

EVE RAM-disk Setup

**for multiple EVE accounts
and
multiple EVE environments (Tranquility, Singularity, ...)**

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History:	EVE version / Changes
v0.5, 30.03.2009	Based on EVE "Apocrypha" on Win XP SP3
v0.9, 30.03.2009	Updates

Contributors:	

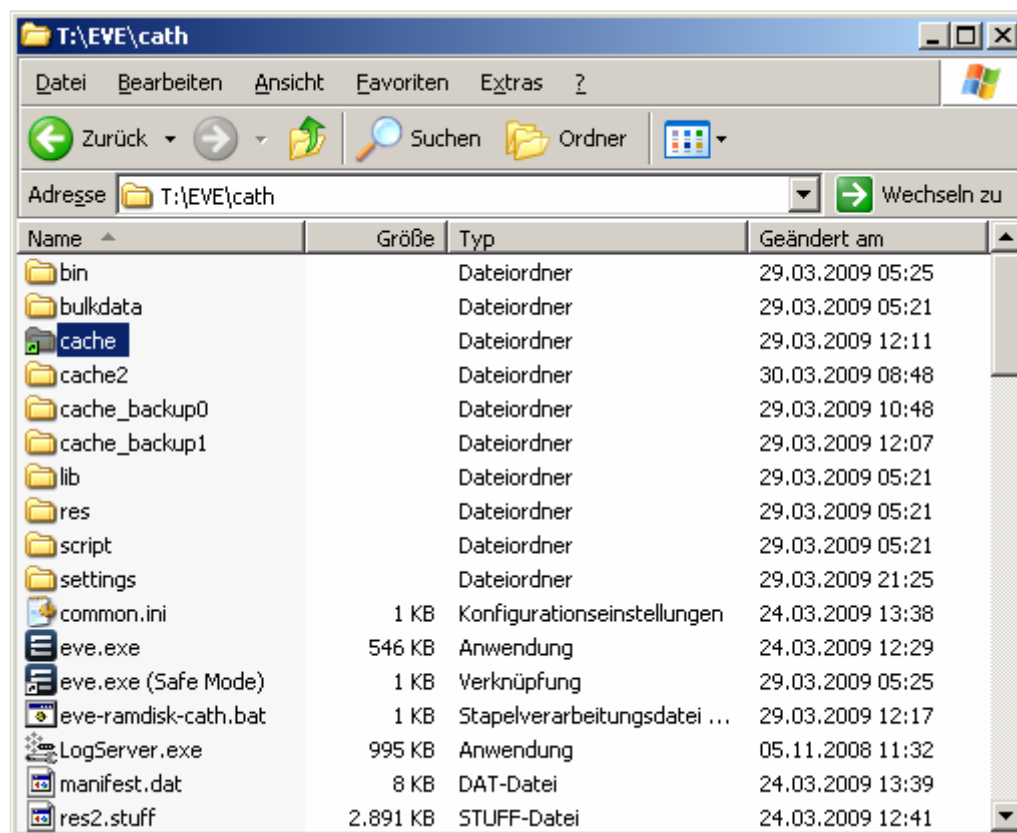
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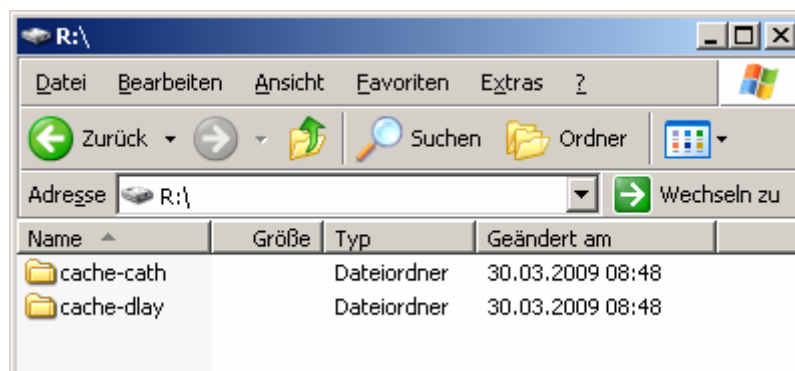
1. GOAL:

- Speed-up EVE client accesses to cache folder
- Better performance in fleet battles
- Better performance when having to deal with a huge number of objects
- Creating an environment for multiple EVE software versions and accounts, where certain EVE settings can be kept separate on a per-account and per-eve-version basis. I know there are controversial discussions regarding this; see last chapter references "EVE directory Example"
- This is an example for the new EVE directory organization, see Screenshots below.

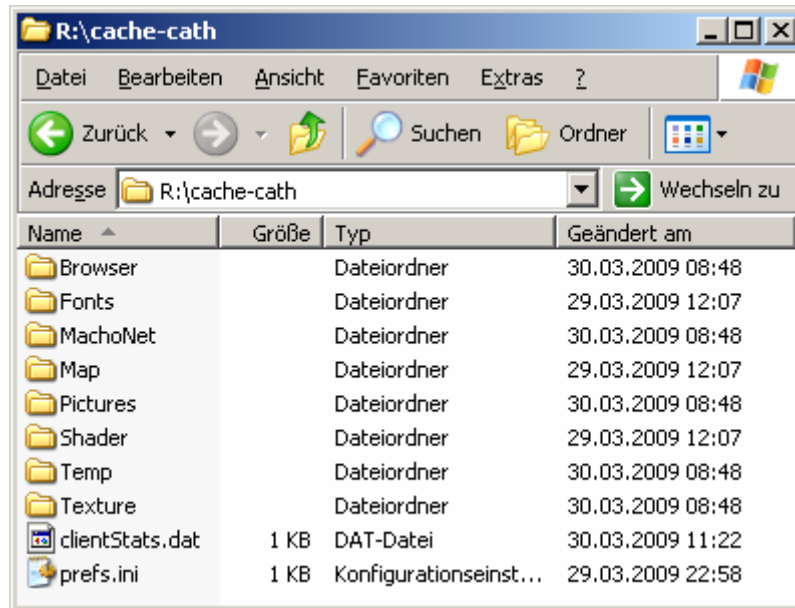
Looking at the cache directory you see the green link symbol. This indicates the NTFS-LINK, in this case to the cache directory on drive R: (RAM-disk).



Below the files on the RAM-disk (R:):



Below the content of one cache-directory (it's a mirror of your cache2 directory):

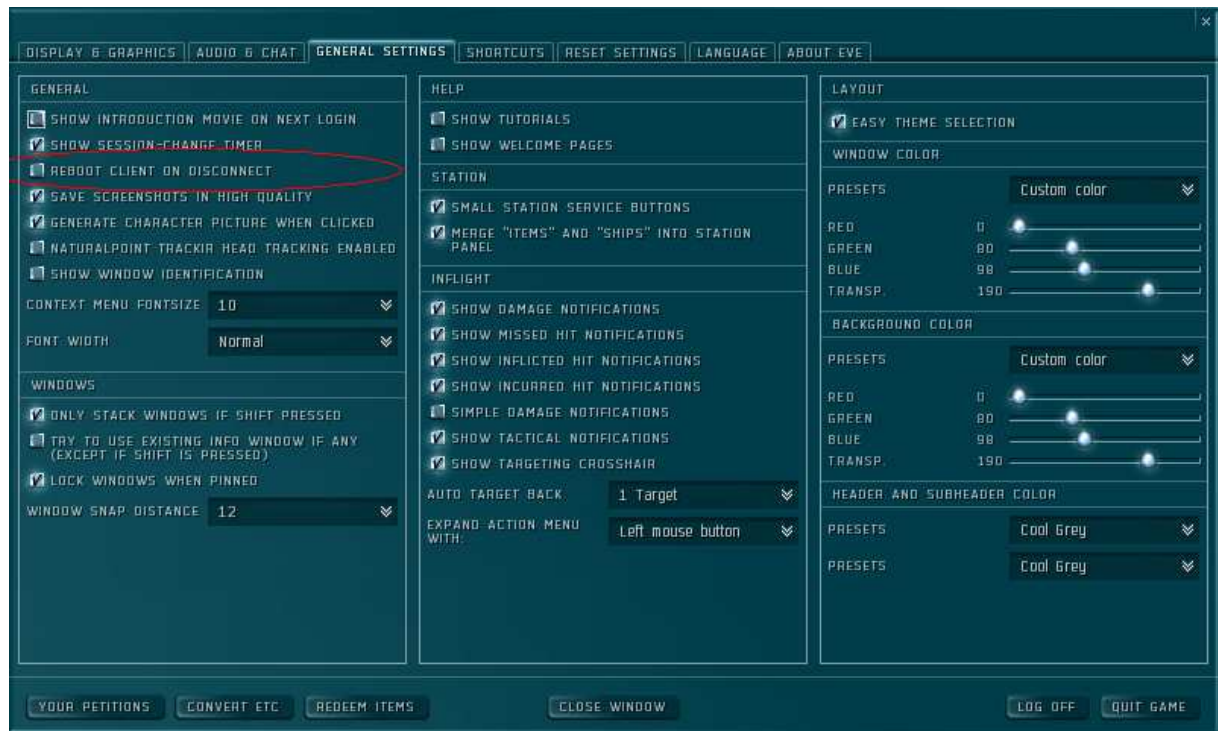


2. Start EVE using the batch scripts

Do it by double-clicking the shortcuts on your Desktop ☺

3. EVE In-Game Settings

For every client I recommend disabling “reboot client on disconnect” to prevent unforeseeable errors in the scripting logic !!!



4. Workflow of these scripts

So you ask yourself now what happens when using these DOS batch scripts ?

After the double click the following happens:

- Mirror the content of your “cache2” directory to the RAM-disk
- Launch EVE with special start-up options

The DOS batch window stays open additionally while you play EVE.
After finishing EVE the remaining part of the batch runs and all terminates.

- Mirror the content of the RAM-disk back into your cache2 directory.
- References, sources of information from different forums”

The solution is build-up to meet mainly my personal requirements. After having it finished I decided to document it in the hope that it might be useful also for other people.

Regarding the implementation to have one separate directory per EVE account is being discussed controversially in the EVE forums. For me personally this offers most flexibility, as then I can have very different settings for 2 different accounts.

Some people might argue that a commercial RAM-disk solution might save the work of having to setup all this and live with a DOS batch script. I personally want more a “controlled” script based solution and not depend on a RAM-disk vendor “pretending”, that the content of my RAM-disk stays consistent. One power failure and your RAM-disk is toast.

For this reason I prefer more this solution, where I mirror the content of the cache directory to the RAM-disk on my own when I start EVE and vice versa if EVE terminates.

5. Before you start:

- I take no warranty in any way, that the below described procedure is error-free, fool-proofed and does not hurt your system (of course I tested it here and am running it, but you know ... systems sometimes behave very differently).
- All that you do here is on your own RISK !!!
- Backup your OS before you start. RAM-disk software in general and the tool "NTFS-link" integrate into your Operating system, which potentially can have impact on the stability of your system. In the worst case it even won't start anymore.
- Backup your EVE installation, especially the cache directories. If the EVE cache folder should get corrupted then EVE won't start anymore.

6. Backup Solutions (in brief):

If you are in the need of a quick, flexible and reliable Backup solution, then look for something like "Acronis True Image Home 2009" or "Norton Ghost".

Please Note: be aware that new ".0" releases sometimes have problems. Take a mature release with the 1st round of patches integrated. I am personally using the Acronis product:

<http://www.acronis.com/homecomputing/products/trueimage/>

7. OS and DRAM requirements

- OS: Windows XP, Vista (not Apple / Linux)
- Memory: 1 GB DRAM at minimum (best 2 GB)

8. Other Requirements

- Usage of NTFS file system for RAM-disk and EVE installation
- Per account approx. 80+ MByte DRAM free for RAM-disk (for the cache folders on RAM-disk)
- RAM-disk Software. The QSoft product runs properly in evaluation mode, so I choosed this to give it a try: <http://www.RAM-disk.tk/>
- Tool: NTFS-link to create a real "link" from the EVE cache folder to the new location on RAM-disk. GNU license.
http://developer.novell.com/wiki/index.php/Special:Downloads/ntfslink/ntfslink_2.1/ntfslink2.1_installer/ntfslink.exe

9. License Terms and Considerations

If you build up this solution, then these licenses are being used:

Software	License	Comment
RAM-disk Software	Depends which you choose	QSoft offers evaluation license to test and cheap commercial offers.
NTFS-LINK	http://www.opensource.org/licenses/gpl-license.php	GNU Public License (Open Source)
Batch Script	No license found.	Based on this version. I modified Andy's modified version for more modularity. http://www.eve-online.de/forum/showthread.php?t=7883&start=120 Use it on your own risc.

10. Overview Windows XP file system layout

To give you a brief overview, this is the final installation scenario which we are going to implement.

OS Windows XP SP3			
Drive Letter	File System Type	Content	Path
C:	NTFS (recommended)	Windows	
C:		Shortcut on Desktop to EVE start script	(de) C:\Dokumente und Einstellungen\<YourXPaccount>\Desktop\eve-RAM-disk-<char>.bat

R:	NTFS (mandatory)	RAM-disk	R:\cache-<char>
T:	NTFS (mandatory)	EVE installation Tranquility	T:\EVE\<char>
T:	NTFS (mandatory)	EVE installation Singularity (Test)	T:\EVE\<char>.devel
T:		Link to EVE cache folder on RAM-disk (which the EVE client uses)	T:\EVE\<char>\cache
T:		Backup of cache folder (where the cache content now resides)	T:\EVE\<char>\cache2
T:		DOS Start-script	T:\EVE\<char>\eve-RAM-disk-<char>.bat

11. EVE installation

It can be assumed that you already installed and played EVE.

If you already have separate installation directions per account and EVE environment (Tranquility, Singularity, etc) and if you are using the special EVE start-up options “/end /LUA:OFF” then the modifications are easier for you, as many things are already usable at the right place.

Nevertheless for completeness I will mention for what to take care when doing the installation now freshly, then refer to Option A) otherwise continue with B).

Option A) EVE New Installation

Install EVE on a partition with NTFS file system and a lot of free disk space. You can estimate 5GB per EVE installation. Plan for a reserve as future upgrades might require more disk space.

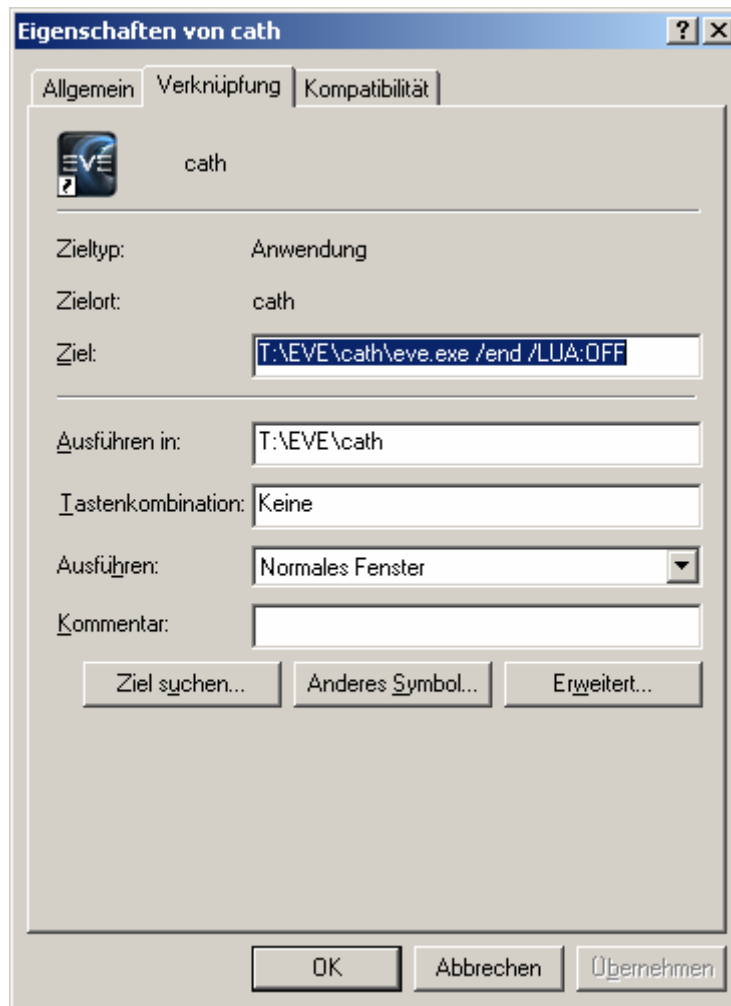
So for 2 accounts on Tranquility and 2 on Singularity you require 20+GB, better 30GB, disk space.

I am using T:\EVE as EVE top-level directory (variable %EVEPATH% in the later mentioned start-up script which you need to use later).

As time saver you can copy/paste from the 1st installation and rename the directories according to the character names. So copy T:\EVE\dlay to T:\EVE\dlay.devel, T:\EVE\cath, T:\EVE\cath.devel

Hint: start all of your EVE clients by using a modified short-cut which appends these start-up options: “/end /LUA:OFF”. By doing this you will generate a “unique” cache folder in the EVE installation directory of every of your accounts, which we will use later for generating our customized environment.

Example screenshot below:



Option B) EVE already installed

If you already played EVE then check, if the installation resides on a NTFS file system. Otherwise move/migrate your installation to a NTFS based partition.

12. RAM-disk Installation and Settings

Installation instruction for the RAM-disk can be found in the download section of this link <http://www.RAM-disk.tk/>.

Important: you need to know if you have a 32Bit or a 64Bit Windows XP Operating System, to download the correct version!!!

Note: you need to unpack the archive first and then stick to the described process on their webpage.

13. RAM-disk Resource Planning

Per account you require approximately 80 MB for the cache folder.

You need to honour for the amount of character / environments which you play in parallel.

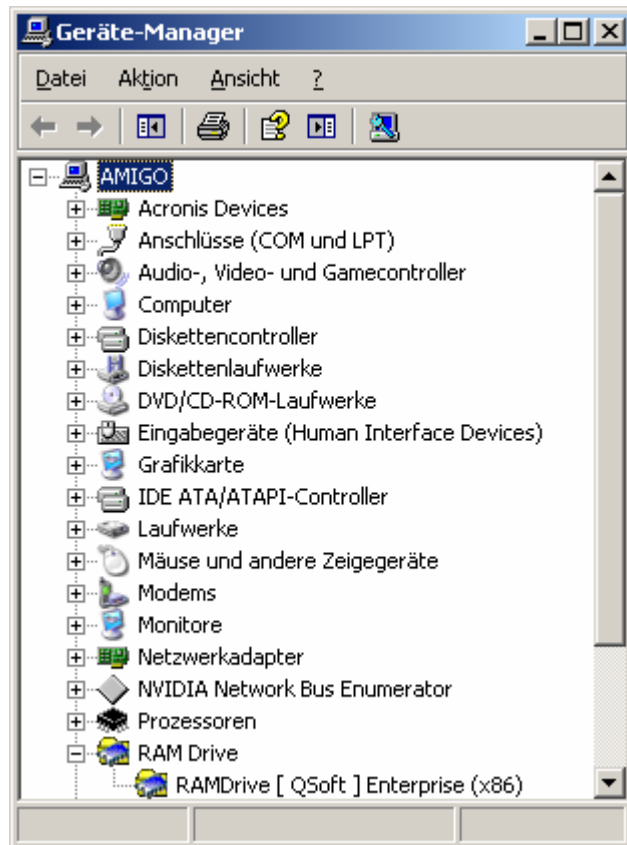
So for 2 characters this is $2 \times 80 \text{ MByte} = 160 \text{ MByte}$.

If you clear the EVE clients cache, then you automatically trim down the cache size. This way you can “workaround” changing the size of the RAM-disk.

Hint: watch your caches size to get a feeling what space you really require !!!

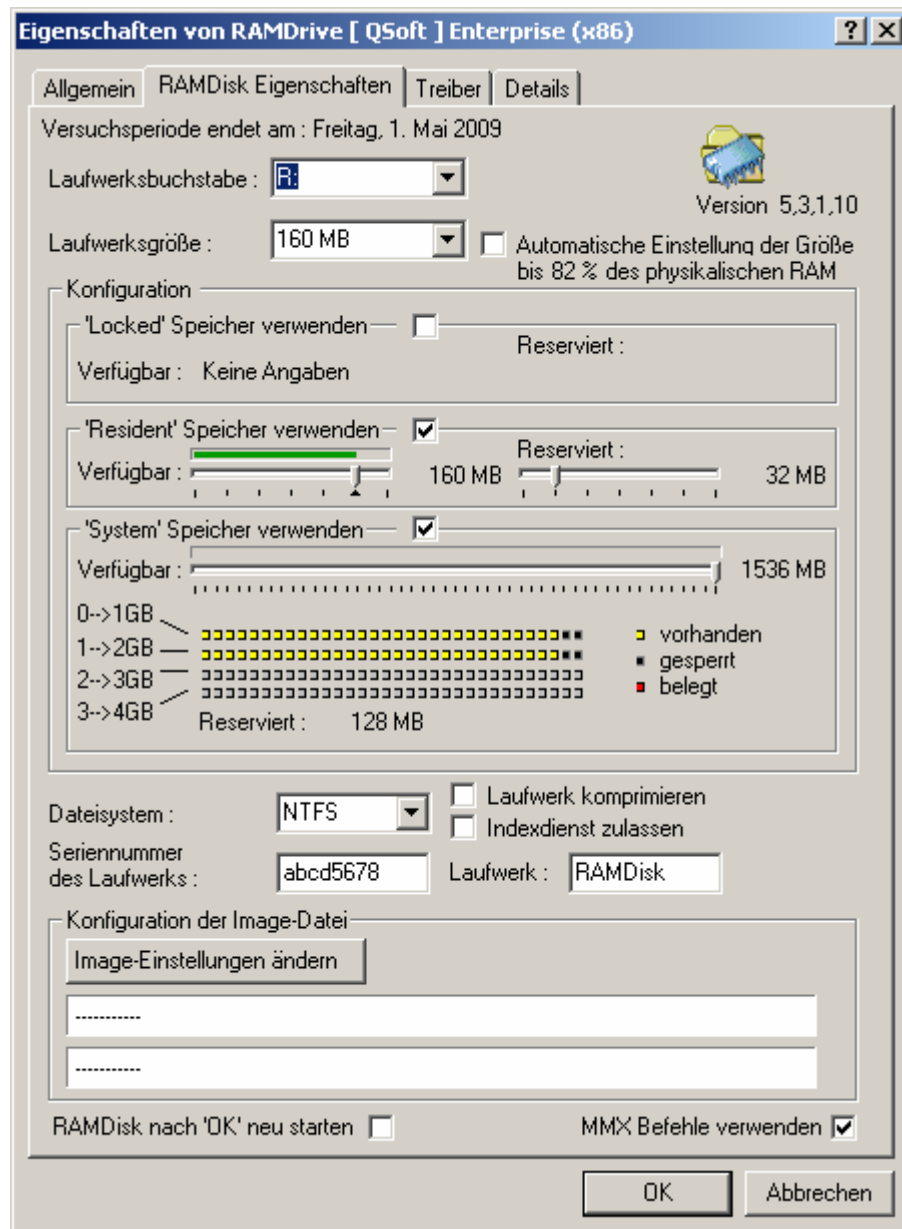
Don't forget that the EVE client itself requires approximately up to 400 MByte per running instance and also your Operating System needs some free DRAM to be able to run properly. If you are working with EVEmon, EFT, Internet Browser, PDF viewer, etc, then I think you need at least 2 GB of DRAM, so that this 2 account setup makes sense.

Example: Windows XP device manager RAM-disk entry



Below you can see how the settings of the RAM-disk looks like.

Example: RAM-disk configuration:



To keep things simple I decided to fully rely on the script logic of the EVE start script, which populates the RAM-disk from the cache2 folder before starting EVE and which is responsible to copy over changes file back to the cache2 directory after the EVE client terminated.

I know this RAM-disk has a feature to synchronize its content to the disk. But I do not want to fully rely on this, as system start might be too early and system stop too late for such kind of synchronizations.

14. NTFS-LINK (download/install)

Download and install [NTFS-LINK](#).

Reboot PC.

15. Create empty EVE Cache folder on RAM-disk (R:)

R:\cache-cath
R:\cache-cath.devel
R:\cache-dlay
R:\cache-dlay.devel

16. Rename “cache” folder to “cache2”

For each of your EVE installation directories perform the following:

- Rename the EVE “cache” folder to “cache2”.
- After that re-create an empty “cache” folder

Then you should have a setup like this:

Directory	Comment
T:\EVE\cath\cache2	Your EVE cache renamed to cache2
T:\EVE\cath.devel\cache2	Your EVE cache renamed to cache2
T:\EVE\dlay\cache2	Your EVE cache renamed to cache2
T:\EVE\dlay.devel\cache2	Your EVE cache renamed to cache2
T:\EVE\cath\cache	Empty Cache Directory
T:\EVE\cath.devel\cache	Empty Cache Directory
T:\EVE\dlay\cache	Empty Cache Directory
T:\EVE\dlay.devel\cache	Empty Cache Directory

After that you need to link the empty “cache” directory to the one on the RAM-disk.

This requires NTFS-LINK to be installed (it is NOT the Windows shortcut functionality!)

Right-click to the cache directory and click “Ordner verlinken” or “link directory” (unsure how this is called in the English XP Version) and link it to the RAM-disk directory.

Right-click and NTFS-link	... to the RAM-disk
T:\EVE\cath\cache	R:\cache-cath
T:\EVE\cath.devel\cache	R:\cache-cath.devel
T:\EVE\dlay\cache	R:\cache-dlay
T:\EVE\dlay.devel\cache	R:\cache-dlay.devel

After you have created these NTFS links, remove everything from on the RAM-disk (R:).

This is required as the directories later will be re-created automatically by the DOS batch script from your cache2 directory in every of your EVE folders.

17. Create the Batch Scripts in the EVE directory

I am storing this batch file in the directory of my EVE installations (2 for the real accounts on Tranquility, 2 for the test accounts on Singularity). Right-click and create new text file”. Copy/Paste.

The DOS batch script:

```
@echo off
set CHAR=cath
set EVEPATH=T:\EVE\%CHAR%
set RAMPATH=R:\cache-%CHAR%
echo # copying files to RAM disk...
echo # please wait...
xcopy /C /I /D /K /R /E /H /Y "%EVEPATH%\cache2" %RAMPATH%
echo # files copied...
echo # launching EVE-Online...
%EVEPATH%\bin\exefile.exe /nosplash /noconsole /end /LUA:OFF
echo # copying files from RAM disk...
xcopy /C /I /D /K /R /E /H /Y %RAMPATH% "%EVEPATH%\cache2"
echo files copied...
echo # finish !!!
exit
```

Save the scripts i.e. in these directories using these or similar names (as you like):

```
T:\EVE\cath\eve-ramdisk-cath.bat
T:\EVE\cath.devel\eve-ramdisk-cath.devel.bat
T:\EVE\dlay\eve-ramdisk-dlay.bat
T:\EVE\dlay.devel\eve-ramdisk-dlay.devel.bat
```

Please note: you have to customize the script:

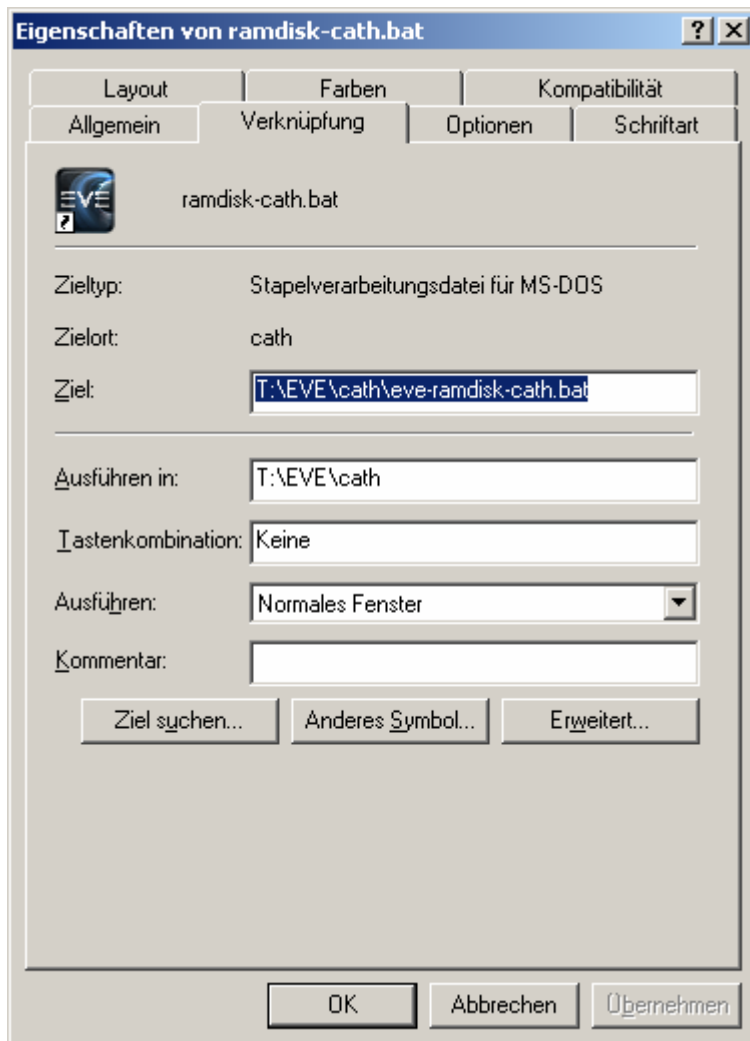
- **CHAR** (hint; = main char name = installation directory name)
- **EVEPATH**
- **RAMPATH**

18. Create shortcuts to the Batch Scripts on your Desktop

After that, create a link (shortcut) to the desktop and change the properties of that shortcut to achieve this:

- getting EVE icon and
- setting the execution directory (= script location; 1 unique directory per account / EVE server)

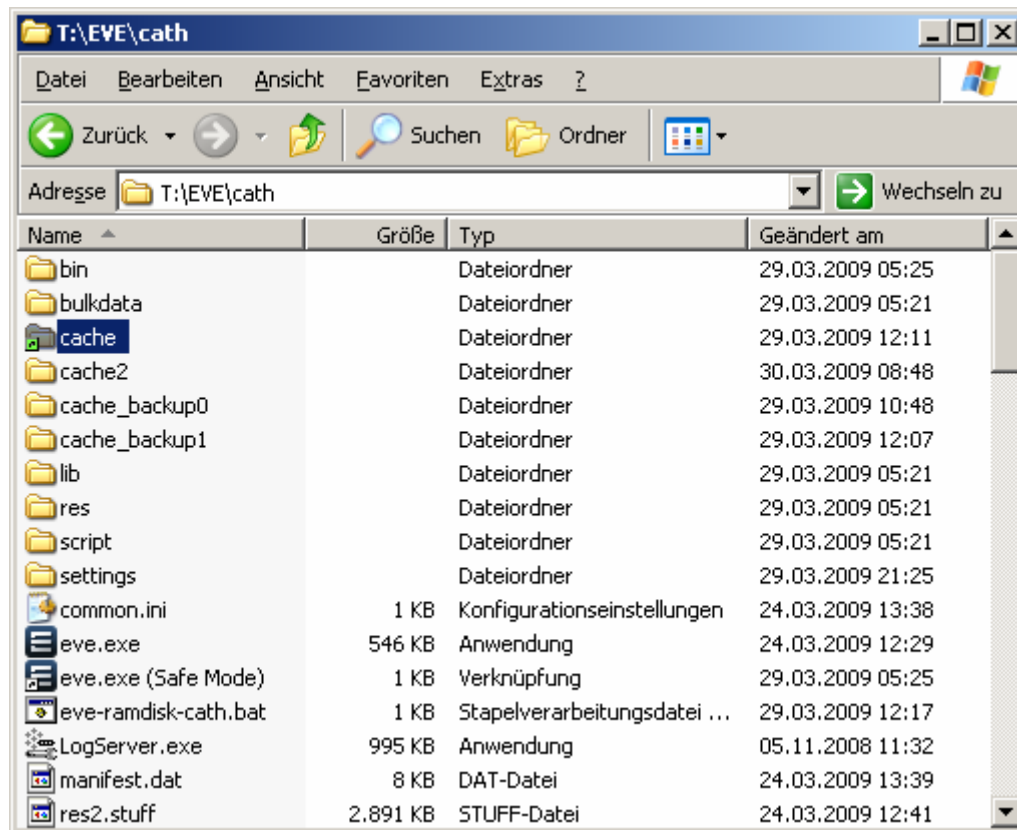
Example Screenshot: Desktop shortcut to these new EVE start-up scripts:



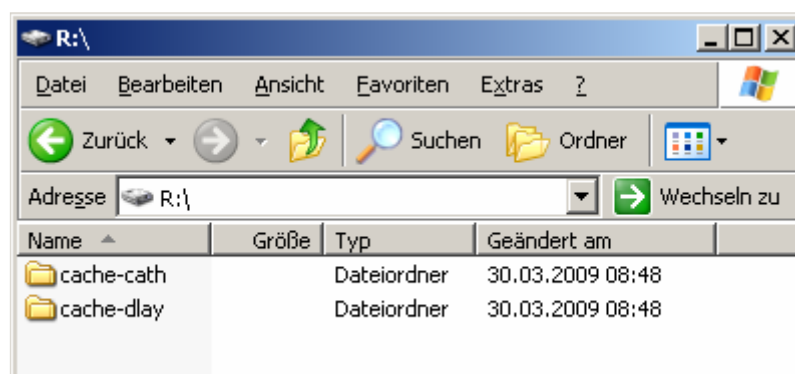
19. EVE directory Example

This is an example for the new EVE directory organization, see Screenshots below.

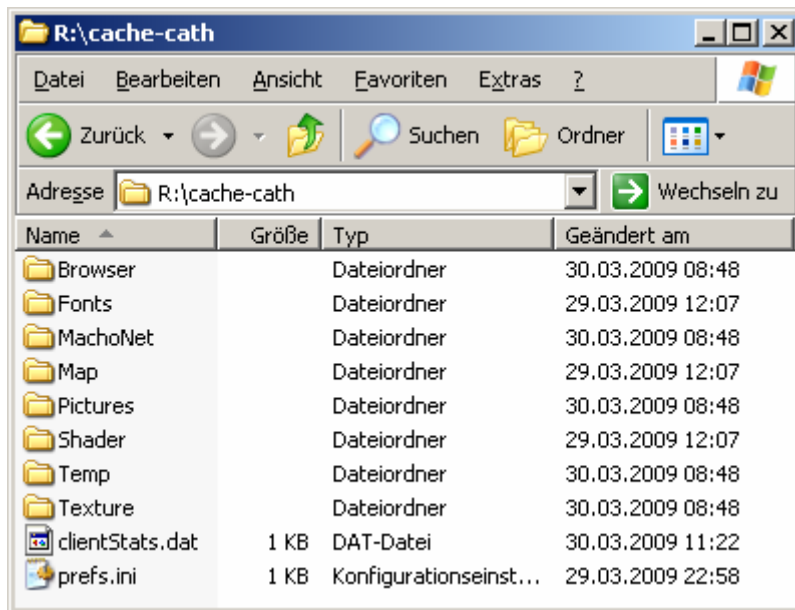
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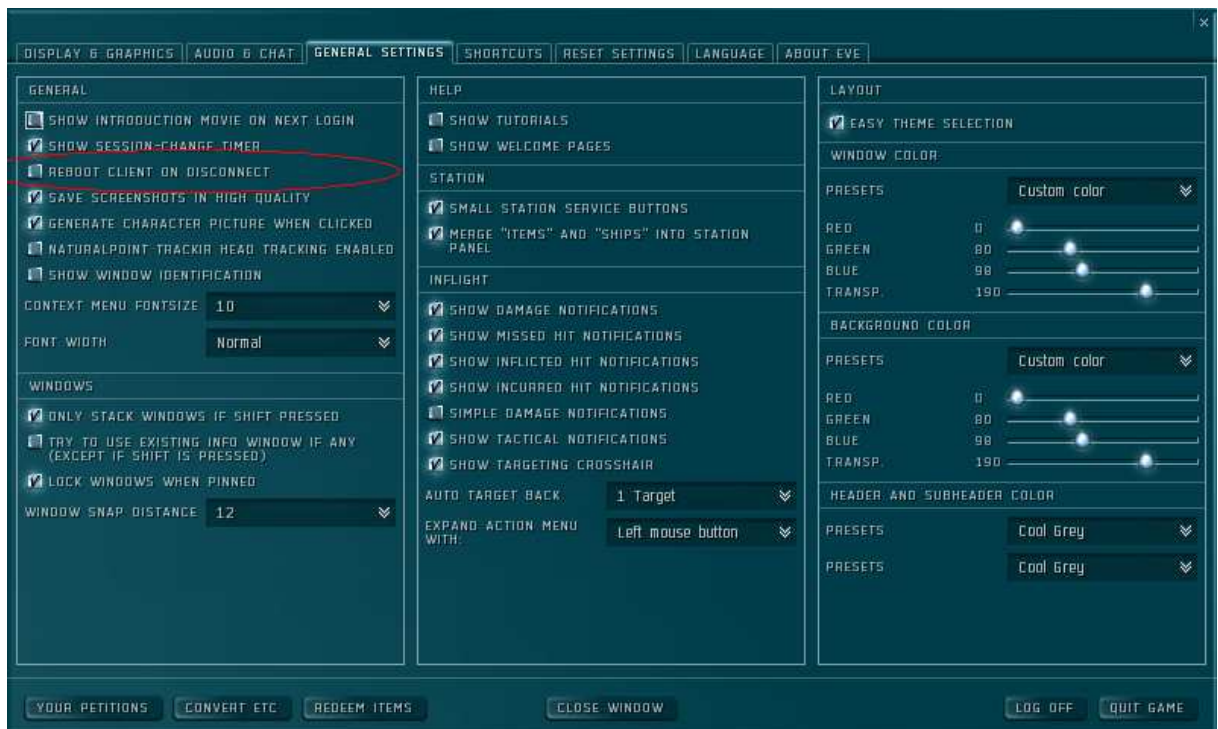


20. Start EVE using the batch scripts

Do it by double-clicking the shortcuts on your Desktop ☺

21. EVE In-Game Settings

For every client I recommend disabling “reboot client on disconnect” to prevent unforeseeable errors in the scripting logic !!!



22. Workflow of these scripts

So you ask yourself now what happens when using these DOS batch scripts ?

After the double click the following happens:

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- Launch EVE with special start-up options

The DOS batch window stays open additionally while you play EVE.
After finishing EVE the remaining part of the batch runs and all terminates.

- Mirror the content of the RAM-disk back into your cache2 directory.

23. References, sources of information from different forums

RAM-disk related

- <http://www.eve-online.de/forum/showthread.php?t=7883&start=120> (de)
- <http://www.eveonline.com/ingameboard.asp?a=topic&threadID=452570> (de)

EVE start-up options related

- <http://www.eve-search.com/thread/544296/page/all> (en)

RAM-disks for other things

- <http://www.planet3dnow.de/artikel/diverses/ramdisk/index.shtml> (de)

24. Acknowledgements

I want to thank the guys who inspired me to put together this solution.

Deydrana from the X-Trading Company, Razor Alliance
and Andy from this thread:

<http://www.eve-online.de/forum/showthread.php?t=7883&start=120>

25. Donations

If you like you may donate some ISK to Lady Cath in-game. She will be very happy about it ☺

And now have a good time playing EVE ;-)

The Ladies Cath & d'Lay