GRANTA MI[™] version 11

GRANTA MI:Viewer Home Page Author Guide



GRANTA MI[™] is the leading system for materials information management in engineering organizations. It enables you to control, analyze, and securely share critical corporate data on materials and processes, managing the materials information lifecycle.

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Release notes, documentation, and Knowledge Articles for the current and all previous GRANTA MI releases are all available on the Granta Support website. Go to <u>www.grantadesign.com</u> and click SIGN IN to log into your My Granta page, then click on **Documentation**.

We welcome your feedback on this document. Please let us know if anything is unclear, if you spot an error, or have an idea for new content, by emailing <u>docs@grantadesign.com</u>.

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1 Home pages in GRANTA MI

Home pages in GRANTA MI can be used to guide users to the materials information they need, for example, by drawing together links to key resources and tools, by providing search fields for specific types of information, or by displaying text and graphics that help users to navigate and use the system. Home pages can be customized to the style and terminology of your enterprise, and personalized for particular user groups. For example, material engineers might have a link to a search template that allows them to quickly narrow down materials by type and classification, whereas designers could have an equivalent template that allows them to filter by specification.

Home pages can be defined for individual databases and profiles, as well as for the whole MI:Viewer application.

1.1 Application home pages

When a user first opens MI:Viewer, an **Application home page** (sometimes called the "system home page") may be displayed. This will be visible to all users and typically fills the whole browser window. For example:

| | | | mo Server | | |
|--------------------------|--|--|----------------------------------|---|--|
| | Profiles Search for a dem | o script Help | Tutoriais >> | | |
| | Welcome to the GRANTA MI E databases and search for den | Demo System. You can select one of the pro no scripts using the tabs above. | files below or select individual | | |
| Metals | Plastics | Composites | Medical | Additive Manuf. | |
| | | A DECEMBER OF | | | |
| Select single database < | Select single database * | Select single database 🔻 | Select single database * | Select single database | |
| RSDB | Mi BoM Analyzer | Mi Explore | Product Risk data | Additive Manufacturing Template Senvol | |
| CONSORTIUM | 1 | Select database • | Select profile | | |
| Search All Materials | | | | | |
| Search text here Find | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

1.2 Profile home pages

When a user selects a profile from the list at the top of the **Contents** pane in MI:Viewer, a **Profile home page** may be shown.



Profiles are used to group databases and tables into meaningful collections for particular audiences. The selected profile determines what databases and tables MI:Viewer users can see, and provides a powerful way of focusing a user's access on only the data in the database that is relevant to them or their role.

Within the MI:Admin tool, specific profiles may be defined (e.g., associated with a 'persona' such as 'design engineer', or with a subset of the data, such as 'plastics data') and associated with particular parts of the database and database home pages.

Within MI:Viewer, profiles can be used to ensure that a particular type of user sees a home page and 'slice' through the data appropriate to their role; within MI:Materials Gateway, profiles may be used to ensure that only data relevant to a CAD user is presented.

1.3 Database home pages

When an MI:Viewer user selects a database \Box in the Contents tree, or a profile containing a single database, the home page for that database is displayed. Typically, this may include an overview of what's in the database, search tools, tutorials, and/or support information.



1.4 What's on a home page

The process for developing home page content is the same for application, profile, and database home pages. Home pages may include some or all of the following:

- Text and images, for example, descriptions of the available profiles, databases, and tables; your company logo
- Links to the application search page
- Links that perform searches for a specific term over specific tables in the profile
- Links to specific records in the database
- Links to external web pages
- Any other valid HTML, or ASPX elements such as form or script tags
- Links to additional content such as HTML or ASPX pages, PDF documents, or Zip files.
 Additional content referenced from home pages can be of any file type that can be served by IIS.

Section 2, Writing a home page, details the required format for links to datasheets, databases, profiles and searches.

2 Writing a home page

Home pages for GRANTA MI applications, profiles, and databases must be created outside of GRANTA MI, in HTML or ASPX, using the editor of your choice. If the home page contains JavaScript, or needs to include any cross-database searches, it should be an ASPX file. Use a valid file name that is registered with IIS. In a default GRANTA MI installation, this is:

| Application home page: | homepage.aspx |
|------------------------|---|
| Database home page: | index.aspx, index.html, index.htm, default.html, default.htm |
| Profile home page: | Typically index.aspx, but you can use any HTML or ASPX file (.html, .htm, .aspx). |

The permitted files in IIS may have been restricted by your system administrator.

2.1 MI: Viewer application window

The MI:Viewer application window consists of the following frames:

- top is the top-level frame and is divided into two subframes: MIWeb_toolbar and MIWeb_twoframes.
- MIWeb_twoframes is divided in two further subframes: MIWeb_side and MIWeb_main.



When using link elements within in a home page, you can specify different frames for the link target:

- When linking to the application home page, use target="_top" to display the result in the entire window.
- When linking to the search page, set target="MIWeb_main" (or leave target unset).
- To open a link in a new browser window, include target="_blank". For example:
 LINK

When linking to content outside of MI:Viewer, then targeting _top, _blank or nothing may make sense, depending if you want the content to load in the full window, a new window or the main pane.

2.2 Identifying database objects

In many cases, you will need to know an object's identity (ID) or name in order to link to it from a home page. Every object in the database has a unique ID, a number that is specific to the database. You can find out the identity of database objects from the Object Identities page in MI: Viewer. On this page, you can discover IDs for

All of the available profiles in the system:

| Ob | Object Identities | | | | | |
|-----|---|-------------------------------------|---|--|--|--|
| - / | ▼All Profile Keys | | | | | |
| | Name | Кеу | ļ | | | |
| | Everything (admin and grant users only) | everything | ļ | | | |
| | MaterialUniverse | MI_MaterialUniverse_5.40.0m_Dec2016 | ł | | | |
| | MI:Metals Template | MI_Metals_Template_2.3.1m | Į | | | |
| | MI:Training | MI_Training_Master | Ì | | | |

The Search Masks, Tables, and Search templates in each database:

| - | ✓ Search Masks | | | | |
|---|-----------------------|----------|--------------------------------------|---|--|
| | Name | Identity | GUID | l | |
| | Search for substances | 5 | 2acc49ba-b41d-4e30-8790-f881ba1b67e7 | 1 | |
| | Universal Data | 3 | 5332bc04-84c6-43f9-8f68-a8029b3d674d | 1 | |

| • 1 | ▼ Tables | | | | |
|-----|----------------------|----|--------------------------------------|--|--|
| - | - All tables summary | | | | |
| | Name Identity GUID | | | | |
| | MaterialUniverse | 4 | 0000dd92-0011-4fff-8fff-0000ffff0000 | | |
| | ProcessUniverse | 11 | 00003248-0011-4fff-8fff-0000ffff0000 | | |
| | Design Data | 8 | 0000b5e2-0011-4fff-8fff-0000ffff0000 | | |
| | Metals Pedigree | 53 | ad27baf0-42e9-4136-bc96-9dbbf116e265 | | |

| - | - Search Templates | | | | |
|--------------------|---------------------------|---|--------------------------------------|--|--|
| Name Identity GUID | | | | | |
| | Search All bulk materials | 2 | e8e349e2-80bd-4d9e-89fd-0376e04cda65 | | |
| | Search Polymers | 3 | 6db8a782-59fb-4ed8-9064-5904d951561f | | |
| L | | | | | |

Note: Search templates and search masks may be identified by their name instead of their ID, using custom controls to pull the ID directly from the server; see Section 2.6.6.

To discover an object ID:

- 1. Log in to MI:Viewer and select the database of interest.
- 2. To display the **Object Identities** page, click **Admin** in the MI:Viewer toolbar then, under Utilities, click Object identities.

Users without administrative privileges can open the Object Identities page directly from a browser, in the address bar, type object/dentities.aspx after the /mi/ part of the address and press return, for example: http://HOSTNAME/mi/objectIdentities.aspx

Users will only be able to see ID information for table objects they have permission to see.

- 3. Select the database from the Showing information about list.
- 4. Expand the relevant headings to view ID information for objects in that database. You will only be able to see ID information for table objects that you have permission to see with your current login privileges. To ensure that all tables are visible, you need to log in to MI:Viewer as a user with administrative privileges for the GRANTA MI system.
- 5. To go back to the application, click your browser's Back button or enter the default address for MI:Viewer in the address bar and press return, e.g. http://HOSTNAME/mi

2.3 Identifying records

2.3.1 Record History ID (history)

One way of identifying records in a database is via the **record History ID**, which can be shown in MI:Viewer by holding **Ctrl** and clicking on the record in the browse tree:



In version-controlled tables, the record History ID returns the latest version of the record that the user is permitted to see. If an unreleased version of the record exists:

- In Write mode, the unreleased record will be returned;
- In Read mode, the released record will be returned.



2.3.2 Record History GUID (recordHistoryGuid)

The **Record History GUID** (RHGUID) uniquely identifies a record. In version-controlled tables, where multiple record versions exist, all versions of the record have the same Record History GUID.

The Record History GUID can be used in home page links and URLs to return the latest version of the record that the user is permitted to see. If the latest version is unreleased:

- In Write mode, the unreleased record will be returned;
- In Read mode, the released record will be returned.



2.3.3 Record GUID (recordGuid)

Where multiple versions of a record exist, the **Record GUID** is used to uniquely identify a record version.

The Record GUID can be used in home page links and URLs to return a specific record version, for example, a *Superseded* or *Withdrawn* version. If the requested version is unreleased, the record **will not be returned** in Read mode.



2.4 Linking to records

A home page may include links to records using any of these record identifiers:

- Record history ID history
- Record history GUID recordHistoryGUID
- Record GUID (RGUID) recordGUID

Example 1—history

In this database home page link, the record history ID (**history**) is used to open the datasheet for a steel record in the MI:Training database:

Maraging steel

In a profile home page, the database key is required:

Maraging steel

Example 2—recordGUID

In this link, the record GUID (**recordGUID**) is used to open the datasheet for a specific version (v1 Superseded) of a design data record in the MI:Training database:

```
<a href="../../datasheet.aspx?dbkey=MI_Training&recordGuid=000001bf-000e-4fff-8fff-
b5e2ffff0000">Plate [v1]</a>
```

Example 3—recordHistoryGUID

In this link, the record history GUID (**recordHistoryGuid**) is used to open the latest version of the same design data record:

```
<a href="../../index.aspx?recordHistoryGuid=5b1df472-a92e-4317-b9a8-e1672335bc2e"
target="top">AMS 6520</a>
```

2.5 Linking to profiles

To create a link to a specific profile from a home page, you can use the **profile key**. For example:

```
<a href="../../index.aspx?profileKey=MI_Product_Risk_5.46.1m" target="_top">
Product Risk Data</a>
```

You can find a list of the profile keys for all of the available profiles on the Object Identities page in MI:Viewer; see Section 2.2 on page 8.

2.6 Search links

A home page can include links which, when clicked, open the MI:Viewer **Search** page and display the results of a search for a word or words. The search can be performed:

- over all of the tables in a particular profile, or just in a specific table within a profile,
- using a specified search template,
- using a specified search mask.

While it is possible to search over an individual database using the database key, it is preferable to create a profile containing a single database and to search over this instead, to avoid issues with maintaining the links if the database key changes (e.g. when the database is replaced or superseded).

Link URLs that include search terms can also be generated from the **Switchboard** page in MI:Viewer; see *Appendix A*.

An example of a simple database home page that includes some different search tools is given in *Appendix B*.

2.6.1 Links that open the Search page

To include a link that opens the MI:Viewer Search page when clicked, you can link directly to the search page as follows:

Search for materials

2.6.2 Links that perform a search in a specific profile

To create a link that displays the results of a search for a word or words in a specific profile, you can include the **profile key** and one or more **search terms**, separated by '+'.

linktext

You can find the profile key on the Object Identities page in MI:Viewer; see Section 2.2 on page 8.

Profile search link example

This link will open the Search page and display the results of a search in the *MI:Training* profile for the words "ABS" and "molding":

```
<a href="../../index.aspx?profileKey=MI_Training&search=ABS+molding"
target="_top">Search for ABS and molding</a>
```

2.6.3 Links that perform a search in a specific table

To include a link that displays the results of a search for text in a specific table, include the database key (*dbkey*), profile key (*profilekey*), the list of terms to search for, separated by '+', and the table ID (*tableID*).

```
profileKey=profilekey&table=tableID&search=term1+term2
```

You can find the profile key and table ID on the Object Identities page in MI:Viewer; see Section 2.2 on page 8.

Table search link example

To display the results of a search for "molding" in the *ProcessUniverse* table (MI:Training database):

```
<a href="../../index.aspx?search=molding&table=11" target="_top">Search example</a>
```

2.6.4 Links that use a search template

Search templates provide MI:Viewer users with pre-defined search definitions that specify the set of attribute search criteria; users can then simply enter the required values and perform the search. Search templates are defined in MI:Admin and are specific to the database table in which they are defined.

| MI:Training - Mate | erialUniverse - Search Templ | ates | |
|---------------------------------------|--|-----------|-------------------------------------|
| A Search Template adds a pr | edefined list of attributes to a search. |) | |
| Name Desc | ription | | |
| Search All bulk materials Perfo | orm a search among commonly used engineering mat | erials | |
| Search Polymers Perfo | orm a search among only polymers | 1 | |
| Edit Search Template: Search Polymers | | | |
| | Type a unique name for this Search Template: | | |
| | Search Polymers | | |
| | Type a description for this Search Template: | | |
| | Perform a search among only polymers | | |
| | Choose attributes for the Search Template | | Chosen attributes |
| | Table Attributes | ~ | Attributes in Search Template |
| | % filler (by weight) A renewable resource? | Add -> | % filler (by weight) Filler type |
| | Abundance in Earth's crust | <- Remove | e Polymer type |
| | - Abundance in seawater | | Tradenames |
| | Advanced composite molding CO2 | | 1 |
| | Advanced composite molding energy | | mana |

To include a link that opens the Search page with a specified search template pre-loaded, include the search template **ID** in the link: searchtemplate=**ID**

You can find the profile key and search template ID on the **Object Identities** page in MI:Viewer; see Section 2.2 on page 8.

Search template link example

In the MI:Training database, to open the Search page ready to perform a search using the "Search Polymers" search template (= search template ID **3**):

| Sample Homonage Tools |
|---|
| <pre><tu>search Polymen's using a search Template</tu> <tu>search Polymen's using a search Template</tu> </pre> |
| |
| |

Sample Homepage Tools

| SEARCH using the 'Universe' search mask | Search |
|---|--------|
| SEARCH Polymers using a Search Template | Search |

2.6.5 Links that use a search mask

Search masks are used in MI:Viewer to limit the scope of a text search to a specified set of text/discrete attributes. To include a link that displays the results of a search using specified search mask, include the search mask name in the link as follows:

```
href="searchResults.aspx?search=<term1+term2>&searchmask=<ID>"
```

where *ID* is the identity of the search mask.

| Current Database: MI:Training [MI_Training_Ma | | | |
|--|--|---|--|
| Edit Database | MI:Training - Search Mas | ks | |
| Edit Units | A Search Mask restricts the list of attribut | es in a text search. | |
| Edit Unit Systems Edit Discrete Types Edit Parameters Edit Constants | Name Description Search for substances Using CAS number, E Universal Data All attributes from th | EC number, Chemical name or formula ese tables | |
| Edit Standard Names Edit Access Control Categories Edit Record Link Groups | arch Mask: Search for subst | tances | |
| Edit Quality Ratings Systems Edit Search Masks International Internation | nique name for this Search Mask: | | |
| Tables: Search T MaterialUniverse Type a d | or substances escription for this Search Mask: | | |
| Using C/ | IS number, EC number, Chemical name or formula | | |
| Availab | le attributes | Chosen attributes | |
| 88-Ma 98-Prc 18-De 18-Me 18-Te | teriallunverse essUniverse sign Data tals Pedigree nsile Statistical Data sile Test Data | Add -> Attributes in Search Mask Restricted Substances -> CAS number Restricted Substances -> Chemical name Restricted Substances -> EC number | |
| €Re | stricted Substances | | |

Search mask link example

In this extract from a home page, a form provides a search box on the home page where the 'Search for substances' search mask (search mask ID = 5) is used to search the CAS number, Chemical name, and EC number attributes in the MI:Training database:

```
Search for substances
 <form action="../../searchResults.aspx" method="get" target="MIWeb_side"
autocomplete="on">
   \langle td \rangle
     <input type="text" name="search" id="search1" class="search-box"</pre>
style="width:380px; height:26px">
   <input type="hidden" name="dbkey" value="MI_Training">
       <input type="hidden" name="searchmask" value="5">
       <input type="image" src="search.png" alt="Search" name="submit"
class="image" style="margin:-10px 5px">
   </form>
```

| Sample Hor | nepage | |
|---------------------------|--------|--------|
| Quick searches: | | |
| Search for substances | | |
| 231-801-5 | Ι | Search |
| Search the entire databas | e | |

You can find the profile key and search mask ID on the **Object Identities** page in MI:Viewer; see Section 2.2 on page 8.

2.6.6 Identifying search masks & search templates by name instead of ID

Search templates and search masks may be identified by their *name* instead of their ID, using custom controls SearchTemplateIdentity or SearchMaskIdentity to pull the ID directly from the server. These custom controls are compiled into the MI:Viewer application.

To use them on an ASPX home page:

For the page to have access to the custom control, you must use the <%@ Register %> directive at the top of the page, specifying a tag prefix, the assembly file, and the namespace where the control class is located. For example:

<%@ Register TagPrefix="info" Namespace="Granta.MI.Web.Homepages.Public"
Assembly="Granta.MIWeb" %>

- Once you have registered the controls, you can include them in a control tag within search links on the page as follows:
 - For a search template, you must specify the tag prefix and custom control, and also the names of the search template and the table where the template is defined:

searchtemplate=<info:SearchTemplateIdentity runat='server' TableName='NAME'
SearchTemplateName='NAME'/> ...

 For a search mask, you must specify the tag prefix and custom control, and the search mask name:

```
searchmask=<info:SearchMaskIdentity runat='server' SearchMaskName='NAME'/>
...
```

Examples

Example with named search template

```
<a href="../../index.aspx?dbkey=MI_Test&searchtemplate=<info:SearchTemplateIdentity
runat='server' TableName='MaterialUniverse' SearchTemplateName='Search Polymers'/>"
target="MIWeb_Side">Click to find polymers</a>
```

Example with a named search mask

```
<a href="../../searchResults.aspx?
dbkey=MI_Test&search=tempered+steel&searchmask=
<info:SearchMaskIdentity runat='server' SearchMaskName='Aerospace Data'/>"
target="MIWeb_Side">Click to find tempered steel</a>
```

2.7 Other elements on home pages

You can include any other valid HTML or ASPX elements on home pages, such as form or script tags. Note that your company browser may not allow some functionality for security reasons.

3 Creating or updating a Profile Home Page

Defining a profile home page is optional. A profile home page may be displayed after a user selects a profile in the MI:Viewer Contents tab:

- If a home page is defined for a profile, it will be displayed when the profile is selected.
- If no home page is defined for a profile, and the profile contains more than one database, MI:Viewer will display a default home page for the profile.
- If no home page is defined for a profile, and the profile only contains tables from one database, MI:Viewer will display the home page for the database.



The whole profile home page is visible to all users who have permission to view the profile. It is *not* possible to restrict display of parts of the home page dependent on a user's permissions. Therefore, it is possible that a user may see a link to a record that they do not have permission to open.

Summary of steps to create or modify custom profile home pages

- 1. Create or edit the home page file and any associated files; see 3.1.
- 2. In MI:Admin, add the home page files to a custom profile using the Profiles tool; see 3.2.
- 3. In MI:Viewer, load ("re-fetch") the new profile home page to make it available to users; see *3.3*.

3.1 Create or modify the home page files

A profile home page is an HTML or ASPX file which may be created or modified using the editor of your choice. See Section 2, *Writing a home page*, for information about the home page content, and how to specify links to databases, datasheets, other profiles, and searches.

The profile home page must be saved as a valid file name registered with IIS, for example *.html, *.aspx, or *.htm. Note that the allowed files in IIS may have been restricted by your system administrator.

The home page file and any additional content, such as CSS files, scripts, HTML files, images, or PDF documents, can be organized into a folder structure, with the home page at the root level. The relative path used for links to these files from the home page file should be set accordingly.



3.2 Add the home page files to a custom profile

When you have finished editing the home page files, you need to add them to the profile in the MI:Admin **Profiles** tool.

- 1. Open the MI:Admin application and click **Profiles** in the toolbar.
- 2. In the Profiles tool, select the correct profile and then click **Set Profile Home Page**.
- 3. Select Use Custom Profile Home Page and then click Upload Profile Home Page.
- 4. In the Profile Home Page Browser, click the **Import** ^J button and then:
 - To import a whole folder and all of its contents, click **Import Folder** and select the folder.
 - To import all of the contents of a folder but not the folder itself, click **Import Contents**, locate and select the folder containing the files you want, then click **OK**.
 - To import selected files, click Import Files, locate and select the files, then click Open.
- 5. Close the Profile Home Page Browser window.
- 6. Back in the **Set Profile Home Page** dialog, select the newly-added home page from the **Profile home page** list and then click **Save** to save your changes to the custom profile.

3.3 Make the new home page available in MI: Viewer

When database or profile home page files have been imported to the database, edited, or updated, they must be copied ("fetched") into the MI:Viewer web application as follows:

- 1. Open MI: Viewer and log in as a user with administrator privileges for the GRANTA MI system.
- 2. In the toolbar, click on Admin
- 3. On the General tab, in the Home page files section, click **Re-fetch the home page files**.

All of the files will now be copied to the appropriate subfolder under the MI:Viewer web application root. In a default installation, this is C:\inetpub\wwwroot\mi\homepagefiles\<*Key*>, where <*key*> is the profile key. The structure of files and folders defined in the **Profiles** tool in MI:Admin will be reproduced in this folder, which is published as a standard web folder.

The next time an MI:Viewer user selects the profile, the most up-to-date home page for it will be displayed.

4 Creating or updating a Database Home Page

A database home page is displayed when a user selects a database, or a profile that contains only one database. For example, this JAHM Curve Data home page includes information about the data, and some search tools:

| Home Image: Constraint of the second seco | Optimize Substitute Substitute Reports Advanced Image: Advanced Image: Advanc | Search Settings |
|---|---|-----------------|
| | 9.1777.132 About this database | |

The whole home page is visible to all users who have permission to view the database. It is *not* possible to restrict display of parts of the home page dependent on a user's permissions. Therefore, it is possible that a user may see a link to a record that they do not have permission to display.

Summary of steps to create or modify a database home page

- 1. Create or edit the home page file, and any associated files; see 4.1.
- 2. In MI:Admin, add the home page files to the database *Files* in the Schema tool; see 4.2.
- 3. In MI:Viewer, load ("re-fetch") the new home page to make it available to users; see 4.3.

4.1 Create or modify the home page files

A database home page is an HTML or ASPX file which may be created or modified using the editor of your choice. See Section 2, *Writing a home page*, for information about the home page content, and how to specify links to databases, datasheets, other profiles, and searches.

The database home page must be saved as a valid file name registered with IIS, for example .html, .aspx, .htm). In a default installation of MI:Viewer, the database home page is detected in the following order:

- 1. index.aspx
- 2. index.html
- 3. index.htm

Note that your Windows system administrator may have locked down the files allowed in IIS.

The home page file and any additional content, such as CSS files, scripts, HTML files, and images, can be organized into a directory structure with the home page at the root level. The relative path used for links to these files from the home page file should be set accordingly. In this example, index.html is the home page:



When you have finished editing the home page file and any additional content, you need to add them to the relevant database using the MI:Admin Schema tool.

An example of a simple database home page that includes some different search tools is given in *Appendix B*.

4.2 Add the home page files to the database

Database home page files must be uploaded and added to the relevant database using the MI:Admin Schema tool.

The database home page file must be stored at the top level of the Home Pages folder in MI:Admin. Other resource files linked to the home page, such as images, HTML files, CSS files and documents, can be stored at the same level or in subfolders.

In this example, the database home page is index.aspx, and other resources have been placed into subfolders.



Procedure

- 1. Open the MI:Admin application and click **Schema** in the toolbar.
- 2. In the Schema tool, select the correct database from the Current Database list, and click **Edit Files** in the left pane.
- 3. On the Home Pages tab, select the folder where you wish to place the new files and:
 - Click Import Files to import selected files.
 - Click Import Folder to import a folder and all of its contents.
 - Click **Import Contents** to import just the contents of a folder without importing the folder.
- 4. Browse to locate the folder or file(s) to import, then click **OK**.
- 5. Next, the files must be copied into to the MI:Viewer web application; see 4.3.

4.3 Make the new home page available in MI: Viewer

When database or profile home page files have been imported to the database, edited, or updated, they must be copied to the MI:Viewer web application to make them available to MI:Viewer users. This is done from within MI:Viewer as follows:

- 1. Open MI: Viewer and log in as a user with administrator privileges for the GRANTA MI system.
- 2. In the toolbar, click on Admin

which is published as a standard web folder.

On the General tab, in the Home page files section, click Re-fetch the home page files.
 All of the files will now be copied to the appropriate subfolder under the MI:Viewer web

application root. In a default installation, this is C:\inetpub\wwwroot\mi\homepagefiles\<*Key*>, where <*Key*> is the database key. (The database key part of this path is not case-sensitive.) The structure of files and folders defined in the Schema tool in MI:Admin will be reproduced in this folder,

The next time the MI:Viewer user selects the database, the most up-to-date home page for it will be displayed.

5 Creating or updating the application (system) home page

The application home page (also referred to as the "system home page") defines the first page displayed to a user after they have logged in to MI:Viewer, typically filling the whole browser window. It may include text, images, search tools, and/or links to profiles and databases. An application home page is optional.

The whole application home page is visible to all users who have permission to log in to MI:Viewer. It is not possible to restrict display of parts of the home page dependent on a user's permissions. Therefore, it is possible that users may see links to profiles or databases they cannot access.

Summary of steps to create or modify an application home page

- 1. Create or edit the application home page and any associated files; see 5.1.
- 2. Copy all the home page files into the MI:Viewer installation folder; see 5.2.

5.1 Create or modify the home page files

The application home page is an HTML or ASPX file which may be created or modified using the editor of your choice; see Section 2, *Writing a home page*.

The application home page must be saved as a valid file name registered with IIS, for example, homepage.aspx or homepage.htm. In a default installation of MI:Viewer, the application home page file is homepage.aspx.

You can organize any additional content used by the application home page, such as CSS files, scripts, HTML files, or images, into a folder structure. The relative path used for links to these files from the home page file should be set accordingly.

5.2 Copy the home page files into the correct folder

To make them available in MI:Viewer, simply copy the new files and folders into the correct location within the MI:Viewer web application root as follows:

1. Copy the home page file homepage.aspx or homepage.htm file into the MI:Viewer installation root folder; for example:

C:\inetpub\wwwroot\mi\homepage.aspx

2. Place any additional files/folders referenced from the home page into in a subfolder named systemhomepage under the MI:Viewer application root; for example:

C:\inetpub\wwwroot\mi\systemhomepage

No further steps are required: in a default installation, GRANTA MI will automatically detect the presence of the application home page named homepage.aspx located in the application root folder.

Note that, if you wish to reuse any GRANTA MI images in your application home page, you should copy them from the system images folder (C:\inetpub\wwwroot\mi\images) into the systemhomepage folder, as GRANTA MI resources may be subject to change in subsequent releases.

6 MI: Viewer URLs

It is possible to construct a URL to link to MI:Viewer from a web page that is outside the application. This section provides information on how to do this, and how you can specify certain MI:Viewer tools.

A user may still be required to log in to MI:Viewer, depending on the setup of GRANTA MI and of the controls on the external page.

Record GUID and record history GUID in URL links

6.1.1 URL for a specific datasheet

Datasheet and index URL links can identify a record by its Record History ID, Record GUID (RGUID) or Record History GUID (RHGUID)

| Record identifier | URL parameter | |
|------------------------------|-------------------|--|
| Record History ID | history | |
| Record history GUID (RHGUID) | recordHistoryGuid | |
| Record GUID (RGUID) | recordGuid | |

In a version-controlled record, the Record History GUID will return the latest version of the record, while the Record GUID can be used to return a specific record version. See also Section 2.3, *Identifying records* for more information about behavior of these identifiers with version-controlled records in Read Mode and Edit Mode.

Examples:

```
http://acmeserver/mi/index.aspx?recordHistoryGuid=d2f51a3d-c274-4a1e-b7c9-
8ba2976202cc
```

```
http://acmeserver/mi/datasheet.aspx?dbkey=MI_Training&recordGuid=000001bf-
000e-4fff-8fff-b5e2ffff0000
```

On following a datasheet URL, the user will be immediately redirected to the equivalent URL which has the record identity (if record GUID used) or record history identity (if history GUID used), for example:

http://acmeserver/mi/datasheet.aspx?record=20673&dbKey=MI_Training

6.1.2 URL for a specific Profile

To ensure that links continue to work when a database is replaced or superseded, you can link to a profile instead of to an individual database:

http://HOSTNAME/mi/index.aspx?profileKey=profile

For example:

http://granta/mi/index.aspx?profileKey=MI_RSDB

Use the **Object Identities** page in MI:Viewer to find the profile key; see Section 2.2.

```
© Granta Design 2017
```

6.1.3 URL for a search

To open MI:Viewer with a pre-defined search, you can include search terms separated by + (plus) in the URL as follows:

http://HOSTNAME/mi/index.aspx?search=term1+term2

This will search over all of the available tables in the default profile. For example:

http://granta/mi/index.aspx?search=titanium+alloy+anodizing

The search can be restricted to only the tables that appear in a particular profile, by including the profile key in the URL as well as the required search terms, for example:

http://granta/mi/index.aspx?profileKey=MI_Training_Master&search=titanium+al
loy

Use the **Object Identities** page in MI:Viewer to find the profile key; see Section 2.2.

6.1.4 URL to open MI:Viewer in a new window

To open MI:Viewer in a new browser window, use target="_blank" in the link, for example:

click here

Appendix A. Generating bookmark URLs (Switchboard Links)

The **Switchboard Link Generator** page in MI:Viewer enables you to construct a bookmark URL that opens MI:Viewer with your current profile and database pre-selected. A number of other settings can also be specified in the URL, including your current database settings and user preferences, and your current search.

The Switchboard Link Generator is only available to users with GRANTA MI administrator privileges.

To generate a URL with settings, datasheet, and/or search information:

- 1. Log in to MI:Viewer as a user with administrative privileges for the GRANTA MI system.
- 2. Select the required profile, subset, layout, and other options you want to include in the URL:
- 3. Select a profile.
- 4. Select the desired subset and layout for each table.
- 5. On the toolbar, click **Settings** and set the desired values under Database Options, Application Options, and Search and Optimization Options.
- 6. Select Read Mode or Edit Mode.
- 7. Click **Admin**, and then, under **Utilities**, click **Switchboard** and specify which settings you want to specify in the URL.
- 8. Select Include your current User Preferences to include your current settings for:
 - Application Options, and Search and Optimization Options
 - View Full/Summary Datasheet setting
 - Show empty items setting
 - Read Mode/Edit Mode setting

Note that if you choose this option, your current settings will override the user's settings when they follow the link.

- 9. Select **Include your Database Preferences** to include your current database settings for subsets and layouts, and the unit system and quality system options.
- 10. Select **Link to current search** to include your most recently-performed search in the URL. When this option is selected, MI:Viewer will open on the **Search and Substitute** page, with the saved search criteria pre-loaded and the search ready to run.
- 11. Select **Run the search after loading** to include your most recently-performed search in the URL and to perform that search automatically when the user loads MI:Viewer in their browser.

Note that the URL shown at the top of the page changes as you select and deselect options on this page.

12. Copy the URL at the top of the **Link for Bookmarking** page and use it to create a Bookmark or Favorite in a browser.

Note that the generated URL begins index.aspx?dbKey=, and so Switchboard links are always specific to the database with which they were made.

Appendix B. Sample database home page with search tools

Shown below is a database home page that includes a number of different search tools, including:

- A simple text search control that will search the MI:Training database for the specified string and display the results.
- Search controls that perform a search for the specified string using the "Search for substances" and "Universal Data" search masks in the MI:Training database, and display the results.
- Search controls that open the Search page with the "Search Polymers" or "Search All bulk materials" search templates pre-loaded.
- A "custom" search control for an attribute search in the Design Data table.

| Mi Viewer Read Mode Edit Mode | Home Reports | Q Advanced Search | Help Settings Admin |
|--|---|-----------------------------------|---------------------------|
| Contents Search MtTraining • • • | Sample Homepage Search within MI:Training: Enter search text here Quick searches (using Search Masks) Find substances: CAS number, EC number, or Chemical name Find materials and processes: Attribute searches (using Search Template Search All Bulk Materials » Custom search in the Design Data table » | Submit Search Search es) | |

Index.aspx file for this home page:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
</html xmlns="http://www.w3.org/1999/xhtml]</html xmlns="http://www.w3.org/1999/xhtml]</html xmlns="http://www.w3.org/1999/xhtml]</html xmlns="http://www.w3.org/1999/xhtml]</html xmlns="http://www.w3.org/1999/xhtml]</html xmlns="http://www.w3.org/1999/xhtml]</html xmlns="http://www.w3.org/1999/xhtml]</html xmlns="http://www.w3.org/1999/xhtml]</html xmlng/#http://www.w3.org/1999/xhtml]</html xmlng/#http://www.w3.org/1999/xhtml]</html xmlng/#http://www.w3.org/1999/xhtml]</html xmlng/#http://www.w
```

```
<title>Sample homepage</title>
</head>
<body >
<img src="homepage.jpg" width="400" alt="graphic"/>
<h1>Sample Homepage</h1>
<form action="../../searchResults.aspx" target="MIWeb side" method="get"</pre>
autocomplete="off">
 Search within MI:Training:
 <input type="text" name="search" id="search1" style="width:380px; height:26px"</pre>
placeholder="Enter search text here..." onfocus="if(this.value==this.defaultValue)
this.value=''; class="box" />
    <input type="hidden" />
      <input type="submit" alt="Search" name="submit" class="button" />
    </form>
<h2>Quick searches (using Search Masks)</h2>
Find substances:
 >
   <form action="../../searchResults.aspx" target="MIWeb side" method="get"</pre>
autocomplete="off">
   <input type="text" name="search" id="search2" style="width:380px; height:26px"</pre>
placeholder="CAS number, EC number, or Chemical name..."
onfocus="if(this.value==this.defaultValue) this.value='';" />
   <input type="hidden" name="dbKey" id="dbKey" value="MI Training Master" />
    <input type="hidden" name="searchmask" value="5" />
    <input type="image" src="search.png" alt="Search" title="Perform this search"</pre>
name="submit" class="button" />
   </form>
   >
    <br />Find materials and processes:
```

```
<form action="../../searchResults.aspx" target="MIWeb side" method="get"</pre>
autocomplete="on">
     <input type="text" name="search" id="search3" class="search-box"</pre>
style="width:380px; height:26px" />
     <input type="hidden" name="dbkey" value="MI_Training" />
      <input type="hidden" name="searchmask" value="3" />
      <input type="image" src="search.png" alt="Search" title="Perform this</pre>
search" name="submit" class="button" />
    </form>
   <h2>Attribute searches (using Search Templates)</h2>
<a</td>
href="../../searchPage.aspx?searchTemplate=3&searchType=Reduced&dbKey=MI_Tra
ining" class="db-link" title="Create a search query for polymers based on
Tradenames, Polymer type, % filler, and/or Filler type" >Search polymers
»</a>
     <a</td>
href="../../searchPage.aspx?searchTemplate=2&searchType=Advanced&dbKey=MI_Tr
aining" class="db-link" title="Create a search query based on values for Price,
Composition, Tensile strength, and/or durability in salt water">Search All Bulk
Materials »</a>
     <a</td>
href="../../searchPage.aspx?table=8&dbKey=MI_Training" class="db-link">Custom
</body>
</html>
```