

TIG::ComponentDescriptor

Contents:

- Overview...
- Installation...
- Usage...
- Processing...
- Settings...
- Reset Selected Descriptions...
- Examples...

Overview:

A Plugin Extension to add extended Descriptions to Component Definitions - either to 'All', or to just those currently Selected.

This has many uses...

For example, in the newer versions of Layout you can use the Tag tool to add a clicked-on Component's Description in a Tag - and of course if this has the additional data inserted, then you do not need to manually edit it, which would have in turn meant that you lost its connection back to the SketchUp Model.

Installation:

The Extension's RBZ archive's contents can be Installed in SketchUp >= v8M2 [SketchUp >= v2015 recommended] using:-

Preferences > Extensions > Install Extension...

Where it will be installed and load from the User's default Plugins folder.

Alternatively the SketchUp Toolset's submenu item:

Archive Installer...

could be used to install the RBZ into the default Plugins, or into any other custom Plugins-folder location.

Usage:

Extensions / / Plugins > TIG-ComponentDescriptor submenu

Process All...

All of the Component Definitions in the Model are processed.

Process Selected...

The Selected Component Instances' Definitions are processed.

Edit Settings...

A dialog opens, in it you can choose/enter the desired Settings

Reset Selected Descriptions...

The Descriptions of the Selected Component Instances' Definitions will be 'Reset'

Help...

Opens this Help document.

If you Select one or more Component Instances, then there is a context-menu item:

TIG-ComponentDescriptor - Process Selected

All of the Selected Component Instances' Definitions are processed.

Processing:

If this is the first time a Component Definition has been Processed its 'Original Description' is stored, as an attribute for reuse later. This can be '**Reset**'

Depending on the **Settings** [see below...] the following can happen...

Optionally the Component's **Name** is added onto the start of the new **Description**, using the defined **Name Connector**.

Optionally the Component's **Original Description** is included in the new **Description**.

Optionally the Component's **Dimensions** are appended onto the end of the Description, using the defined **Dimensions Connector**.

You can **Sort** the Dimensions as **Thickness, Width, Length** in ascending order, or leave them as the unsorted bounding-box **X, Y, Z** values. In woodworking they are usually required to be sorted, but in other uses perhaps the actual **Z** 'height' is preferred always to be last, irrespective of its comparative value with the other Dimensions.

The current Model's Units settings are used for the Dimensions' Units, Accuracy, Units-Suffix etc.

Optionally, other settings determine the following:-

if the approximation '~' is removed from dimensions,
how inches are formatted - e.g. " versus **in**.
how fraction-inches are displayed - e.g. 1 1/2" versus 1-1/2".

After each Dimension [**Thickness, Width, Length** or **X, Y, Z** depending on '**Sort**' option] the parts can have an addition suffix/connector - e.g. '**thick by\n**' or '**X\n**' etc.

Optionally the Component's **Volume** [if 'solid'] can be appended onto the end of the Description, using the defined Units and Prefix etc - see **Settings** below...

A closing dialog confirms the number of Definitions which have been processed.

Settings:

This shows the default settings...

Setting:		Example Result:
Prefix Component's Name?	true	NAME... ↔ ' '...
Name Connector:	.	NAME. ...
Include Original Description?	true	...DESC... ↔ ' '...
Append Component's Dimensions?	true	...DIMS... ↔ ' '...
Sort Dimensions?	true	Thick...Width...Length ↔ X...Y...Z
Dimensions Connector:	\n	... DIMS...
Omit Dimensions Approximation?	true	~ 2" ↔ 2"
Inches Format:	in.	12" → 12 in.
Inches Fractions Format:	-	2 1/4" → 2-1/4"
Dimension Suffix 1:	thick by\n	... 1" thick by ...
Dimension Suffix 2:	wide by\n	... 2" wide by ...
Dimension Suffix 3:	long	... 12" long
Append Volume?	false	' ' ↔ 1.234in³ etc
Volume Prefix:	\nVolume	... Volume 1.234in³

Cancel Revert Help Apply

Prefix Component's Name?

true = adds the component's name to start of the description

false = do nothing

Name Connector:

default = ". "

The text inserted after the component's name [if added],

Note that **\n** forces a new-line, **\t** is tab.

The **<space>** is useful to format the Description in the Component Browser pane, because new-lines are not shown, *but* they do get interpreted properly in a Layout Tag.

Include Original Description?

true = adds the component's original description into the description

false = do nothing

Note how this text is stored as an attribute with the Definition, after the first processing.
It can be Reset, see below...

Append Component's Dimensions?

true = appends the component's dimensions to the end of the description

false = do nothing

For more details, see 'Processing' above...

Sort Dimensions?

true = dimensions are reported sorted in ascending order - Thickness, Width, Length

false = dimensions are reported unsorted, in original bounding-box order - X, Y, Z

Dimensions Connector:

default = " \n"

This is the text added before the Dimensions [if any]

Note that \n forces a new-line, \t is tab.

The <space> is useful to format the Description in the Component Browser pane,
because new-lines are not shown, but they do get interpreted properly in a Layout Tag.

Omit Dimensions Approximation?

true = the '~' is removed from the start of approximate dimensions

false = do nothing

Note how **Dimensions** uses the Model's Units, for Units, Accuracy, Unit-Suffix etc.

Inches Format:

default = " in."

If units are set to be **inches** using a " as the unit-suffix, then this will change the ",
e.g. 1" >> 1 in.

If it is set to an empty string "", then it is ignored and a " is still used.

Inches Fractions Format:

default = "-"

If units are in **fractional inches**, then this replaces the **<space>** in front of the fraction as specified, e.g. **1 1/2"** >> **1-1/2"**

If set to an empty string "", then it is ignored and a **<space>** is still used.

Dimension Suffix 1:

default = " thick\n"

The text to go *after* the **Dimension-thickness or X** value.

Note that **\n** forces a new-line, **\t** is tab.

The **<space>** is useful to format the Dimensions in the Component Browser pane, because new-lines are not shown, but they do get interpreted properly in a Layout Tag.

Dimension Suffix 2:

default = " wide\n"

The text to go *after* the **Dimension-width or Y** value.

Note that **\n** forces a new-line, **\t** is tab.

The **<space>** is useful to format the Dimensions in the Component Browser pane, because new-lines are not shown, but they do get interpreted properly in a Layout Tag.

Dimension Suffix 3:

default = " long"

The text to go *after* the **Dimension-length or Z** value.

Note that a **\n** would force a new-line, **\t** is tab.

The **<space>** is useful to format the Dimensions in the Component Browser pane, because new-lines are not shown, but they do get interpreted properly in a Layout Tag.

Append Volume?

default = false

Choose from:

false
in
ft
yd
mm
cm
m

If it is NOT **false** then that 'unit' will be used for the **Volume** calculation, which will be shown at the end of the Description, e.g. " **1.234 in³**"

The **Volume** is taken from the first Instance of the Component.

If there is no Instance, or if it is not a '**solid**' [i.e. volume <= 0], then no **Volume** will be appended at all.

Volume Prefix:

default = "\nVolume "

The Prefix-Connector text used before any **Volume**.

Note that **\n** forces a new-line, **\t** is tab.

The **<space>** is useful to format the Dimensions in the Component Browser pane, because new-lines are not shown, but they do get interpreted properly in a Layout Tag.

There are 4 buttons:

Cancel closes the dialog, without making any changes.

Revert reverts all Settings to their default values, any custom settings will be lost, the new settings are remembered across Models and sessions.

Help opens this Help file.

Apply closes the dialog, and applies the various Setting as they are set up, they are remembered across Models and sessions.

Reset Selected Descriptions:

To avoid you becoming stuck with a frozen 'Original-Description', which might have been stored as an attribute with the Definition, you can Select Component-Instances and run this tool.

All customized Descriptions are removed and the Definition reverts to the 'Original-Description' - however, since the attribute is also deleted you can now safely edit that Description, and the next time you Process it, then that current value will be stored as the 'Original-Description' attribute.

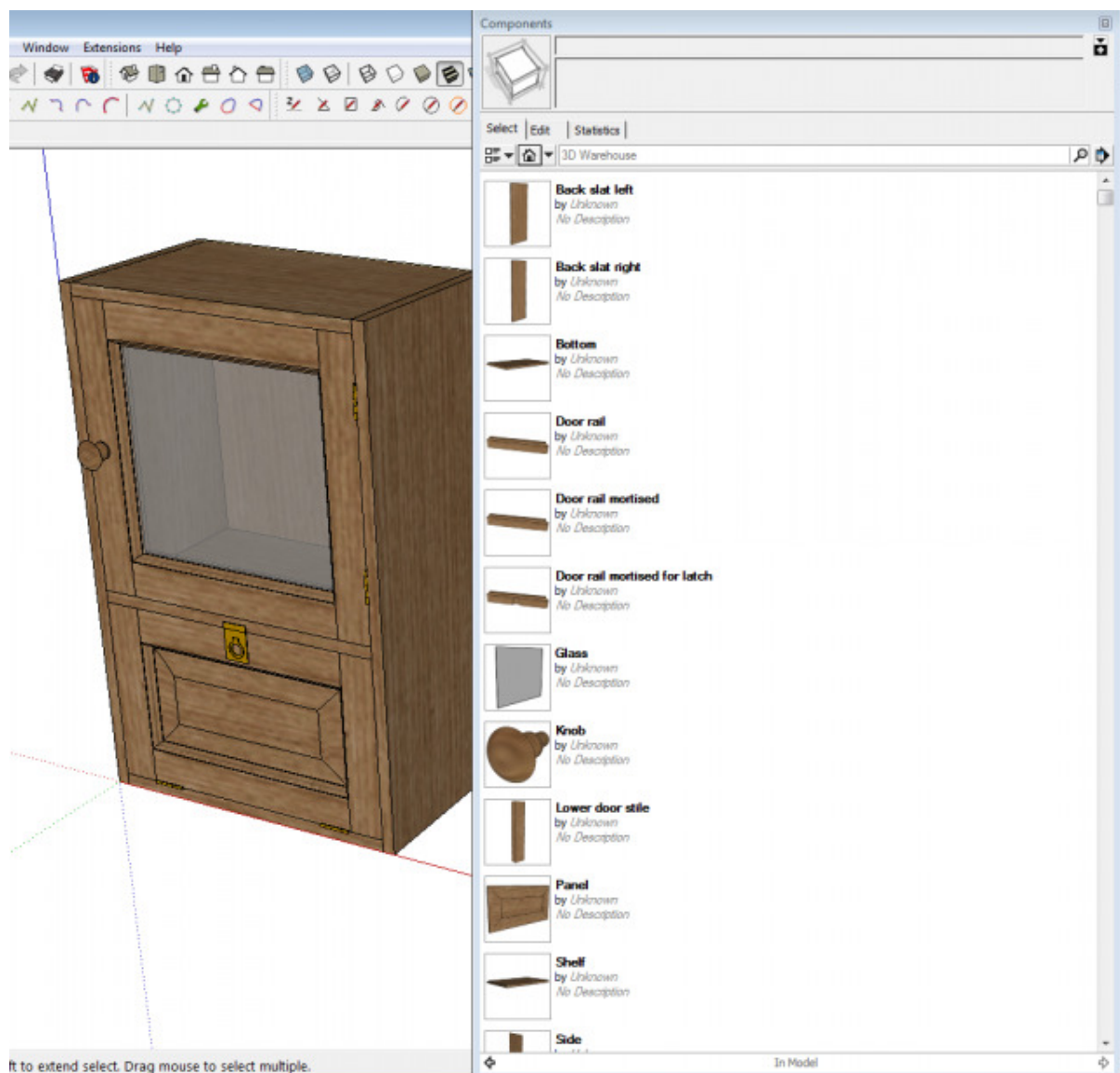
Examples:

Here is a simple example used in a Woodworking project [*thanks to Dave Richards*].

In this case the Components do not have an Original-Description [it's ""],
but alternatively they could have been skipped using '**false**' for the
'**Include Original Description**' option,
the other Settings are:-
Add the **Name** + '**.\n**',
Add and Sort **Dimensions** into **Thickness, Width, Length**,
with no Approximation '**~**',
the Inches Formatted using " >> '**in.**',
the Fractional <**space**> >> '**-**',
with the thickness suffix of '**thick by\n**' etc,
and with '**Append Volume**' = '**false**' - so volume data is NOT appended.

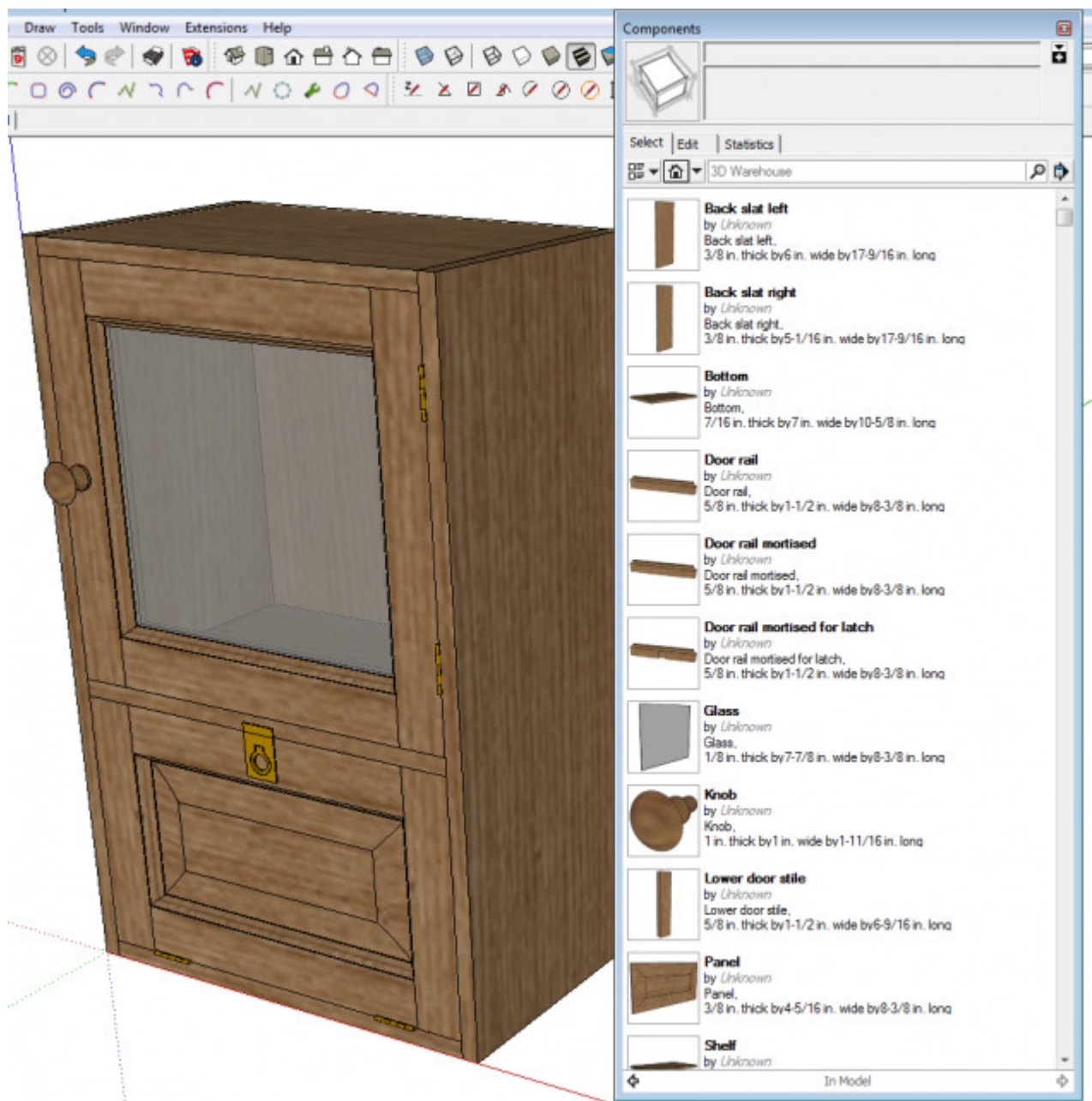
Here are the Model's Components before Processing:

Note how the Component-Parts are named logically,
so there is no need for an initial Description...



Here are the Model's Components after Processing:

Note how the Description now includes the **Name** and the **Dimensions**...



Here are a few 'Tags' added in a linked Layout file:

Notice how these **Layout Tags** are now automatically pre-formatted [including new-lines "`\n`"] to display these Components' expanded 'Descriptions' without any further editing being needed...

If the Component changes in the Model [e.g. it is resized], then you can re-Process it and then Update the Layout linked-file, its view-port will then automatically show those changes in any affected Tag.

