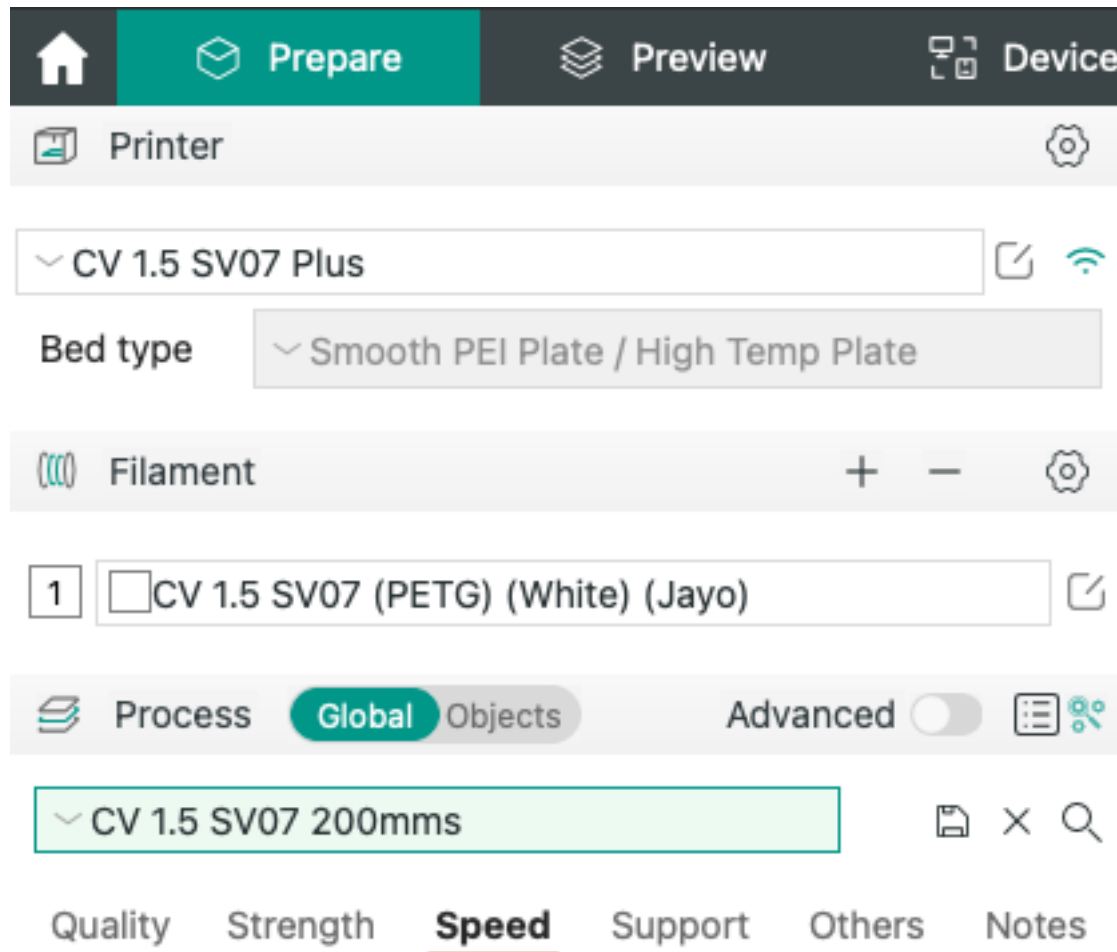# CV's OrcaSlicer Presets 1.5
Sovol SV07|Plus & SV06|Plus

With these extensive Setting Files you can use Sovol's **SV07|Plus** and the klipperized **SV06|Plus** with OrcaSlicer.

Support
....
Open words: I spend countless hours to make the presets not just "**prints somehow**", but to tune for **speed, accuracy, and lower fan noise**. If you want me to continue this project, and possible other printer settings in the future, please support. Currently I would not start such a project again, as the input-output-ratio is honestly a disaster.

So if my work supports you, please support me too:
• PayPal: https://www.paypal.com/paypalme/Morgennebel/

When you buy something, please use the Referral-Links in this document, at no additional cost.
• AliExpress: Jayo Filament

Thanks to everyone who has supported! Christian 🙂

Features

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- Nice and fast prints!

- **Printer Settings**
  - Presets for the **SV07 & Plus**.
  - Presets for the **SV06 & Plus**, [klipperized](). See SV06 notes further down.
  - No **G2/3/17 errors** - if you use the [Klipper Printer Additions](). See advice under "Requirements".
  - The nozzle does **not push the print model from the bed** (and mostly no loud "click"-sounds during print).
  - **Images and metadata** are displayed in Mainsail / fluidd, and on the printers display.
  - Works with Serial Object Printing, including a pictured Guide.
  - Works with **Object Exclusion**, including a **pictured Guide**. This works with normal printing "By layer" and also with serial printing "By object".

- **Process Settings**
  - From 250 down to 30 mm/s print speed.
  - Aiming for **universal usability** (as possible), high speed and accuracy.
  - **Slowing down** on smaller perimeters to **raise accuracy** for holes and other smaller geometry.
  - Very **nice supports**, sparse, fast to print, and easy to remove.
  - **For your reference**, the print file names contain all the important information so that you can always see later what exactly a print was printed with.

3DBenchy · 49m25s · CV 1.5 SV07 (PETG) (White) (Jayo) · CV 1.5 SV07 100mms · CV 1.5 SV07.gcode   3.1 MB

- **Filament Presets**
  - Support for specific brands/filaments (see further down).
  - Noise reduction: Cooling settings tuned for the lowest possible fan speed.
  - Print temperature tested & set.
  - Flow rate tested & set.
  - Retraction settings tested & set.

Requirements
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- Calibrate your printer's hardware flow (**Rotation Distance**).
  Link: Easy E-Steps & Rotation Distance Measurement Tool
  Without calibration, the filament's flow settings have no chance to work
  correctly, and you will likely **not get good prints**.

- **OrcaSlicer 1.7 or higher**
 Tested with OrcaSlicer 1.8.1.

- Klipper Printer Additions
  Not required, but strongly recommend:
    - They fix the G2/3/17 errors during the print.
    - Cures almost all first layer problems.
    - **Adaptive** + **Multiple Mesh** mode (you will love this).
    - **Faster** print-start, fast & **reliable** probing, **Helper Tools**...
    - Guides you greatly thru the **Rotation Distance** Calibration.
 The Orca-Presets are **by default ready to go** with the Klipper Printer
  Additions - the Start-G-Code is already set up.

How to import the OrcaSlicer Presets

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1. In OrcaSlicer, make sure you have chosen the "**Sovol SV07**" from the **built-in printer list**.
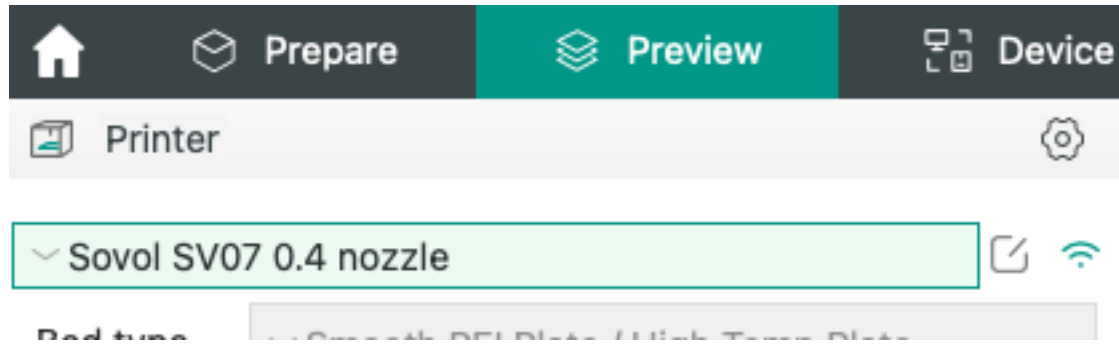
    1.1. If you have the SV07 **Plus**, chose the built-in SV07 **Plus** instead.
    1.2. If you have a **SV06**/Plus, accordingly...

2. In OrcaSlicer, chose from the menu "**File**" --> "**Import**" --> "**Import Configs**".

3. In the dialog, **multi-select** all desired files from the folder "Import these files into OrcaSlicer" to import them all at once.
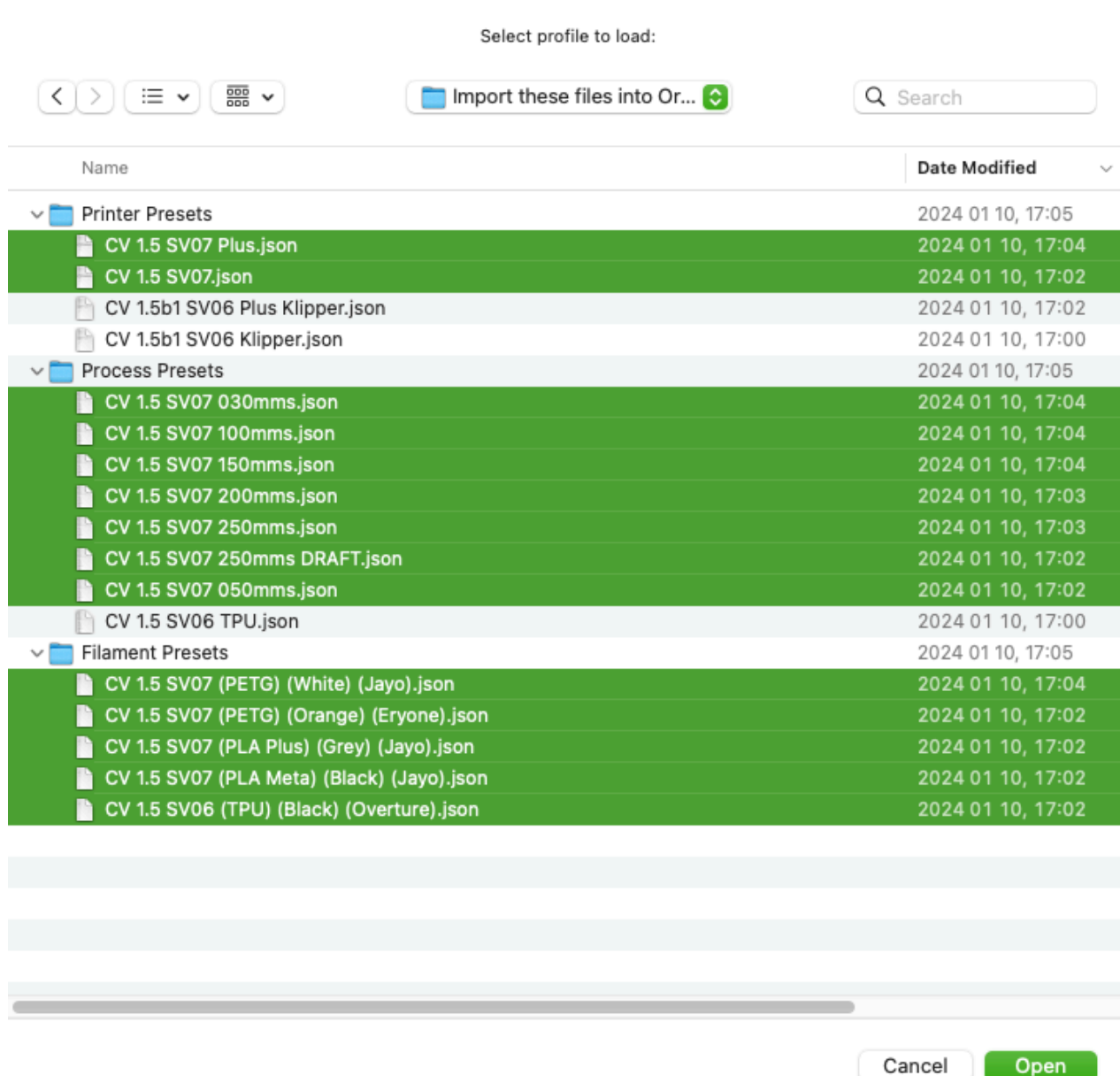
- The picture shows what you import if you have an **SV07|Plus**.

- If you have an **SV06|Plus** you import exactly the same, but chose for the Printer Presets the 06 presets, and from the Process Presets additionally the SV06 TPU preset.

- The Presets do not work? You get an error message? Please have a look into the Requirements.

Printer Settings List

....
Presets:
- CV v1.5 SV07
- CV v1.5 SV07 Plus
- CV v1.5b1 SV06 Klipper
- CV v1.5b1 SV06 Plus Klipper

If you don't use the Klipper Printer Additions, for some very strange reason ;-), out-comment them in the **start**- and **end-g-code section**, and enable the **standard calls**, which I have included there for your convenience.

Process (Print) Settings List

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- CV 1.5 SV07 030mms
- CV 1.5 SV07 050mms
- CV 1.5 SV07 100mms
- CV 1.5 SV07 150mms
- CV 1.5 SV07 200mms
- CV 1.5 SV07 250mms
- CV 1.5 SV07 250mms DRAFT - My most used. Very fast prototyping, and for functional parts that don't require high precision and optics. Still surprising good quality.
- CV 1.5 **SV06** TPU - A **TPU-Process** Preset for the klipperized SV06. Use it together with the **TPU-Filament** Preset.

Filament Presets
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I repeat, make really sure you have calibrated your printer's **Rotation Distance**. It is super-easy with the Guided Calibration in the [Klipper Printer Additions](#), and this measurement tool: [Easy E-Steps & Rotation Distance Measurement Tool](#)

PLA Filament Presets
- [Jayo PLA Meta Black](#) So far, my absolute favorite. Prints at full speed, walls are incredible even, the look is very nice, and it needs a LOT less cooling, leading to less fan noise.
- [Jayo PLA Plus Grey](#)

PETG Filament Presets
- [Jayo PETG White](#)
- [Eryone PETG Orange](#) I had to lower the "Volumetric speed limitation" to 4 mm3/s to get clean prints.

TPU Filament Presets
- [Overture TPU Black](#)

Prints great, zero stringing. Due to time-restrictions I've tested it with the SV06 only so far. The presets might work with the SV07 too. Try with the 50- or 30mms Process Preset.

Filament Settings Notes
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● **Cooling Performance**
I set the cooling settings so that the SV07's part fans TOGETHER can cool the Benchy properly, or at least almost properly (because for some filaments the last bit of perfection needs a LOT more fan speed = noise).
With the level I set it will be enough cooling for almost any other print, and a lot less noise on daily usage.

- **IF** you **ONLY** want to use the **small part fan**, then you will have to adapt the cooling settings, and of course you can't print smaller models with high speed. It depends on how short the layer times of your print are. The larger the print, the less critical is the cooling.

- If your filament (or print) **can't keep up with the speed**, you might chose a slower print setting, but you could also experiment with the "**Volumetric speed limitation**" in the Filament Setting.
    - Flow problems are well and quickly visible if you **print a full first layer** (printable Test-STL files are included in the download).
    - While the first layer prints, you can **experiment with the general speed slider** in Mainsail / fluidd, and on the printers display you can watch the actual flow rate in mm3/s...

Benchy Times
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For whatever reason, as soon as you hit the "Upload & Print" button, OrcaSlicer raises the estimated print time a bit.

(These times are likely not correct for version 1.5 - it's on the todo-list to re-test them)

- [Jayo PLA Meta Black](#)

```
Preset Name                     Real time| Orca's Predictions
  250mms (Draft):                 00:22  |  00:22  |  00:23
  250mms:                         00:27  |  00:28  |  00:29
  200mms:                         00:30  |  00:30  |  00:32
  150mms:                         00:34  |  00:34  |  00:35
  100mms:                         00:43  |  00:42  |  00:43
   50mms:                         01:04  |  01:19  |  01:21
   30mms:                         01:43  |  01:34  |  01:35
```

Sovol SV07/Plus Notes
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• The **hotend** can deliver filament up to **18-20 mm3/s** - and that's about 250 mm/s print speed. So it makes not really sense to try higher.

• **Shiny prints**: If you want shiny surfaces, print at **50 mm/s**. Shiny surfaces are not possible when printing fast. Personally I like matte very much, and I happily don't have to buy special matte filament anymore - which is on top often harder to print, and more brittle.

Sovol SV06/Plus Notes
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• The **SV06** has a **lot less cooling performance** than the SV07. Not only the auxiliary fan is missing, but also the normal part fan pushes less air than the SV07's.
If your print has enough layer time then this is not noticeable. But on small prints with shorter layer times you will need to raise the filament's cooling settings, and/or reduce the print speed.

• The **SV06** (**non-Plus**) hotend can deliver a maximum of about 12-14 mm3/s. You should set this limit in the Filament Settings if you want to print larger models fast. On small prints, like the Benchy, this is not an issue, since they don't reach that flow rate anyway.
• For the **SV06 Plus** you can leave the flow setting in any case untouched.

Disclaimer
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Use everything entirely at your own risk.

Happy printing!
Christian Vick