Naval Structure Toolkit - User Manual
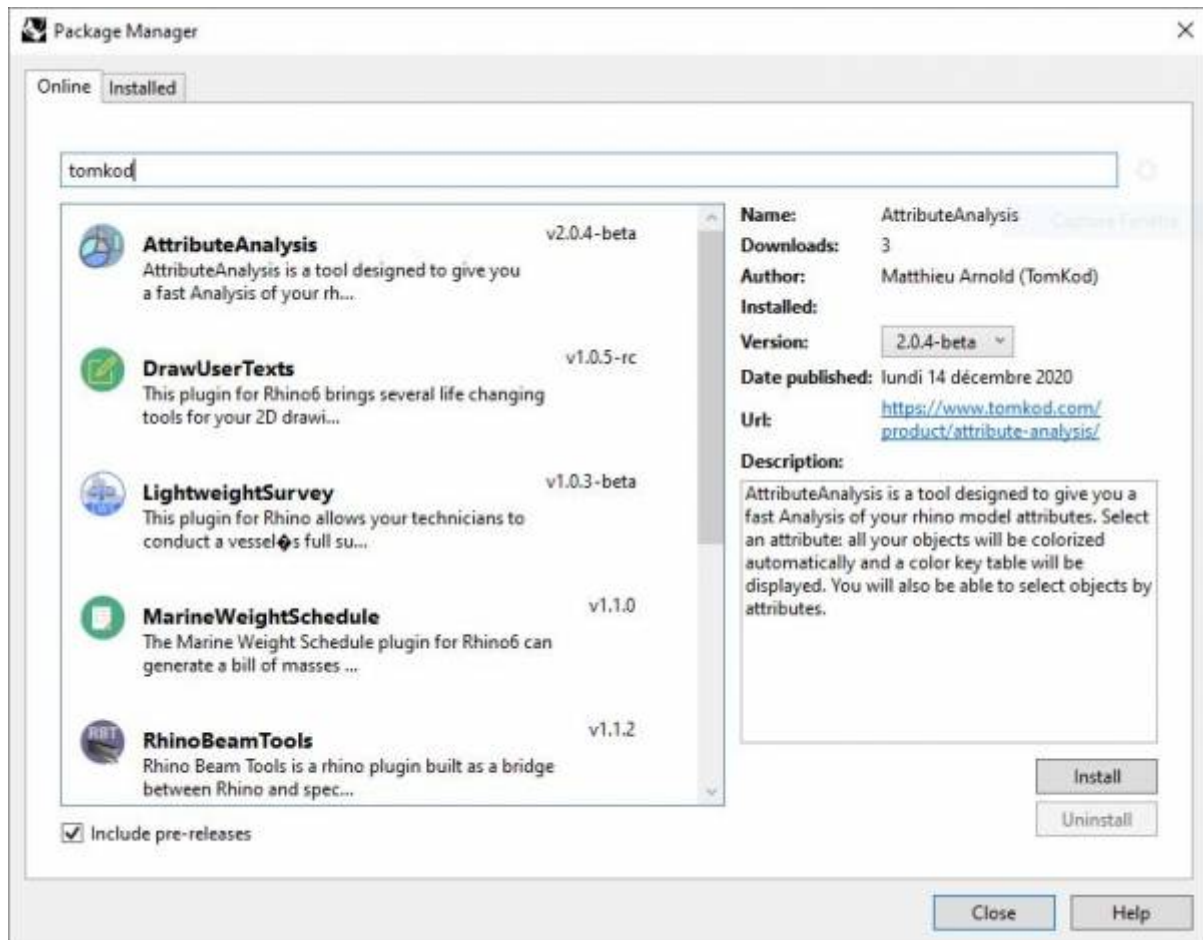
Introduction

> 🚧 TODO

Plugin installation

Overview

The plugin installer can be downloaded at 🔧Fix Me!
A free trial is included, and yearly licenses can be purchased on the aforementioned page.
Naval Structure Toolkit works for Rhino 6 [1], and Rhino7[2].
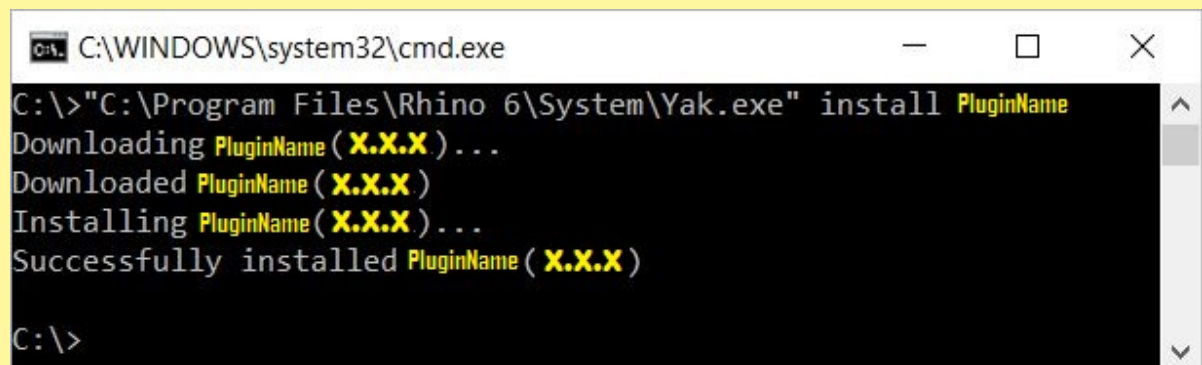
Yak

Our plugins are also compatible with <u>Yak</u>, Rhino's new package manager [3], which is basically an application store for Rhino. You just need to call Rhino's command ***_PackageManager***:

You can also install from the repository with the following command line:

```
"D:\Program Files\Rhino 6\System\Yak.exe" install 'PluginName'
```

If you add this in a batch file (*.bat) at windows startup, it is probably the best way to keep all your plugins up-to-date 😊

License activation

Prerequisites

The free evaluation can be used once per computer, and requires network access to
www.license.tomkod.com
The license activation requires network access to www.tomkod.com
Please check your firewall in case of failure.

Activation form

The activation window automatically shows up when the plugin is loading and a valid license or trial is
not registered. If you want to see, change or remove your license while the plugin is already loaded,
you can use the Rhino commands **PluginName_License**.
Activation status is always visible on the upper right corner of the form, if the icon is green your
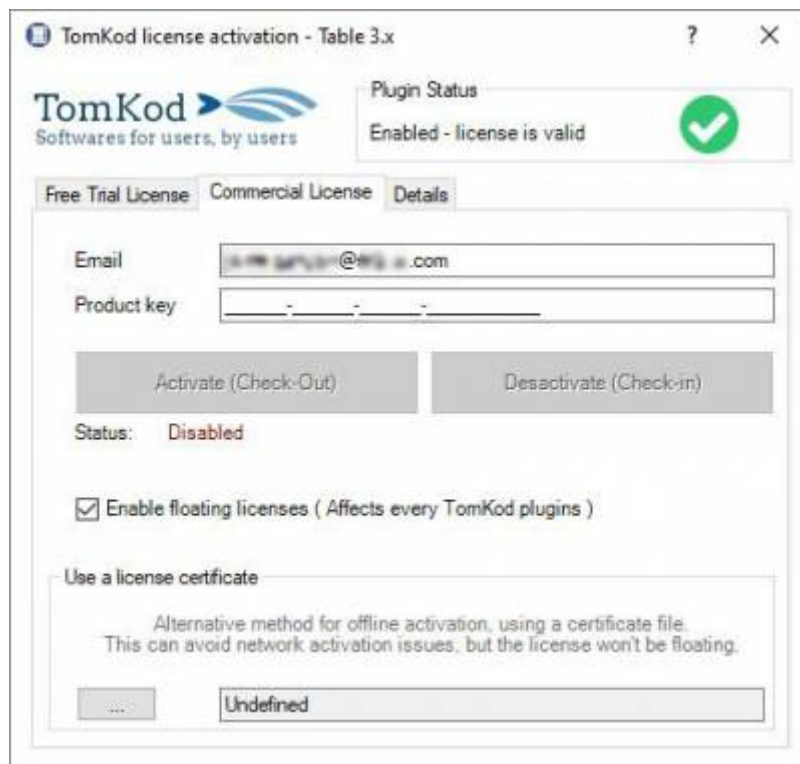plugin will be enabled:

Trial Tab

This first tab is dedicated to the trial requests. Your trial status is displayed, and the button is disabled
if a trial is not available for your computer (Your trial has already been activated, or the server is
unreachable)

Commercial Tab

This tab's two main buttons let you Check-out (Activate) or Check-in (Desactivate) your license from

our license server.

When the checkbox *"Enable floating licenses"* is checked, every TomKod's plugin will try to deactivate the license automatically when closing (Making it available for another of your computers)

Finally, a license certificate (*.TkLic) can be selected at the bottom of this tab. It allows to activate a license offline, but the license won't be floating anymore. If you need one, contact us at https://www.tomkod.com/contact/

Toolbar

The toolbars for Rhino are always included in your plugins installation directory, or can be downloaded here.
You just have to drag/drop the file "Tomkod.rui" to a rhino window to install them.

Commands

NST_About

This command can be used only from the command line prompt. It displays the plugin's current revision and license status.

add image

NST_License

This command can be used only from the command line prompt. It displays the plugin's activation form.

See license_activation.

CheckPlatCut

TO DO: Add description

Walkthrough

1. Launch the command
2. First Step ❓
3. Second Step ❓

TODO: Add animated gif

Scripted mode

No scripted mode is available for this command.

IDsToUserText

TO DO: Add description

Walkthrough

1. Launch the command
2. First Step ❓
3. Second Step ❓

TODO: Add animated gif

Scripted mode

No scripted mode is available for this command.

SolidMass

TO DO: Add description

Walkthrough

1. Launch the command
2. Select an extrusion or a closed polysurface
3. The object's mass and centroid coordinates will be displayed in command line feedback

TODO: Add animated gif

Options

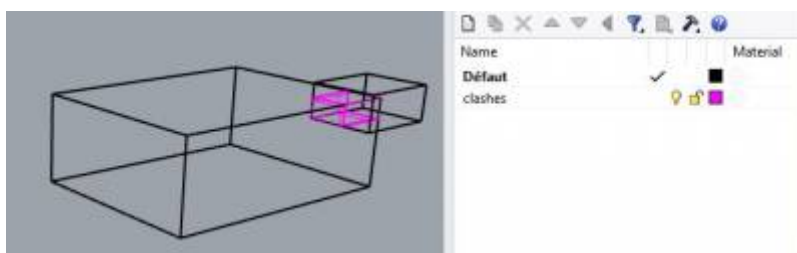|	
Material	Either a material from the editable material list or *"Other"*, which will ask to manually enter a volumic mass Materials English Name / Local Name / Value (Kg/m3) Steel / Steel / 7850 Aluminium / Aluminium / 2700 BiMetal / BiMetal / 5275 Create Edit Delete Add Defaults
WeldingPercentage	The margin to add to the result to consider welding masses (%)
DrawCentroidPoints	If enabled, a point will be added to the model at the centroid's location

Scripted mode

No scripted mode is available for this command.

IntersectSolids

Check object intersections between two or several closed polysurfaces. The clashes volumes are added to the doc, in a layer named "clashes"

Walkthrough

1. Launch the command
2. First Step ⓘ
3. Second Step ⓘ

Scripted mode

No scripted mode is available for this command.

ExportPartsToDxf

Exports selected curves and annotations to a DXF file.

Walkthrough

1. Launch the command
2. First Step ⓘ
3. The dxf file with the selected items is saved as: *%ModelDIrectory%*\Platcuts-*%DocAttributeForBlockNumber%**%LayernameExtract%**%ObjectReference%*.dxf

> 🚧 TODO: Add animated gif

Options

DocAttributeForBlockNumber	value from a document usertext. The targeted usertext can be changed in the MSW option panel.
LayerNameBeginWith	Filter objects by the beginning of their layer name. The targeted user text can be changed in the MSW option panel.
ObjectReference	value from an object's usertext. The targeted usertext can be changed in the MSW option panel and is common with several other commands.

Scripted mode

No scripted mode is available for this command.

Bracket

TO DO: Add description

Walkthrough

1. Launch the command
2. First Step ⑦
3. Second Step ⑦

TODO: Add animated gif

Scripted mode

No scripted mode is available for this command.

Cuto

TO DO: Add description

Walkthrough

1. Launch the command
2. First Step ⑦
3. Second Step ⑦

> 🚧 TODO: Add animated gif

Scripted mode

No scripted mode is available for this command.

Rails

> 🚧 TO DO: Add description

Walkthrough

1. Launch the command
2. First Step ⑦
3. Second Step ⑦

> 🚧 TODO: Add animated gif

Scripted mode

No scripted mode is available for this command.

GeneratePlateMarking

> 🚧 TO DO: Add description

Walkthrough

1. Launch the command
2. First Step ⍰
3. Second Step ⍰

> 🚧 TODO: Add animated gif

Scripted mode

No scripted mode is available for this command.

DevelopPlanarPlate

> 🚧 TO DO: Add description

Walkthrough

1. Launch the command
2. First Step ⍰
3. Second Step ⍰

> 🚧 TODO: Add animated gif

Scripted mode

No scripted mode is available for this command.
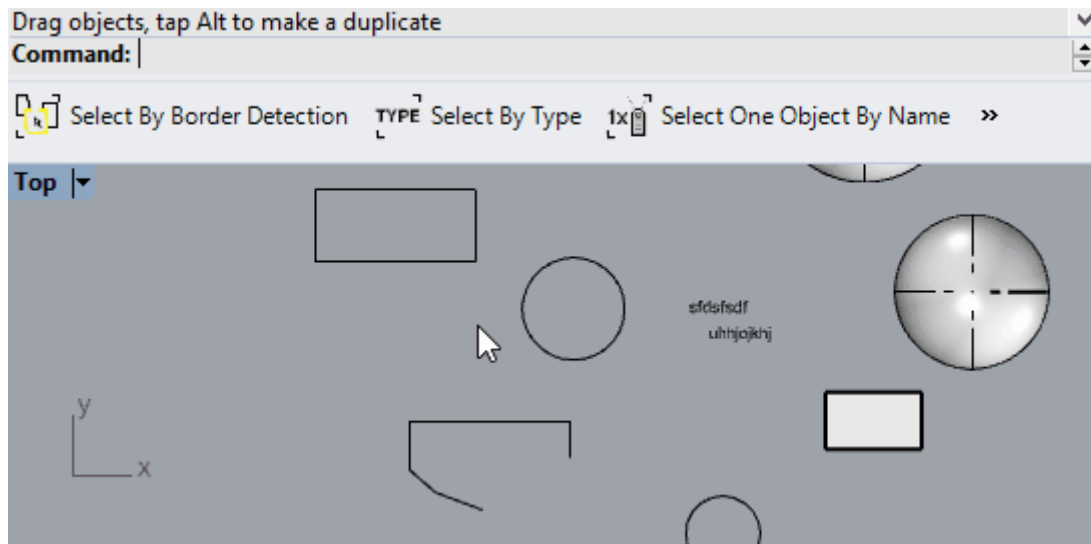
SelectByBorderDetection

> ⚠ Available only for Rhino7 and later

Tries to detect and select a room's walls. Useful for drawings with many short curves delimiting a ship's or building's rooms.

Walkthrough

1. Start the command
2. Hover the model: the result is previewed in real-time

Options

DetectionRange

Limits the detection range where the command will look for walls. Default value is 1000[4]
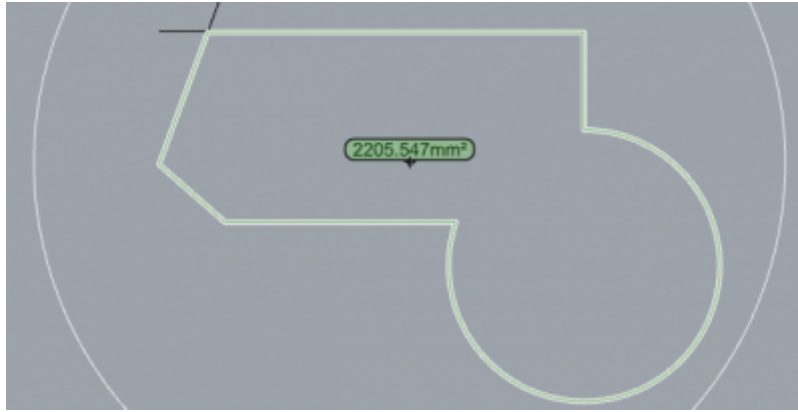
Mode

Two modes are available:

- *SelectExistingCurves* is just a selection of existing objects
- *TryCreateClosedPolycurve* will always returns a closed polyline. If needed line segments may be added.

DisplayArea

When enabled, the area will be displayed during the preview if the polycurve creation is successful.

[1)](#)

Rhino 6.15 or later
[2)](#)

Tested up to Rhino 7.1
[3)](#)

Rhino 6 or later only, with graphic user interface for Rhino7 only
[4)](#)

Model Units