

**12d Model – Freeware Macro  
Documentation**

**12da Library Import tool along a string.4do**



## Macro - Average coordinates

Macro Version 2020.11.11

Compiled for V14C2j

## Macro Disclaimer

12d Model macros and all associated files are supplied "AS IS" without any warranty of any kind (expressed, implied or whatsoever). Tatras Consulting Limited ("Tatras Consulting") disclaim any and all warranties to the maximum extent permitted by law, either express or implied, including but not limited to any warranty of merchantability and/or fitness for a particular purpose or the Customer's requirements nor that the performance or use thereof will be uninterrupted or error-free. No warranty of fitness for a particular purpose is offered. No liabilities in respect of engineering or surveying details including quantities, data or reports produced by this Macro or 12d Model are accepted.

While every effort has been taken to ensure that the advice given in this document is correct, no warranty is expressed or implied by Tatras Consulting or any of their contractors or distributors.

In no event shall Tatras Consulting, their staff, suppliers or distributors be liable for any direct or indirect loss, liability or damages of any kind, lost profits, lost data or information, productivity, costs or expenses or for the procurement of substitute services, deliverables, and/or equipment as permitted by law.

## Customer Responsibility

By downloading/using this macro the Customer/User accepts all liability for any/all results, loss or data and decisions based on such information relating to this macro.

Tatras Consulting grants the Client named above a nonexclusive, non-transferable, royalty-free license to use this macro and related files for their internal needs subject to and in accordance with these terms and conditions as set out in this document.

Tatras Consulting Limited, NZBN 9429041711163

[info@tatras.co.nz](mailto:info@tatras.co.nz)

The information in this document as well as the associated macro is confidential and restricted to the Customer. If you are not the intended recipient of this documentation or macro, you are hereby notified that any use, distribution or reproduction (in part or whole) is prohibited.

## Table of Contents

Macro Purpose .....	4
Application .....	4
Process.....	5
Settings .....	5

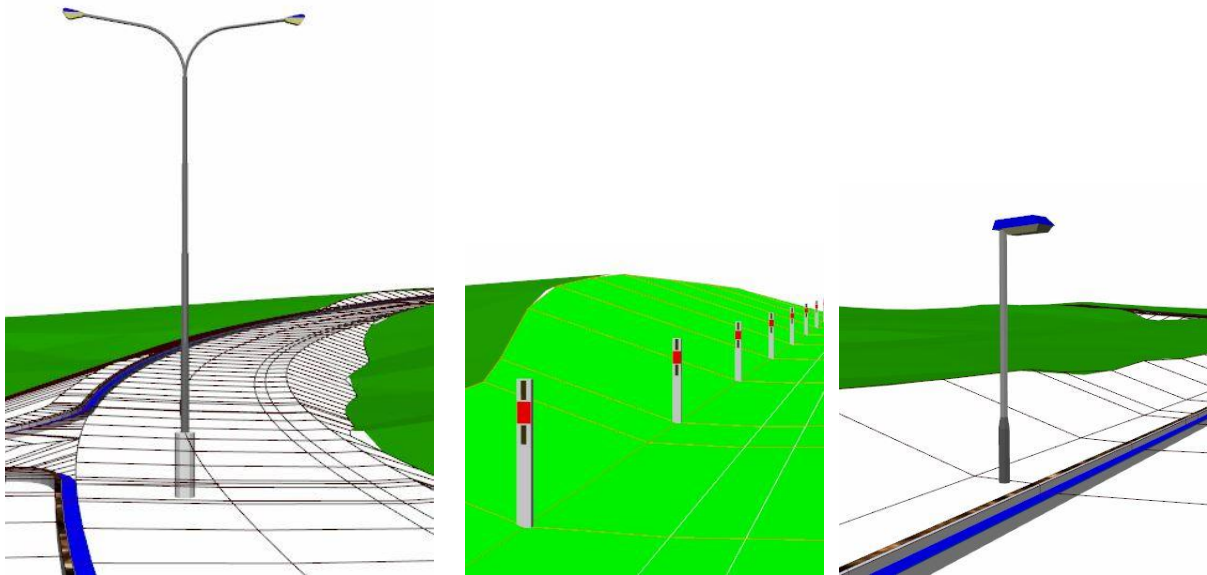
## Macro Purpose

This macro is used to import elements into 12d model from 12da files. Companies that setup a library of typical elements can quickly and easily access it via this macro.

## Application

Typically elements in the library are plot details, notes, diagrams and other 2d data. However, 3d mesh objects, super springs and entire 3d models can also be imported.

Additionally, objects such as road side furniture, lamp posts and fences can be placed multiple times automatically at specified locations.



## Process

This macro requires an input 12da file or a folder of 12da files.

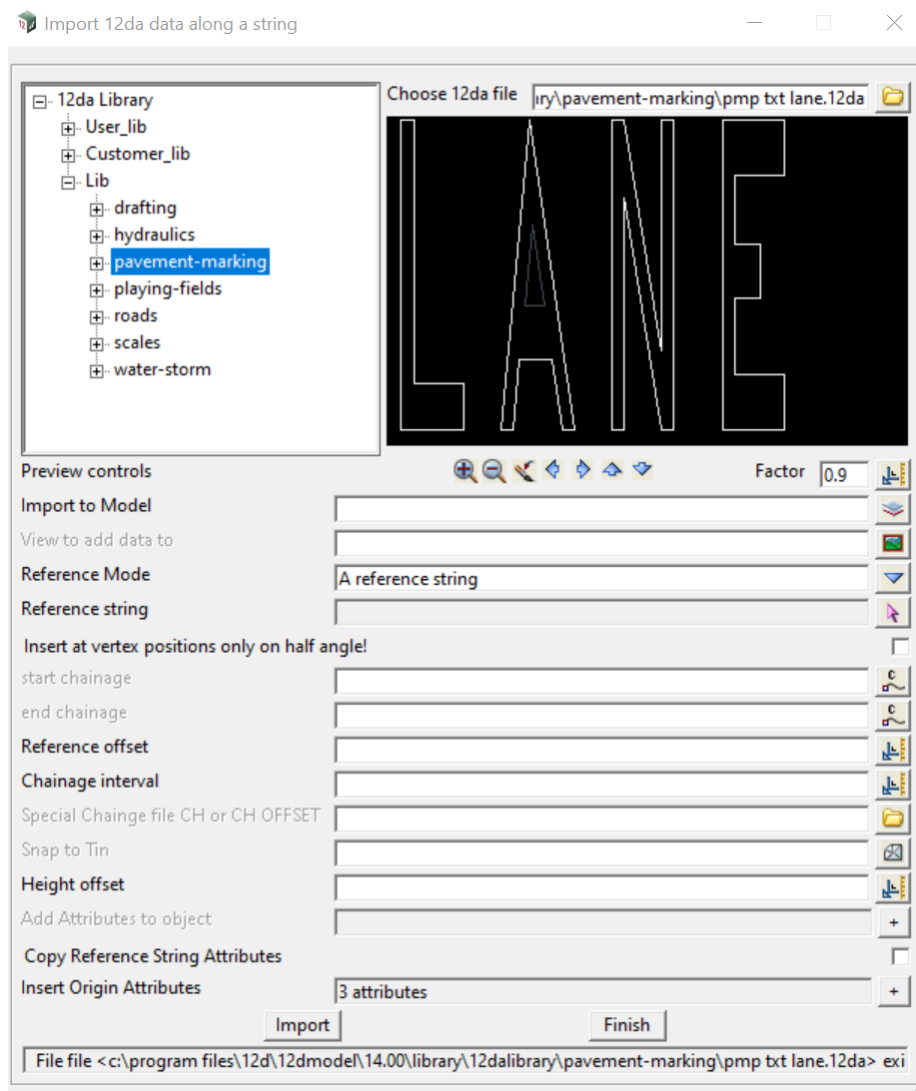
## Settings

By default the macro will show a tree structure of 12da Library subfolder in \$Lib, \$User\_Lib and \$Customer\_Lib if they exist. This is the default location for 12da Library.

However, the location to display can be modified with command line arguments

"folder\_\*\*"

where the \* is the path to the directory to load. Arguments should be quoted to allow for spaces in folder names and may include \$ variables such as \$user or \$user\_lib. Multiple folders may be specified.



**12da Library tree** – the tree structure matches a folder structure of given directory to load

**Choose 12da file box** – displays the path of the selected tree item, but you may choose any other 12da file as well. Ideal for testing new files in the project working folder.

**Preview Controls** – icons used to zoom and pan the preview image, the Panel is resizable and the preview can be enlarged, however it may need refreshing by placing the mouse cursor over the draw box.

**Factor** – this box is used to increase or decrease the default Fit zoom of the preview box. Depending on the monitor resolution and text scale in windows settings the factor may need to be adjusted.

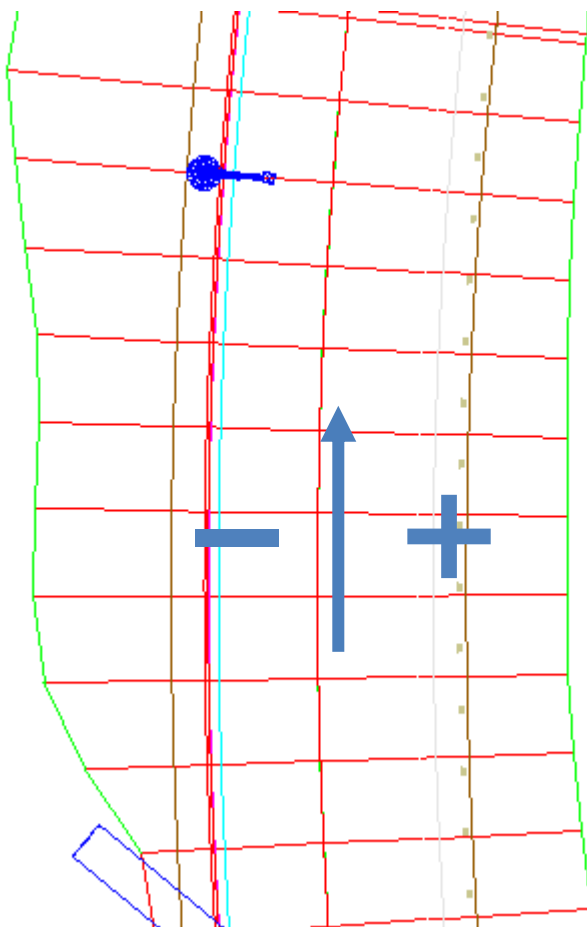
**Import to Model** – the model for the data – required

**View to add data to** – optional view name to add the model to the view

**Reference Mode**

- [A reference string] single reference string
- [Model of Reference Strings] – multiple strings mode
- [Pick a coordinate] – single insert position by XYZ coordinate

**Reference string** – any super string or alignment to place contents of 12da file on



Direction of the string  
defines the offset sign

-ve for left offset

+ve for right offset

**Start/End Chainages** – limit the area by start and end chainage of the reference string

**Reference offset** – place elements Left (-) or Right (+) from the reference string. (this is a default value and can be overridden by the special chainage file to achieve placement on both sides at the same time)

**Chainage interval** – place elements every xx.xx meters along the reference string from the start chainage

**Special Chainage file** – specify chainage positions for placement and optional second value is used for offset (-) left or (+) right.

**Snap to TIN** – if the TIN exists and if there are triangles in the specific location the height position is taken from the TIN. This requires the element in 12da file has placement origin attributes X,Y and Z. If the TIN is not found or triangles don't exist height of the Reference string is taken as the origin.

**Height Offset** – translate elements up or down from the Origin Z.

**Insert Origin Attributes** – each element must have its origin point defined by X,Y and Z attribute.

These can be at any path/name on the element. Data on our website has the attribute names X,Y and Z.

lamps.spc - Notepad

File Edit Format View

```
35.000
45.000 -3.9
70.000
105.000 -3.9
140.000
172.500 -3.9
205.000
245.000 -3.9
265.000
307.500 -3.9
330.000
```

Attribute	Type	Value
1 X	Text	Path/Name to attribute X
2 Y	Text	Path/Name to attribute Y
3 Z	Text	Path/Name to attribute Z
4		

Attribute	Type	Value
1 X	Text	X
2 Y	Text	Y
3 Z	Text	Z
4		

- end -