Create SketchUp DC extensions & Publish in Extension Warehouse

Description:

This document is catered for users who has created dynamic components but has limited knowledge in ruby language (like me).

The step-by-step method of setting up the SketchUp extensions and protecting the components from being spread without the extension is being shared here.

The below steps are not foolproof.

Background:

Developer comes up with dynamic components.

Developer wants to publish dynamic components in Extension Warehouse.

Unable to prevent standalone dynamic components from being shared with different users.

To resolve this, dynamic components need to be "linked" to an extension. Without the extension being installed, users will not be able to use the component options in the dynamic components.

Developer has certain control on the usage of the components.

High level steps:

From dynamic components creation to submission of extension for SketchUp Extension Warehouse.

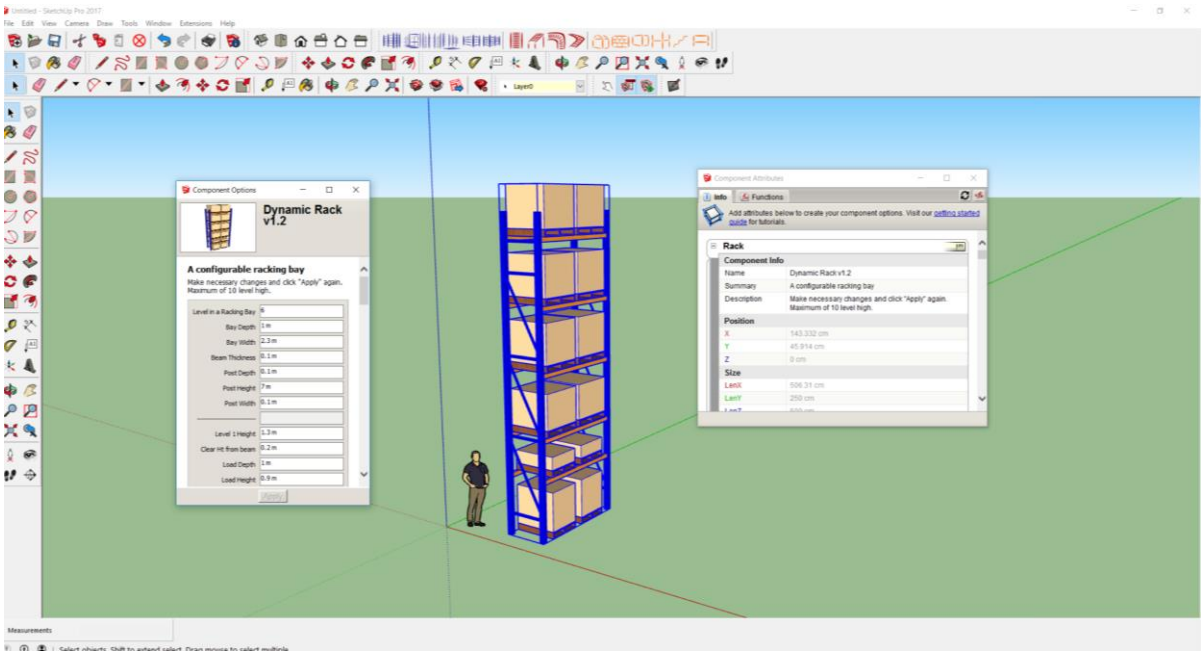
- Create "initial" dynamic components
- Create Folder system
- Example.rb template
- Example_Content.rb template
- Zip up to Folder system to be .zip. Change to .rbz
- Setup account in SketchUp extension warehouse. Request to be developer
- Setup store
- Go to extension digital signature to test out .rbs
- Submit for review and publish
- Edit the script if necessary (from Sketchup team's feedback). Resubmit

Softwares I have used:

- SketchUp Pro version
- Inkscape
- Notepad ++

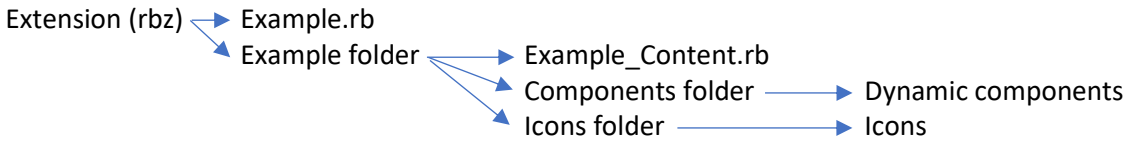
1. Create “initial” dynamic components

At this stage, developer will create the various dynamic components accordingly. Focus is to make the dynamic components workable.



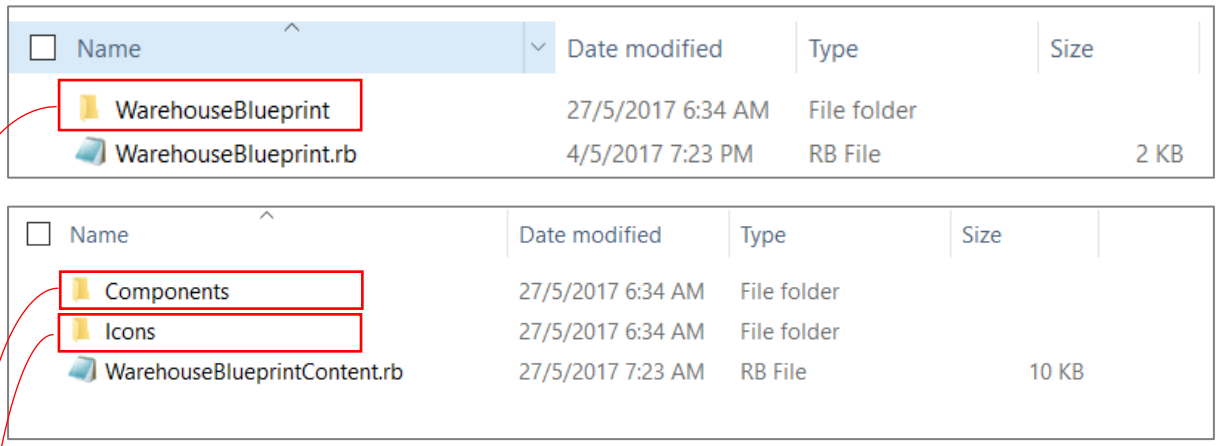
2. Create Folder system

For the extension to be approved, the submission needs to be in a certain file structure. There is a rb file. This rb file will retrieve information in the accompanying folder. There are 2 sub-folders and another rb file within the accompanying folder.

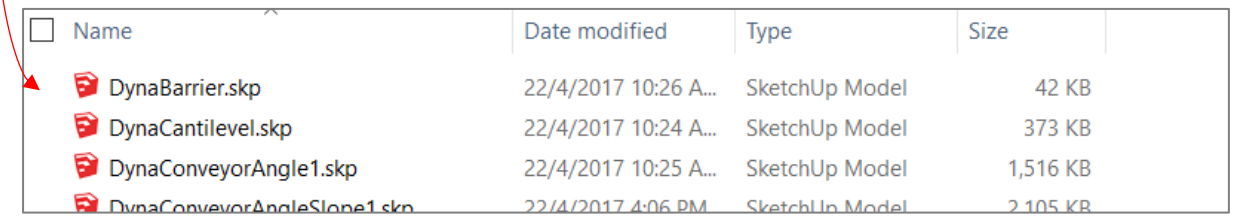


Please use your own unique extension name. As an illustration, I have used “Example” as the extension name. The screenshots below show my own extension name “WarehouseBlueprint”.

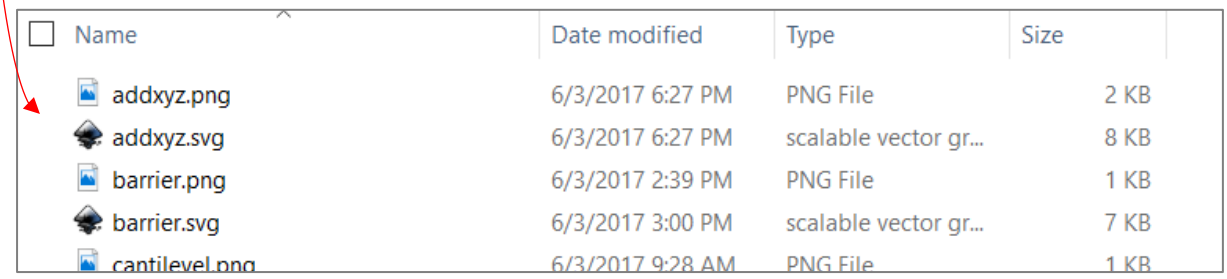
a. Example.rb (template in Step 3)
b. Example folder
    i. In the Example folder, create 2 more folders: Components and Icons folders.



    ii. Components folder (where dynamic components will be placed in)



    iii. Icons folder (where icons will be placed in)
        1. Create icons (.png and .svg) using Inkscape

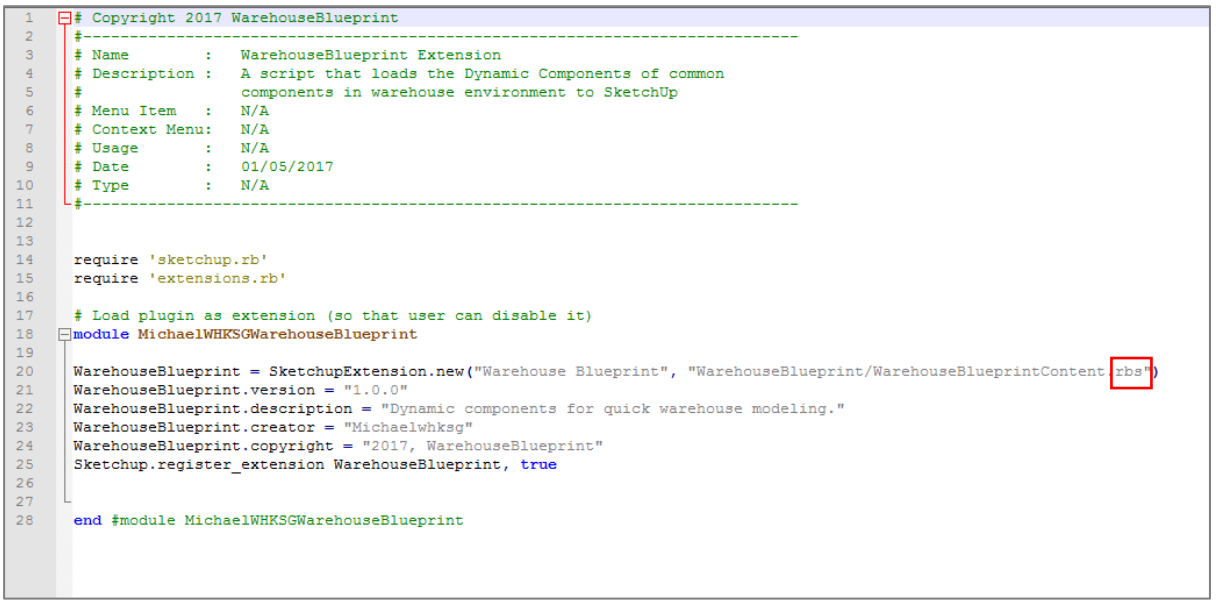


    iv. Example_Content.rb (template in Step 3)

3. Example.rb template

What I did here is to manually change the extension of the file to rbs. There are some topics in the forum that show how this can be done automatically.

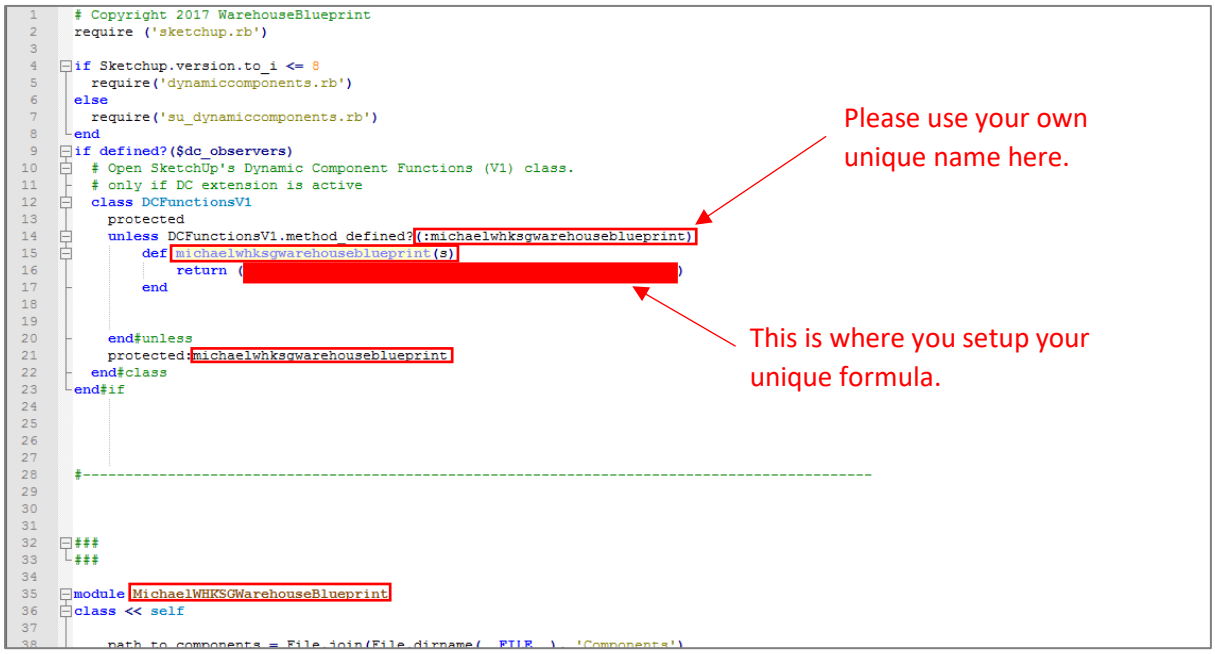
a. Use Notepad++ to write ruby script.
b. For own testing purpose, write the code "…/WarehouseBlueprintContent.rbs" as "…/WarehouseBlueprintContent.rb"
c. Only when submitting to SketchUp Extension Warehouse store, we change to rbs.



```ruby
# Copyright 2017 WarehouseBlueprint
#-------------------------------------------------------------------------------
# Name        :   WarehouseBlueprint Extension
# Description :   A script that loads the Dynamic Components of common
#                 components in warehouse environment to SketchUp
# Menu Item   :   N/A
# Context Menu:   N/A
# Usage       :   N/A
# Date        :   01/05/2017
# Type        :   N/A
#-------------------------------------------------------------------------------


require 'sketchup.rb'
require 'extensions.rb'

# Load plugin as extension (so that user can disable it)
module MichaelWHKSGWarehouseBlueprint

WarehouseBlueprint = SketchupExtension.new("Warehouse Blueprint", "WarehouseBlueprint/WarehouseBlueprintContent.rbs")
WarehouseBlueprint.version = "1.0.0"
WarehouseBlueprint.description = "Dynamic components for quick warehouse modeling."
WarehouseBlueprint.creator = "Michaelwhksg"
WarehouseBlueprint.copyright = "2017, WarehouseBlueprint"
Sketchup.register_extension WarehouseBlueprint, true


end #module MichaelWHKSGWarehouseBlueprint
```

4. Example_Content.rb template

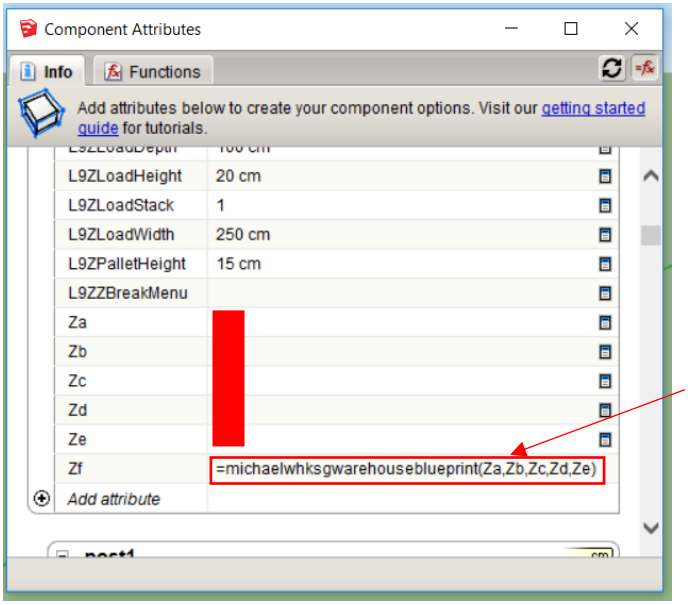
Here is where we start to put in a special dedicated formula (only known to the developer himself/herself) in the rb file and in the dynamic components. This is also the reason for the encryption in step 8 later.




```
# Copyright 2017 WarehouseBlueprint
require ('sketchup.rb')

if Sketchup.version.to_i <= 8
  require('dynamiccomponents.rb')
else
  require('su_dynamiccomponents.rb')
end
if defined?($dc_observers)
  # Open SketchUp's Dynamic Component Functions (V1) class.
  # only if DC extension is active
  class DCFunctionsV1
    protected
    unless DCFunctionsV1.method_defined?(:michaelwhksgwarehouseblueprint)
        def michaelwhksgwarehouseblueprint(s)
            return (
        end


    end#unless
    protected:michaelwhksgwarehouseblueprint
  end#class
end#if



#-----------------------------------------------------------------------------------------



###
###

module MichaelWHKSGWarehouseBlueprint
class << self

    path_to_components = File.join(File.dirname(__FILE__), 'Components')
```

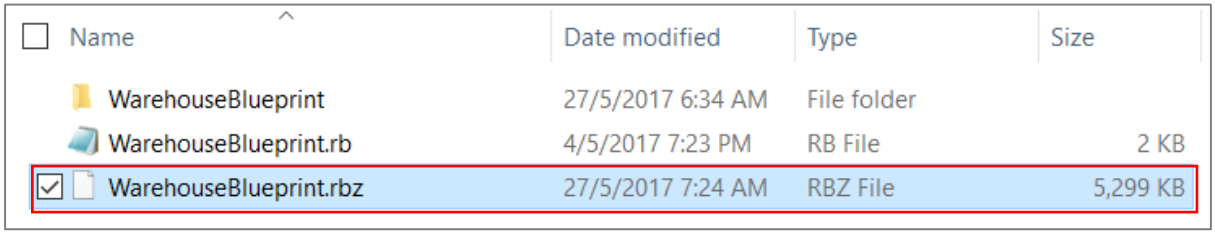
a. Insert “special” formula to lock dynamic component.
   i. http://sketchucation.com/forums/viewtopic.php?f=180&t=67235

b. Update dynamic component with these “special” formula.



Use the same name to recall the formula in the code for calculation.

5. Zip up to Folder system to be .zip. Change to .rbz.



Name	Date modified	Type	Size
WarehouseBlueprint	27/5/2017 6:34 AM	File folder	
WarehouseBlueprint.rb	4/5/2017 7:23 PM	RB File	2 KB
WarehouseBlueprint.rbz	27/5/2017 7:24 AM	RBZ File	5,299 KB

a. Test this version in your own SketchUp.
b. If successful, delete away this .rbz.
c. Go to Example.rb.
d. Change the code "… Example_Content.rb" to "…Example_Content.rbs"
e. Save the latest version of Example.rb
f. Zip up all the files to .zip. Change to .rbz

6. Setup account in Sketchup extension warehouse. Request to be developer.

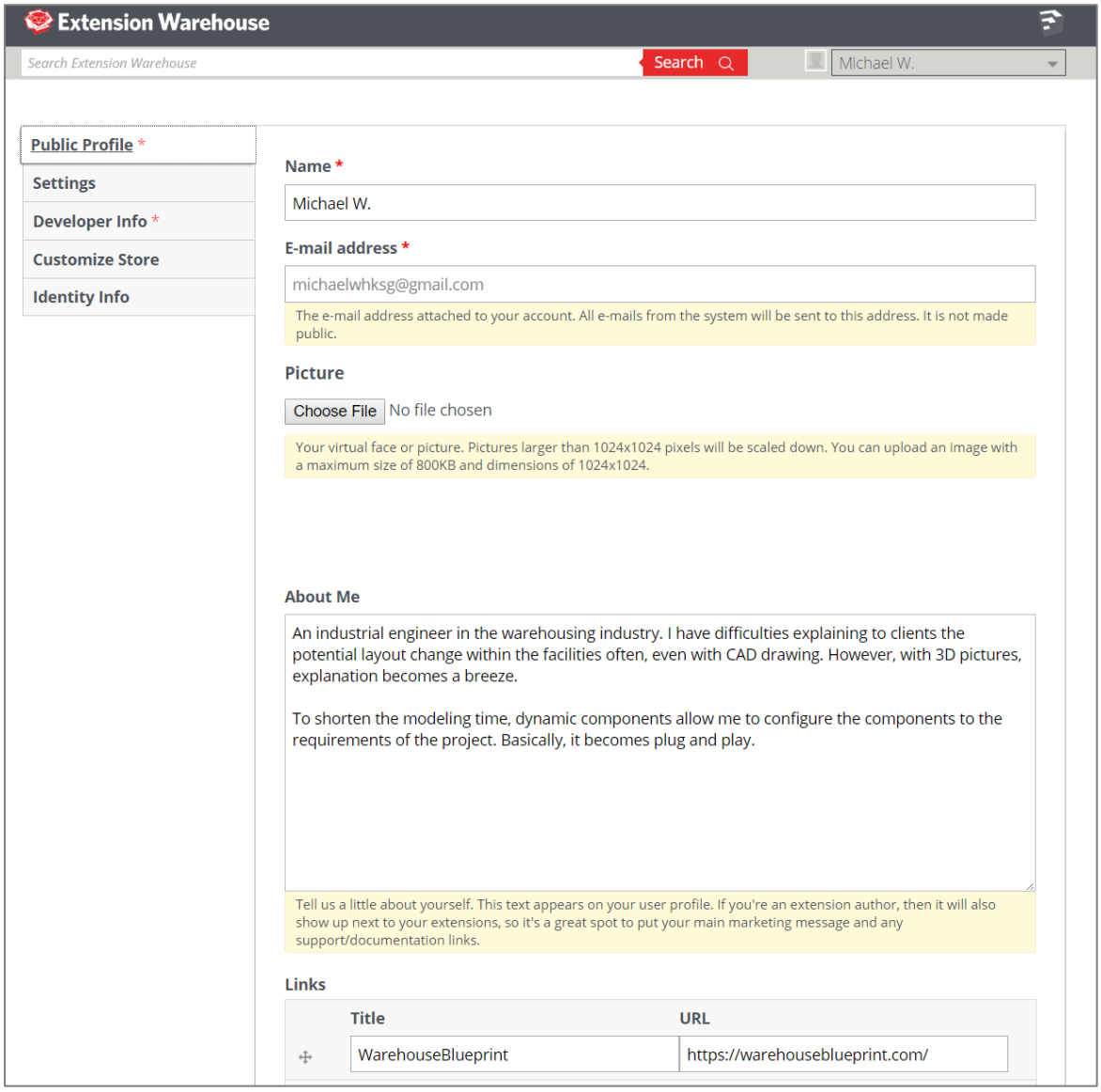
a. https://extensions.sketchup.com/en/developer_center/ew_developer
b. This step can be done any time prior. This will take a couple of days to be approved.

Michael W.,
Thanks for submitting a Developer application for Extension Warehouse! You'll receive another email after your application has been processed, indicating whether or not developer access has been granted.
Most applications process within 1-2 weeks.
Stay tuned...
-Extension Warehouse Team

Michael W.,
We're pleased to inform you that your Developer application for Extension Warehouse was approved.
The next time you log in to your Extension Warehouse account and visit the Developer Center (http://extensions.sketchup.com/en/developer), you'll find a bunch of information to help get you started with the process of setting up your store and uploading your extension(s).
Please feel free to let us know if you have any questions or encounter any problems.
Thanks again – and welcome to Extension Warehouse!
-Extension Warehouse Team

7. Setup store

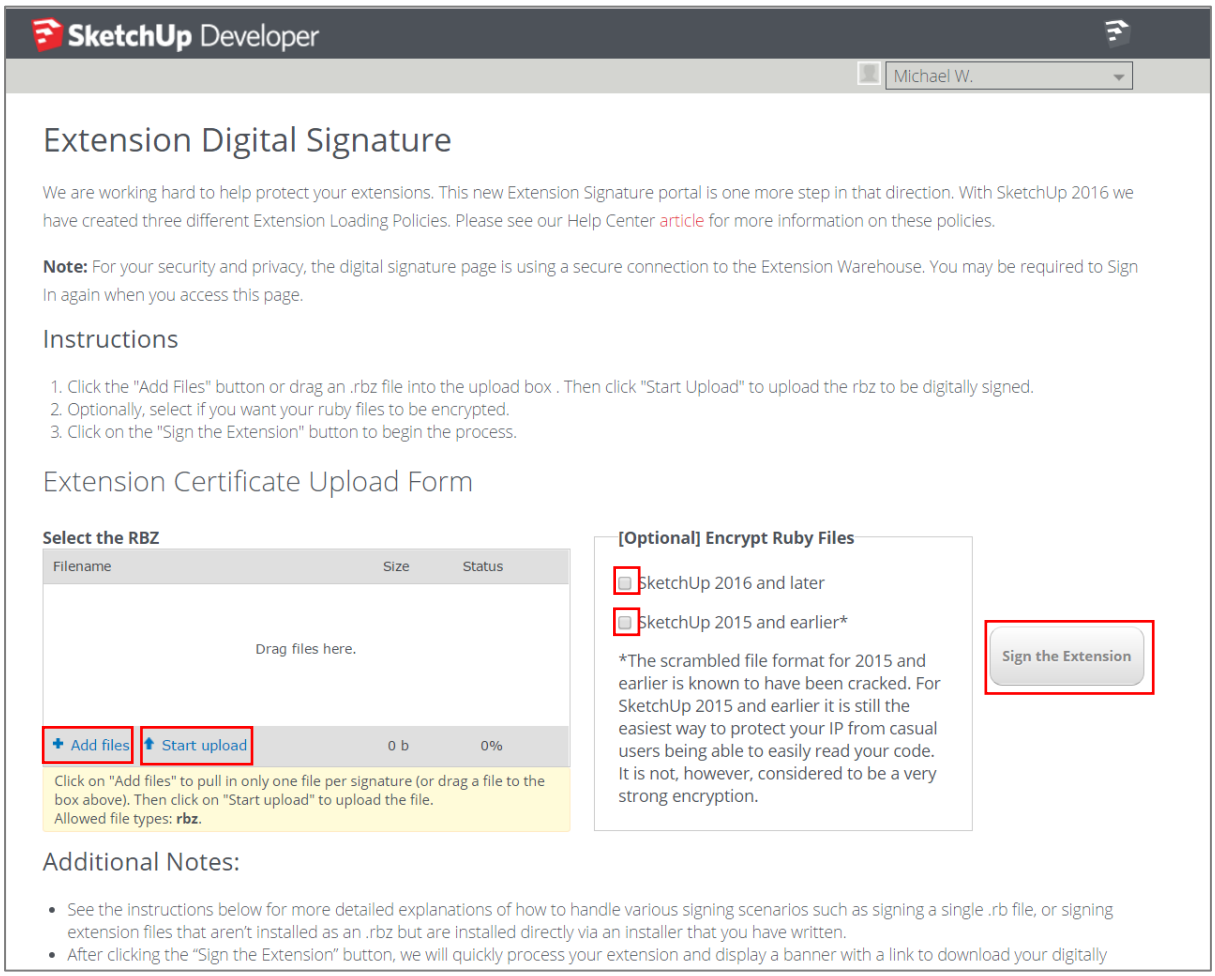
Upon receiving of approval to be a developer, you can setup the store front in Extension Warehouse.



8. Go to extension digital signature.

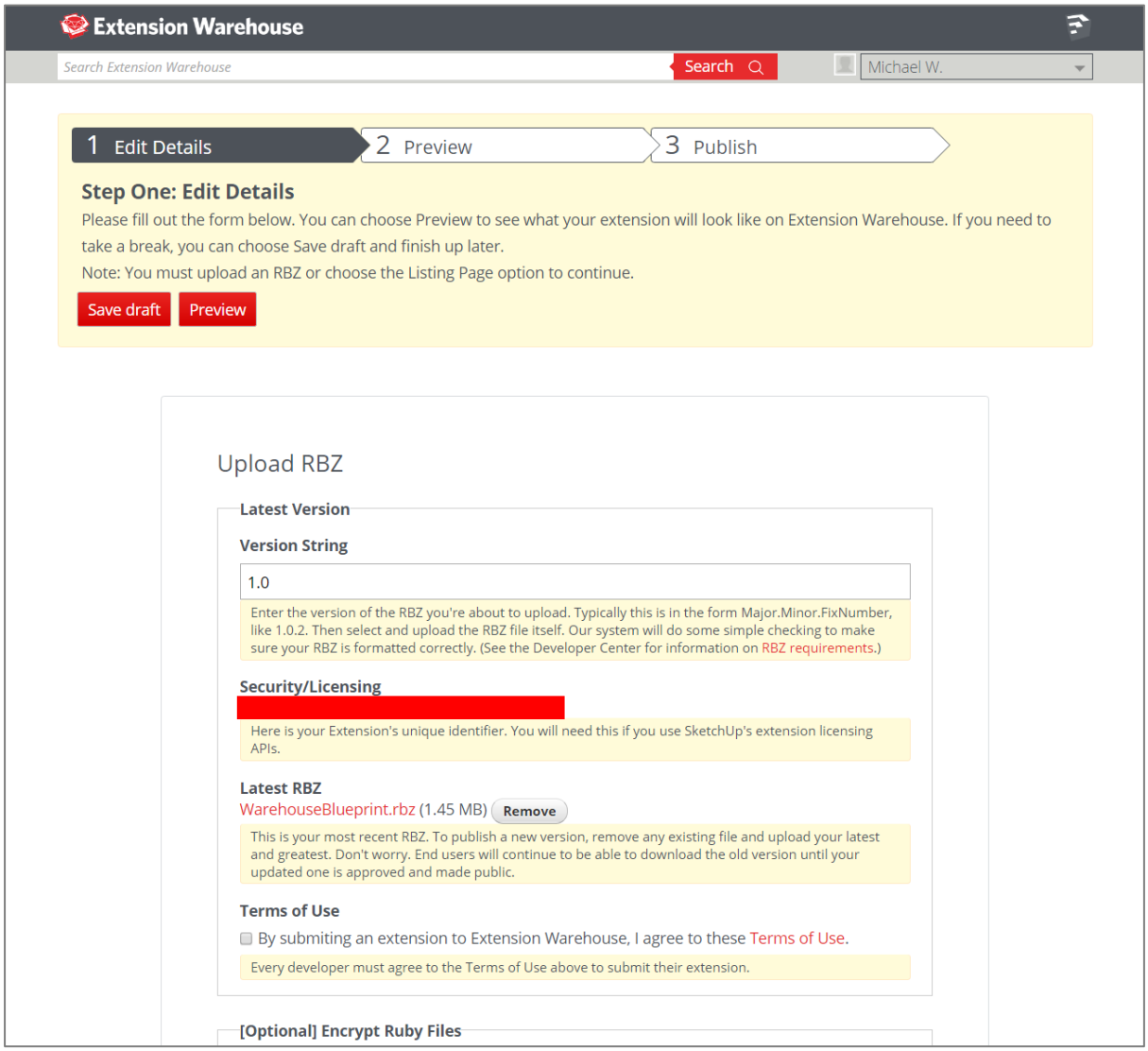
Add the rbz file and start upload. Select encrypt ruby files and click on sign the extension.

Download the rbs file and test it out.



a. https://extensions.sketchup.com/en/developer_center/extension_signature
b. Download into your own SketchUp to test it out.

9. Submit for review and publish.



Extension Warehouse

Search Extension Warehouse | Search | Michael W.

1 Edit Details | 2 Preview | 3 Publish

Step Two: Preview

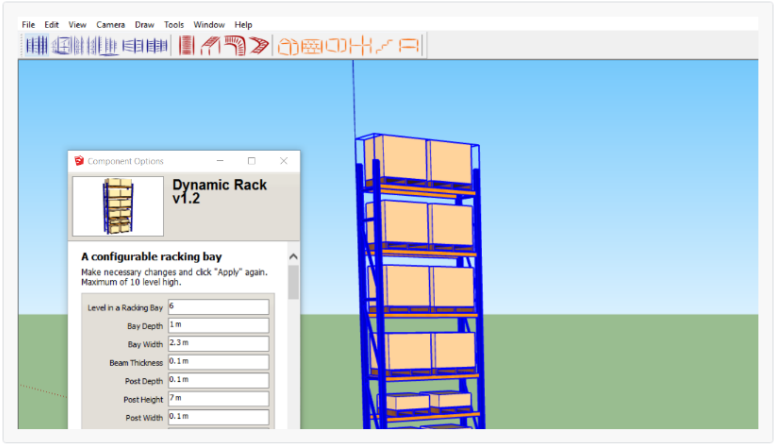
The preview below shows what the details page for your extension page will look like. From here you can either return to edit more, or publish it to Extension Warehouse. (Note: If you are uploading a new RBZ file, your extension will be subject to review prior to going live.)

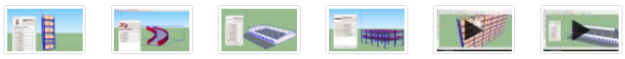
Edit Details | Publish

WarehouseBlueprint

A set of dynamic components which allow users to model a warehouse efficiently

Download





2 users

0 review

Size: 1.45 MB

Version: WarehouseBlueprint (1.0); May 27, 2017

Number of Views: 17

Category: Drawing, Productivity

Industry: Architecture, Education, Engineering, Other

SketchUp Compatibility: SketchUp 8, SketchUp 2013, SketchUp 2014, SketchUp 2015, SketchUp 2016, SketchUp 2017

OS Compatibility: Windows

Languages: English

WarehouseBlueprint

This extension consists of a number of dynamic components which allow users to model a warehouse efficiently.

This version is a trial version which consist of 3 components, namely the selective racking, the straight

Extension Installation Help

Extension Warehouse Help

Manage Store

An industrial engineer in the

10. Edit the script if necessary (from Sketchup team's feedback). Resubmit.

- 1st auto response mail from Extension Warehouse Team after submission.
- Will receive this mail minutes after clicking on the "Publish" button above.

> Michael W.,
> Thanks for your recent submission to publish WarehouseBlueprint to the Extension Warehouse. Your extension has been placed in our review queue. It is currently undergoing an automated review to verify it meets our basic file structure and extension requirements. You will receive an email letting you know when the automated review is complete. If your extension passes the automated review, our crack team of quality assurance folks will check to ensure that your extension meets our technical and security requirements.
> We'll try to keep you up to date with the progress of your submission at each phase of the review process. In the meantime, you can see the status of your submissions here: http://extensions.sketchup.com/user/[redacted]
> Thanks again!
> -Extension Warehouse Team

- Extension Warehouse Robot will check if the extension has issues. Will send a mail to developer describing the issues to be corrected in about 15 minutes after submission.

> Dear Developer,
> Your extension has failed our automated validation test. Please correct the following issue(s) and then resubmit your extension:
> - .rbs and .rbe file extensions are not allowed in the .rbz package. Please remove those files and include only unencrypted .rb files (and of course all other files your extensions needs). Select the type(s) of encryption you would like and we will encrypt your files for you. All .rb files, except for the root .rb file, will be encrypted.
>
> Thanks!
> -Extension Warehouse Robot

- If first stage of Extension Warehouse Robot passes, the next phase will be Extension Review Team.
- If there are issues with the review, developer will receive similar responses as below.
- The review will take a few days to a few weeks.
- You might need to explain the usage of DCFunctionsV1 here during the submission.

> Hello Michael W.,
> We've been reviewing your extension on the SketchUp Extension Warehouse. Thanks much for submitting it for review!
> During the review, we found a few issues that we'd like you to address:
> 1. Be kind to the undo stack. This includes wrapping a batch of changes into a single operation so that a single undo will roll back the batch of changes. Also avoid any changes that would mark the file as not saved that are not due to a user action, like modifying the model right after loading a file.
>
> Here are the notes from the reviewer:
> For the trial. The Undo operation should only be committed after a action has taken place. If an action is blocked, then there shouldn't be any actions on the undo stack.
>
> The name of this extension currently is "Extension for Warehouse Dynamic Components." It also sounds like a description rather than a title. Perhaps use "Warehouse Dynamic Components"?
> We'd love to include your extension on our warehouse, so if you'd address these items and re-submit it, we'll review it again and get it approved.
> The link to edit your extension.
> Thanks,
> Extension Review Team

- After resubmitting, assuming all the issues are ironed out.
- Developer will receive this email.

> Hello Michael W.,
> Hooray! We're pleased to inform you that your extension, WarehouseBlueprint, has made it through the review process and is now live on Extension Warehouse.
> On behalf of everyone on the SketchUp team, thank you for your contribution! We look forward to seeing what future wizardry you've got in store.
> The link to your extension.
> Thanks,
> Extension Warehouse Team

Remarks:

11. I have not fully understood the licensing system in the extension warehouse.
    a. What I did to walkaround this is to submit a trial version with limited functionalities.
    b. The full version is required to be downloaded from my own website.
        i. https://warehouseblueprint.com

12. A forum member has documented some steps for licensing in SketchUp Extension Warehouse.
    a. https://github.com/Eneroth3/Sketchup-Api-Licensing-Test