Tagger – MicroStation Bulk Tagging

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Introduction

MicroStation Tagger provides the user with a set of tools for bulk polygon, point cell and linear element tagging for MicroStation XM. The required elements are selected based on their level, style, colour and weight or any combination of the above. All elements within the file could be processed or only part of it, by using fence option.

In addition, all the 3D elements can use the area of influence or display depth, (the distance perpendicular to the view plane in both directions).

The user can select the tags, which will be used to store processed information and from then on would be associated with the elements processed. All the information defined within Tagger software could be saved for future processing.

The principal goal of the Tagger software is to find textual element within defined area around the element being tagged. This area could be described as the inside of the polygon, the area within defined radius from the origin of the cell or just linear element envelope - again within the user defined offset

In addition selected group(s) of elements can have specific values assigned to them (or to the tags attached to these elements). Additionally, it is possible to convert selected tag set into MicroStation text elements.

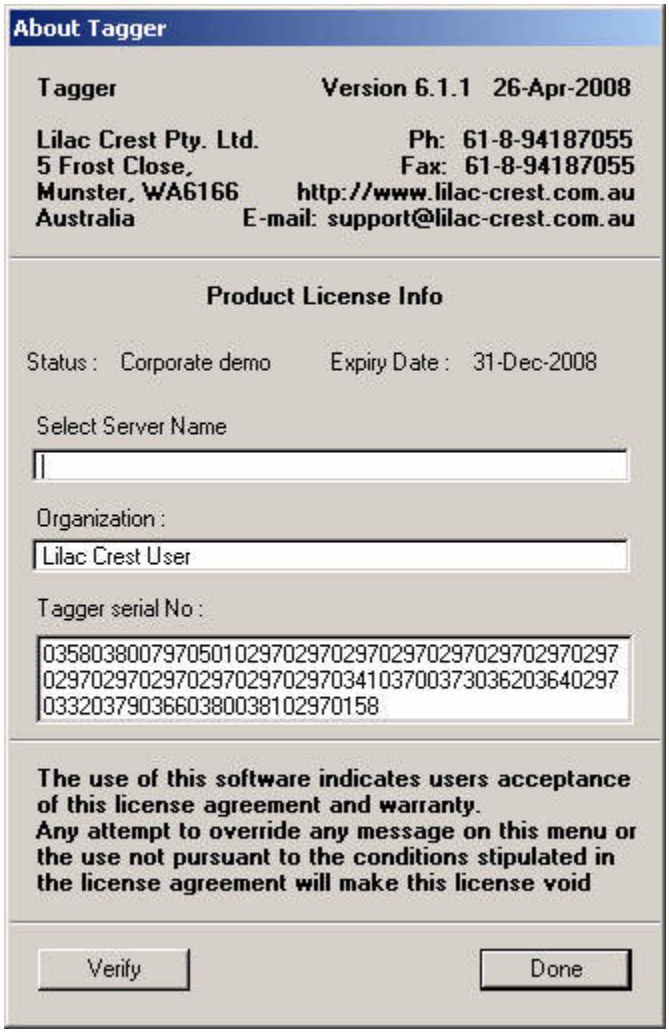
Installation

The software is normally downloaded from our web site or E-mailed by Lilac Crest. To load the software, copy MDL routine tagger.ma and lcrest.dll into MicroStation subdirectory defined by the MS_MDL MicroStation environment variable. Please make sure that tagger.ma file is write enabled. In addition, tagger online help file tagger.chm needs to be copied into your nominated help directory, which should be included in the paths defined by MS_HELPPATH MicroStation environment variable.

Running Tagger

In MicroStation, type mdl load tagger in MicroStation Command Window, or select the Utilities->MDL Applications from the pull down menu, select MDL from "Available Applications" list, and then Load **tagger**.

The very first time when **tagger** is loaded, the initial Dialog Box describing the license conditions will appear. This dialog enables the user to enter Select Server and Organisation name, software serial number, which in turn activates **tagger** (unless demo version with predefined demo serial number is used) - demo version doesn't use Select Server Name. The serial number is obtained from **Lilac Crest Pty. Ltd.** (or your dealer) when the software is purchased or provided as a demo copy. The demo version provides limited functionality, since it processes only limited number of elements.



Once the select server, organization and the serial number are keyed and the **Verify** button is pressed, the serial number is verified and if successful, this information is saved, making it full production version (unless demo version is still used).

By selecting the **Verify** button, the user accepts the license conditions. Next time when the software is run and proper license information was entered, this menu is not displayed. By hitting **Done** the above dialog box is dismissed and the main working menu is displayed.

See also “About Tagger”

Menus

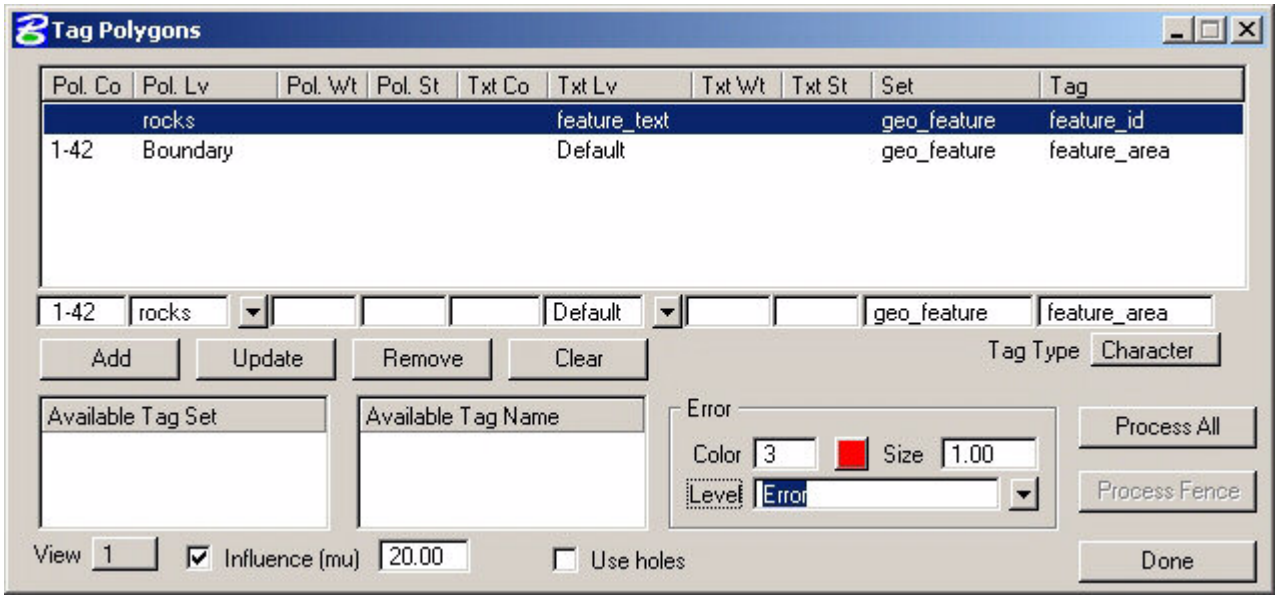
The main Tagger menu provides access to all functions within Tagger software.

There are 9 options available **: Tag Polygons**, **Tag Cells**, **Tag Linear Elements, Tag Selected Elements with Predefined Values, Save Current Setup**, **Restore Setup**, **Convert Tags to Text**, **Tagger Online Help**, and **About Tagger** regarding ordering and license information.

Tag Polygons

This function enables the user to select required input polygons and text elements based on polygon/text properties like colour, level, weight and style. Each setup is represented by one line (record) in the main list box defining polygon colour, level, weight and scale, text element colour, level, weight and style and finally tag set and tag to be attached (to the polygon) and populated with the text value. The value used to populate each tag is the one obtained by reading the text (if the text was found). Putting it simple, the program finds the polygon, checks if the one (and only one) text element is inside this polygon exists and then uses this text to populate and attached required tag.

By changing the selection criteria, the user can uniquely select required polygon and text elements.



There is no limit on number of different lines (records) defining different setup.

Please note that the polygon could be shape, complex shape or group hole (cell).

This menu also enables the user to create required tags - if the specific tag already exists within the design file, the user can populate Set and Tag fields simply by double click on the Available Tag Name. On the other hand, if the specific tag doesn't exist, the user needs to enter Tag Set and Tag into appropriate text fields, making sure that Tag Type is set to the required type (Character, Integer or Real - in majority cases Character type is going to be used).

Once the required text fields defining specific selection criteria + tag definition are in the text fields, the user needs to press **Add** to add this specific setup into the setup list. Some additional buttons like **Update**, **Remove** and **Clear** could also be used to

modify already entered record, remove it from the list or clear the whole list. When the **Update** and **Remove** buttons are used, the required record must be previously selected by the mouse click.

It is important to remember that only the fields which have non zero length are used for element selection - if the specific field is not entered, it means that this argument is not going to be used during the processing. In the above example, only level "rocks" is going to be used for polygons and level feature_text for text elements in the first setup (record).

The second record states that only the polygons with colour 1-42 on level "Boundary" are to be used and the text elements on level "Default". In the most extreme case when ALL polygons and ALL text elements are to be used, only Tag Set and Name (and type) must be defined.

When the Tagger processes the file, the polygons, which could not be tagged, are marked by placing the error symbol with the centre at the polygon centroid. The user can nominate the error level, colour and size by defining error parameters. These parameters can be different for each specific setup, which means that when the same polygon is tagged with different tags (records), the user can distinguish which sequence was successful and which one wasn't.

All the error symbols - **circle** for **text not found** and **diamond** for **more then one text**

are placed in the reference file which is automatically attached to the processed file - the reference file has the name **original_file.tgr** and the logical name **tg_err.**

Please make sure that no other file is going to use this name - the reference file is recreated each time the Tagger is processing.

This option processes both shapes/complex shapes and group holes. In case of the shapes only solids are processed, however the user can extend the search criteria by using **Use holes** toggle switch, which forces the program to process both solid and hole shapes/complex shapes.

In addition when processing 3D file, the user has to define the view for which the processing is to be performed - this could be easily achieved by selecting it from the option menu, which in turn becomes enabled in 3D files. The user simply has to select the view and if required toggle on and define influence zone which is the distance (in Master units) from the average element position in a specified view perpendicular to the view plane. If the **Influence** is not turn on, no restriction on the influence is set.

The user has the option of processing all selected elements by pressing **Process All**

or **Process Fence** to process elements limited by fence. This specific push-button becomes active when the fence is defined.

N.B. The Tagger uses usual MicroStation convention to specify colour e.g. 1-5,8,42

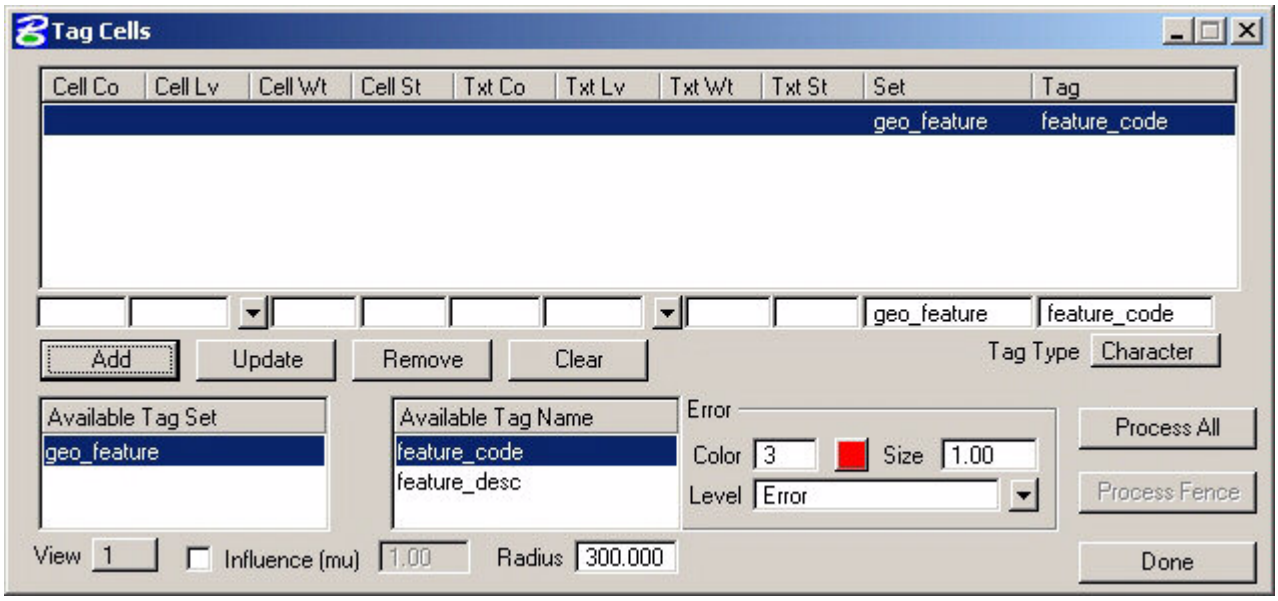
(which means use colours 1,2,3,4,5,8,42). The same convention is used for weight and style. The valid ranges for all four of them are

colour 0- 254

weight 0 - 15

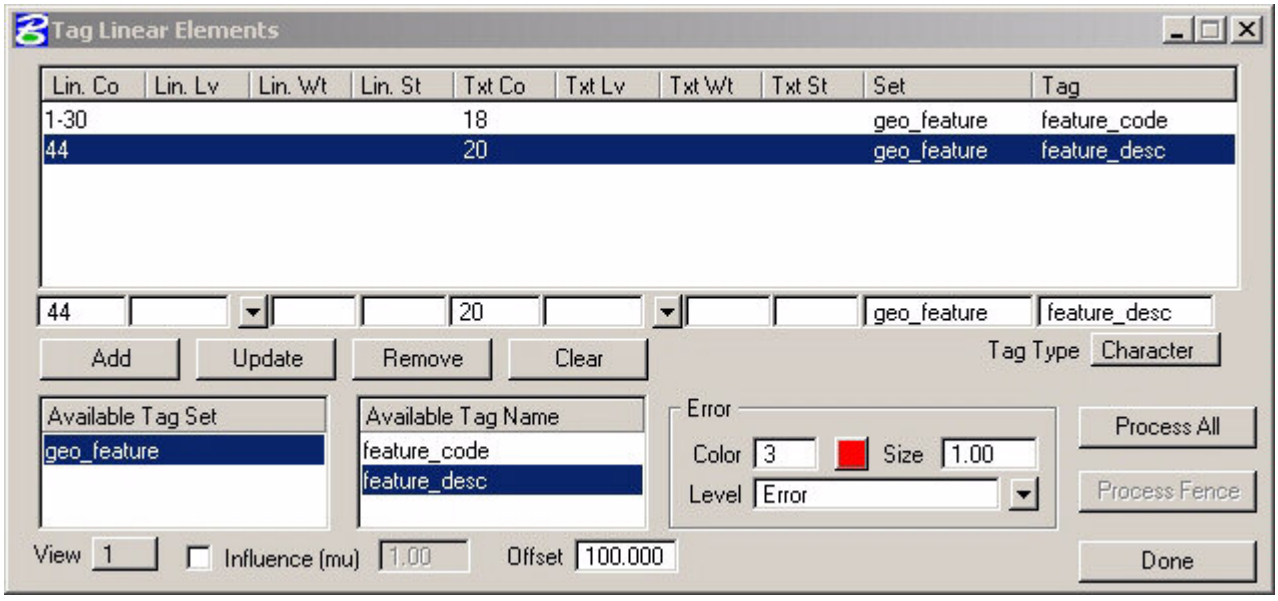
style 0 – 7

Tag Cells



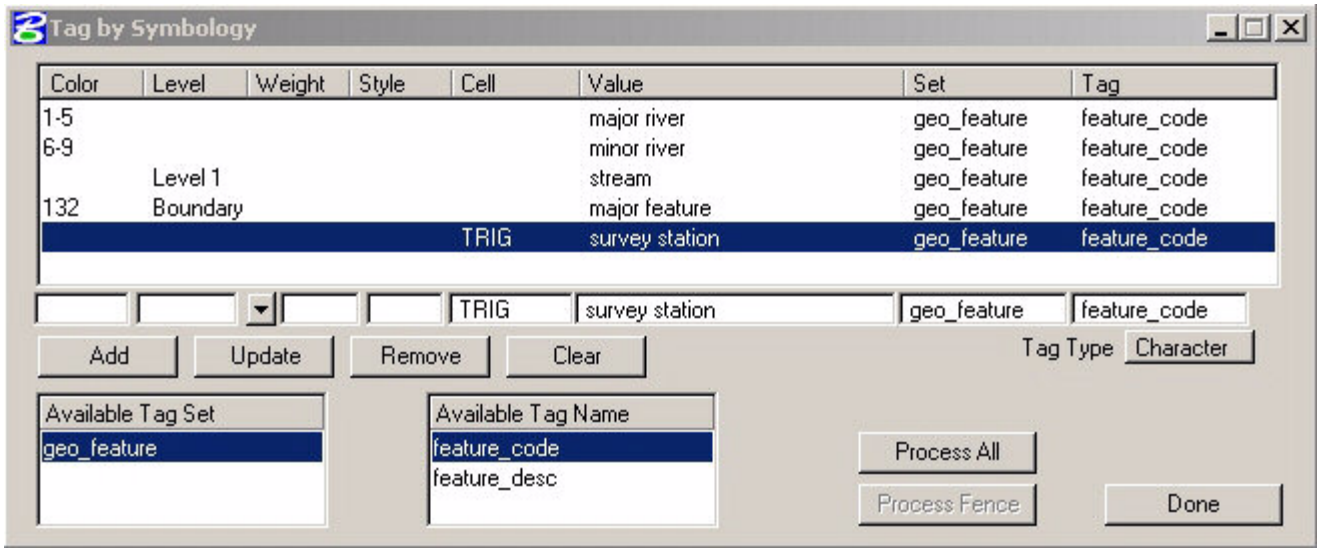
This option is very much the same as the polygon one, described above - the same technique, and the same menu options. The only difference being that this option uses **Radius** keyin fields which defines (in master units) the circle of influence from the cell origin, which in turn is used to search for text.

Tag Linear Elements



Again this option is very much the same as the polygon one described above. The main difference being that tag linear element option uses offset keyin fields, which defines the envelope (offset in master units) around linear element, which is used to search for text.

Tag Selected Elements With Predefined Values

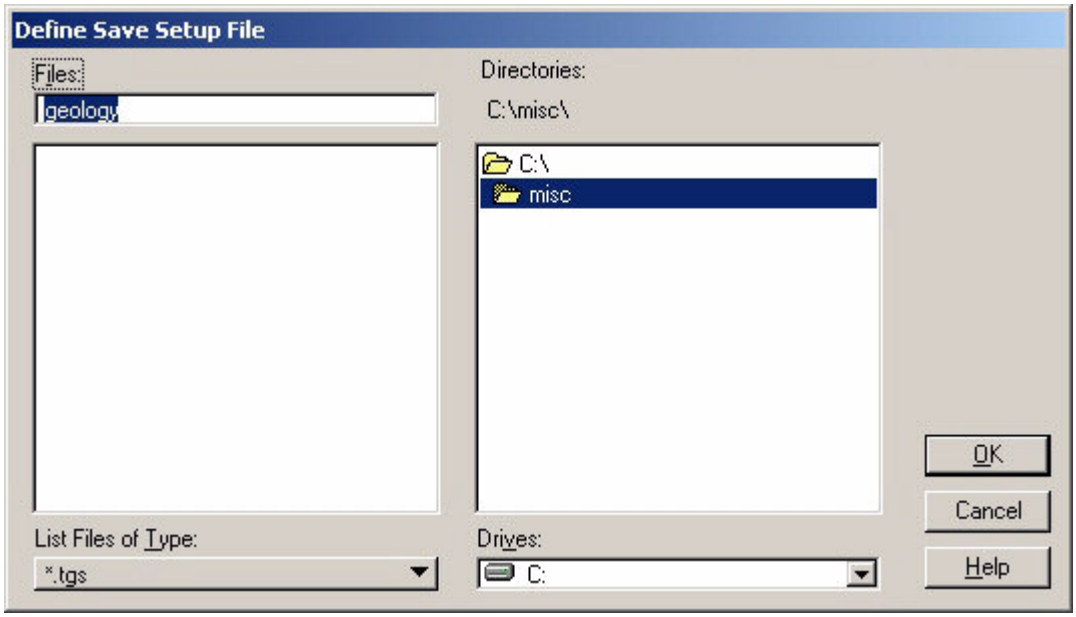


This specific option searches for any MicroStation element as defined by the current setup (record), attaches the specific tag to this element and finally populates this tag with the required value.

In the above example all the elements having colours 1-5 will have the tag feature_code attached and this tag is going to be set to **major river** , the next record defines that the same tag is to be populated with **minor river** : for the elements with colours 6-9, then the next record requests that all elements on level “Level 1” are to have the feature code set to **stream** , and finally all elements with colour 132 on level “Boundary” will have the tag feature_code set to **major feature**.

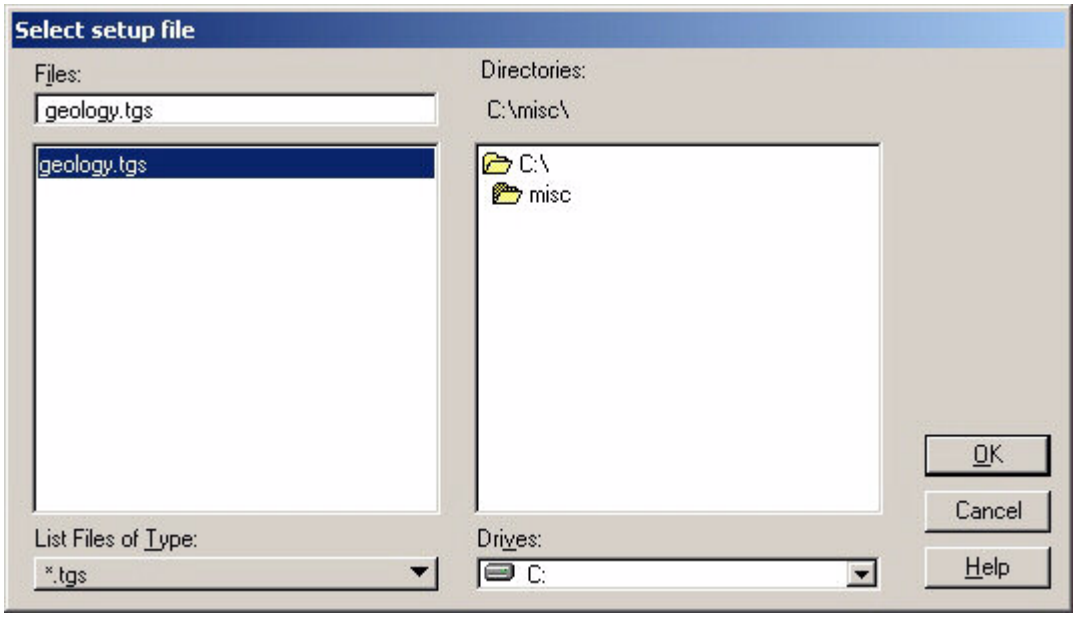
In addition Tagger can search for a specific cell name as defined above (in this example each cell called TRIG is going to be have feature code set to **survey Station** in the tag set geo_feature).

Save Current Setup



This option enables the user to save current setups in the user defined ascii file, which can be used to restore this setup in the future.

Restore Setup



The previously saved setup file (*.tgs) is used to restore setup values.

Convert Tags to Text

This specific utility generates text elements from the tags attached to the elements. The user needs to select tag set to be converted. Current text symbology (colour, text size, etc.) is used for the newly created text elements. The linear elements are labelled perpendicular to the element centre, whereas polygons have the text placed at the centroids.

Tagger Online Help

This button starts Tagger online help (this file).

About Tagger

This button provides the way to obtain more product information (e.g. Developer Address contact phone/fax number and E-mail address), it also gives the user the ability to update serial number when required (e.g. changing it form Demo to Full production).

When activated, this command displays the same menu as described at the very beginning of this document.

See "Running Tagger"

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