

# White paper: Personal Web Page Service

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## Service Description

This new service allows users to publish personal web pages by copying their content (HTML pages, etc) to a folder located inside of the M:\ drive (this drive is also known to IT people at Michigan Tech as the Multidrive). The folder's name is *my\_web\_files*.

This applies to Windows users that have an MTU configured M:\ drive available.

The files placed there become available to the World Wide Web. The web address they become available on depends on the user. E.g.

*Dr. Andrea Pininfarina is a faculty member in the Mechanical Engineering department. His user name is apininf. His personal web space is located at <http://www.me.mtu.edu/~apininf>.*

## Difference between the *my\_web\_files* and *public\_html* folders

They are almost the same. In fact, when most people copy files to the *my\_web\_files* folder, they will see the same files appear in the *public\_html* folder. The exceptions are users in Chemistry and VPA; those departments are setup with web folders that are separate from the H:\ drive (also known as your home drive, or home directory).

The difference resides in the fact the copying to the *my\_web\_files* folder sets the correct permissions for the files, so the web server can share them out correctly.

Recent changes in the security settings of the H:\ drive made it so that files copied to the *public\_html* folder no longer have the right file permissions by default.

Users are thus encouraged to either use the *my\_web\_files* folder (and discontinue placing content directly in the *public\_html* folder), or manage permissions in the *public\_html* folder themselves.

## Home drive permissions change

We discovered that the way permissions were configured left home directories vulnerable. We had no choice but to make these changes, in order to secure your data.

## Impact to Users of Windows OS

Users do not have to copy files from H:\public\_html to M:\my\_web\_files. The actual file store is the same in both cases.

Since files placed in H:\public\_html no longer acquire the correct permissions, its presence is confusing, and cause problems if people inadvertently put web pages in there expecting to be able to see them in the web.

PCs attached to a domain will hide the *public\_html* folder from the user in order to prevent this confusion. The *public\_html* folder is still there, and will be visible to Linux, Mac OS and standalone Windows users.

## Impact to Users of Mac OS

The M:\ drive uses a technology (called DFS) that Macs do not understand. The M:\ drive is, however, a convenient way for people to easily access the drive shares that they have access to. We are about to roll out an application for Macs that provides that same convenience of the M:\ drive. There will be an announcement about this soon.

Some Mac OS X users have been connecting to their homedrive using the instructions available in <https://www.idm.mtu.edu/tools/mymount/>, and then using that connection to place files in the *public\_html* folder. This has the same permission problems explained above. Instead, you can connect directly to the following path: cifs://eit-smb1.coe.ad.mtu.edu/my\_web\_files<sup>1</sup>. When the Multidrive application outlined above becomes available, it is highly recommended that Mac users switch to it, as the path mentioned is subject to change. We will make sure that the application understands changes in path so you do not have to.

## Impact to Users of Linux OS

Linux users need to place files in the *public\_html* folder, and then set permissions themselves.

The command to do so is the following:

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chmod -R 755 ~/public_html
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<sup>1</sup> If you need help with any of this, please contact User Services, ([it-help@mtu.edu](mailto:it-help@mtu.edu), 487-1111)

## Impact on Users of SSH, SCP, SFTP

In the general case, users who update their web pages through the above methods will not be affected, or need to use the *my\_web\_files* folder. Those methods lend themselves to correct permissions, but differences in the configuration of individual accounts could result in web permission problems.

## Possible future separation of personal web pages and home directories

In the future, in order to avoid confusion among users, IT is considering options that will separately organize personal web and home directories. To minimize the impact of any such future changes, all users are being encouraged to transition to using the *my\_web\_files* folder. As and when such changes are implemented the Michigan Tech community will be provided advance notice before any such change is implemented.

## Web Servers for Personal Pages by Academic Unit

The following is a list of the web servers available to academic units for serving personal web pages. Individual web pages will be available by appending “/~username” to the server name. E.g. <http://www.me.mtu.edu/~apininf2>

Unit	Server
Department of Biological Sciences	<a href="http://www.bio.mtu.edu">http://www.bio.mtu.edu</a>
Department of Biomedical Engineering	Service Not Available
Department of Chemical Engineering	<a href="http://www.chem.mtu.edu">http://www.chem.mtu.edu</a>
Department of Chemistry	<a href="http://www.chemistry.mtu.edu">http://www.chemistry.mtu.edu</a>
Department of Civil and Environmental Engineering	<a href="http://www.cee.mtu.edu">http://www.cee.mtu.edu</a>
Department of Cognitive and Learning Sciences	Service not available
Department of Computer Science	<a href="http://www.csl.mtu.edu">http://www.csl.mtu.edu</a>
Department of Electrical and Computer Engineering	<a href="http://www.ee.mtu.edu">http://www.ee.mtu.edu</a>
Department of Engineering Fundamentals	<a href="http://www.ef.mtu.edu">http://www.ef.mtu.edu</a>
Department of Geological and Mining Engineering and Sciences	<a href="http://www.geo.mtu.edu">http://www.geo.mtu.edu</a>
Department of Humanities	<a href="http://www.hu.mtu.edu">http://www.hu.mtu.edu</a>
Department of Kinesiology and Integrative Physiology	<a href="http://www.exsci.mtu.edu">http://www.exsci.mtu.edu</a>
Department of Material Science	<a href="http://www.mse.mtu.edu">http://www.mse.mtu.edu</a>
Department of Mathematics	<a href="http://www.mathlab.mtu.edu">http://www.mathlab.mtu.edu</a>
Department of Mechanical Engineering - Engineering Mechanics	<a href="http://www.me.mtu.edu">http://www.me.mtu.edu</a>
Department of Physics	<a href="http://www.phylab.mtu.edu">http://www.phylab.mtu.edu</a>
Department of Social Sciences	<a href="http://www.ss.mtu.edu">http://www.ss.mtu.edu</a>
Department of Visual and Performing Arts	<a href="http://www.vpa.mtu.edu">http://www.vpa.mtu.edu</a>
School of Business and Economics	Service Not Available

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<sup>2</sup> The tilde is not optional

## Glossary

**Drive mounting:** Mounting a drive is the act, in Windows PCs, of associating a file share with a drive letter, so that the files in the file share are accessible as if they were stored in a local drive. It is possible to access files in a share directly, but mounting a drive offers a familiar interface for most users, and minimizes disruption to the user when inevitable changes, upgrades, etc. to our storage infrastructure are made.

**File Permissions:** A set of attributes of a file or folder that determines which user account or group of users can access them. Files in home directories are typically configured to be available only to their owner. Web servers, however, access files as if they were a separate user than the owner; this makes it necessary to explicitly allow web servers to access web pages so that they can give those pages out to the web.

**File Share:** A folder (typically containing other folders and files) that is made available to a network of computers. There are different types of file share technologies; at Michigan Tech we use two primary technologies: CIFS/SMB, which is native to Windows PC's, but can be used by Mac OS and Linux computers, and NFS, which is native to Mac OS and Linux but not understood by Windows PCs (at least out of the box). This dichotomy complicates exporting files to a campus composed of a variety of computers.

**File Store:** A place where files are stored, for instance, the hard drive inside a computer, or a file storage appliance. Portions of a file store can be shared out to the network through a file share.

**H:\ Drive:** In Windows PCs, this is the most common place to “mount” a home directory to, because of the mnemonic connection between the letter ‘H’ and the term ‘home’. In PCs attached to a domain, this drive is mounted automatically for the user. This makes it so that the files inside the H:\drive are always instantly available to the user, without any intervention required from the user. At Michigan Tech, this space also contains the user's desktop, and customizations made to the user account, such as desktop background image, various settings, etc.

**Home Directory:** The home directory (also referred to as the home share, home drive, H:\ drive) is a file share pre-configured to be accessible to an individual user. The purpose of this share is to be used to store documents, files, etc. that need to remain private to that user. The file store associated with home directories is backed up on a frequent basis.

**Home Page:** A web page edited and updated by an individual user, and linked to their user name.

**M:\ Drive:** A drive which aggregates in one convenient place all of the file shares available to a user. Many of our users avail themselves of file shares used to store group work (for class, research, enterprises, etc.)

**Multidrive:** The file share typically mounted onto the M:\ drive.