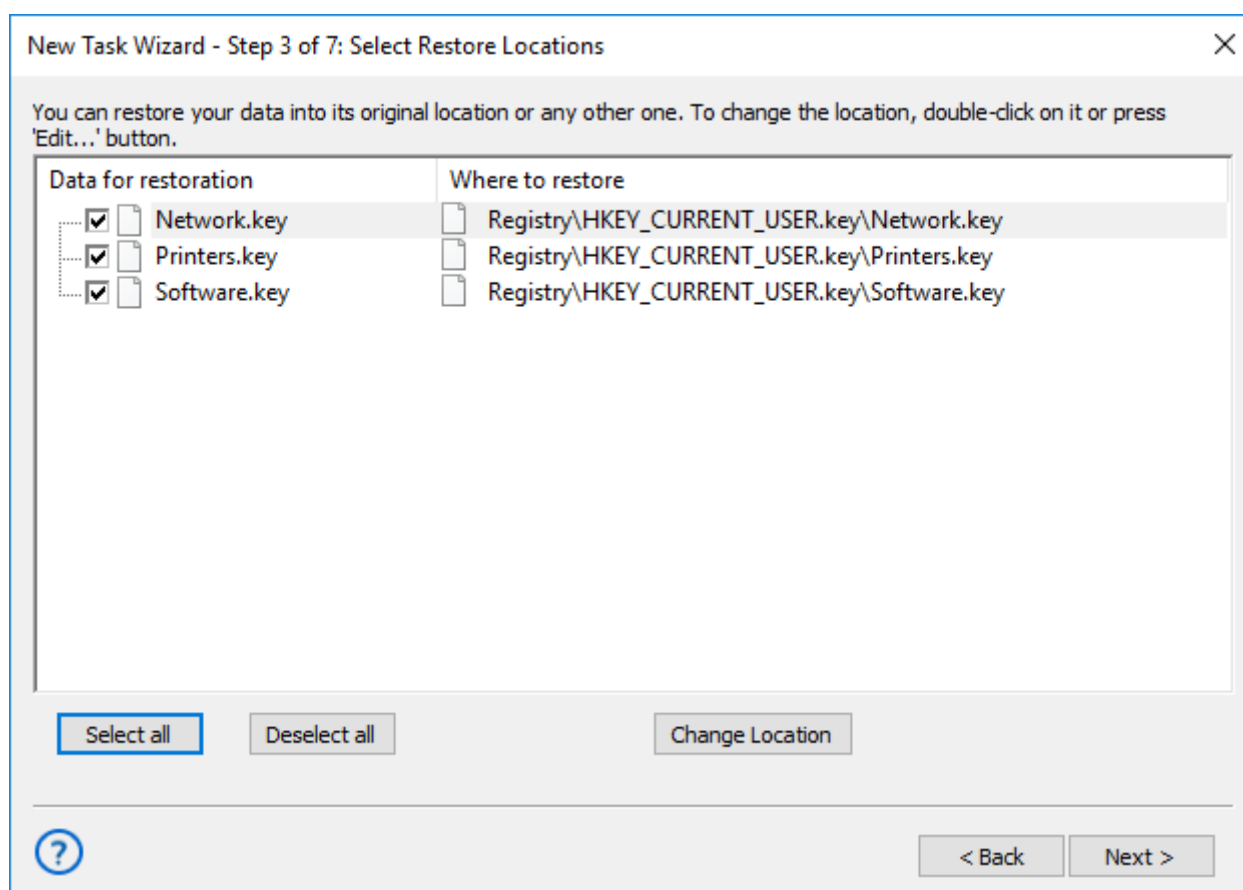
To restore Windows Registry, follow these steps:

1. Open the New Task Wizard.
2. Select **Restore task**, and then click **Next**.
3. In the **Specify Index File** dialog, browse for a backup index file (**backup.hbi**), and then click **Next**.

For example, if your **Registry** backups are stored on a local drive, select **Computer** in the **Storage Destinations** pane to the left, and then browse for **backup.hbi** in the **Index File Selection** pane to the right.



4. In the **Select Restore Locations** dialog, verify details of the restoration.



Note: Registry entries can be restored to their original locations only.

After checking details, you need to specify various restore options and name the task. These steps are not specific to the **Registry** plug-in. For detailed instructions on restoration, please see [Restore Task](#).

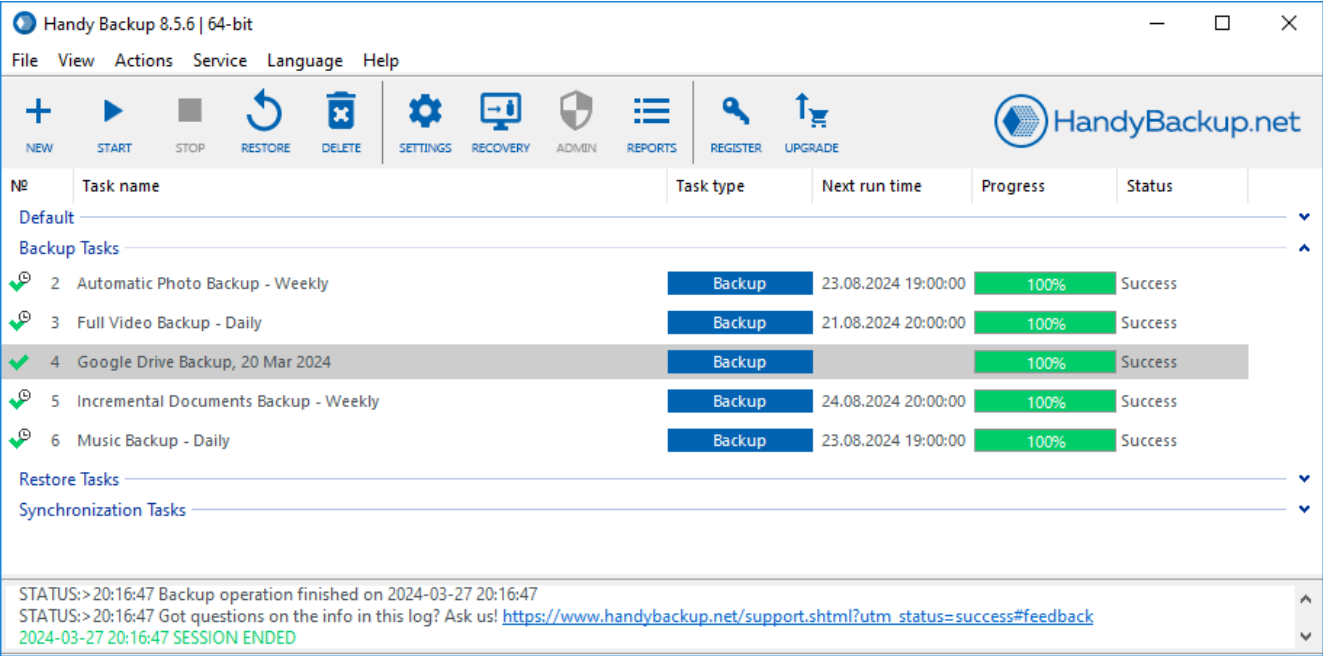
7 User Interface

You can control the program in different ways: using GUI, Console Client and other. Technically, all clients are independent from the program's core: they connect to **Server** which is then used to control all tasks on all **Workstations**. To learn more, please see [Architecture...](#)

This section describes Client GUI - main graphical interface that provides the easiest way to create tasks and manage data.

Main Window

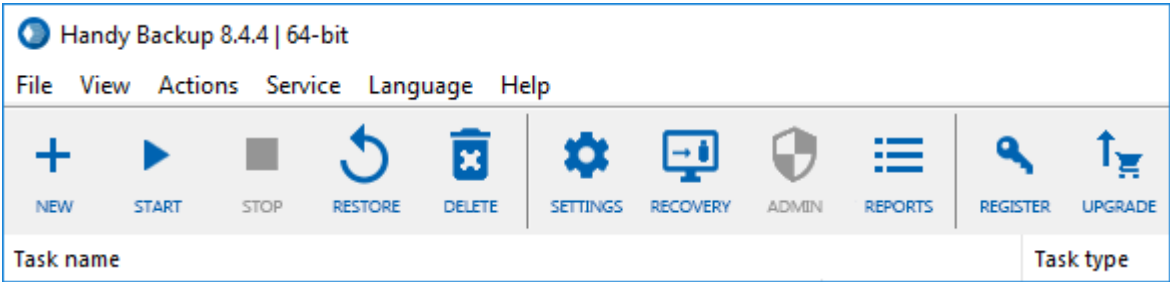
Main window consists of Main Menu, Toolbar, Task View and Log View:



To learn about each element of the Main Window, please refer to next chapters.

7.1 Main Menu

Main Menu contains all functions of the program. While many of them can be found in other parts of the program (for example, you can control tasks via toolbar, or context menu in the **Task View** pane), some commands are available in Menu only, e.g. language selection, Service mode, and other.



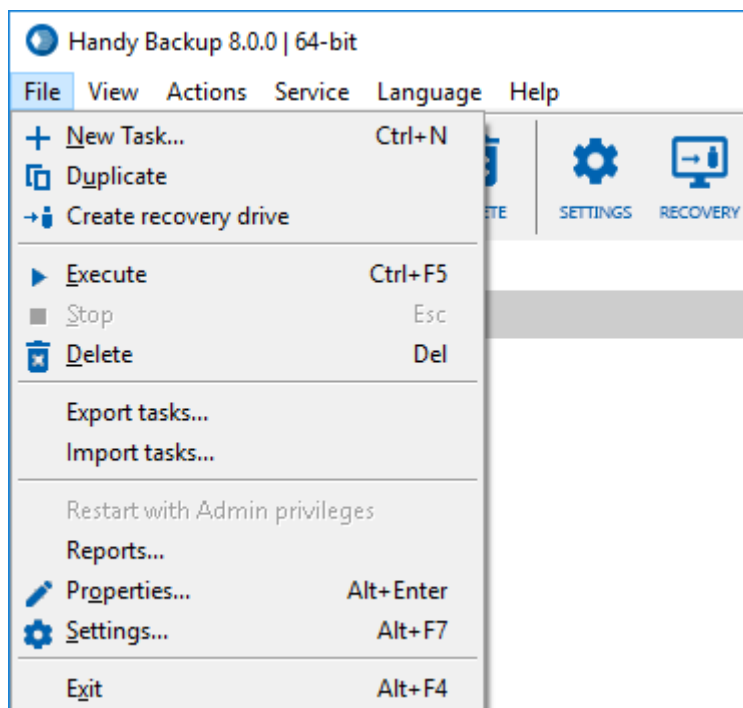
Handy Backup User Manual

- **File.** Allows managing tasks, creating USB recovery drive, and changing settings of different components.
- **View.** Lets you change look and feel of the main window.
- **Actions.** Can be used to run tasks selected in the **Task View** pane of the main window.
- **Service.** (Standalone edition only) Enables you to run Workstation as Windows service. Workstation is a logical component of the software that is used to retrieve, process and store data. To learn about it and its communication with other components, please see [Workstation...](#)
- **Server.** (Server edition only) Allows connecting and disconnecting to different Servers. To learn more, please refer to [Connecting to Server...](#)
- **Language.** Lets you change language of the utility's user interface.
- **Help.** Used to access User Manual, request support, and register the program.

To understand the **Service** and **Server** menus, please read [Workstation](#) and [Connecting to Server](#) chapters, respectively. All other commands in the menu are very understandable and don't require additional explanation.

• Main Menu -> File

The **File** menu is used to manage tasks and change program settings.



Handy Backup User Manual

The menu is organized as follows:

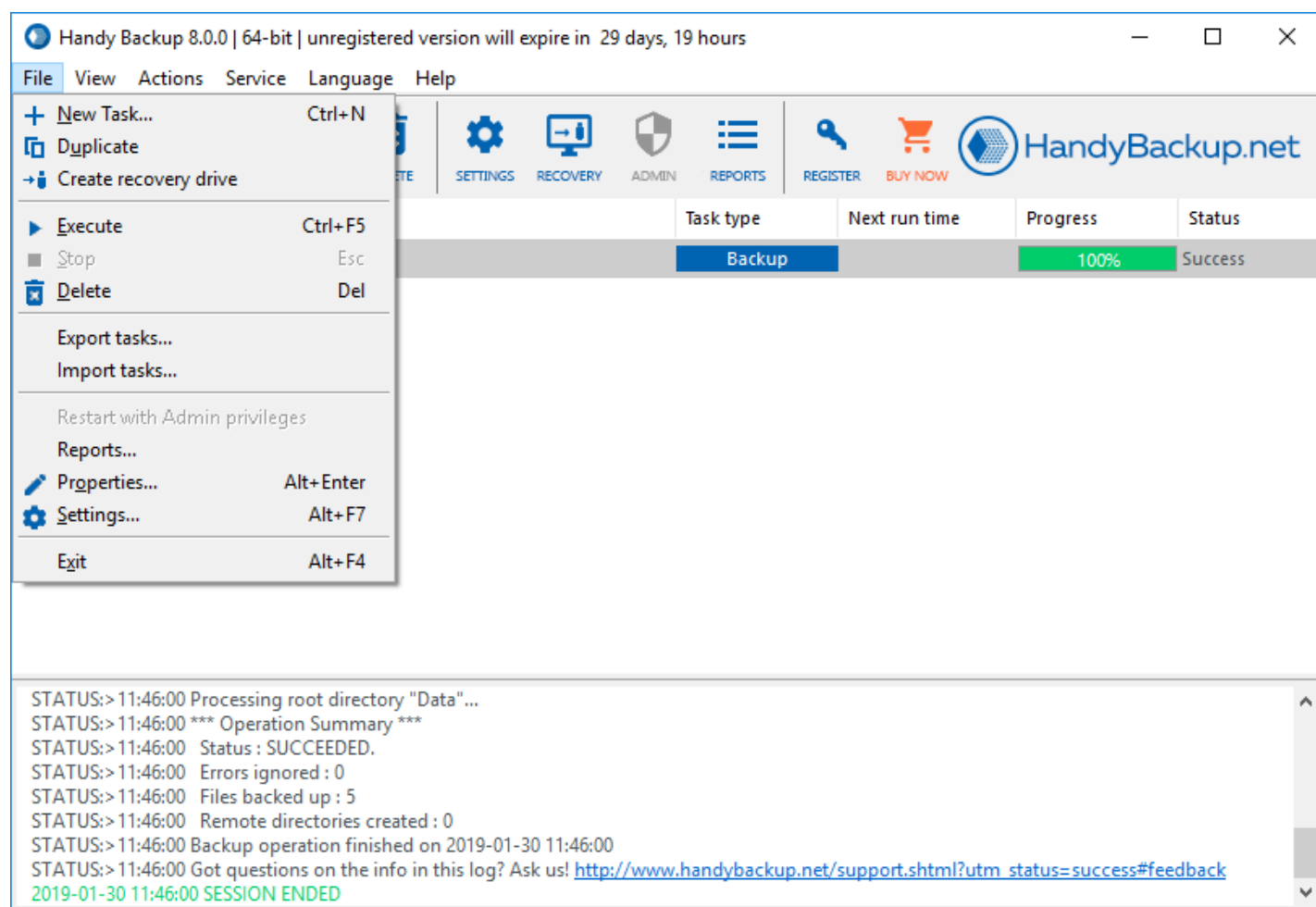
- **New Task** - Calls for the **New Task Wizard**, which starts with selection of task type: Backup, Restore or Synchronize. For more details see [Backing up data](#), [Restoring data](#), or [Synchronizing data](#).
- **Duplicate** - Clones task(s) selected in the Task View window. This command is especially useful if you want to create a task very similar to an existing one without repeating all steps of the **New Task Wizard**.
- **New Agent** - Creates and configures a new Workstation Agent or Server Agent from the central console (for the Server Network edition only).
- **Create recovery drive** - Creates a USB recovery drive for a Disaster Recovery tool.
- **Execute** - Launches task(s) selected in the Task View window. These tasks will be executed regardless of their schedule and even if they were created for a one-off launch.
- **Stop** - Interrupts running task(s) selected in the Task View window. In some cases this procedure can take several minutes.
- **Delete** - Deletes selected tasks.
- **Export tasks** - Exports tasks to use in an external copy of Handy Backup.
- **Import tasks** - Imports tasks from an external copy of Handy Backup.
- **Reports** - Creates task reports.
- **Properties** - Allows modifying task properties. This is a way to change virtually everything you defined during the process of task creation: from task name to scheduling options. Here you can also enable e-mail notification and define if you want to launch third-party applications before or after executing the task. To learn more, refer to [Task Properties](#).
- **Settings** - Opens the utility's settings. To learn more, refer to [Settings](#).
- **Exit**: quits the program.

Export and Import Tasks

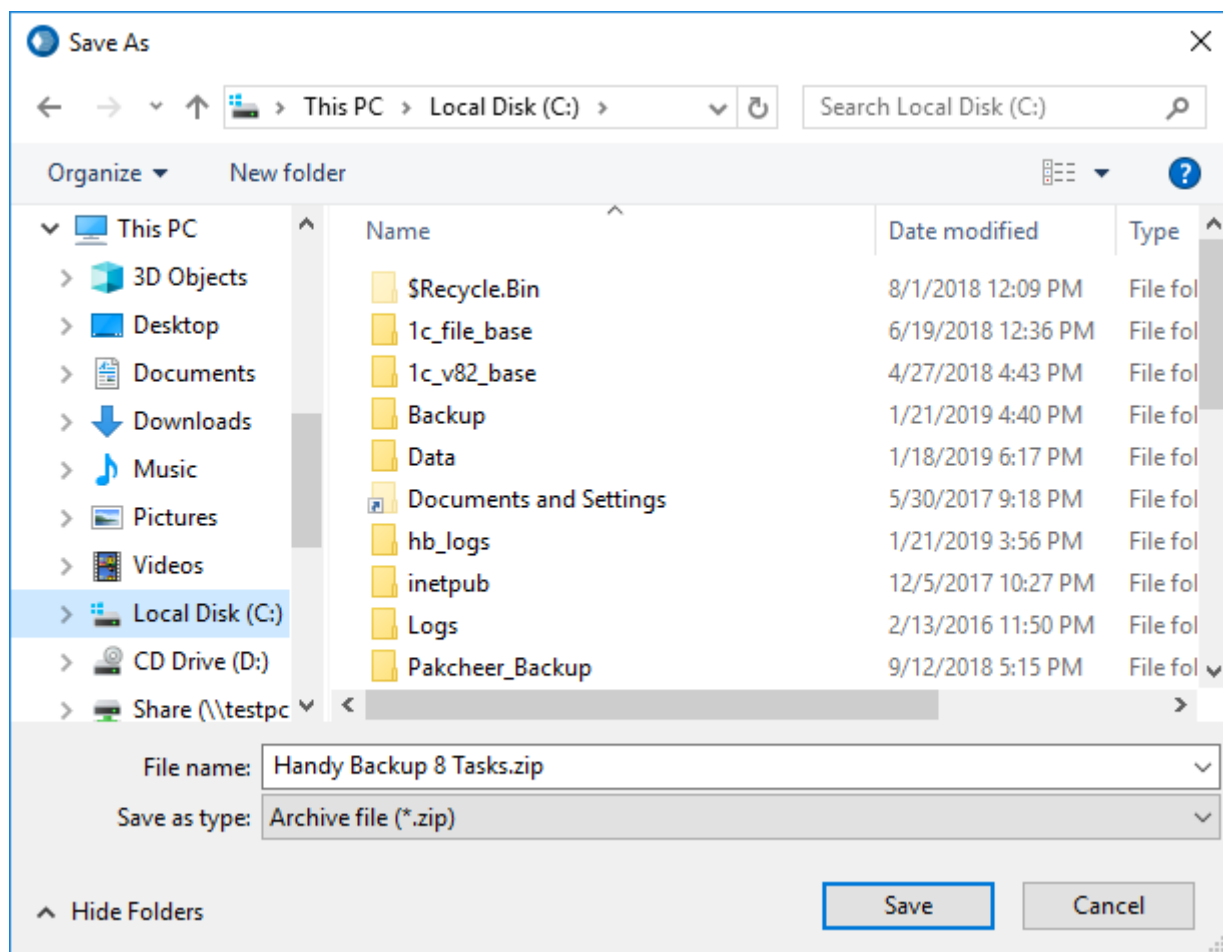
You can export your tasks as a single ZIP file, and import these tasks later into any copy of Handy Backup. It is useful for migrating, upgrading and for some other situations.

Exporting Tasks

To export your tasks, open the “File” menu and find an option called “Export tasks...”.



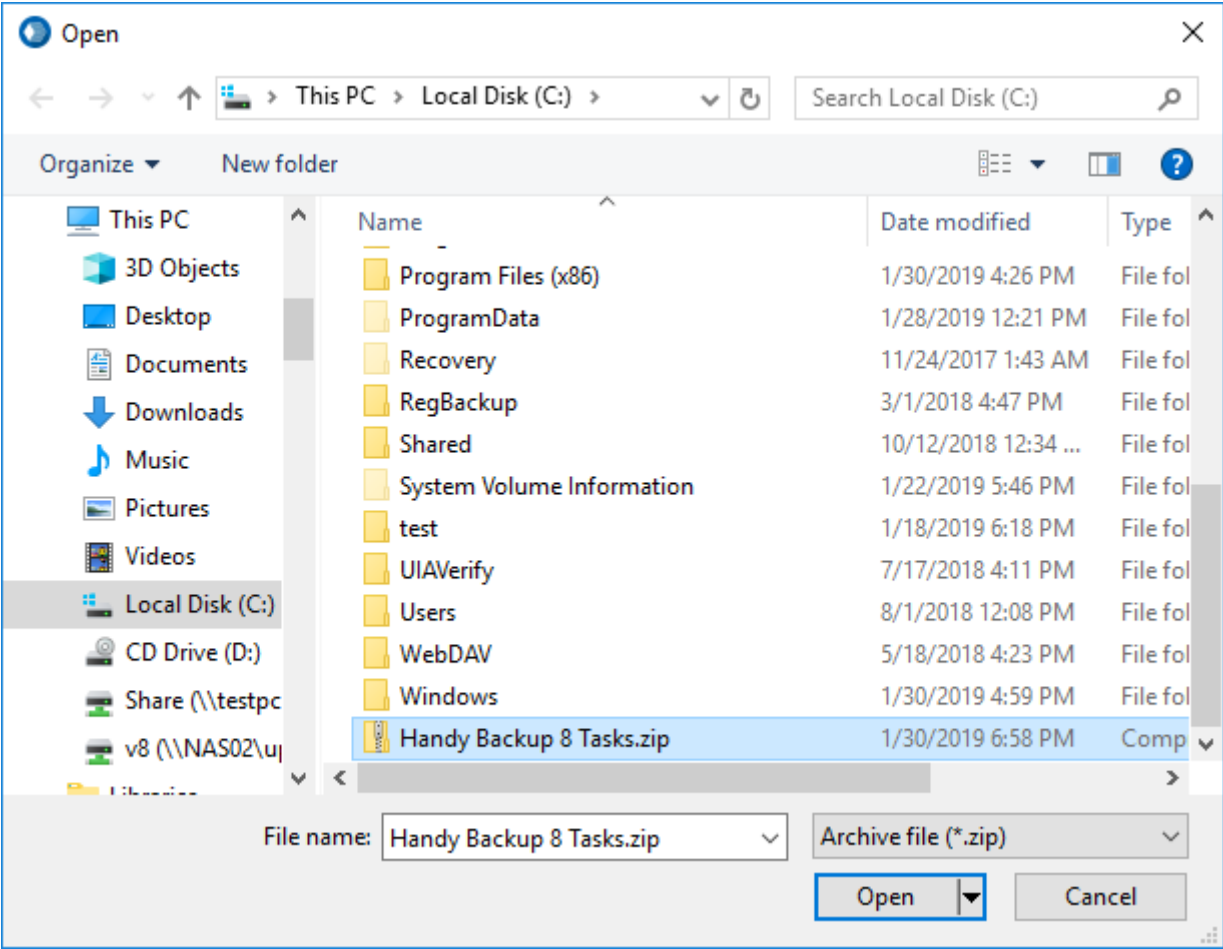
A file opening dialog will appear, to let you save your task list as a ZIP file.



Change the name of a file if you need it, and click “Save” to proceed. That is all.

Importing Tasks

To import previously saved tasks, just open an “Import tasks...” dialog from a “File” menu. Then select a ZIP file containing a task list from a file opening dialog window.



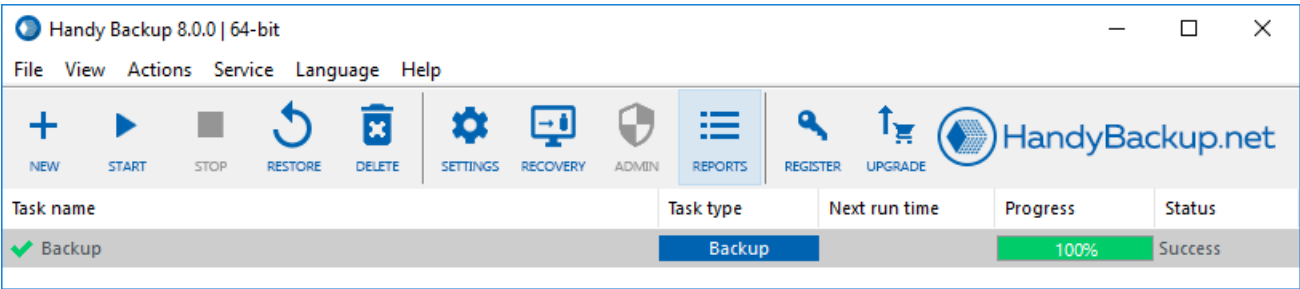
Click to the “Open” button and add all the tasks from the saved list into your active task list. The imported tasks will be marked as “imported”.

Reports

Using this feature, you can see all tasks attempted by Handy Backup, with a possibility to call for the detailed report about purposes, goals, sources, destinations and results of executing for any particular task in the report list.

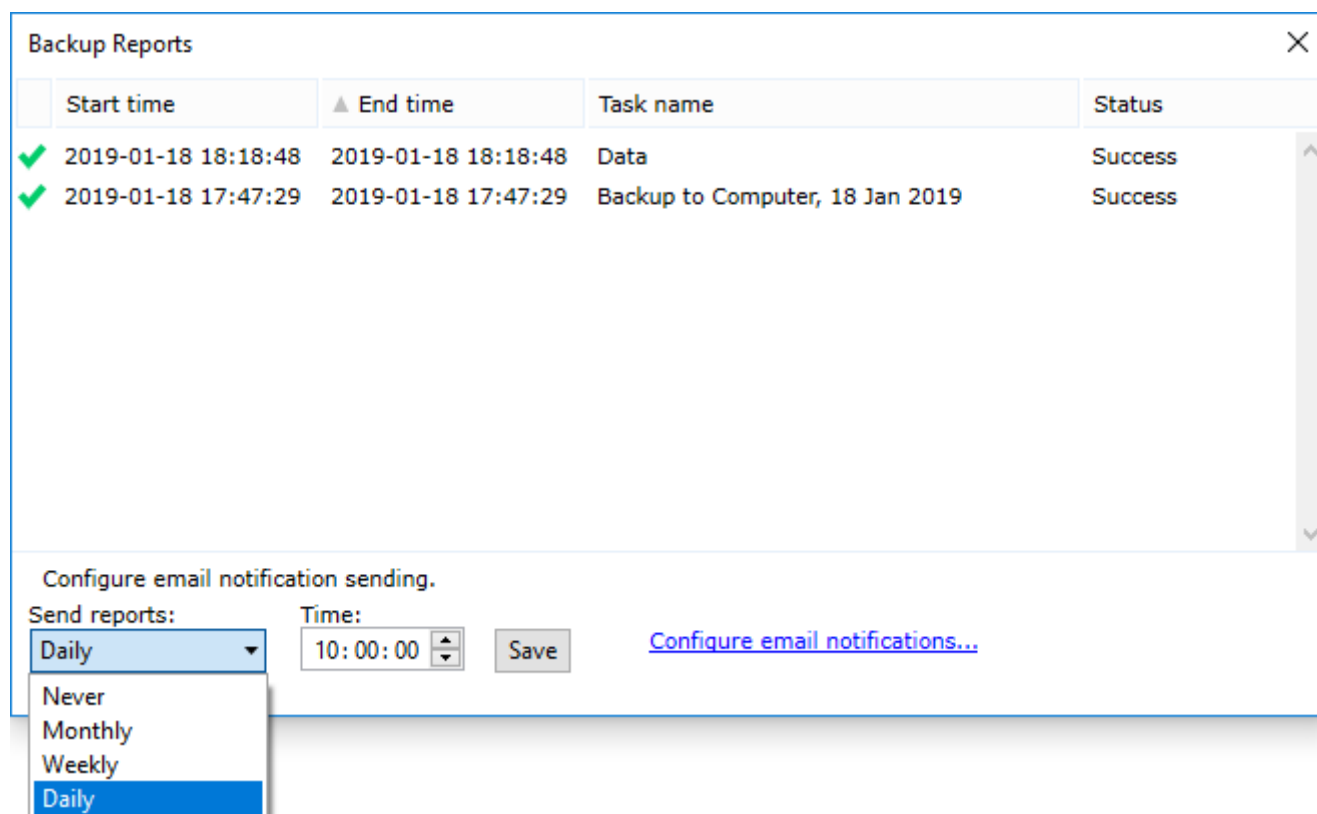
Calling Backup Reports

To see the **Backup Reports** window, just press a button on a Handy Backup Management Panel.

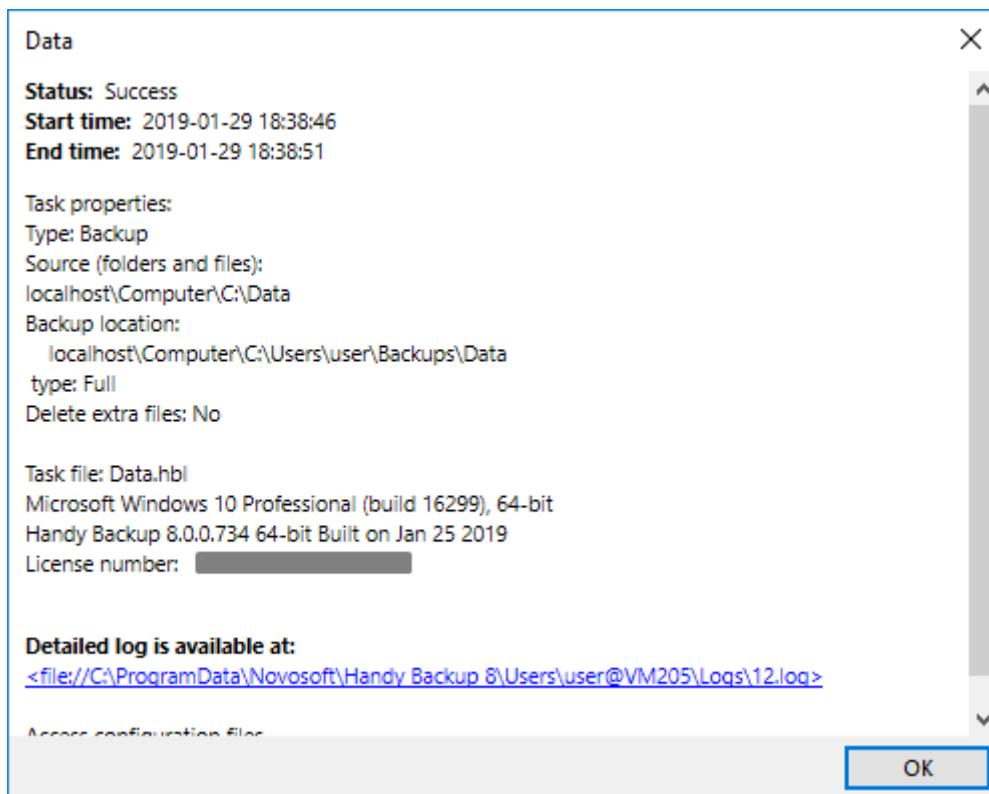


Handy Backup User Manual

You will see the window containing a list of tasks attempted and executed by your Handy Backup. To close this window, please click on an [x] button at the top-right corner of a window.



If you need an extra information about any particular task, please double-click on this task. A new window will appear, containing a detailed report about this task.



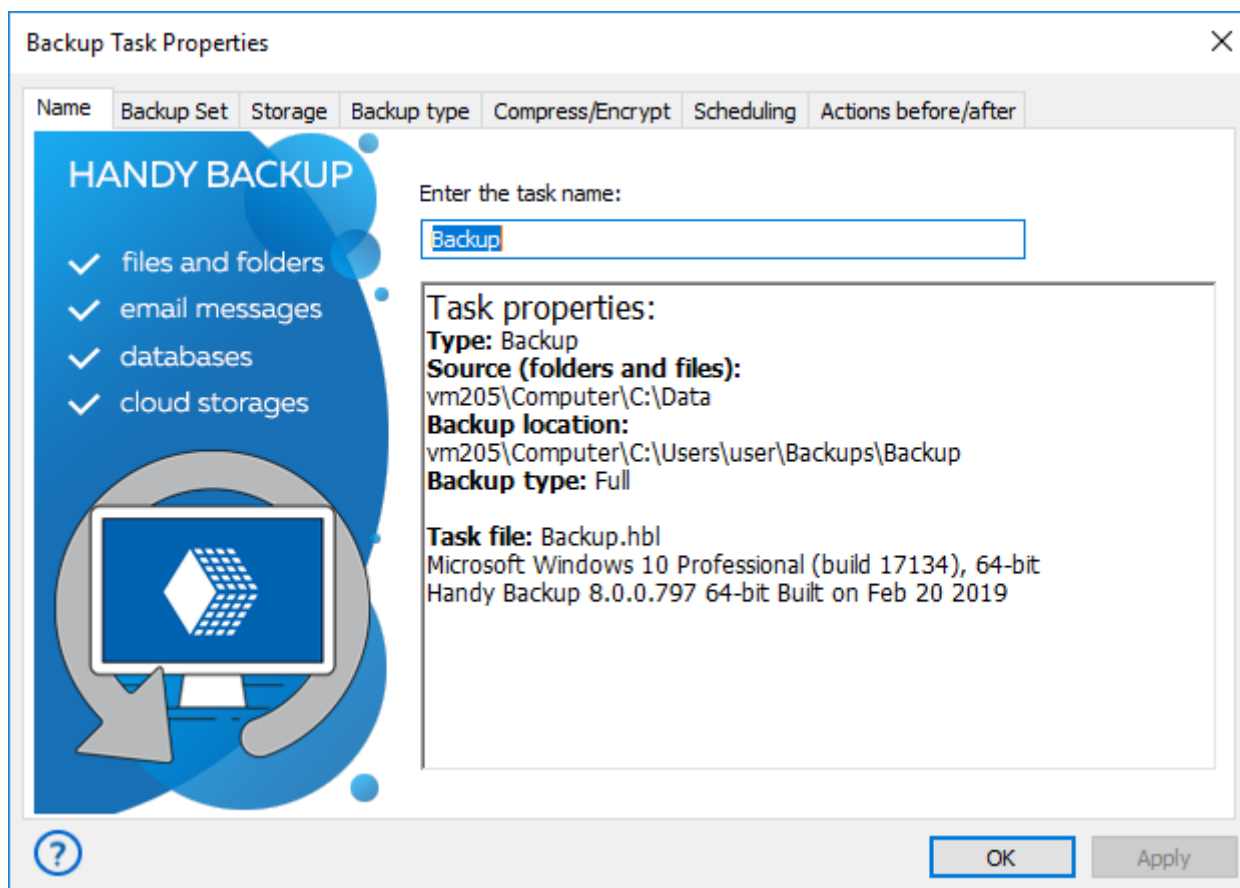
To close a report and return to the report list, please click OK.

Task Properties

Task Properties dialog is used to view or modify created tasks, and also allows enabling certain features, such as e-mail notification after task completion, or running user-defined applications before or after executing the task. To open the Task Properties window, perform one of the following actions:

- Double-click the desired task in the Task View window.
- Right-click the desired task in the Task View window to see the shortcut menu, and then click **Properties**.
- Select the desired task in the Task View window, click the **File** menu, and then click **Properties**.
- Select the desired task in the Task View window, and then press **ALT-ENTER**.

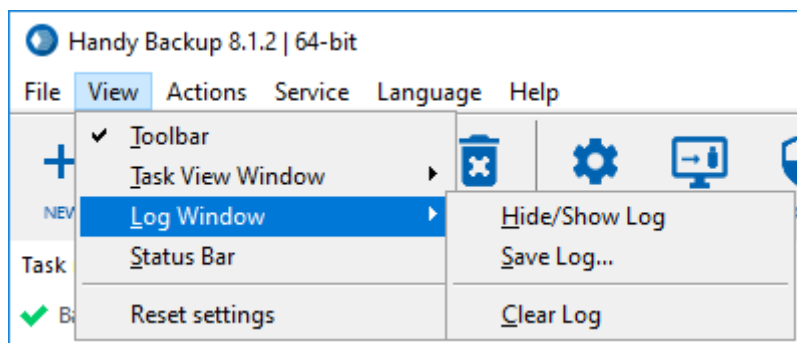
Handy Backup User Manual



Task properties are divided in six (for unencrypted Restore and Synchronize tasks) or seven (for Backup and encrypted Restore tasks) tabs by categories. Action tab contains settings that allow performing certain actions before or after executing the task. Other tabs contain settings assigned during task creation. Task creation is performed with the help of the New Task Wizard and is described in details in [Managing data](#).

• Main Menu -> View

The **View** menu is used to change the program's appearance.



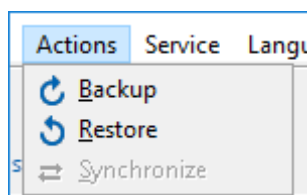
The menu is organized as follows:

- **Toolbar** - Shows/hides toolbar.

- **Tssk Menu Window** allows turning on and off some options that depicts tasks:
 - **Action** - task type.
 - **Last run time** - When a task was started at last time.
 - **Next run time** - Shows a scheduled starting time for next running.
 - **Progress** - Shows a progress bar of task execution.
 - **Status** - Shows a current task status.
- **Log Window** consists of three submenus:
 - **Hide/Show Log** - Hides/shows Log View window.
 - **Save Log** Saves log to a text file.
 - **Clear Log** Clears the Log View window.
- **Status Bar** - Shows/hides Status Bar in the bottom of the main window.
- **Reset settings** - Restores default program settings.

• Main Menu -> Actions

The **Actions** menu is used to execute tasks.



The menu is organized as follows:

- **Backup** - Runs a selected backup task. It can be applied only to backup tasks.
- **Restore** - Runs a selected restore or backup task. If the task type is "restore" then it will be done according to its properties. If the task type is "backup", then it restores data to the source.
- **Synchronize** - Runs a selected synchronization task.

Note: The **Actions** menu is only one of several ways to execute a task. To learn about running tasks, refer to [Running Task](#).

• Main Menu -> Service

The **Service menu** is used to configure program operation as Windows service.

Handy Backup User Manual

Using Handy Backup as Windows service provides the next advantages:

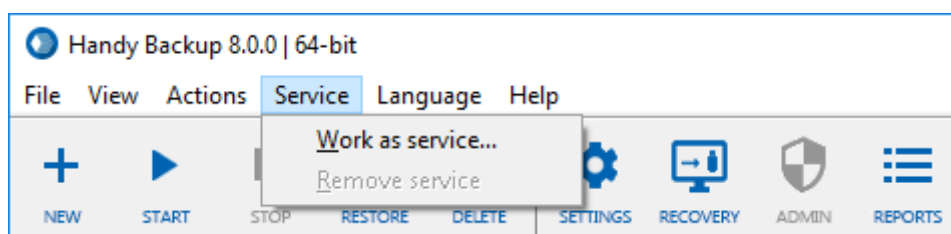
- Backup and restore tasks can be executed when the user interface will be closed (e.g. the program terminated);
- Execution of backup and restoration tasks will be continued after user's logoff.

These possibilities allows user not to control backup and restoration tasks directly, performing other job required instead.

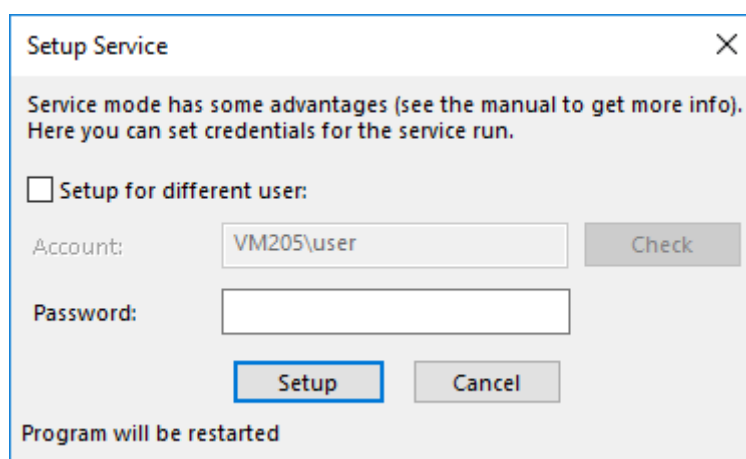
Running Handy Backup as Windows service

To run Handy Backup as Windows service, please follow the steps described below.

1. On the main menu, find "**Service**" item and then select "**Work as service...**" option.



2. The dialog window will appear, when you can enter the password for the current Windows user to add Handy Backup to the list of this user's services.



3. If you want to add Handy Backup as a Windows service for the different user, mark the checkbox called "Setup for different user" above the name and password fields. Enter the user's name (preceded by domain name if needed).
4. You may check this user's consistency pressing the "**Check**" button.

Note: User running Handy Backup as Windows service must have administrative privileges to start services!

5. When you finish, press the "Setup" button. Program will be restarted.

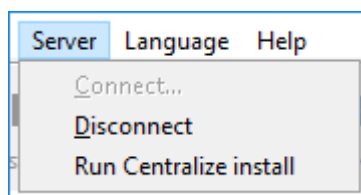
Removing Handy Backup from the List of Services

To remove Handy Backup service from Windows, please act in the sequence described next:

1. On the main menu, click "Service" and then select "**Remove service**" item.
2. Program will be restarted. Continue to use it as usual.

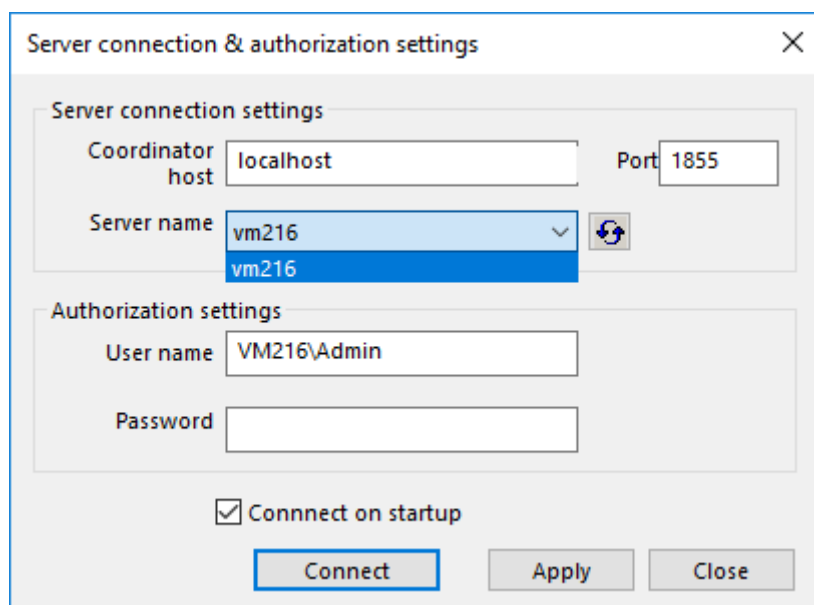
• Main Menu -> Server

The **Server** menu item allows controlling connections between a client and server in the Handy Backup Server Network.



To connect Handy Backup GUI to a server that is running as Windows service, please do the next:

1. In the **Server** menu, select **Connect**.



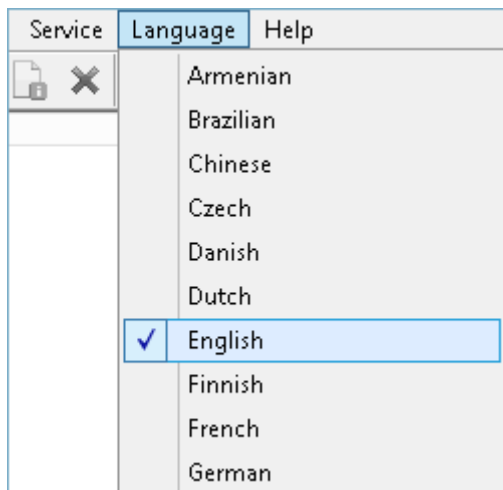
2. Enter the **Coordinator host** address (a name or address of a PC which serves as the Management Panel for Handy Backup Server Network), and select **Server name**.
3. Enter your login and password, and then click the **Connect** button.
4. After finishing tuning up the Windows service, it will restart.

To disconnect from a server, in the **Server** menu select **Disconnect**.

In this menu, you will also find the **Run Centralized install** item. It allows you deploying pre-configured Network Agents to remote machines. Read more about [Centralized Installation of Network Agents](#).

• Main Menu -> Language

The **Language** menu is used to select language used in the program.



- To change the language of the interface, click it in the menu.
- Click **More Languages** if the language you need is not available in the list. The command will open your web browser and take you to the web page where you will be able to choose from a complete list of languages on our web site.

Installing a Customized Language Pack

To set up your preferred language, follow these steps:

1. Download the respective language pack file from our web site.
2. Unzip the file and copy it to "Customizes" subfolder in the program's installation folder (**C:\Program Files\Novosoft\Handy Backup\Customizes**, by default).

Restart the utility to make the language appear in the **Language** menu.

How to Create Different Language Versions of Handy Backup

1. All resources for different languages can be found in xml-files that are located in the Handy Backup installation directory, in the subdirectory **Customizes**.
2. To create a new language version, it is necessary to copy the file **English.xml** to the same directory and translate it. The name of the file will be displayed in the menu Languages of the application and must indicate the language to which the translation has been made.
3. After a new xml-file has been created or modified, it is necessary to restart Handy Backup for the modifications to take effect (the restart is also necessary after switching to a language).
4. When translating original English resources, it is necessary to keep in mind the following information:

- a. It is necessary to translate **only** text data, located within the elements “string”. For example, in the element

```
<string id="IDS_OP_TYPE_BACKUP">Backup</string>
```

only the word “Backup” is translated.

- b. The document structure, element names and their parameters must stay invariable.
- c. The parameter encoding in the header of the xml-file must indicate the encoding of national symbols, which will be used for storing text data in the xml document, for example:

```
<?xml version="1.0" encoding="windows-1251"? >
```

or

```
<?xml version="1.0" encoding="iso-8859-1"?>
```

Notice: At the moment, Handy Backup does not support Unicode, this is why xml documents with the values “UTF-8”, “UTF-16” (or other Unicode encodings) indicated as the encoding parameter may cause the application failure.

- d. According to the xml notation (<http://www.w3.org/TR/REC-xml/>), the following symbols must be indicated as **predefined entities references and character references**:

Line feed	

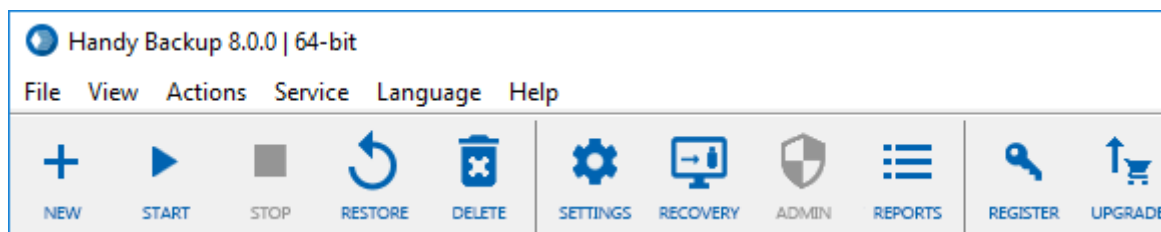
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"	"
'	'
&	&
>	>
<	<
\t		

- e. The formatting symbols (%s, %d etc) must stay invariable and in the same order in the lines where they are indicated.
- f. The symbol "&" (&) usually indicates a hot-key (it is underlined when displayed) for accessing a control or a menu item by pressing Alt and a corresponding hot-key symbol. At switching to another language, hot-key symbols must get changed in such a way to stay unique within an active window.
- g. If some lines are missing in any xml-file, or if some lines are not located according to original English resources, the text from original English resources will be displayed.

7.2 Toolbar

The toolbar contains buttons for all main operations related to managing your data.



The toolbar is organized as follows:

- **New.** The **New** button opens the New Task Wizard. This is the main way to create backup, restore and synchronize tasks. To learn more, please see [New Task: Choose Task Type](#).
- **Start.** The **Start** button runs tasks selected in the **Task View** pane below.
- **Stop.** The **Stop** button interrupts tasks selected in the **Task View** pane below. Note that before stopping a task, the program tries to finish copying current file first.
- **Restore.** The **Restore** button runs restoration for backup or restore tasks selected in the **Task View** pane below. When used on a backup task, the latest version of backup is restored to its original location.
- **Delete.** The **Delete** button removes tasks selected in the **Task View** pane below.

- **Settings.** The **Settings** button opens the program's settings. To learn more, please see [Settings](#).
- **Create Recovery Drive.** The **Recovery** button opens a Wizard that guides you through the process of creating a USB recovery drive.
- **Admin.** The **Admin** button allows running a workstation as an administrator.
- **Register.** The **Register** button opens a registration dialog. To learn more, please see [Registration](#).
- **Buy Now / Upgrade.** The **Buy Now / Upgrade** button opens information about different purchasing and upgrading options at the program's website.
- **Connect.** (Server edition only) The **Connect** button lets you connect or disconnect to Server. To learn more, please see [Connecting to Server](#).

7.3 Task View

The **Task View** pane contains all tasks with their status, names, progress and scheduling information. It is a central part of the program's main window that lets you easily track overall status of your backups.

Nº	Task name	Task type	Last run time	Next run time	Progress	Status
Default						
Backup Tasks						
✓ 2	Automatic Photo Backup - Weekly	Backup	21.08.2024 19:56:05	23.08.2024 19:00:00	100%	Success
✗ 3	Full Video Backup - Daily	Backup	22.08.2024 20:00:02		100%	Stopped
4	Google Drive Backup, 20 Mar 2024	Backup	21.08.2024 19:54:13		100%	Idle
! 5	Incremental Documents Backup - Weekly	Backup	17.08.2024 20:00:04		100%	Error
✓ 6	Music Backup - Daily	Backup	16.08.2024 19:00:04	23.08.2024 19:00:00	100%	Success

The pane is customizable. In the **View** menu, you can point to **Task View**, and then select columns to be displayed in it. Generally, there can be six columns:

- **Task name.** This column contains task name and status, so you can quickly track failed operations.
- **Action / Task Type.** By default, this column has a button that lets you quickly run the task. To prevent accidental operations, you can change it to task type in the **View** menu.
- **Last run time.** (Not displayed by default) In this column you can see last time when the task was run.
- **Next run time.** In this column you can see time of a next scheduled run.
- **Progress.** For running tasks, this column shows a progress bar and percentage indicator.
- **Status.** This column shows current task status.

You can sort tasks by clicking the column name.

Tracking Task Status

Each task can be in several statuses, as follows:

- ✔ **Success.** The task has completed successfully.
- ✔ **Success with Warning.** The task has completed successfully, but there were minor errors during copying. This can happen, for example, if the program could not back up some file's attributes, or if some other application modified the backup set during the process. In most cases, repeating the task will end with success.
- ✔ **Success with Scheduling.** The task is scheduled, and last run ended with a success.
- ✔ **Success with Scheduling, Ignoring Errors.** A task was completed successfully, ignoring any minor error occurred during execution.
- ❗ **Error.** The task has ended with an error.
- ❗ **Error with Scheduling.** An error that occurs during execution of a scheduled task (e.g., server failure).
- 📅 **Scheduled.** The task is scheduled, but has never been executed yet.
- 📅 **Idle.** The task is not scheduled and has never been executed yet. New task.
- ▶ **Running.** The task is running.
- ⛔ **Stopped.** The task was stopped by the user.

Task Context Menu

You can right-click each task, to open a dropdown menu and see the full list of available operations.

№	Task name	Task type	Last run time	Next run time	Progress	Status
Default						
Backup Tasks						
✓ 2	Automatic Photo Backup - Weekly	Backup	21.08.2024 19:56:05	23.08.2024 19:00:00	100%	Success
✗ 3	Full Video Backup - Daily		3.2024 20:00:02		100%	Stopped
4	Google Drive Backup, 20 Mar 2024		3.2024 19:54:13		100%	Idle
! 5	Incremental Documents Backup - Weekly		3.2024 20:00:04		100%	Error
✓ 6	Music Backup - Daily		3.2024 19:00:04	23.08.2024 19:00:00	100%	Success

- **New Task.** Opens the New Task Wizard. This is the only non-task-specific command in the list.
- **Duplicate.** Duplicates the task. As a result, a task named "**Copy of <Task Name>**" appears.

Handy Backup User Manual

- **Backup, Restore or Synchronize.** Runs the task. For backup tasks, there are two commands: **Backup** and **Restore**. The latter option restores the latest version of the backup.
- **Refresh.** Does nothing (old option, not removed since version 6).
- **Execute.** Runs the task.
- **Stop.** Stops the task. Can be used only for running tasks.
- **Delete.** Deletes the task.
- **Properties.** Opens properties of the task.

Note: Most context menu commands are common for all tasks, and can be used for multiple tasks at once.

7.4 Log View

The **Log View** pane contains short log of all operations related to a task that is selected in the **Task View** pane. Besides the short log, there also is a detailed log which is written to a file on the disk. Link to a detailed log is given in the beginning of each short log.

```
STATUS:> 16:53:52 ----- Handy Backup 8.0.0.734 Built on Jan 25 2019 -----
2019-01-31 14:31:11 SESSION STARTED
STATUS:> 14:31:11 Detailed log is available at <file://C:\ProgramData\Novosoft\Handy Backup 8\Users\user@VM205\Logs\5.log>
STATUS:> 14:31:11 Backup operation started on 2019-01-31 14:31:11
STATUS:> 14:31:11 Calculating data size...
STATUS:> 14:31:11 About to copy 5 files with approximate total size of 66.02 KB
STATUS:> 14:31:11 Processing root directory "Data"...
STATUS:> 14:31:11 *** Operation Summary ***
STATUS:> 14:31:11 Status : SUCCEEDED.
STATUS:> 14:31:11 Errors ignored : 0
STATUS:> 14:31:11 Files backed up : 5
STATUS:> 14:31:11 Remote directories created : 4
STATUS:> 14:31:11 Backup operation finished on 2019-01-31 14:31:11
STATUS:> 14:31:11 Got questions on the info in this log? Ask us! http://www.handybackup.net/support.shtml?utm\_status=success#feedback
2019-01-31 14:31:11 SESSION ENDED
```

Together with the **Task View** pane, the **Log View** pane is one of the most important control elements. When one of your task finishes with an error, the fastest way to understand what went wrong is to select it in the list, and skim through the respective log. In most cases, the problem can be found in several seconds.

If you want, you can hide the **Log View** pane. To do it, go to the **View** menu, point to **Log View**, and then click **Hide/Show Log**.

Managing Logs

There is a number of commands related to logs and the **Log View** pane.

- **Copy to Clipboard.** To copy the log into the clipboard, right-click it top open the shortcut menu, and then click **Copy**.

- **Save to File.** To save the log, right-click it to open the shortcut menu, and then click **Save Log....** The **Save As** dialog opens. Select a path and a file name, and then click **OK**.
- **Clear Log.** To clear log, right-click it to open the shortcut menu, and then click **Clear Log**.

All of these commands are also available in the **View** menu.

You can also tune log appearance by selecting colors for different type of messages (status, errors, warning, etc.) To do it, right-click the log to open the shortcut menu, and then click **Colors**. This command opens [Log Settings](#).

7.5 Hot Keys

Hot keys let you control the program and manage your tasks faster. They are not case-sensitive and can be used at any time.

Task-Specific Hot Keys

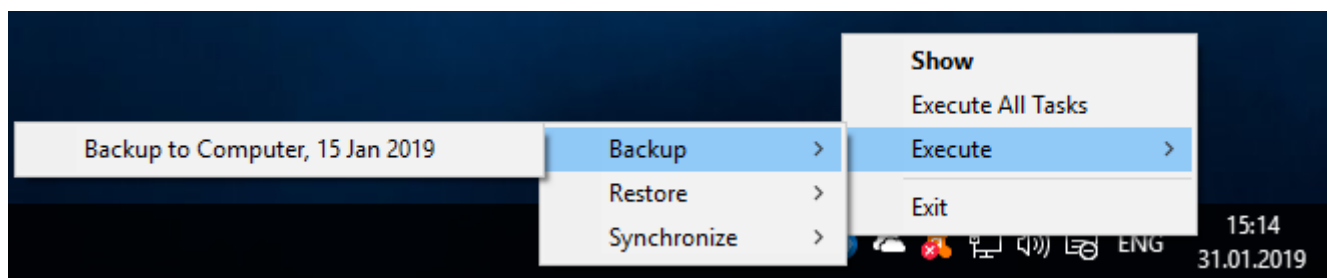
- **Ctrl+N** – Starts the **New Task Wizard**
- **Ctrl+F5** – Executes tasks selected in the **Task View** pane of the main window
- **ESC** – Stops tasks selected in the **Task View** pane of the main window
- **DEL** – Deletes tasks selected in the **Task View** pane of the main window
- **Alt+ENTER** – Opens properties of a task selected in the **Task View** pane of the main window

General Hot Keys

- **Alt+F7** – Opens settings
- **F1** – Opens user manual
- **Alt+F4** – Closes the program

7.6 Tray Menu

After installation of the program, its icon appears in system tray. To open the tray menu, right-click it.



The tray menu contains four commands:

- **Show** - opens the program's main window.
- **Execute All Tasks** - runs all tasks simultaneously.
- **Execute** - opens a submenu where you can select a previously created task that you want to run.
- **Exit** - in Standalone version, closes the program and all related processes. In Server version, closes Client GUI only.

7.7 Console Client

Technically, Handy Backup's user interface is an independent component that doesn't require you to launch it on a the same computer where the program is installed. For example, when you install the Server edition, for the first time it starts with a **Server connection & authorization settings** dialog that lets you select where you want to connect (to learn more, see [Connecting to Server](#)).

Console Client is an alternate client application that allows managing the program's tasks using a command line interface. It is very useful if you want to run it from third-party applications, or write your own backup scripts.

Console client is available in the installation folder as **hbcc.exe**. Its syntax is as follows:

Usage: hbcc <key>[<tasks>]

<key>	Command
--Help(-h)	Displays this syntax
--Execute(-e) <tasks>	Execute specified tasks by name
--ExecuteId(-ei) <tasks>	Execute specified tasks by id
--ExecuteAll(-ea)	Execute all tasks
--Stop(-s) <tasks>	Stop specified tasks by name
--StopId(-si) <tasks>	Stop specified tasks by id

--StopAll(-sa)	Stop all tasks
--Delete(-d) <tasks>	Delete specified tasks by name
--DeleteId(-di) <tasks>	Delete specified tasks by id
--DeleteAll(-da)	Delete all tasks
--List(-l)	List all available tasks
--Close(-c)	Close server

<tasks> is space separated list of task names, or IDs

The use of the Console Client can makes backing up faster and easier. For example, you can launch backups from third-party applications, based on their own events, rather than on time-based schedule.

8 Settings

In Settings, you can set default destination, set up e-mail notifications, and change the program's appearance.



To open Settings, click the **Settings** button on the program toolbar.

Settings are divided into two main categories: **Server Settings** and **Client Settings**.

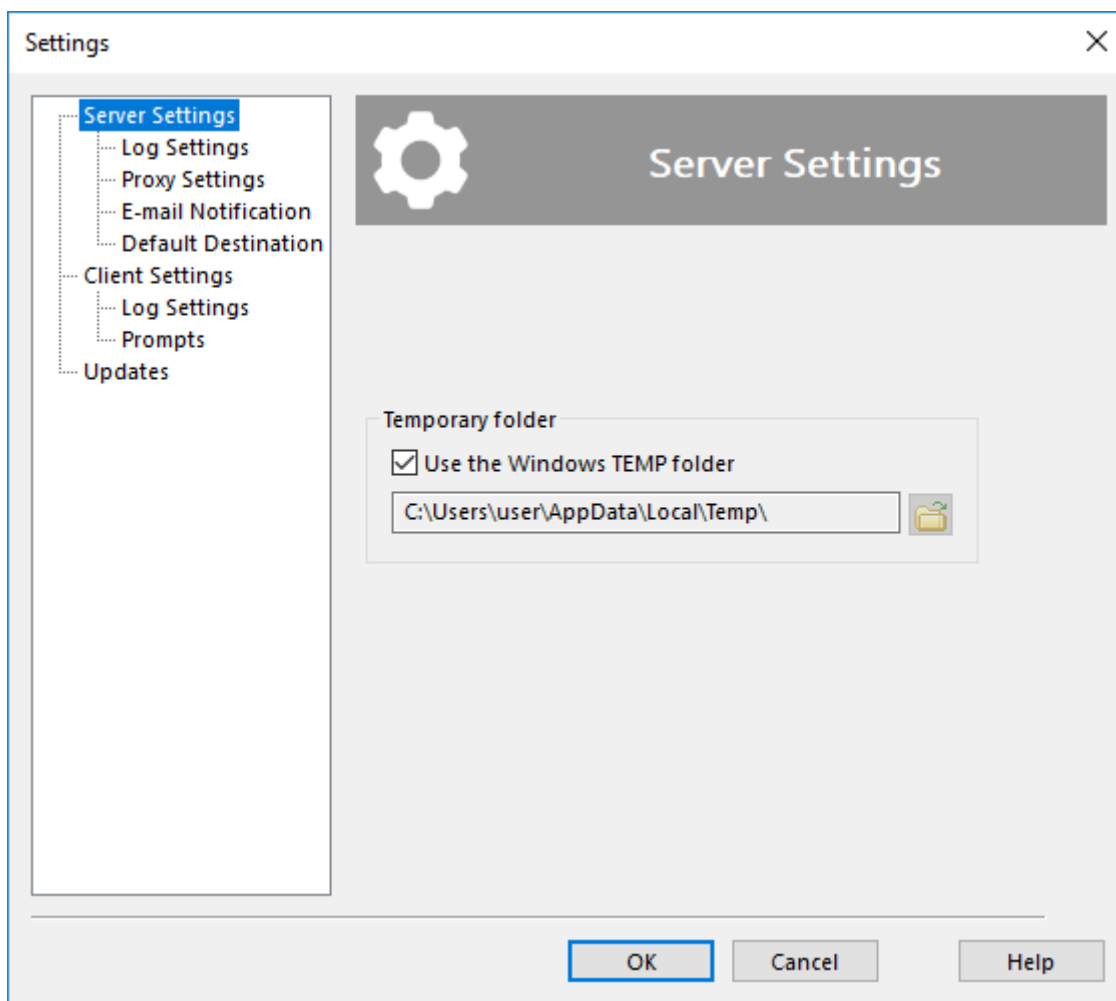
- **Server** is a core logical component of Handy Backup, responsible for controlling all operations, creating and running tasks, logging, etc.
- **Client** is graphical interface through which you work with the program. Technically, it is completely independent from **Server** and has individual settings.


Besides changing settings, this window also lets you check if you're using the latest version.

- [Server Settings](#)
 - [Log Settings](#) - Used to control logging.
 - [Proxy Settings](#) - Allows setting default proxy server.
 - [E-mail Notification](#) - Enables specifying mail server, so you can stay informed about task results.
 - [Default Destination](#) - Lets you select a default destination and create backups faster and more easily.
- [Workstation Settings](#)
- [Client Settings](#)
 - [Log Settings](#) - Allows selecting colors of different messages in the **Log View** pane.
 - [Prompts](#) - Defines if you want to be prompted when stopping or deleting tasks.
- [Updates](#) - Lets you check for updates, manually or on a scheduled basis.

8.1 Server Settings

Server Settings contain general settings of the **Server** component of the software. In the program's architecture, the term **Server** is used to refer to a logical component responsible for creating and managing all tasks, scheduling, logging, e-mail notifications, etc.



- Check **Use the Windows TEMP folder** if you want the utility to use standard Windows temporary folder.
- To select a different folder, click the **Browse for folder**  button and browse for another temporary folder.

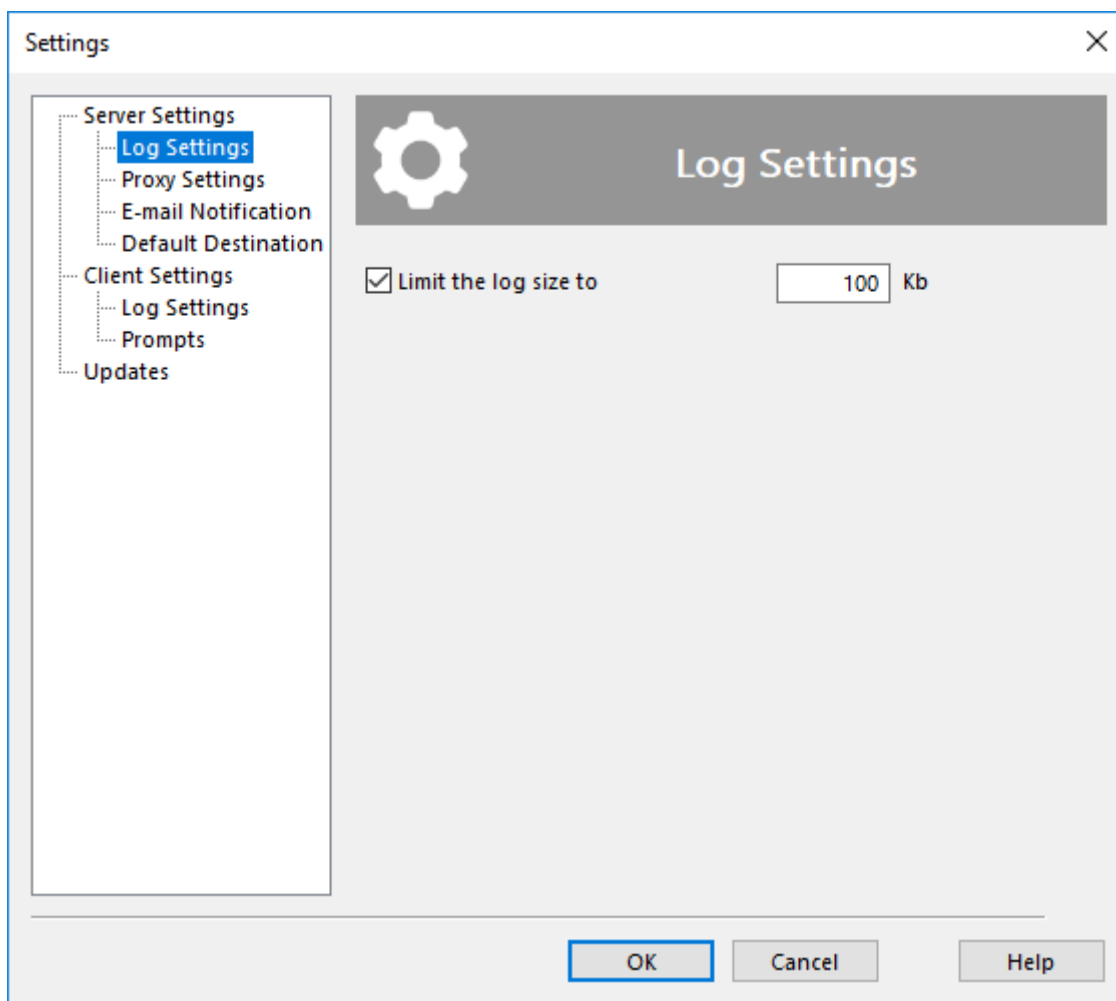
Generally, the program does all processing “on-the-fly”, i.e. without creating any temporary files. Temporary folder may be used for new and experimental features that haven’t yet made their way into the program’s core.

• Log Settings

All backup, restore and synchronize operations are logged. There are two types of logs:

- **Short logs** are available in the **Log View** pane of the main window. They contain brief information on time, size and status of a task.
- **Detailed logs** contain complete information about each file backed up. Link to detailed log is available in the beginning of a short log.

Each time you run a task, the program checks size of detailed log, and if it is large enough, deletes it. **Log Settings** are used to specify maximum size of the log. **Log Settings window:**



- Check **Limit the log size to** if you want to save disk space by automatically deleting unnecessary logs. Specify the limit in the field to the right.

Caveat! By default, the log size is limited by 100 Kb. If you will disable log size restrictions, it will be unlimited.

- Click **Enable debug log** to save all program actions to a detailed log. Please restart the program after using this option.

Attention! You will need to restart for writing debug logs, as the program must have access to all its processes just from start to log activities correctly!

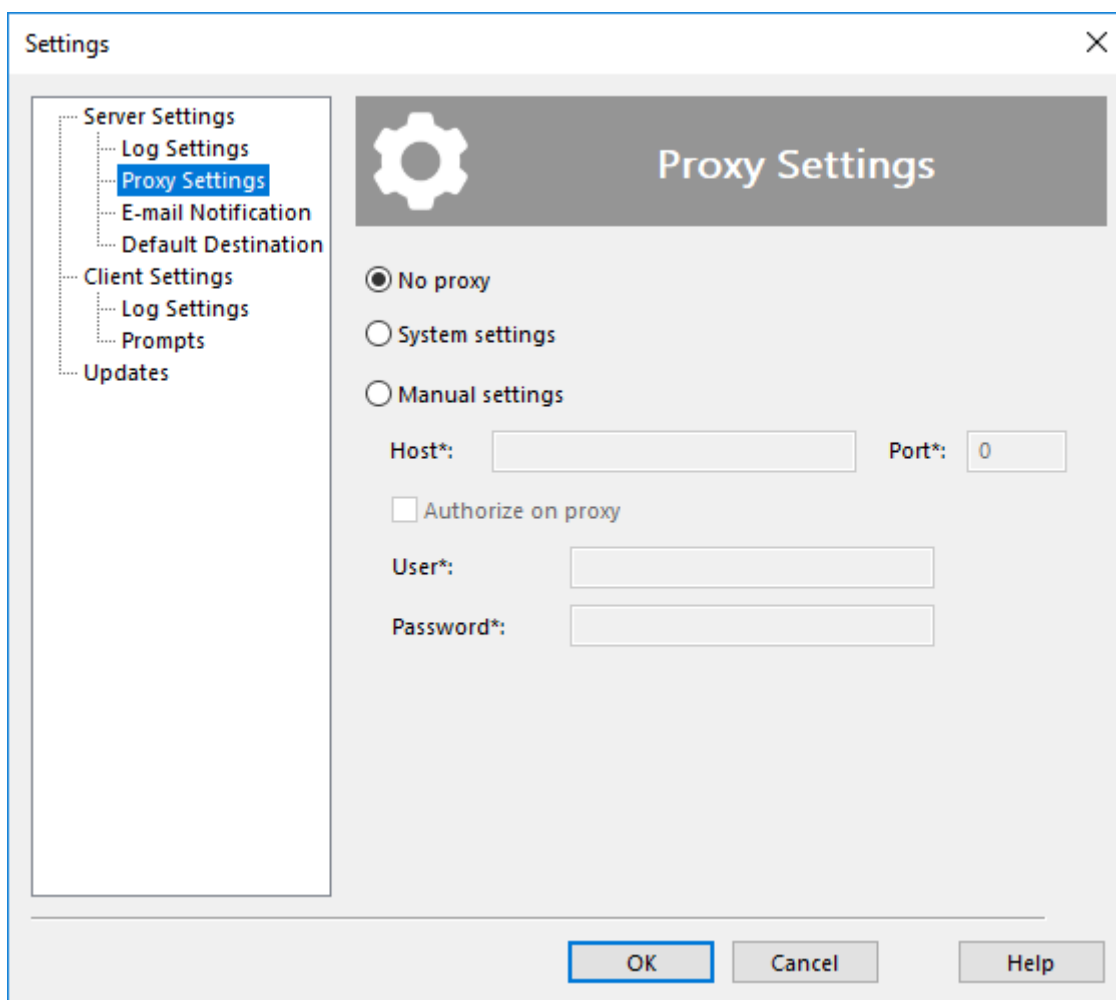
You can find all logs in the folder:

C:\ProgramData\Novosoft\Handy Backup 8\Users\[username]\Logs

Note: The program deletes old logs in the beginning of the task, so the latest log always comes without any limitations.

• Proxy Settings

In the program's architecture, **Server** is a core component responsible for logging, scheduling, creating and running tasks, and other operations. Technically, it can run on a different computer than other components, and communicate with them over network. **Proxy Settings** allow specifying proxy server parameters.



- Select **No Proxy** if you have no proxy.
- Select **System Settings** to use general settings (the ones set in Internet Explorer).
- Select **Manual Settings** to set proxy parameters manually.

• E-mail Notification

By default, to control status of your tasks, you need to open the program's main window and find them in the **Task View** pane. For more convenience, you can receive notifications about task results via e-mail. This behavior is task-specific and needs to be enabled for each task individually. For more details, please see [New Task: Pre-, Post-Operation Actions](#).

Handy Backup User Manual

E-mail notifications are sent by the **Server** component of the software. In settings, you need to specify parameters of your mail server, sender, message template, etc.

The screenshot shows the 'Settings' dialog box with the 'E-mail Notification' tab selected. The left sidebar lists 'Server Settings' (Log Settings, Proxy Settings, E-mail Notification, Default Destination), 'Client Settings' (Log Settings, Prompts), and 'Updates'. The main area is titled 'E-mail Notification' with a gear icon. It contains two checked checkboxes: 'Use e-mail notification' and 'Use SMTP authentication'. Below these are fields for 'SMTP server*' (smtp-mail.outlook.com), 'Port' (587), 'Connection' (STARTTLS), 'SSL Protocol' (OS Default), 'From' (test-novosoft@outlook.com), 'To*' (test-novosoft@outlook.com), 'Subject' (Handy Backup Notification [TaskName] [Status]), and 'Body' (Edit Message Body...). There are also fields for 'User*' (test-novosoft@outlook.com) and 'Password*' (masked with dots). A 'Send Test Message...' button is present below the password field. At the bottom are 'OK', 'Cancel', and 'Help' buttons.

To enable e-mail notifications, follow these steps:

1. Check **Use e-mail notification**.

2. Fill the following fields:

- **SMTP server.** Mail server to use to send e-mails.
- **Connection type.** Select a connection type used for your email service.
- **SSL protocol.** Set up a specific SSL protocol used by your mail server.

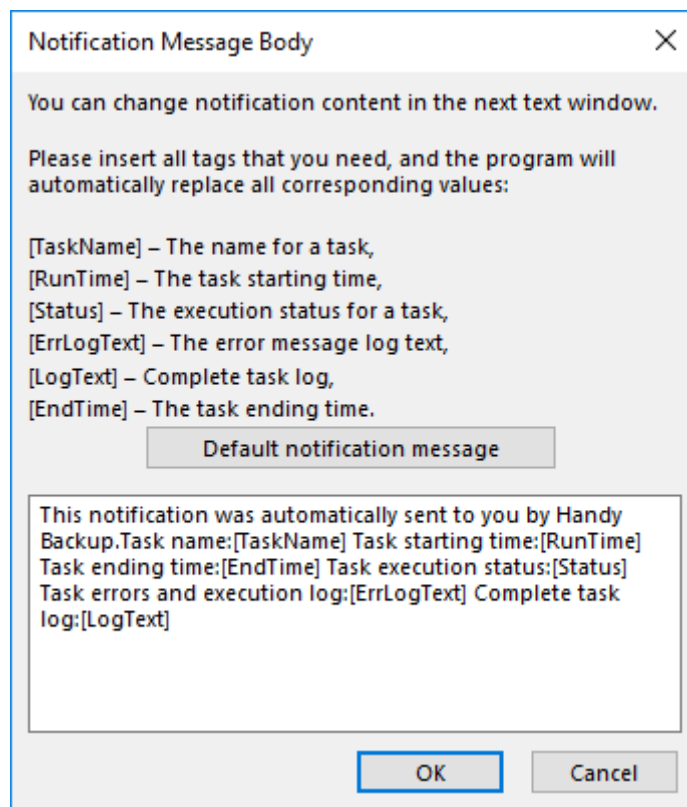
Note: If you do not know the exact parameters of your SSL protocol, set up this option to "OS default". Modify this value only when you are know the need to change this parameter!

- **From.** Sender of the letter, enter here the same email address as in the "User" field below

- **To.** One or more target e-mail addresses where you want to receive notifications

Note: On operating systems smaller than Windows 8, the ability to use international mail addresses (i.e. those containing unicode characters) is disabled.

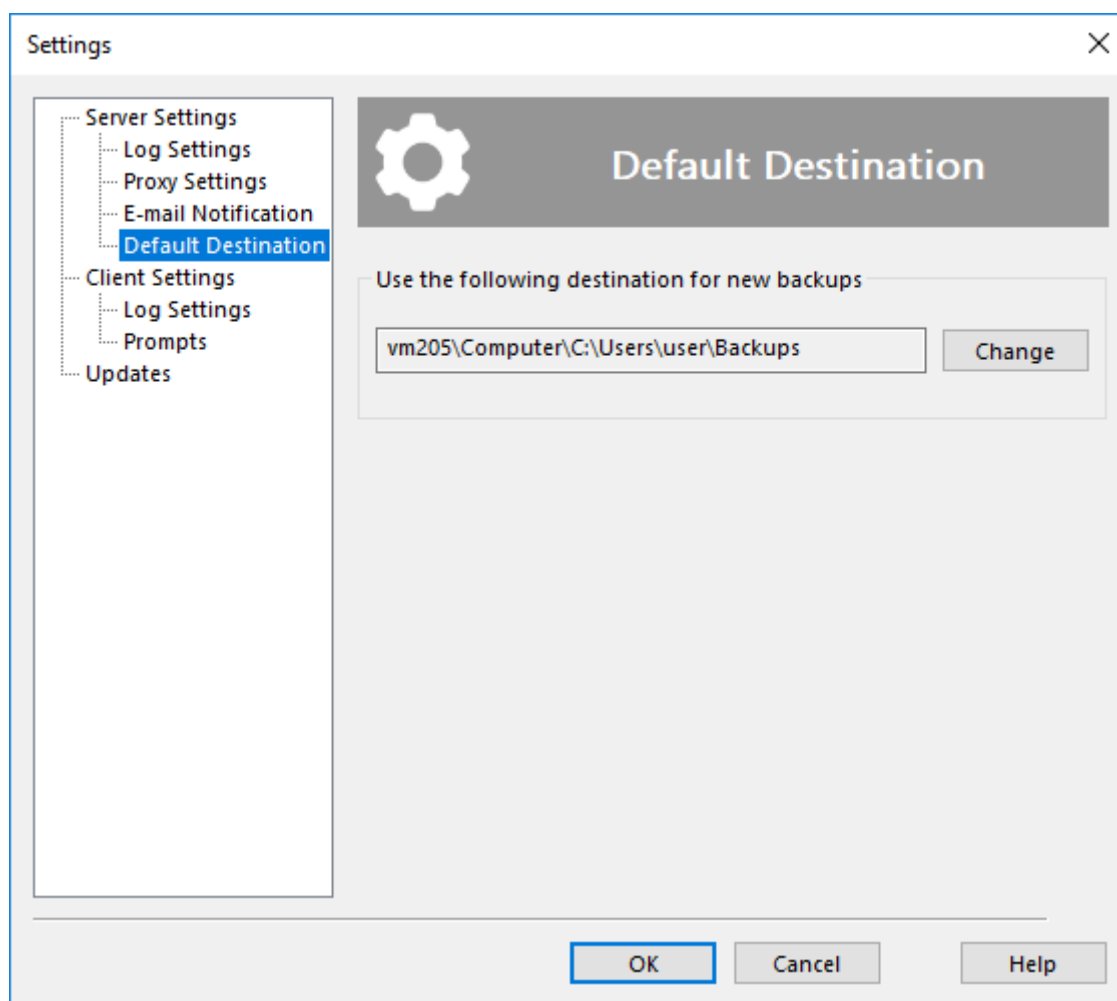
- **Subject.** Subject of the letter
- **Body.** Click **Edit Message Body** to change welcome message, signature etc.



3. Check **Use SMTP notification** if your SMTP server requires authorization. Enter the required information in the **User** and **Password** fields.
4. Click **Send Test Message** to test that all fields are set correctly.

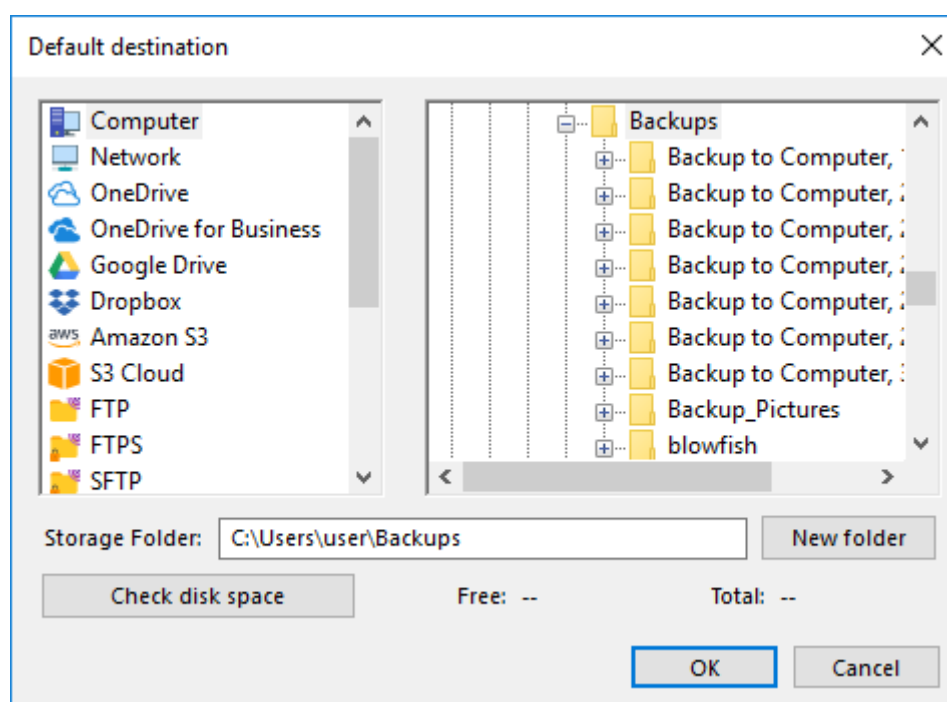
• Default Destination

When creating a new backup task, you need to select destination where to store the data (see [Select Destination](#) for more details). Having a default destination lets you create new tasks much faster.



To set or change default destination, follow these steps:

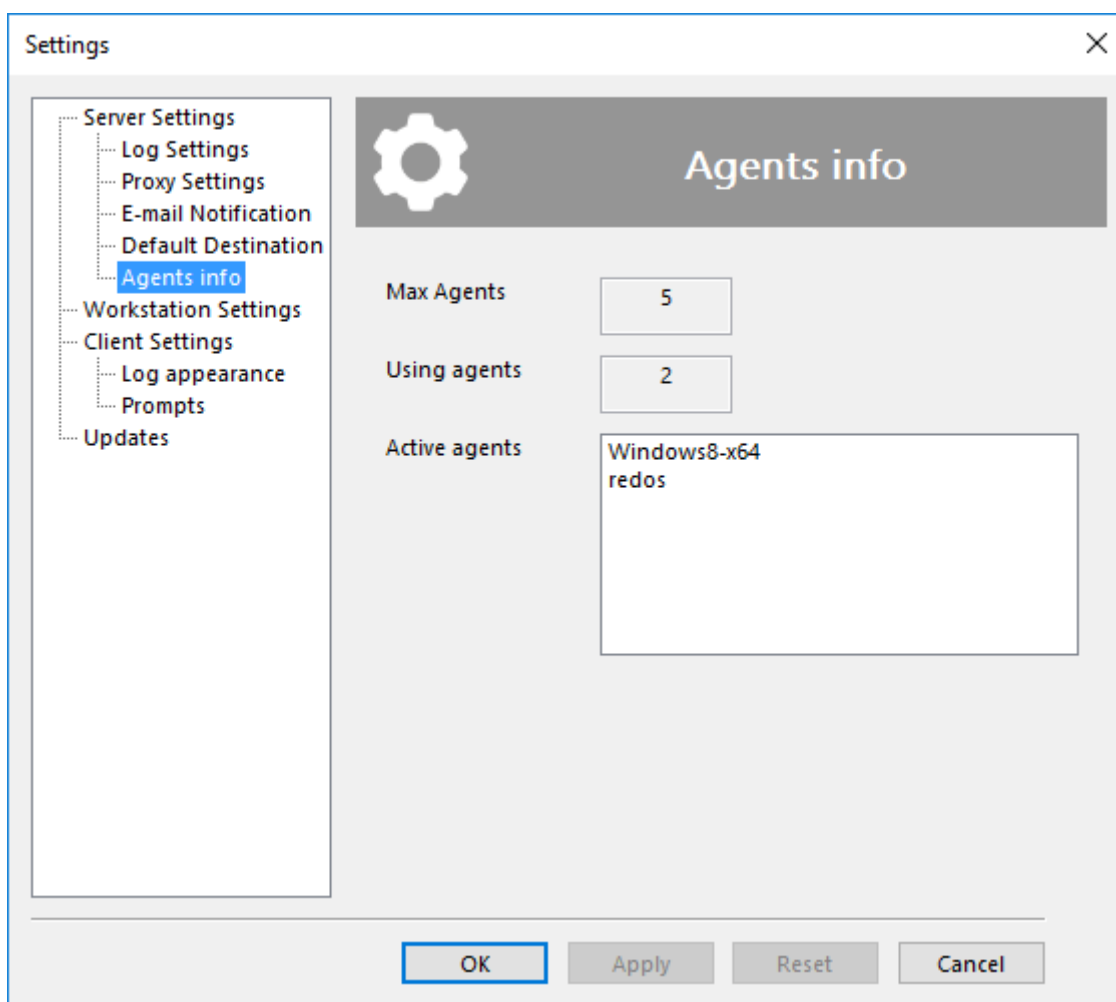
1. Click **Change**. The **Default Destination** dialog opens.



2. In the **Storage Destinations** pane to the left, select a plug-in. The list of folders appears in the **Folder Selection** pane to the right.
3. In the **Folder Selection** pane, browse for a target folder. If you need to create a new folder, click the **Create folder** button.
4. When selected a folder, click **OK**.

• Agents Info

Exclusively for the Handy Backup Server Network edition: Within the Settings menu, under the "Workstations" tab, users can access a list of connected workstations and servers, along with the count of available agents for subsequent connection establishment and backup task creation.

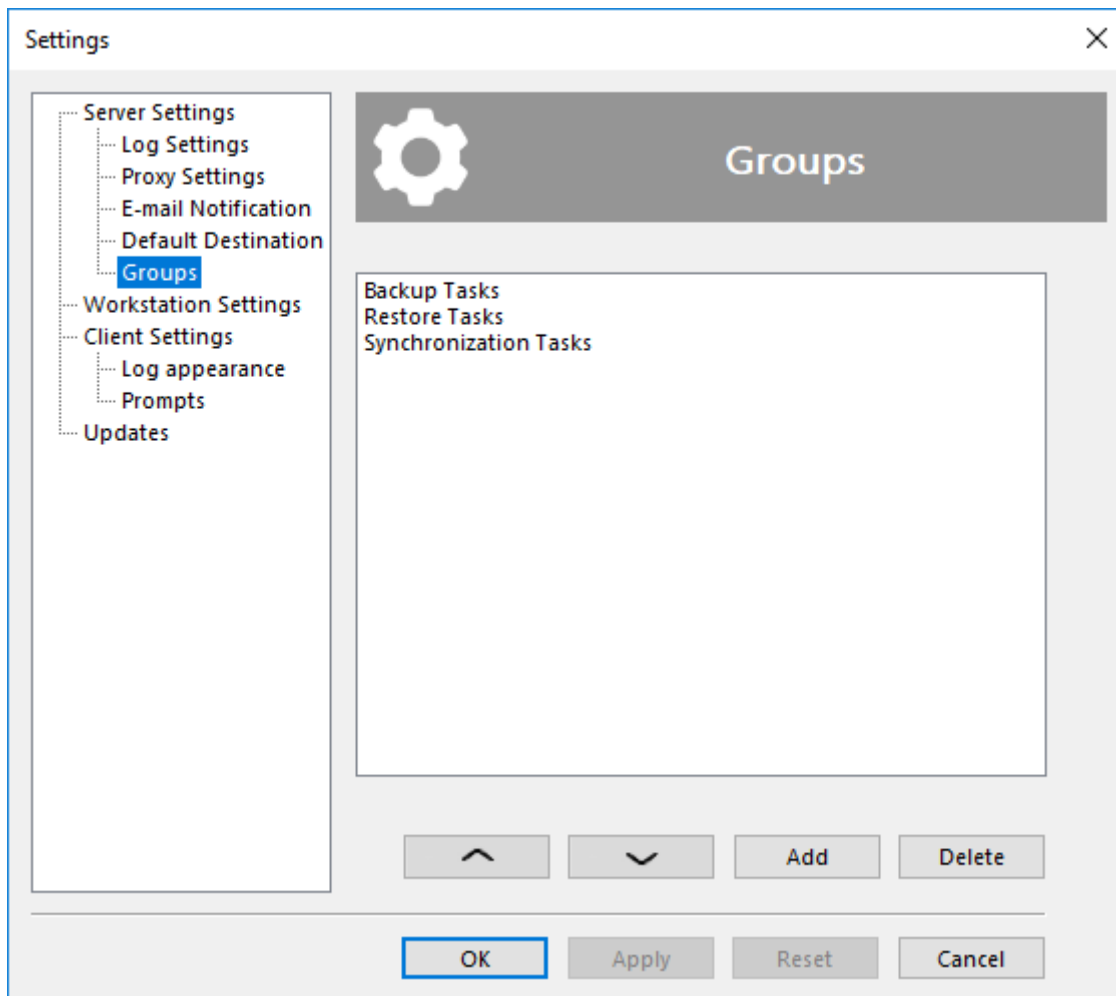


• Groups

This guide outlines the processes for adding and modifying task groups to make it easier to manage backup, recovery, and synchronization processes. It also explains how to assign a task to a group.

Adding and Managing Groups

To access the settings menu, click the gear icon on the top toolbar of the program, then select the **"Groups"** tab.



In this section, you can create or delete groups. You can rename a group by right-clicking on it.

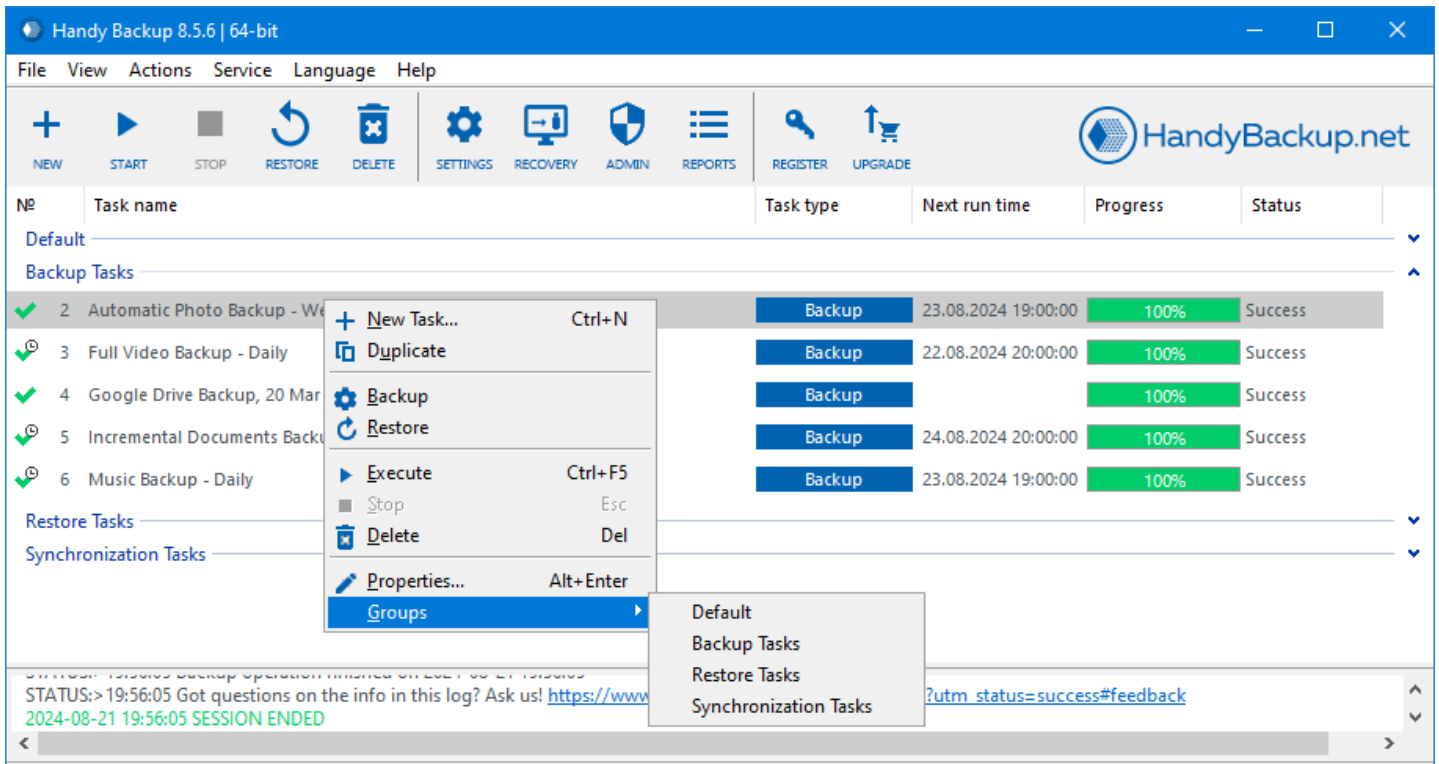
Keep in mind that group names are limited to 23 characters.

You can also rearrange the order of the groups by selecting a group and using the up and down arrows.

Organizing Tasks into Groups

By default, all tasks are placed in the **Default** group. To add a task to another group, go to the program's main screen, find the task you want to move, and right-click on it. In the context menu that appears, select the "Groups" option. Hover over this option to open a submenu with a list of available groups (to create a new group, refer back to the beginning of this guide), and select the desired group.

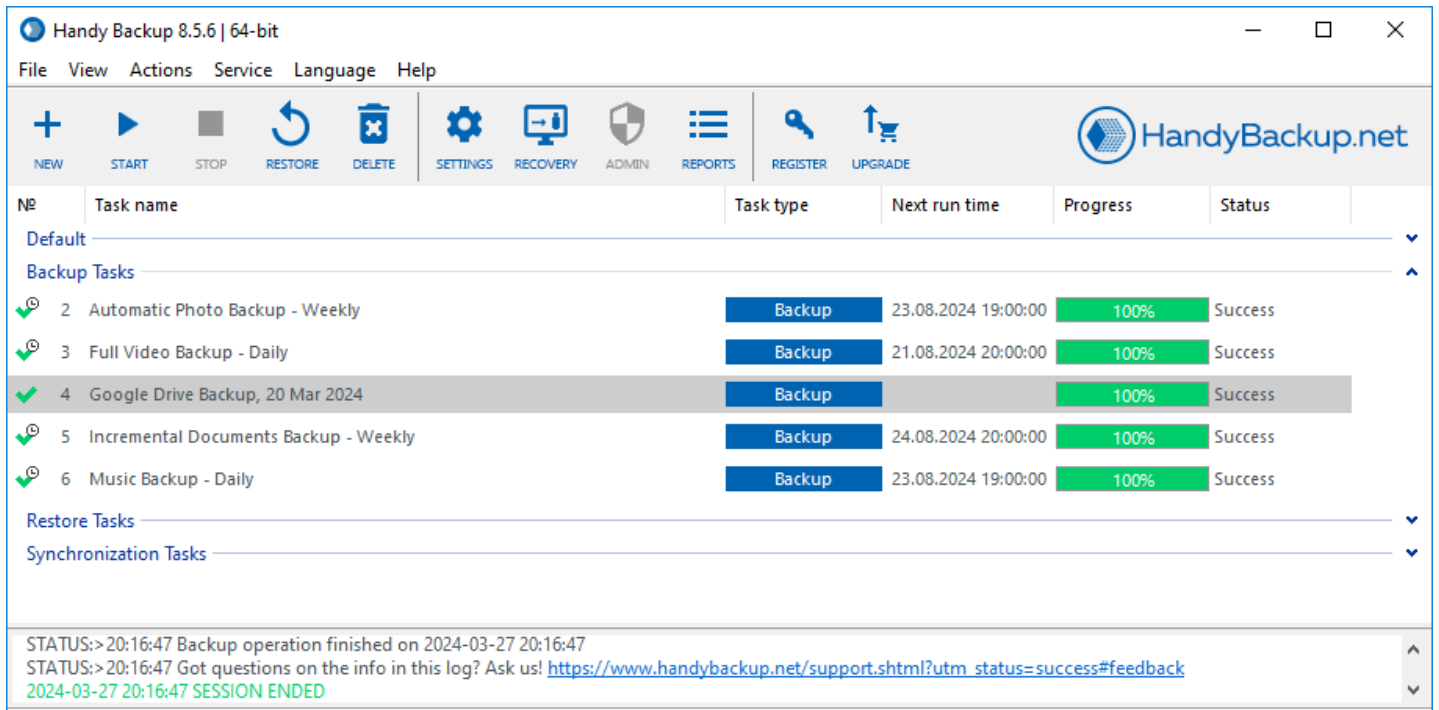
Handy Backup User Manual



Remember that the group assignment function is only available for **one task at a time**, so if you select multiple tasks, changes will only apply to the task where the context menu was invoked.

When a group is deleted, all tasks that were in it are moved back to the Default group.

On the main screen, you can collapse or expand a group by double-clicking on its name or by clicking the arrow to the right.

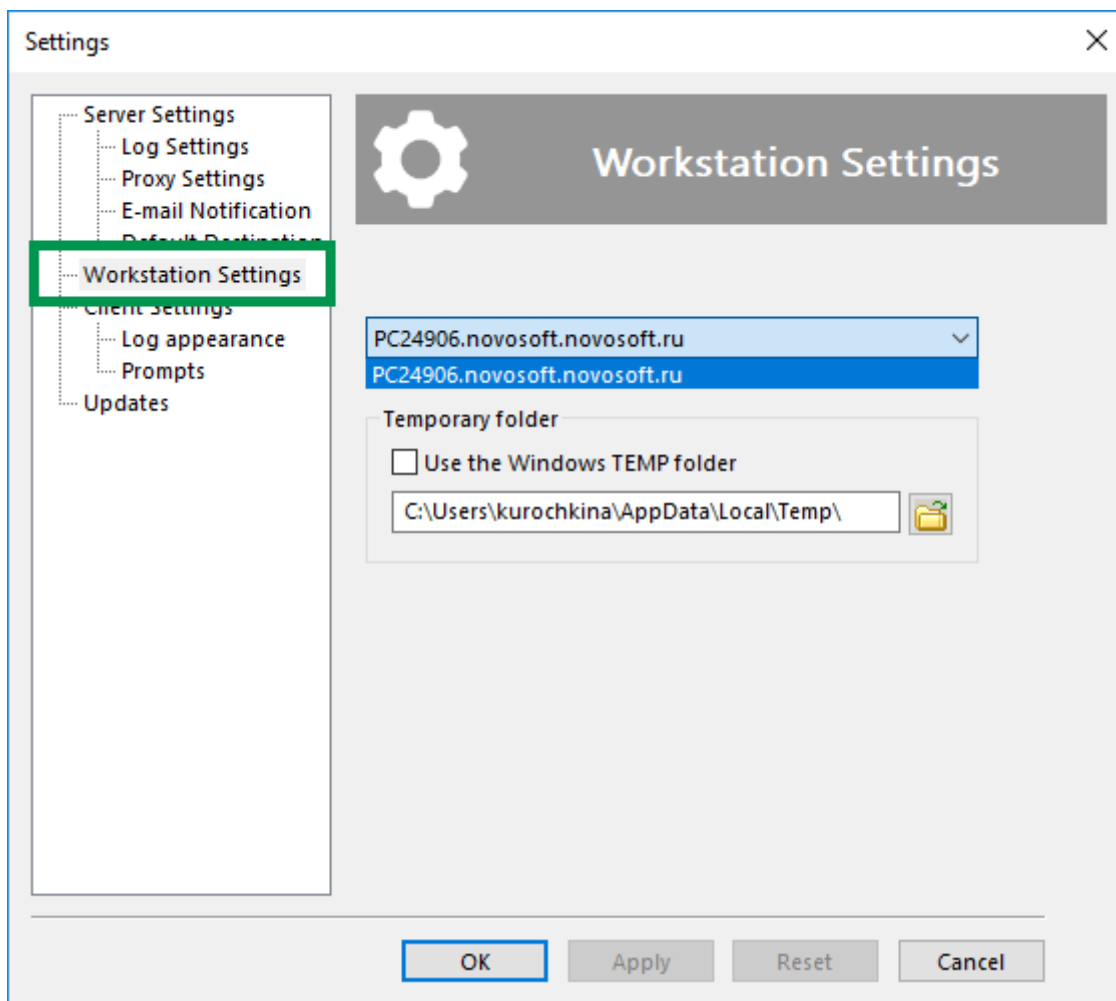


8.2 Workstation Settings

Sometimes, to make backups properly, you need to change a path to a temporary folder location from the default directory to some other destination.

The default temporary folder for your workstation has the following path:

C:\Users\%username%\AppData\Local\Temp



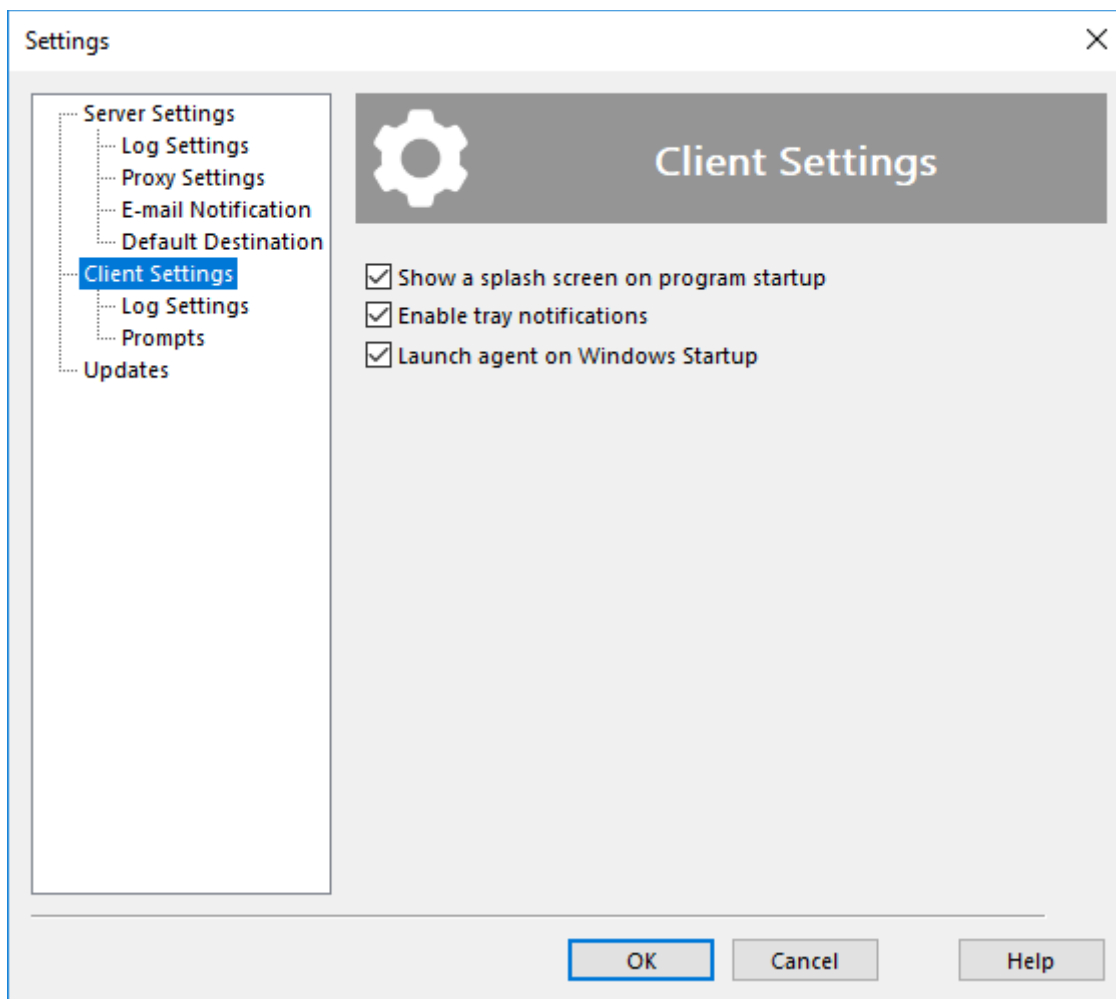
To change this destination, please go to the **Settings menu** (or place Alt+F7). Open the **Workstation settings** section.

To change the default path, unmark the checkbox called "**Use the Windows TEMP folder**", and then select a new path for your temporary files.

For the Server Network edition, this setting will configure temporary folder placement for any of your workstations. To choose a proper workstation, please use the drop-down list.

8.3 Client Settings

Technically, **Client** is a general name for component that connects to an instance of Handy Backup and allows accessing and managing tasks. In **Client Setting** you can change settings of the GUI Client (main application that you use to control the program).

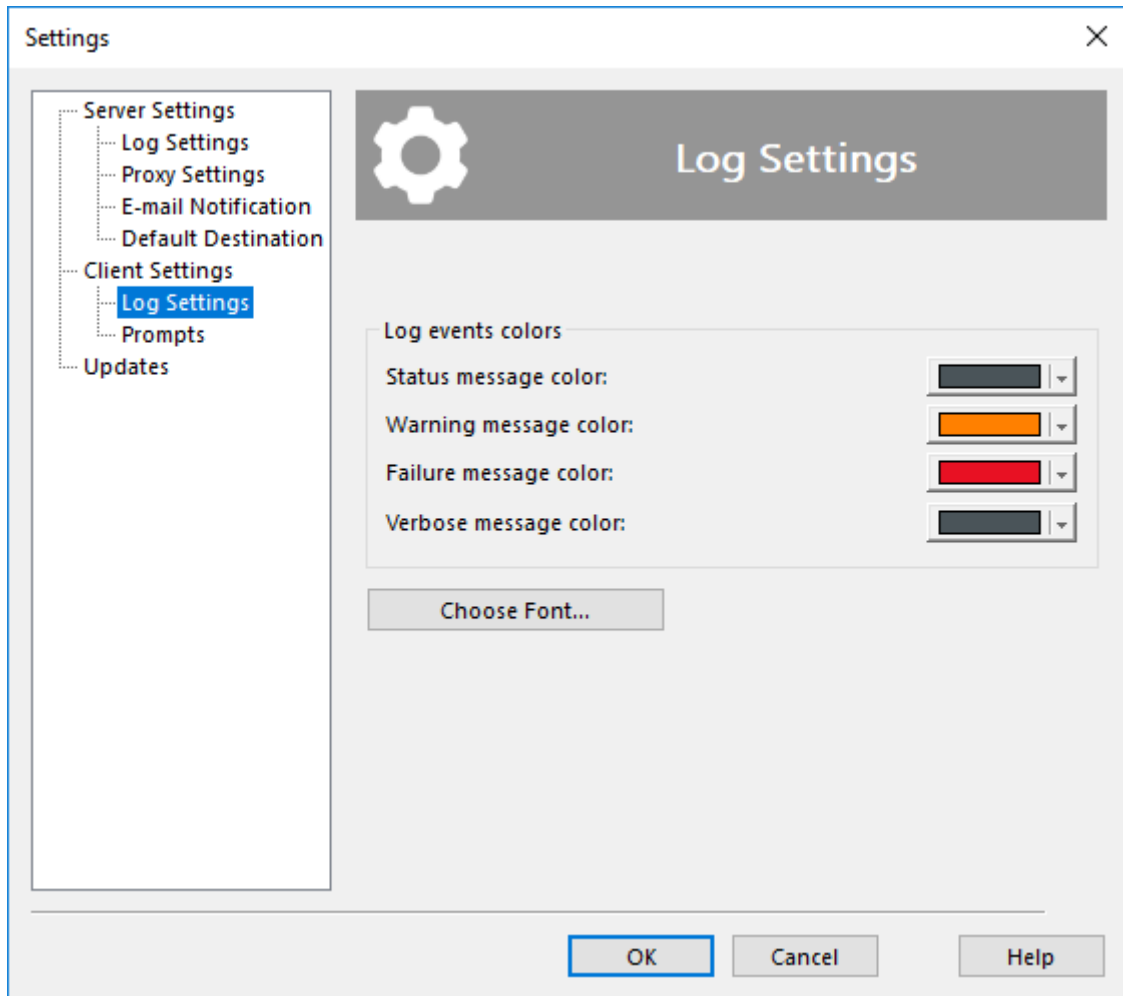


- Check **Show a splash screen on program startup** to display a splash screen indicating that the program is loading.
- Check **Enable tray notifications** to be notified of task results in system tray. The notifications appear only if main window of the program is closed.

The latter option, **Launch agent on Windows Startup** does nothing (temporary option, not removed since version 6 of the program).

• Log Settings

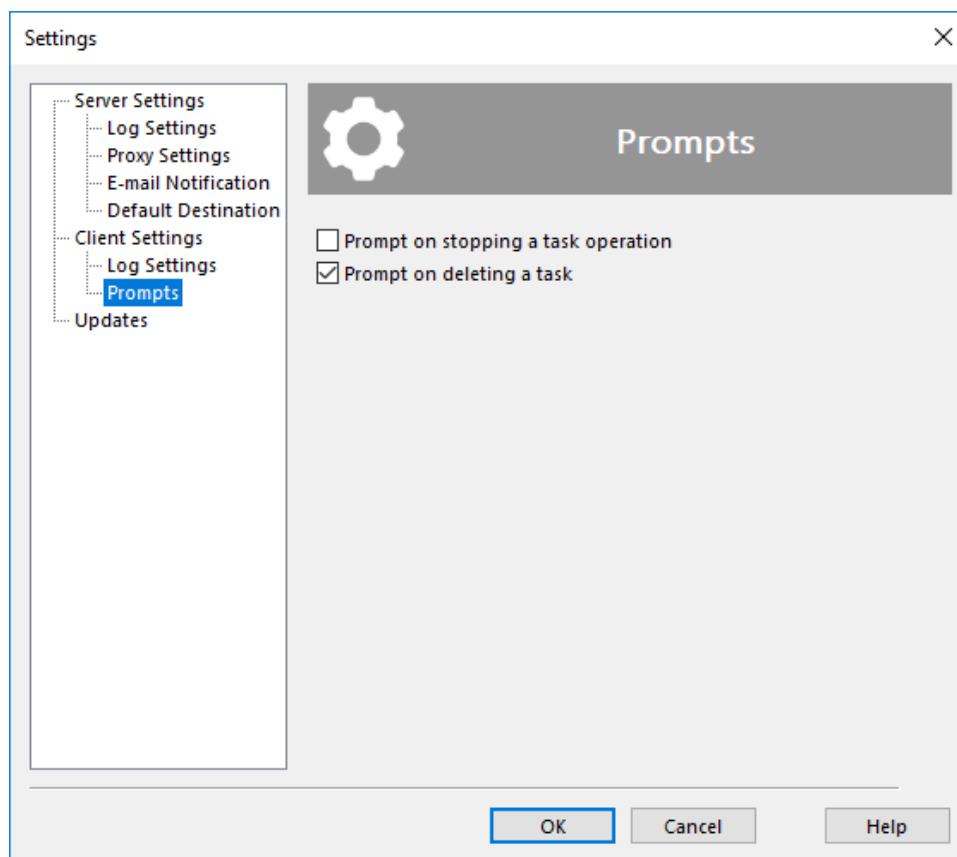
In **Log Settings**, you can select appearance of different messages appearing in the **Log View** pane of the program's main window.



These settings are client-specific. If you connect to the same instance of Handy Backup with a different client, the colors will be different.

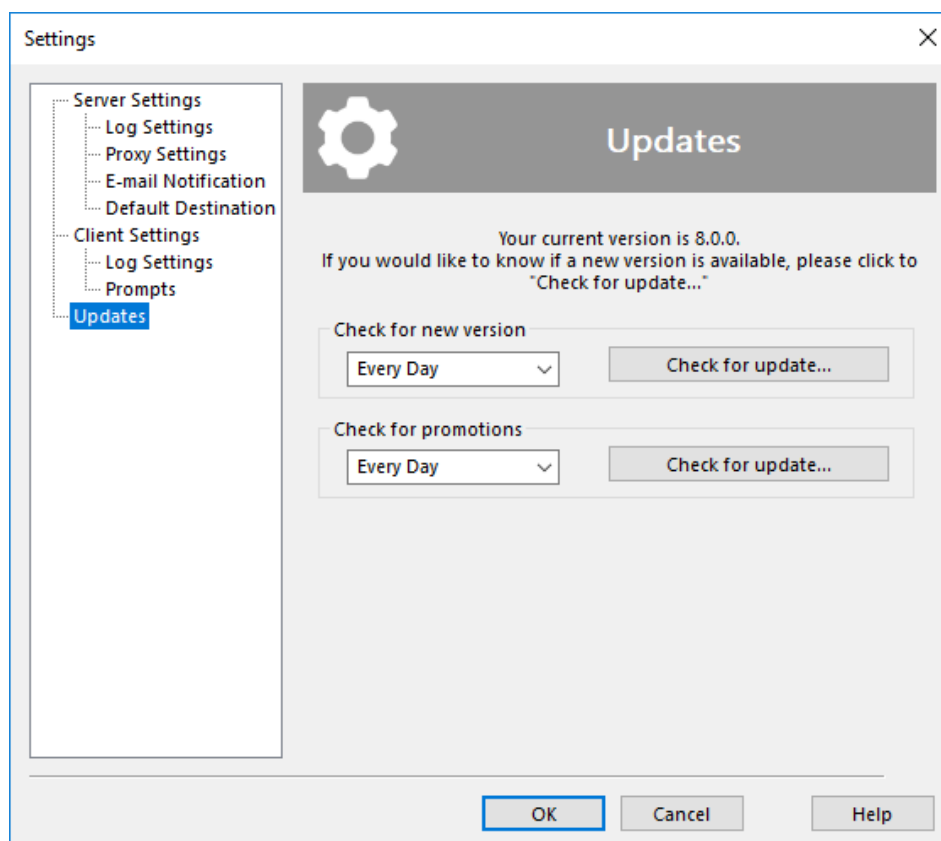
• Prompts

In **Prompts**, you can choose whether the program should ask for additional confirmation when stopping or deleting tasks.



8.4 Updates

In **Updates** you can check if there are new versions of the program, and adjust updates settings.



Click **Check for update...** to connect to the program's website and check if there are any updates available for download. You can also check for the new version manually, by visiting the following page:
www.handybackup.net/download.shtml

Select how often the application should check for new version:

- **Every Day**
- **Every Week**
- **Every 30 days**
- **Never**

Select how often the application should check for promotions:

- **Every Day**
- **Every Week**
- **Every 30 days**
- **Never**

9 Extras

In this section you can learn about other products and services based on Handy Backup:

- **Disaster Recovery.** Disaster Recovery is a separate module of the software, that can be installed on a USB drive and used for restoring system after major failures. It comes with four utilities: backup and recovery, antivirus, partition manager, and file undelete tool.

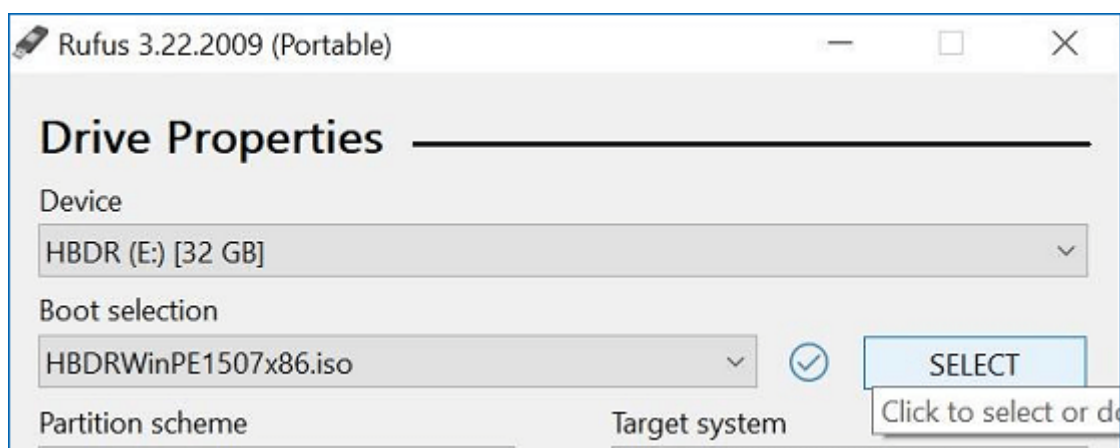
9.1 Disaster Recovery Utility: Installation and operation in the WinPE

Download HBDR image file (dl.handybackup.net/hbdr-winpe.iso) and any software that can format and create bootable USB flash drives (for example, Rufus, UNetbootin or WinUSB). In this manual we'll use portable version of Rufus as an example.

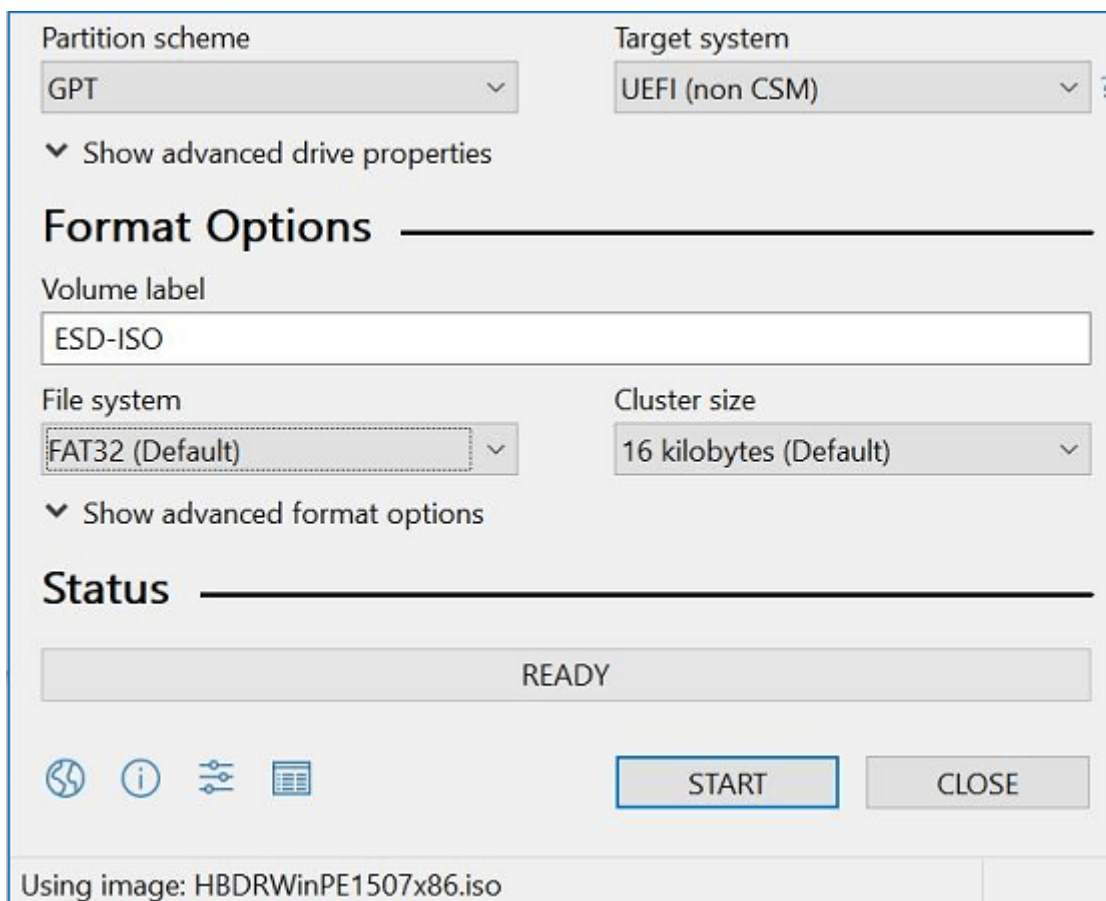
Obtain a USB flash drive with recommended capacity of 4gb or more.

Creating bootable flash drive

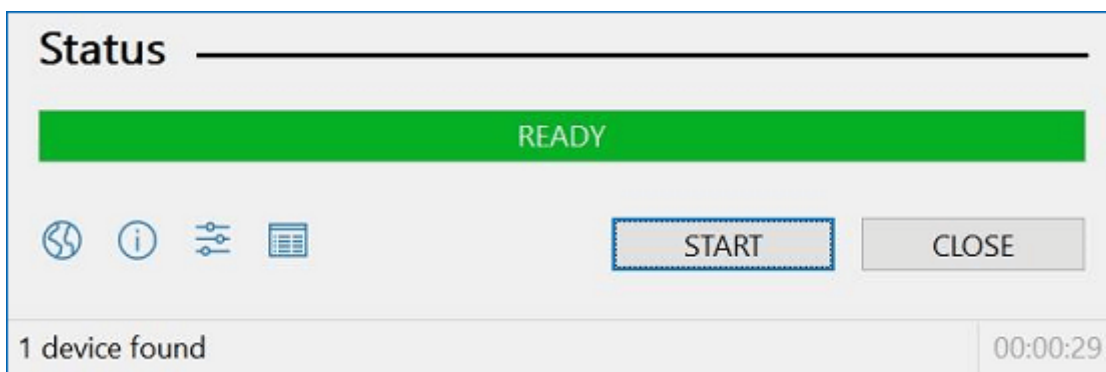
1. Plug your USB flash drive
2. Open Rufus
3. In "Device" drop-down menu choose your USB flash drive
4. In "Boot selection" drop-down menu choose "Disk or ISO image" and press SELECT to select HBDR image file.



5. At this point all other options can remain default



6. Press START and wait until formatting finishes



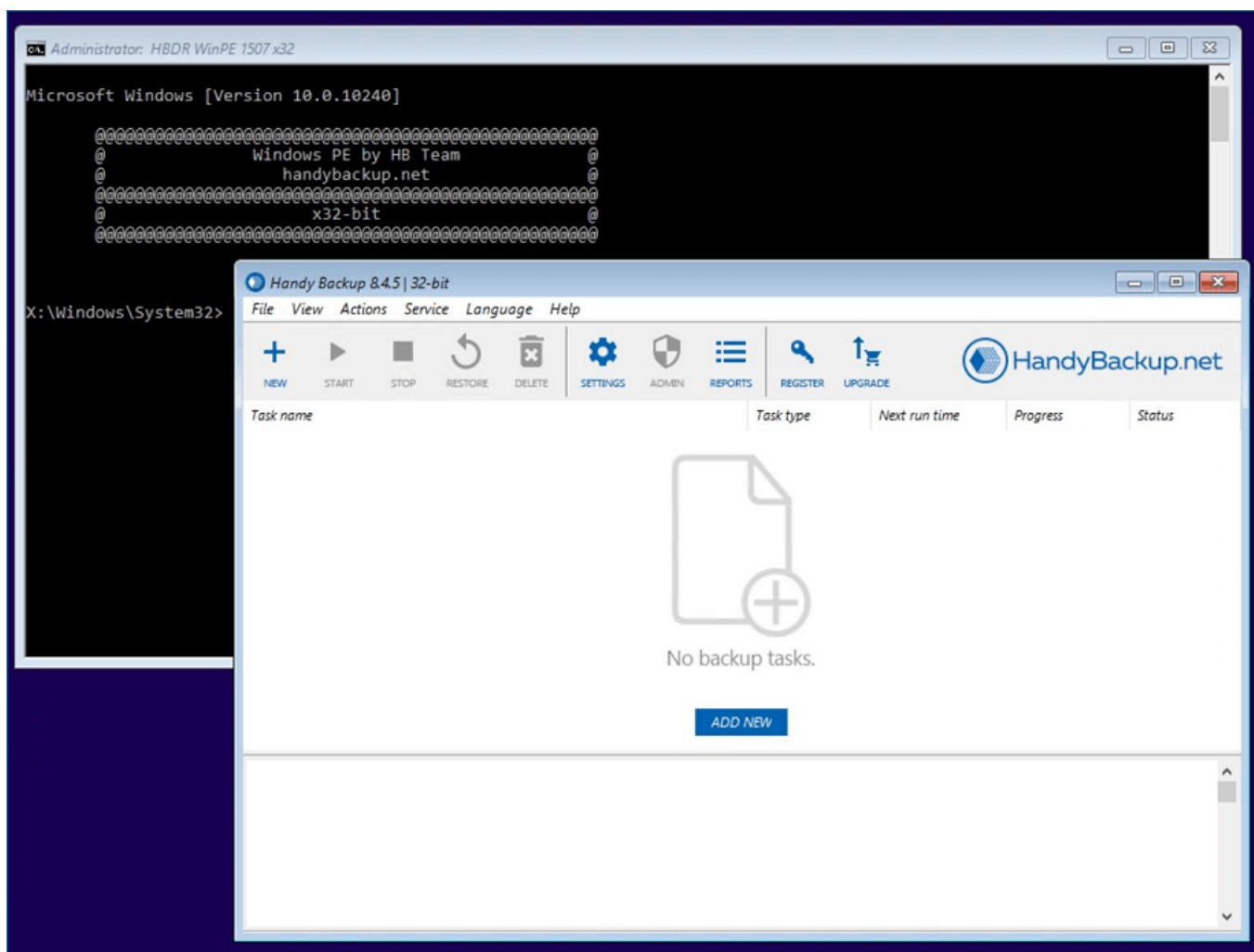
7. Your bootable USB flash drive with HBDR on it is ready.
8. Unplug USB flash drive

Restore your data

Turn off the PC that you want to restore data on. Plug your USB flash drive into that PC. Turn on that PC and while it's loading enter the **Boot Menu** and chose to boot from plugged USB flash drive.

After short load you'll see something like this:

Handy Backup User Manual



This version of Handy Backup is functionally similar to standard standalone edition. You can create restore\backup tasks as usual using same interface and with most of storage plugins available. You can restore from:

- another physical drive on the same PC using Computer plugin;
- you ftp server using FTP \ FTPS or SFTP plugins another PC;
- in your local network using Network or Computer plugins.

You can also perform backup of your files (if it's available in computer plugin) or whole disk if you need it before restoration.