

Hamster-Classic Vr. 1.3.21

Release Notes

Installation

Menus

Hamster-Scripts (*.hsc)

Hamster-Scripts Vr. 2 (*.hsc)

Hamster-Event-objects (Win32)

Hamster-Mutex-objects (Win32)

Automation (OLE)

Files and directories

File: IPAccess.hst

File: Scores.hst

File: MailFilt.hst

Error-codes and -messages

Links to Hamster-related sites and infos

Acknowledgements

License

--

See menu "Help / About ..." for additional information on this Hamster release (current maintainer, authors, download links etc.).

Release Notes

Note:

Starting with version 1.3.20, Hamster was released as Open Source, so there might be [slightly] different versions out there.

Starting with version 1.3.19, Hamster's former internal groups named "hamster.misc", "hamster.posted" and "hamster.errors" were replaced by one group named "internal.misc".

This was changed to not confuse YOU ;-) with other groups named "hamster.*", because "hamster" is planned to be used (and partly is already used) as the hierarchy-name for Hamster-related groups.

To continue with the former groups (not suggested), you have to add the following lines under [Setup] in file `Hamster.ini`:

```
internalgroup.default=hamster.misc
internalgroup.postok=hamster.posted
internalgroup.posterrors=hamster.errors
```

See "[Files and Directories](#)" for more details on these settings.

Starting with version 1.3.5, a new file-format is used for the history. If you are upgrading an older version of Hamster, the new files will be created automatically when starting the new Hamster for the first time. The old history-file "History.dat" in "Groups"-directory may (and should) be deleted.

Starting with version 1.3.3, it's not possible any more to access Hamster's NNTP- and POP3-servers without prior authentication. If you are upgrading an older version of Hamster, you have to enter a password for the default-account "admin" under "File/Configuration/Accounts" and use these settings for authentication in your news- or mail-client (i.e. "admin" as username and the password chosen).

Links to Hamster-related sites and infos

<http://www.onelist.com/subscribe/ehamster/>

Hamster mailinglist (english).

Hamster-Mailingliste (englisch).

<http://www.onelist.com/subscribe/fhamster/>

Hamster mailinglist (french).

Hamster-Mailingliste (französisch).

<http://www.elistas.net/foro/hamster/>

Hamster mailinglist (spanish).

Hamster-Mailingliste (spanisch).

<http://www.onelist.com/subscribe/usehamsternet/>

Hamster mailinglist (german).

Hamster-Mailingliste (deutsch).

<http://www.alphalink.com.au/~johnf/hamster.htm>

Additional description for Hamster-setup and configuration; especially (but not only) for use with Forté Agent by John Fitzsimons.

Ergänzende Installations- und Konfigurationshinweise von John Fitzsimons (englisch).

<http://funix.free.fr/informatique/windows/hamster.htm>

Additional description for Hamster-setup and configuration by Olivier Hoarau (french).

Ergänzende Konfigurationshinweise von Olivier Hoarau (französisch).

<http://hamster.ist-super.de/>

<http://home.t-online.de/home/micha-wr/hamster/index.htm>

Many Hamster-related informations and a^Hthe script-archive (in german) by Michael Gebert.

Viele Infos zu Hamster und ein^H^H^Hdas Scriptarchiv von Michael Gebert.

<http://www.elfden.co.uk/>

English translation of Michael Gebert's page (see above) by elfin.

Englische Übersetzung von Michas Seite (s.o.) von elfin.

<http://www.planet-interkom.de/ulehmann/index.html>

Documentation for Hamster in german by Uwe Lehmann, Joerg Behrend and Christian Fritz.

Deutschsprachige Hamster-Beschreibung von Uwe Lehmann, Joerg Behrend und Christian Fritz.

<http://home.pages.de/~heikor/>

Additional programs and useful WSH-enhancements by Heiko Rost.

Zusatzprogramme und nützliche WSH-Erweiterungen von Heiko Rost.

<http://home.wtal.de/fritzwww/hamster/>

German translation of this helpfile by Christian Fritz.

Deutsche Übersetzung dieser Hilfedatei von Christian Fritz.

<http://home.knuut.de/tgl/>

Additional Hamster-tools by Thomas G. Liesner (german).

Hamster-Zusatztools von Thomas G. Liesner.

<http://www.fortunecity.de/kraftwerk/prodigy/261/>

"Laufrad" by Wolfgang Krietsch.

"Laufrad" von Wolfgang Krietsch (englisch).

<http://www.x501.de/hamster/>

Hamster-related informations by Jürgen Denzler (german).

Infos zu Hamster von Jürgen Denzler.

Acknowledgements

The "regular expression"-routines used in Hamster use a Win32-port of "**Perl-Compatible Regular Expression (PCRE)**" written by **Philip Hazel** (<ph10@cam.ac.uk>), Copyright (c) 1997-2000 by University of Cambridge (see <ftp://ftp.cus.cam.ac.uk/pub/software/programs/pcre/> for more details) .

Although the wrapper-class used for PCRE uses a slightly different approach, parts of it are at least inspired by the concepts used in "**uperlre**". "uperlre" is a wrapper-class for PCRE written by **Luu Tran** (<luu@xnews.3dnews.net>), author of "XNews"-newsreader (see <http://xnews.3dnews.net/> for more details).

Thanks! : -)

License

=====

Hamster, a free news- and mailserver for personal, family and workgroup use.
Copyright (c) 1999, Juergen Haible (<juergen.haible@t-online.de>).

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

=====

--

See menu "Help / About ..." for additional information on this Hamster release (current maintainer, authors, download links etc.).

Installation

Install Hamster

Unzip the files to the desired directory and start "hamster.exe" - that's it.

This works for new installations and updates of older Hamster-versions.

Setup a password for Hamster's "admin"-account

To access Hamster with a news- or mail-client, you first have to provide a password for the default "admin"-account.

To do this, select menu "File / Configuration" and go to the page named "Local accounts". The list on this page contains one selected account named "admin, Hamster Administrator". Press the "Edit"-button to show its settings.

To change the password for the account, press the "Change"-button next to the "Password"-field and enter the desired string. After closing the account-window with the "OK"-button, the "Password:"-field should show "{SET}".

Setup your newsreader

To access the newsserver-part of Hamster with a newsreader, you have to configure it with a newsserver-name and appropriate authentication-information.

One newsserver-name, that always works, is `127.0.0.1`, which is an IP-address pointing to the current computer. In most cases, the name `localhost` should work, too.

The required settings for authentication are username `admin` and the password you have assigned to this account in the step above.

If the settings are correct, you can connect to Hamster now and get the list of available newsgroups. The list should contain the predefined local group named `internal.misc`. Try to post an article to the group `internal.misc` and see, if you get your article back when pulling new news.

Setup your mail-client

Similar to the setup of the newsreader, you can use `127.0.0.1` or `localhost` for the names of the mailservers. Use this name for both servers, i.e. for POP3 (receive mails) and SMTP (send mails).

Again, the required settings for authentication (POP3 only) are username `admin` and the password you have assigned to this account.

If the settings are correct, you can connect to Hamster now. Try sending a mail to one of the addresses noted below and see, if you get your mail back from Hamster.

Here are some examples of addresses, which will be kept local and won't be sent out with Hamster's

default-settings:

```
admin    (i.e. without a trailing "@"-part)
admin@hamster
admin@localhost
admin@127.0.0.1
admin@[127.0.0.1]
admin@something.invalid
```

All of these addresses result in a (local-only) mail to Hamster's `admin`-account. The only reason for giving some alternatives here, is, that some mail-clients might refuse some of these addresses. Just try the addresses from top to down and use the first format, your mail-client accepts.

And now you are ready to ... enter the unfinished quick&dirty-part of the helpfile:

Loading news

The following steps are necessary, if you want Hamster to get the list of available groups from the newsserver of your provider and to subscribe to some of them:

- Select menu "File / Configuration" and add your newsserver(s) on page "Newsserver"
- (Go Online)
- Select menu "Online / All servers (News+Mail)" to load the list of available groups (this may take some time; wait until "Threads: 0" is shown again in the lower left corner of the screen).
- (Go Offline)
- Select Menu "File / Configuration" again and add your favorite groups on the "News-Pulls"-page.
- (Go Online)
- Select menu "Online / All servers (News+Mail)" again to load the articles.
- (Go Offline)
- Start your newsreader, refresh the newsgroups list, subscribe to the groups and load new articles.

Menus

Menu: File

- Configuration
 - [Newsserver](#)
 - [Newsgroups](#)
 - [News-Pulls](#)
 - [Mailserver](#)
 - [Passwords](#)
 - [Local Accounts](#)
 - [Local Servers](#)
 - [Settings](#)
 - [Online-Menu](#)
- Killfile-Log/-Settings
 - [Killfile-Log](#)
 - [Killfile-Settings](#)
- [Rebuild global lists](#)
- [Purge all groups](#)
- [Rebuild history](#)
- [Clear counters+log](#)
- [Refresh menu items](#)

Menu: Online

- [1-9: ???](#)
- [All servers \(News+Mail\)](#)
- [Stop all tasks](#)

Menu: Script

- [\(available script-files\)](#)
- [Edit](#)
- [Edit modules](#)
- [Stop all scripts](#)

Menu: Local

- [Start/Stop Newsserver \(NNTP\)](#)
- [Start/Stop Mailserver \(POP3\)](#)
- [Start/Stop Mailserver \(SMTP\)](#)

Menu: File / Configuration / Newsserver

Load news from (Server, Port):

Here you have to define the newsservers, where you want to pull articles from or post articles to.

To add a new newsserver, press [\[Add\]](#) and enter the name of the newsserver and the port-number to use, both separated by a single comma (e.g. "news.myprovider.com,nntp"). The list of available newsgroups for new servers will be loaded automatically the next time you go online.

To override some default-settings for a newsserver, select it in the list and press [\[Settings\]](#). This page also allows (re-) loading the list of available groups and their descriptions.

To delete a newsserver, select it in the server-list and press [\[Delete\]](#).

Preferred Post-Server:

Posted articles will only be sent to the newsserver, where the given newsgroup is pulled from. If you pull the group from different servers, the first server in the list above is used. To override this behaviour, you can select a "preferred post-server", which will always be used for posting, if the given groupname is pulled from it.

To select this "preferred post-server", select a newsserver in the server-list and press [\[Select\]](#).

Menu: File / Configuration / Newsgroups

Available newsgroups:

This is the list of available newsgroups, you can read from Hamster with your newsreader. Groups, that are not listed in "News-Pulls" too, are assumed to be local-only (i.e. posted articles will not be posted to other newsservers).

One local newsgroup is always created by default: "`internal.misc`". This group is used to store reports and notifications created by Hamster.

To add a group by selecting it from the grouplist[s] loaded from the newsserver[s], press `[Add/Select]`.

To add a group manual, press `[Add/Local]` and enter the groupname.

To override some default-settings for a group, select it in the list and press `[Settings]`.

To delete a newsgroup, select it in the server-list and press `[Delete]`.

Menu: File / Configuration / News-Pulls

Groups to pull from server (groupname,servername) :

This is the list of newsgroups, which are pulled from newsservers. Each entry in the list is a combination of a newsgroup-name and a server-name, and it means, that the given group should be pulled from the given server.

Normally it should be sufficient, to pull a group from only one server (the "fastest"/"best" server), but you might also define additional entries for a group.

To add new news-pulls, press **[Add]** and select a combination of groupname and newsserver from the presented lists (if the lists are empty, you have to go online and start a transfer first, to load the list of available groups).

After finding and selecting the wanted groups in the upper part of the window, press **[Find pulls]** to get a list of available pulls for the selected groups. To subscribe to some of them, select the wanted pulls in the lower part and press **[OK]**.

To delete a news-pull, select it in the list and press **[Delete]**.

Menu: File / Configuration / Mailserver

[POP3] Load mails from (Server, Port):

Here you can define the mailservers, where you want to load mails from by POP3.

To add a POP3-server, press [\[Add\]](#) and enter the name of the POP3-server and the port-number to use, both separated by a single comma (e.g. "[pop.myprovider.com,pop3](#)").

To delete a POP3-server, select it in the list and press [\[Delete\]](#).

[SMTP] Send mails to (Server, Port):

Here you can define the mailservers, where you want to send mails with by SMTP.

To add a SMTP-server, press [\[Add\]](#) and enter the name of the SMTP-server and the port-number to use, both separated by a single comma (e.g. "[pop.myprovider.com,smtp](#)").

To delete a SMTP-server, select it in the list and press [\[Delete\]](#).

Note:

If a server requires authentication with SMTP AUTH, you have to create/edit the file named ".\Servers\
(*servername*)\Server.ini" and add the line "AUTH=1" under section "[SMTP]" (see "[Files and
directories](#)" for details).

Preferred Send-Server:

This is the default SMTP-server used for sending mails. It is always used, if it is not "excluded" by a definable "[Online-Menu](#)"-item used to start a transfer.

To select this "preferred send-server", select a SMTP-server in the list and press [\[Select\]](#).

Menu: File / Configuration / Passwords

Username and passwords for servers, RAS-connections and scripts:

Here you can set the usernames and passwords for the defined news-/mail-servers and for your RAS-dialups. The settings for the RAS-connections are only needed, if Hamster should be able to dial by itself.

The additional settings named "\$1", "\$2", ..., "\$99" are "general-purpose"-passwords, which can be used in some script-commands. Instead of noting usernames and passwords in clear-text in the scripts, one of these settings can be used by using "\$number" for the username and leaving the password field empty.

There are three different states, a password setting can have. They are displayed as:

- "{ASK}" Hamster will ask you for username and/or password when needed.
- "{SET}" Username and/or password is set and stored in "Password.!!!" (see notes below).
- "{NONE}" Username/password is empty, i.e. not needed (e.g. authentication by IP-number).

To edit the settings of an item, select it in the list and press **[Edit]**.

To clear username and password (i.e. set both to "{NONE}"), select the according item in the list and press **[Clear]**.

Using APOP-authentication for POP3 servers:

To use APOP for authentication, the password has to be preceded with "APOP:". If your password "accidentally" starts with "APOP:", you may force USER/PASS-authentication by preceding it with "PASS:".

Examples:

secret	=>	Uses USER/PASS with password "secret" (default)
APOP:secret	=>	Uses APOP with password "secret".
PASS:APOP:secret	=>	Uses USER/PASS with password "APOP:secret".
PASS:PASS:secret	=>	Uses USER/PASS with password "PASS:secret".

Using AUTH-authentication for SMTP servers:

If a SMTP server requires authentication with AUTH, you have to additionally create/edit the file named ".\Servers\(*servername*)\Server.ini" and add the line "AUTH=1" under section "[SMTP]" (see "[Files and directories](#)" for details).

Important notes:

The password-settings will be saved in the file "Password.!!!".

Do **NOT** send this file to me or anybody else, even if you have login- or other problems!

The entries in "Password.!!!" are coded with "Blowfish"-algorithm. The key used to code the data is a combination of fixed items and different OS-settings like PC-Name, OS-version etc.

The stored and coded data consists of username and password, and it is indexed by a hash-value for the according server-/RAS-name (i.e. this name is not stored in plain-text, but in a form, to find the entry again when needed).

If this all sounds "safe", be aware, that it is NOT really!

Even if the key depends on the PC where it was generated, the items used are in fact "guessable"!

But hey, other programs use XOR or ROT13 to code such things ... ; -)

Menu: File / Configuration / Local Accounts

Name, Full name, Password:

Here you can create and modify the local user-accounts, which will be used for authentication when accessing the local servers.

To add a new account, press **[Add]**. The settings of the selected account will be used as defaults for the new account.

To edit the settings of an account, select it in the list and press **[Edit]**.

To delete an account, select it in the list and press **[Delete]**.

Account-settings:

The **User-ID** is just a unique number to identify the account. It is assigned by Hamster when creating the account and can't be changed.

Username and **Password** are used for authentication when the user logs in to the local NNTP- or POP3-server. The (also unique) **Username** is assigned when the account is created and can't be changed afterwards. To change the **Password**, press **[Change]**.

Full name has no special meaning. You can use it to identify the account, e.g. "John Doe (news-only)".

Local NNTP-server:

The setting "**Groups, the user may read**" determines, which groups are visible to and readable by the user, and the setting "**Groups, the user may post to**" determines, to which of these "visible/readable" groups the user may post to. The format of both settings is described below under "Group-selection".

Local POP3-server:

The setting "**User has a POP3-mailbox**" determines, if the account has a local POP3-mailbox. Accounts without a POP3-mailbox can't receive mails from Hamster.

If "**Local mail-addresses**" are specified, all mails for these addresses received by the local SMTP-server are not sent out, but delivered locally to the user. Multiple addresses must be separated with a single space-character, e.g. "john.doe@provider.one jd@provider.two".

Local SMTP-server:

If "SMTP-after-POP3" is enabled for the local SMTP-server, the setting "**User may send mails**" determines, if the user is allowed to send mails.

Group-selection

The group-selection consists of a list of regular expressions, each expression separated by one space-character. The expressions are tested from left to right and the first matching regex-pattern determines, if a groupname is OK or not. If a regex-expression is preceded by a "!", this means "not", so the result is inverted.

Examples:

Selection: . *
Meaning: All groups are allowed.

Selection: ! . *
Meaning: No groups are allowed (as this is default, the field can remain empty in this case).

Selection: `!^internal\.*`
Meaning: All groups except Hamster's internal groups are allowed.

Selection: `.* !^internal\.`
Meaning: All groups are allowed (remember: first matching pattern determines the result, and ".*" always matches all groups).

Selection: `^de\.* !^internal\.*posted ^internal\.`
Meaning: All "de"-groups and all "hamster"-groups except "internal.posted" are allowed.

Special account "nntpdefault":

If an account with username "nntpdefault" and password "*" is created, its NNTP-settings will be used, if user accesses the local NNTP-server without prior authentication.

Menu: File / Configuration / Local Servers

Newsserver (NNTP):

Autostart, Port:

When "Autostart" is marked, the local NNTP-server (=pull and post USENET-news from/to Hamster) is started automatically on the specified "Port"-number when Hamster is loaded. The default port-number for NNTP is "119".

Generate Message-ID:

If this setting is marked, Hamster will add a unique Message-ID to a posted article, if it was posted without one (i.e. Hamster does not overwrite existing Message-IDs).

The local-part of the Message-ID consists of coded values for current time, task-number and a counter per time (similar to Message-IDs generated by INN), which is unique for your local PC.

The domain-part is your unique FQDN, which you have to enter under "Local Domains" (see below).

Allow POST with unknown groups:

By default, all articles (cross-) posted to "unknown groups" (i.e. groups not available through Hamster) are rejected.

If this setting is marked, postings with syntactically correct newsgroup-names are accepted, even if they are not "known" by Hamster. As this allows postings in ALL groups, it is NOT recommended in multiuser-environments!

The following restrictions apply, even if this setting is marked:

- one of the groups has to be a "known" one
- max. 2 "unknown" groups are allowed, if no "Followup-To" is set.
- max. 5 groups are allowed, if no "Followup-To" is set.

Days to keep data (Articles, History, Killfile-Log):

Here you can set, how many days Hamster will keep data. By now, this setting means "minimal" days, as you have to start the purging of old data manually ...

"Articles":

This setting controls, how long the articles itself are stored, based on date/time, when the article was loaded (i.e. the "Date:"-header is not relevant for this).

"History":

The "History" is a list of Message-IDs of already loaded articles, which is used to check, if an article has already been loaded from (another) newsserver. This file (".\Groups\History.dat") is kept completely in memory and each article has to be checked in this list before loading it.

Therefore, the higher this value, the more memory and (maybe costly) online-time is needed for Hamster. To give you a hint: My own history-file on a P133 is about 500 KB, and I have not noticed any problems so far with this size.

"Killfile-Log":

The "Killfile-Log" (".\Groups\Kills.log") is used to store the overview-information of articles, which were not loaded due to scorefile-settings. If you're not interested in observing them or loading some of them manually, you can set it to "0" days.

Mailserver (POP3):

Autostart, Port:

When "Autostart" is marked, the local POP3-server (=get collected mails from Hamster) is started automatically on the specified "Port"-number when Hamster is loaded. The default port-number for POP3 is "110".

Mailserver (SMTP):

Autostart, Port:

When "Autostart" is marked, the local SMTP-server (=send mails to Hamster) is started automatically on the specified "Port"-number when Hamster is loaded. The default port-number for POP3 is "25".

Generate Message-ID:

Same as for NNTP (see above).

SMTP-after-POP3:

Enables "SMTP-after-POP3", which means, that a connection is rejected, if there was no successful POP3-authentication from the same IP-address within the last 5 minutes (default; the duration can be changed in Hamster.ini).

SMTP AUTH:

Enables "SMTP authentication", which means, that the client has to authenticate before sending mails.

Local Domains:

FQDN for Message-ID:

Here you can enter your FQDN (Fully Qualified Domain Name), which uniquely identifies your PC. This setting is used for the domain-part of a Message-ID generated by Hamster.

Local mail-delivery, if domain-part of recipient matches this regex:

If the domain-part of a mail-recipient (the text following the "@"-character) matches the specified regular expression, the mail is not send out, but is "only" delivered locally.

If the local-part of the mail-address is the username of a local account and the account has a local POP3-mailbox, the mail is sent to this user, otherwise it is not rejected but forwarded to "admin" (this behaviour will be changed in a furture version).

The default-setting is:

```
.*hamster|\[?127\.0\.0\.1\]?|.*invalid
```

Examples for "local" addresses covered by this setting:

.*hamster	someone@something.hamster
\[?127\.0\.0\.1\]?	someone@127.0.0.1, someone@[127.0.0.1]
.*invalid	someone@nosпам.invalid

Note:

Addresses without a domain-part or domains without at least one dot (".") in it are always assumed to be local-only, regardless of this setting.

Menu: File / Configuration / Settings

Pull-Limit (default/empty group) :

Here you can limit the number of articles loaded per group in each online-session.

When loading articles for the first time (i.e. after a new group is added), the setting at "(empty group)" is used. Subsequent loads will use the "(default)"-setting.

Possible values are:

- "0" Load all available articles.
- >0 Only load the given number of newest available articles (e.g. "100").
- <0 Only load the given number of oldest available articles (e.g. "-100").

[X] Leave mails on server, i.e. do not delete them

If checked (=default), mails loaded by POP3-client of Hamster will not be deleted from any server. If unchecked, mails will be deleted after loading them, *unless* a server-specific setting is given in file Server.ini (setting "LeaveOnServer=1" under "[POP3]").

[X] Ignore already loaded mails, i.e. do not load them again

This function makes use of POP3's UIDL-command to recognize already loaded mails. If this option is checked and the server supports UIDL, mails will be loaded only once.

Hamster: [X] Start as icon

If checked, Hamster is minimized to a small icon in system-tray when started.

Hamster: [X] Minimize on close

If checked, Hamster is only minimized to a small icon in system-tray when then main-window is about to be closed. To really close Hamster, you have to use menu-item "File / Exit" then.

Session-logfiles to keep:

Each time Hamster is started, a new logfile (".\Logs\0.log") is created and the old ones are backup up by renaming them (old "0.log" becomes "1.log" and so on). This setting controls, how many of these old logs will be kept.

Logfile-lines to view:

This setting controls, how many logfile-lines are kept in memory and are accessible on the main window. This is only a "performance"-issue, as the update of the displayed list will take some time.

Save/View (Errors/Warnings/System/Info/Detail/Debug/Full) :

These settings control, which types of Hamster-messages are saved in the log-files ("Save") and which types are displayed in the main windows ("View").

Use "[X] Debug" only to get all details when you have any communication-problems and reset it afterwards, as this settings needs much space on disk (my "Highscore" is about 0,5 GB ... ;-).

Menu: File / Configuration / Online-Menu

Menu-item:

There are 9 definable items in the "Online"-menu. Each item defines a list of servers, which are "used", when the item is selected.

Title:

The text to display in the "Online"-menu.

Available / Selected servers:

Here you can select the servers to use from the list of defined news- and mailservers.

To select a server, mark it in the left list and move it to the right with [\[-->\]](#).

To unselect a server, mark it in the right list and move it to the left with [\[<--\]](#).

To save your changes, press [\[Save\]](#).

Examples:

"News"	-->	select all NNTP-servers.
"Receive Mail"	-->	select all POP3-servers.
"Send Mail"	-->	select all SMTP-servers.
"MyProvider-only"	-->	select all "MyProvider"-servers.

Menu: File / Killfile-Log

The killfile-log displays the overview-information of articles, which were not loaded due to scorefile-entries.

By clicking on one of the column-headers (Server, Group, Score, ...), the list will be sorted based on the values of this column. Identical values in this column will be sorted by up to two additional fields, which you can select with menu "File / Set sort-sequence..." (e.g. when sorting by "Group", a good sequence might be "Group, Subject, Date").

If you double-click a line with the left mouse-button, all available infos for the article are displayed.

The **context-menu** of the list (right-click above displayed lines) gives additional functions for the selected lines:

Select all:

Selects all lines, either for marking or deleting (see below).

Mark for retrieval:

Message-IDs of all selected articles are saved in file ".\Server\`(servername)`\getmids.txt". These articles will be loaded within next online-session for this server.

Delete...:

Deletes all selected entries.

Scorefile-Test:

The selected article is tested with the current scorefile. The function shows the resulting scorevalue and the list of matching score-lines.

Menu: File / Killfile-Settings

A (very simple) editor for the News-Scorefile (see: "File: Scores.hst").

Don't log articles if score is lower than: _____

If a final score-value is lower than the given value, the (unloaded) article is not logged in Killfile-Log.

Menu: File / Rebuild global lists

Builds the following lists immediately (normally, they are only build automatically when starting Hamster):

List of available news-pulls (. \Server\allpulls . txt):

This list contains all groups of all active newsservers including their descriptions. This is the list you can search in and select from when adding new "News-Pulls" and option "[X] Descriptions" is marked.

List of all newsgroup-descriptions (. \Server\alldescs . txt)

This list contains the descriptions of all groups. When adding a new "News-Pull", the description of the new group is loaded from this list.

Menu: File / Purge all groups

When selecting this function, old articles, history-entries and entries in the killfile-log will be deleted and the according files will be compacted.

The duration for keeping data can be defined under "Menu: File / Configuration / Settings".

Menu: File / Rebuild history

When selecting this menu-item, the history-file (".\Groups\History.dat") is deleted and rebuild by adding the Message-IDs of all articles stored in Hamster. Warning: This may take some time with thousands of articles.

Normally, there should be no need to start this menu-item, as history-entries are added and deleted automatically. If you have any problems with articles loaded more than once, you might try this function.

Menu: File / Clear counters+log

Resets the counters in the status-line and clears current logfile-display.

Menu: File / Refresh menu items

Refreshes the dynamically added menu items (i.e. server groups and single servers in Online-menu and available scripts in Script-menu).

Menu: Online / 1-9: ???

You can define up to 9 menu-items at "Menu: File / Configuration / Online-Menu".

When you select one of these items, transfer to/from the selected server starts.

Menu: Online / All servers (News+Mail)

This menu-items starts transfer from/to all defined news- and mailservers.

If you want to restrict transfer to specific servers (e.g. only newsserver), you have to use one of the definable menu-items.

Menu: Script

Script / (available script files)

Starts one of the available script files (*.hsc).

Please note, that all scriptfiles starting with "Demo-" are disabled and can't be started. These scripts are delivered with Hamster and would be overwritten when installing a new version of Hamster.

Script / Edit

Starts an editor with one of the available scripts (*.hsc).

By default, the Windows editor "notepad.exe" is used, but this can be changed with the "editor.*"-settings in file [Hamster.ini](#).

Script / Edit Modules

Starts an editor with one of the available script-modules (*.hsm).

By default, the Windows editor "notepad.exe" is used, but this can be changed with the "editor.*"-settings in file [Hamster.ini](#).

Script / Stop all scripts

Stops all currently running scripts.

Menu: Online / Stop all tasks

When selecting this menu-item, Hamster tries to stop all running tasks.

Yes, I really mean "tries to" ... ;-)

Menu: Local / Start/Stop Newsserver (NNTP)

If this menu-item is marked, the local newsserver (NNTP) is currently running. This means, that you can pull news from and post news to Hamster with your newsreader.

When you select the menu-item, the server will be stopped, if it's running or will be started, if it's stopped.

To automatically start the server when Hamster is loaded, you can activate this under "Menu: File / Configuration / Settings".

Menu: Local / Start/Stop Mailserver (POP3)

If this menu-item is marked, the local mailserver (POP3) is currently running. This means, that you can pull mails from Hamster with your mailprogram.

When you select the menu-item, the server will be stopped, if it's running or will be started, if it's stopped.

To automatically start the server when Hamster is loaded, you can activate this under "Menu: File / Configuration / Settings".

Menu: Local / Start/Stop Mailserver (SMTP)

If this menu-item is marked, the local mailserver (SMTP) is currently running. This means, that you can send mails to Hamster with your mailprogram.

When you select the menu-item, the server will be stopped, if it's running or will be started, if it's stopped.

To automatically start the server when Hamster is loaded, you can activate this under "Menu: File / Configuration / Settings".

Hamster-Scripts (* .hsc)

Please note:

These old-style scripts will be removed in a future version. It is suggested not to use them any more and to use the new-style scripts instead.

Purpose:

The built-in Hamster-Scripts provide an easy-to-use method for starting common tasks.

Commands:

quit

Stops execution of script.

restart

Restarts script from beginning.

call "scriptname.hsc"

Loads and executes the given script. After the sub-script has finished, the parent script is continued after the "call"-line.

wait.delay milliseconds

Waits the given amount of milliseconds (1/1000 seconds).

Example: `wait.delay 5000`

wait.until timepoint1 timepoint2 timepoint3 ...

Waits until one of the given timepoints. The timepoints have to be in format "hh.mm".

Example: `wait.until 02.00 08.00 12.00 18.00 21.00`

wait.idle

Waits until all active tasks (like purging, pulling news, sending mails etc.) have finished.

Example: `wait.idle`

mail.pull ["ServerList"]

Starts the thread, which first fetches new mails from the mailservers and then sends out mails (if any).

If you omit `ServerList` or set it to an empty string (""), all POP3- and SMTP-servers defined in Hamster may be used. Otherwise, transfer is restricted to the given servers.

If used, the `ServerList` has to consist of a semicolon-separated (" ; ") list of servernames. The servernames have to be in the same format as displayed in the Hamster-settings (i.e. servername + " , " + port).

Example: `mail.pull`

Example: `mail.pull "mail.aaa.com,pop3;mail.bbb.com,pop3;mail.aaa.com,smtp"`

fetchmail Server Port User Pass DestUser

Starts a thread, which fetches mails from the given POP3-server (`Server`, `Port`).

If `User` and `Pass` are given, they will be used to login to the server, if they are both empty, the password-setting for the given server is used. Furthermore, one of the stored "general-purpose"-passwords can be used here to avoid noting it in clear-text in the script (`User="$ (number) "`, `Pass=""`).

If `DestUser` is given, fetched mails will be stored in the mailbox of this user, "admin"-mailbox is used otherwise. The name may optionally be followed by a comma and an identifier, which determines the filter-section to use for the mails fetched with this commands (default is global filters only, i.e. "[*]"-section in MailfFilt.hst).

Examples:

```

fetchmail "pop3.serv.er" "" "" "" ""
fetchmail "pop3.serv.er" "pop3" "john.doe" "secret" "john"
fetchmail "pop3.serv.er" "10110" "$7" "" "jane"
fetchmail "pop3.serv.er" "pop3" "$7" "" "admin,myfilters"

```

sendmail Server Port FromSelection

Starts a thread, which sends mails to the given SMTP-server (Server, Port).

If no FromSelection is given, all mails waiting for delivery are sent. If a selection is given (regular expression), only mails with a matching Envelope-From are sent to this server.

Examples:

```

sendmail "smtp1.serv.er" "smtp" "john\.\doe@serv\.\er"
sendmail "smtp2.serv.er" "" ""

```

news.post ["ServerList"]

Starts the thread, which posts new articles (if any).

If ServerList is set to an empty string (""), all NNTP-servers defined in Hamster may be used.

Otherwise, transfer is restricted to the given servers (see mail.pull for details on the ServerList-format).

news.pull ["Serverlist"]

Starts the threads, which pull new articles from newsservers.

If ServerList is set to an empty string (""), all NNTP-servers defined in Hamster may be used.

Otherwise, transfer is restricted to the given servers (see mail.pull for details on the ServerList-format).

news.purge [PurgeOptions]

Starts a purge-thread (i.e. the deletion of old data).

The bit-oriented parameter PurgeOptions describes, which old data should be deleted (bit0=1=articles, bit1=2=history-entries, bit2=4=killfile-log, bit3=8=mailhistory-entries). If you omit this value, all types of old data will be "purged".

Example: news.purge

Example: news.purge 15

news.rebuildhistory

Starts a thread, which deletes the current history-file (".\Groups\History.dat") and rebuilds it by adding the Message-IDs of all articles stored in Hamster.

Note: This may take some time with thousands of articles, so it should only be used, if it's *really* necessary! Be sure to wait until Hamster is idle again (wait.idle) after calling this function!

news.rebuildgloballists

Starts a thread, which rebuilds some lists needed by Hamster (see "[Menu: File / Rebuild global lists](#)" for details).

setlogin "Identifier" "Username" "Password"

Temporarily sets username and password for the given Identifier, which can be either the name of a RAS-connection or the name of a news-/mail-server. "Temporarily" means, that this setting is not saved to a file but is kept in memory until Hamster is closed again.

If username and/or password is set to a single question-mark ("?"), Hamster will ask for the value when it's needed.

Furthermore, one of the stored "[general-purpose](#)"-passwords can be selected here to avoid noting it in clear-text in the script.

Example: setlogin "RAS-connection" "DoeJohn" "Secret!"

Example: setlogin "news.xxx.com" "DoeJane" "42"

Example: setlogin "ser.verna.me" "\$11" ""

ras.dial "ConnectionID" ["Username" ["Password"]]

This function establishes the RAS-connection named `ConnectionID`.

The username and/or password can be set to empty strings (""). In this case, the `setlogin-setting` (if any) or the values stored in Hamster are used to establish the connection.

If dialing fails, the script will be stopped.

Example: `ras.dial "RAS-connection" "DoeJohn" "Secret!"`

Example: `ras.dial "RAS-connection"`

ras.hangup

Closes the RAS-connection established by `rasdial`.

Example: `ras.hangup`

msgbox "message"

Displays the given message.

Example: `msgbox "Script finished!"`

start.wait "command and parameters"

Starts an external program with the given parameters. The script is paused until the external program has finished.

Example: `start.wait "before-dial.bat"`

start.nowait "command and parameters"

Like `start.wait`, but Hamster does not wait until the external program has finished. The script is continued immediately.

Example: `start.nowait "after-connected.bat"`

message msg-number [parameter]

Initiates some Hamster-functions, which are normally available and accessed by its menu-items.

<u>msg-number</u>	<u>parameter</u>	<u>purpose</u>
1	none	Exit Hamster
2	none	Reset counters and log-display
3	0=stop, 1=start	Start/Stop local NNTP-server
4	0=stop, 1=start	Start/Stop local POP3-server
5	0=stop, 1=start	Start/Stop local SMTP-server
6	0=hide, 1=show	Hide/show main-window
7	0=hide, 1=show	Hide/show tray-icon
8	none	Menu: Online/Stop all tasks

Example: `message 2`

Example: `message 3 0`

Example:

```
wait.idle
```

```
# purge
```

```
# wait.idle
```

```
ras.dial "name of ras-connection"
```

```
mail.pull
```

```
news.post
```

```
wait.idle
```

```
news.pull
```

```
wait.idle
```

ras.hangup

Hamster-Event-objects (Win32)

Purpose:

Hamster provides an event-object named "evtHamster.IsIdle", which is in signaled state, when there are no active tasks, and in unsignaled state, when there are active tasks (like purge, pulling news etc.).

After starting tasks in Hamster, you can use this event-object to wait until Hamster has finished all these tasks. The advantage of this wait-approach is, that your application is suspended (i.e. does not consume processor-time) until the event is signaled again.

Note: Client-connections to local servers do not count as an "active task" here.

Examples:

Perl:

```
use Win32::Event;
$evtHamsterIsIdle = Win32::Event->open("evtHamster.IsIdle");
# start Hamster-tasks
$evtHamsterIsIdle->wait();
```

Visual Basic:

```
Private Const INFINITE = &HFFFF
Private Const SYNCHRONIZE = &H100000

Private Declare Function OpenEvent Lib "kernel32" Alias "OpenEventA" _
    (ByVal dwDesiredAccess As Long, ByVal bInheritHandle As Long, _
    ByVal lpName As String) As Long
Private Declare Function WaitForSingleObject Lib "kernel32" _
    (ByVal hHandle As Long, ByVal dwMilliseconds As Long) As Long
Private Declare Function CloseHandle Lib "kernel32" _
    (ByVal hObject As Long) As Long

Dim evtHamsterIsIdle As Long, res As Long
evtHamsterIsIdle = OpenEvent(SYNCHRONIZE, False, "evtHamster.IsIdle")
' start Hamster-tasks
res = WaitForSingleObject(evtHamsterIsIdle, INFINITE)
res = CloseHandle(evtHamsterIsIdle)
```

Delphi 3:

```
uses Windows;
var evtHamsterIsIdle: THandle;
evtHamsterIsIdle := OpenEvent( SYNCHRONIZE, False, 'evtHamster.IsIdle' );
// start Hamster-tasks
WaitForSingleObject( evtHamsterIsIdle, INFINITE );
CloseHandle( hdlEvent );
```


Hamster-Mutex-objects (Win32)

Purpose:

The mutex-object "mutexHamster.App.*" is used to prevent additional instances of Hamster from running in the same path. It is locked when a Hamster-instance is started and released when it is closed again. If the mutex can't be locked on startup, the additional instance will not start.

It may also be used to test, if a given Hamster is already running.

Format:

"mutexHamster.App." + (full path to Hamster.exe)

The path- and filename is converted to lowercase and all characters except "a"-"z" and "0"-"9" are replaced by "_".

Example:

Program: C:\Program Files\News\Hamster.exe
Mutex-name: mutexHamster.App.c__program_files_news_hamster_exe

Program: \\Server\C\$\News\Hamster.exe
Mutex-name: mutexHamster.App.__server_c__news_hamster_exe

Automation (OLE)

Use Hamster's automation-server:

To use Hamster by automation (OLE), create an automation-object with classname "Hamster.App".

Examples:

Perl:

```
use Win32::OLE;
my $Hamster = Win32::OLE->new("Hamster.App");
print $Hamster->ControlGetInfo;
undef $Hamster;
```

VBScript (Windows Script Host):

```
Set Hamster = Wscript.CreateObject( "Hamster.App" )
Wscript.Echo Hamster.ControlGetInfo
Wscript.DisconnectObject Hamster
```

Visual Basic:

```
Dim Hamster as Object
Set Hamster = CreateObject( "Hamster.App" )
MsgBox Hamster.ControlGetInfo
Set Hamster = Nothing
```

Delphi 3:

```
use comobj;
var Hamster: Variant;
Hamster := CreateOleObject( 'Hamster.App' );
writeln( Hamster.ControlGetInfo );
Hamster := Unassigned;
```

.misc-functions:

ControlGetInfo: String

Retrieves a line of text containing the Hamster-version and -path (for "Hello World!"-purposes ...).

ControlGetPath: String

Retrieves the path of the currently registered und used automation-server (i.e. path to last used "Hamster.exe")

ControlGetVersion: String

Retrieves the Hamster-versionnumber as a string ("1.3.0.16").

ControlSetLogin(Identifier, Username, Password: String)

Temporarily sets username and password for the given identifier, which can be either the name of a RAS-connection or the name of a news-/mail-server. "Temporarily" means, that this setting is not saved to a file but is kept in memory until Hamster is closed again.

If username and/or password is set to a single question-mark ("?"), Hamster will ask for the value when it's needed.

Furthermore, one of the stored "general-purpose"-passwords can be selected here to avoid noting it in clear-text in the script, e.g. ControlSetLogin("serv.er", "\$1", "").

ControlMessage(Msg, Param: Integer): Integer

```
HAM_MSG_HAMSTER_EXIT      = 1
HAM_MSG_RESET_COUNTERS    = 2
HAM_MSG_LOCALNNTP_ONOFF   = 3
```

```

HAM_MSG_LOCALPOP3_ONOFF = 4
HAM_MSG_LOCALSMTP_ONOFF = 5
HAM_MSG_SHOWWINDOW      = 6
HAM_MSG_SHOWICON        = 7
HAM_MSG_STOPALLTASKS    = 8

```

Initiates some Hamster-functions, which are normally available and accessed by menu-items.

<u>Msg</u>	<u>Param</u>	<u>purpose</u>
1	ignored	Exit Hamster
2	ignored	Reset counters and log
3	0=stop, 1=start	Start/Stop local NNTP-server
4	0=stop, 1=start	Start/Stop local POP3-server
5	0=stop, 1=start	Start/Stop local SMTP-server
6	0=hide, 1=show	Hide/show main-window
7	0=hide, 1=show	Hide/show tray-icon
8	ignored	Menu: Online/Stop all tasks

Return-values:

```

0    OK; command executed.
1    Error; command failed.
2    Unknown Msg-number.
3    GPF, please reboot ... ;- )

```

Task-functions:

ControlIsIdle: Bool

Returns TRUE if there are currently no active tasks like purging, pulling news, sending mails etc.

Note: Client-connections to local servers and running scripts do not count as "active tasks" here.

ControlWaitIdle (WaitTimeout: Integer): Bool

Const HAM_WAITIDLE_INFINITE = 0

Like **ControlIsIdle** above, but this functions additionally waits the given amount of milliseconds, if there are active tasks. When called with **WaitTimeout=0**, the function does not return until all tasks have finished.

Note: See "Events: evtHamster.IsIdleAgain" for a better approach to wait until Hamster becomes "idle" again.

Note: Client-connections to local servers and running scripts do not count as "active tasks" here.

ControlThreadCount: Integer

Gives the number of currently active tasks.

Note: Client-connections to local servers and running scripts do not count as "active tasks" here.

ControlFlush: Integer

Writes unsaved data to disk. Suggested after last article imported with NewsImport.

ControlRunPurge (PurgeOptions: Integer): Integer

Const HAM_PURGEOPT_DOALL = 0xFF

Const HAM_PURGEOPT_DONEWS = 0x01

Const HAM_PURGEOPT_DOHISTORY = 0x02

Const HAM_PURGEOPT_DOKILLS = 0x04

Const HAM_PURGEOPT_DOMHISTORY = 0x08

Starts a purge-thread (i.e. the deletion of old data). The bit-oriented parameter **PurgeOptions** describes, which old data should be deleted (bit0=1=articles, bit1=2=history-entries, bit2=4=killfile-log, bit3=8=mailhistory-entries).

ControlRunRebuildHistory: Integer

Starts a thread, which deletes the current history-file (".\Groups\History.dat") and rebuilds it by adding the Message-IDs of all articles stored in Hamster.

Note: This may take some time with thousands of articles, so it should only be used, if it's *really*

necessary! Be sure to wait until Hamster is idle again (e.g. with `ControlWaitIdle`) after calling this function!

ControlRunRebuildGlobalLists(Options: Integer): Integer

Starts a thread, which rebuilds some lists needed by Hamster (see "[Menu: File / Rebuild global lists](#)" for details). No `Options` yet, so always use 0.

ControlRunMail(ServerList: String): Integer

Starts the thread, which first fetches new mails from the mailservers and then sends out mails (if any). If `ServerList` is set to an empty string (""), all POP3- and SMTP-servers defined in Hamster may be used. Otherwise, transfer is restricted to the given servers.

If used, the `ServerList` has to consist of a semicolon-separated (" ; ") list of servernames. The servernames have to be in the same format as displayed in the Hamster-settings (i.e. servername + " , " + port).

Example: "mail.aaa.com,pop3;mail.bbb.com,pop3;mail.aaa.com,smtp"

ControlRunFetchMail(Server, Port, User, Pass, DestUser: String): Integer

Starts a thread, which fetches mails from the given POP3-server (`Server`, `Port`).

If `User` and `Pass` are given, they will be used to login to the server, if they are both empty, the password-setting for the given server is used. Furthermore, one of the stored "general-purpose"-passwords can be used here to avoid noting it in clear-text in the script (`User="$ (number) "`, `Pass=""`).

If `DestUser` is given, fetched mails will be stored in the mailbox of this user, "admin"-mailbox is used otherwise. The name may optionally be followed by a comma and an identifier, which determines the filter-section to use for the mails fetched with this commands (default is global filters only, i.e. "[*]"-section in MailfFilt.hst).

Examples:

```
ControlRunFetchMail( "pop3.serv.er", "pop3", "", "", "" )
ControlRunFetchMail( "pop3.serv.er", "", "john.doe", "secret", "john" )
ControlRunFetchMail( "pop3.serv.er", "10110", "$7", "", "jane" )
ControlRunFetchMail( "pop3.serv.er", "", "$7", "", "admin,myfilters" )
```

ControlRunSendMail(Server, Port, FromSelection: String): Integer

Starts a thread, which sends mails to the given SMTP-server (`Server`, `Port`).

If no `FromSelection` is given, all mails waiting for delivery are sent. If a selection is given (regular expression), only mails with a matching Envelope-From are sent to this server.

Examples:

```
ControlRunSendMail( "smtp1.serv.er", "smtp", "john\.\doe@serv\.\er" )
ControlRunSendMail( "smtp2.serv.er", "", "" )
```

ControlRunSendMailAuth(Server, Port, User, Pass, FromSelection: String): Integer

Like `ControlRunSendMail` above, but additionally allows to provide username and password used for authentication.

Note: Username and password are ignored, if SMTP authentication is not enabled for the given server (see notes on SMTP authentication under "[Mailserver](#)").

Example:

```
ControlRunSendMailAuth( "smtp3.serv.er", "smtp", "$42", "", "@smtp3.serv.er" )
```

ControlRunNewsPost(ServerList: String): Integer

Starts the thread, which posts new articles (if any).

If `ServerList` is set to an empty string (""), all NNTP-servers defined in Hamster may be used. Otherwise, transfer is restricted to the given servers (see `ControlRunMail` for details on the `ServerList`-format).

Note: Starting with Hamster Vr. 1.3.19, this function was replaced with the **NewsJobs***-functions described below and is only simulated internally with these new functions. See the example at

"NewsJobsStart" for a replacement of this obsolete function.

ControlRunNewsPull(ServerList: String): Integer

Starts the threads, which pull new articles from newsservers.

If `ServerList` is set to an empty string (""), all NNTP-servers defined in Hamster may be used. Otherwise, transfer is restricted to the given servers (see `ControlRunMail` for details on the `ServerList`-format).

Note: Starting with Hamster Vr. 1.3.19, this function was replaced with the **NewsJobs***-functions described below and is only simulated internally with these new functions. See the example at "NewsJobsStart" for a replacement of this obsolete function.

NewsJobsClear: Integer

NewsJobsPullDef(ServerList: String): Integer

NewsJobsPostDef(ServerList: String): Integer

NewsJobsPull(Servername, reGrpSelect: String): Integer

NewsJobsPost(Servername, reGrpSelect, reMsgSelect: String): Integer

NewsJobsStart(ServerList: String): Integer

These functions are identical to those used in [Hamster-scripts](#).

For details, see the descriptions at:

[HamNewsJobsClear](#), [HamNewsJobsPullDef](#), [HamNewsJobsPostDef](#), [HamNewsJobsPull](#), [HamNewsJobsPost](#), [HamNewsJobsStart](#).

RAS-functions:

RasDial(ConnectionID, Username, Password: String): Bool

This function establishes the RAS-connection named `ConnectionID`.

The username and/or password can be set to empty strings (""). In this case, the `ControlSetLogin`-setting (if any) or the values stored in Hamster are used to establish the connection.

If dialing was successful (i.e. a connection was established), the function returns TRUE, otherwise FALSE (use `RasLastError` to get additional information on the failure).

RasHangup

Closes the current RAS-connection, even if not established by `RasDial`.

RasIsConnected: Bool

Returns TRUE, if there's a valid RAS-connection established by `RasDial`.

RasLastError: Integer

Returns the last RAS-errorcode (especially when `RasDial` returned FALSE).

News-functions:

NewsGrpCount: Integer

Retrieves number of newsgroups available from Hamster.

NewsGrpName(GrpIdx: Integer): String

Retrieves the name of the given newsgroup. `GrpIdx` can be 0 to `(NewsGrpCount-1)`.

NewsGrpIndex(GrpName: String): Integer

Retrieves the index-number of the given groupname (-1 for unknown groups).

NewsGrpOpen(GrpName: String): Integer

Opens the given group and returns a handle (≥ 0), which is needed to retrieve additional infos in the functions below (the handle is referenced as `GrpHdl` there).

If the function fails, the return-value is negative (<0).

NewsGrpClose(GrpHdl: Integer)

Close a previously opened group.

NewsArtCount(GrpHdl: Integer): Integer

Retrieves the number of available articles in the group.

NewsArtNoMin(GrpHdl: Integer): Integer

Retrieve the lowest available article-number.

NewsArtNoMax(GrpHdl: Integer): Integer

Retrieve the highest available article-number.

NewsArtText(GrpHdl, ArtNo: Integer): String

Retrieves the text for the given article-number. An empty string indicates, that the article is not available any more.

NewsArtTextExport(GrpHdl, ArtNo: Integer): String

Same as `NewsArtText`, but the text is converted to export-format.

NewsScoreListFor(GrpName: String): String

Retrieves a list containing all score-entries, which will be used when pulling news for the given groupname.

NewsScoreTest(GrpName, ArtText: String; var MatchLog: String): Integer;

Returns the scorevalue for the given article (`ArtText`). The test is done with the assumption, that the article was pulled from the given newsgroup (`GrpName`). A CR/LF-separated list of all matching scorelines is returned in `MatchLog`.

NewsLocateMID(MessageID: String; var Groupname: String; var ArtNo: Integer): Bool;

Returns TRUE, if the given Message-ID is [still] saved in the history-file. In this case, Groupname and Article-number will be set to point to this article.

Otherwise the function returns FALSE and Groupname and article-number remain unchanged.

NewsLocateMID2(MessageID: String; var Groupname: Variant; var ArtNo: Variant): Bool;

Same as "NewsLocateMid" above, but with Variant-parameters. Use this version in VBScript-scripts (Windows Script Host).

NewsDeleteByMID(MessageID: String): Bool;

Locates the article identified by the given Message-ID and deletes it in Hamster's database-files. The function returns TRUE, if article could be located and deleted; FALSE otherwise.

NewsImport(ArtText, OverrideGroups: String; IgnoreHistory, MarkNoArchive: Bool): Bool;

Imports the given article into Hamster's database and returns TRUE, if the article was imported, FALSE otherwise.

`ArtText` contains the article to import, including all headers, header/body-separator and the article-body. The lines have to be separated by CR+LF (0x0d, 0x0a).

If `OverrideGroups` is empty, the article is stored in the groups determined by the "Newsgroups:"-header of the article. Otherwise it is stored in the group given by `OverrideGroups`. If no valid local groups are given, the article is stored in `hamster.misc`.

If `IgnoreHistory` is TRUE, no history-lookup is made for the Message-ID of the imported article, so it

will be imported even if it's already known.

If `MarkNoArchive` is `TRUE`, the imported article is marked with `"NoArchive=1"` in the `"X-Hamster-Info:"`-header. This flag might be used to mark the imported article as "temporary", so it can, for example, be ignored by appropriate archiving-software [not available yet ;-)].

Error-codes and -messages

Frequent error-codes and -messages

Hamster-Logfile, Hamster-Replies, WinSock-Errors

Windows Sockets (WinSock) Error Codes

Numbers: 10004 - 11004

Remote Access Service (RAS) Error Codes

Numbers: 600 - 752

Win32 - System Error Codes

Numbers: 1 - 6118

Win32 - Net Error Codes

Numbers: 2102 - 2693

Frequent error-codes and -messages

Hamster-Logfile

Start of local XXXX-server failed

The given local server could not be started, mostly due to another program which is already using the port-number, e.g. a virus-scanner for mails like "Norton's AntiVirus" (NAV), which itself works like a POP3-server.

As no two servers can use the same port-number at the same time, you have to configure one of the programs to use another port-number.

Hamster-Replies

500 Permission denied - closing connection. [local NNTP/SMTP]

-ERR Permission denied - closing connection. [local POP3]

The connecting IP-address is not permitted to access Hamster's local server. See "[IPAccess.hst](#)" for details.

500 Permission denied (not authorized by POP3). [local SMTP]

Hamster's local SMTP-server is configured to only grant access after client has authenticated itself by a successful POP3-login. See "[SMTP-after-POP3](#)" for details.

WinSock-Errors

10048 WSAEADDRINUSE

Possible reasons:

- * Firewall prevents local Hamster-servers from starting.

10049 WSAEADDRNOTAVAIL

The server is known but could not be reached.

Possible reasons:

- * You are/were not "online", i.e. not connected to the internet.
- * Internet-connection was interrupted.
- * The server is temporarily down - try again later.

10053 WSAECONNABORTED

Possible reasons:

- * Internet-connection was interrupted or lost while connecting to remote server was still in progress.

10061 WSAECONNREFUSED

Possible reasons:

- * The Hamster-server is not activated (see "[Menu: Local / Start/Stop ...](#)").
- * The Hamster-server failed to start (restart Hamster and look out for "red" errors).
- * The default port-settings for the Hamster-server and/or the newsreader/mailclient were changed and are not equal any more.
- * The port-number is blocked by a firewall.

10065 WSAEHOSTUNREACH

Like 10049 above, but the connection was lost after a valid connection to the server.

10071 WSAEREMOTE

Possible reasons:

* Connection-request was refused by remote server because you are not permitted to use it with your current internet-connection, e.g. to access the server of provider X you have to dial-in to provider X.

11001 WSAHOST_NOT_FOUND

Possible reasons:

* A server with the given name could not be found - perhaps you've misspelled it.

Error-Codes (WinSock)

Windows Sockets (WinSock) Error Codes

WSAEINTR	10004	Interrupted system call.
WSAEBADF	10009	Bad file number.
WSEACCES	10013	Permission denied.
WSAEFAULT	10014	Bad address.
WSAEINVAL	10022	Invalid argument.
WSAEMFILE	10024	Too many open files/sockets.
WSAEWOULDBLOCK	10035	Operation would block.
WSAEINPROGRESS	10036	Operation now in progress. This error is returned if any Windows Sockets API function is called while a blocking function is in progress.
WSAEALREADY	10037	Operation already in progress.
WSAENOTSOCK	10038	Socket operation on nonsocket.
WSAEDESTADDRREQ	10039	Destination address required.
WSAEMSGSIZE	10040	Message too long.
WSAEPROTOTYPE	10041	Protocol wrong type for socket.
WSAENOPROTOPT	10042	Protocol not available/bad protocol option.
WSAEPROTONOSUPPORT	10043	Protocol not supported.
WSAESOCKTNOSUPPORT	10044	Socket type not supported.
WSAEOPNOTSUPP	10045	Operation not supported on socket.
WSAEPFNOSUPPORT	10046	Protocol family not supported.
WSAEAFNOSUPPORT	10047	Address family not supported by protocol family.
WSAEADDRINUSE	10048	Address already in use.
WSAEADDRNOTAVAIL	10049	Cannot assign requested address.
WSAENETDOWN	10050	Network is down. This error may be reported at any time if the Windows Sockets implementation detects an underlying failure.
WSAENETUNREACH	10051	Network is unreachable.
WSAENETRESET	10052	Network dropped connection on reset.
WSAECONNABORTED	10053	Software caused connection abort.
WSAECONNRESET	10054	Connection reset by peer.
WSAENOBUFS	10055	No buffer space available.
WSAEISCONN	10056	Socket is already connected.
WSAENOTCONN	10057	Socket is not connected.
WSAESHUTDOWN	10058	Cannot send after socket shutdown.
WSAETOOMANYREFS	10059	Too many references: cannot splice.
WSAETIMEDOUT	10060	Connection timed out.
WSAECONNREFUSED	10061	Connection refused.
WSAELOOP	10062	Too many levels of symbolic links.
WSAENAMETOOLONG	10063	File name too long.
WSAEHOSTDOWN	10064	Host is down.
WSAEHOSTUNREACH	10065	No route to host.
WSAENOTEMPTY	10066	Directory not empty.
WSAEPROCLIM	10067	Too many processes.
WSAEUSERS	10068	Too many users.
WSAEDQUOT	10069	Disc quota exceeded.
WSAESTALE	10070	Stale NFS file handle
WSAEREMOTE	10071	Too many levels of remote in path.
WSASYSNOTREADY	10091	Network subsystem is unavailable.
WSAVERNOTSUPPORTED	10092	Winsock version not supported.
WSANOTINITIALISED	10093	Winsock not yet initialized.
WSAEDISCON	10101	Graceful disconnect in progress.
WSAENOMORE	10102	- (Winsock2)
WSAECANCELLED	10103	- (Winsock2)
WSAEINVALIDPROCTABLE	10104	- (Winsock2)
WSAEINVALIDPROVIDER	10105	- (Winsock2)

WSAEPROVIDERFAILEDINIT	10106	- (Winsock2)
WSASYSSCALLFAILURE	10107	System call failure. (WS2)
WSASERVICE_NOT_FOUND	10108	- (Winsock2)
WSATYPE_NOT_FOUND	10109	- (Winsock2)
WSA_E_NO_MORE	10110	- (Winsock2)
WSA_E_CANCELLED	10111	- (Winsock2)
WSAEREFUSED	10112	- (Winsock2)
WSAHOST_NOT_FOUND	11001	Host not found. This message indicates that the key (name, address, and so on) was not found.
WSATRY_AGAIN	11002	Non-authoritative host not found. This error may suggest that the name service itself is not functioning.
WSANO_RECOVERY	11003	Non-recoverable error. This error may suggest that the name service itself is not functioning.
WSANO_DATA	11004	Valid name, no data record of requested type. This error indicates that the key (name, address, and so on) was not found.
WSA_NOT_ENOUGH_MEMORY		Insufficient memory available
WSA_OPERATION_ABORTED		Overlapped operation aborted
WSA_IO_INCOMPLETE		Overlapped I/O object not signalled
WSA_IO_PENDING		Overlapped I/O will complete later
WSA_INVALID_PARAMETER		One or more parameters are invalid
WSA_INVALID_HANDLE		Event object handle not valid

Error-Codes (RAS)

Remote Access Service (RAS) Error Codes

600 An operation is pending.
601 The port handle is invalid.
602 The port is already open.
603 Caller's buffer is too small.
604 Wrong information specified.
605 Cannot set port information.
606 The port is not connected.
607 The event is invalid.
608 The device does not exist.
609 The device type does not exist.
610 The buffer is invalid.
611 The route is not available.
612 The route is not allocated.
613 Invalid compression specified.
614 Out of buffers.
615 The port was not found.
616 An asynchronous request is pending.
617 The port or device is already disconnecting.
618 The port is not open.
619 The port is disconnected.
620 There are no endpoints.
621 Cannot open the phone book file.
622 Cannot load the phone book file.
623 Cannot find the phone book entry.
624 Cannot write the phone book file.
625 Invalid information found in the phone book.
626 Cannot load a string.
627 Cannot find key.
628 The port was disconnected.
629 The port was disconnected by the remote machine.
630 The port was disconnected due to hardware failure.
631 The port was disconnected by the user.
632 The structure size is incorrect.
633 The port is already in use or is not configured for Remote Access dialout.
634 Cannot register your computer on the remote network.
635 Unknown error.
636 The wrong device is attached to the port.
637 The string could not be converted.
638 The request has timed out.
639 No asynchronous net available.
640 A NetBIOS error has occurred.
641 The server cannot allocate NetBIOS resources needed to support the client.
642 One of your NetBIOS names is already registered on the remote network.
643 A network adapter at the server failed.
644 You will not receive network message popups.
645 Internal authentication error.
646 The account is not permitted to log on at this time of day.
647 The account is disabled.
648 The password has expired.
649 The account does not have Remote Access permission.
650 The Remote Access server is not responding.
651 Your modem (or other connecting device) has reported an error.
652 Unrecognized response from the device.
653 A macro required by the device was not found in the device .INF file section.
654 A command or response in the device .INF file section refers to an undefined macro
655 The <message> macro was not found in the device .INF file section.
656 The <defaultoff> macro in the device .INF file section contains an undefined

macro
657 The device .INF file could not be opened.
658 The device name in the device .INF or media .INI file is too long.
659 The media .INI file refers to an unknown device name.
660 The device .INF file contains no responses for the command.
661 The device .INF file is missing a command.
662 Attempted to set a macro not listed in device .INF file section.
663 The media .INI file refers to an unknown device type.
664 Cannot allocate memory.
665 The port is not configured for Remote Access.
666 Your modem (or other connecting device) is not functioning.
667 Cannot read the media .INI file.
668 The connection dropped.
669 The usage parameter in the media .INI file is invalid.
670 Cannot read the section name from the media .INI file.
671 Cannot read the device type from the media .INI file.
672 Cannot read the device name from the media .INI file.
673 Cannot read the usage from the media .INI file.
674 Cannot read the maximum connection BPS rate from the media .INI file.
675 Cannot read the maximum carrier BPS rate from the media .INI file.
676 The line is busy.
677 A person answered instead of a modem.
678 There is no answer.
679 Cannot detect carrier.
680 There is no dial tone.
681 General error reported by device.
682 ERROR WRITING SECTIONNAME
683 ERROR WRITING DEVICETYPE
684 ERROR WRITING DEVICENAME
685 ERROR WRITING MAXCONNECTBPS
686 ERROR WRITING MAXCARRIERBPS
687 ERROR WRITING USAGE
688 ERROR WRITING DEFAULTOFF
689 ERROR READING DEFAULTOFF
690 ERROR EMPTY INI FILE
691 Access denied because username and/or password is invalid on the domain.
692 Hardware failure in port or attached device.
693 ERROR NOT BINARY MACRO
694 ERROR DCB NOT FOUND
695 ERROR STATE MACHINES NOT STARTED
696 ERROR STATE MACHINES ALREADY STARTED
697 ERROR PARTIAL RESPONSE LOOPING
698 A response keyname in the device .INF file is not in the expected format.
699 The device response caused buffer overflow.
700 The expanded command in the device .INF file is too long.
701 The device moved to a BPS rate not supported by the COM driver.
702 Device response received when none expected.
703 ERROR INTERACTIVE MODE
704 ERROR BAD CALLBACK NUMBER
705 ERROR INVALID AUTH STATE
706 ERROR WRITING INITBPS
707 X.25 diagnostic indication.
708 The account has expired.
709 Error changing password on domain.
710 Serial overrun errors were detected while communicating with your modem.
711 RasMan initialization failure. Check the event log.
712 Bipler port is initializing. Wait a few seconds and redial.
713 No active ISDN lines are available.
714 Not enough ISDN channels are available to make the call.
715 Too many errors occurred because of poor phone line quality.
716 The Remote Access IP configuration is unusable.
717 No IP addresses are available in the static pool of Remote Access IP addresses.
718 PPP timeout.

719 PPP terminated by remote machine.
720 No PPP control protocols configured.
721 Remote PPP peer is not responding.
722 The PPP packet is invalid.
723 The phone number, including prefix and suffix, is too long.
724 The IPX protocol cannot dial-out on the port because the computer is an IPX router.
725 The IPX protocol cannot dial-in on the port because the IPX router is not installed..
726 The IPX protocol cannot be used for dial-out on more than one port at a time.
727 Cannot access TCPCFG.DLL.
728 Cannot find an IP adapter bound to Remote Access.
729 SLIP cannot be used unless the IP protocol is installed.
730 Computer registration is not complete.
731 The protocol is not configured.
732 The PPP negotiation is not converging.
733 The PPP control protocol for this network protocol is not available on the server.
734 The PPP link control protocol terminated..
735 The requested address was rejected by the server..
736 The remote computer terminated the control protocol.
737 Loopback detected..
738 The server did not assign an address.
739 The remote server cannot use the Windows NT encrypted password.
740 The TAPI devices configured for Remote Access failed to initialize or were not installed correctly.
741 The local computer does not support encryption.
742 The remote server does not support encryption.
743 The remote server requires encryption.
744 Cannot use the IPX net number assigned by the remote server. Check the event log.
752 A syntax error was encountered while processing a script.

Error-Codes (Win32-System)

Win32 - System Error Codes

```
0      The operation completed successfully. ERROR_SUCCESS
1      Incorrect function. ERROR_INVALID_FUNCTION
2      The system cannot find the file specified. ERROR_FILE_NOT_FOUND
3      The system cannot find the path specified. ERROR_PATH_NOT_FOUND
4      The system cannot open the file. ERROR_TOO_MANY_OPEN_FILES
5      Access is denied. ERROR_ACCESS_DENIED
6      The handle is invalid. ERROR_INVALID_HANDLE
7      The storage control blocks were destroyed. ERROR_ARENA_TRASHED
8      Not enough storage is available to process this command.
ERROR_NOT_ENOUGH_MEMORY
9      The storage control block address is invalid. ERROR_INVALID_BLOCK
10     The environment is incorrect. ERROR_BAD_ENVIRONMENT
11     An attempt was made to load a program with an incorrect format.
ERROR_BAD_FORMAT
12     The access code is invalid. ERROR_INVALID_ACCESS
13     The data is invalid. ERROR_INVALID_DATA
14     Not enough storage is available to complete this operation. ERROR_OUTOFMEMORY
15     The system cannot find the drive specified. ERROR_INVALID_DRIVE
16     The directory cannot be removed. ERROR_CURRENT_DIRECTORY
17     The system cannot move the file to a different disk drive.
ERROR_NOT_SAME_DEVICE
18     There are no more files. ERROR_NO_MORE_FILES
19     The media is write protected. ERROR_WRITE_PROTECT
20     The system cannot find the device specified. ERROR_BAD_UNIT
21     The device is not ready. ERROR_NOT_READY
22     The device does not recognize the command. ERROR_BAD_COMMAND
23     Data error (cyclic redundancy check). ERROR_CRC
24     The program issued a command but the command length is incorrect.
ERROR_BAD_LENGTH
25     The drive cannot locate a specific area or track on the disk. ERROR_SEEK
26     The specified disk or diskette cannot be accessed. ERROR_NOT_DOS_DISK
27     The drive cannot find the sector requested. ERROR_SECTOR_NOT_FOUND
28     The printer is out of paper. ERROR_OUT_OF_PAPER
29     The system cannot write to the specified device. ERROR_WRITE_FAULT
30     The system cannot read from the specified device. ERROR_READ_FAULT
31     A device attached to the system is not functioning. ERROR_GEN_FAILURE
32     The process cannot access the file because it is being used by another process.
ERROR_SHARING_VIOLATION
33     The process cannot access the file because another process has locked a portion
of the file. ERROR_LOCK_VIOLATION
34     The wrong diskette is in the drive. Insert %2 (Volume Serial Number: %3) into
drive %1. ERROR_WRONG_DISK
36     Too many files opened for sharing. ERROR_SHARING_BUFFER_EXCEEDED
38     Reached the end of the file. ERROR_HANDLE_EOF
39     The disk is full. ERROR_HANDLE_DISK_FULL
50     The network request is not supported. ERROR_NOT_SUPPORTED
51     The remote computer is not available. ERROR_REM_NOT_LIST
52     A duplicate name exists on the network. ERROR_DUP_NAME
53     The network path was not found. ERROR_BAD_NETPATH
54     The network is busy. ERROR_NETWORK_BUSY
55     The specified network resource or device is no longer available.
ERROR_DEV_NOT_EXIST
56     The network BIOS command limit has been reached. ERROR_TOO_MANY_CMDS
57     A network adapter hardware error occurred. ERROR_ADAP_HDW_ERR
58     The specified server cannot perform the requested operation. ERROR_BAD_NET_RESP
59     An unexpected network error occurred. ERROR_UNEXP_NET_ERR
60     The remote adapter is not compatible. ERROR_BAD_REM_ADAP
61     The printer queue is full. ERROR_PRINTQ_FULL
```



```

62     Space to store the file waiting to be printed is not available on the server.
ERROR_NO_SPOOL_SPACE
63     Your file waiting to be printed was deleted. ERROR_PRINT_CANCELLED
64     The specified network name is no longer available. ERROR_NETNAME_DELETED
65     Network access is denied. ERROR_NETWORK_ACCESS_DENIED
66     The network resource type is not correct. ERROR_BAD_DEV_TYPE
67     The network name cannot be found. ERROR_BAD_NET_NAME
68     The name limit for the local computer network adapter card was exceeded.
ERROR_TOO_MANY_NAMES
69     The network BIOS session limit was exceeded. ERROR_TOO_MANY_SESS
70     The remote server has been paused or is in the process of being started.
ERROR_SHARING_PAUSED
71     No more connections can be made to this remote computer at this time because
there are already as many connections as the computer can accept. ERROR_REQ_NOT_ACCEP
72     The specified printer or disk device has been paused. ERROR_REDIRECT_PAUSED
80     The file exists. ERROR_FILE_EXISTS
82     The directory or file cannot be created. ERROR_CANNOT_MAKE
83     Fail on INT 24. ERROR_FAIL_I24
84     Storage to process this request is not available. ERROR_OUT_OF_STRUCTURES
85     The local device name is already in use. ERROR_ALREADY_ASSIGNED
86     The specified network password is not correct. ERROR_INVALID_PASSWORD
87     The parameter is incorrect. ERROR_INVALID_PARAMETER
88     A write fault occurred on the network. ERROR_NET_WRITE_FAULT
89     The system cannot start another process at this time. ERROR_NO_PROC_SLOTS
100    Cannot create another system semaphore. ERROR_TOO_MANY_SEMAPHORES
101    The exclusive semaphore is owned by another process.
ERROR_EXCL_SEM_ALREADY_OWNED
102    The semaphore is set and cannot be closed. ERROR_SEM_IS_SET
103    The semaphore cannot be set again. ERROR_TOO_MANY_SEM_REQUESTS
104    Cannot request exclusive semaphores at interrupt time.
ERROR_INVALID_AT_INTERRUPT_TIME
105    The previous ownership of this semaphore has ended. ERROR_SEM_OWNER_DIED
106    Insert the diskette for drive %1. ERROR_SEM_USER_LIMIT
107    The program stopped because an alternate diskette was not inserted.
ERROR_DISK_CHANGE
108    The disk is in use or locked by another process. ERROR_DRIVE_LOCKED
109    The pipe has been ended. ERROR_BROKEN_PIPE
110    The system cannot open the device or file specified. ERROR_OPEN_FAILED
111    The file name is too long. ERROR_BUFFER_OVERFLOW
112    There is not enough space on the disk. ERROR_DISK_FULL
113    No more internal file identifiers available. ERROR_NO_MORE_SEARCH_HANDLES
114    The target internal file identifier is incorrect. ERROR_INVALID_TARGET_HANDLE
117    The IOCTL call made by the application program is not correct.
ERROR_INVALID_CATEGORY
118    The verify-on-write switch parameter value is not correct.
ERROR_INVALID_VERIFY_SWITCH
119    The system does not support the command requested. ERROR_BAD_DRIVER_LEVEL
120    This function is not supported on this system. ERROR_CALL_NOT_IMPLEMENTED
121    The semaphore timeout period has expired. ERROR_SEM_TIMEOUT
122    The data area passed to a system call is too small. ERROR_INSUFFICIENT_BUFFER
123    The filename, directory name, or volume label syntax is incorrect.
ERROR_INVALID_NAME
124    The system call level is not correct. ERROR_INVALID_LEVEL
125    The disk has no volume label. ERROR_NO_VOLUME_LABEL
126    The specified module could not be found. ERROR_MOD_NOT_FOUND
127    The specified procedure could not be found. ERROR_PROC_NOT_FOUND
128    There are no child processes to wait for. ERROR_WAIT_NO_CHILDREN
129    The %1 application cannot be run in Win32 mode. ERROR_CHILD_NOT_COMPLETE
130    Attempt to use a file handle to an open disk partition for an operation other
than raw disk I/O. ERROR_DIRECT_ACCESS_HANDLE
131    An attempt was made to move the file pointer before the beginning of the file.
ERROR_NEGATIVE_SEEK
132    The file pointer cannot be set on the specified device or file.

```

ERROR_SEEK_ON_DEVICE
 133 A JOIN or SUBST command cannot be used for a drive that contains previously joined drives. ERROR_IS_JOIN_TARGET
 134 An attempt was made to use a JOIN or SUBST command on a drive that has already been joined. ERROR_IS_JOINED
 135 An attempt was made to use a JOIN or SUBST command on a drive that has already been substituted. ERROR_IS_SUBSTED
 136 The system tried to delete the JOIN of a drive that is not joined. ERROR_NOT_JOINED
 137 The system tried to delete the substitution of a drive that is not substituted. ERROR_NOT_SUBSTED
 138 The system tried to join a drive to a directory on a joined drive. ERROR_JOIN_TO_JOIN
 139 The system tried to substitute a drive to a directory on a substituted drive. ERROR_SUBST_TO_SUBST
 140 The system tried to join a drive to a directory on a substituted drive. ERROR_JOIN_TO_SUBST
 141 The system tried to SUBST a drive to a directory on a joined drive. ERROR_SUBST_TO_JOIN
 142 The system cannot perform a JOIN or SUBST at this time. ERROR_BUSY_DRIVE
 143 The system cannot join or substitute a drive to or for a directory on the same drive. ERROR_SAME_DRIVE
 144 The directory is not a subdirectory of the root directory. ERROR_DIR_NOT_ROOT
 145 The directory is not empty. ERROR_DIR_NOT_EMPTY
 146 The path specified is being used in a substitute. ERROR_IS_SUBST_PATH
 147 Not enough resources are available to process this command. ERROR_IS_JOIN_PATH
 148 The path specified cannot be used at this time. ERROR_PATH_BUSY
 149 An attempt was made to join or substitute a drive for which a directory on the drive is the target of a previous substitute. ERROR_IS_SUBST_TARGET
 150 System trace information was not specified in your CONFIG.SYS file, or tracing is disallowed. ERROR_SYSTEM_TRACE
 151 The number of specified semaphore events for DosMuxSemWait is not correct. ERROR_INVALID_EVENT_COUNT
 152 DosMuxSemWait did not execute; too many semaphores are already set. ERROR_TOO_MANY_MUXWAITERS
 153 The DosMuxSemWait list is not correct. ERROR_INVALID_LIST_FORMAT
 154 The volume label you entered exceeds the label character limit of the target file system. ERROR_LABEL_TOO_LONG
 155 Cannot create another thread. ERROR_TOO_MANY_TCBS
 156 The recipient process has refused the signal. ERROR_SIGNAL_REFUSED
 157 The segment is already discarded and cannot be locked. ERROR_DISCARDED
 158 The segment is already unlocked. ERROR_NOT_LOCKED
 159 The address for the thread ID is not correct. ERROR_BAD_THREADID_ADDR
 160 The argument string passed to DosExecPgm is not correct. ERROR_BAD_ARGUMENTS
 161 The specified path is invalid. ERROR_BAD_PATHNAME
 162 A signal is already pending. ERROR_SIGNAL_PENDING
 164 No more threads can be created in the system. ERROR_MAX_THRDS_REACHED
 167 Unable to lock a region of a file. ERROR_LOCK_FAILED
 170 The requested resource is in use. ERROR_BUSY
 173 A lock request was not outstanding for the supplied cancel region. ERROR_CANCEL_VIOLATION
 174 The file system does not support atomic changes to the lock type. ERROR_ATOMIC_LOCKS_NOT_SUPPORTED
 180 The system detected a segment number that was not correct. ERROR_INVALID_SEGMENT_NUMBER
 182 The operating system cannot run %1. ERROR_INVALID_ORDINAL
 183 Cannot create a file when that file already exists. ERROR_ALREADY_EXISTS
 186 The flag passed is not correct. ERROR_INVALID_FLAG_NUMBER
 187 The specified system semaphore name was not found. ERROR_SEM_NOT_FOUND
 188 The operating system cannot run %1. ERROR_INVALID_STARTING_CODESEG
 189 The operating system cannot run %1. ERROR_INVALID_STACKSEG
 190 The operating system cannot run %1. ERROR_INVALID_MODULETYPE
 191 Cannot run %1 in Win32 mode. ERROR_INVALID_EXE_SIGNATURE

192 The operating system cannot run %1. ERROR_EXE_MARKED_INVALID
 193 is not a valid Win32 application. ERROR_BAD_EXE_FORMAT
 194 The operating system cannot run %1. ERROR_ITERATED_DATA_EXCEEDS_64k
 195 The operating system cannot run %1. ERROR_INVALID_MINALLOCSIZE
 196 The operating system cannot run this application program.
 ERROR_DYNLINK_FROM_INVALID_RING
 197 The operating system is not presently configured to run this application.
 ERROR_IOPL_NOT_ENABLED
 198 The operating system cannot run %1. ERROR_INVALID_SEGDPL
 199 The operating system cannot run this application program.
 ERROR_AUTODATASEG_EXCEEDS_64k
 200 The code segment cannot be greater than or equal to 64K.
 ERROR_RING2SEG_MUST_BE_MOVABLE
 201 The operating system cannot run %1. ERROR_RELOC_CHAIN_XEEDS_SEGLIM
 202 The operating system cannot run %1. ERROR_INFLOOP_IN_RELOC_CHAIN
 203 The system could not find the environment option that was entered.
 ERROR_ENVVAR_NOT_FOUND
 205 No process in the command subtree has a signal handler. ERROR_NO_SIGNAL_SENT
 206 The filename or extension is too long. ERROR_FILENAME_EXCED_RANGE
 207 The ring 2 stack is in use. ERROR_RING2_STACK_IN_USE
 208 The global filename characters, * or ?, are entered incorrectly or too many
 global filename characters are specified. ERROR_META_EXPANSION_TOO_LONG
 209 The signal being posted is not correct. ERROR_INVALID_SIGNAL_NUMBER
 210 The signal handler cannot be set. ERROR_THREAD_1_INACTIVE
 212 The segment is locked and cannot be reallocated. ERROR_LOCKED
 214 Too many dynamic-link modules are attached to this program or dynamic-link
 module. ERROR_TOO_MANY_MODULES
 215 Can't nest calls to LoadModule. ERROR_NESTING_NOT_ALLOWED
 216 The image file %1 is valid, but is for a machine type other than the current
 machine. ERROR_EXE_MACHINE_TYPE_MISMATCH
 230 The pipe state is invalid. ERROR_BAD_PIPE
 231 All pipe instances are busy. ERROR_PIPE_BUSY
 232 The pipe is being closed. ERROR_NO_DATA
 233 No process is on the other end of the pipe. ERROR_PIPE_NOT_CONNECTED
 234 More data is available. ERROR_MORE_DATA
 240 The session was canceled. ERROR_VC_DISCONNECTED
 254 The specified extended attribute name was invalid. ERROR_INVALID_EA_NAME
 255 The extended attributes are inconsistent. ERROR_EA_LIST_INCONSISTENT
 259 No more data is available. ERROR_NO_MORE_ITEMS
 266 The copy functions cannot be used. ERROR_CANNOT_COPY
 267 The directory name is invalid. ERROR_DIRECTORY
 275 The extended attributes did not fit in the buffer. ERROR_EAS_DIDNT_FIT
 276 The extended attribute file on the mounted file system is corrupt.
 ERROR_EA_FILE_CORRUPT
 277 The extended attribute table file is full. ERROR_EA_TABLE_FULL
 278 The specified extended attribute handle is invalid. ERROR_INVALID_EA_HANDLE
 282 The mounted file system does not support extended attributes.
 ERROR_EAS_NOT_SUPPORTED
 288 Attempt to release mutex not owned by caller. ERROR_NOT_OWNER
 298 Too many posts were made to a semaphore. ERROR_TOO_MANY_POSTS
 299 Only part of a ReadProcessMemory or WriteProcessMemory request was completed.
 ERROR_PARTIAL_COPY
 300 The oplock request is denied. ERROR_OPLOCK_NOT_GRANTED
 301 An invalid oplock acknowledgment was received by the system.
 ERROR_INVALID_OPLOCK_PROTOCOL
 317 The system cannot find message text for message number 0x%1 in the message file
 for %2. ERROR_MR_MID_NOT_FOUND
 487 Attempt to access invalid address. ERROR_INVALID_ADDRESS
 534 Arithmetic result exceeded 32 bits. ERROR_ARITHMETIC_OVERFLOW
 535 There is a process on other end of the pipe. ERROR_PIPE_CONNECTED
 536 Waiting for a process to open the other end of the pipe. ERROR_PIPE_LISTENING
 994 Access to the extended attribute was denied. ERROR_EA_ACCESS_DENIED
 995 The I/O operation has been aborted because of either a thread exit or an

application request. ERROR_OPERATION_ABORTED

996 Overlapped I/O event is not in a signaled state. ERROR_IO_INCOMPLETE

997 Overlapped I/O operation is in progress. ERROR_IO_PENDING

998 Invalid access to memory location. ERROR_NOACCESS

999 Error performing inpage operation. ERROR_SWAPERROR

1001 Recursion too deep; the stack overflowed. ERROR_STACK_OVERFLOW

1002 The window cannot act on the sent message. ERROR_INVALID_MESSAGE

1003 Cannot complete this function. ERROR_CAN_NOT_COMPLETE

1004 Invalid flags. ERROR_INVALID_FLAGS

1005 The volume does not contain a recognized file system. Please make sure that all required file system drivers are loaded and that the volume is not corrupted.
ERROR_UNRECOGNIZED_VOLUME

1006 The volume for a file has been externally altered so that the opened file is no longer valid. ERROR_FILE_INVALID

1007 The requested operation cannot be performed in full-screen mode.
ERROR_FULLSCREEN_MODE

1008 An attempt was made to reference a token that does not exist. ERROR_NO_TOKEN

1009 The configuration registry database is corrupt. ERROR_BADDB

1010 The configuration registry key is invalid. ERROR_BADKEY

1011 The configuration registry key could not be opened. ERROR_CANTOPEN

1012 The configuration registry key could not be read. ERROR_CANTREAD

1013 The configuration registry key could not be written. ERROR_CANTWRITE

1014 One of the files in the registry database had to be recovered by use of a log or alternate copy. The recovery was successful. ERROR_REGISTRY_RECOVERED

1015 The registry is corrupted. The structure of one of the files that contains registry data is corrupted, or the system's image of the file in memory is corrupted, or the file could not be recovered because the alternate copy or log was absent or corrupted. ERROR_REGISTRY_CORRUPT

1016 An I/O operation initiated by the registry failed unrecoverably. The registry could not read in, or write out, or flush, one of the files that contain the system's image of the registry. ERROR_REGISTRY_IO_FAILED

1017 The system has attempted to load or restore a file into the registry, but the specified file is not in a registry file format. ERROR_NOT_REGISTRY_FILE

1018 Illegal operation attempted on a registry key that has been marked for deletion. ERROR_KEY_DELETED

1019 System could not allocate the required space in a registry log.
ERROR_NO_LOG_SPACE

1020 Cannot create a symbolic link in a registry key that already has subkeys or values. ERROR_KEY_HAS_CHILDREN

1021 Cannot create a stable subkey under a volatile parent key.
ERROR_CHILD_MUST_BE_VOLATILE

1022 A notify change request is being completed and the information is not being returned in the caller's buffer. The caller now needs to enumerate the files to find the changes. ERROR_NOTIFY_ENUM_DIR

1051 A stop control has been sent to a service that other running services are dependent on. ERROR_DEPENDENT_SERVICES_RUNNING

1052 The requested control is not valid for this service.
ERROR_INVALID_SERVICE_CONTROL

1053 The service did not respond to the start or control request in a timely fashion. ERROR_SERVICE_REQUEST_TIMEOUT

1054 A thread could not be created for the service. ERROR_SERVICE_NO_THREAD

1055 The service database is locked. ERROR_SERVICE_DATABASE_LOCKED

1056 An instance of the service is already running. ERROR_SERVICE_ALREADY_RUNNING

1057 The account name is invalid or does not exist. ERROR_INVALID_SERVICE_ACCOUNT

1058 The service cannot be started, either because it is disabled or because it has no enabled devices associated with it. ERROR_SERVICE_DISABLED

1059 Circular service dependency was specified. ERROR_CIRCULAR_DEPENDENCY

1060 The specified service does not exist as an installed service.
ERROR_SERVICE_DOES_NOT_EXIST

1061 The service cannot accept control messages at this time.
ERROR_SERVICE_CANNOT_ACCEPT_CTRL

1062 The service has not been started. ERROR_SERVICE_NOT_ACTIVE

1063 The service process could not connect to the service controller.

ERROR_FAILED_SERVICE_CONTROLLER_CONNECT
1064 An exception occurred in the service when handling the control request.
ERROR_EXCEPTION_IN_SERVICE
1065 The database specified does not exist. ERROR_DATABASE_DOES_NOT_EXIST
1066 The service has returned a service-specific error code.
ERROR_SERVICE_SPECIFIC_ERROR
1067 The process terminated unexpectedly. ERROR_PROCESS_ABORTED
1068 The dependency service or group failed to start. ERROR_SERVICE_DEPENDENCY_FAIL
1069 The service did not start due to a logon failure. ERROR_SERVICE_LOGON_FAILED
1070 After starting, the service hung in a start-pending state.
ERROR_SERVICE_START_HANG
1071 The specified service database lock is invalid. ERROR_INVALID_SERVICE_LOCK
1072 The specified service has been marked for deletion.
ERROR_SERVICE_MARKED_FOR_DELETE
1073 The specified service already exists. ERROR_SERVICE_EXISTS
1074 The system is currently running with the last-known-good configuration.
ERROR_ALREADY_RUNNING_LKG
1075 The dependency service does not exist or has been marked for deletion.
ERROR_SERVICE_DEPENDENCY_DELETED
1076 The current boot has already been accepted for use as the last-known-good control set. ERROR_BOOT_ALREADY_ACCEPTED
1077 No attempts to start the service have been made since the last boot.
ERROR_SERVICE_NEVER_STARTED
1078 The name is already in use as either a service name or a service display name.
ERROR_DUPLICATE_SERVICE_NAME
1079 The account specified for this service is different from the account specified for other services running in the same process. ERROR_DIFFERENT_SERVICE_ACCOUNT
1080 Failure actions can only be set for Win32 services, not for drivers.
ERROR_CANNOT_DETECT_DRIVER_FAILURE
1081 This service runs in the same process as the service control manager. Therefore, the service control manager cannot take action if this service's process terminates unexpectedly. ERROR_CANNOT_DETECT_PROCESS_ABORT
1082 No recovery program has been configured for this service.
ERROR_NO_RECOVERY_PROGRAM
1100 The physical end of the tape has been reached. ERROR_END_OF_MEDIA
1101 A tape access reached a filemark. ERROR_FILEMARK_DETECTED
1102 The beginning of the tape or a partition was encountered.
ERROR_BEGINNING_OF_MEDIA
1103 A tape access reached the end of a set of files. ERROR_SETMARK_DETECTED
1104 No more data is on the tape. ERROR_NO_DATA_DETECTED
1105 Tape could not be partitioned. ERROR_PARTITION_FAILURE
1106 When accessing a new tape of a multivolume partition, the current blocksize is incorrect. ERROR_INVALID_BLOCK_LENGTH
1107 Tape partition information could not be found when loading a tape.
ERROR_DEVICE_NOT_PARTITIONED
1108 Unable to lock the media eject mechanism. ERROR_UNABLE_TO_LOCK_MEDIA
1109 Unable to unload the media. ERROR_UNABLE_TO_UNLOAD_MEDIA
1110 The media in the drive may have changed. ERROR_MEDIA_CHANGED
1111 The I/O bus was reset. ERROR_BUS_RESET
1112 No media in drive. ERROR_NO_MEDIA_IN_DRIVE
1113 No mapping for the Unicode character exists in the target multi-byte code page.
ERROR_NO_UNICODE_TRANSLATION
1114 A dynamic link library (DLL) initialization routine failed.
ERROR_DLL_INIT_FAILED
1115 A system shutdown is in progress. ERROR_SHUTDOWN_IN_PROGRESS
1116 Unable to abort the system shutdown because no shutdown was in progress.
ERROR_NO_SHUTDOWN_IN_PROGRESS
1117 The request could not be performed because of an I/O device error.
ERROR_IO_DEVICE
1118 No serial device was successfully initialized. The serial driver will unload.
ERROR_SERIAL_NO_DEVICE
1119 Unable to open a device that was sharing an interrupt request (IRQ) with other devices. At least one other device that uses that IRQ was already opened.

ERROR_IRQ_BUSY
1120 A serial I/O operation was completed by another write to the serial port. The IOCTL_SERIAL_XOFF_COUNTER reached zero.) ERROR_MORE_WRITES
1121 A serial I/O operation completed because the timeout period expired. The IOCTL_SERIAL_XOFF_COUNTER did not reach zero.) ERROR_COUNTER_TIMEOUT
1122 No ID address mark was found on the floppy disk. ERROR_FLOPPY_ID_MARK_NOT_FOUND
1123 Mismatch between the floppy disk sector ID field and the floppy disk controller track address. ERROR_FLOPPY_WRONG_CYLINDER
1124 The floppy disk controller reported an error that is not recognized by the floppy disk driver. ERROR_FLOPPY_UNKNOWN_ERROR
1125 The floppy disk controller returned inconsistent results in its registers. ERROR_FLOPPY_BAD_REGISTERS
1126 While accessing the hard disk, a recalibrate operation failed, even after retries. ERROR_DISK_RECALIBRATE_FAILED
1127 While accessing the hard disk, a disk operation failed even after retries. ERROR_DISK_OPERATION_FAILED
1128 While accessing the hard disk, a disk controller reset was needed, but even that failed. ERROR_DISK_RESET_FAILED
1129 Physical end of tape encountered. ERROR_EOM_OVERFLOW
1130 Not enough server storage is available to process this command. ERROR_NOT_ENOUGH_SERVER_MEMORY
1131 A potential deadlock condition has been detected. ERROR_POSSIBLE_DEADLOCK
1132 The base address or the file offset specified does not have the proper alignment. ERROR_MAPPED_ALIGNMENT
1140 An attempt to change the system power state was vetoed by another application or driver. ERROR_SET_POWER_STATE_VETOED
1141 The system BIOS failed an attempt to change the system power state. ERROR_SET_POWER_STATE_FAILED
1142 An attempt was made to create more links on a file than the file system supports. ERROR_TOO_MANY_LINKS
1150 The specified program requires a newer version of Windows. ERROR_OLD_WIN_VERSION
1151 The specified program is not a Windows or MS-DOS program. ERROR_APP_WRONG_OS
1152 Cannot start more than one instance of the specified program. ERROR_SINGLE_INSTANCE_APP
1153 The specified program was written for an earlier version of Windows. ERROR_RMODE_APP
1154 One of the library files needed to run this application is damaged. ERROR_INVALID_DLL
1155 No application is associated with the specified file for this operation. ERROR_NO_ASSOCIATION
1156 An error occurred in sending the command to the application. ERROR_DDE_FAIL
1157 One of the library files needed to run this application cannot be found. ERROR_DLL_NOT_FOUND
1158 The current process has used all of its system allowance of handles for Window Manager objects. ERROR_NO_MORE_USER_HANDLES
1159 The message can be used only with synchronous operations. ERROR_MESSAGE_SYNC_ONLY
1160 The indicated source element has no media. ERROR_SOURCE_ELEMENT_EMPTY
1161 The indicated destination element already contains media. ERROR_DESTINATION_ELEMENT_FULL
1162 The indicated element does not exist. ERROR_ILLEGAL_ELEMENT_ADDRESS
1163 The indicated element is part of a magazine that is not present. ERROR_MAGAZINE_NOT_PRESENT
1164 The indicated device requires reinitialization due to hardware errors. ERROR_DEVICE_REINITIALIZATION_NEEDED
1165 The device has indicated that cleaning is required before further operations are attempted. ERROR_DEVICE_REQUIRES_CLEANING
1166 The device has indicated that its door is open. ERROR_DEVICE_DOOR_OPEN
1167 The device is not connected. ERROR_DEVICE_NOT_CONNECTED
1168 Element not found. ERROR_NOT_FOUND
1169 There was no match for the specified key in the index. ERROR_NO_MATCH
1170 The property set specified does not exist on the object. ERROR_SET_NOT_FOUND

1171 The point passed to GetMouseMovePoints is not in the buffer.
ERROR_POINT_NOT_FOUND
1172 The tracking (workstation) service is not running. ERROR_NO_TRACKING_SERVICE
1173 The Volume ID could not be found. ERROR_NO_VOLUME_ID
1200 The specified device name is invalid. ERROR_BAD_DEVICE
1201 The device is not currently connected but it is a remembered connection.
ERROR_CONNECTION_UNAVAIL
1202 An attempt was made to remember a device that had previously been remembered.
ERROR_DEVICE_ALREADY_REMEMBERED
1203 No network provider accepted the given network path. ERROR_NO_NET_OR_BAD_PATH
1204 The specified network provider name is invalid. ERROR_BAD_PROVIDER
1205 Unable to open the network connection profile. ERROR_CANNOT_OPEN_PROFILE
1206 The network connection profile is corrupted. ERROR_BAD_PROFILE
1207 Cannot enumerate a noncontainer. ERROR_NOT_CONTAINER
1208 An extended error has occurred. ERROR_EXTENDED_ERROR
1209 The format of the specified group name is invalid. ERROR_INVALID_GROUPNAME
1210 The format of the specified computer name is invalid.
ERROR_INVALID_COMPUTERNAME
1211 The format of the specified event name is invalid. ERROR_INVALID_EVENTNAME
1212 The format of the specified domain name is invalid. ERROR_INVALID_DOMAINNAME
1213 The format of the specified service name is invalid. ERROR_INVALID_SERVICENAME
1214 The format of the specified network name is invalid. ERROR_INVALID_NETNAME
1215 The format of the specified share name is invalid. ERROR_INVALID_SHARENAME
1216 The format of the specified password is invalid. ERROR_INVALID_PASSWORDNAME
1217 The format of the specified message name is invalid. ERROR_INVALID_MESSAGE
1218 The format of the specified message destination is invalid.
ERROR_INVALID_MESSAGEDEST
1219 The credentials supplied conflict with an existing set of credentials.
ERROR_SESSION_CREDENTIAL_CONFLICT
1220 An attempt was made to establish a session to a network server, but there are already too many sessions established to that server.
ERROR_REMOTE_SESSION_LIMIT_EXCEEDED
1221 The workgroup or domain name is already in use by another computer on the network. ERROR_DUP_DOMAINNAME
1222 The network is not present or not started. ERROR_NO_NETWORK
1223 The operation was canceled by the user. ERROR_CANCELLED
1224 The requested operation cannot be performed on a file with a user-mapped section open. ERROR_USER_MAPPED_FILE
1225 The remote system refused the network connection. ERROR_CONNECTION_REFUSED
1226 The network connection was gracefully closed. ERROR_GRACEFUL_DISCONNECT
1227 The network transport endpoint already has an address associated with it.
ERROR_ADDRESS_ALREADY_ASSOCIATED
1228 An address has not yet been associated with the network endpoint.
ERROR_ADDRESS_NOT_ASSOCIATED
1229 An operation was attempted on a nonexistent network connection.
ERROR_CONNECTION_INVALID
1230 An invalid operation was attempted on an active network connection.
ERROR_CONNECTION_ACTIVE
1231 The remote network is not reachable by the transport. ERROR_NETWORK_UNREACHABLE
1232 The remote system is not reachable by the transport. ERROR_HOST_UNREACHABLE
1233 The remote system does not support the transport protocol.
ERROR_PROTOCOL_UNREACHABLE
1234 No service is operating at the destination network endpoint on the remote system. ERROR_PORT_UNREACHABLE
1235 The request was aborted. ERROR_REQUEST_ABORTED
1236 The network connection was aborted by the local system.
ERROR_CONNECTION_ABORTED
1237 The operation could not be completed. A retry should be performed. ERROR_RETRY
1238 A connection to the server could not be made because the limit on the number of concurrent connections for this account has been reached. ERROR_CONNECTION_COUNT_LIMIT
1239 Attempting to log in during an unauthorized time of day for this account.
ERROR_LOGIN_TIME_RESTRICTION
1240 The account is not authorized to log in from this station.

ERROR_LOGIN_WKSTA_RESTRICTION
1241 The network address could not be used for the operation requested.
ERROR_INCORRECT_ADDRESS
1242 The service is already registered. ERROR_ALREADY_REGISTERED
1243 The specified service does not exist. ERROR_SERVICE_NOT_FOUND
1244 The operation being requested was not performed because the user has not been authenticated. ERROR_NOT_AUTHENTICATED
1245 The operation being requested was not performed because the user has not logged on to the network. The specified service does not exist. ERROR_NOT_LOGGED_ON
1246 Continue with work in progress. ERROR_CONTINUE
1247 An attempt was made to perform an initialization operation when initialization has already been completed. ERROR_ALREADY_INITIALIZED
1248 No more local devices. ERROR_NO_MORE_DEVICES
1249 The specified site does not exist. ERROR_NO_SUCH_SITE
1250 A domain controller with the specified name already exists.
ERROR_DOMAIN_CONTROLLER_EXISTS
1251 An error occurred while installing the Windows NT directory service. Please view the event log for more information. ERROR_DS_NOT_INSTALLED
1300 Not all privileges referenced are assigned to the caller.
ERROR_NOT_ALL_ASSIGNED
1301 Some mapping between account names and security IDs was not done.
ERROR_SOME_NOT_MAPPED
1302 No system quota limits are specifically set for this account.
ERROR_NO_QUOTAS_FOR_ACCOUNT
1303 No encryption key is available. A well-known encryption key was returned.
ERROR_LOCAL_USER_SESSION_KEY
1304 The Windows NT password is too complex to be converted to a LAN Manager password. The LAN Manager password returned is a NULL string. ERROR_NULL_LM_PASSWORD
1305 The revision level is unknown. ERROR_UNKNOWN_REVISION
1306 Indicates two revision levels are incompatible. ERROR_REVISION_MISMATCH
1307 This security ID may not be assigned as the owner of this object.
ERROR_INVALID_OWNER
1308 This security ID may not be assigned as the primary group of an object.
ERROR_INVALID_PRIMARY_GROUP
1309 An attempt has been made to operate on an impersonation token by a thread that is not currently impersonating a client. ERROR_NO_IMPERSONATION_TOKEN
1310 The group may not be disabled. ERROR_CANT_DISABLE_MANDATORY
1311 There are currently no logon servers available to service the logon request.
ERROR_NO_LOGON_SERVERS
1312 A specified logon session does not exist. It may already have been terminated.
ERROR_NO_SUCH_LOGON_SESSION
1313 A specified privilege does not exist. ERROR_NO_SUCH_PRIVILEGE
1314 A required privilege is not held by the client. ERROR_PRIVILEGE_NOT_HELD
1315 The name provided is not a properly formed account name.
ERROR_INVALID_ACCOUNT_NAME
1316 The specified user already exists. ERROR_USER_EXISTS
1317 The specified user does not exist. ERROR_NO_SUCH_USER
1318 The specified group already exists. ERROR_GROUP_EXISTS
1319 The specified group does not exist. ERROR_NO_SUCH_GROUP
1320 Either the specified user account is already a member of the specified group, or the specified group cannot be deleted because it contains a member.
ERROR_MEMBER_IN_GROUP
1321 The specified user account is not a member of the specified group account.
ERROR_MEMBER_NOT_IN_GROUP
1322 The last remaining administration account cannot be disabled or deleted.
ERROR_LAST_ADMIN
1323 Unable to update the password. The value provided as the current password is incorrect. ERROR_WRONG_PASSWORD
1324 Unable to update the password. The value provided for the new password contains values that are not allowed in passwords. ERROR_ILL_FORMED_PASSWORD
1325 Unable to update the password because a password update rule has been violated.
ERROR_PASSWORD_RESTRICTION
1326 Logon failure: unknown user name or bad password. ERROR_LOGON_FAILURE

1327 Logon failure: user account restriction. ERROR_ACCOUNT_RESTRICTION
1328 Logon failure: account logon time restriction violation.
ERROR_INVALID_LOGON_HOURS
1329 Logon failure: user not allowed to log on to this computer.
ERROR_INVALID_WORKSTATION
1330 Logon failure: the specified account password has expired.
ERROR_PASSWORD_EXPIRED
1331 Logon failure: account currently disabled. ERROR_ACCOUNT_DISABLED
1332 No mapping between account names and security IDs was done. ERROR_NONE_MAPPED
1333 Too many local user identifiers (LUIDs) were requested at one time.
ERROR_TOO_MANY_LUIDS_REQUESTED
1334 No more local user identifiers (LUIDs) are available. ERROR_LUIDS_EXHAUSTED
1335 The subauthority part of a security ID is invalid for this particular use.
ERROR_INVALID_SUB_AUTHORITY
1336 The access control list (ACL) structure is invalid. ERROR_INVALID_ACL
1337 The security ID structure is invalid. ERROR_INVALID_SID
1338 The security descriptor structure is invalid. ERROR_INVALID_SECURITY_DESCR
1340 The inherited access control list (ACL) or access control entry (ACE) could not
be built. ERROR_BAD_INHERITANCE_ACL
1341 The server is currently disabled. ERROR_SERVER_DISABLED
1342 The server is currently enabled. ERROR_SERVER_NOT_DISABLED
1343 The value provided was an invalid value for an identifier authority.
ERROR_INVALID_ID_AUTHORITY
1344 No more memory is available for security information updates.
ERROR_ALLOTTED_SPACE_EXCEEDED
1345 The specified attributes are invalid, or incompatible with the attributes for
the group as a whole. ERROR_INVALID_GROUP_ATTRIBUTES
1346 Either a required impersonation level was not provided, or the provided
impersonation level is invalid. ERROR_BAD_IMPERSONATION_LEVEL
1347 Cannot open an anonymous level security token. ERROR_CANT_OPEN_ANONYMOUS
1348 The validation information class requested was invalid.
ERROR_BAD_VALIDATION_CLASS
1349 The type of the token is inappropriate for its attempted use.
ERROR_BAD_TOKEN_TYPE
1350 Unable to perform a security operation on an object that has no associated
security. ERROR_NO_SECURITY_ON_OBJECT
1351 Indicates a Windows NT Server could not be contacted or that objects within the
domain are protected such that necessary information could not be retrieved.
ERROR_CANT_ACCESS_DOMAIN_INFO
1352 The security account manager (SAM) or local security authority (LSA) server was
in the wrong state to perform the security operation. ERROR_INVALID_SERVER_STATE
1353 The domain was in the wrong state to perform the security operation.
ERROR_INVALID_DOMAIN_STATE
1354 This operation is only allowed for the Primary Domain Controller of the domain.
ERROR_INVALID_DOMAIN_ROLE
1355 The specified domain did not exist. ERROR_NO_SUCH_DOMAIN
1356 The specified domain already exists. ERROR_DOMAIN_EXISTS
1357 An attempt was made to exceed the limit on the number of domains per server.
ERROR_DOMAIN_LIMIT_EXCEEDED
1358 Unable to complete the requested operation because of either a catastrophic
media failure or a data structure corruption on the disk. ERROR_INTERNAL_DB_CORRUPTION
1359 The security account database contains an internal inconsistency.
ERROR_INTERNAL_ERROR
1360 Generic access types were contained in an access mask which should already be
mapped to nongeneric types. ERROR_GENERIC_NOT_MAPPED
1361 A security descriptor is not in the right format (absolute or self-relative).
ERROR_BAD_DESCRIPTOR_FORMAT
1362 The requested action is restricted for use by logon processes only. The calling
process has not registered as a logon process. ERROR_NOT_LOGON_PROCESS
1363 Cannot start a new logon session with an ID that is already in use.
ERROR_LOGON_SESSION_EXISTS
1364 A specified authentication package is unknown. ERROR_NO_SUCH_PACKAGE
1365 The logon session is not in a state that is consistent with the requested

operation. ERROR_BAD_LOGON_SESSION_STATE

1366 The logon session ID is already in use. ERROR_LOGON_SESSION_COLLISION

1367 A logon request contained an invalid logon type value. ERROR_INVALID_LOGON_TYPE

1368 Unable to impersonate using a named pipe until data has been read from that pipe. ERROR_CANNOT_IMPERSONATE

1369 The transaction state of a registry subtree is incompatible with the requested operation. ERROR_RXACT_INVALID_STATE

1370 An internal security database corruption has been encountered. ERROR_RXACT_COMMIT_FAILURE

1371 Cannot perform this operation on built-in accounts. ERROR_SPECIAL_ACCOUNT

1372 Cannot perform this operation on this built-in special group. ERROR_SPECIAL_GROUP

1373 Cannot perform this operation on this built-in special user. ERROR_SPECIAL_USER

1374 The user cannot be removed from a group because the group is currently the user's primary group. ERROR_MEMBERS_PRIMARY_GROUP

1375 The token is already in use as a primary token. ERROR_TOKEN_ALREADY_IN_USE

1376 The specified local group does not exist. ERROR_NO_SUCH_ALIAS

1377 The specified account name is not a member of the local group. ERROR_MEMBER_NOT_IN_ALIAS

1378 The specified account name is already a member of the local group. ERROR_MEMBER_IN_ALIAS

1379 The specified local group already exists. ERROR_ALIAS_EXISTS

1380 Logon failure: the user has not been granted the requested logon type at this computer. ERROR_LOGON_NOT_GRANTED

1381 The maximum number of secrets that may be stored in a single system has been exceeded. ERROR_TOO_MANY_SECRETS

1382 The length of a secret exceeds the maximum length allowed. ERROR_SECRET_TOO_LONG

1383 The local security authority database contains an internal inconsistency. ERROR_INTERNAL_DB_ERROR

1384 During a logon attempt, the user's security context accumulated too many security IDs. ERROR_TOO_MANY_CONTEXT_IDS

1385 Logon failure: the user has not been granted the requested logon type at this computer. ERROR_LOGON_TYPE_NOT_GRANTED

1386 A cross-encrypted password is necessary to change a user password. ERROR_NT_CROSS_ENCRYPTION_REQUIRED

1387 A new member could not be added to a local group because the member does not exist. ERROR_NO_SUCH_MEMBER

1388 A new member could not be added to a local group because the member has the wrong account type. ERROR_INVALID_MEMBER

1389 Too many security IDs have been specified. ERROR_TOO_MANY_SIDS

1390 A cross-encrypted password is necessary to change this user password. ERROR_LM_CROSS_ENCRYPTION_REQUIRED

1391 Indicates an ACL contains no inheritable components. ERROR_NO_INHERITANCE

1392 The file or directory is corrupted and unreadable. ERROR_FILE_CORRUPT

1393 The disk structure is corrupted and unreadable. ERROR_DISK_CORRUPT

1394 There is no user session key for the specified logon session. ERROR_NO_USER_SESSION_KEY

1395 The service being accessed is licensed for a particular number of connections. No more connections can be made to the service at this time because there are already as many connections as the service can accept. ERROR_LICENSE_QUOTA_EXCEEDED

1400 Invalid window handle. ERROR_INVALID_WINDOW_HANDLE

1401 Invalid menu handle. ERROR_INVALID_MENU_HANDLE

1402 Invalid cursor handle. ERROR_INVALID_CURSOR_HANDLE

1403 Invalid accelerator table handle. ERROR_INVALID_ACCEL_HANDLE

1404 Invalid hook handle. ERROR_INVALID_HOOK_HANDLE

1405 Invalid handle to a multiple-window position structure. ERROR_INVALID_DWP_HANDLE

1406 Cannot create a top-level child window. ERROR_TLW_WITH_WSCHILD

1407 Cannot find window class. ERROR_CANNOT_FIND_WND_CLASS

1408 Invalid window; it belongs to other thread. ERROR_WINDOW_OF_OTHER_THREAD

1409 Hot key is already registered. ERROR_HOTKEY_ALREADY_REGISTERED

1410 Class already exists. ERROR_CLASS_ALREADY_EXISTS

1411 Class does not exist. ERROR_CLASS_DOES_NOT_EXIST
1412 Class still has open windows. ERROR_CLASS_HAS_WINDOWS
1413 Invalid index. ERROR_INVALID_INDEX
1414 Invalid icon handle. ERROR_INVALID_ICON_HANDLE
1415 Using private DIALOG window words. ERROR_PRIVATE_DIALOG_INDEX
1416 The list box identifier was not found. ERROR_LISTBOX_ID_NOT_FOUND
1417 No wildcards were found. ERROR_NO_WILDCARD_CHARACTERS
1418 Thread does not have a clipboard open. ERROR_CLIPBOARD_NOT_OPEN
1419 Hot key is not registered. ERROR_HOTKEY_NOT_REGISTERED
1420 The window is not a valid dialog window. ERROR_WINDOW_NOT_DIALOG
1421 Control ID not found. ERROR_CONTROL_ID_NOT_FOUND
1422 Invalid message for a combo box because it does not have an edit control.
ERROR_INVALID_COMBOBOX_MESSAGE
1423 The window is not a combo box. ERROR_WINDOW_NOT_COMBOBOX
1424 Height must be less than 256. ERROR_INVALID_EDIT_HEIGHT
1425 Invalid device context (DC) handle. ERROR_DC_NOT_FOUND
1426 Invalid hook procedure type. ERROR_INVALID_HOOK_FILTER
1427 Invalid hook procedure. ERROR_INVALID_FILTER_PROC
1428 Cannot set nonlocal hook without a module handle. ERROR_HOOK_NEEDS_HMOD
1429 This hook procedure can only be set globally. ERROR_GLOBAL_ONLY_HOOK
1430 The journal hook procedure is already installed. ERROR_JOURNAL_HOOK_SET
1431 The hook procedure is not installed. ERROR_HOOK_NOT_INSTALLED
1432 Invalid message for single-selection list box. ERROR_INVALID_LB_MESSAGE
1433 LB_SETCOUNT sent to non-lazy list box. ERROR_SETCOUNT_ON_BAD_LB
1434 This list box does not support tab stops. ERROR_LB_WITHOUT_TABSTOPS
1435 Cannot destroy object created by another thread.
ERROR_DESTROY_OBJECT_OF_OTHER_THREAD
1436 Child windows cannot have menus. ERROR_CHILD_WINDOW_MENU
1437 The window does not have a system menu. ERROR_NO_SYSTEM_MENU
1438 Invalid message box style. ERROR_INVALID_MSGBOX_STYLE
1439 Invalid system-wide (SPI_*) parameter. ERROR_INVALID_SPI_VALUE
1440 Screen already locked. ERROR_SCREEN_ALREADY_LOCKED
1441 All handles to windows in a multiple-window position structure must have the same parent. ERROR_HWNDSDIFF_PARENT
1442 The window is not a child window. ERROR_NOT_CHILD_WINDOW
1443 Invalid GW_* command. ERROR_INVALID_GW_COMMAND
1444 Invalid thread identifier. ERROR_INVALID_THREAD_ID
1445 Cannot process a message from a window that is not a multiple document interface (MDI) window. ERROR_NON_MDICHILD_WINDOW
1446 Popup menu already active. ERROR_POPUP_ALREADY_ACTIVE
1447 The window does not have scroll bars. ERROR_NO_SCROLLBARS
1448 Scroll bar range cannot be greater than 0x7FFF. ERROR_INVALID_SCROLLBAR_RANGE
1449 Cannot show or remove the window in the way specified.
ERROR_INVALID_SHOWWIN_COMMAND
1450 Insufficient system resources exist to complete the requested service.
ERROR_NO_SYSTEM_RESOURCES
1451 Insufficient system resources exist to complete the requested service.
ERROR_NONPAGED_SYSTEM_RESOURCES
1452 Insufficient system resources exist to complete the requested service.
ERROR_PAGED_SYSTEM_RESOURCES
1453 Insufficient quota to complete the requested service. ERROR_WORKING_SET_QUOTA
1454 Insufficient quota to complete the requested service. ERROR_PAGEFILE_QUOTA
1455 The paging file is too small for this operation to complete.
ERROR_COMMITMENT_LIMIT
1456 A menu item was not found. ERROR_MENU_ITEM_NOT_FOUND
1457 Invalid keyboard layout handle. ERROR_INVALID_KEYBOARD_HANDLE
1458 Hook type not allowed. ERROR_HOOK_TYPE_NOT_ALLOWED
1459 This operation requires an interactive window station.
ERROR_REQUIRES_INTERACTIVE_WINDOWSTATION
1460 This operation returned because the timeout period expired. ERROR_TIMEOUT
1461 Invalid monitor handle. ERROR_INVALID_MONITOR_HANDLE
1500 The event log file is corrupted. ERROR_EVENTLOG_FILE_CORRUPT
1501 No event log file could be opened, so the event logging service did not start.

ERROR_EVENTLOG_CANT_START
 1502 The event log file is full. ERROR_LOG_FILE_FULL
 1503 The event log file has changed between read operations.
 ERROR_EVENTLOG_FILE_CHANGED
 1601 Failure accessing install service. ERROR_INSTALL_SERVICE
 1602 The user canceled the installation. ERROR_INSTALL_USEREXIT
 1603 Fatal error during installation. ERROR_INSTALL_FAILURE
 1604 Installation suspended, incomplete. ERROR_INSTALL_SUSPEND
 1605 Product code not registered. ERROR_UNKNOWN_PRODUCT
 1606 Feature ID not registered. ERROR_UNKNOWN_FEATURE
 1607 Component ID not registered. ERROR_UNKNOWN_COMPONENT
 1608 Unknown property. ERROR_UNKNOWN_PROPERTY
 1609 Handle is in an invalid state. ERROR_INVALID_HANDLE_STATE
 1610 Configuration data corrupt. ERROR_BAD_CONFIGURATION
 1611 Language not available. ERROR_INDEX_ABSENT
 1612 Install source unavailable. ERROR_INSTALL_SOURCE_ABSENT
 1613 Database version unsupported. ERROR_BAD_DATABASE_VERSION
 1614 Product is uninstalled. ERROR_PRODUCT_UNINSTALLED
 1615 SQL query syntax invalid or unsupported. ERROR_BAD_QUERY_SYNTAX
 1616 Record field does not exist. ERROR_INVALID_FIELD
 1700 The string binding is invalid. RPC_S_INVALID_STRING_BINDING
 1701 The binding handle is not the correct type. RPC_S_WRONG_KIND_OF_BINDING
 1702 The binding handle is invalid. RPC_S_INVALID_BINDING
 1703 The RPC protocol sequence is not supported. RPC_S_PROTSEQ_NOT_SUPPORTED
 1704 The RPC protocol sequence is invalid. RPC_S_INVALID_RPC_PROTSEQ
 1705 The string universal unique identifier (UUID) is invalid.
 RPC_S_INVALID_STRING_UUID
 1706 The endpoint format is invalid. RPC_S_INVALID_ENDPOINT_FORMAT
 1707 The network address is invalid. RPC_S_INVALID_NET_ADDR
 1708 No endpoint was found. RPC_S_NO_ENDPOINT_FOUND
 1709 The timeout value is invalid. RPC_S_INVALID_TIMEOUT
 1710 The object universal unique identifier (UUID) was not found.
 RPC_S_OBJECT_NOT_FOUND
 1711 The object universal unique identifier (UUID) has already been registered.
 RPC_S_ALREADY_REGISTERED
 1712 The type universal unique identifier (UUID) has already been registered.
 RPC_S_TYPE_ALREADY_REGISTERED
 1713 The RPC server is already listening. RPC_S_ALREADY_LISTENING
 1714 No protocol sequences have been registered. RPC_S_NO_PROTSEQS_REGISTERED
 1715 The RPC server is not listening. RPC_S_NOT_LISTENING
 1716 The manager type is unknown. RPC_S_UNKNOWN_MGR_TYPE
 1717 The interface is unknown. RPC_S_UNKNOWN_IF
 1718 There are no bindings. RPC_S_NO_BINDINGS
 1719 There are no protocol sequences. RPC_S_NO_PROTSEQS
 1720 The endpoint cannot be created. RPC_S_CANT_CREATE_ENDPOINT
 1721 Not enough resources are available to complete this operation.
 RPC_S_OUT_OF_RESOURCES
 1722 The RPC server is unavailable. RPC_S_SERVER_UNAVAILABLE
 1723 The RPC server is too busy to complete this operation. RPC_S_SERVER_TOO_BUSY
 1724 The network options are invalid. RPC_S_INVALID_NETWORK_OPTIONS
 1725 There are no remote procedure calls active on this thread. RPC_S_NO_CALL_ACTIVE
 1726 The remote procedure call failed. RPC_S_CALL_FAILED
 1727 The remote procedure call failed and did not execute. RPC_S_CALL_FAILED_DNE
 1728 A remote procedure call (RPC) protocol error occurred. RPC_S_PROTOCOL_ERROR
 1730 The transfer syntax is not supported by the RPC server.
 RPC_S_UNSUPPORTED_TRANS_SYN
 1732 The universal unique identifier (UUID) type is not supported.
 RPC_S_UNSUPPORTED_TYPE
 1733 The tag is invalid. RPC_S_INVALID_TAG
 1734 The array bounds are invalid. RPC_S_INVALID_BOUND
 1735 The binding does not contain an entry name. RPC_S_NO_ENTRY_NAME
 1736 The name syntax is invalid. RPC_S_INVALID_NAME_SYNTAX
 1737 The name syntax is not supported. RPC_S_UNSUPPORTED_NAME_SYNTAX

1739 No network address is available to use to construct a universal unique
 identifier (UUID). RPC_S_UUID_NO_ADDRESS
 1740 The endpoint is a duplicate. RPC_S_DUPLICATE_ENDPOINT
 1741 The authentication type is unknown. RPC_S_UNKNOWN_AUTHN_TYPE
 1742 The maximum number of calls is too small. RPC_S_MAX_CALLS_TOO_SMALL
 1743 The string is too long. RPC_S_STRING_TOO_LONG
 1744 The RPC protocol sequence was not found. RPC_S_PROTSEQ_NOT_FOUND
 1745 The procedure number is out of range. RPC_S_PROCNUM_OUT_OF_RANGE
 1746 The binding does not contain any authentication information.
 RPC_S_BINDING_HAS_NO_AUTH
 1747 The authentication service is unknown. RPC_S_UNKNOWN_AUTHN_SERVICE
 1748 The authentication level is unknown. RPC_S_UNKNOWN_AUTHN_LEVEL
 1749 The security context is invalid. RPC_S_INVALID_AUTH_IDENTITY
 1750 The authorization service is unknown. RPC_S_UNKNOWN_AUTHZ_SERVICE
 1751 The entry is invalid. EPT_S_INVALID_ENTRY
 1752 The server endpoint cannot perform the operation. EPT_S_CANT_PERFORM_OP
 1753 There are no more endpoints available from the endpoint mapper.
 EPT_S_NOT_REGISTERED
 1754 No interfaces have been exported. RPC_S_NOTHING_TO_EXPORT
 1755 The entry name is incomplete. RPC_S_INCOMPLETE_NAME
 1756 The version option is invalid. RPC_S_INVALID_VERS_OPTION
 1757 There are no more members. RPC_S_NO_MORE_MEMBERS
 1758 There is nothing to unexport. RPC_S_NOT_ALL_OBJS_UNEXPORTED
 1759 The interface was not found. RPC_S_INTERFACE_NOT_FOUND
 1760 The entry already exists. RPC_S_ENTRY_ALREADY_EXISTS
 1761 The entry is not found. RPC_S_ENTRY_NOT_FOUND
 1762 The name service is unavailable. RPC_S_NAME_SERVICE_UNAVAILABLE
 1763 The network address family is invalid. RPC_S_INVALID_NAF_ID
 1764 The requested operation is not supported. RPC_S_CANNOT_SUPPORT
 1765 No security context is available to allow impersonation.
 RPC_S_NO_CONTEXT_AVAILABLE
 1766 An internal error occurred in a remote procedure call (RPC).
 RPC_S_INTERNAL_ERROR
 1767 The RPC server attempted an integer division by zero. RPC_S_ZERO_DIVIDE
 1768 An addressing error occurred in the RPC server. RPC_S_ADDRESS_ERROR
 1769 A floating-point operation at the RPC server caused a division by zero.
 RPC_S_FP_DIV_ZERO
 1770 A floating-point underflow occurred at the RPC server. RPC_S_FP_UNDERFLOW
 1771 A floating-point overflow occurred at the RPC server. RPC_S_FP_OVERFLOW
 1772 The list of RPC servers available for the binding of auto handles has been
 exhausted. RPC_X_NO_MORE_ENTRIES
 1773 Unable to open the character translation table file.
 RPC_X_SS_CHAR_TRANS_OPEN_FAIL
 1774 The file containing the character translation table has fewer than bytes.
 RPC_X_SS_CHAR_TRANS_SHORT_FILE
 1775 A null context handle was passed from the client to the host during a remote
 procedure call. RPC_X_SS_IN_NULL_CONTEXT
 1777 The context handle changed during a remote procedure call.
 RPC_X_SS_CONTEXT_DAMAGED
 1778 The binding handles passed to a remote procedure call do not match.
 RPC_X_SS_HANDLES_MISMATCH
 1779 The stub is unable to get the remote procedure call handle.
 RPC_X_SS_CANNOT_GET_CALL_HANDLE
 1780 A null reference pointer was passed to the stub. RPC_X_NULL_REF_POINTER
 1781 The enumeration value is out of range. RPC_X_ENUM_VALUE_OUT_OF_RANGE
 1782 The byte count is too small. RPC_X_BYTE_COUNT_TOO_SMALL
 1783 The stub received bad data. RPC_X_BAD_STUB_DATA
 1784 The supplied user buffer is not valid for the requested operation.
 ERROR_INVALID_USER_BUFFER
 1785 The disk media is not recognized. It may not be formatted.
 ERROR_UNRECOGNIZED_MEDIA
 1786 The workstation does not have a trust secret. ERROR_NO_TRUST_LSA_SECRET
 1787 The SAM database on the Windows NT Server does not have a computer account for

this workstation trust relationship. ERROR_NO_TRUST_SAM_ACCOUNT
1788 The trust relationship between the primary domain and the trusted domain failed. ERROR_TRUSTED_DOMAIN_FAILURE
1789 The trust relationship between this workstation and the primary domain failed. ERROR_TRUSTED_RELATIONSHIP_FAILURE
1790 The network logon failed. ERROR_TRUST_FAILURE
1791 A remote procedure call is already in progress for this thread. RPC_S_CALL_IN_PROGRESS
1792 An attempt was made to logon, but the network logon service was not started. ERROR_NETLOGON_NOT_STARTED
1793 The user's account has expired. ERROR_ACCOUNT_EXPIRED
1794 The redirector is in use and cannot be unloaded. ERROR_REDIRECTOR_HAS_OPEN_HANDLES
1795 The specified printer driver is already installed. ERROR_PRINTER_DRIVER_ALREADY_INSTALLED
1796 The specified port is unknown. ERROR_UNKNOWN_PORT
1797 The printer driver is unknown. ERROR_UNKNOWN_PRINTER_DRIVER
1798 The print processor is unknown. ERROR_UNKNOWN_PRINTPROCESSOR
1799 The specified separator file is invalid. ERROR_INVALID_SEPARATOR_FILE
1800 The specified priority is invalid. ERROR_INVALID_PRIORITY
1801 The printer name is invalid. ERROR_INVALID_PRINTER_NAME
1802 The printer already exists. ERROR_PRINTER_ALREADY_EXISTS
1803 The printer command is invalid. ERROR_INVALID_PRINTER_COMMAND
1804 The specified datatype is invalid. ERROR_INVALID_DATATYPE
1805 The environment specified is invalid. ERROR_INVALID_ENVIRONMENT
1806 There are no more bindings. RPC_S_NO_MORE_BINDINGS
1807 The account used is an interdomain trust account. Use your global user account or local user account to access this server. ERROR_NOLOGON_INTERDOMAIN_TRUST_ACCOUNT
1808 The account used is a computer account. Use your global user account or local user account to access this server. ERROR_NOLOGON_WORKSTATION_TRUST_ACCOUNT
1809 The account used is a server trust account. Use your global user account or local user account to access this server. ERROR_NOLOGON_SERVER_TRUST_ACCOUNT
1810 The name or security ID (SID) of the domain specified is inconsistent with the trust information for that domain. ERROR_DOMAIN_TRUST_INCONSISTENT
1811 The server is in use and cannot be unloaded. ERROR_SERVER_HAS_OPEN_HANDLES
1812 The specified image file did not contain a resource section. ERROR_RESOURCE_DATA_NOT_FOUND
1813 The specified resource type cannot be found in the image file. ERROR_RESOURCE_TYPE_NOT_FOUND
1814 The specified resource name cannot be found in the image file. ERROR_RESOURCE_NAME_NOT_FOUND
1815 The specified resource language ID cannot be found in the image file. ERROR_RESOURCE_LANG_NOT_FOUND
1816 Not enough quota is available to process this command. ERROR_NOT_ENOUGH_QUOTA
1817 No interfaces have been registered. RPC_S_NO_INTERFACES
1818 The remote procedure call was cancelled. RPC_S_CALL_CANCELLED
1819 The binding handle does not contain all required information. RPC_S_BINDING_INCOMPLETE
1820 A communications failure occurred during a remote procedure call. RPC_S_COMM_FAILURE
1821 The requested authentication level is not supported. RPC_S_UNSUPPORTED_AUTHN_LEVEL
1822 No principal name registered. RPC_S_NO_PRINC_NAME
1823 The error specified is not a valid Windows RPC error code. RPC_S_NOT_RPC_ERROR
1824 A UUID that is valid only on this computer has been allocated. RPC_S_UUID_LOCAL_ONLY
1825 A security package specific error occurred. RPC_S_SEC_PKG_ERROR
1826 Thread is not canceled. RPC_S_NOT_CANCELLED
1827 Invalid operation on the encoding/decoding handle. RPC_X_INVALID_ES_ACTION
1828 Incompatible version of the serializing package. RPC_X_WRONG_ES_VERSION
1829 Incompatible version of the RPC stub. RPC_X_WRONG_STUB_VERSION
1830 The RPC pipe object is invalid or corrupted. RPC_X_INVALID_PIPE_OBJECT
1831 An invalid operation was attempted on an RPC pipe object.

RPC_X_WRONG_PIPE_ORDER
 1832 Unsupported RPC pipe version. RPC_X_WRONG_PIPE_VERSION
 1898 The group member was not found. RPC_S_GROUP_MEMBER_NOT_FOUND
 1899 The endpoint mapper database entry could not be created. EPT_S_CANT_CREATE
 1900 The object universal unique identifier (UUID) is the nil UUID.
 RPC_S_INVALID_OBJECT
 1901 The specified time is invalid. ERROR_INVALID_TIME
 1902 The specified form name is invalid. ERROR_INVALID_FORM_NAME
 1903 The specified form size is invalid. ERROR_INVALID_FORM_SIZE
 1904 The specified printer handle is already being waited on ERROR_ALREADY_WAITING
 1905 The specified printer has been deleted. ERROR_PRINTER_DELETED
 1906 The state of the printer is invalid. ERROR_INVALID_PRINTER_STATE
 1907 The user must change his password before he logs on the first time.
 ERROR_PASSWORD_MUST_CHANGE
 1908 Could not find the domain controller for this domain.
 ERROR_DOMAIN_CONTROLLER_NOT_FOUND
 1909 The referenced account is currently locked out and may not be logged on to.
 ERROR_ACCOUNT_LOCKED_OUT
 1910 The object exporter specified was not found. OR_INVALID_OXID
 1911 The object specified was not found. OR_INVALID_OID
 1912 The object resolver set specified was not found. OR_INVALID_SET
 1913 Some data remains to be sent in the request buffer. RPC_S_SEND_INCOMPLETE
 1914 Invalid asynchronous remote procedure call handle. RPC_S_INVALID_ASYNC_HANDLE
 1915 Invalid asynchronous RPC call handle for this operation.
 RPC_S_INVALID_ASYNC_CALL
 1916 The RPC pipe object has already been closed. RPC_X_PIPE_CLOSED
 1917 The RPC call completed before all pipes were processed.
 RPC_X_PIPE_DISCIPLINE_ERROR
 1918 No more data is available from the RPC pipe. RPC_X_PIPE_EMPTY
 1919 No site name is available for this machine. ERROR_NO_SITENAME
 1920 The file can not be accessed by the system. ERROR_CANT_ACCESS_FILE
 1921 The name of the file cannot be resolved by the system.
 ERROR_CANT_RESOLVE_FILENAME
 1922 The directory service evaluated group memberships locally.
 ERROR_DS_MEMBERSHIP_EVALUATED_LOCALLY
 1923 The specified directory service attribute or value does not exist.
 ERROR_DS_NO_ATTRIBUTE_OR_VALUE
 1924 The attribute syntax specified to the directory service is invalid.
 ERROR_DS_INVALID_ATTRIBUTE_SYNTAX
 1925 The attribute type specified to the directory service is not defined.
 ERROR_DS_ATTRIBUTE_TYPE_UNDEFINED
 1926 The specified directory service attribute or value already exists.
 ERROR_DS_ATTRIBUTE_OR_VALUE_EXISTS
 1927 The directory service is busy. ERROR_DS_BUSY
 1928 The directory service is unavailable. ERROR_DS_UNAVAILABLE
 1929 The directory service was unable to allocate a relative identifier.
 ERROR_DS_NO_RIDS_ALLOCATED
 1930 The directory service has exhausted the pool of relative identifiers.
 ERROR_DS_NO_MORE_RIDS
 1931 The requested operation could not be performed because the directory service is not the master for that type of operation. ERROR_DS_INCORRECT_ROLE_OWNER
 1932 The directory service was unable to initialize the subsystem that allocates relative identifiers. ERROR_DS_RIDMGR_INIT_ERROR
 1933 The requested operation did not satisfy one or more constraints associated with the class of the object. ERROR_DS_OBJ_CLASS_VIOLATION
 1934 The directory service can perform the requested operation only on a leaf object. ERROR_DS_CANT_ON_NON_LEAF
 1935 The directory service cannot perform the requested operation on the RDN attribute of an object. ERROR_DS_CANT_ON_RDN
 1936 The directory service detected an attempt to modify the object class of an object. ERROR_DS_CANT_MOD_OBJ_CLASS
 1937 The requested cross domain move operation could not be performed.
 ERROR_DS_CROSS_DOM_MOVE_ERROR

1938 Unable to contact the global catalog server. ERROR_DS_GC_NOT_AVAILABLE
 2000 The pixel format is invalid. ERROR_INVALID_PIXEL_FORMAT
 2001 The specified driver is invalid. ERROR_BAD_DRIVER
 2002 The window style or class attribute is invalid for this operation.
 ERROR_INVALID_WINDOW_STYLE
 2003 The requested metafile operation is not supported. ERROR_METAFILE_NOT_SUPPORTED
 2004 The requested transformation operation is not supported.
 ERROR_TRANSFORM_NOT_SUPPORTED
 2005 The requested clipping operation is not supported. ERROR_CLIPPING_NOT_SUPPORTED
 2108 The network connection was made successfully, but the user had to be prompted
 for a password other than the one originally specified. ERROR_CONNECTED_OTHER_PASSWORD
 2202 The specified username is invalid. ERROR_BAD_USERNAME
 2250 This network connection does not exist. ERROR_NOT_CONNECTED
 2300 The specified color management module is invalid. ERROR_INVALID_CMM
 2301 The specified color profile is invalid. ERROR_INVALID_PROFILE
 2302 The specified tag was not found. ERROR_TAG_NOT_FOUND
 2303 A required tag is not present. ERROR_TAG_NOT_PRESENT
 2304 The specified tag is already present. ERROR_DUPLICATE_TAG
 2305 The specified color profile is not associated with any device.
 ERROR_PROFILE_NOT_ASSOCIATED_WITH_DEVICE
 2306 The specified color profile was not found. ERROR_PROFILE_NOT_FOUND
 2307 The specified color space is invalid. ERROR_INVALID_COLORSPACE
 2308 Image Color Management is not enabled. ERROR_ICM_NOT_ENABLED
 2309 There was an error while deleting the color transform. ERROR_DELETING_ICM_XFORM
 2310 The specified color transform is invalid. ERROR_INVALID_TRANSFORM
 2401 This network connection has files open or requests pending. ERROR_OPEN_FILES
 2402 Active connections still exist. ERROR_ACTIVE_CONNECTIONS
 2404 The device is in use by an active process and cannot be disconnected.
 ERROR_DEVICE_IN_USE
 3000 The specified print monitor is unknown. ERROR_UNKNOWN_PRINT_MONITOR
 3001 The specified printer driver is currently in use. ERROR_PRINTER_DRIVER_IN_USE
 3002 The spool file was not found. ERROR_SPOOL_FILE_NOT_FOUND
 3003 A StartDocPrinter call was not issued. ERROR_SPL_NO_STARTDOC
 3004 An AddJob call was not issued. ERROR_SPL_NO_ADDJOB
 3005 The specified print processor has already been installed.
 ERROR_PRINT_PROCESSOR_ALREADY_INSTALLED
 3006 The specified print monitor has already been installed.
 ERROR_PRINT_MONITOR_ALREADY_INSTALLED
 3007 The specified print monitor does not have the required functions.
 ERROR_INVALID_PRINT_MONITOR
 3008 The specified print monitor is currently in use. ERROR_PRINT_MONITOR_IN_USE
 3009 The requested operation is not allowed when there are jobs queued to the
 printer. ERROR_PRINTER_HAS_JOBS_QUEUED
 3010 The requested operation is successful. Changes will not be effective until the
 system is rebooted. ERROR_SUCCESS_REBOOT_REQUIRED
 3011 The requested operation is successful. Changes will not be effective until the
 service is restarted. ERROR_SUCCESS_RESTART_REQUIRED
 4000 WINS encountered an error while processing the command. ERROR_WINS_INTERNAL
 4001 The local WINS can not be deleted. ERROR_CAN_NOT_DEL_LOCAL_WINS
 4002 The importation from the file failed. ERROR_STATIC_INIT
 4003 The backup failed. Was a full backup done before? ERROR_INC_BACKUP
 4004 The backup failed. Check the directory to which you are backing the database.
 ERROR_FULL_BACKUP
 4005 The name does not exist in the WINS database. ERROR_REC_NON_EXISTENT
 4006 Replication with a nonconfigured partner is not allowed. ERROR_RPL_NOT_ALLOWED
 4100 The DHCP client has obtained an IP address that is already in use on the
 network. The local interface will be disabled until the DHCP client can obtain a new
 address. ERROR_DHCP_ADDRESS_CONFLICT
 4200 The GUID passed was not recognized as valid by a WMI data provider.
 ERROR_WMI_GUID_NOT_FOUND
 4201 The instance name passed was not recognized as valid by a WMI data provider.
 ERROR_WMI_INSTANCE_NOT_FOUND
 4202 The data item ID passed was not recognized as valid by a WMI data provider.

ERROR_WMI_ITEMID_NOT_FOUND
4203 The WMI request could not be completed and should be retried.
ERROR_WMI_TRY_AGAIN
4204 The WMI data provider could not be located. ERROR_WMI_DP_NOT_FOUND
4205 The WMI data provider references an instance set that has not been registered.
ERROR_WMI_UNRESOLVED_INSTANCE_REF
4206 The WMI data block or event notification has already been enabled.
ERROR_WMI_ALREADY_ENABLED
4207 The WMI data block is no longer available. ERROR_WMI_GUID_DISCONNECTED
4208 The WMI data service is not available. ERROR_WMI_SERVER_UNAVAILABLE
4209 The WMI data provider failed to carry out the request. ERROR_WMI_DP_FAILED
4210 The WMI MOF information is not valid. ERROR_WMI_INVALID_MOF
4211 The WMI registration information is not valid. ERROR_WMI_INVALID_REGINFO
4300 The media identifier does not represent a valid medium. ERROR_INVALID_MEDIA
4301 The library identifier does not represent a valid library.
ERROR_INVALID_LIBRARY
4302 The media pool identifier does not represent a valid media pool.
ERROR_INVALID_MEDIA_POOL
4303 The drive and medium are not compatible or exist in different libraries.
ERROR_DRIVE_MEDIA_MISMATCH
4304 The medium currently exists in an offline library and must be online to perform this operation. ERROR_MEDIA_OFFLINE
4305 The operation cannot be performed on an offline library. ERROR_LIBRARY_OFFLINE
4306 The library, drive, or media pool is empty. ERROR_EMPTY
4307 The library, drive, or media pool must be empty to perform this operation.
ERROR_NOT_EMPTY
4308 No media is currently available in this media pool or library.
ERROR_MEDIA_UNAVAILABLE
4309 A resource required for this operation is disabled. ERROR_RESOURCE_DISABLED
4310 The media identifier does not represent a valid cleaner. ERROR_INVALID_CLEANER
4311 The drive cannot be cleaned or does not support cleaning. ERROR_UNABLE_TO_CLEAN
4312 The object identifier does not represent a valid object. ERROR_OBJECT_NOT_FOUND
4313 Unable to read from or write to the database. ERROR_DATABASE_FAILURE
4314 The database is full. ERROR_DATABASE_FULL
4315 The medium is not compatible with the device or media pool.
ERROR_MEDIA_INCOMPATIBLE
4316 The resource required for this operation does not exist.
ERROR_RESOURCE_NOT_PRESENT
4317 The operation identifier is not valid. ERROR_INVALID_OPERATION
4318 The media is not mounted or ready for use. ERROR_MEDIA_NOT_AVAILABLE
4319 The device is not ready for use. ERROR_DEVICE_NOT_AVAILABLE
4320 The operator or administrator has refused the request. ERROR_REQUEST_REFUSED
4350 The remote storage service was not able to recall the file. ERROR_FILE_OFFLINE
4351 The remote storage service is not operational at this time.
ERROR_REMOTE_STORAGE_NOT_ACTIVE
4352 The remote storage service encountered a media error.
ERROR_REMOTE_STORAGE_MEDIA_ERROR
4390 The file or directory is not a reparse point. ERROR_NOT_A_REPARSE_POINT
4391 The reparse point attribute cannot be set because it conflicts with an existing attribute. ERROR_REPARSE_ATTRIBUTE_CONFLICT
5001 The cluster resource cannot be moved to another group because other resources are dependent on it. ERROR_DEPENDENT_RESOURCE_EXISTS
5002 The cluster resource dependency cannot be found. ERROR_DEPENDENCY_NOT_FOUND
5003 The cluster resource cannot be made dependent on the specified resource because it is already dependent. ERROR_DEPENDENCY_ALREADY_EXISTS
5004 The cluster resource is not online. ERROR_RESOURCE_NOT_ONLINE
5005 A cluster node is not available for this operation.
ERROR_HOST_NODE_NOT_AVAILABLE
5006 The cluster resource is not available. ERROR_RESOURCE_NOT_AVAILABLE
5007 The cluster resource could not be found. ERROR_RESOURCE_NOT_FOUND
5008 The cluster is being shut down. ERROR_SHUTDOWN_CLUSTER
5009 A cluster node cannot be evicted from the cluster while it is online.
ERROR_CANT_EVICT_ACTIVE_NODE

5010 The object already exists. ERROR_OBJECT_ALREADY_EXISTS
5011 The object is already in the list. ERROR_OBJECT_IN_LIST
5012 The cluster group is not available for any new requests.
ERROR_GROUP_NOT_AVAILABLE
5013 The cluster group could not be found. ERROR_GROUP_NOT_FOUND
5014 The operation could not be completed because the cluster group is not online.
ERROR_GROUP_NOT_ONLINE
5015 The cluster node is not the owner of the resource.
ERROR_HOST_NODE_NOT_RESOURCE_OWNER
5016 The cluster node is not the owner of the group. ERROR_HOST_NODE_NOT_GROUP_OWNER
5017 The cluster resource could not be created in the specified resource monitor.
ERROR_RESMON_CREATE_FAILED
5018 The cluster resource could not be brought online by the resource monitor.
ERROR_RESMON_ONLINE_FAILED
5019 The operation could not be completed because the cluster resource is online.
ERROR_RESOURCE_ONLINE
5020 The cluster resource could not be deleted or brought offline because it is the
quorum resource. ERROR_QUORUM_RESOURCE
5021 The cluster could not make the specified resource a quorum resource because it
is not capable of being a quorum resource. ERROR_NOT_QUORUM_CAPABLE
5022 The cluster software is shutting down. ERROR_CLUSTER_SHUTTING_DOWN
5023 The group or resource is not in the correct state to perform the requested
operation. ERROR_INVALID_STATE
5024 The properties were stored but not all changes will take effect until the next
time the resource is brought online. ERROR_RESOURCE_PROPERTIES_STORED
5025 The cluster could not make the specified resource a quorum resource because it
does not belong to a shared storage class. ERROR_NOT_QUORUM_CLASS
5026 The cluster resource could not be deleted since it is a core resource.
ERROR_CORE_RESOURCE
5027 The quorum resource failed to come online. ERROR_QUORUM_RESOURCE_ONLINE_FAILED
5028 The quorum log could not be created or mounted successfully.
ERROR_QUORUMLOG_OPEN_FAILED
5029 The cluster log is corrupt. ERROR_CLUSTERLOG_CORRUPT
5030 The record could not be written to the cluster log since it exceeds the maximum
size. ERROR_CLUSTERLOG_RECORD_EXCEEDS_MAXSIZE
5031 The cluster log exceeds its maximum size. ERROR_CLUSTERLOG_EXCEEDS_MAXSIZE
5032 No checkpoint record was found in the cluster log.
ERROR_CLUSTERLOG_CHKPOINT_NOT_FOUND
5033 The minimum required disk space needed for logging is not available.
ERROR_CLUSTERLOG_NOT_ENOUGH_SPACE
6000 The specified file could not be encrypted. ERROR_ENCRYPTION_FAILED
6001 The specified file could not be decrypted. ERROR_DECRYPTION_FAILED
6002 The specified file is encrypted and the user does not have the ability to
decrypt it. ERROR_FILE_ENCRYPTED
6003 There is no encryption recovery policy configured for this system.
ERROR_NO_RECOVERY_POLICY
6004 The required encryption driver is not loaded for this system. ERROR_NO_EFS
6005 The file was encrypted with a different encryption driver than is currently
loaded. ERROR_WRONG_EFS
6006 There are no EFS keys defined for the user. ERROR_NO_USER_KEYS
6007 The specified file is not encrypted. ERROR_FILE_NOT_ENCRYPTED
6008 The specified file is not in the defined EFS export format.
ERROR_NOT_EXPORT_FORMAT
6118 The list of servers for this workgroup is not currently available
ERROR_NO_BROWSER_SERVERS_FOUND

Error-Codes (Win32-Net)

Win32 - Net Error Codes

2102 The workstation driver is not installed. NETERR_INCLUDED
2103 The server could not be located. NERR_UnknownServer
2104 An internal error occurred. The network cannot access a shared memory segment.
NERR_ShareMem
2105 A network resource shortage occurred . NERR_NoNetworkResource
2106 This operation is not supported on workstations. NERR_RemoteOnly
2107 The device is not connected. NERR_DevNotRedirected
2114 The Server service is not started. NERR_ServerNotStarted
2115 The queue is empty. NERR_ItemNotFound
2116 The device or directory does not exist. NERR_UnknownDevDir
2117 The operation is invalid on a redirected resource. NERR_RedirectedPath
2118 The name has already been shared. NERR_DuplicateShare
2119 The server is currently out of the requested resource. NERR_NoRoom
2121 Requested addition of items exceeds the maximum allowed. NERR_TooManyItems
2122 The Peer service supports only two simultaneous users. NERR_InvalidMaxUsers
2123 The API return buffer is too small. NERR_BufTooSmall
2127 A remote API error occurred. NERR_RemoteErr
2131 An error occurred when opening or reading the configuration file.
NERR_LanmanIniError
2136 A general network error occurred. NERR_NetworkError
2137 The Workstation service is in an inconsistent state. Restart the computer
before restarting the Workstation service. NERR_WkstaInconsistentState
2138 The Workstation service has not been started. NERR_WkstaNotStarted
2139 The requested information is not available. NERR_BrowserNotStarted
2140 An internal Windows NT error occurred. NERR_InternalError
2141 The server is not configured for transactions. NERR_BadTransactConfig
2142 The requested API is not supported on the remote server. NERR_InvalidAPI
2143 The event name is invalid. NERR_BadEventName
2144 The computer name already exists on the network. Change it and restart the
computer. NERR_DupNameReboot
2146 The specified component could not be found in the configuration information.
NERR_CfgCompNotFound
2147 The specified parameter could not be found in the configuration information.
NERR_CfgParamNotFound
2149 A line in the configuration file is too long. NERR_LineTooLong
2150 The printer does not exist. NERR_QNotFound
2151 The print job does not exist. NERR_JobNotFound
2152 The printer destination cannot be found. NERR_DestNotFound
2153 The printer destination already exists. NERR_DestExists
2154 The printer queue already exists. NERR_QExists
2155 No more printers can be added. NERR_QNoRoom
2156 No more print jobs can be added. NERR_JobNoRoom
2157 No more printer destinations can be added. NERR_DestNoRoom
2158 This printer destination is idle and cannot accept control operations.
NERR_DestIdle
2159 This printer destination request contains an invalid control function.
NERR_DestInvalidOp
2160 The print processor is not responding. NERR_ProcNoRespond
2161 The spooler is not running. NERR_SpoolerNotLoaded
2162 This operation cannot be performed on the print destination in its current
state. NERR_DestInvalidState
2163 This operation cannot be performed on the printer queue in its current state.
NERR_QInvalidState
2164 This operation cannot be performed on the print job in its current state.
NERR_JobInvalidState
2165 A spooler memory allocation failure occurred. NERR_SpoolNoMemory
2166 The device driver does not exist. NERR_DriverNotFound
2167 The data type is not supported by the print processor. NERR_DataTypeInvalid

2168 The print processor is not installed. NERR_ProcNotFound
 2180 The service database is locked. NERR_ServiceTableLocked
 2181 The service table is full. NERR_ServiceTableFull
 2182 The requested service has already been started. NERR_ServiceInstalled
 2183 The service does not respond to control actions. NERR_ServiceEntryLocked
 2184 The service has not been started. NERR_ServiceNotInstalled
 2185 The service name is invalid. NERR_BadServiceName
 2186 The service is not responding to the control function. NERR_ServiceCtlTimeout
 2187 The service control is busy. NERR_ServiceCtlBusy
 2188 The configuration file contains an invalid service program name.
 NERR_BadServiceProgName
 2189 The service could not be controlled in its present state. NERR_ServiceNotCtrl
 2190 The service ended abnormally. NERR_ServiceKillProc
 2191 The requested pause or stop is not valid for this service.
 NERR_ServiceCtlNotValid
 2192 The service control dispatcher could not find the service name in the dispatch
 table. NERR_NotInDispatchTbl
 2193 The service control dispatcher pipe read failed. NERR_BadControlRecv
 2194 A thread for the new service could not be created. NERR_ServiceNotStarting
 2200 This workstation is already logged on to the local-area network.
 NERR_AlreadyLoggedIn
 2201 The workstation is not logged on to the local-area network. NERR_NotLoggedIn
 2202 The user name or group name parameter is invalid. NERR_BadUsername
 2203 The password parameter is invalid. NERR_BadPassword
 2204 @W The logon processor did not add the message alias. NERR_UnableToAddName_W
 2205 The logon processor did not add the message alias. NERR_UnableToAddName_F
 2206 @W The logoff processor did not delete the message alias.
 NERR_UnableToDelName_W
 2207 The logoff processor did not delete the message alias. NERR_UnableToDelName_F
 2209 Network logons are paused. NERR_LogonsPaused
 2210 A centralized logon-server conflict occurred. NERR_LogonServerConflict
 2211 The server is configured without a valid user path. NERR_LogonNoUserPath
 2212 An error occurred while loading or running the logon script.
 NERR_LogonScriptError
 2214 The logon server was not specified. Your computer will be logged on as
 STANDALONE. NERR_StandaloneLogon
 2215 The logon server could not be found. NERR_LogonServerNotFound
 2216 There is already a logon domain for this computer. NERR_LogonDomainExists
 2217 The logon server could not validate the logon. NERR_NonValidatedLogon
 2219 The security database could not be found. NERR_ACFNotFound
 2220 The group name could not be found. NERR_GroupNotFound
 2221 The user name could not be found. NERR_UserNotFound
 2222 The resource name could not be found. NERR_ResourceNotFound
 2223 The group already exists. NERR_GroupExists
 2224 The user account already exists. NERR_UserExists
 2225 The resource permission list already exists. NERR_ResourceExists
 2226 This operation is only allowed on the primary domain controller of the domain.
 NERR_NotPrimary
 2227 The security database has not been started. NERR_ACFNotLoaded
 2228 There are too many names in the user accounts database. NERR_ACFNoRoom
 2229 A disk I/O failure occurred. NERR_ACFFileIOFail
 2230 The limit of 64 entries per resource was exceeded. NERR_ACFTooManyLists
 2231 Deleting a user with a session is not allowed. NERR_UserLogon
 2232 The parent directory could not be located. NERR_ACFNoParent
 2233 Unable to add to the security database session cache segment.
 NERR_CanNotGrowSegment
 2234 This operation is not allowed on this special group. NERR_SpeGroupOp
 2235 This user is not cached in user accounts database session cache.
 NERR_NotInCache
 2236 The user already belongs to this group. NERR_UserInGroup
 2237 The user does not belong to this group. NERR_UserNotInGroup
 2238 This user account is undefined. NERR_AccountUndefined
 2239 This user account has expired. NERR_AccountExpired

2240 The user is not allowed to log on from this workstation.
NERR_InvalidWorkstation
2241 The user is not allowed to log on at this time. NERR_InvalidLogonHours
2242 The password of this user has expired. NERR_PasswordExpired
2243 The password of this user cannot change. NERR_PasswordCantChange
2244 This password cannot be used now. NERR_PasswordHistConflict
2245 The password is shorter than required. NERR_PasswordTooShort
2246 The password of this user is too recent to change. NERR_PasswordTooRecent
2247 The security database is corrupted. NERR_InvalidDatabase
2248 No updates are necessary to this replicant network/local security database.
NERR_DatabaseUpToDate
2249 This replicant database is outdated; synchronization is required.
NERR_SyncRequired
2250 The network connection could not be found. NERR_UseNotFound
2251 This asg_type is invalid. NERR_BadAsgType
2252 This device is currently being shared. NERR_DeviceIsShared
2270 The computer name could not be added as a message alias. The name may already exist on the network. NERR_NoComputerName
2271 The Messenger service is already started. NERR_MsgAlreadyStarted
2272 The Messenger service failed to start. NERR_MsgInitFailed
2273 The message alias could not be found on the network. NERR_NameNotFound
2274 This message alias has already been forwarded. NERR_AlreadyForwarded
2275 This message alias has been added but is still forwarded. NERR_AddForwarded
2276 This message alias already exists locally. NERR_AlreadyExists
2277 The maximum number of added message aliases has been exceeded.
NERR_TooManyNames
2278 The computer name could not be deleted. NERR_DelComputerName
2279 Messages cannot be forwarded back to the same workstation. NERR_LocalForward
2280 An error occurred in the domain message processor. NERR_GrpMsgProcessor
2281 The message was sent, but the recipient has paused the Messenger service.
NERR_PausedRemote
2282 The message was sent but not received. NERR_BadReceive
2283 The message alias is currently in use. Try again later. NERR_NameInUse
2284 The Messenger service has not been started. NERR_MsgNotStarted
2285 The name is not on the local computer. NERR_NotLocalName
2286 The forwarded message alias could not be found on the network.
NERR_NoForwardName
2287 The message alias table on the remote station is full. NERR_RemoteFull
2288 Messages for this alias are not currently being forwarded.
NERR_NameNotForwarded
2289 The broadcast message was truncated. NERR_TruncatedBroadcast
2294 This is an invalid device name. NERR_InvalidDevice
2295 A write fault occurred. NERR_WriteFault
2297 A duplicate message alias exists on the network. NERR_DuplicateName
2298 @W This message alias will be deleted later. NERR_DeleteLater
2299 The message alias was not successfully deleted from all networks.
NERR_IncompleteDel
2300 This operation is not supported on computers with multiple networks.
NERR_MultipleNets
2310 This shared resource does not exist. NERR_NetNameNotFound
2311 This device is not shared. NERR_DeviceNotShared
2312 A session does not exist with that computer name. NERR_ClientNameNotFound
2314 There is not an open file with that identification number. NERR_FileIdNotFound
2315 A failure occurred when executing a remote administration command.
NERR_ExecFailure
2316 A failure occurred when opening a remote temporary file. NERR_TmpFile
2317 The data returned from a remote administration command has been truncated to 64K. NERR_TooMuchData
2318 This device cannot be shared as both a spooled and a non-spooled resource.
NERR_DeviceShareConflict
2319 The information in the list of servers may be incorrect.
NERR_BrowserTableIncomplete
2320 The computer is not active in this domain. NERR_NotLocalDomain

2321 The share must be removed from the Distributed File System before it can be
 deleted. NERR_IsDfsShare
 2331 The operation is invalid for this device. NERR_DevInvalidOpCode
 2332 This device cannot be shared. NERR_DevNotFound
 2333 This device was not open. NERR_DevNotOpen
 2334 This device name list is invalid. NERR_BadQueueDevString
 2335 The queue priority is invalid. NERR_BadQueuePriority
 2337 There are no shared communication devices. NERR_NoCommDevs
 2338 The queue you specified does not exist. NERR_QueueNotFound
 2340 This list of devices is invalid. NERR_BadDevString
 2341 The requested device is invalid. NERR_BadDev
 2342 This device is already in use by the spooler. NERR_InUseBySpooler
 2343 This device is already in use as a communication device. NERR_CommDevInUse
 2351 This computer name is invalid. NERR_InvalidComputer
 2354 The string and prefix specified are too long. NERR_MaxLenExceeded
 2356 This path component is invalid. NERR_BadComponent
 2357 Could not determine the type of input. NERR_CantType
 2362 The buffer for types is not big enough. NERR_TooManyEntries
 2370 Profile files cannot exceed 64K. NERR_ProfileFileTooBig
 2371 The start offset is out of range. NERR_ProfileOffset
 2372 The system cannot delete current connections to network resources.
 NERR_ProfileCleanup
 2373 The system was unable to parse the command line in this
 file. NERR_ProfileUnknownCmd
 2374 An error occurred while loading the profile file. NERR_ProfileLoadErr
 2375 @W Errors occurred while saving the profile file. The profile was partially
 saved. NERR_ProfileSaveErr
 2377 Log file %1 is full. NERR_LogOverflow
 2378 This log file has changed between reads. NERR_LogFileChanged
 2379 Log file %1 is corrupt. NERR_LogFileCorrupt
 2380 The source path cannot be a directory. NERR_SourceIsDir
 2381 The source path is illegal. NERR_BadSource
 2382 The destination path is illegal. NERR_BadDest
 2383 The source and destination paths are on different servers.
 NERR_DifferentServers
 2385 The Run server you requested is paused. NERR_RunSrvPaused
 2389 An error occurred when communicating with a Run server. NERR_ErrCommRunSrv
 2391 An error occurred when starting a background process. NERR_ErrorExecingGhost
 2392 The shared resource you are connected to could not be found. NERR_ShareNotFound
 2400 The LAN adapter number is invalid. NERR_InvalidLana
 2401 There are open files on the connection. NERR_OpenFiles
 2402 Active connections still exist. NERR_ActiveConns
 2403 This share name or password is invalid. NERR_BadPasswordCore
 2404 The device is being accessed by an active process. NERR_DevInUse
 2405 The drive letter is in use locally. NERR_LocalDrive
 2430 The specified client is already registered for the specified event.
 NERR_AlertExists
 2431 The alert table is full. NERR_TooManyAlerts
 2432 An invalid or nonexistent alert name was raised. NERR_NoSuchAlert
 2433 The alert recipient is invalid. NERR_BadRecipient
 2434 A user's session with this server has been deleted. NERR_AcctLimitExceeded
 2440 The log file does not contain the requested record number. NERR_InvalidLogSeek
 2450 The user accounts database is not configured correctly. NERR_BadUasConfig
 2451 This operation is not permitted when the Netlogon service is running.
 NERR_InvalidUASOp
 2452 This operation is not allowed on the last administrative account.
 NERR_LastAdmin
 2453 Could not find domain controller for this domain. NERR_DCNotFound
 2454 Could not set logon information for this user. NERR_LogonTrackingError
 2455 The Netlogon service has not been started. NERR_NetlogonNotStarted
 2456 Unable to add to the user accounts database. NERR_CanNotGrowUASFile
 2457 This server's clock is not synchronized with the primary domain controller's
 clock. NERR_TimeDiffAtDC

2458 A password mismatch has been detected. NERR_PasswordMismatch
2460 The server identification does not specify a valid server. NERR_NoSuchServer
2461 The session identification does not specify a valid session. NERR_NoSuchSession
2462 The connection identification does not specify a valid connection.
NERR_NoSuchConnection
2463 There is no space for another entry in the table of available servers.
NERR_TooManyServers
2464 The server has reached the maximum number of sessions it supports.
NERR_TooManySessions
2465 The server has reached the maximum number of connections it supports.
NERR_TooManyConnections
2466 The server cannot open more files because it has reached its maximum number.
NERR_TooManyFiles
2467 There are no alternate servers registered on this server.
NERR_NoAlternateServers
2470 Try down-level (remote admin protocol) version of API instead.
NERR_TryDownLevel
2480 The UPS driver could not be accessed by the UPS service.
NERR_UPSDriverNotStarted
2481 The UPS service is not configured correctly. NERR_UPSInvalidConfig
2482 The UPS service could not access the specified Comm Port.
NERR_UPSInvalidCommPort
2483 The UPS indicated a line fail or low battery situation. Service not started.
NERR_UPSSignalAsserted
2484 The UPS service failed to perform a system shut down. NERR_UPSShutdownFailed
2500 The program below returned an MS-DOS error code:NERR_BadDosRetCode
2501 The program below needs more memory:NERR_ProgNeedsExtraMem
2502 The program below called an unsupported MS-DOS function:NERR_BadDosFunction
2503 The workstation failed to boot.NERR_RemoteBootFailed
2504 The file below is corrupt.NERR_BadFileChecksum
2505 No loader is specified in the boot-block definition file.NERR_NoRplBootSystem
2506 NetBIOS returned an error: The NCB and SMB are dumped
above.NERR_RplLoadrNetBiosErr
2507 A disk I/O error occurred.NERR_RplLoadrDiskErr
2508 Image parameter substitution failed.NERR_ImageParamErr
2509 Too many image parameters cross disk sector boundaries.NERR_TooManyImageParams
2510 The image was not generated from an MS-DOS diskette formatted with
/S.NERR_NonDosFloppyUsed
2511 Remote boot will be restarted later.NERR_RplBootRestart
2512 The call to the Remoteboot server failed.NERR_RplSrvrCallFailed
2513 Cannot connect to the Remoteboot server.NERR_CantConnectRplSrvr
2514 Cannot open image file on the Remoteboot server.NERR_CantOpenImageFile
2515 Connecting to the Remoteboot server...NERR_CallingRplSrvr
2516 Connecting to the Remoteboot server...NERR_StartingRplBoot
2517 Remote boot service was stopped; check the error log for the cause of the
problem.NERR_RplBootServiceTerm
2518 Remote boot startup failed; check the error log for the cause of the
problem.NERR_RplBootStartFailed
2519 A second connection to a Remoteboot resource is not allowed.NERR_RPL_CONNECTED
2550 The browser service was configured with MaintainServerList=No.
NERR_BrowserConfiguredToNotRun
2610 Service failed to start since none of the network adapters started with this
service.NERR_RplNoAdaptersStarted
2611 Service failed to start due to bad startup information in the
registry.NERR_RplBadRegistry
2612 Service failed to start because its database is absent or
corrupt.NERR_RplBadDatabase
2613 Service failed to start because RPLFILES share is absent.NERR_RplRplfilesShare
2614 Service failed to start because RPLUSER group is absent.NERR_RplNotRplServer
2615 Cannot enumerate service records.NERR_RplCannotEnum
2616 Workstation record information has been corrupted.NERR_RplWkstaInfoCorrupted
2617 Workstation record was not found.NERR_RplWkstaNotFound
2618 Workstation name is in use by some other

workstation.NERR_RplWkstaNameUnavailable
 2619 Profile record information has been corrupted.NERR_RplProfileInfoCorrupted
 2620 Profile record was not found.NERR_RplProfileNotFound
 2621 Profile name is in use by some other profile.NERR_RplProfileNameUnavailable
 2622 There are workstations using this profile.NERR_RplProfileNotEmpty
 2623 Configuration record information has been corrupted.NERR_RplConfigInfoCorrupted
 2624 Configuration record was not found.NERR_RplConfigNotFound
 2625 Adapter id record information has been corrupted.NERR_RplAdapterInfoCorrupted
 2626 An internal service error has occurred.NERR_RplInternal
 2627 Vendor id record information has been corrupted.NERR_RplVendorInfoCorrupted
 2628 Boot block record information has been corrupted.NERR_RplBootInfoCorrupted
 2629 The user account for this workstation record is
 missing.NERR_RplWkstaNeedsUserAcct
 2630 The RPLUSER local group could not be found.NERR_RplNeedsRPLUSERAcct
 2631 Boot block record was not found.NERR_RplBootNotFound
 2632 Chosen profile is incompatible with this
 workstation.NERR_RplIncompatibleProfile
 2633 Chosen network adapter id is in use by some other
 workstation.NERR_RplAdapterNameUnavailable
 2634 There are profiles using this configuration.NERR_RplConfigNotEmpty
 2635 There are workstations, profiles, or configurations using this boot
 block.NERR_RplBootInUse
 2636 Service failed to backup Remoteboot database.NERR_RplBackupDatabase
 2637 Adapter record was not found.NERR_RplAdapterNotFound
 2638 Vendor record was not found.NERR_RplVendorNotFound
 2639 Vendor name is in use by some other vendor record.NERR_RplVendorNameUnavailable
 2640 (boot name, vendor id) is in use by some other boot block
 record.NERR_RplBootNameUnavailable
 2641 Configuration name is in use by some other
 configuration.NERR_RplConfigNameUnavailable
 2660 The internal database maintained by the Dfs service is
 corruptNERR_DfsInternalCorruption
 2661 One of the records in the internal Dfs database is
 corruptNERR_DfsVolumeDataCorrupt
 2662 There is no volume whose entry path matches the input Entry
 PathNERR_DfsNoSuchVolume
 2663 A volume with the given name already existsNERR_DfsVolumeAlreadyExists
 2664 The server share specified is already shared in the DfsNERR_DfsAlreadyShared
 2665 The indicated server share does not support the indicated Dfs
 volumeNERR_DfsNoSuchShare
 2666 The operation is not valid on a non-leaf volumeNERR_DfsNotALeafVolume
 2667 The operation is not valid on a leaf volumeNERR_DfsLeafVolume
 2668 The operation is ambiguous because the volume has multiple
 serversNERR_DfsVolumeHasMultipleServers
 2669 Unable to create a junction pointNERR_DfsCantCreateJunctionPoint
 2670 The server is not Dfs AwareNERR_DfsServerNotDfsAware
 2671 The specified rename target path is invalidNERR_DfsBadRenamePath
 2672 The specified Dfs volume is offlineNERR_DfsVolumeIsOffline
 2673 The specified server is not a server for this volumeNERR_DfsNoSuchServer
 2674 A cycle in the Dfs name was detectedNERR_DfsCyclicalName
 2675 The operation is not supported on a server-based
 DfsNERR_DfsNotSupportedInServerDfs
 2690 Dfs internal errorNERR_DfsInternalError
 2691 This machine is already joined to a domain.NERR_SetupAlreadyJoined
 2692 This machine is not currently joined to a domain. NERR_SetupNotJoined
 2693 This machine is a domain controller and cannot be unjoined from a domain.
 NERR_SetupDomainController

Files and directories

Directory-Layout:

```
(root)
|
|
+-- Server
|   |
|   +-- (servername)
|
+-- Groups
|   |
|   +-- News.Out
|   |
|   +-- (groupnames)
|
+-- Mails
|   |
|   +-- Mail.Out
|   |
|   +-- admin
|   |
|   +-- (accounts)
|
+-- Logs
```

Files in "(root)":

Hamster.exe

The incredible Hamster-machine.

Hamster.hlp

Hamster's helpfile.

Hamster.ini

Hamster-settings.

Options which can only be set manually:

[Directories]

```
; Set the root directory, where Hamster's files are located. If
; this setting is empty (default), Hamster uses the directory,
; where Hamster.exe was started from.
; NOTE: This "Main"-setting is always read from file Hamster.ini
; in the same directory, where Hamster.exe was started from.
; All additional settings are then read from Hamster.ini in
; the given "Main"-directory.
```

Main=

```
; e.g.: Main=D:\Data\Hamster
```

```
; Set the location of additional directories used by Hamster.
; These settings are treated as subdirectories within the "Main"-
; directory, unless a root-path is given.
```

Server=Server

Groups=Groups

Mails=Mails

Logs=Logs

Scripts=

```
; e.g.: Logs=E:\Logfiles\Hamster
```

[Setup]

```
; Disable Hamster's "X-Posting-Agent:"-header for news/mails:
news.addxhamster=0
mail.addxhamster=0

; Disable Hamster's "Received:"-header for mails:
mail.addreceived=0

; Timeout in minutes after which the local-servers disconnect
; inactive clients (default 60):
local.timeout.inactivity=60

; Time in milliseconds for which Hamster waits before closing
; a connection after QUIT-command (default 100 ms):
local.timeout.quitdelay=100

; Period in seconds, for which a POP3-authentication remains
; valid for SMTP-after-POP3 (default 300 s)
local.smtpafterpop3.period=300

; Defines one or more SASL mechanisms, which may be used to
; authenticate a client on the local SMTP server (default and
; the only SASL mechanism supported so far is: LOGIN)
local.smtp.sasl=LOGIN

; Limits for line-length and text-size sent to one of Hamster's
; local servers. If one of the limits is exceeded, the connection
; will be terminated (default: 1000/2MB; 0 to disable):
local.limit.linelen.nntp=1000
local.limit.linelen.pop3=1000
local.limit.linelen.smtp=1000
local.limit.textsize.nntp=2097152
local.limit.textsize.pop3=2097152
local.limit.textsize.smtp=2097152

; Seconds after which remote-servers have to answer (when
; connecting/after sending a command) before a 'no response
; from server' is assumed (in seconds; default: 120).
remote.timeout.connect=120
remote.timeout.command=120

; Remove Message-ID from mails sent to local SMTP-server,
; if its FQDN is one of those in this comma-separated list:
mail.removeids=fqdn1,fqdn2,fqdn3,...

; Defines how the keyword is built for encoding the entries in
; password-file. If set to 1, the user-name is not used for it
; (e.g. on NT, if Hamster is used with different logins). If set
; to 2, neither computer nor OS-specific values are used.
; Note: You have to restart Hamster and set all passwords again
; after changing this value!
password.codebase=0

; If sending of a mail fails for any reason, Hamster tries it
; again later for a given number of times (.max=...). Finally,
; the undeliverable mail-file is either renamed to "*.err"
; (.del=0) or deleted (.del=1) to avoid further attempts.
sendmail.attempts.max=10
sendmail.attempts.del=0

; Global filters for fetched mails based on the size of the
; messages (reported by initial LIST-command). If a message
; exceeds the given size, it is ignored (.ignore), killed
; (.kill) or a notification-message is sent to admin (.notify).
; A value of 0 (default) disables these filters, which have a
; higher priority than the mailfilters defined in MailFilt.hst.
mail.filter.mailsize.ignore=0
mail.filter.mailsize.kill=0
mail.filter.mailsize.notify=0
```

```

; Number of lines of mailbody to load when retrieving headers for
; mailfilters. These lines are included in notification-messages
; when ignoring or killing mails.
mail.filter.toplines=20

; Number of days to keep entries in mail-history (default: 14).
purge.mhistory.keepdays=14

; The history-file is splitted in multiple files and this setting
; controls, how many files are used ("0"=1 file, "2"=4 files, ...,
; "8"=256 files). The default-setting of "4" results in 2^4=16 files,
; which should be OK for most cases.
; To change the number of files used (which is NOT recommended for
; installations with less than 100.000-200.000 articles):
; 1. close Hamster
; 2. change "history-chunkbits"-setting
; 3. delete "hist*.dat" in "groups"-directory
; 4. start Hamster to (automatically) rebuild the history file
history.chunkbits=4

; Defines the editor to use for editing scripts. "editor.app" gives
; the program to start and "editor.params" gives its command-line
; parameters, where "%1" is replaced by the filename to edit.
; Default editor-setting is "notetab.exe" with parameters "%1":
editor.app=notepad.exe
editor.params=%1

; Defines the names of Hamster-internal groups:
; .default      : used for all functions if no other name is given
; .postok       : report articles which were posted successfully
; .posterrors   : report articles which failed on posting
; .statistics   : daily group-statistics
; .cancelnotify: notifications for cancels in local groups
; .newgroups    : report new newsgroups
; .unknowngroup: container for articles with unknown groups
; .pullerrors   : report pull-errors (e.g. outdated groups)
; Default is to save all articles in "internal.misc":
internalgroup.default=internal.misc
internalgroup.postok=
internalgroup.posterrors=
internalgroup.statistics=
internalgroup.cancelnotify=
internalgroup.newgroups=
internalgroup.unknowngroup=
internalgroup.pullerrors=

; Defines the name of a X-header, which is added to posted articles.
; The content of such a trace-header consists of the following values:
; FQDN/localhost, time, thread-id, client's IP, user-id, thread-id
; (hex), date-str., time-str.
; If posted article already contains such a header, article will not
; be rejected, but existing header will be renamed to 'X-Old-...'.
; Default is empty, i.e. don't add such a trace-header.
news.addxhtrace=
; e.g.: news.addxhtrace=X-Hamster-Trace
; -> X-Hamster-Trace: x.y.z 963151230 236 127.0.0.1 (1 ec 2000.07.09 14:00:30)

[Main]

; Set the status information for the bottom line of the main window
; (BottomlineFormat=...) and for the hint text of the icon in system
; tray (HintFormat=...).
; Placeholders:
; %TA  Active tasks
; %JO  Remaining jobs
; %NO  News to post (News.Out)
; %MO  Mails to send (Mail.Out)
; %NI  New News (News In, %NI=%NL+%NH+%NK)
; %NL  News loaded
; %NH  News ignored due to history

```

```

; %NK News killed
; %MI Mails loaded
; %BY Bytes transfered
; %KB KByte transfered
BottomlineFormat=Jobs=%TA/%JO OutBox: N/M=%NO/%MO News=%NI (Load=%NL History=%NH
Kill=%NK) Mails=%MI Byte=%BY
HintFormat=Tasks/Jobs=%TA/%JO N/M=%NO/%MO Arts=%NI Mails=%MI
```

Changes.txt

Version-history.

Groups.hst

List of Hamster-newsgroups.

Pulls.hst

List of newsgroups to pull from newsservers.

Server.hst, SrvPOP3.hst, SrvSMTP.hst

List of NNTP-/POP3- and SMTP-Servers.

Password.!!!

Password-settings.

Accounts.!!!

Local accounts and their settings.

IPAccess.hst

Allow/refuse connections based on client-addresses.

Scores.hst

Scorefile used when pulling news.

MailFilt.hst

Filters used when fetching mails.

Ham.exe

Commandline-utility to view and export news-articles (see "ham help" for details).

h*.hsc, demo*.hsc

Hamster-Scripts

h*.pl, demo*.pl

Perl-Scripts

h*.vbs, demo*.vbs

VBScript-Scripts ("Windows Script Host")

Files in "(root)\Server":

allpulls.txt

Old file - not used any more.

alldescs.txt

Contains a list of all available groups with their descriptions.

Format: group-name TAB group-description

Files in "(root)\Server\ (servernames)":

Greeting.txt

Initial greeting-message of server.

Groups.txt

Grouplist of server.

Help.txt

Helpfile of server.

NewGrps.txt

List of new groups on server ("Groups.txt" will be updated also).

GrpDescs.txt

List of group-descriptions loaded from server.

Overview.txt

Supported overview-fields of server.

Server.ini

Server-specific settings.

Options which can only be set manually:

[Setup]

```
; If ReadOnly is set to 1, the given newsserver will not be used  
; to post articles (default: 0).  
ReadOnly=0
```

[Newgroups]

```
; If 4-Digit-Years is set to 1, NEWGROUPS-command is invoked with  
; format "YYYYMMDD ..." (default: 0 = 2-digits).  
4-Digit-Years=0  
; Normally, "LastGMT" contains a timestamp for when new groups were  
; retrieved the last time. To disable retrieval of new groups, you  
; can set it to "NEVER".  
LastGMT=NEVER
```

[Pull]

```
; Number of threads started when pulling news (range: 0-4, default: 1).  
; NOTE: The usage-policy for some servers might order you not to use  
; higher values than 1, 2 or 3. If in doubt, ask your newsmaster, how  
; many concurrent connections ("sockets") are allowed on his server.  
Threads=1
```

[SMTP]

```
; If set to 1, Hamster uses SMTP AUTH to login to this SMTP server  
; (default is 0, i.e. don't authenticate).  
AUTH=0  
  
; Defines a list of SASL mechanisms (separated by space), which may  
; be used to authenticate on this SMTP server (default is empty, which  
; means, that all mechanisms supported by Hamster may be used; the only  
; SASL mechanism supported so far is: LOGIN)  
SASL=
```

[POP3]

```
; If set to 1, Hamster does not delete mails loaded from this server,  
; even if global "Leave mails on server" (Configuration/Settings) is  
; not set (default: 0, i.e. global setting applies).  
LeaveOnServer=0
```

GetMids.txt

List of Message-IDs to pull from server (used for loading articles at "Killfile-Log -> Mark article for retrieval"). If a Message-ID is preceded with "!", it will be pulled from server, even if it's already marked as "known" in the history-file.

Files in "(root)\Groups":

History.dat

Old file - not used any more.

Hist4???.dat

A list of article-infos (primarily a MD5-hash of Message-ID) used to recognize already loaded articles and to find again articles by Message-ID later.

Kills.log

Overview-lines of articles not loaded due to scorefile-settings.

Files in "(root)\Groups\News.Out":

*.msg

Messages posted to the local NNTP-server (each article in a separate textfile). They will be deleted after posting it on a newsserver.

If configured so, Hamster will add a Message-ID before posting the article, if - and only if - the article does not have one already. Hamster itself does not overwrite existing Message-IDs.

BETA-note: Hamster will add a "X-Posting-Agent: Hamster Vr. ..." -versionheader on each article before posting.

Files in "(root)\Groups\ (groupnames) ":

data.dat

Article-data.

data.idx

Index of articles stored in "data.dat".

data.ini

Group-specific infos and settings.

Files in "(root)\Mails":

MHistory.dat

Similar to the history-files in the groups-directory, this file is used to recognize already loaded mails.

Files in "(root)\Mails\Mail.Out":

*.msg

Mails sent to the local SMTP-server (each mail in a separate textfile; leading SMTP-envelope-lines are marked with an exclamation-mark "!"). The mails will be deleted after they have been sent out to an external SMTP-server.

Files in "(root)\Mails\admin":

*.msg

Mails loaded from external POP3-servers (each mail in a separate textfile).

Files in "(root)\Logs":

0.log, 1.log, 2.log, ...

Hamster session-logfiles. Each time Hamster is started, the files are shifted up by 1 (0.log->1.log, 1.log->2.log, ...). "0.log" is always the most current logfiles.

MailIn.log

Contains infos for each mail, fetched from external POP3-servers.

MailOut.log

Contains infos for each mail, sent to external SMTP-servers.

RasDial.log

Contains an entry for each dial-up connection initiated by Hamster.

File: (root) \IPAccess.hst

Purpose:

Allow or refuse connections to local servers based on the IP-address of connecting clients.

Format:

Plain-text.

Comments starting with "#" or ";" may be added to enhance readability.

Each definition-line consists of 3 to 4 values separated by commas (", "):

1.) Scope

This value describes, which local servers are affected by the setting. For example, a line starting with "NNTP" only affects the local NNTP-Server, but not the POP3-/SMTP-servers.

Keywords:

NNTP:	Local NNTP-server
POP3:	Local POP3-server
SMTP:	Local SMTP-server
MAIL:	Local POP3- and SMTP-server
ALL:	All local servers

2.) Access

This value describes, if a client can connect to the given local server(s) and which actions are allowed on it.

Keywords:

RW:	Allow Read/Write
WO:	Allow Write-Only
RO:	Allow Read-Only
NA:	No Access

The distinction between read- and write-access is only a logical issue. The behaviour is as follows:

<u>Scope</u>	<u>Access</u>	<u>Effect</u>
NNTP	RW/RO	Client can read articles.
NNTP	RW	Client can read and post articles.
POP3	RW/RO	Client can fetch mails.
SMTP	RW/WO	Client can send mails.
(all)	(other)	Connection is refused.

3.) Range of IP-addresses (low address)

4.) Range of IP-addresses (high address)

Upper bound may be omitted if it's only a setting for a single address.

Special setting for local IP-addresses:

The special keyword "LOCAL" in field 3 tells Hamster, that all IP-addresses of the local computer should be treated like the address given in the 4th parameter. This setting is especially useful, if local addresses are assigned dynamically, e.g. address assigned by a DHCP-server or assigned by your provider on dial-up.

Fields 1 and 2 have no meaning in this case, but they have to be syntactically correct.

Example:

```
# all local IP-addresses should be treated as 127.0.0.1:
ALL, NA, LOCAL, 127.0.0.1
```

Implementation notes:

(*) The definition-list is only loaded once when starting Hamster, so you have to restart Hamster after editing the file.

(*) As Hamster is intended to be used "at home", the default-setting is to *allow full access* on *all local servers* for addresses *127.0.0.1 and 192.168.0.0-192.168.255.255*. Furthermore, all local IP-addresses are treated like "127.0.0.1".

To change this behaviour, you have to create a file named "IPAccess.hst" in Hamster's root-directory and add at least one valid definition-line.

(*) The definition-list is tested from top to down and the first matching definition-line is used. If no definition-line matches, connection is refused.

Example:

```
# treat all local IP-addresses like 127.0.0.1:
ALL, NA, LOCAL, 127.0.0.1

# full access on all services for localhost:
ALL, RW, 127.0.0.1

# full access on all services for LAN-stations:
ALL, RW, 192.168.0.0, 192.168.255.255

# full access on all services for specific addresses:
ALL, RW, 11.22.33.44 # John Doe
ALL, RW, 44.33.22.11 # Jane Doe

# readonly-access on news for all other addresses:
NNTP, RO, 0.0.0.0, 255.255.255.255

# no access for all other addresses and services:
ALL, NA, 0.0.0.0, 255.255.255.255
```

File: (root) \Scores.hst

Purpose:

The rules in file "Scores.hst" determine, which articles will be loaded immediately, which will be logged in the Killfile-Log and which will be ignored completely when pulling new news.

This filtering is done with a technique called "Scoring". In Hamster, this means, that each article starts with a score-value of zero and then gains or loses points if it matches one or more of the given score-rules.

The final score-value then determines, if the article will be loaded. If the value is greater than or equal to zero (≥ 0), it will be loaded immediately. Otherwise (< 0) it will not be loaded but saved in the Killfile-Log, from where it later can be loaded manually. To keep this logfile small and clear, you can further set a score-limit under Killfile-Settings, which prevents log-entries for articles with a "very low" score-value.

Syntax-Overview:

```
ScoreFile      = *( ScoreBlock / cEOL )
ScoreBlock     = ScoreScope *( ScoreRule / cEOL )

ScoreScope     = "[" ScopePattern *( 1*WSP ScopePattern ) "]" cEOL
ScorePattern   = [ "+" / "-" ] Pattern

ScoreRule      = ["="] ScoreValue 1*WSP ScoreSelection cEOL
ScoreValue     = ( "+" / "-" ) <Number>
ScoreSelection = ScoreDefField 1*( 1*WHSP ScorePattern )
ScorePattern   = ["+ "/"-"] [ "@" ScoreField ":" ] Pattern
ScoreDefField  = [ "~" ] ScoreField
ScoreField     = ( "Number" / "Subject" / "From" / "Date" /
                  "Message-ID" / "References" / "Bytes" /
                  "Lines" / "Xref" / "Xpost" / "Age" ) [ ":" ]

Pattern        = ( PatRegExp / PatSimple )
PatRegExp      = "{" <PCRE-style regex-pattern> "}"
PatSimple      = ( PatSimpleAll / PatSimpleText / PatSimpleNumber )
PatSimpleAll   = "*"
PatSimpleText  = "\"" <Text> "\""
PatSimpleNumber = "%" ( "<" / "=" / ">" ) <Number>

cEOL           = [ "#" <Comment> ] CRLF
```

Score-Scope:

Each section starts with a "[...]"-header describing the groupnames, for which the following score-lines should be tested:

```
[*]
# score-lines for all groups

[* -".announce"]
# score-lines for all groups except those containing ".announce"

["news" "usenet"]
# score-lines for all groups containing "news" or "usenet".

[^news\.] {^alt\.usenet\.}
# score-lines for all groups starting with "news." or "alt.usenet."
```

The patterns within "[...]" follow the same rules as the "Score-Patterns" described below.

Score-Rules:

The score-value for a tested article is raised with "+"- and lowered with "-"-values:

```
+100 subject "hamster"
-100 subject "make money fast"
```

If a matching score-line is preceded with "=", the score-value is set to the given value and no further tests will be made for this article:

```
=+9999 from "my.mail@address"
=-9999 from "spam.mail@address"
```

The scoreable fields depend on the overview-information returned by the newsserver ("XOVER")[*]. In most cases, the following fields are available for scoring: **Subject**, **From**, **Date**, **Age**, **Message-ID**, **References**, **Bytes**, **Lines**, **Xref**, **Xpost**:

```
+100 subject "hamster"
-100 from {no.*spam}
+500 message-id "my.unique.fqdn"
+100 references "my.unique.fqdn"
-100 bytes %>10000
-100 lines %>250
```

[*] Note: Hamster does not support additional fields returned by the server yet.

The fictitious header-field **Xpost** is based on **Xref** and gives the number of groups, the article was crossposted to:

```
-10 xpost %>2      # posted to more than 2 groups
=-9999 xpost %>5   # posted to more than 5 groups
```

The fictitious header-field **Age** is based on **Date** and gives the age of the article in days:

```
=-9999 age %>14    # ignore all articles older than 14 days
```

If a fieldname is preceded with "~", the value of the given field is MIME-decoded before testing:

```
+100 ~subject "hämstêr"
-100 ~from "jürgen"
```

Score-Patterns:

Patterns without a leading "+"- or "-"-sign mean, that one or more of them must match:

```
# "hamster" or "newsserver" or "mailserver"
+1 subject "hamster" "newsserver" "mailserver"
```

Patterns with a leading "+"-sign mean, that the field has to contain this value:

```
# "hamster" in combination with "newsserver" or "mailserver"
+1 subject +"hamster" "newsserver" "mailserver"
```

Patterns with a leading "-"-sign mean, that the field may not contain this value:

```
# "newsserver" or "mailserver" not regarding "unix/linux/inn"
+1 subject "newsserver" "mailserver" -"unix" -"linux" -"inn"

# From-headers not containing "@"
=-9999 from -"@"
```

To combine different header-fields in a score-line, you can qualify the pattern with its name:

```
-1 subject "help" "urgent" "!!!" -@from:"my@address" -"SCNR"
```

If a score-pattern is placed within "{...}", it is treated as a PCRE-style regular expression[*]:

```
# Ignore those who want to be ignored:
-1 from {no.?spam} {(remove|delete|cut).*this}
```

[*] Perl-documentation for regular expressions can be found at:

<http://www.perl.com/CPAN-local/doc/manual/html/pod/perlre.html>

Example:

```
# A section starting with "[*]" contains global score-entries, which will be
# used for all groups:
```

```
[*]
```

```
# Load "my" articles immediately:
+=9999 From "Your Name"
+=9999 Message-ID your.unique.fqdn
```

```
# Load articles referencing one of "my" articles:
+=5000 References your.unique.fqdn
```

```
# Certainly, we are very interested in articles regarding these funny little
# animals with small antennas on the head:
+=1000 Subject hamster "HELP! THERE'S A BIG FAT RAT ON MY SCREEN!" "SCNR ;-)"
```

```
# And certainly, we ignore really silly suggestions such as:
=-1000 Subject "MAKE HAMSTER FAST!!!"
# (please notice, that this entry would never match, as subjects containing
# "hamster" would match the "="-entry above)
```

```
# The examples below use group-specific score-entries by starting a new
# section in the scorefile with a "[...]"-line.
# As Hamster builds an "individual" scorelist for each group before loading
# articles for it, it is more effective to define "individual" filters, if
# score-entries are only needed for some of the groups.
```

```
# Filter out "big" articles, that do not have "FAQ" in subject and are not
# posted in an announce-group:
```

```
[* -announce]
-10 Lines %>200
-10 Bytes %>10000
+20 Subject FAQ
```

```
# Ignore articles posted to more than three groups:
-10 Xpost %>3
```

```
# Ignore articles with subjects containing "!!!" in all groups except the
```

```
# newusers-groups:

[* -newusers -neubnutzer]
-1 Subject "!!!"

# Some groups may be more readable, if you filter out all articles and
# only load specific ones immediately, e.g.:

[group.name.one group.name.two group.name.three]
-1 Message-ID *
+1 Subject "interest1" "interest2" "interest3" "interest4"
+1 From "user1" "user2" "user3" "user4"
```

File: (root) \MailFilt.hst

Purpose:

The rules in file "MailFilt.hst" determine, which mails are loaded from POP3-servers (1.) and what to do with them after they have been loaded (2.):

1.) To load or not to load ...

If the filter-file contains "ignore"- or "kill"-rules, Hamster first tries to load the headers of the available mails, and only if the rules finally say "yes, it's ok to load them", the mails will be loaded completely and will be delivered to their final destination.

- Each mail starts with "yes, it's ok to load it".
- If a **"ignore"**-rule matches, the mail will not be loaded and will not be deleted.
- If a **"kill"**-rule matches, the mail will not be loaded but will be deleted.
- If a **"load"**-rule matches, a previous matching "ignore" or "kill" is revoked.

By default, "ignore" and "kill" work silent, so only Hamster knows, if and which messages were really ignored or killed. To enable notification-messages for each mail that was ignored or killed, add a **"notify"**-line.

Note: The "[X] Leave mails on server, i.e. do not delete them"-setting has a higher priority than the rules given here in the filter-file, so even if a rule says "delete this mail", it won't be deleted if this setting is activated.

2.) Recipient wanted, dead or alive ...

After a mail was loaded, it has to be delivered to its final destination. The second group of rules determine, in which local account-mailbox(es) or in which local newsgroup(s) the mail is stored.

- Each mail starts with an empty recipient- and newsgroups-list.
- If an **"add"**-rule matches, the given recipient(s) will be added to the recipient-list.
- If a **"del"**-rule matches, the given recipient(s) will be removed from the recipient-list.
- If a **"set"**-rule matches, the recipient-list will be replaced by the given recipient(s).
- If a **"postto"**-rule matches, the given newsgroup(s) will be added to the newsgroups-list.

The **"addaccounts"**-rule checks the given header-field, if it contains mail-addresses known by Hamster. If a local mail-address is recognized (especially one of the "Local mail-addresses" defined under "Local accounts"), the corresponding account is added to the recipient-list.

If both the recipient-list and the newsgroups-list is still empty after all rules have been tested, the mail is not lost but always sent to a default-account. This default-account is always "admin" unless another default-user is given by the last parameter of a fetchmail/ControlRunFetchMail-scriptcommand or with a **"default"**-line in the filter-file.

Syntax-Overview:

```
MFilterFile      = *( MFilterBlock / cEOL )
MFilterBlock     = MFilterScope *( MFilterRule / cEOL )
MFilterScope     = "[" ScopePattern *( 1*WSP ScopePattern ) "]" cEOL
MFilterRule      = ["="] ( MRuleLoad / MRuleDeliver ) cEOL

MRuleLoad        = "load"      [ "("                ")" ] 1*WSP MSelection
MRuleLoad        =/ "ignore"   [ "("                ")" ] 1*WSP MSelection
MRuleLoad        =/ "kill"     [ "("                ")" ] 1*WSP MSelection
```

```

MRuleLoad      =/ "notify" [ "(" AccountList ")" ]

MRuleDeliver   = "default"      "(" AccountList  ")"
MRuleDeliver   =/ "addaccounts" [ "("           ")" ] 1*WSP MDefaultField
MRuleDeliver   =/ "add"          "(" AccountList  ")"  1*WSP MSelection
MRuleDeliver   =/ "set"          "(" AccountList  ")"  1*WSP MSelection
MRuleDeliver   =/ "del"          "(" AccountList  ")"  1*WSP MSelection
MRuleDeliver   =/ "postto"       "(" NewsgroupList )"  1*WSP MSelection

MSelection     = MDefaultField 1*( 1*WHSP MSelectPattern )
MDefaultField  = [ "~" ] [ "*" ] ( MSingleField / MGroupedField )
MSingleField   = ( <Name of any header-field> / "Bytes" ) [ ":" ]
MGroupedField  = ( "Any-Sender" / "Any-Recipient" )
MSelectPattern = [ "+" / "-" ] [ "@" MSingleField ":" ] Pattern

AccountList    = <account-name> *( "," <account-name> )
NewsgroupList  = <newsgroup-name> *( "," <newsgroup-name> )

ScopePattern   = [ "+" / "-" ] Pattern

Pattern        = ( PatRegExp / PatSimple )
PatRegExp      = "{" <PCRE-style regex-pattern> "}"
PatSimple      = ( PatSimpleAll / PatSimpleText / PatSimpleNumber )
PatSimpleAll   = "*"
PatSimpleText  = "" <Text> ""
PatSimpleNumber = "%" ( "<" / "=" / ">" ) <Number>

cEOL           = [ "#" <Comment> ] CRLF

```

Filter-Scope:

Each block starts with a "[...]"-header describing the identifiers, for which the following filter-rules should be tested.

The only way to set such an identifier is the last parameter of a fetchmail/ControlRunFetchMail-scriptcommand, e.g.: fetchmail "pop3.serv.er" "pop3" "\$7" "" "admin,**identifier**"

```

[*]
# filter-rules for all mails, regardless of identifier used

[private]
# filter-rules for all mails fetched with identifier "private"

[* -private]
# filter-rules for all mails except those fetched with identifier "private"

```

Filter-Rules:

Note: The following description only covers the main differences between mail- and news-filters. For details on selection and patterns see [Scores.hst](#).

Unlike news-filters, each rule starts with a specific keyword followed by its parameters within parenthesis:

```

kill()           From: "well.known@spamm.er"
add(john)        To:   "john@mail.serv.er"
postto(hamster.ehamster) To: "ehamster@onelist.com"

```

The special field-name "Bytes" allows testing based on the size of the mail:

```
ignore() Bytes: %>100000
```

The special field-name "Any-Sender" checks all of the following headers: "From:", "Apparently-From:", "Sender:", "Reply-To:", "X-Sender:", "Envelope-From:" and "X-Envelope-From:":

```
load() Any-Sender: "boss@compa.ny" -@Subject:"You are fired!"
```

The special field-name "Any-Recipient" checks all of the following headers: "To:", "Apparently-To:", "CC:", "BCC:", "Envelope-To:" and "X-Envelope-To:".

```
add(john) Any-Recipient: "john@mail.serv.er"  
add(jane) Any-Recipient: "jane@mail.serv.er"  
addaccounts() Any-Recipient:
```

If a fieldname is preceded with "~", the value of the given field is MIME-decoded before testing:

```
load() ~To: "jürgen"
```

By default, only the first header-line with the given name is tested. If a fieldname is preceded with "*", all header-lines with this name are tested:

```
add(john) *Received: "john@"
```

Examples:

Deliver mails based on known local mail-addresses:

```
[*]  
addaccounts() Any-Recipient:  
addaccounts() *Received:
```

Send mails of Hamster-mailinglists to local newsgroups - and a copy of each mail to "admin", until you know if it works as expected ...:

```
[*]  
postto(hamster.ml.usehamsternet) To: "usehamsternet@onelist.com"  
add(admin) To: "usehamsternet@onelist.com"  
postto(hamster.ml.ehamster) To: "ehamster@onelist.com"  
add(admin) To: "ehamster@onelist.com"
```


Hamster-Scripts Vr. 2 (* .hsc)

Please note:

To use Hamster-Scripts Vr. 2, the **first** line of a script has to be:

#!hs2

This line determines, with which script-engine the script is executed, and if this line is missing, Hamster assumes, that it is still an old-style script.

Syntax-Overview

Data-Types

Operators

Variables

Preprocessor-Commands

Statements

Functions (built-in)

Functions (self-defined)

Functions (Hamster)

Modules

Hamster-Scripts: Syntax-Overview

Code-lines

The syntax of Hamster-Scripts is line-oriented, which means, that each statement has to be written in a single line of text (the length of each line is in fact not limited):

```
Allowed:    print( uppercase( "This is a single line" ) )
Not allowed: print(
              uppercase( "This is NOT a single line" )
            )
```

Long lines may be split into multiple lines by appending the line-continuation marker "_" to the end of the line. When the script is started, this marker is replaced by a space and the following line-break (and leading whitespace) is removed, so internally this becomes a single line again:

```
Allowed:    print( _
              uppercase( _
                "You won't believe it, but this is a single line, too!" _
              ) _
            )
```

Comments

Comments start with a "#" character, the rest of the line is ignored:

```
Allowed:    # And now, a secret about spammers:
            print( uppercase( "make money fast" ) ) # They don't have shift-keys!
Not allowed: print( _
              uppercase( "make money fast" ) _ # Not allowed within a line!
            )
```

There's also a second type of comments, which may be inserted even within a line. These embedded comments are written between {braces}:

```
Allowed:    print( _
              uppercase( "make money fast" ) _ {comment within splitted line}
            )
```

Hamster-Scripts: Data Types

Scalars

Hamster uses a variant data-type, which can contain two basic scalar data-types: **Strings** or **Integer**.

Strings can contain any sequence of ASCII-characters, even NUL (ASCII 0). Each String can be as long as your RAM and swapfile allows. String-constants are written within double quotation marks ("...").

Integers are signed 32-Bit and can contain numbers in the range of -2147483648 to 2147483647. Integer-constants in hex are written with a leading "0x" (a zero-digit and a small letter "x", e.g. 0xFF).

Integers are also used to represent **boolean** values, where a value of **0** means FALSE and all other values mean TRUE (all built-in functions, especially "true", return a value of **1** in this case).

Where applicable, the data-types are converted automatically when needed, so if an integer is used in a string-context, it is converted to a string and vice versa.

Arrays, Hashes, Collections, Lists

There are no such data-types in Hamster-Scripts, but in many cases they can be replaced or at least be simulated by a set of list-functions. In this case, these lists are maintained internally and are accessed through a unique list-handle. See "[ListAlloc](#)" et. al. for details.

Hamster-Scripts: Operators

Overview

Operators	Precedence	Associativity	Data-types
()	(highest)	<--	int, str
! ~ + - (unary)	.	-->	int
* / %	.	<--	int
+ -	.	<--	int, str (+ only)
<< >>	.	<--	int
< > <= >=	.	<--	int, str
== = != <>	.	<--	int, str
&	.	<--	int
^	.	<--	int
	.	<--	int
&&	.	<--	int
	(lowest)	<--	int

Details

Operators	Description
()	group
!	logical negation
~	binary negation (complement)
+ (unary)	sign
- (unary)	sign
*	multiplication
/	division
%	modulus
+	addition, string-concatenation
-	subtraction
<<	binary shift left
>>	binary shift right
<	smaller than
>	greater than
<=	smaller or equal
>=	greater or equal
== =	equal
!= <>	not equal
&	binary AND
^	binary XOR
	binary OR
&&	logical AND
	logical OR

Hamster-Scripts: Variables

All variables start with a single dollar-sign ("\$\$") followed by a letter ("A"... "Z", "a"... "z"). Further characters may also contain digits ("0"... "9") or underscores ("_").

The length of a variable-name is (in fact) not limited and all characters are significant, but upper- and lowercase characters are treated the same, so \$ABC is exactly the same variable as \$abc.

Examples for valid variables:

```
$a
$i_____
$a_b
$The_answer_is REALLY_42
```

Examples for invalid variables:

```
a$
^^
$_i_
^
$a.b
^
$The_answer_is REALLY_42!!!
^^^
$1st_cut
^
```

Hamster-Scripts: Preprocessor-Commands

Preprocessor-Commands are special commands that are executed before the script is started. If used, they should preferably be located at the very beginning of the script.

#!hs2

This command is ignored and might be removed in a future script-version, but if a Hamster-Script is executed by Hamster, it has to be the first line of each script. It is the marker, which decides to use the new script-engine and not the old one.

#!trace 1

For testing-purposes, all lines will be displayed as they are executed. Although there's also a "trace"-command to enable and disable tracing, this preprocessor-command is the only way to trace the preprocessor-phase. It shows, for example, the initialization-sequences of loaded modules.

#!debug <level>

Sets the debug-level, with which the script is executed. Default is "#!debug 0", which means, that all "debug"-commands within the scripts should be ignored.

#!load module.hsm

This command loads and initializes the given module and its dependants (if any). See Modules for details.

#!initialize

This command is used in modules and marks its initialization code. See Modules for details.

Hamster-Scripts: Statements

Statements are functions, which cannot be used within expressions. Most of them control the flow of the script.

quit(<exitcode>)

quit

Terminates a running script. The optional parameter sets the exit-code (default: 0), which has no special meaning yet when used in Hamster.

quit

error(<errmsg>)

error

Terminates a running script with the given error-message (default: "User defined error!").

error("File ", \$Filename, " not found!")

assert(<assertion>, <errmsg>)

assert(<assertion>)

Terminates a running script with the given error-message (default: "Assertion failed!"), if <assertion> returns a value of 0 (FALSE).

assert(FileExists(\$Filename), "File ", \$Filename, " not found!")

return(<retval>)

return

Leaves a "sub" and sets its return-value (default: 0). If used outside of a "sub", the script is terminated.

return(42)

return(uppercase("fortytwo"))

endsub

Same as "return" without parameter, i.e. it leaves a "sub" with a return-value of 0.

endsub

var(<variable> [, <variable> ...])

Declares the given variables before they can be used. The initial value of new variables is undefined, already existing ones are reset to an undefined state. See also: "varset"

var(\$a, \$b, \$c)

entercontext(<identifier>)

leavecontext

A "context" defines the scope for which variables are valid. If a new context is created (entercontext), all variables created in this context are local to it, and if the context is left (leavecontext), they will be deleted. You never should need these statements, as they are automatically invoked while a "sub" is executed (i.e. each sub has its own, local variables).

var(\$a)

\$a = 42

entercontext("test")

var(\$a)

\$a = 999

leavecontext

print(\$a) # its value is still 42

label(<identifier>)

Marks a position in the script with the given identifier. It is used as the target for "goto" and "gosub".

label(never_call_me_with_a_goto_please)

goto(<identifier>)

Looks for a "label" with the given identifier and continues execution right after it.

goto(GOTOs_are REALLY ugly)

```

if( <condition> )
else
endif

```

If <condition> gives a value other than 0 (=TRUE), the lines between "if" and "else" are executed, and if it returns 0 (=FALSE), the lines between "else" (if any) and "endif" are executed.

```

if( $answer = 42 )
    print( "The answer is correct!" )
else
    print( "The answer is wrong!" )
    if( $whoanswered = "Deep Thought" )
        print( "Reinstall Windows!" )
    endif
endif
endif

```

```

do
while( <condition> )
repeat

```

Marks the beginning of a loop. If "while" is used, the loop is only started, if <condition> returns a value other than 0 (read as: while condition is true).

see examples under loop/endwhile/until and break/continue

```

loop
endwhile
until( <condition> )

```

Marks the end of a loop. If "until" is used, the loop is only stopped, if <condition> returns a value other than 0 (read as: until condition is true).

```

do
    # ...
loop

while( $i<10 )
    # ...
endwhile

repeat
    # ...
until( $i>10 )

while( $i<10 )
    # ...
until( $k=42 )

```

```

for( <loop-var>, <limit1>, <limit2>, <step> )
for( <loop-var>, <limit1>, <limit2> )

```

Marks the beginning of a "for"-loop.

When the loop is started, the variable <loop-var> is initialized with <limit1>.

The code between "for" and "endfor" is then executed while the value of <loop-var> is lower or equal to <limit2>, or - if <step> is negative - while the value of <loop-var> is greater or equal to <limit2>.

After each loop-run, the value <step> (default: 1) is added to <loop-var>.

```

var( $i, $k )
for( $i, 1, 10 )
    for( $k, 10, 1, -1 )
        print( $i, " ", $k )
    endfor
endfor

```

```

endfor

```

Marks the end of a "for"-loop.

see example at for

```

break( <condition> )
break

```

Exits a loop. If a <condition> is given, the loop is only exited, if the <condition> returns a value other than

zero (read as: break if condition is true).

```
do
    break( RasIsConnected )
    # do other things
loop
```

continue(<condition>)

continue

Continues with next loop-run. If a <condition> is given, the loop is only continued, if the <condition> returns a value other than zero (read as: continue if condition is true).

```
$i = 0
repeat
    continue( $i = 42 )
    inc( $i )
until( $i > 100 )
```

sleep(<millisecs>)

Waits the given amount of milliseconds (1/1000 seconds).

```
sleep( 60000 ) # 1 minute
```

trace(<onoff>)

If tracing is turned on, all script-lines are displayed while they are executed. If <onoff> is 0 (false), tracing is turned off, otherwise it is turned on.

```
trace( 1 )
# ...
trace( 0 )
```

dump

Display all variables with their values for testing-purposes.

```
dump
```

debug(<level>, <text> [, <text> ...])

debug(<level>)

If only a <level> is given, the current debug-level is set to the given value (a value of 0 turns off displaying debug-messages).

If additional <text> is given, this <text> is only displayed, if the current debug-level is greater or equal to the given <level>.

```
debug( 255 )
debug( 1, "Counter: ", $Counter )
```

Hamster-Scripts: Functions (built-in)

Function groups:

Variables

Integers

Strings

Time

Error-handling

Files and directories

Lists

Input/Output

Scheduler

RAS

Miscellaneous

Variables

set(<variable>, <expression>)

<variable> = <expression>

Sets the given <variable> to the result of the <expression>.

The second, more readable form, is only allowed at the beginning of a line, as "=" would be interpreted as the comparison-operator if used in expressions.

Returns: Result of expression, i.e. the value the variable was given.

```
var( $a )  
set( $a, 42 )  
$a = 42
```

varset(<variable>, <expression>)

Declares a <variable> like "var" and sets its initial value to the result of the given <expression>.

Returns: Result of expression, i.e. the value the variable was given.

```
VarSet( $a, 42 )
```

inc(<variable>, <count>)

inc(<variable>)

dec(<variable>, <count>)

dec(<variable>)

Increments ("inc") or decrements ("dec") the given variable by 1 or by the given <count>.

Returns: New value of variable.

```
inc( $a )  
dec( $a, 2 )
```

Integers

true

Gives a value representing a boolean value of TRUE.

Please note, that all values other than 0 represent TRUE, so "true" does in fact only give "an example" of a TRUE-value.

Returns: 1

```
$a = true
```

false

Gives the value representing a boolean value of FALSE.

Returns: 0

```
$a = false
```

isint(<expression>)

Solves the given expression and returns true if the result is an integer.

Returns: 1, if expression represents an integer-value, 0 otherwise

```
$result = iif( isint($a), $a, 0 )
```

int(<expression>)

Converts the given <expression> into an integer. If it is a string starting with "0x", the rest of the string is considered to be a hex-value.

Returns: Integer-value; 0 if string does not contain a valid integer.

```
$a = "1"
$b = 2
$c = $a + $b      # -> "12"
$d = int($a) + $b  # -> 3
print( int("0xFF") ) # -> 255
```

abs(<number>)

Returns the absolute value of <number>.

Returns: Integer.

```
print( abs( 42) ) # -> 42
print( abs(-42) ) # -> 42
```

sgn(<number>)

Returns -1 if <number> if negative, +1 if it's positive and 0 if it's 0.

Returns: Integer.

```
print( sgn( 42) ) # -> 1
print( sgn(-42) ) # -> -1
```

Strings

isstr(<expression>)

Solves the given expression and returns true if the result is a string.

Returns: 1, if expression represents a string-value, 0 otherwise

```
$result = iif( isstr($a), $a, "0x"+hex($a) )
```

ord(<string>)

Returns the ASCII-number of the first character of <string>.

Returns: Number (0 if string is empty).

```
print( ord("") ) # -> 42
```

chr(<number>)

Returns the ASCII-character of <number>.

Returns: String containing 1 character.

```
print( chr(42) ) # -> ""
```

str(<number>, <length>, <leadchar>)

...

str(<number>)

Converts the given number into a string. If <length> is given, the string is padded with leading <leadchar>'s (default: "0") up to the given length.

Returns: String.

```
$a = 42
print( str( $a ) ) # -> "42"
print( str( $a, 5 ) ) # -> "00042"
print( str( $a, 5, " " ) ) # -> " 42"
```

hex(<number>, <digits>)

hex(<number>])

Converts the given number into hex. If <digits> is given, the string is padded with leading "0"'s up to the given length.

Returns: String.

```
$a = 42
print( hex( $a, 42 ) )      # -> "002A"
print( int( "0x" + hex(42) ) ) # -> 42
```

len(<string>)

Returns the length of the given string.

Returns: Integer.

```
print( len("abc") ) # -> 3
```

pos(<substr>, <string>, <startpos>])

pos(<substr>, <string>)

Returns the position of <substr> within <string>. If a <startpos> is given, positions lower than this value are ignored.

Returns: Position or 0, if not found.

```
print( pos( "b", "abcde" ) ) # -> 2
print( pos( "b", "abcde", 3 ) ) # -> 0
```

copy(<string>, <startpos>, <length>])

copy(<string>, <startpos>)

Returns the part of <string>, which starts at <startpos>. If no <length> is given, the rest of the string is returned.

Returns: String.

```
print( copy( "abcde", 3, 1 ) ) # -> "c"
print( copy( "abcde", 3 ) ) # -> "cde"
```

delete(<string>, <startpos>, <length>])

delete(<string>, <startpos>)

Deletes the part of <string>, which starts at <startpos>. If no <length> is given, the rest of the string is deleted.

Returns: String.

```
print( delete( "abcde", 3, 1 ) ) # -> "abde"
print( delete( "abcde", 3 ) ) # -> "ab"
$s = delete( $s, 1, 1 ) # delete 1st char of $s
```

trim(<string>, <trimchars>)

trim(<string>)

Removes all leading and trailing characters from <string>, that are contained in <trimchars>. If no <trimchars> are given, leading and trailing spaces are removed.

Returns: String.

```
print( trim(" 42 ") ) # -> "42"
$WHITESPACE = " " + chr(9)
print( trim( $line, $WHITESPACE ) )
```

lowercase(<string>)

Converts all upper-case characters within <string> to lower-case characters.

Returns: String.

```
print( lowercase( "AbCd" ) ) # -> "abcd"
```

uppercase(<string>)

Converts all lower-case characters within <string> to upper-case characters.

Returns: String.

```
print( uppercase( "AbCd" ) ) # -> "ABCD"
```

replace(<string>, <find>, <replace>, <all>, <ignorecase>)

...

replace(<string>, <find>, <replace>)

Looks for <find> within <string> and, if found, replaces it with <replace>. If <all> is given and has a value other than 0, all occurrences of <find> are replaced. If <case> is given and has a value other than 0, upper-/lowercase is ignored for finding.

Returns: String.

```
print( replace( "abcABCabc", "b", "[X]" ) ) # -> "a[X]cABCabc"
print( replace( "abcABCabc", "b", "[X]", true ) ) # -> "a[X]cABCa[X]c"
print( replace( "abcABCabc", "b", "[X]", true, true ) ) # -> "a[X]cA[X]Ca[X]c"
```

eval(<string>)

Treats <string> as an expression, solves it and returns its value.

Returns: Result of expression.

```
print( "4" + "+" + "2" ) # -> "4+2"
print( eval( "4" + "+" + "2" ) ) # -> 6
```

RE_Match(<string>, <regex>)

Returns TRUE if <string> matches the (PCRE-style) regular expression <regex>.

NOTE: Upper-/lowercase is ignored by default. To make it case-sensitive, precede <regex> with a "(?-i)"-flag.

Returns: TRUE (1), FALSE (0)

```
$answer = "abc4efg2hij"
if( RE_Match( $answer, "4.*2" ) )
    print( "OK, it looks acceptable." )
endif
```

RE_Extract(<string>, <regex>)

Returns the part of <string>, which matches the (PCRE-style) regular expression <regex>.

NOTE: Upper-/lowercase is ignored by default. To make it case-sensitive, precede <regex> with a "(?-i)"-flag.

Returns: String (empty string, if not found)

```
$answer = "abc4efg2hij"
print( RE_Extract( $answer, "4.*2" ) ) # -> "4efg2"
print( RE_Extract( $answer, "A.*C" ) ) # -> "abc"
print( RE_Extract( $answer, "(?-i)A.*C" ) ) # -> ""
```

RE_Parse(<string>, <regex>, <var1> [, <var2> ...])

Splits <string> into groups defined by (PCRE-style) regular expression <regex>, where a group of characters is placed within parenthesis.

First group is stored in variable <var1>, second in <var2> and so on.

If a given <var#>-parameter is not a variable, the part is ignored.

If <string> does not contain enough groups, the given <vars> are set to empty strings.

NOTE: Upper-/lowercase is ignored by default. To make it case-sensitive, precede <regex> with a "(?-i)"-flag.

Returns: TRUE (1): OK, FALSE (0): Error (e.g. invalid <regex>)

```
$line = "Subject: This is a test"
RE_Parse( $line, "(\\S+:)\\s+(.*)", $a, $b ) # -> $a="Subject:", $b="This is a test"
```

RE_Split(<string>, <regex>, <var1>, <var2> [, <var3> ...])

Splits <string> into parts separated by the (PCRE-style) regular expression <regex>.

First part is stored in variable <var1>, second in <var2> and so on. Last variable always receives the remainder of the string, even if it contains further parts separated by <regex>.

If a given <var#>-parameter is not a variable, the part is ignored.

If <string> does not contain enough parts, the given <vars> are set to empty strings.

NOTE: Upper-/lowercase is ignored by default. To make it case-sensitive, precede <regex> with a "(?-i)"-flag.

Returns: TRUE (1): OK, FALSE (0): Error (e.g. invalid <regex>)

```
$line = "this is a test"
RE_Split( $line, " +", $a, $b ) # --> $a="this", $b="is a test"
RE_Split( $line, " +", $a, $b, $c ) # --> $a="this", $b="is", $c="a test"
```

Time

ticks

Retrieves the number of milliseconds that have elapsed since Windows was started.

Returns: Integer.

```
$start = ticks
# ...
$stop = ticks
print( "It took ", $stop - $start, "ms." )
```

time

Retrieves the current date and time (local time).

Returns: Integer (Unix-format, i.e. seconds since Jan 1st 1970).

```
$now = time
$yesterday = $now - 24*60*60
```

timegmt

Retrieves the current date and time (GMT).

Returns: Integer (Unix-format, i.e. seconds since Jan 1st 1970).

```
$nowgmt = timegmt
```

decodetime(<time>, <yyyy>, <mm>, <dd>, <hh>, <nn>, <ss>, <wd>)

...

decodetime(<time>, <yyyy>)

Decodes the given <time>. Other parameters are ignored, unless they are variables. In this case, the given variable is set to one of the decoded values: <yyyy> (year), <mm> (month), <dd> (day), <hh> (hour), <nn> (minute), <ss> (seconds), <wd> (day of week; 1=Sunday, ..., 7=Saturday).

Returns: <time>

```
var( $hrs, $min, $sec )
decodetime( time, 0, 0, 0, $hrs, $min, $sec )
print( "Current time: ", $hrs, ":", $min, ":", $sec )
```

encodetime(<yyyy>, <mm>, <dd>, <hh>, <nn>, <ss>)

Returns a time-value build from the given parameters.

Returns: <time>

```
encodetime( 2000, 12, 31, 23, 59, 59 )
```

Error-handling

ErrCatch(<on/off>)

ErrCatch

If <on/off> is TRUE (<>0), error-catching is enabled. This means, that all errors, which normally stop the script immediately, are *ignored*. If an error happens in this state, "ErrNum" will return a value other than 0. If <on/off> is FALSE (=0), error-catching is disabled again, i.e. the script will be stopped again if an error happens.

"ErrCatch" without parameters just returns the current state. It may be used to preserve the current state while executing a "dangerous" part of a script.

Returns: 0/False: Disabled (default; i.e. stop on errors), 1/True: Enabled (ignore errors)

```
$OldErrCatch = ErrCatch
ErrCatch( True )
print( 42/0 ) # division by zero causes error
if( ErrNum<>0 )
    print( "Error: ", ErrNum, " ", ErrMsg )
endif
ErrCatch( $OldErrCatch )
```

ErrNum

Returns error-number of last error.

NOTE: Do not rely on the numbers returned, they might be changed in a future version.

Returns: Integer (=0: No error, <>0: Error)

```
if( ErrNum <> 0 )
# ...
endif
```

ErrMsg

Returns error-description of last error.

Returns: String

```
print( ErrMsg )
```

ErrModule

Returns name of module in which last error occurred.

Returns: String

```
print( ErrModule )
```

ErrLineNo

Returns line number within module in which last error occurred.

Returns: Integer

```
print( ErrLineNo )
```

ErrLine

Returns script-line which raised last error.

Returns: String

```
print( ErrLine )
```

ErrSender

Returns name of script-object which raised last error.

Returns: String

```
print( ErrSender )
```

Files and directories

execute(<cmdline>, <workdir>, <show>, <wait>, <exitcode>)

Starts the program given in <cmdline>, which also can contain parameters and options needed by this program. If <workdir> is given, it is set as the working-directory for the started program. <show> controls, how the started program is shown (0=hidden, 1=default=normal, 2=minimized, 3=maximized). If <wait> is set to true (default), execution of the script is paused until the started program has finished. If the exit-code of the program is needed, it can be saved in the variable <exitcode>.

Returns: Integer (0=no error, <>0=error)

```
execute( "notepad.exe myfile.cfg" )
```

IniRead(<filename>, <section>, <ident>, <default>)

Reads an entry from the .INI-file named <filename>. If no <filename> is given, file "HScripts.ini" is used. If no <section> is given, section "[All]" is used.

If "[<section>]" does not contain an entry named "<ident>=...", the value <default> is returned.

Returns: String

```
$answer = IniRead( "MyScript.ini", "Answers", "Last", "42")
$LastConnected = int( IniRead( "", "", "LastConnected", 0 ) )
```

IniWrite(<filename>, <section>, <ident>, <value>)

Writes an entry to the .INI-file named <filename>. If no <filename> is given, file "HScripts.ini" is used. If no <section> is given, section "[All]" is used.

Returns: String (<value>)

```
IniWrite( "MyScript.ini", "Answers", "Last", $answer )
IniWrite( "", "", "LastConnected", time )
```

FileExists(<filename>)

Checks, if the given file exists. <filename> may contain wildcards "?" and "*".

Returns: Integer (1=exists, 0=doesn't exist or invalid filename/path)

```
if( !fileexists("myfile.cfg" ) )
    error( "Missing configuration file!" )
endif
```

FileSize(<filename>)

Returns size of file <filename>.

Returns: Integer (-1 if file is missing)

```
print( FileSize( HamPath + "Hamster.exe" ) )
```

FileTime(<filename>)

Returns time of last update of file <filename>.

Returns: Integer (-1 if file is missing)

```
print( "Your Hamster's age: ", time - FileTime( HamPath + "Hamster.exe" ), " seconds" )
```

FileDelete(<filename>)

Deletes the file named <filename>.

Returns: 0: OK, <>0: Error

```
FileDelete( "MyScript.tmp" )
```

FileRename(<oldname>, <newname>)

Renames the file named <oldname> to <newname>.

Returns: 0: OK, <>0: Error

```
FileRename( "MyScript.dat", "MyScript.bak" )
```

FileCopy(<oldname>, <newname>)

Copies the file named <oldname> to <newname>.

Returns: 0: OK, <>0: Error

```
FileCopy( "MyScript.dat", "MyScript.bak" )
```

DirExists(<dirname>)

Checks, if the given directory exists.

Returns: Integer (1=exists, 0=doesn't exist or invalid path)

```
if( !direxists( "mydir" ) )
    # ...
endif
```

DirMake(<dirname>)

Creates a new directory named <dirname>.

Returns: 0: OK, <>0: Error

```
DirMake( HamPath + "MyScript" )
```

DirRemove(<dirname>)

Removes the directory named <dirname>, if it is empty.

Returns: 0: OK, <>0: Error

```
DirRemove( HamPath + "MyScript" )
```

DirChange(<dirname>)

Makes the directory named <dirname> the current directory.

NOTE: Not suggested, use full qualified filenames instead.

Returns: 0: OK, <>0: Error

```
DirChange( HamPath + "MyScript" )
```

DirCurrent

Returns the name of the current directory. The name is always returned with a trailing backslash.

Returns: 0: OK, <>0: Error

```
print( DirCurrent )
```


DirWindows

Returns the name of the Windows directory. The name is always returned with a trailing backslash.

Returns: 0: OK, <>0: Error

```
print( DirWindows )
```

DirSystem

Returns the name of the Windows system directory. The name is always returned with a trailing backslash.

Returns: 0: OK, <>0: Error

```
print( DirSystem )
```

See also: ListLoad, ListSave, ListFiles, ListDirs.

Lists

ListAlloc(<sorted>, <duplicates>)

...

ListAlloc

Creates a new list of strings and returns a unique handle for it. This handle is noted as <list> in the other list-functions described below and is valid until the list is freed again by "ListFree".

If <sorted> is set to TRUE (<>0), the list is automatically sorted when adding new entries (default is: not sorted).

If <duplicates> is set to TRUE (<>0), duplicate entries are allowed and will be accepted (default), otherwise they will be ignored, so each entry becomes unique. Note, that this only works for sorted lists.

Returns: >=0: list-handle, -1: too many lists.

```
$list = ListAlloc
```

ListFree(<list>)

Frees a list created by "ListAlloc".

Returns: 0: OK, -1: invalid list-handle

```
listfree( $list )
```

ListExists(<list>, <index>)

ListExists(<list>)

Checks, if <list> points to a valid list. If <index> is given, it also checks, if the list has an entry for this index.

Returns: 1/true: is valid; 0/false: invalid

```
sub DoSomethingWithList( $list )
    if( !ListExists( $list )
        error( "List expected!" )
    endif
    # ...
endsub
```

ListClear(<list>)

Deletes all entries in the given list.

Returns: 0: OK; -1: invalid list-handle

```
ListClear( $list )
```

ListCount(<list>)

Returns the number of list-entries.

Returns: number of list-entries

```
print( ListCount( $list ) )
```

ListGet(<list>, <index>)

Returns the string with the given <index>. Entries are numbered from 0 to (ListCount-1).

Returns: String (empty string, if list or index was invalid)

```
$i = 0
```

```
while( $i < ListCount($list) )
    print( $i, ": ", ListGet($list,$i) )
    inc( $i )
endwhile
```

ListSet(<list>, <index>, <value>)

ListSet(<list>, <index>)

Changes the value of the list-entry at <index>. If no <value> is given, it is set to an empty string.
If the list does not contain enough entries yet, they are automatically created as empty strings, so the list can be used like an open array of strings.

Returns: <value>

```
ListSet( $list, 42, "The answer!" )
```

ListGetTag(<list>, <index>)

Returns the "Tag"-value of the string at the given <index>. A "Tag"-value is just a number associated with each entry.

Returns: Integer

```
$entry_itself = ListGet( $list, 42 )
$tag_of_entry = ListGetTag( $list, 42 )
```

ListSetTag(<list>, <index>, <tag>)

Sets the "Tag"-value of the string at the given <index>.

Returns: <tag>

```
$index = ListAdd( $list, "The answer!" )
ListSetTag( $list, $index, 42 )
```

ListGetKey(<list>, <key>)

If the list contains strings in the form "key=value", this command returns the value of key <key>.

Returns: String

see example under ListSetKey

ListSetKey(<list>, <key>, <value>)

ListSetKey(<list>, <key>)

If the list contains strings in the form "key=value", this command sets the value of key <key>. If no value is given, it is set to an empty string.

Returns: <value>

```
$list = ListCreate
ListSetKey( $list, "RTFM", "Read the f... manual!" )
ListSetKey( $list, "SCNR", "Sorry, could not resist!" )
print( ListGetKey( $list, "SCNR" ) )
```

ListAdd(<list>, <value>)

ListAdd(<list>)

Appends a new entry with the given <value> (default: empty string).

Returns: Index of new entry.

```
$index = ListAdd( $list, $text )
```

ListDelete(<list>, <index>)

Deletes the entry with the given <index>.

Returns: 0

```
$index = ListAdd( $list, $text )
```

ListInsert(<list>, <index>, <value>)

ListInsert(<list>, <index>)

Inserts a new entry with the given value (default: empty string) at the given <index>.

Returns: 0

```
ListInsert( $list, 0, $text )
```

ListSort(<list>)

Sorts the given list by its values.

Returns: 0

```
ListSort( $list )
```

ListSetText(<list>, <text>)

Clears the list and adds an entry for each line of <text>, which is separated by CR+LF.

Returns: <text>

```
ListSetText( $list, $article )
print( ListGet( $list, 0 ) ) # -> first line of $article
```

ListGetText(<list>)

Returns a CR/LF-separated text containing all list-entries.

Returns: String

```
$article = ListGetText( $list )
```

ListIndexOf(<list>, <value>)

Returns the index of the list-entry, which equals <value>.

Returns: >=0: index, -1: not found

```
ListSetText( $list, $article )
$EndOfHdr = ListIndexOf( $list, "" )
```

ListLoad(<list>, <textfile>)

Loads the given <textfile> and creates a list-entry for each line of the file.

Returns: 0: OK, -1: list invalid or file not found

```
ListLoad( $list, "MyScript.cfg" )
```

ListSave(<list>, <textfile>)

Saves the list in the given <textfile>.

Returns: 0: OK, -1: list invalid

```
ListSave( $list, "MyScript.cfg" )
```

ListFiles(<list>, <filemask>, <fullpath>)

ListFiles(<list>, <filemask>)

Fills the list with the filenames selected by <file-mask>.

If <fullpath> is given and TRUE (<>0), all files are expanded with their pathname, otherwise only the filenames are returned.

Returns: >=0: OK (number of files), <0: list invalid or file not found

```
ListFiles( $list, HamPath + "Mails\Mail.Out\*.msg", true )
```

ListDirs(<list>, <filemask>, <fullpath>)

ListDirs(<list>, <filemask>)

Fills the list with the directory-names selected by <file-mask>.

If <fullpath> is given and TRUE (<>0), all directory-names are expanded with their pathname, otherwise only the names are returned.

Returns: >=0: OK (number of files), <0: list invalid or file not found

```
ListDirs( $list, HamPath + "Mails\*." )
```

ListRasEntries(<list>)

Fills the list with the names of all RAS phonebook entries.

Returns: >=0: OK (number of entries), <0: list invalid or error

```
var( $RasConnection )
$RasConnection = SelectRasConnection
if( $RasConnection <> "" )
    print( "Dialing ", $RasConnection )
    # ...
endif
quit
```

```
sub SelectRasConnection
var( $RasList, $RasSelIndex, $RasSelName )
$RasSelName = ""
$RasList = ListAlloc
```

```

if( ListRasEntries( $RasList )>0 )
    $RasSelIndex = ListBox( $RasList, "Select connection to use:" )
    if( $RasSelIndex >= 0 )
        $RasSelName = ListGet( $RasList, $RasSelIndex )
    endif
endif
ListFree( $RasList )
return( $RasSelName )
endsub

```

Input/Output

print(<text> [, <text> ...])

Displays the given text.

When used in Hamster, the text is shown as an "Info" (black on white) in the Log-window.

Returns: Printed text.

```
print( "And the answer is: ", $answer )
```

warning(<text> [, <text> ...])

Same as "print", but the text is displayed in a way that makes it look "more important".

When used in Hamster, the text is shown as a "Warning" (black on yellow) in the Log-window, so it's displayed even if informational messages are disabled there. As a rule of thumb: A user should never see such a warning under normal circumstances.

Returns: Printed text.

```
warning( "Brain malfunction! No ideas left! Example halted!" )
```

MsgBox(<text>, <caption>, <style>)

...

MsgBox(<text>)

Displays a message-box with the given <text> and <caption>.

<style> is a number, which determines the type of the message-box and the buttons displayed (default: "Information" with "OK"-button).

Valid types are: 0x40 (Information), 0x30 (Warning), 0x20 (Question), 0x10 (Error)

Valid buttons are: 0x0 (OK), 0x1 (OK+Cancel), 0x2 (Abort+Retry+Ignore), 0x3 (Yes+No+Cancel), 0x4 (Yes+No), 0x5 (Retry+Cancel)

To preselect a specific button add 0x100 for second or 0x200 for third button.

Returns: 0=(error), 1=OK, 2=Cancel, 3=Abort, 4=Retry, 5=Ignore, 6=Yes, 7=No

```

if( MsgBox( "Do you like silly questions?", "", 0x20|0x4 ) = 6 )
    Error( "Unexpected answer." )
else
    MsgBox( "Then get used to ..." )
endif

```

InputBox(<text>, <caption>, <default>, <code>)

...

InputBox(<text>)

Displays a window with the given <text> and <caption>. The window contains a text-box which is initialized with <default> (empty string if omitted).

If given, the variable <code> is set to 1 (true) if OK was pressed, and set to 0 (false) otherwise.

Returns: Text entered or empty string if cancelled.

```
$answer = InputBox( "What's the answer ...?", "", "42", $ok )
```

ListBox(<list>, <text>, <caption>, <default>, <code>)

...

ListBox(<list>, <text>)

Displays a window with the given <text> and <caption>. The window contains a list-box which is initialized with the strings of list <list>.

If <default> is given (default: -1) and there's an entry in <list> with this index, it is pre-selected.

If given, the variable `<code>` is set to 1 (true) if OK was pressed, and set to 0 (false) otherwise.

Returns: Index of selected list-entry or `<default>` if cancelled.

```
var( $list, $selindex )
$list = ListAlloc
ListAdd( $list, "41" )
ListAdd( $list, "42" )
ListAdd( $list, "43" )
$selindex = ListBox( $list, "What's the answer ...?" )
print( iif( $selindex=1, "Correct!", "Wrong!" ) )
ListFree( $list )
```

Scheduler

AtClear

Clears all scheduler entries.

Returns: 0

see example under AtAdd

```
AtAdd( <subname>, <from>, <til>, <wdays>, <repeat>, <immediate> )
```

```
...
```

```
AtAdd( <subname>, <from> )
```

Adds a new scheduler entry.

`<subname>` gives the name of a user-defined "sub", which is started when the entry is triggered by "AtExecute".

`<from>` and `<til>` contain the time-period, in which the entry is triggered (default for `<til>` is `<from>`; format for both is "HH.MM").

`<wdays>` is a string which contains a marker for each day of the week for which the entry is valid ("1"=valid; first char=Monday, ..., seventh char=Sunday; default="1111111").

If `<rep>` contains a value greater than 0, the entry is triggered every `<repeat>` minutes.

If a script is started at a time, for which one of the entries is valid, `<subname>` is called immediately by default. If `<immediate>` is set to 0 (false), it is assumed that this event already happened at the time, the entry was added.

Returns: Index of new entry.

```
AtClear
AtAdd( getmails, "00:00", "06:00", "1111100", 60, true )
AtAdd( getmails, "06:00", "18:00", "1111100", 15, true )
AtAdd( getmails, "18:00", "24:00", "1111100", 60, true )
AtAdd( getmails, "12:00", "", "0000011" )
AtAdd( getnews, "03:15" )
AtAdd( getnews, "18:45" )
AtExecute
quit
```

```
sub getmails
# ...
endsub
```

```
sub getnews
# ...
endsub
```

```
AtExecute( <timeout> )
```

AtExecute

Waits until one of the scheduler-entries added by "AtAdd" is triggered, executes its accompanying sub-function and if this function returns 0, it continues to wait for the next entry to come.

`<timeout>` gives the maximum time in milliseconds (1/1000 seconds), AtExecute should wait for the next entry.

Returns: -1=timeout, >0: return-value of last executed sub.

see example under AtAdd

RAS

RasGetConnection

Returns the name (phonebook-entry) of current RAS-connection.

Returns: Name of RAS-connection; "" if not connected.

```
print( RasGetConnection )
```

RasIsConnected

Checks current connection-state.

Returns: 1 (true) if connected, 0 (false) otherwise.

```
if( !RasIsConnected )
    # dial
endif
```

RasDial(<name>, <user>, <pass>, <connid>)

...

RasDial(<name>)

Dials the RAS-connection named "<name>" and tries to authenticate with username <user> and password <pass>. The connection-handle may optionally be saved in variable <connid>.

NOTE: This function does NOT support any of Hamster's password-options! You have to use the Hamster-specific functions "[HamRasDial](#)" and "[HamRasHangup](#)" if you want to use them!

Returns: 0: connected; >0: error-code; -1: RAS not installed

```
$try = 1
while( RasDial("MyProvider","MyUsername","MyPassword") != 0 )
    if( $try >= 3 )
        error( "Dialing failed!" )
    endif
    inc( $try )
    sleep( 10000 )
endwhile
```

RasHangup(<connid>)

RasHangup

Terminates an existing RAS-connection. If no specific <connid> is given, any current connection is terminated.

Returns: 0: OK; >0: error-code; -1: RAS not installed

```
RasHangup
```

RasGetIP

Returns dynamically assigned IP address of current RAS connection.

Returns: IP as string; empty string if not connected.

```
print( RasGetIP )
```

See also: [ListRasEntries](#)

Miscellaneous

iff(<condition>, <true-result>, <false-result>)

Returns <true-result>, if <condition> is other than zero, <false-result> otherwise.

Returns: As given.

```
print( iff( $answer="42", "Correct!", "Wrong!" ) )
```

icase(<value>, <compare1>, <result1> [, <c2>, <r2> ...])

Compares <value> with <compare1>, and if both values are equal, <result1> is returned. Otherwise, all remaining <compare#>/<result#>-pairs are tested the same way, until one matches. The special <compare#>-value "else" matches always, so if used, it should be the last one.

Returns: The selected result or 0 if no pair matched and there was no else-part.

```
$word = icase( $digit, _  
    0, "Zero", 1, "One", 2, "Two", 3, "Three", 4, "Four", _  
    5, "Five", 6, "Six", 7, "Seven", 8, "Eight", 9, "Nine", _  
    else, "User, we have a problem!" _  
)
```

gosub(<identifier>)

Looks for a "label" with the given identifier and continues execution right after it. Such a "subroutine" has to be terminated with "return".

Returns: Return-value.

```
print( gosub( Test ) )  
quit  
label( Test )  
# ...  
return( 42 )
```

Hamster-Scripts: Functions (self-defined)

Creating a function

```
sub <identifier>( <variable-list> )  
sub <identifier>
```

Starts a user-defined function named <identifier>, which has to start with a letter ("A"..."Z", "a"..."z"). Further characters may also contain digits ("0"..."9") or underscores ("_").

If the function has parameters, they have to be noted as a comma-separated list of variables within parenthesis:

```
TestSub( 1, "two", 3 )  
quit  
  
sub TestSub( $a, $b, $c )  
    print( "TestSub called with " + $a + ", " + $b + " and " + $c )  
endsub
```

Each function has a return-value which can be set by "return", which additionally exits the function immediately:

```
print( TestSub( 1, "two", 3 ) )  
quit  
  
sub TestSub( $a, $b, $c )  
    return( "TestSub called with " + $a + ", " + $b + " and " + $c )  
endsub
```

If no return-value is given, it is always set to 0 by a final "endsub", which is just an equivalent to "return(0)".

Please note, that the "endsub" in the example above is not really needed, as the function was already left by the previous "return". It's just there to make the script more "readable" and it's a good idea to a) always note it at the very end of a function and b) only there.

Parameters by value / by "reference"

By default, all parameters of a function are "called by value", which means, that their *values* are *copied* to their counterparts given in the parameter-list of the "sub". The values of the variables used for calling the "sub" are left unchanged:

```
var( $a )  
$a = 1  
TestSub( $a )  
print( $a ) # -> 1 (unchanged by TestSub)  
  
quit  
  
sub TestSub( $x )  
    $x = 42  
endsub
```

If a variable in the parameter-list of a function is preceded with a "*", its value is copied back to its counterpart when the function is left, so the value of the variable used for calling the function can be changed within the function:


```

var( $a )
$a = 1
TestSub( $a )
print( $a ) # -> 42 (changed by TestSub)

quit

sub TestSub( *$x )
    $x = 42
endsub

```

Please note, that this "call by 'reference'" is only somewhat "simulated" in Hamster-scripts, which might cause some unexpected behaviour compared to other languages.

As no real references are supported, a "by reference"-parameter is copied the same way as a "by value"-parameter when the function is called. The difference between those calling-types is, that the values of "by reference"-parameters are *copied back* when the function is left again.

Therefore, the value of a global variable used when calling a function remains untouched while the function is actually executed (only its "reference"-copy is changed), and if the "original" global variable is changed during function-execution, its value would be overwritten with the value of its "reference" afterwards. I hope, that it *is* so exotic as it sounds ... ; ->

Scope of variables

All variables declared within a function are local to this function. When the function is left again, they are deleted.

Global variables (i.e. declared outside of any function) are accessible within the function, unless a variable with the same name is created in it:

```

var( $a )

$a = 1
print( $a ) # -> 1

TestSub
print( $a ) # -> 42

quit

sub TestSub

    print( $a ) # -> 1
    $a = 42
    print( $a ) # -> 42

    var( $a ) # global $a is from now on "out of scope"
    $a = 666
    print( $a ) # -> 666

endsub

```

Hamster-Scripts: Functions (Hamster)

HamVersion

Returns the version number of Hamster.

Returns: String with version-number (e.g. "1.3.17.0").

```
print( "Hamster Vr. " + HamVersion )
```

HamPath

Returns the base-path of Hamster, i.e. the path where "Hamster.exe" is located.

Returns: String with full qualified path-name and trailing backslash.

```
if( FileExists( HamPath + "Mails\Mail.Out\*.msg" ) )
    # send mails
endif
```

HamMessage (<message>, <parameter>)

HamMessage (<message>)

Initiates some Hamster-functions, which are normally available and accessed by its menu-items:

| <u><message></u> | <u><parameter></u>
(default=0) | <u>purpose</u> |
|------------------------|---|------------------------------|
| 1 | ignored | Exit Hamster |
| 2 | ignored | Reset counters and log |
| 3 | 0=stop, 1=start | Start/Stop local NNTP-server |
| 4 | 0=stop, 1=start | Start/Stop local POP3-server |
| 5 | 0=stop, 1=start | Start/Stop local SMTP-server |
| 6 | 0=hide, 1=show | Hide/show main-window |
| 7 | 0=hide, 1=show | Hide/show tray-icon |
| 8 | ignored | Menu: Online/Stop all tasks |

Returns: 0=OK, 1=Failed, 2=Unknown message-number, 3=GPF

```
HamMessage( 2, 0 ) # reset counters
```

HamThreadCount

Gives the number of currently active tasks.

Note: Client-connections to local servers and running scripts do not count as "active tasks" here.

Returns: Integer

```
print( HamThreadCount )
```

HamIsIdle

Returns TRUE (1) if there are currently no active tasks like purging, pulling news, sending mails etc.

Note: Client-connections to local servers and running scripts do not count as "active tasks" here.

Returns: Integer

```
if( HamIsIdle )
    # ...
endif
```

HamWaitIdle (<timeout>)

HamWaitIdle

Waits up to the given amount of milliseconds until all active tasks are finished. If no <timeout> is given, the function does not return until Hamster is idle again.

Note: Client-connections to local servers and running scripts do not count as "active tasks" here.

Returns: 0=OK, 1=Timeout, 2=Interrupted

```
HamWaitIdle
```

HamFlush

Writes unsaved data to disk. Suggested after last article imported with HamArtImport.

Returns: 0

```
HamFlush
```

HamPurge (<option>)

HamPurge

Starts a purge-thread (i.e. the deletion of old data). The bit-oriented parameter <option> describes, which old data should be deleted (1=articles, 2=news-history, 4=killfile-log, 8=mail-history). If it's omitted, all type of data are purged.

Returns: 0=OK/Started, <>0=Not started

```
HamWaitIdle
HamPurge( 4 )
HamWaitIdle
```

HamRebuildGlobalLists

Starts a thread, which rebuilds some lists needed by Hamster, especially the list of newsgroups used for selecting new news-pulls.

Returns: 0=OK/Started, <>0=Not started

```
HamWaitIdle
HamRebuildGlobalLists
HamWaitIdle
```

HamRebuildHistory

Starts a thread, which deletes the current news-history and rebuilds it by adding the Message-IDs of all articles stored in Hamster.

Note: This may take some time with thousands of articles, so it should only be used, if it's *really* necessary! Be sure to wait until Hamster is idle again after calling this function!

Returns: 0=OK/Started, <>0=Not started

```
HamWaitIdle
HamRebuildHistory
HamWaitIdle
```

HamSetLogin(<identifier>, <username>, <password>)

Temporarily sets <username> and <password> for the given <identifier>, which can be either the name of a RAS-connection or the name of a news-/mail-server. "Temporarily" means, that this setting is not saved to a file but is kept in memory until Hamster is closed again.

If username and/or password is set to a single question-mark ("?"), Hamster will ask for the value.

Furthermore, one of the stored "general-purpose"-passwords can be selected here to avoid noting it in clear-text in the script.

Returns: 0=OK, <>0=Error

```
HamSetLogin( "MyProvider", "MyUsername", "MyPassword" )
HamSetLogin( "MyProvider", "MyUsername", "?" )
HamSetLogin( "MyProvider", "$42", "" )
```

HamNewsPull(<server-list>)

HamNewsPull

Starts the threads, which pull new articles from newsservers.

If <server-list> is omitted or set to an empty string (""), all NNTP-servers defined in Hamster will be used.

Otherwise, transfer is restricted to the given servers.

If used, <server-list> has to consist of a semicolon-separated (";") list of servernames. The servernames have to be in the same format as displayed in the Hamster-settings (i.e. servername + ", " + port), e.g.:

```
"news.aaa.com,nntp;news.bbb.com,nntp"
```

Note: Starting with Hamster Vr. 1.3.19, this function was replaced with the **NewsJobs***-functions described below and is only simulated internally with these new functions. See the example at "HamNewsJobsStart" for a replacement of this obsolete function.

Returns: 0=OK/Started, <>0=Not started

```
HamNewsPull
HamNewsPull( "one.newsserv.er,nntp;two.newsserv.er,nntp" )
```

HamNewsPost(<server-list>)

HamNewsPost

Starts the thread, which posts new articles (if any).

If <server-list> is omitted or set to an empty string (""), all NNTP-servers defined in Hamster may be used. Otherwise, transfer is restricted to the given servers.

If used, <server-list> has to consist of a semicolon-separated (";") list of servernames. The servernames have to be in the same format as displayed in the Hamster-settings (i.e. servername + "," + port), e.g.:

```
"news.aaa.com,nntp;news.bbb.com,nntp"
```

Note: Starting with Hamster Vr. 1.3.19, this function was replaced with the **NewsJobs***-functions described below and is only simulated internally with these new functions. See the example at "[HamNewsJobsStart](#)" for a replacement of this obsolete function.

Returns: 0=OK/Started, <0=Not started

```
HamNewsPost
```

```
HamNewsPost( "one.newsserv.er,nntp;two.newsserv.er,nntp" )
```

HamNewsJobsClear

Clears the list of news-related jobs.

Returns: 0

```
HamNewsJobsClear
```

HamNewsJobsPullDef(<server-list>)

HamNewsJobsPullDef

Fills the list of news-related jobs with the pull-list of the given newsservers (i.e. one job for each group to pull from a server).

If <server-list> is omitted or set to an empty string (""), all groups of all NNTP-servers defined in Hamster will be added. Otherwise, only the groups for the given servers will be added.

If used, <server-list> has to consist of a semicolon-separated (";") list of servernames. The servernames have to be in the same format as displayed in the Hamster-settings (i.e. servername + "," + port), e.g.:

```
"news.aaa.com,nntp;news.bbb.com,nntp"
```

Returns: <0: Error, >=0: Number of pull-jobs added

```
HamNewsJobsPullDef
```

```
HamNewsJobsPullDef( "one.newsserv.er,nntp;two.newsserv.er,nntp" )
```

HamNewsJobsPostDef(<server-list>)

HamNewsJobsPostDef

Fills the list of news-related jobs with post-jobs for the given newsservers (i.e. one job for each article waiting to be posted).

If <server-list> is omitted or set to an empty string (""), all NNTP-servers defined in Hamster may be used to post the article. Otherwise, transfer is restricted to one of the given servers.

If used, <server-list> has to consist of a semicolon-separated (";") list of servernames. The servernames have to be in the same format as displayed in the Hamster-settings (i.e. servername + "," + port), e.g.:

```
"news.aaa.com,nntp;news.bbb.com,nntp"
```

Returns: <0: Error, >=0: Number of post-jobs added

```
HamNewsJobsPostDef
```

```
HamNewsJobsPostDef( "one.newsserv.er,nntp;two.newsserv.er,nntp" )
```

HamNewsJobsPull(<server>, <group-select>)

HamNewsJobsPull(<server>)

Fills the list of news-related jobs with the pull-list of the given newsserver <server>.

If <group-select> is given, only the groups matching this regular expression are added.

Returns: <0: Error, >=0: Number of pull-jobs added

```
HamNewsJobsPull( "one.newsserv.er" )
```

```
HamNewsJobsPull( "two.newsserv.er", "^alt\." )
```

HamNewsJobsPost(<server>, <group-select>, <header-select>)

HamNewsJobsPost(<server>, <group-select>)

HamNewsJobsPost(<server>)

Fills the list of news-related jobs with post-jobs for the given newsserver <server>.

If <group-select> is given and not empty, only articles with a newsgroup matching this regular expression are added.

If <header-select> is given, only articles with a header-line matching this regular expression are added.

Note: Hamster does not support "multiple injection", so once an article is added to the list, it is ignored in

further assignments.

Note: Hamster only posts to servers, from which a group is also pulled, so regardless which selections you choose, the resulting server/group-combination has to be in Hamster's pull-list, too.

Returns: <0: Error, >=0: Number of post-jobs added

```
HamNewsJobsPost( "one.newsserv.er", ".*", "^X-Post-To: one.newsserv.er" )
HamNewsJobsPost( "two.newsserv.er", "^alt\." )
HamNewsJobsPost( "one.newsserv.er" )
```

HamNewsJobsStart(<server-list>)

HamNewsJobsStart

Starts transfer-threads for the given servers that have pending news-jobs.

If <server-list> is omitted or set to an empty string (""), threads for all newsservers with pending news-jobs are started. Otherwise, only threads for the given servers are started.

If used, <server-list> has to consist of a semicolon-separated (";") list of servernames. The servernames have to be in the same format as displayed in the Hamster-settings (i.e. servername + " " + port), e.g.:

"news.aaa.com,nntp;news.bbb.com,nntp"

Returns: <0: Error, >=0: Number of threads started

```
# replacement for HamNewsPost and HamNewsPull:
HamNewsJobsClear
HamNewsJobsPostDef
HamNewsJobsPullDef
HamNewsJobsStart
```

HamMailExchange(<server-list>)

HamMailExchange

Starts the thread, which first fetches new mails from the mailservers and then sends out mails (if any).

If you omit <server-list> or set it to an empty string (""), all POP3- and SMTP-servers defined in Hamster may be used. Otherwise, transfer is restricted to the given servers.

If used, the <server-list> has to consist of a semicolon-separated (";") list of servernames. The servernames have to be in the same format as displayed in the Hamster-settings (i.e. servername + " " + port).

NOTE: It's suggested to use "[HamFetchMail](#)" and "[HamSendMail](#)" instead, as these commands also support the different mail-accounts and the mail-filters of Hamster, that "HamMailExchange" doesn't.

Returns: 0=OK/Started, <>0=Not started

```
HamMailAll
HamMailAll( "one.mailserv.er,pop3;two.mailserv.er,smtp" )
```

HamFetchMail(<server>, <port>, <user>, <pass>, <destuser>, <filter>)

...

HamFetchMail(<server>)

Starts a thread, which fetches mails from the given POP3-server (<server>, <port>).

If <user> (username) and <pass> (password) are given, they will be used to login to the server, if they are both empty, the [password-setting](#) for the given server is used. Furthermore, one of the stored "[general-purpose](#)"-passwords can be used here to avoid noting it in clear-text in the script (<user>="\$(number)", <pass>="").

If <destuser> is given, fetched mails will be stored in the mailbox of this user, "admin"-mailbox is used otherwise.

If <filter> is given, it determines the filter-section to use for the mails fetched with this commands (default is global filters only, i.e. "[*]"-section in [MailfFilt.hst](#)).

Returns: 0=OK/Started, <>0=Not started

```
HamFetchMail( "pop3.serv.er", "pop3", "", "", "", "" )
HamFetchMail( "pop3.serv.er", "", "john.doe", "secret", "john", "" )
HamFetchMail( "pop3.serv.er", "10110", "$7", "", "jane", "" )
HamFetchMail( "pop3.serv.er", "", "$42", "", "admin", "myfilters" )
```

HamSendMail(<server>, <port>, <from-select>)

...

HamSendMail(<server>)

Starts a thread, which sends mails to the given SMTP-server (<server>, <port>).

If no <from-select> is given, all mails waiting for delivery are sent. If a selection is given (regular expression), only mails with a matching Envelope-From are sent to this server.

Returns: 0=OK/Started, <>0=Not started

```
HamSendMail( "smtp1.serv.er", "smtp", "john\.doe@serv\er" )
HamSendMail( "smtp2.serv.er" )
```

HamSendMailAuth(<server>, <port>, <user>, <pass>, <from-select>)

...

HamSendMailAuth(<server>)

Like "HamSendMail" above, but additionally allows to provide username and password used for authentication.

Note: Username and password are ignored, if SMTP authentication is not enabled for the given server (see notes on SMTP authentication under "Mailserver").

Returns: 0=OK/Started, <>0=Not started

```
HamSendMailAuth( "smtp3.serv.er", "smtp", "$42", "", "@smtp3\serv\er" )
```

HamRasDial(<name>, <user>, <pass>)

...

HamRasDial(<name>)

Dials the RAS-connection named "<name>" and tries to authenticate with username <user> and password <pass> (if given).

If <user> and/or <pass> is omitted or set to empty strings (""), the settings of "HamSetLogin" (if any) or the values stored in Hamster are used to establish the connection. This function also supports one of the stored "general-purpose"-passwords to avoid noting it in clear-text in the script (<user>="\$(number), <pass>="").

NOTE: If this function is used, "HamRasHangup" should be used to terminate the connection again.

Returns: 0=OK/connected; >0=error-code; -1=RAS not installed

```
$try = 1
while( HamRasDial( "MyProvider",$42" ) != 0 )
    if( $try >= 3 )
        error( "Dialing failed!" )
    endif
    inc( $try )
    sleep( 10000 )
endwhile
```

HamRasHangup

Terminates an existing RAS-connection.

Returns: 0: OK; >0: error-code; -1: RAS not installed

HamRasHangup

HamGroupCount

Retrieves number of newsgroups available from Hamster.

Returns: >=0: OK/number of groups; <0: error

see example at HamGroupName

HamGroupName(<index>)

Retrieves the name of the given newsgroup. <index> can be 0 to (HamGroupCount-1).

Returns: String

```
var( $grpidx )
$grpidx = 0
while( $grpidx < HamGroupCount )
    print( HamGroupName( $grpidx ) )
    inc( $grpidx )
endwhile
```

HamGroupIndex(<grpname>)

Retrieves the index-number of the given groupname.

Returns: >=0: OK/index-number; -1: unknown group
`print(HamGroupIndex("internal.misc"))`

HamGroupOpen(<grpname>)

Opens the given group and returns a handle, which is needed to retrieve additional infos in the functions below (the handle is referenced as <grphdl> there).
If the function fails, the return-value is negative (<0).

Returns: >=0: OK/group-handle; <0: error
`$grphdl = HamGroupOpen("internal.misc")`

HamGroupClose(<grphdl>)

Closes a previously opened group.

Returns: 0
`HamGroupClose($grphdl)`

HamArtCount(<grphdl>)

Retrieves the number of available articles in the group.

Returns: >=0: OK/count, <0: error
see example at HamArtText

HamArtNoMin(<grphdl>)

Retrieve the lowest available article-number.

Returns: >=0: OK/count, <0: error
see example at HamArtText

HamArtNoMax(<grphdl>)

Retrieve the highest available article-number.

Returns: >=0: OK/count, <0: error
see example at HamArtText

HamArtText(<grphdl>, <artno>)

Retrieves the text for the given article-number. An empty string indicates, that an article with the given number is not available (any more).

Returns: String (article-text or "")

```
var( $grpnam, $grphdl, $artmin, $artmax, $artno, $arttxt )

$grpnam = "internal.misc"
$grphdl = HamGroupOpen( $grpnam )

if( $grphdl >= 0 )
    print( "Group ", $grpnam, ": ", HamArtCount($grphdl), " articles" )
    $artmin = HamArtNoMin( $grphdl )
    $artmax = HamArtNoMax( $grphdl )

    $artno = $artmin
    while( $artno <= $artmax )
        $arttxt = HamArtText( $grphdl, $artno )
        if( $arttxt <> "" )
            print( "Article ", $artno, ": ", len($arttxt), " byte" )
        endif
        inc( $artno )
    endwhile

    HamGroupClose( $grphdl )
endif
```

HamArtTextExport(<grphdl>, <artno>)

Same as "HamArtText", but the text is additionally converted to export-format.

Returns: String (article-text or "")
`$arttxt = HamArtTextExport($grphdl, $artno)`

HamArtImport(<article>, <goverride>, <ignorehist>, <marknoarch>)

...

HamArtImport(<article>)

Imports the given <article> into Hamster's database and returns TRUE, if the article was imported, FALSE otherwise.

<article> contains the article to import, including all headers, header/body-separator and the article-body. The lines have to be separated by CR+LF (0x0d, 0x0a).

If <goverride> is empty (default), the article is stored in the groups determined by the "Newsgroups:"-header of the article. Otherwise it is stored in the group given by <goverride>. If no valid local groups are given, the article is stored in `internal.misc`.

If <ignorehist> is TRUE (<>0), no history-lookup is made for the Message-ID of the imported article, so it will be imported even if it's already known. Default is FALSE.

If <marknoarch> is TRUE (<>0), the imported article is marked with "NoArchive=1" in the "X-Hamster-Info:"-header. This flag might be used to mark the imported article as "temporary", so it can, for example, be ignored by appropriate archiving-software. Default is FALSE.

Returns: true/1: OK, false/0: error

```
HamArtImport( $article_text, "internal.misc" )
```

HamArtDeleteMid(<message-id>)

Locates the article identified by the given <message-id> and deletes it in Hamster's database-files. The function returns 0, if article could be located and deleted; a value other than 0 otherwise.

Returns: =0: Deleted, <>0: Message-ID not found/deletion failed

```
HamArtDeleteMid( "<12345.67890@abd.def.ghi>" )
```

HamArtLocateMid(<message-id>, <grpname>, <artno>)

HamArtLocateMid(<message-id>)

Returns 0, if the given Message-ID is (still) saved in the history-file. In this case, the variables <grpname> and <artno> will be set to point to this article. Otherwise the function returns a value other than 0 and <grpname> and <artno> remain unchanged.

Returns: =0: OK/found, <>0: Message-ID not found

```
if( HamArtLocateMid( "<12345.67890@abd.def.ghi>", $groupname, $artno ) )
```

```
# ...
```

```
endif
```

HamScoreList(<grpname>)

Retrieves a list containing all score-entries, which will be used when pulling news for the given groupname <grpname>.

Returns: String

```
ListSetText( $ScoreList, HamScoreList( "group.name" ) )
```

HamScoreTest(<grpname>, <article>, <matchlog>)

HamScoreTest(<grpname>, <article>)

Returns the score-value for the given article <article>. The test is done with the assumption, that the article was pulled from the given newsgroup <grpname>. A CR/LF-separated list of all matching score-lines is returned in the variable <matchlog>.

Returns: Integer (score-value)

```
$ScoreValue = HamScoreTest( "group.name", $Article, $MatchLog )
```


Hamster-Scripts: Modules

Creating modules

Modules are just scripts containing a set of often used functions. It is suggested to use the file-extension ".hsm" for modules to separate them from normal scripts (".hsc").

The only notable thing about modules compared to normal scripts is, that they also contain a mechanism for initializing things automatically when the module is used by a script.

This initialization-mechanism is just a piece of script-code, which is marked by an "#!initialize"-line. The code directly after this marker is executed automatically when the module is used by a script.

The initialization-code must return an integer-value. A value of 0 shows a successful initialization, values other than zero prevent the script from starting (e.g. if a file needed by the module is missing).

```
#!initialize
  debug( 255, "<<< module 'modulename.hsm' >>>" )
return( 0 )
```

The initialization-code is executed within the global context of the started script, so all variables created and used in the initialization-code are global afterwards.

```
#!initialize
  debug( 255, "<<< module douglas_adams.hsm' >>>" )
  var( $THE_ANSWER )
  $THE_ANSWER = 42
return( 0 )
```

As it is not possible to protect module-wide variables from being changed by the calling script, it is suggested to at least use names which rarely should be used by someone else. A convention, that might also be used for script-internal functions, is to precede such names with the name of the module like in the following example:

```
#!initialize
  debug( 255, "<<< module 'modulename.hsm' >>>" )
  var( $modulename_hsm_Counter )
  $module_name_hsm_Counter = 0
return( 0 )

sub modulename_hsm_ThisSubOnlyNeededWithinModule
  # ...
endsub
```

Using modules

To use existing modules within a script, they have just to be loaded by "#!load"-commands:

```
#!load hamster.hsm
#!load htime.hsm
```

If one of the loaded modules also contains "#!load"-commands, these dependant modules will also be loaded automatically. Each module will only be loaded once, regardless of how often and where it is loaded.

After all requested modules are loaded and before the actual script-code is executed, the initialization code of all modules is executed in reverse order of loading them.

