GRANTA MI™ version 11

MI:Toolbox
Automatic Link Creator CLI

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 www.grantadesign.com 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 docs@grantadesign.com.

Table of Contents

1   Introduction

The Automatic Link Creator can be used to create static record links within a GRANTA MI database without the need for user interaction. It can be run from within MI:Toolbox, or from the command line as a scheduled task. This document covers the Automatic Link Creator command line interface (CLI).

The Automatic Link Creator executable is located in the *bin* folder in the MI:Toolbox installation folder, typically:

> C:\Program Files\Granta\GRANTA MI\Toolbox\bin\

To run the Automatic Link Creator plug-in from the command line, at the command prompt, type the following:

> **MIToolbox.Console.exe -plugin Granta.Autolink { arguments }**

The MI:Toolbox application should be closed before running a plug-in from the command line.

You must enter a number of mandatory command-line arguments specifying:

- The name of the server where the GRANTA MI Service is hosted and your authentication details.

- The database to be modified. You will require at least write privileges to the database.

- The name of the table that the Record Link Group is from (the source table)

- The name of the Record Link Group (Static) in which to create the links.

- The source and destination attributes. A pair of source/destination attributes must have types that can be compared. Two attribute data types (or record properties) are comparable if they are in the same group as shown here:

Group	Attribute Data Type	Record Property
Text	Short Text, Long Text, Discrete	GUID, Full Name, Tree Name
Number	Point, Integer	
Date	Date	
Logical	Logical	

Additional optional arguments may also be specified.

See Section 2, Command-line arguments.

Limitations

Currently, the Automatic Link Creator cannot be used to analyze *links only* when run from the command line interface.

Also, it is not possible to match on Range attributes.

2   *Command-line arguments*

2.1   *Required arguments*

-plugin

The name of the plug-in. This is required, unless *help* is specified. The name of the Automatic Link Creator is 'Granta.Autolink'.

Usage: `-plugin <name>`

-server

The name of the server where the GRANTA MI Service is hosted.

Usage: `-server <server>`

-username
-domain
-password

The authentication details used to connect to the GRANTA MI Service. The username, domain and password may be omitted from the command line if Windows authentication is being used; in this case, the import is performed with the user account used to log on to the MI:Toolbox host. Alternatively, you can perform the import under a different Windows user account by specifying the credentials of that account.

-dbkey

The database key of the database to be modified.

Usage: `-dbkey <dbkey>`

-table

The name of the table that the Record Link Group is from (Source Table).

Usage: `-table <table>`

-linkGroup

The name of the Record Link Group (Static) in which to create the links.

Usage: `-linkGroup <linkgroup>`

-sourceAttributes

The names of the attributes in the source table that will be used to create the links.

Usage: `-sourceAttributes <attribute1> [<attribute2>...<attributeN>]`

At least one source attribute is required. Each source attribute must have a matching destination attribute. If you choose more than one pair, the matching will be done over all the pairs.

The values `!FullName`, `!TreeName` and `!Guid` can be used to specify record properties rather than attributes.

-destinationAttributes

> The names of the attributes in the destination table that will be used to create the links.
>
> At least one destination attribute is required.
>
> *Usage*: `-destinationAttributes <attribute1> [<attribute2>...<attributeN>]`
>
> The values `!FullName`, `!TreeName` and `!Guid` can be used to specify record properties rather than attributes.

2.2   *Optional arguments*

-delete links

> (Optional) Delete any existing links in the record link group and recreate all links from scratch.
>
> *Usage:* `-deleteLinks`

-help

> (Optional) Displays usage information for this application. If the plug-in is also specified, it will include the usage information of the specified plug-in.
>
> *Usage*: `-help`

-nologo

> (Optional) Prevents the display of application information on start-up.
>
> *Usage*: `-nologo`

-importlogfile

> (Optional) The name and location of the plug-in log file that contains information specific to the link generation process. If omitted, no log file will be generated.
>
> *Usage*: `-importlogfile <path>`

-logfile

> (Optional) The name and location of the console log file. This log file reports the actions of the MI:Toolbox console. If omitted, no log file will be generated.
>
> *Usage*: `-logfile <path>`

-loglevel

> (Optional) Sets the verbosity of logging sent to the console. (This setting has no effect on the contents of the log file). Permitted values (in order of increasing verbosity) are: ERROR, WARN, INFO, DEBUG, TRACE, ALL (case-insensitive). If omitted, the default value is 'INFO'.
>
> *Usage*: `-loglevel <level>`

3   Usage examples

```
MIToolbox.Console.exe
-plugin Granta.Autolink -logfile "C:\Documents and Settings\All
Users\Documents\Console.log" -nologo -server localhost -username "User 1"
-password MyPassword -domain MyDomain -dbkey MI_Lab -table "Tensile Test Data" -
linkGroup Pedigree -sourceAttributes "Batch Number" Alloy
-destinationAttributes "Batch Number" Name -deletelinks -importlogfile
"C:\Documents and Settings\All Users\Documents\Autolinkplugin.log"

MIToolbox.Console.exe
-plugin Granta.Autolink -server MyServer -dbkey MI_Lab -table "Tensile Test Data"
-linkGroup Pedigree -sourceAttributes "Batch Number"
-destinationAttributes "Batch Number"
```

4   Troubleshooting

The following MI:Toolbox exit codes may help you to troubleshoot problems that may arise running the Automatic Link Creator from the command line.

Code	Description
0	Success - Indicates successful execution of the MI:Toolbox console application.
1	Unspecified error - Indicates that an unspecified error was encountered.
2	Unhandled exception - Indicates that an unhandled exception was caught.
3	Invalid command-line option value - Indicates a problem with one of the specified command-line options (e.g. an option specifies a table or record that does not exist).
4	Indicates a basic syntax error with one of the specified command-line options.
5	Could not load plugin - Indicates that the named plugin could not be loaded.
6	Plugin initialization error - Indicates an error during the initialization phase of the plugin, typically caused when trying to validate an option against data in a database (e.g. a database specified by a particular dbkey may not exist).
7	Cannot open the log file - Indicates that the log file could not be opened.
8	Indicates that the plugin initialization found nothing to import/export
1100	Failed to establish a connection to an MI:Server - Indicates that a connection to an MI:Server instance could not be established.
1110	The server does not have a default database, or the default database is unavailable.
1111	The specified database does not exist on the server, or is otherwise unavailable (e.g. due to access control).
1112	The specified database could not be retrieved from the server.
1120	The record does not exist on the server, or is otherwise unavailable (e.g. due to access control).
1121	The specified record could not be obtained from the server.
1122	Multiple records matched - Indicates that multiple matching records have been found that satisfy criteria intended to identify a single record.
1130	One or more specified subsets do not exist or are otherwise unavailable on the server (e.g. due to access control).
1140	The database does not contain a default table, or the default table is otherwise unavailable (e.g. due to access control).
1141	The database does not contain a default table, or the default table is otherwise unavailable (e.g. due to access control).