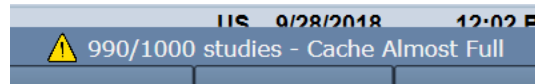# Local Cache Usage and Maintenance

You're likely to be reading this document because you clicked on a warning or error at the bottom of a study list that looks like something this:

"Cache Almost Full"? What does that mean? What is a cache?

A cache is a folder on your PC that is used to temporarily store Dicom studies when you access a Remote PACS or Remote Image Center, or when running a stand-alone Workstation SCP. The cache is where the software stores (temporary) copies of the studies for query/retrieve or when studies are sent to a stand-alone workstation.

Setting Up a Local Cache

Setting up a local is cache is pretty simple: choose an **empty folder** on a disk with **300GB of free space** for that folder to use. You may need more space if you regularly deal with lots of very large studies.

Tips

- If you use an **external USB hard drive** make sure it is a USB 3.0 drive connected to a USB 3.0 port.
- **Avoid** using network file shares. Seriously.
- If you want to use your **C:** drive but it doesn't have **a lot of free space**, use another drive.
- **Do not ever** use the same local cache for two different tabs on your study list.
- **Do not ever** configure your local cache to the same folder as an Image Directory on the Image Center.
- **Do not** use third party Dicom tools to look at or try to manage the contents of your local cache folder
- **Do not** set up a local cache on a cloud storage like DropBox, OneDrive, GoogleDrive, etc.
- **Do not** set up a local cache on your Desktop, Documents folder or other folders specific to your login.

Remember: the local cache is really for scratch use by the ShowCase software. It's not a repository or an archive. It's not a DICOM file system. If you need to clean out the cache, follow the rules outlined in Managing Your Local Cache in this document.

Network File Shares

Generally, you should use a folder on your local hard drive for your cache, but if you are forced to use a network share for some reason, you will have to ensure that the Windows Service "ShowCase Study List Service" has full permissions to read and write that share. If this sounds intimidating, then stick to using a folder on your hard drive. If for some reason you *need* to use a network share, contact support@triltech.com for assistance.

Troubleshooting

Out of space

This means that the disk where your cache folder lives is almost completely full – you only have 5GB of free space available on that disk. You'll want to free up some space on that disk as soon as possible to keep the software running. See the section "Cleaning Up Your Local Cache" (below) for suggestions.

If you're this starved for disk space, consider moving the cache to another hard drive completely.

Low on space

`⚠ Cache Low On Disk Space`

This means that your disk has less than 15 GB of free space left on it. You'll want to free up some space on that disk as soon as possible to keep the software running. See the section "Managing Your Local Cache" (below) for suggestions.

Cache Almost Full

`⚠ 976/1000 studies - Cache Almost Full`

This warning appears when you're getting close to the 1,000 study storage limit for your cache. That's a fixed limit – you can't change it. See the section "Managing Your Local Cache" (below) for suggestions on managing your cache.

Cache Full: Too Many Studies

`⚠ Cache Full: Too Many Studies`

Your cache is now full, and you won't be able to retrieve or receive or copy studies into the cache. You're dead in the water until you address this.

Additionally, if you're running ShowCase workstation, to either forward studies to PACS/Image Center or receive studies as a stand-alone SCP, your imaging machines will have their associations rejected when they attempt to send studies. You can either clean up some studies or start a new cache. See the section "Managing Your Local Cache" (below) for help.

Cache Folder Missing

`Cache folder 'C:\Caches\Console Local Cache' is missing.` / `⚠ Cache Folder Missing`

Your cache folder is missing. If you can restore the cache folder, great! Do that. It'll fix things. If you can't, you need to go into your settings screen and designate a new cache folder.

Corrupt Cache Index

`Local cache index is corrupt. [click here for help]` / `⚠ Corrupt Cache Index`

Your cache has an index file, and if something extreme happens (power failure during update, malware infection, etc.) the cache file can become corrupt. The only way to address this is to go into the settings for this study tab and change the cache location to a new, empty folder. If you have studies in the cache that need to be recovering, see the section Recovering Studies From An Abandoned Cache.

Corrupt cache is a very unusual condition. If it's happening frequently, please contact support@triltech.com.

Managing Your Local Cache

Too Many Studies

Your study cache is designed to operate efficiently with up to 1,000 studies in it. If you exceed that limit, it will no longer allow copying studies into it, retrieving studies into it, or receiving studies from an SCU (imaging device).

Setting Up Automatic Cleanup

One of the safest ways to keep your cache from becoming overfull is to set up Automatic Cache Cleanup in the settings for your study tab. Look for the "Local Cache Folder" section on the screen.
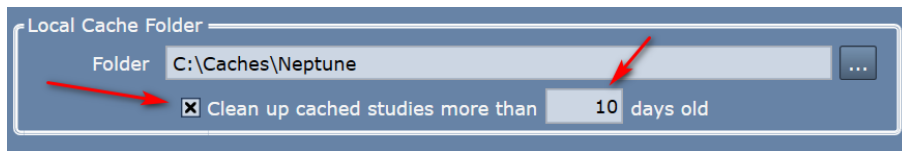
Automatic cleanup periodically checks the studies in your cache and will clean them up if and *only* if:

- The study has been sitting in the cache longer than the days specified **AND**
  - o The study was **retrieved** from a PACS or Image Center and has not been modified **OR**
  - o The study has been fully **forwarded** to a remote PACS or Image Center.

In other words, if the software is satisfied that this study is an unmodified copy of a study stored on a long term archive device like a PACS or Image Center, then it knows it is safe to clean up.

Here's an example: Dr. Janes has been asked to provide a second opinion on a patient named Deborah Michaels. Dr. Janes a query/retrieve from a PACS for "Michaels, Deborah". This study is now in the local cache. Dr. Janes reviews the images and sends her conclusions to the referring physician. Automatic cleanup is on and is set to 5 days. 5 days after Dr. Janes looks at the study, Michaels, Deborah is purged from the local cache (because it is safe for the software to assume Deborah Michaels is stored on the PACS).

In this way, Dr. Janes doesn't have to worry about running out of cache space.

Manually Deleting Studies

If it is impractical to set up Automatic Study Cleanup, then you can manually delete studies from the local cache. First, go to Full Search and select Local Studies Only. Now you have a list of all of the studies in the cache. Next, select the studies you want to delete and press the Delete button. A popup will appear to ask you to confirm that you want to delete the selected studies. *If you know that what you're deleting is an unmodified copy of a study that is stored elsewhere,* then it is fine to go ahead and delete it. If you're not sure, then we recommend leaving it in place. Once you've deleted a study out of a local cache, that local copy is gone forever. It's not in the "Trash" in Windows, and it's not backed up anywhere else.

Running Out Of Disk Space

The answer to this problem is simple: buy a bigger disk. This could be an external USB hard drive or adding in an additional hard drive to your computer. You want at least **300GB** of free space. Luckily, most computers nowadays come with plenty of hard drive space. Local caches can become quite large if they receive a lot of use. There's no good reason to skimp on disk space. If you're regularly running out of disk space and your cache is on the **C:** drive, you definitely want to get a new disk. Running out of space on the C: drive can do terrible things to your computer.

Moving a Cache

To move a cache folder, go into your study list tab settings and choose a new, empty folder. Then follow the instructions in Recovering Studies From An Abandoned Cache below.

Recovering Studies From An Abandoned Cache

Let's say you had to move a cache to a new location, but you've still got some studies in the old, abandoned cache folder that you want to get at. To access those studies, click the Browse button on the Study List and

browse to the abandoned folder. This will scan all of the DICOM files in the folder and build a study list. If you have a large cache, this may take considerable time. Once the study list has finished scanning, you can copy the studies you wish to retrieve to whatever destination you'd like to, including the tab using the new cache.

Warning: Do not browse to an active cache folder. It can cause all kinds of problems.

Note: Your Cache Is Not An Archive

A local cache is not intended to be used as a permanent archive for your studies and should not be treated as such. This is particularly true if you are running your workstation as a Stand-Alone SCP. See the Workstation Stand Alone SCP Configuration documentation for details on how to address this. If you need a study archive, please consider our ShowCase Image Center product. It can archive hundreds of thousands of studies with ease.

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