

MindGenius SharePoint Integration

Summary

The following document provides an overview of the setup steps required to achieve integration of MindGenius with Microsoft SharePoint.

MindGenius is capable of supporting the following SharePoint tasks:

- Document check out
- Document check in
- Major and minor versioning
- Version commenting
- Discarding check out

Note 1: This document describes the process of integrating MindGenius with Microsoft SharePoint in a single-server environment. Depending on your own environment you may be required to mirror these setup steps on your additional servers.

Note 2: The screen shots provided with this guide are for reference only and show a typical out-the-box SharePoint 2010 installation. The interface you see may differ due to customizations performed within your company or due to differences in SharePoint versions; however the steps required should be broadly similar.

Task Check List

Prepare

- Arrange administrator-level access to each computer hosting a SharePoint server
- Copy the MindGenius file type icon (MindGenius.png) to an accessible location
- Arrange administrator-level access to client computers
- Upgrade client computers to MindGenius version 4.2 or later

Perform Tasks

- Register MindGenius file types with SharePoint server(s)
- Register MindGenius file type icon with SharePoint server(s)
- Map network drive(s) on client computers to one or more SharePoint libraries
- Set check out options via Tools|Options (check out to local, server and check out location)

Verify

- Review SharePoint library settings to confirm check in/out and versioning settings are correct
- Perform a test check out
- Perform a test check in (add version comments if applicable)
- Review SharePoint library for new file version and comment

Notify

- Notify users

Assumed Knowledge and Access

To configure SharePoint to identify and open MindGenius files, changes must be made to SharePoint configuration files. This will require knowledge of and appropriate access rights to the server hosting your SharePoint site.

It will also be necessary for users or administrators to map network drive locations on client computers and you should make sure that appropriate permissions are in place to allow this.

Mapping Network Drives to SharePoint Libraries

SharePoint provides the ability to view libraries in Windows Explorer using a WebDav service. In order to map a network drive on the client PC to a SharePoint library we must use this feature to ascertain a direct URL:

1. Open SharePoint in your web browser and navigate to the library to which you want to save to and open from.
2. Note the presence of the 'Library Tools' contextual tab group at the top of the window. Click 'Library'.
3. Click 'Open with Explorer'. Note that you may only see the icon associated with this command depending on your window size and resolution (see appendix a, figure 1).
4. When Windows Explorer is opened, copy the URL shown in the address bar (see appendix a, figure 2).
5. Open the Windows start menu and click 'Computer'.
6. On Windows Vista and Windows 7 click the 'Map network drive' button, on Windows XP select 'Map Network Drive' from the Tools menu (see appendix a, figure 3).
7. On the Map Network Drive dialog, choose a drive letter and paste the copied URL from step 4, ensure the 'Reconnect at logon' option is checked and then click Finish (see appendix a, figure 4).

Repeat steps 1-7 for each library that you want to open from and save to within MindGenius.

Registering MindGenius File Extensions

To register the MindGenius file extensions with SharePoint:

1. Login to your SharePoint server with an administrator-level account, or another account with sufficient access to edit SharePoint configuration files.
2. Locate the file "DOCICON.xml" file. This is normally found in:

```
C:\Program Files\Common Files\Microsoft Shared\Web  
Server Extensions\14\TEMPLATE\XML
```

3. Open the "DOCICON.xml" file in a text editor.
4. Insert the following lines to the <ByExtension> section:

```
<Mapping Key="mgmf" Value="mindgenius.png" />  
<Mapping Key="mgmx" Value="mindgenius.png" />
```

5. Save the "DOCICON.xml" file and close the text editor.

Registering MindGenius Document Icon

To register MindGenius document icon with SharePoint:

1. Locate the images directory. This is normally found in:

```
C:\Program Files\Common Files\Microsoft Shared\Web Server  
Extensions\14\TEMPLATE\IMAGES
```

2. Open the images directory
3. Copy the MindGenius document icon into the images directory

Functional Overview

The following pages provide a brief overview of SharePoint functionality provided by MindGenius. The following points are covered:

- Opening maps from SharePoint
- Checking out files
- Check out settings
- Discarding check out
- Checking in files
- Version types and comments
- Limitations of integration

Please note; for a full explanation of how SharePoint works with MindGenius you should take the time to read the application's help documentation. The help documentation contains more detail and screen shots that better explain what can be seen on-screen.

Help documentation is accessed by starting MindGenius and striking the F1 key.

Opening Maps from SharePoint

You can open maps hosted in SharePoint in a number of ways:

- Via a mapped drive to a SharePoint library
- By typing the SharePoint server URL into the Open dialog

Opening via Mapped Drive

To open a map from a mapped drive to a SharePoint library:

- Open the application menu and click Open
- On the Open dialog, click My Computer (Windows XP) or Computer (Windows Vista/7)
- Locate and double click the library name within the drives list

Wait while MindGenius contacts the SharePoint server and loads the contents of the library...

- Select a map from the library
- Click Open

When displaying the contents of a SharePoint library it's normal for your Open dialog to temporarily grey out certain commands. This happens while MindGenius communicates with the SharePoint server. You will not normally be able to interact with the application while this communication takes place.

Opening via Typed URL

To open a map by typing the server URL:

- Open the application menu and click Open
- On the Open dialog, type the server URL into the File name field, e.g. `http://sharepoint-server`
- Hit the Enter key

Wait while MindGenius contacts the SharePoint server and loads a list of libraries to which you have access...

- Double click the library containing the map you wish to open

Wait while MindGenius contacts the SharePoint server and loads the contents of the library...

- Select the map and click Open

When displaying the contents of a SharePoint library it's normal for your Open dialog to temporarily grey out certain commands. This happens while MindGenius communicates with the SharePoint

server. You will not normally be able to interact with the application while this communication takes place.

Checking Out Files

In some cases your SharePoint administrator may require you to check files out before you can edit them. This prevents other users from editing the same map while you're making changes and provides a record of who edited a document, when it was edited and what changes were made.

The requirement to check out is made within SharePoint on a per-library basis. MindGenius does not control which maps must be checked-out prior to editing.

Checking Out Maps

To check out a MindGenius map:

- Open the application menu and select Open
- Browse to the SharePoint library containing the map you want to open, or enter the server URL into the File name field
- Select the map you want to open once the library contents load
- Click Open

Wait while MindGenius contacts the SharePoint server, downloads and then opens your map...

- Click the Check Out button inside the gold status bar under the ribbon

When you click Check Out MindGenius will contact the SharePoint server and establish whether the map is available for check out. If the map is available a lock will be placed on the file and it will be checked-out to you. If the map is already checked-out to someone else you'll see a warning message that will tell you who has the document checked-out.

Once checked-out, you will be able to edit the map and the gold status bar will change to show check in and discard check out controls.

Read Only

When you open most maps you'll notice that they're read only and most ribbon controls are disabled. This is because the map in question requires check out.

While a map is read-only you will be prevented from making any changes to it that would require the map to be saved. In this way you can open a map, navigate around it and look at its content without preventing a colleague who needs to edit the map from doing so.

Tip: If you plan on making changes to a map you should check it out as soon as you open it. As long as the map remains checked-in others will be able to check it out for themselves.

Checking In Files

When you check out a map you create a draft copy, either in your My MindGenius Drafts folder or on the SharePoint server; which depends on your check out settings.

In both cases you are editing the draft, not the original copy. What this means is that for others to see the edits that you've made you must check the map back in. When you check the map in SharePoint will replace the original copy with your draft. Anyone who opens the map after you've checked-in your changes will see them.

Any map that must be checked-out must also be checked-in before your edits will be visible to others.

Checking In Maps

To check in a MindGenius map:

- Click the Check In button in the gold status bar
- Select the revision type that you want to make (may not be applicable in all cases - library setting dependent)
- Enter a comment to accompany your check in that describes the changes you made
- Choose whether to retain your check out, or whether to relinquish the map to others
- Click the Check In button

Once your map has been checked-in the gold status bar will update to show the Check Out button. Checking your map in also means other users can see the changes you've made, and the map will be available for them to check out themselves.

You'll also notice that once you've submitted a major revision and elected not to retain your check out, you can no longer make any changes to the map. All the ribbon controls that would cause you to save the map have been disabled. To make any further edits you must check the map back out.

Discarding Check out

Sometimes you may find that changes you've made to a document while you've got it checked-out are no longer needed.

In these cases, rather than check in unnecessary changes for all to see, you can simply discard your check out. Discarding your check out will clear your draft, restore the previous version of the file and cancel your check out.

Discarding Check Out

To discard your check out:

- Click the Discard Check Out button in the gold status bar
- Confirm the prompt asking you whether you wish to proceed or not

Once your check out has been discarded the gold status bar will update to display the Check Out button and the ribbon controls will be disabled once again.

As soon as you discard your check out the map becomes available for others to check out and edit.

Check Out Settings

There are two types of check out that you can perform:

- Check out and retain the draft on the SharePoint server
- Check out and download the draft to your local MindGenius Drafts folder

By default MindGenius will download and save your map to the MindGenius Drafts folder on your computer, but what does each mean?

Check Out and Retain on the SharePoint Server

When you choose to retain your check out on the SharePoint server the draft copy of your map is handled by SharePoint.

Each time you click save, MindGenius writes your changes back to the server and SharePoint updates the draft copy it holds.

When you check your map back in, SharePoint replaces the original map with the draft version, thereby making your edits available to all.

Advantage:

If you log on to SharePoint from another computer (provided you log on using the same username) your draft will be available to you and you can continue to make changes to it.

Disadvantage:

To be able to save changes to your map as you make them you must have an active internet connection at all times. This is because MindGenius needs to communicate with the SharePoint server each time you click save.

Check Out and Download to Local Drafts

When you choose to download the map to your local drafts folder you hold a local copy of the map on your computer.

Each time you click save, MindGenius saves your changes to the local file, not to the server.

When you check your map back in, MindGenius uploads your local draft to SharePoint, and SharePoint replaces the original file with your local draft.

Advantage:

You need an internet connection to check out your map initially, but thereafter you don't and are free to move around and work on your map in places where an internet connection is not available. You can even close the map, reopen it later and MindGenius will still recognize that you need to check the document back in.

Disadvantage:

Saving any file to your local computer can be risky. If your computer fails or your internet connection does you cannot check in your changes and there's a risk (albeit very small) that you'd lose your changes.

Changing Check Out Settings

You can change how checking-out is handled via the SharePoint tab of the Options dialog:

- Switch to the Tools tab
- Click the Options button
- Switch to the SharePoint tab

When you make a change to the check out options your changes will be effective for all subsequent maps that you check out.

If you have any maps checked-out when you make these changes they'll remain checked-out in the same way and to the same place as before until you check them back in and out again.

Limitations of Integration

Although MindGenius is able to integrate with SharePoint's check in/check out functionality, there are certain limitations that exist:

Checking Out to Local Drafts via the Web Interface

Limitation

When you check out your maps to the local drafts folder through MindGenius the application writes the server location of your map in to the file. This means MindGenius knows where your map came from and where to check it back in.

If you check out the map to your local drafts folder via the web interface MindGenius isn't part of the check out process. Because of this MindGenius cannot write the document location into the file and as a result the application will not recognize the map as a SharePoint document.

Workaround

In order to ensure that MindGenius can correctly identify your maps as SharePoint documents you should avoid checking out to your local drafts folder via the web interface.

Draft Security

Limitation

If your SharePoint administrator has set either of the following draft item security settings:

- Only users who can edit items
- Only users who can approve items (and the author of the item)

...you may find that other users cannot open minor draft revisions that you check in. In these circumstances it will be necessary for you to check in a major revision before other users can open it.

Workaround

If possible you should use the following setting for draft item security:

- Any user who can read items

Providing you use this draft security setting you will avoid the issues described above. Alternatively you can elect to always check in a major revision, rather than a minor.

Document Metadata

Limitation

It is possible for your SharePoint administrator to require additional information to be specified when you check in a document, for example a date or a text string. MindGenius does not support adding of this additional information.

Workaround

If you check in a map to a library that you know normally requires additional information you should visit the web interface after checking in the map and add the additional information manually.

Appendix a – Screen Shots

The following are screen shots that may assist you in understanding which commands are to be clicked and what should be visible on screen at each stage in the processes described above.

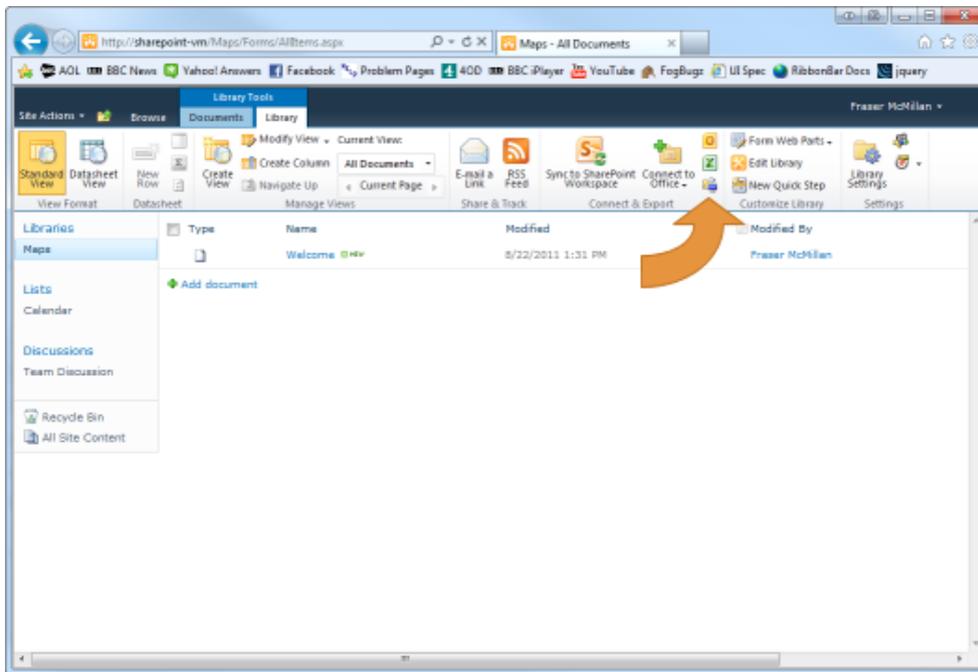


Figure 1 – The 'Open with Explorer' command.

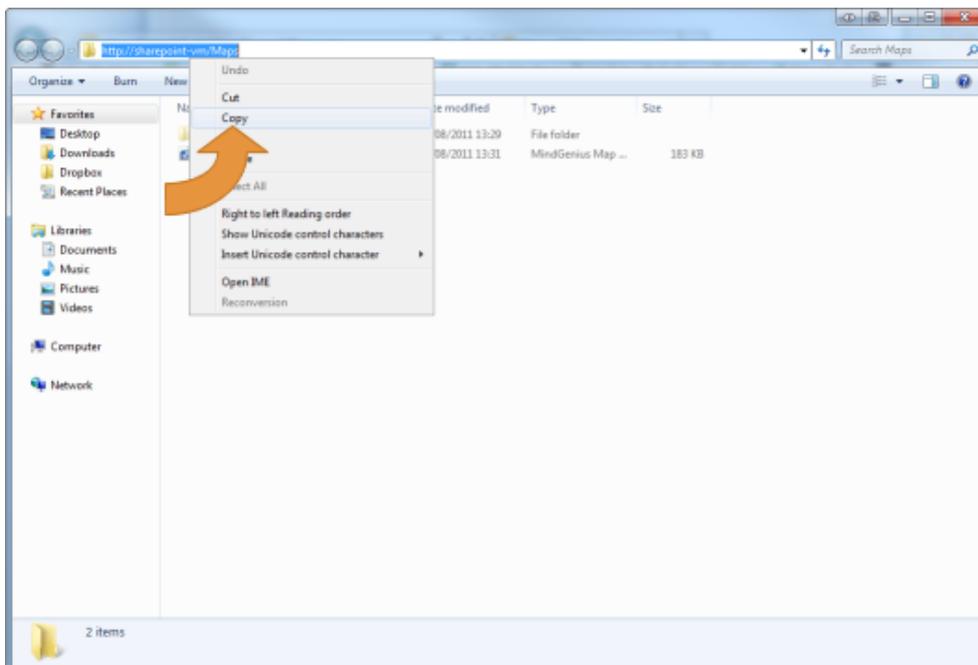


Figure 2 – Left click within the address bar to highlight the address, then right click to copy.

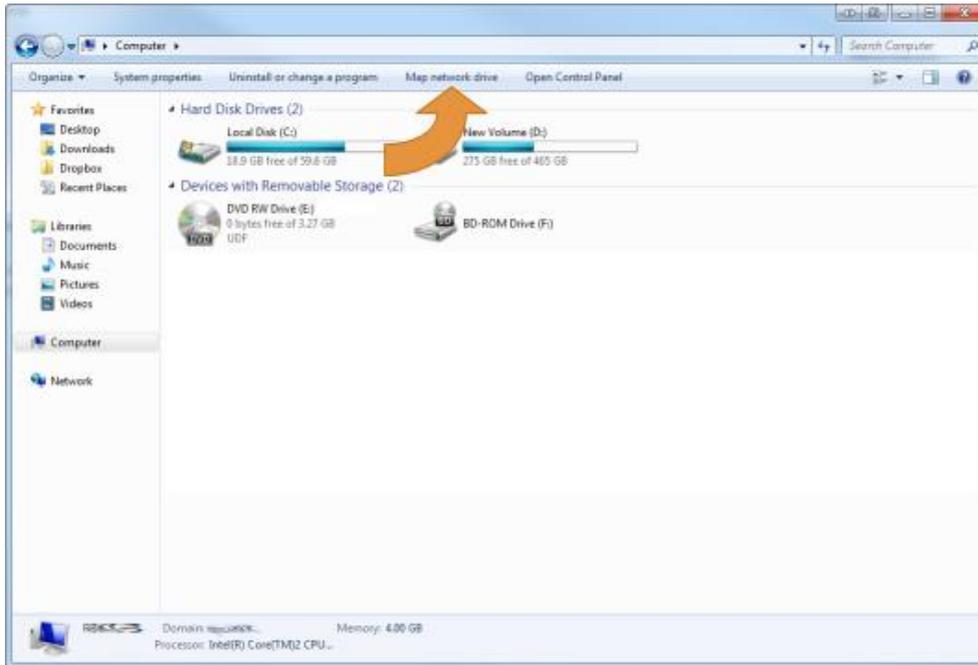


Figure 3 – The map drive button in Windows 7.

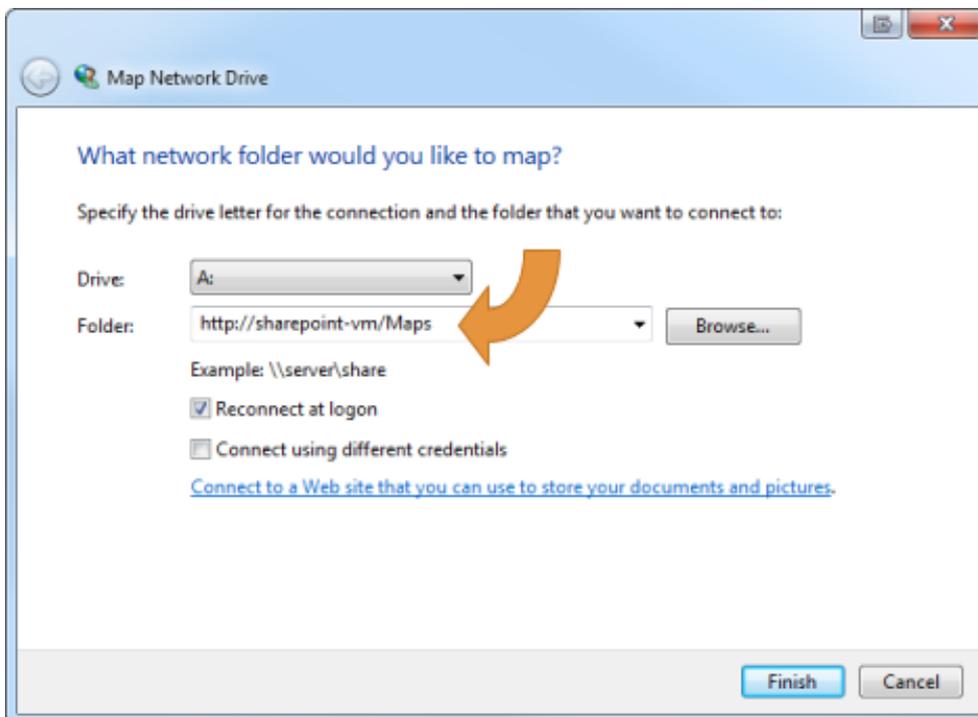


Figure 4 – Select a drive letter, enter the network path and click Finish.

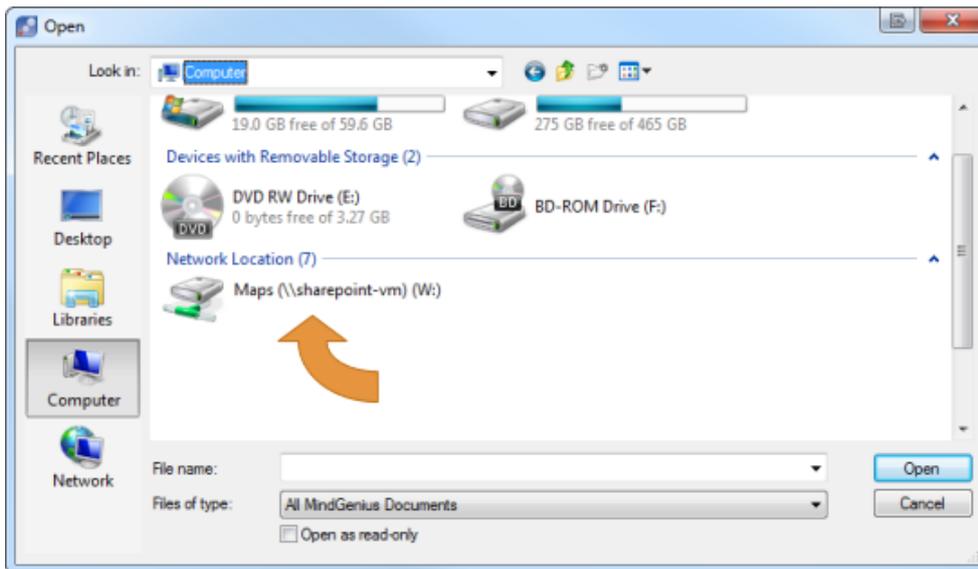


Figure 5 – Double-click the shortcut which is mapped to your SharePoint library.

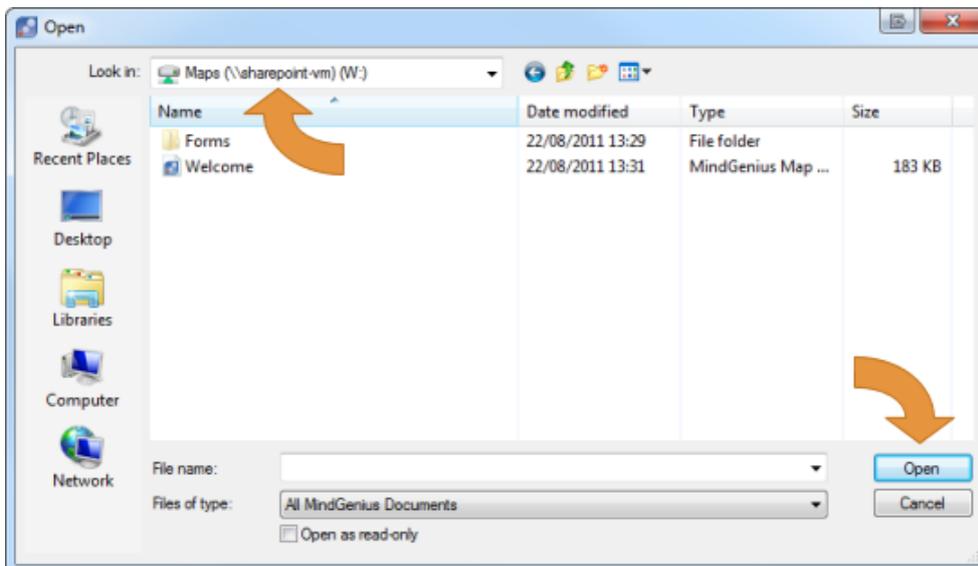


Figure 6 – Select the document you want to open from the library and click Open.

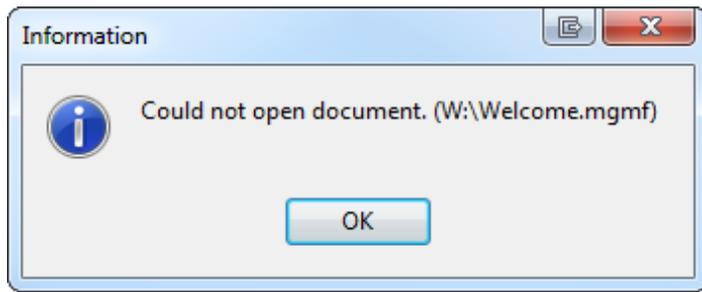


Figure 7 – You will see this error message should you attempt to open a document via MindGenius that is not, but requires to be, checked out.