

# Yohan's SSS and Stagelist Tool

Wide-Preview Stage Select Screen for Project M and Legacy TE

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With credit to:

**David V. Kimball** – for making some stage previews, the templates, stage stat textures, and marketing materials.

**SOJ** – for the original stagelist tool, which served as a foundation for this tool.

**Liberty Ernie** – for the original stage expansion templates, from which several assets were reused.

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**Denz** – for his initiative and the design of the random and page buttons.

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**The PMDT** – for the vPM SSS and a game worth modding.

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**Sabre and Pegthaniel** – for aggregating the data of the vPM tourney stages, which is used in the stage stats.

**Filthy Casual** – for his reception and requests, which motivated expanding upon the stagelist tool.

## Contents

<b>1</b>	<b>Features</b>	<b>2</b>
1.1	Wide Previews	
1.2	Custom Models Everywhere	
1.3	Start-Alt Names for Legacy TE	
1.4	Stage Stats for Tourney Stages	
1.5	One Unified Stagelist Tool	
1.6	Filesize Optimizations	
1.7	HD Imagery for Dolphin	
1.8	Polished Top-Level Menus	
1.9	Bowser's Castle Swapped	
<b>2</b>	<b>Issues and Limitations</b>	<b>3</b>
2.1	Semap Filesize Limit	
2.2	Shake that C-Stick	
2.3	Trackless Stage Icons in My Music	
2.4	Saffron City and Pokemon Stadium 2	
2.5	Pseudo Random Stage Switch	
<b>3</b>	<b>Instructions</b>	<b>5</b>
3.1	Standard Stagelist	
3.2	Custom Stagelist w/o Stage Expansion	
3.3	Custom Stagelist w/ Stage Expansion	
<b>4</b>	<b>Further Customization</b>	<b>7</b>
4.1	Changing/Removing Stage Stats	
4.2	Changing What Stages the Stats Appear On	
4.3	Changing/Removing Start-Alt Names	
<b>5</b>	<b>Disclaimer</b>	<b>7</b>

# 1 Features

## 1.1 Wide Previews

This is what the pack is all about. Wide stage previews have been a hit before, most notably with the Smash4-styled SSS. But it's time we merge those sexy ratios with the look and feel of the rest of Project M's models. In engine, the new previews are a whopping  $312 \times 112$ , bigger than any previews before now.

Provided are two sets of new previews, representing both the Project M 3.6 and Legacy TE 2.0 stages. While modders with custom stages and alts will need to remake some of their imagery, templates have been provided to help make any new previews you make look like ours.

## 1.2 Custom Models Everywhere

While the wide previews are the main focus, everything else needed to be moved around to make them fit. There are subtle and not-so-subtle changes to the stage banner, screen name, alt text, rules, stage name, idle circles, game name, icon placements, collisions, and more.

Everything is full of little details, from the overhauled and newly animated random and page buttons designed by Denz, to how the preview shadow is used to help frame the preview, effectively increasing preview size. The franchise names have been centered to fit their new placement on the banner, the franchise logo has been given a new color and the Training Room now gets one. Everything is positioned with both 4:3 and 16:9 in mind.

## 1.3 Start-Alt Names for Legacy TE

A recurring complaint for Legacy TE 1.0 was that you couldn't tell what the base stage was for each of the tournament viable 1-for-1 start-alts. Well, wonder no longer. There are now start-alt names displayed above the start-alt's preview on the SSS's built for Legacy TE. These names use the same textures as the stage names on the banners, so added filesize is at a minimum. A guide for how to change them is included in this manual. These names, by default, only appear when the start-alt is not a 1-for-1 of the base stage.

## 1.4 Stage Stats for Tourney Stages

The most controversial new feature would be the stage stats. While they do add a bit of clutter, many tournament viable stages now have stage stats that appear next to their preview. Most competitive players already have a good feel for how each stage plays, but I've always enjoyed having numbers to back up that feeling. If you want a cleaner look, or feel that the stats disrupt gameplay balance, a guide for changing and removing these stage stats is included. The stats use the in-game unit of distance, and do not account for platforms, ghosts, or Randall:

- **Top B** – The distance from the main stage to the top blastzone.
- **Side B** – The average distance from the ledge to the side blastzone.
- **Width** – The distance between the two ledges of the main stage.

## 1.5 One Unified Stagelist Tool

With all of these new models, the new selmap quickly became incompatible with several existing customization tools. There have been two staple packs used by modders to customize their SSS's in the past: SOJ's stagelist tool and Liberty Earnie's stage expansion templates. Neither of these is directly compatible with the new wide previews anymore. But I want these selmaps to be usable, and so I've made one unified tool that can do everything you could do before. For those of you that've used SOJ's stagelist tool, the provided tool may seem familiar, and it can still be used in the same way as before. But don't be fooled, it's completely overhauled on the inside.

Select anywhere between 8 and 37 stages to be on each page. This means you can now have your tournament setlist on one page and all of the non-setlist stages on the second, as was recently shown off at Salty Juan 4. And if that's not enough stages, you can now add CUSTOM stage slots into the mix via the stage expansion. Select any number of stage slots to be CUSTOM, and the tool will auto-populate their locations and generate all of the necessary codes. No longer are you constrained to a template. You do you.

The tool features several formatting and bug fixes. Default stagelists are now separate between each of the two pages, meaning less work for you as you build your ideal SSS. And most importantly, the stage icon placements have been overhauled to work with new wide previews.

## 1.6 Filesize Optimizations

The provided selmaps are full of optimizations, and these optimizations go beyond Extended LLZ. There's removed unused imagery, deleted polygons; There's over 50 kilobytes of icon placement logic (numbers used by Brawl when unlocking stages) that've been cleaned up, all while adding even more placement options.

## 1.7 HD Imagery for Dolphin

For those of you using the Dolphin emulator with computers fast enough to support it, HD imagery for both sets of stage previews is included. We've also provided remapped HD textures for the edited Franchise names and the newly added stage stats. So feel free to copy those folders to *"Dolphin Emulator\Load\Textures\00000000"*

## 1.8 Polished Top-Level Menus

A must have in my opinion, this was actually a feature already included back in Legacy TE 1.0. But noone's read the credits, so it's worth pointing out. A while ago, David V. Kimball and I went through all of the top-level menu buttons and cleaned up all of the little nubs sticking out of them. This was an issue in vBrawl, but it became more noticeable in Project M against a darker background. The biggest culprits were the Classic Mode circle, the Subspace Emissary corner, and the Erase Data button. Over a dozen models in all. All of these fixes are now included in the top-level menus for Project M as well.

## 1.9 Bowser's Castle Swapped

Given the usage of Bowser's Castle in tournaments, it's widely considered favorable to switch the positions of Bowser's Castle Legal and Bowser's Castle with Thwomps. This has been done here. For players using Project M that would like to undo this switch and return to the vanilla layout, imagery is provided in the HD Imagery folder.

# 2 Issues and Limitations

## 2.1 Selmap Filesize Limit

Modders that have used the stage expansion in the past know that the *sc\_selmap.pac* had a strict file size limit:

1,214,283 bytes

Can I load a larger selmap? Yes. But can I do so in a nice, user-friendly way? Not yet. So the current filesize limit remains. The non-expansion selmaps have been filled, to bring as high a quality experience as I could. (Don't worry, there's still plenty of wiggle room for editing textures.) But if you are adding stages using the stage expansion, somethings will need to be given up in return, such as deleting Franchise imagery or lowering preview resolution. For your convenience, *"4x4\_black.png"* and *"4x4\_transparent.png"* are provided. I forget what they do.

But don't be mistaken, you can still have higher resolution images than ever before thanks to all of the optimizations. This limitation already existed, and is not new to this package.

## 2.2 Shake that C-Stick

I really hope that these selmaps improve your experiences, but they are a lot of work. When tinkering with these highly animated 3D objects, I only focused on certain components, and this didn't include the Z-axis. So feel free to be that person that wiggles the camera around on the stage select screen... it's just not as pretty as it could be.

## 2.3 Trackless Stage Icons in My Music

When using the stagelist tool, it is possible to introduce stages to the music menu that do not have music song lists. This includes Hannenbow, Training Room, and CUSTOM stages. Selecting these icons on the music menu will softlock your game. This was an issue with past tools aswell, and is nothing new. Fixing this in a generalized sense is hard, and out of scope for this tool.

Something to look into are the JOJI music codes. JOJI is an amazing Japanese coder, who has asked that his codes only be shared on his site. He has GCT codes that allow you to modify the tracklists of stages. This is an

advanced topic, and I haven't played with it myself, so please do not ping me about it. The provided tool uses the same music codes as the original stage expansion pack, for simplicity and user familiarity.

## 2.4 Saffron City and Pokemon Stadium 2

People using the stagelist tool may find that Saffron City and Pokemon Stadium 2's icons have swapped locations. This comes from there being a Project M code that swaps the tracklists for the Brawl Pokemon Stadium 1 and Brawl Pokemon Stadium 2 stage slots, which was done to give Project M's Pokemon Stadium 2 more music slots. The code does not carry over into the music menu. While this was not in issue in Project M, that was because Project M is very specific build. Their solution in the music menu was to swap the cosmetic imagery and swap the locations of the two stages by animation. But with the stagelist tool, the music menu does not know where these two icons will be, and cannot swap them properly.

This was an issue with the previous stagelist tool aswell, and is not new to this tool. It can fixed separately for each specific use, but is outside the scope of this tool. Do not be surprised, for similar reasons, if when using 21 or 22 stages on a page, there's a music menu icon or two that go missing or are swapped. This is all part of the Project M solution for Training Room and Hannenbow not having song lists.

## 2.5 Pseudo Random Stage Switch

When using the stage expansion system, no new stages are added to the random stage switch, and whether or not CUSTOM stages are included in Random cannot be controlled in-game. Similarly, stage striking interacts oddly with CUSTOM stages. This was an issue with the original stage expansion, and is outside the scope of this tool. Two options for the behavior of Random are presented in the instructions.

## 3 Instructions

There are three main use cases for this package. Using the new SSS without making any changes to the stagelists is ideal for most users. Customizing the stagelist without adding any new stage slots is ideal for tournament organizers that want to make their tournament stagelist appear as the default icons on Page 1. Customizing the stagelist to include brand new CUSTOM stage slots is ideal for modders that want to add as much content as they can.

### 3.1 Standard Stagelist

1. Decide if you want to use the Project M 3.6 aesthetic or the Legacy TE 2.0 aesthetic. This extends to the music names, and which alt-stages are on the previews. Start-alt names are disabled for Project M.
2. Rename the menumain and selmap of your choice to *“mu\_menumain.pac”* and *“sc\_selmap.pac”*.
3. Replace the existing files in your build with the renamed ones.  
They can be found in *“\projectm\pf\menu2\”* or *“\LegacyTE\pf\menu2\”*.

### 3.2 Custom Stagelist w/o Stage Expansion

1. Decide if you want to use the Project M 3.6 aesthetic or the Legacy TE 2.0 aesthetic. This extends to the music names, and which alt-stages are on the previews. Start-alt names are disabled for Project M.
2. Rename the menumain of your choice to *“mu\_menumain.pac”*.
3. Replace the existing file in your build with the renamed one.  
It can be found in *“\projectm\pf\menu2\”* or *“\LegacyTE\pf\menu2\”*.
4. Enter the stageTool directory. Rename the provided selmap of your choice to *“sc\_selmap.pac”* and replace the exiting file in your build. You do not want a selmap that includes *“\_expansion”*.
5. Run *“SSS\_customizer.html”* in your JavaScript enabled browser.
6. Select the number of stages you want to appear on each page. Then select which stages you want to appear in each location. It is assumed you will not select any CUSTOM stages. Click *“Generate Codes”*.
7. Open your text codeset, *“RSBE01.txt”*. It can be found in *“\codes\”* or *“\LegacyTE\”*. If you do not have a text codeset for your Project M build, one has been provided in the Codes and Codeset Management Pack (<http://smashbros.co/codespack>).
8. Use *ctrl+F* or similar search function and search for *“Custom Stage Select Screen”*.
9. Copy the generated code, and paste it over the Custom SSS code already in the text codeset, replacing it in its entirety.
10. Save the text codeset.
11. Drag and drop the text codeset over the *“gctconvert.exe”* executable. This will generate a new *“RSBE01.gct”* in the same directory as the dragged text codeset. You want to replace the GCT that is in your build.

### 3.3 Custom Stagelist w/ Stage Expansion

1. Decide if you want to use the Project M 3.6 aesthetic or the Legacy TE 2.0 aesthetic. This extends to the music names, and which alt-stages are on the previews. Start-alt names are disabled for Project M.
2. Enter the stageTool directory. Rename the menumain and selmap of your choice to “*mu\_menumain.pac*” and “*sc\_selmap.pac*”. You want to use files that include “\_expansion” in their names.
3. Replace the existing files in your build with the renamed ones.  
They can be found in “*\projectm\pf\menu2\*” or “*\LegacyTE\pf\menu2\*”.
4. Run “*SSS\_customizer.html*” in your JavaScript enabled browser.
5. Select the number of stages you want to appear on each page. Then select which stages you want to appear in each location. It is assumed you will select at least one CUSTOM stage. Click “Generate Codes”.
6. Open your text codeset, “*RSBE01.txt*”. It can be found in “*\codes\*” or “*\LegacyTE\*”. If you do not have a text codeset for your Project M build, one has been provided in the Codes and Codeset Management Pack (<http://smashbros.co/codespack>).
7. Use ctrl+F or similar search function and search for “Custom Stage Select Screen”.
8. Copy all of the generated codes, and paste them over the Custom SSS code already in the text codeset, replacing it in its entirety.
9. At this point, you get to make a decision on how the added CUSTOM stage slots you added will interact with the random button and the random stage switch, for which no new stage icons were added. You may either leave in or delete the “Enable Random Expansion Stages” code.
  - If you leave the code in, the random stage switch will be ignored and stage striking will do nothing. All stage slots, even CUSTOM ones, are eligible to be selected by Random.
  - If you delete the code the first many CUSTOM stage slots will never be included in Random. If you have many CUSTOM stage slots, at some point they will begin partnering with Project M stages. Any paired CUSTOM slot is included in Random if and only if its partner is. This extends to the page switch and stage striking.
10. Save the text codeset.
11. Drag and drop the text codeset over the “*gctconvert.exe*” executable. This will generate a new “*RSBE01.gct*” in the same directory as the dragged text codeset. You want to replace the GCT that is in your build.
12. Customize the imagery of your new selmap. Placeholder textures are included for the expansion stages. This process is largely unchanged from previous tools. Keep in mind the max filesize limit. The tiny images, “*4x4\_black.png*” and “*4x4\_transparent.png*” are provided for any textures to be nulled.
13. Don’t forget to add your stages; the game will crash without them. Placeholder copies of Brawl’s online waiting room are provided in “*\expansionBlankStages\*” folder.

## 4 Further Customization

Customizing the SSS is largely unchanged from before, and I will not be covering topics that remain unchanged. However, the new selmaps come with new features, and I will share how to modify the elements I added. The techniques used here can be applied to many other topics.

### 4.1 Changing/Removing Stage Stats

1. Open the *sc\_selmap.pac* in BrawlBox.
2. The stage stat textures are called “*MenSelmapStats.XX*” and can be found in *miscData[80] → Textures*.
3. Modify the textures, or delete them by replacing the textures with the provided “*4x4\_black.png*”.

### 4.2 Changing What Stages the Stats Appear On

1. Open the *sc\_selmap.pac* in BrawlBox.
2. Navigate to *miscData[80] → AnmTexPat → MenSelmapPreview → pasted\_\_stnameM → Texture0*.
3. The entries here correspond to the stage names that appear on the banner. Scroll through them, find the stage slot you want to be modify, and remember the *FrameIndex* for that stage slot.
4. Navigate to *miscData[80] → AnmTexPat → MenSelmapPreview → pasted\_\_stnamelogoM\_stats → Texture0*.
5. The entries here correspond to the stage stats. Go to the *FrameIndex* of the stage you want to modify, and rename the texture used on that frame to the texture you want to use. “*MenSelmapStats.00*” is a blank texture.

### 4.3 Changing/Removing Start-Alt Names

1. Open the *sc\_selmap.pac* in BrawlBox.
2. Navigate to *miscData[80] → AnmTexPat → MenSelmapPreview → pasted\_\_stnameM → Texture0*.
3. The entries here correspond to the stage names that appear on the banner. Scroll through them, looking for two things:
  - The number, “*XX*”, of the “*MenSelmapFrontStname.XX*” texture you want to use as a start-alt name.
  - The *FrameIndex* of the stage you want to modify the stat-alt name of.
4. Navigate to *miscData[80] → AnmTexPat → MenSelmapPreview → pasted\_\_stnameM\_start → Texture0*.
5. The entries here correspond to the start-alt names. Go to the *FrameIndex* of the stage you want to modify, and rename the texture used on that frame to the texture you want to use. “*MenSelmapFrontStname.00*” is a blank texture.
6. Navigate to *miscData[80] → AnmTexPat → MenSelmapPreview → pasted\_\_stnameshadowM\_start → Texture0*.
7. The entries here correspond to the start-alt name’s shadows. Go to the *FrameIndex* of the stage you want to modify, and rename the texture used on that frame to the same texture used before.

## 5 Disclaimer

This package is delivered on an as-is basis. That is to say, the author (and by extension everyone that is credited), is not accountable for the correctness or maintenance of this package. I welcome your feedback and suggestions. I may even make extensions if the demand is high. But this is a hobby, my time volunteered. I worked hard to put this package together, and it is my gift to you. As-is.

Additionally - I, Yohan1044, personally request that this stage tool and Wide SSS pack not be used for any build that is choosing to change vanilla Project M content with any sort of balance patch or gameplay modifications while still claiming to offer Project M gameplay.