

05

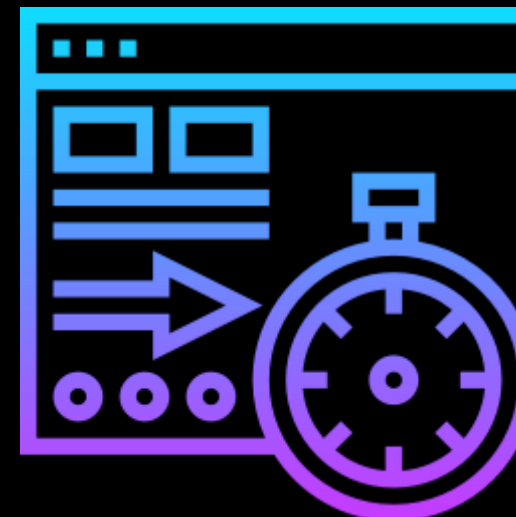
# Webui 운용 #1

PART-01

PIPELINE A

PIPELINE B

PIPELINE C



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1

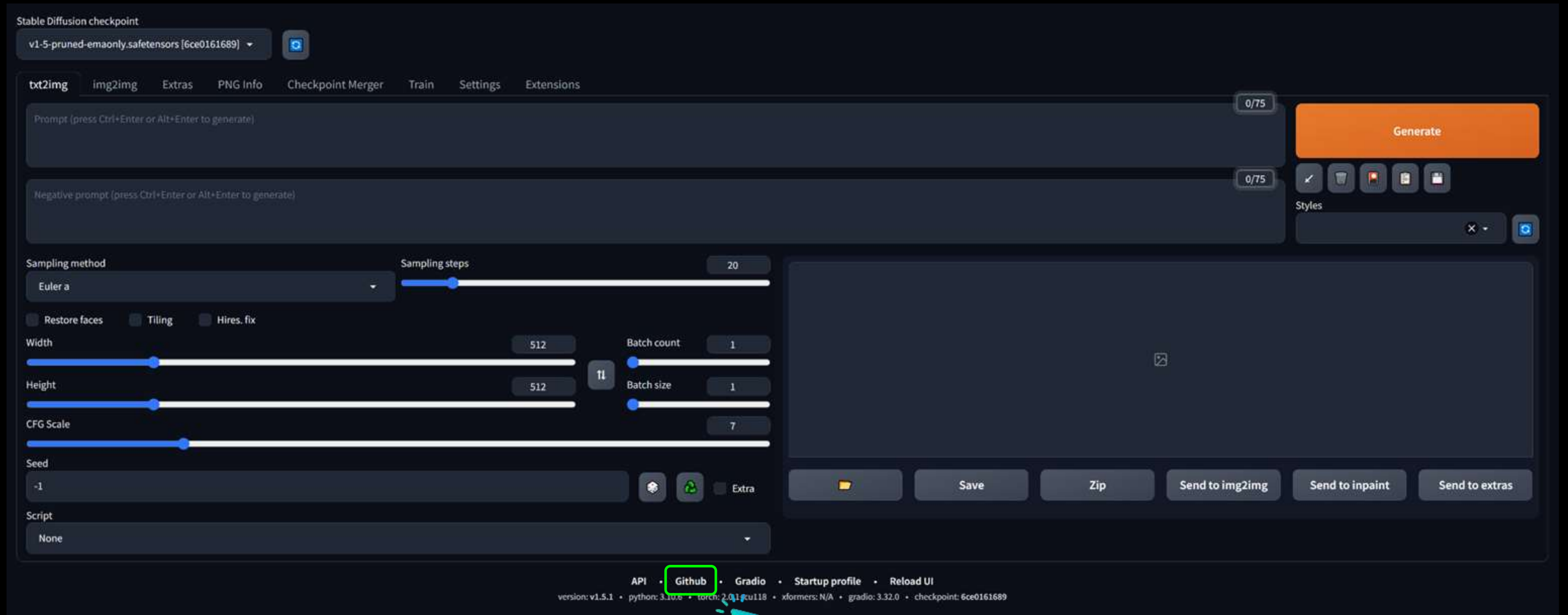
# Version 관리

버전 관리

1 - 01

# Automatic 1111 Version 관리


# 1-1.automatic 1111 Version 관리 > 업데이트 내용 확인



해당 글자를 클릭합니다.

# 1-1.automatic 1111 Version 관리 > 업데이트 내용 확인


Releases 13


 1.5.1 Latest


3 days ago

+ 12 releases

3 days ago

 AUTOMATIC1111

 v1.5.1

 68f336b

Compare

1.5.1 Latest

Minor:

- support parsing text encoder blocks in some new LoRAs
- delete scale checker script due to user demand

Extensions and API:

- add postprocess\_batch\_list script callback

Bug Fixes:

- fix TI training for SD1
- fix reload altclip model error
- prepend the pythonpath instead of overriding it
- fix typo in SD\_WEBUI\_RESTARTING
- if txt2img/img2img raises an exception, finally call state.end()
- fix composable diffusion weight parsing
- restyle Startup profile for black users
- fix webui not launching with --nowebui
- catch exception for non git extensions
- fix some options missing from /sdapi/v1/options
- fix for extension update status always saying "unknown"
- fix display of extra network cards that have <> in the name
- update lora extension to work with python 3.8



## 1-1.automatic 1111 Version 관리 > Webui Version 관리



```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.3208]
(c) Microsoft Corporation. All rights reserved.

E:\sd\webui>git pull
```

Webui 설치 폴더 > cmd모드에서 **git pull** 입력하고 Enter를 누릅니다.

1-1.automatic 1111 Version 관리 > Webui Version 관리

```

C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.3208]
(c) Microsoft Corporation. All rights reserved.

E:\sd\webui>git pull
remote: Enumerating objects: 1083, done.
remote: Counting objects: 100% (603/603), done.
remote: Compressing objects: 100% (99/99), done.
remote: Total 1083 (delta 534), reused 549 (delta 504), pack-reused 480
Receiving objects: 100% (1083/1083), 507.51 KiB | 18.80 MiB/s, done.
Resolving deltas: 100% (729/729), completed with 99 local objects.
From https://github.com/AUTOMATIC111/stable-diffusion-webui
   f865d3e1..68f336bd  master       -> origin/master
   * [new branch]      cmd_arg-disable-extensions -> origin/cmd_arg-disable-extensions
   * [new branch]      conserve-ram       -> origin/conserve-ram
   e5ca9877..a1eb4962  dev         -> origin/dev
   * [new branch]      extra-networks-always-visible -> origin/extra-networks-always-visible
   * [new branch]      hires_checkpoint   -> origin/hires_checkpoint
   f865d3e1..56236dfd  release_candidate -> origin/release_candidate
   21aec6f5..14cf434b  sdxl        -> origin/sdxl
   * [new tag]         v1.5.1            -> v1.5.1
   * [new tag]         v1.5.0            -> v1.5.0
   * [new tag]         v1.5.0-RC         -> v1.5.0-RC
   * [new tag]         v1.5.1-RC         -> v1.5.1-RC
Updating f865d3e1..68f336bd
Fast-forward
 .github/workflows/on_pull_request.yaml      | 8 +-
 .github/workflows/run_tests.yaml           | 9 +-
 .github/workflows/warns_merge_master.yml    | 19 +
 CHANGELOG.md                               | 90 +++++
 README.md                                  | 4 +
 extensions-builtin/LDSR/ldsr_model_arch.py  | 8 +-
 extensions-builtin/LDSR/scripts/ldsr_model.py | 20 +-
 extensions-builtin/Lora/extra_networks_lora.py | 38 +-
 extensions-builtin/Lora/lora.py             | 511 +-----
 extensions-builtin/Lora/lyco_helpers.py      | 21 +
 extensions-builtin/Lora/network.py           | 155 +++++++
 extensions-builtin/Lora/network_full.py      | 22 +
 extensions-builtin/Lora/network_hada.py      | 55 +++
 extensions-builtin/Lora/network_la3.py       | 30 ++
 extensions-builtin/Lora/network_lokr.py      | 64 +++
 extensions-builtin/Lora/network_lora.py      | 86 +++++
 extensions-builtin/Lora/networks.py          | 468 +++++++++++++++++++++++++++++++++++++
 extensions-builtin/Lora/preload.py           | 1 +
 extensions-builtin/Lora/scripts/lora_script.py | 87 ++-
 extensions-builtin/Lora/ui_edit_user_metadata.py | 216 ++++++++
 extensions-builtin/Lora/ui_extra_networks_lora.py | 80 +++-
 extensions-builtin/ScuNET/scripts/scunet_model.py | 30 +-
 extensions-builtin/SwinIR/scripts/swinir_model.py | 83 ++-
 .../canvas-zoom-and-pan/javascript/zoom.js   | 30 +-
 .../canvas-zoom-and-pan/scripts/hotkey_config.py | 1 +

```

# Webui update

# 1-1.automatic 1111 Version 관리 > Webui Version 관리

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.3208]
(c) Microsoft Corporation. All rights reserved.

E:\sd\webui>git pull
remote: Enumerating objects: 186, done.
remote: Counting objects: 100% (172/172), done.
remote: Compressing objects: 100% (84/84), done.
remote: Total 186 (delta 114), reused 124 (delta 88), pack-reused 14Receiving objects: 98% (183/186)
Receiving objects: 100% (186/186), 162.75 KiB | 13.56 MiB/s, done.
Resolving deltas: 100% (114/114), completed with 17 local objects.
From https://github.com/AUTOMATIC1111/stable-diffusion-webui
* [new branch]      cmd_arg-disable-extensions -> origin/cmd_arg-disable-extensions
   25004d4e..a1eb4962 dev -> origin/dev
* [new branch]      hires_checkpoint -> origin/hires_checkpoint
Already up to date.

E:\sd\webui>
```

Webui 최신 상태

# 1-1.automatic 1111 Version 관리 > Webui 이전 Version 받기

The screenshot shows the GitHub repository page for 'stable-diffusion-webui'. The repository is public and has 15 branches and 18 tags. The current branch is v1.4.1. The 'Switch branches/tags' dropdown menu is open, showing a list of tags from v1.3.1 to v1.5.1. The tag v1.4.1 is selected. The main content area shows a list of commits, including 'Cross attention optimization', 'disable EMA weights for instructpix2pix model', 'add embeddings dir', 'Formatting code with Prettier', 'delete the submodule dir', 'link footer API to Wiki', 'Merge pull request #11294', 'Remove old localizations', 'Add support for the Variations models', 'add queue lock for refresh-checkpoints', 'Split Outpainting MK2 mask blur into X and Y components', and 'Overhaul tests to use py.test'. The right sidebar shows the 'About' section with tags like 'web', 'ai', 'deep-learning', 'torch', 'pytorch', 'unstable', 'image-generation', 'gradio', 'diffusion', 'upscaling', 'text2image', 'image2image', 'img2img', 'ai-art', 'txt2img', and 'stable-diffusion'. It also shows the 'Releases' section with 13 releases, the latest being 1.5.1 (3 days ago).

stable-diffusion-webui Public

v1.4.1 15 branches 18 tags

Go to file <> Code

About

Stable Diffusion web UI

web ai deep-learning torch  
pytorch unstable image-generation  
gradio diffusion upscaling  
text2image image2image img2img  
ai-art txt2img stable-diffusion

Readme  
AGPL-3.0 license  
Activity  
94.1k stars  
818 watching  
18.6k forks  
Report repository

Releases 13

1.5.1 Latest  
3 days ago  
+ 12 releases

Switch branches/tags

Find a tag

Branches Tags

v1.5.1  
v1.5.1-RC  
v1.5.0  
v1.5.0-RC  
✓ v1.4.1  
v1.4.0  
v1.4.0-RC  
v1.3.2  
v1.3.2-RC  
v1.3.1

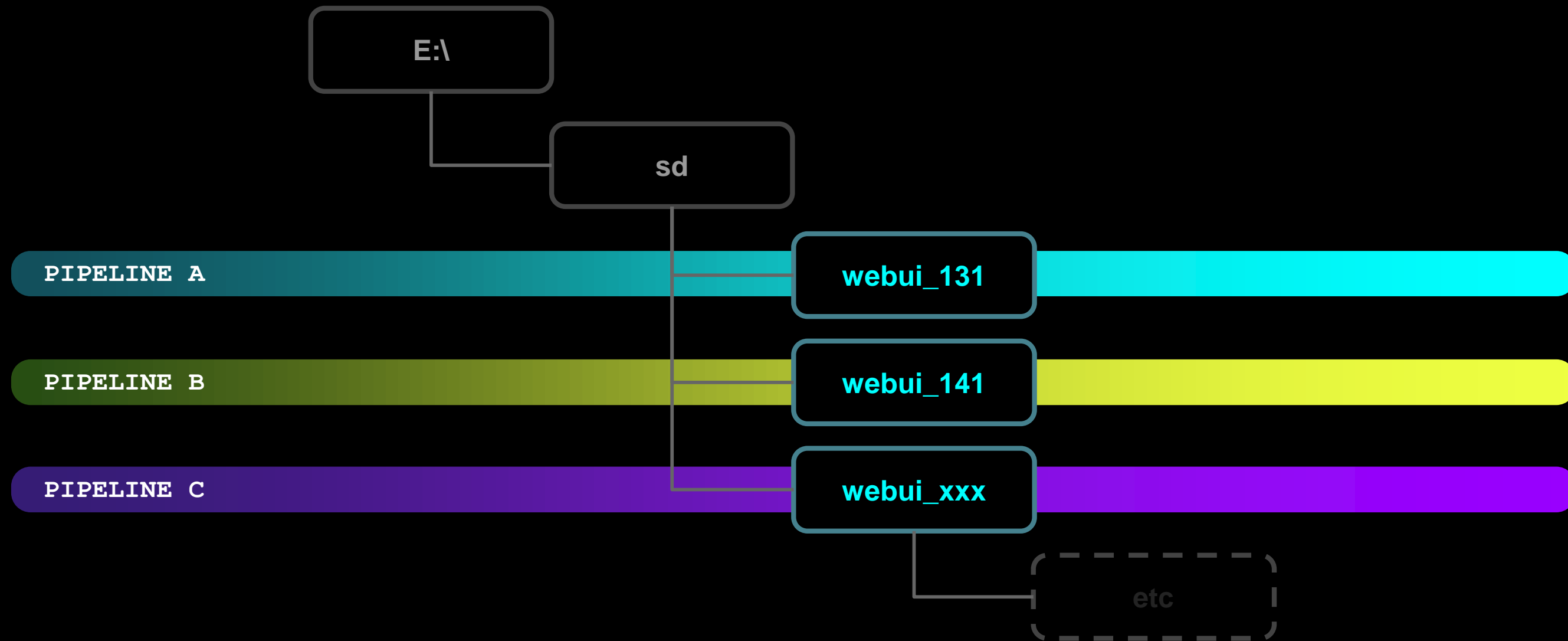
View all tags

test  
textual\_inversion\_templates  
.eslintignore

Cross attention optimization last month  
disable EMA weights for instructpix2pix model, whcih should get memor... 6 months ago  
add embeddings dir 10 months ago  
Formatting code with Prettier last month  
delete the submodule dir (why do you keep doing this) 9 months ago  
link footer API to Wiki when API is not active last month  
Merge pull request #11294 from zhttylz/Fix\_Typo\_of\_hints.js last month  
Remove old localizations from the main repo. 8 months ago  
Add support for the Variations models (unclip-h and unclip-l) 4 months ago  
add queue lock for refresh-checkpoints 3 weeks ago  
Split Outpainting MK2 mask blur into X and Y components last month  
Overhaul tests to use py.test 2 months ago  
hypernetwork training mk1 9 months ago  
Add basic ESLint configuration for formatting 2 months ago



## 1-1.automatic 1111 Version 관리 > Webui 여러 버전 관리하기



(주의) 버전 업데이트는 Extension 호환성을 확인하면서 진행하세요.

1-1.automatic 1111 Version 관리 > Webui 여러 버전 관리하기






1 - 02

# Extension Version 관리 (Webui)



# 1-2.Extension Version 관리 > Webui 인터페이스 업데이트

Stable Diffusion checkpoint

v1-5-pruned-emaonly.safetensors [6ce0161689] 

txt2img img2img Extras PNG Info Checkpoint Merger Train System Info Settings **Extensions**

2 Available Install from 1 Backup/Restore

**Apply and restart UI** **Check for updates** Disable all extensions ☒ none ☐ extra ☐ all

Time taken: 3.1 sec.

A: 2.04 GB, R: 2.05 GB, Sys: 4.7/23.9883 GB (19.5%)

<input checked="" type="checkbox"/> Extension	URL	Branch	Version	Date	Update
<input checked="" type="checkbox"/> a1111-sd-webui-tagcomplete	<a href="https://github.com/DominikDoom/a1111-sd-webui-tagcomplete.git">https://github.com/DominikDoom/a1111-sd-webui-tagcomplete.git</a>	main	5640a438	Thu May 11 19:18:09 2023	<input checked="" type="checkbox"/> new commits
<input checked="" type="checkbox"/> sd-extension-system-info	<a href="https://github.com/vladmandic/sd-extension-system-info.git">https://github.com/vladmandic/sd-extension-system-info.git</a>	main	21d204a5	Mon May 8 21:29:21 2023	<input checked="" type="checkbox"/> new commits
<input checked="" type="checkbox"/> sd-webui-controlnet	<a href="https://github.com/Mikubill/sd-webui-controlnet.git">https://github.com/Mikubill/sd-webui-controlnet.git</a>	main	356fd3c0	Sun May 14 02:47:11 2023	<input checked="" type="checkbox"/> new commits
<input checked="" type="checkbox"/> LDSR	built-in	None		Sun Jul 30 16:50:51 2023	
<input checked="" type="checkbox"/> Lora	built-in	None		Sun Jul 30 16:50:51 2023	
<input checked="" type="checkbox"/> ScuNET	built-in	None		Sun Jul 30 16:50:51 2023	
<input checked="" type="checkbox"/> SwinIR	built-in	None		Sun Jul 30 16:50:51 2023	
<input checked="" type="checkbox"/> canvas-zoom-and-pan	built-in	None		Sun Jul 30 16:50:51 2023	
<input checked="" type="checkbox"/> extra-options-section	built-in	None		Sun Jul 30 16:50:51 2023	
<input checked="" type="checkbox"/> mobile	built-in	None		Sun Jul 30 16:50:51 2023	
<input checked="" type="checkbox"/> prompt-bracket-checker	built-in	None		Sun Jul 30 16:50:51 2023	

API • Github • Gradio • Startup profile • Reload UI

version: v1.5.1 • python: 3.10.6 • torch: 2.0.1+cu118 • xformers: N/A • gradio: 3.32.0 • checkpoint: 6ce0161689

## 1-2.Extension Version 관리 > Webui 인터페이스 업데이트

안전하게 cmd 및 Webui를 종료하고 재시작 하세요.

일부 모델은 재실행 과정에서 추가 Model 혹은 확장 라이브러리가 설치되거나 컴파일 될 수 있습니다.

## 1-2.Extension Version 관리 > Webui 인터페이스 업데이트

안전하게 cmd 및 Webui를 종료하고 재시작 하세요.

일부 모델은 재실행 과정에서 추가 Model 혹은 확장 라이브러리가 설치되거나 컴파일 될 수 있습니다.

## 1-2.Extension Version 관리 > 주의사항

webui.bat (기본 실행)

webui-user.bat (고급 옵션 실행)

## 1-2.Extension Version 관리 > 주의사항

webui.bat (webui 설치 가능)

webui-user.bat (webui 설치 및 업데이트 불가)



1 - 03

# Extension Version 관리 (cmd)

원하는 것만 Webui 시작 전에 업데이트할 수 없을까요?



# 1-3.Extension Version 관리 > Git > 간편설치

```
C:\Windows\System32\cmd.exe

E:\sd\webui\extensions\sd-webui-controlnet>git pull
From https://github.com/Mikubill/sd-webui-controlnet
 356fd3c..5ae9b4a  main    -> origin/main
Updating 356fd3c..5ae9b4a
Fast-forward
 .github/ISSUE_TEMPLATE/bug_report.yml      | 9 +-
 .gitignore                                  | 4 +
 README.md                                   | 4 +-
 annotator/lama/__init__.py                  | 58 +
 annotator/lama/config.yaml                  | 157 +++
 annotator/lama/saicinpainting/__init__.py   | 0
 annotator/lama/saicinpainting/training/__init__.py | 0
 .../lama/saicinpainting/training/data/__init__.py | 0
 .../lama/saicinpainting/training/data/masks.py | 332 ++++++
 .../saicinpainting/training/losses/__init__.py | 0
 .../saicinpainting/training/losses/adversarial.py | 177 +++++
 .../saicinpainting/training/losses/constants.py | 152 +++
 .../training/losses/distance_weighting.py     | 126 +++
 .../training/losses/feature_matching.py       | 33 +
 .../saicinpainting/training/losses/perceptual.py | 113 ++
 .../saicinpainting/training/losses/segmentation.py | 43 +
 .../saicinpainting/training/losses/style_loss.py | 155 +++
 .../saicinpainting/training/modules/__init__.py | 31 +
 .../lama/saicinpainting/training/modules/base.py | 80 ++
 .../training/modules/depthwise_sep_conv.py    | 17 +
 .../saicinpainting/training/modules/fake_fakes.py | 47 +
 .../lama/saicinpainting/training/modules/ffc.py | 485 ++++++++
 .../training/modules/multidilated_conv.py     | 98 ++
 .../saicinpainting/training/modules/multiscale.py | 244 +++++
 .../saicinpainting/training/modules/pix2pixhd.py | 669 ++++++++
 .../training/modules/spatial_transform.py     | 49 +
 .../training/modules/squeeze_excitation.py    | 20 +
 .../saicinpainting/training/trainers/__init__.py | 29 +
 .../lama/saicinpainting/training/trainers/base.py | 293 +++++
 .../saicinpainting/training/trainers/default.py | 175 +++++
 .../training/visualizers/__init__.py          | 15 +
 .../saicinpainting/training/visualizers/base.py | 73 ++
 .../saicinpainting/training/visualizers/colors.py | 76 ++
 .../training/visualizers/directory.py         | 36 +
 .../saicinpainting/training/visualizers/noop.py | 9 +
 annotator/lama/saicinpainting/utils.py        | 174 +++
 annotator/openpose/__init__.py               | 68 +-
 annotator/openpose/body.py                   | 4 +-

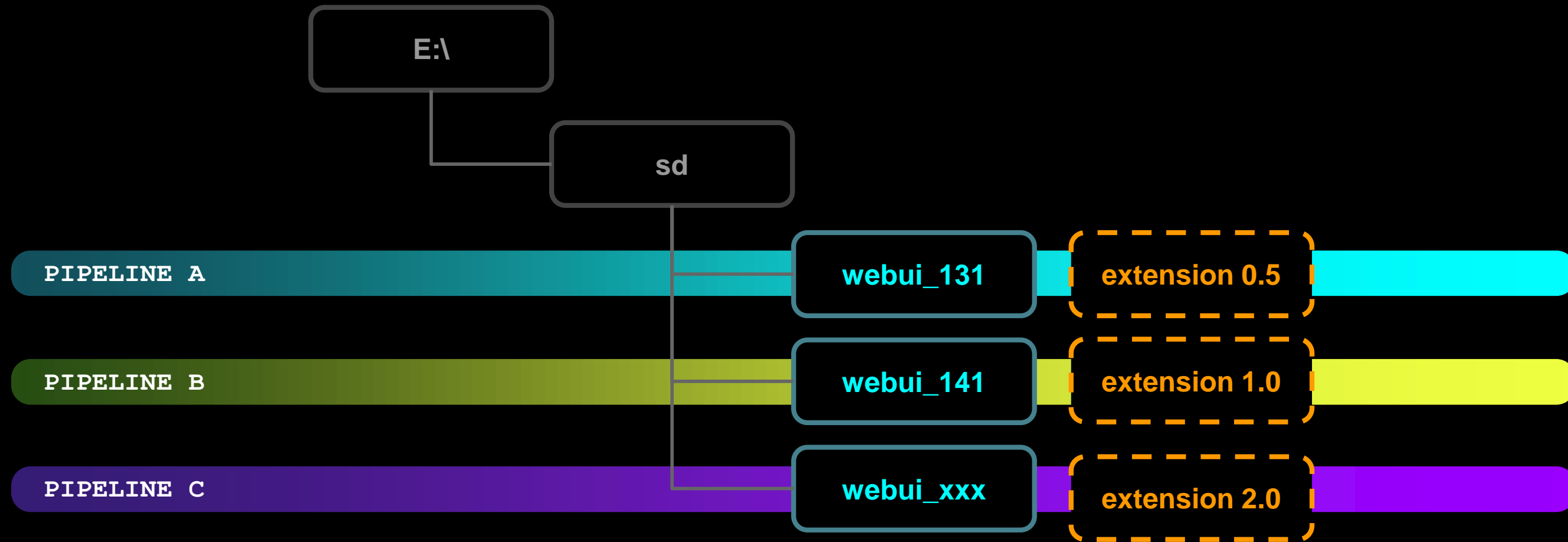
```

각 설치 Extension 폴더 > cmd > **git pull**

1-3.Extension Version 관리 > Git > 간편설치



## 1-3.Extension Version 관리 > Git > 간편설치



U-NET에 직접 작동하는 Extension의 경우 버전별 모델을 남기는 것을 추천합니다.

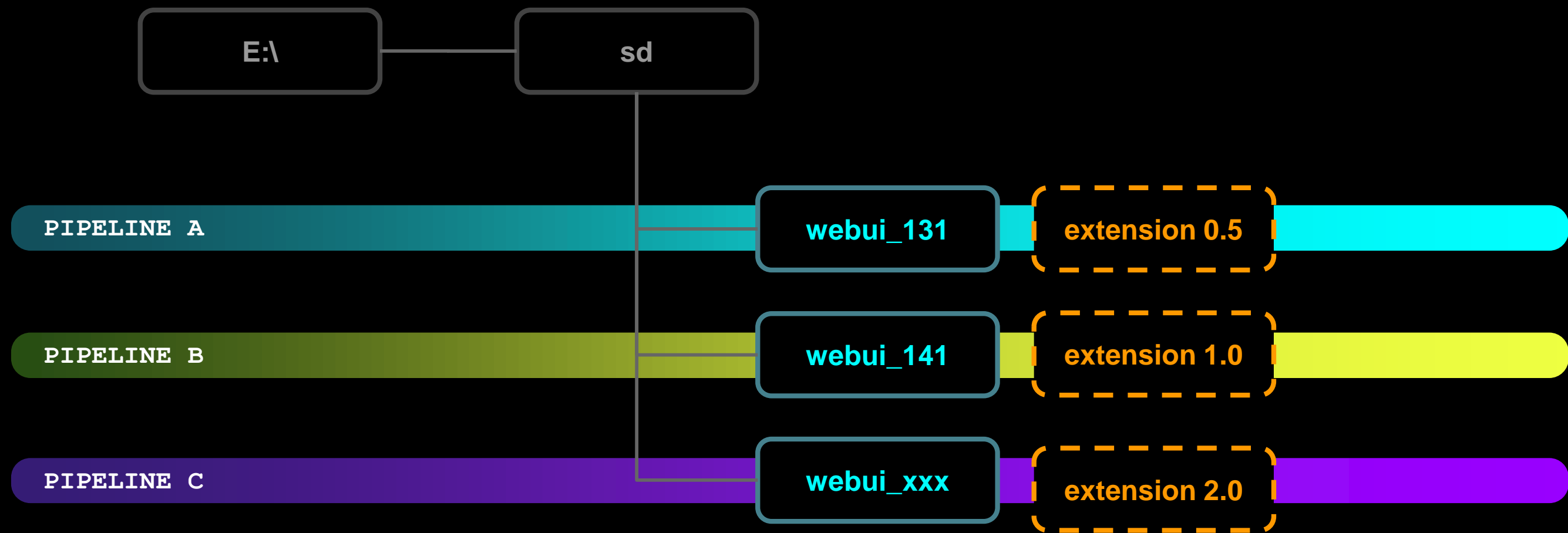


2

mkLink

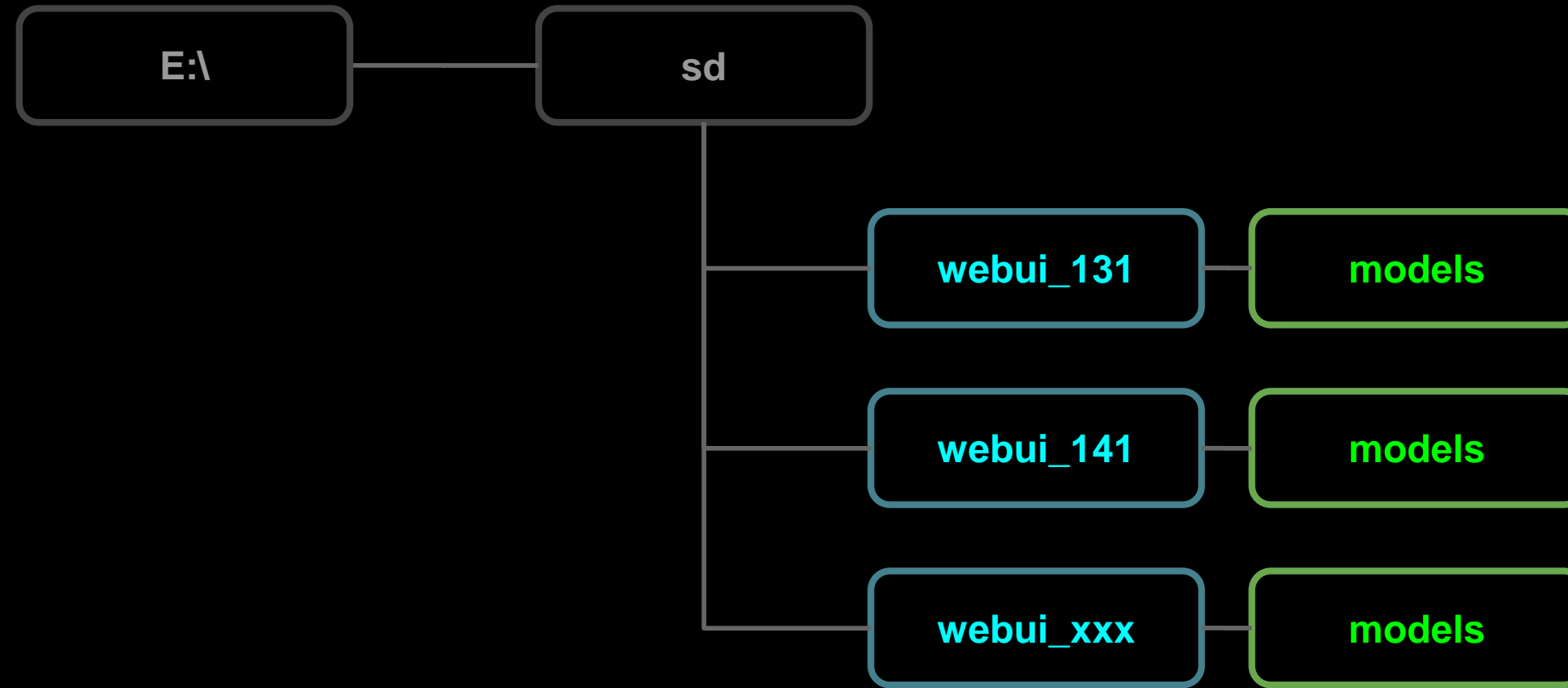
mkLink

2.mkLink



필요 버전 단위로 폴더를 관리하면 모델폴더 용량이 엄청 많아지는데요?

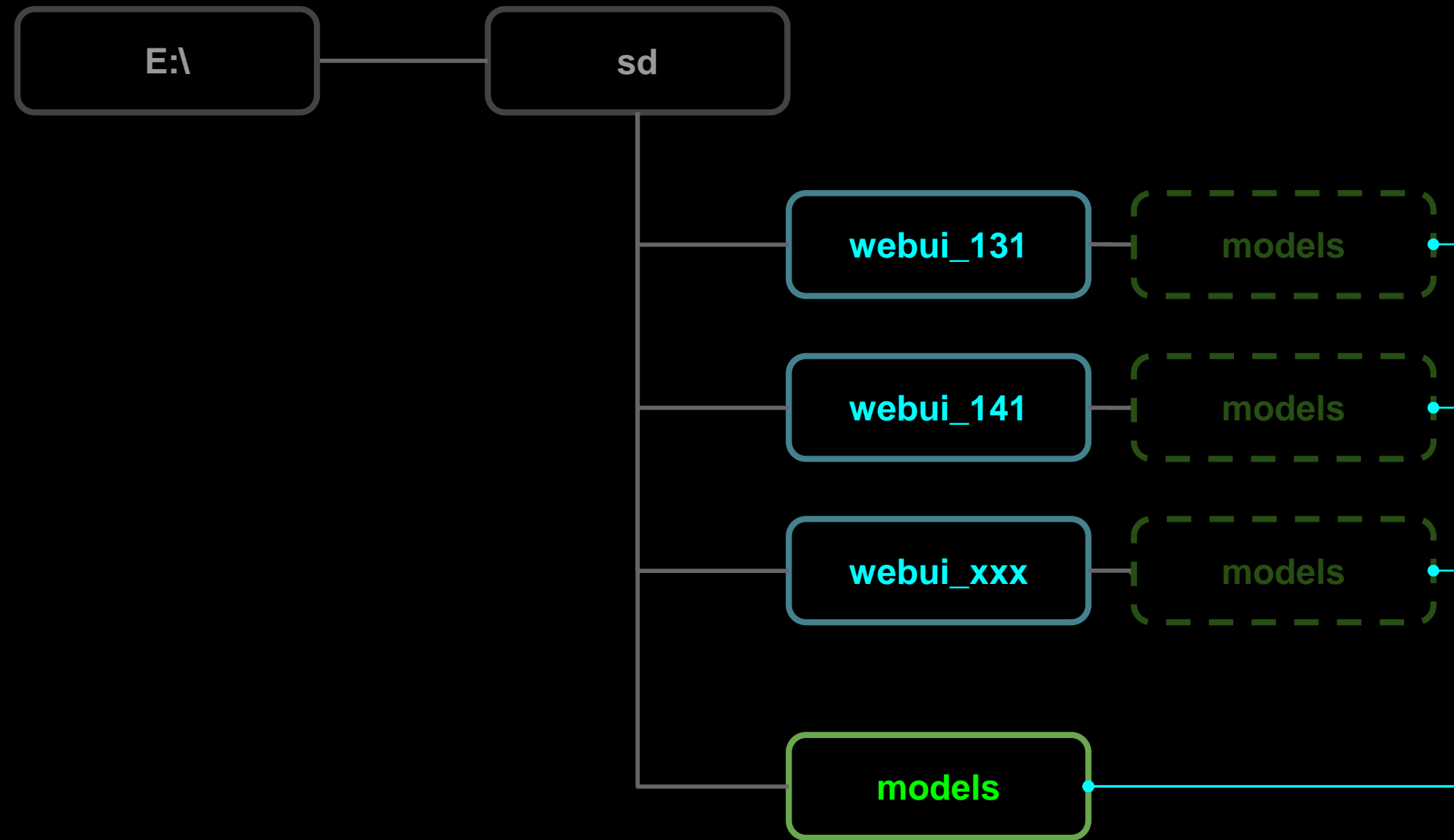
## 2.mkLink



필요 버전 단위로 폴더를 관리하면 **모델 폴더 용량**이 엄청 많아지는데요?

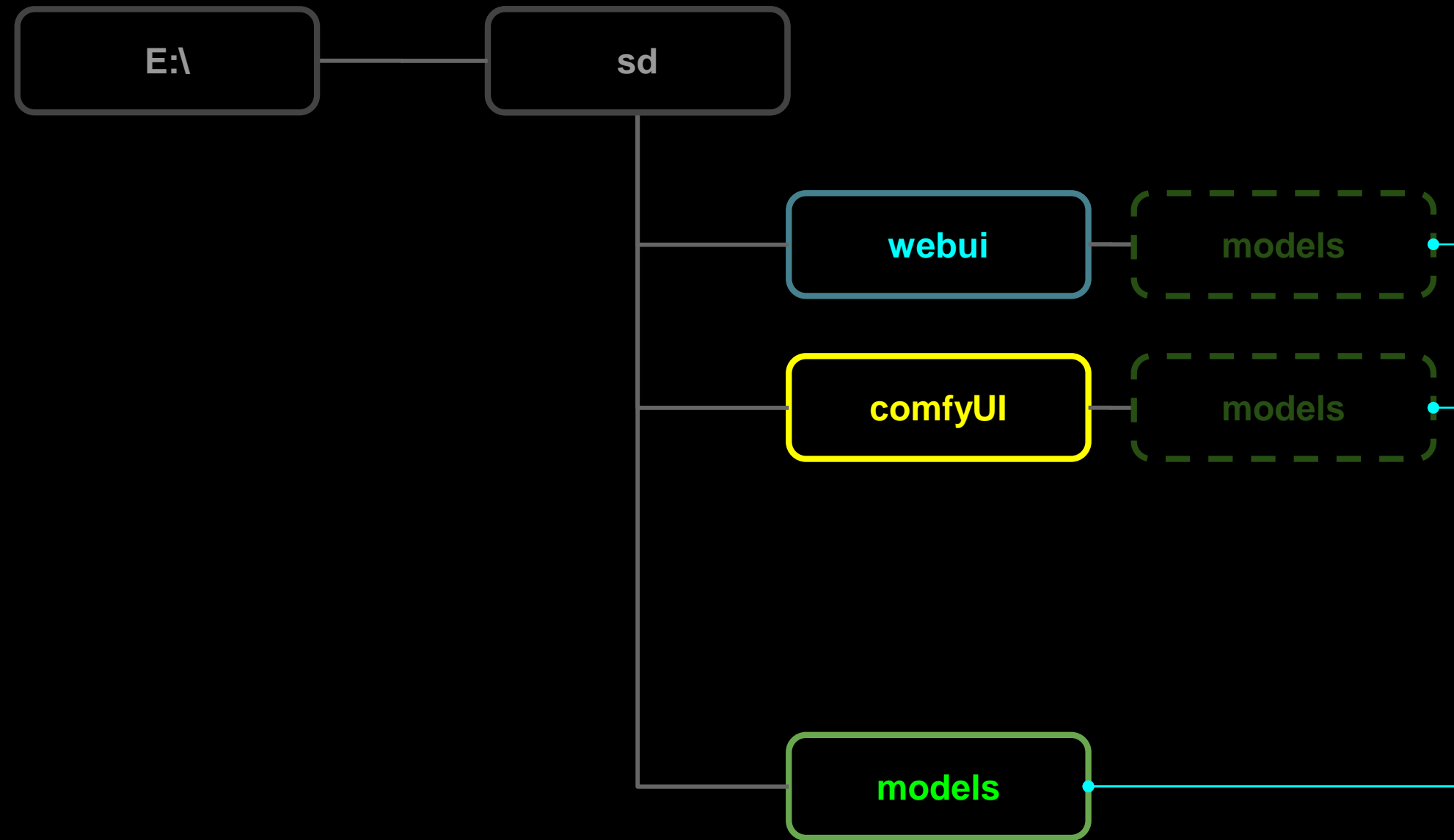


## 2.mkLink



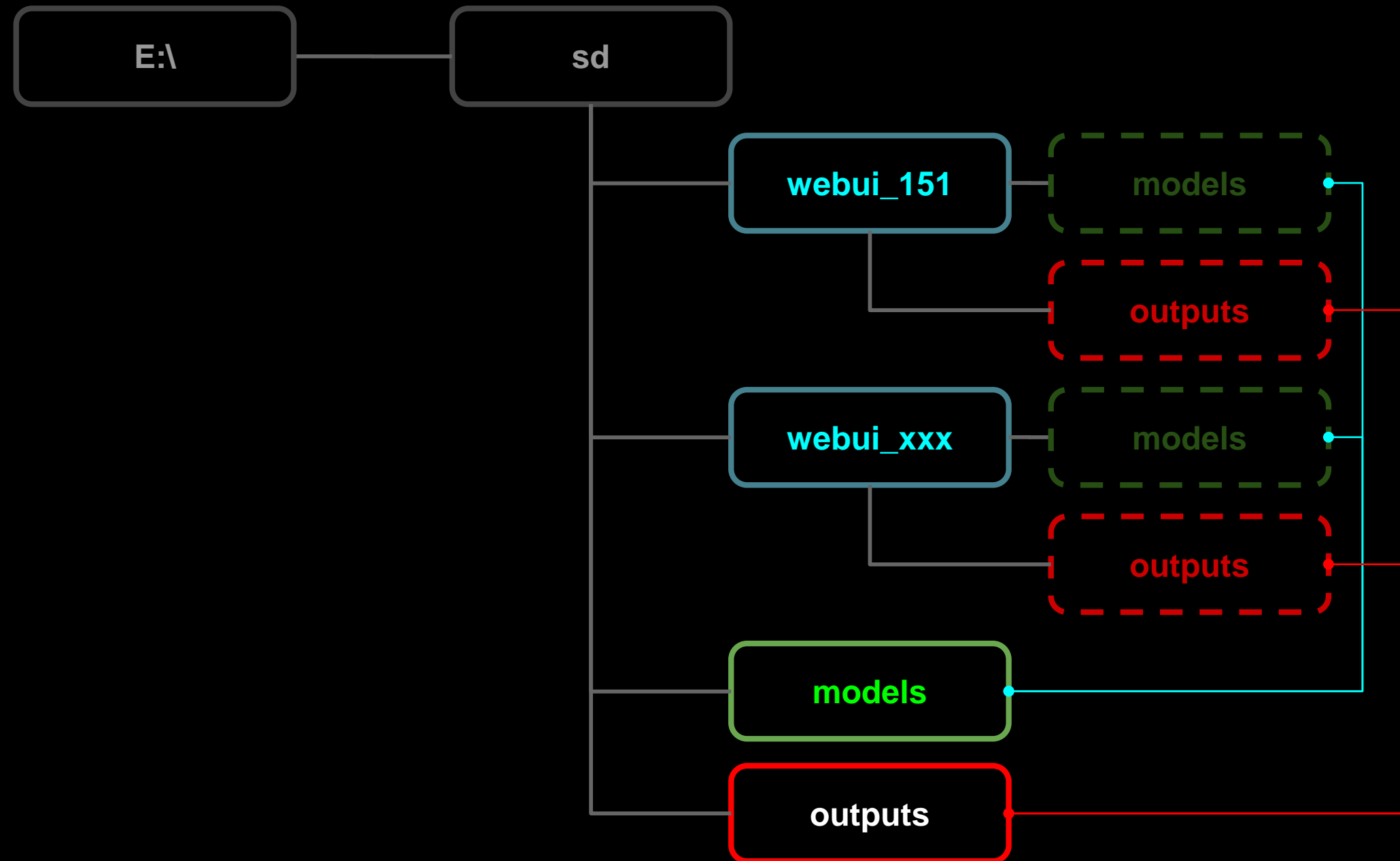
한 곳에서 관리할 수 있다면?

## 2.mkLink



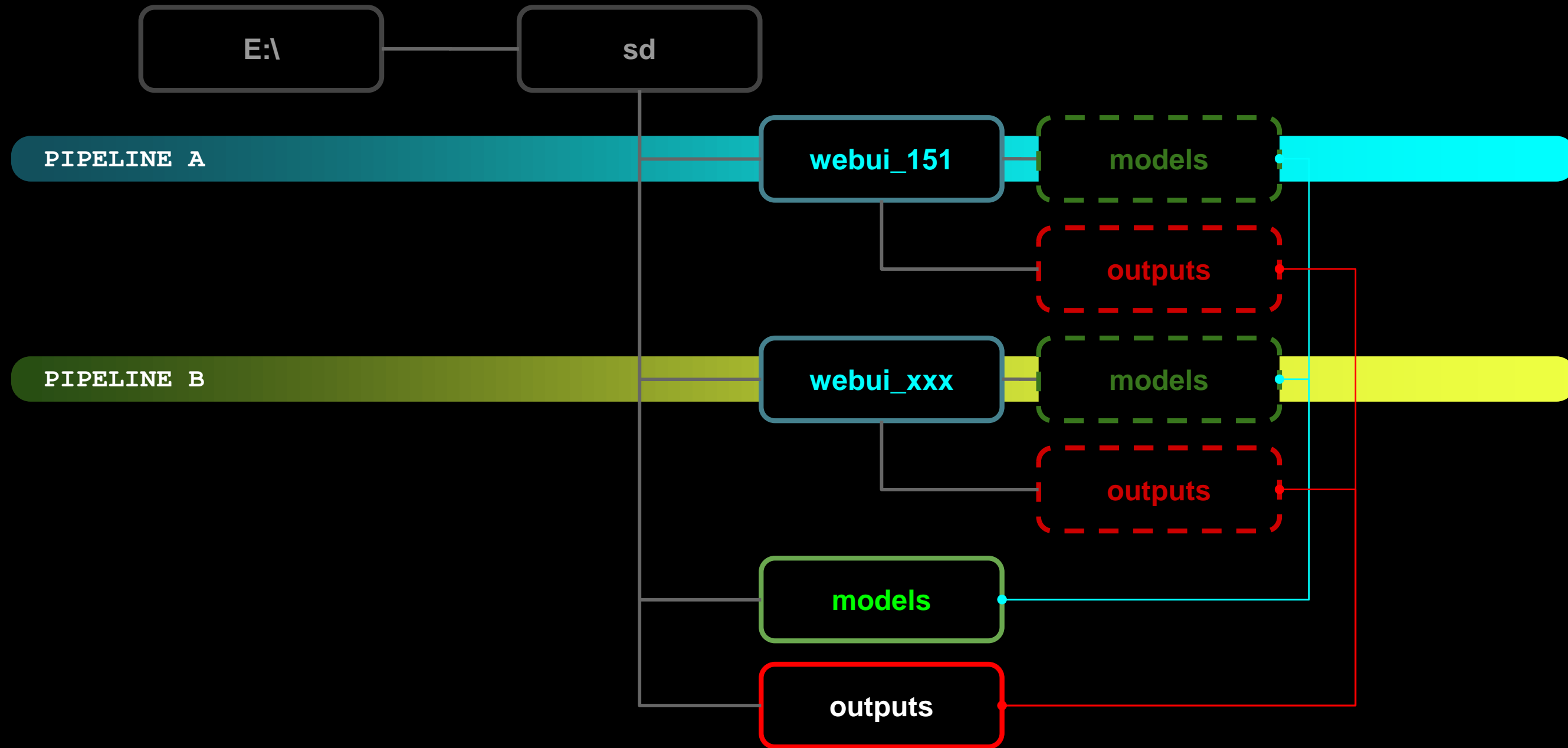
다른 Webui에서도 하나를 사용할 수 있다면?

## 2.mkLink



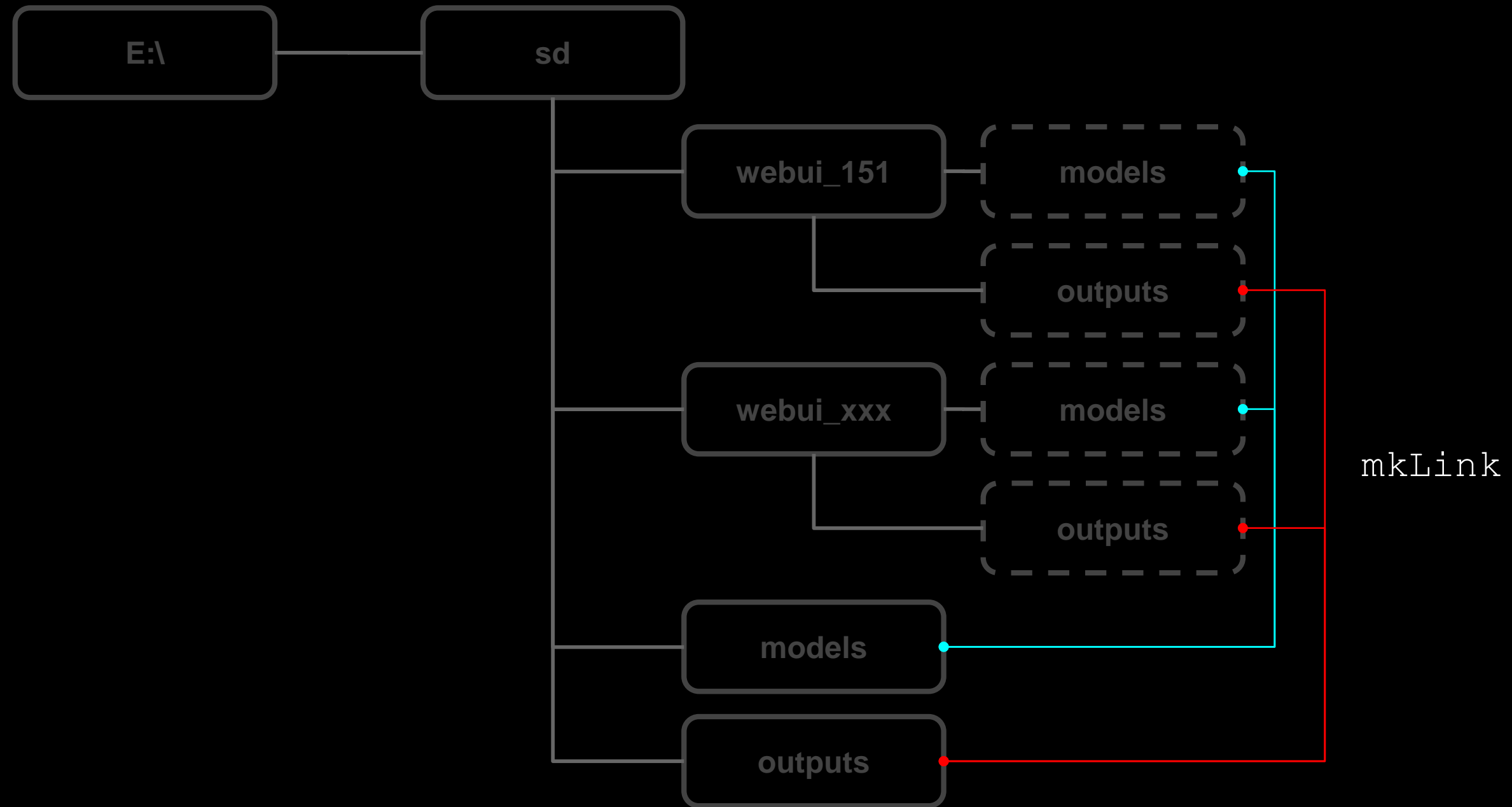
각 셋팅별 결과를 한 곳에서 관리할 수 있다면?

## 2.mkLink



각 Pipeline 환경 셋팅 값을 유지할 수 있습니다.

## 2.mkLink



서로 다른 위치의 폴더를 원본 대신하여 연결합니다.



2 - 01

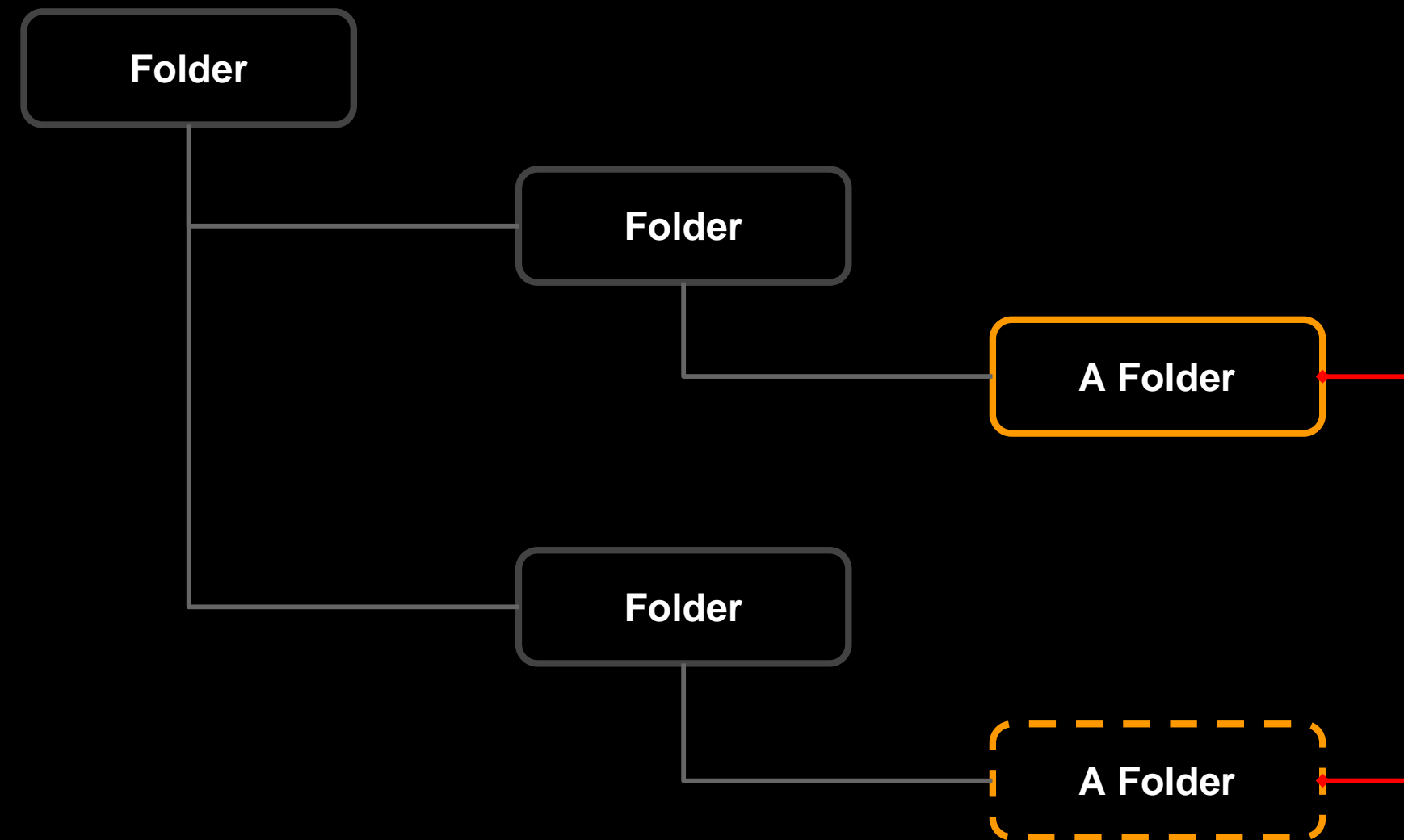
# mkLink 개념

## 2-1.mkLink개념

NTFS파일 시스템 기반에서 특정 파일이나 폴더에 대하여 링크 연결



## 2-1.mkLink개념



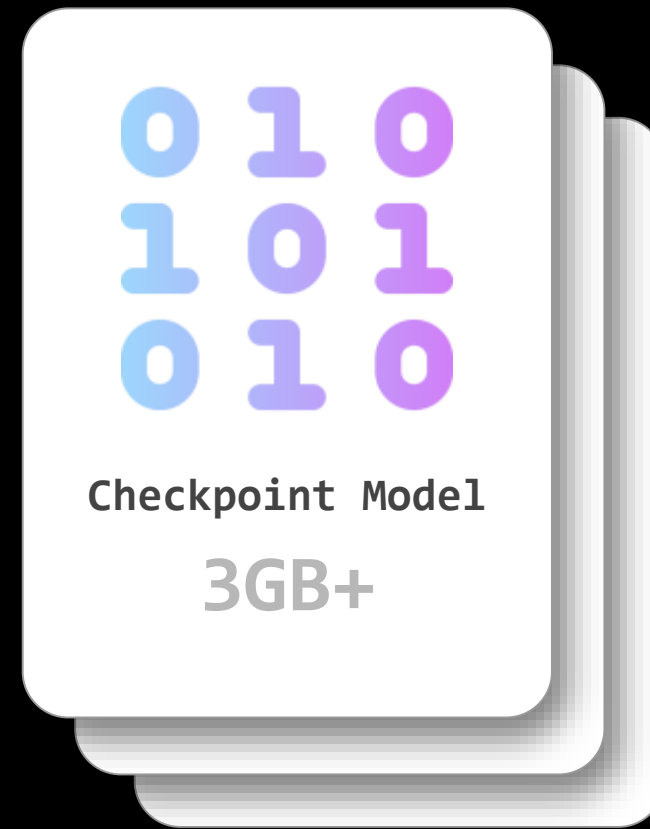
위 그림을 예로 들면 A라는 폴더를 서로 다른 폴더에 mkLink하였습니다.



2 - 02

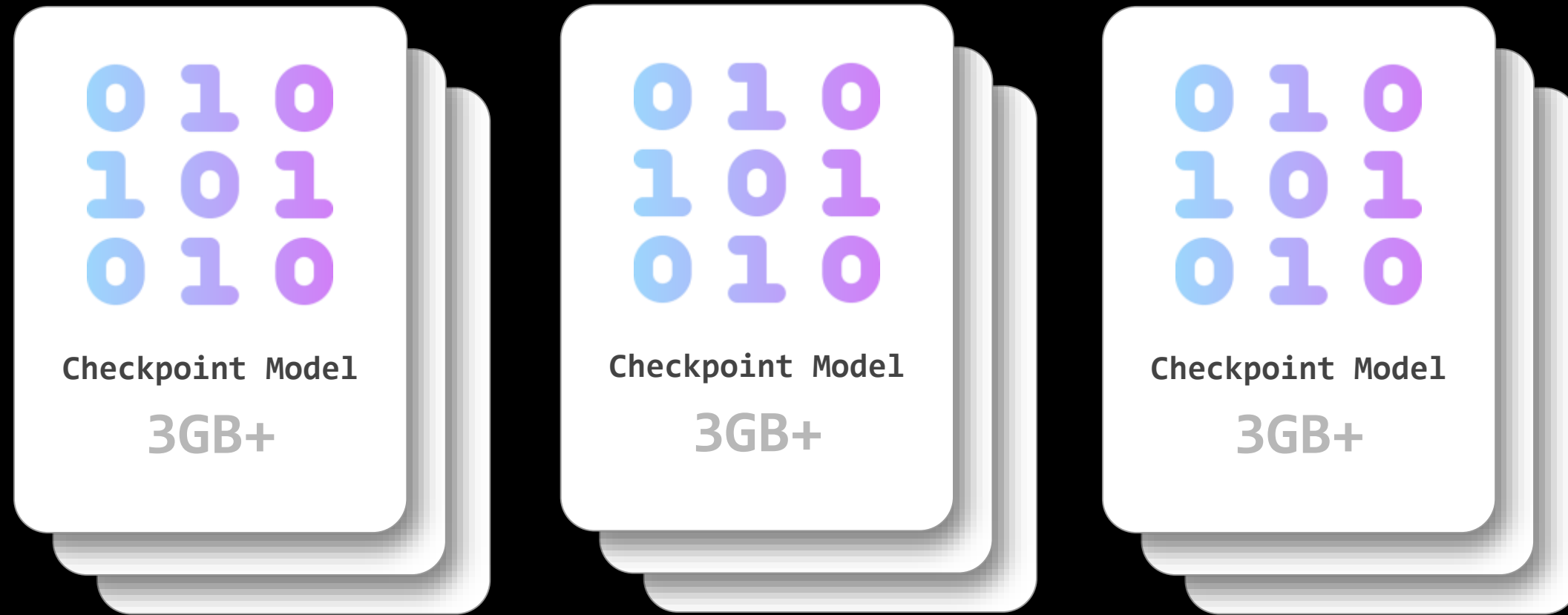
# mkLink 사용시 장점

## 2-2.mkLink 사용시 장점



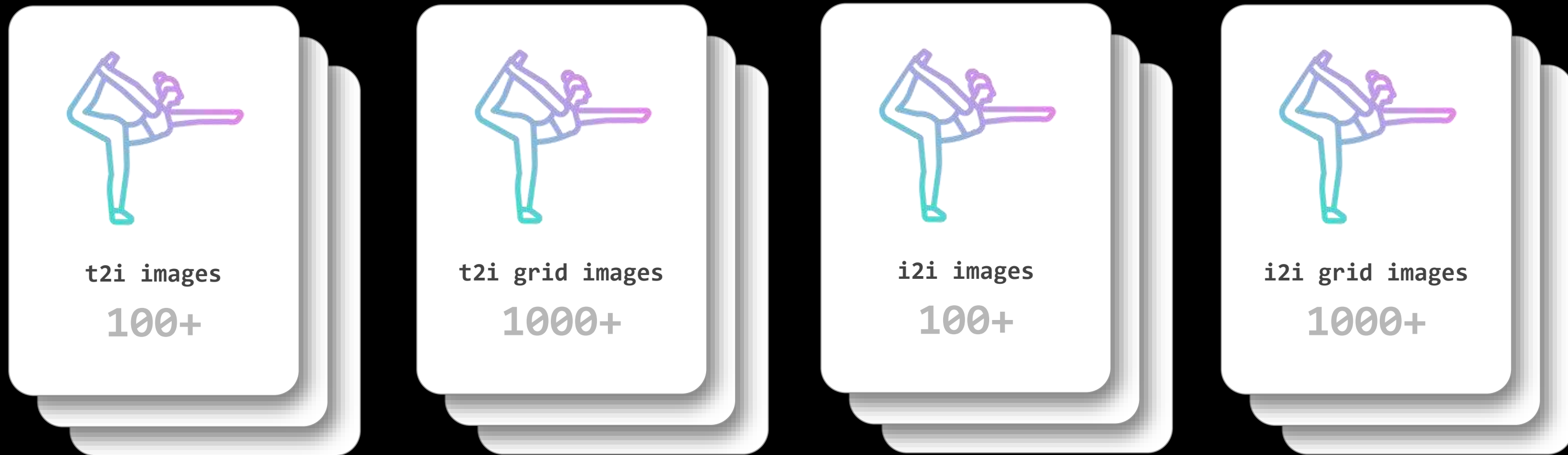
Checkpoint model 용량은 평균 **3GB** 이상입니다.

## 2-2.mkLink 사용시 장점



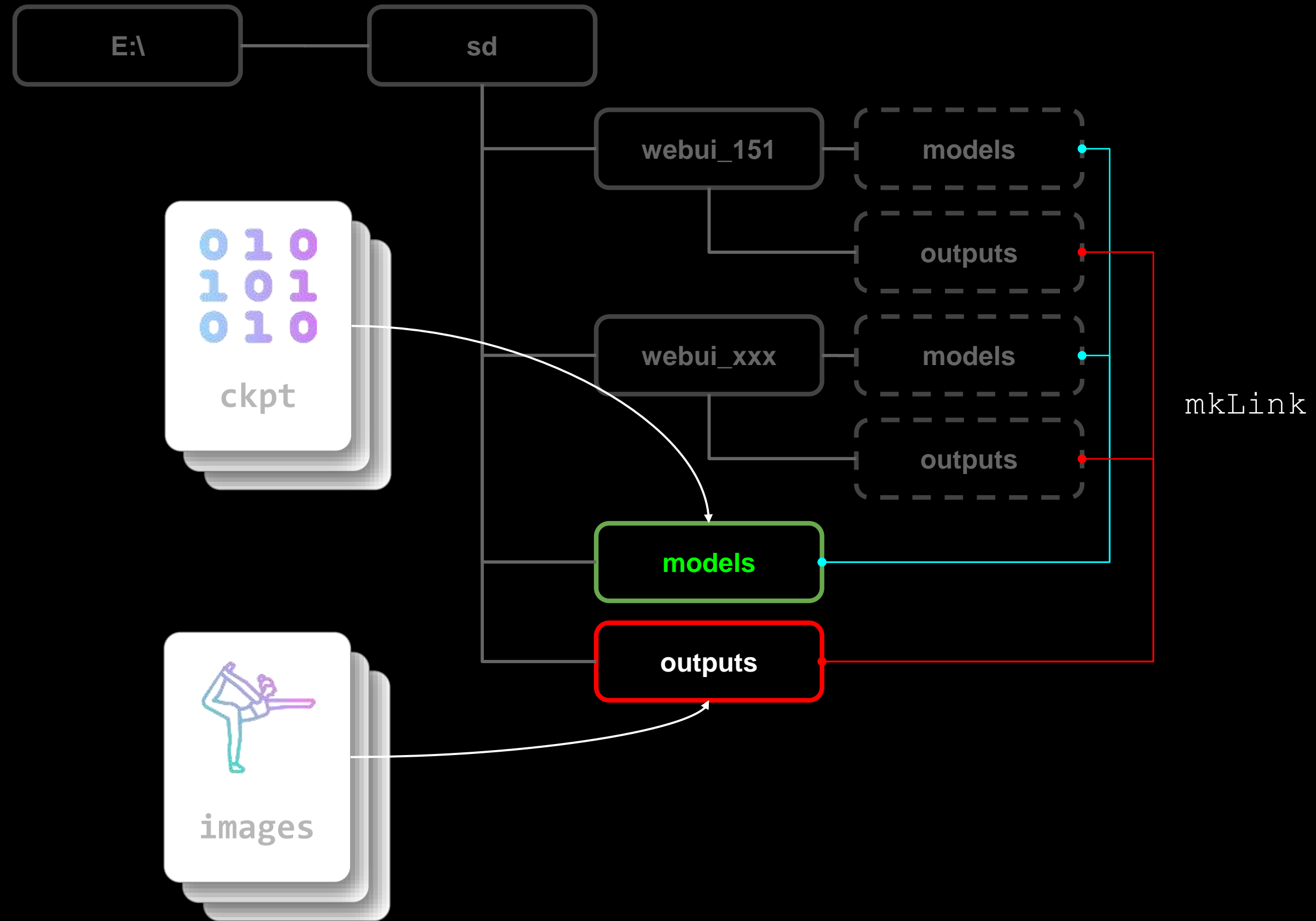
Checkpoint model 용량은 평균 **3GB** 이상입니다.

## 2-2.mkLink 사용시 장점



PNG 파일도 일자별로 많이 생성됩니다.

2-2.mkLink 사용시 장점







2 - 03

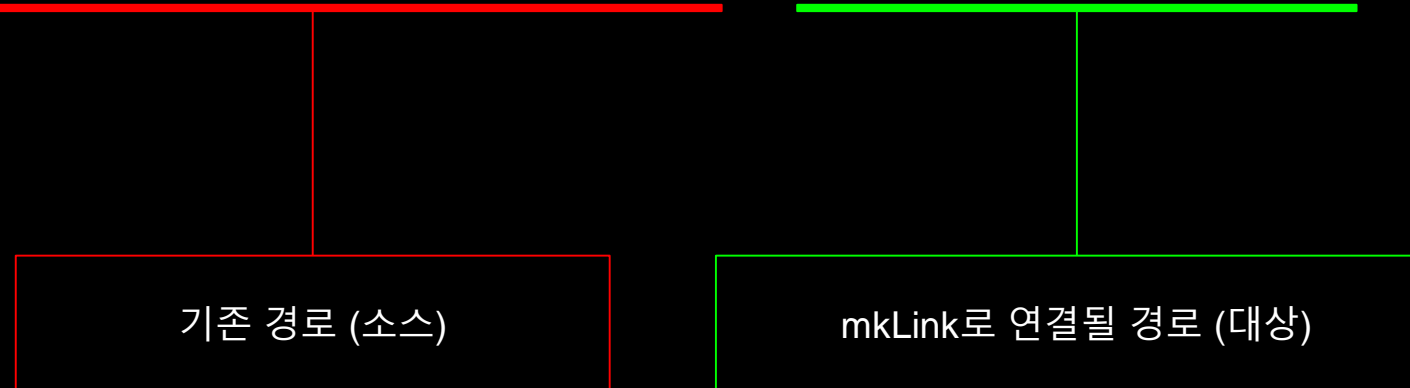
# mkLink 연결하기

## 2-3.mkLink 연결하기

**\*\*mkLink를 적용하기 전 models / outputs 폴더를 반드시 복사하세요.**

## 2-3.mkLink 연결하기 > command

```
mkLink /d E:\sd\webui\models E:\sd\models
```



## 2-3.mkLink 연결하기



## 2-3.mkLink 연결하기 > 자동 bat 파일

쉽게 설치하실 수 있도록 **bat** 파일을 제공합니다.

## 2-3.mkLink 연결하기 > 자동 bat 파일 (주의사항)

**\*\*mkLink를 적용하기 전 models / outputs 폴더를 반드시 복사하세요.**

## 2-3.mkLink 연결하기 > 자동 bat 파일 (주의사항)

```
C:\Windows\System32\cmd.exe

=====
(주의) 반드시 설치 가이드를 확인하시고 실행하세요.
(주의) BAT 파일을 실행하면 일부 Models 폴더를 삭제합니다.
(주의) 삭제 후 강의에서 지정된 곳으로 MKLINK 를 연결합니다.
(주의) 강의 내용에 맞추어 모델 폴더를 복사했는지 확인하세요.
실행 : y , 종료 : n
=====
옵션을 선택하세요.(y/n) :
```

## 2-3.mkLink 연결하기 > 자동 bat 파일



local\_branch\_webUI\_models\_mklink.bat

\*CKPT model folder

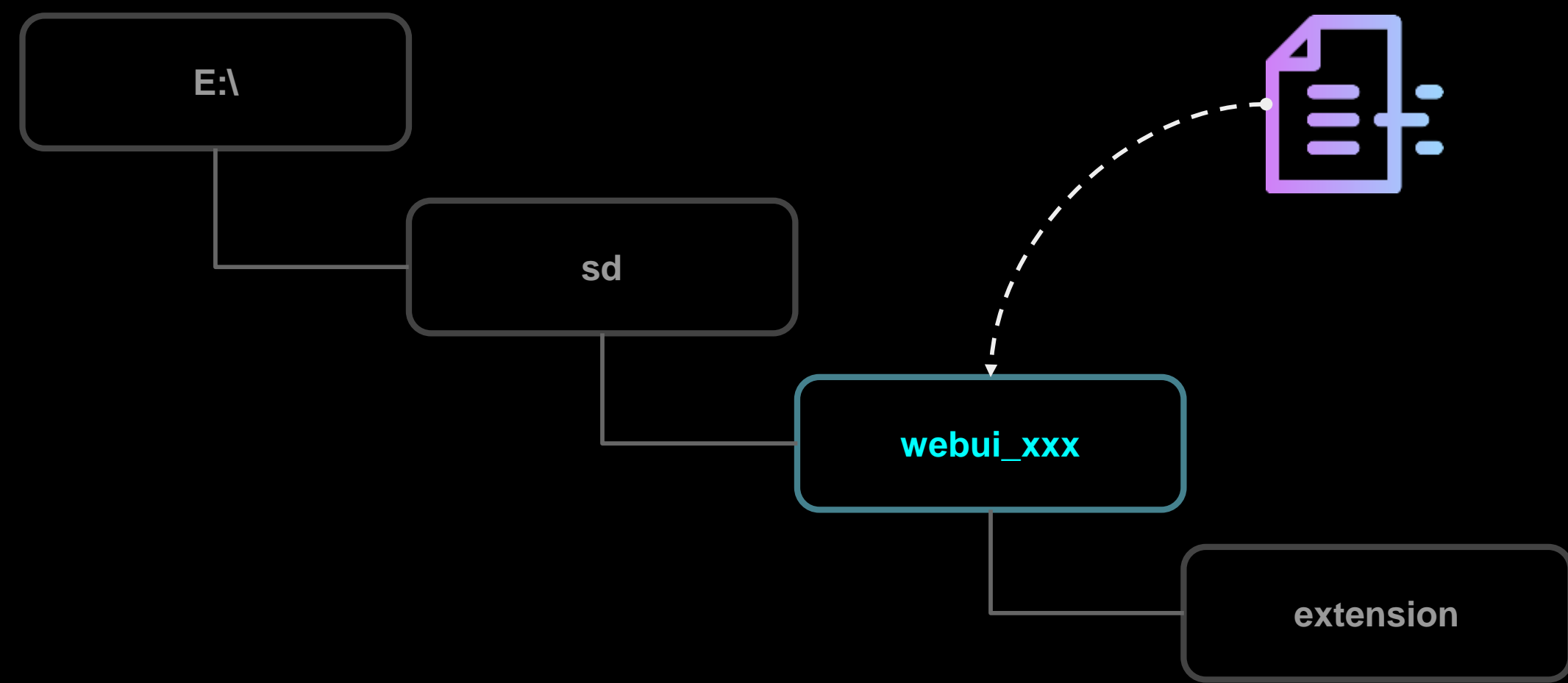
\*Embedding model folder

\*ControlNet model folder

\*wildcard model folder



2-3.mkLink 연결하기 > 자동 bat 파일



2-3.mkLink 연결하기 > 자동 bat 파일





3

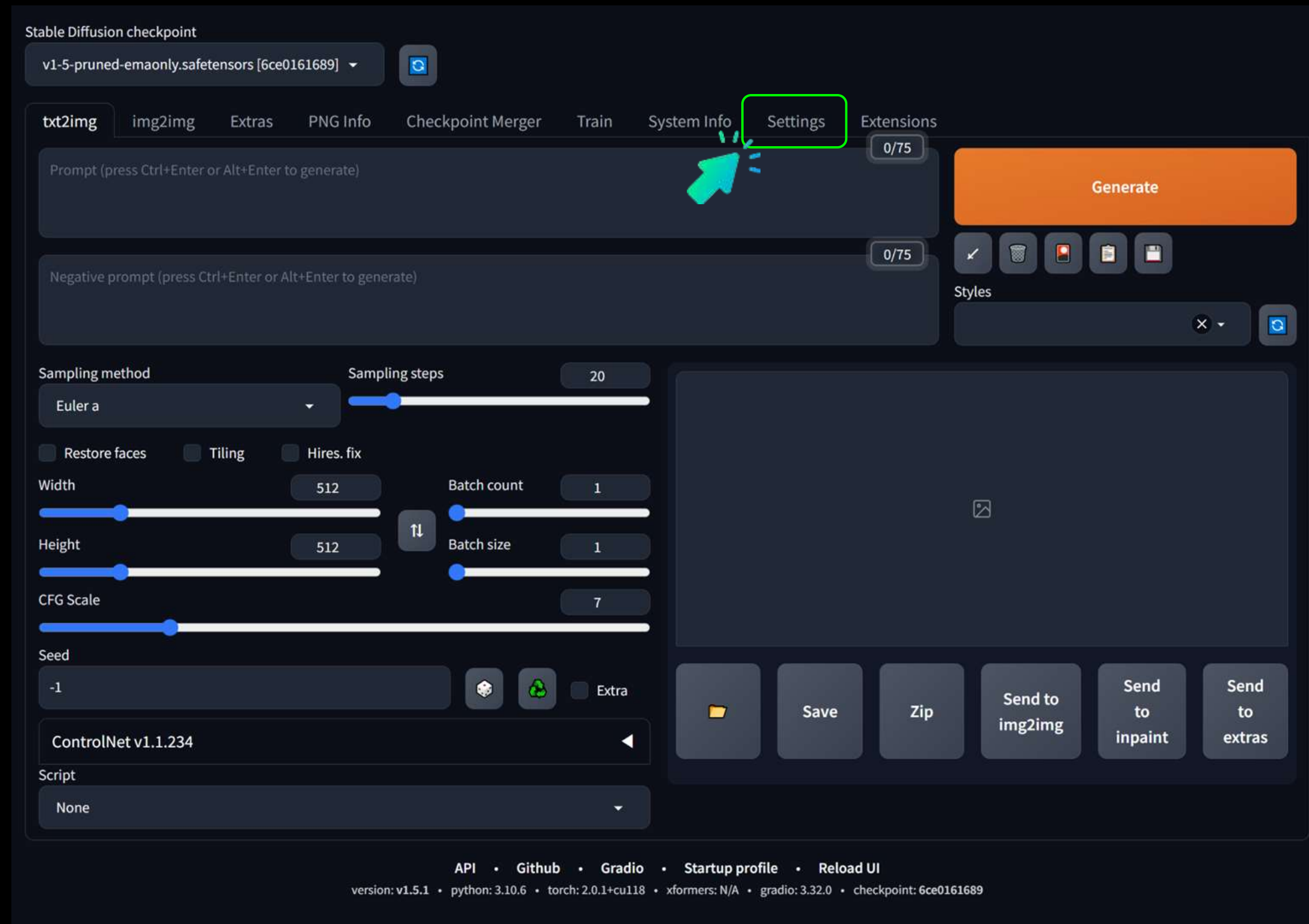
# Webui Setting

AUTOMATIC 1111

3 - 01

# Setting 둘러보기

# 3-1. Setting 둘러보기



## 3-1.Setting 둘러보기







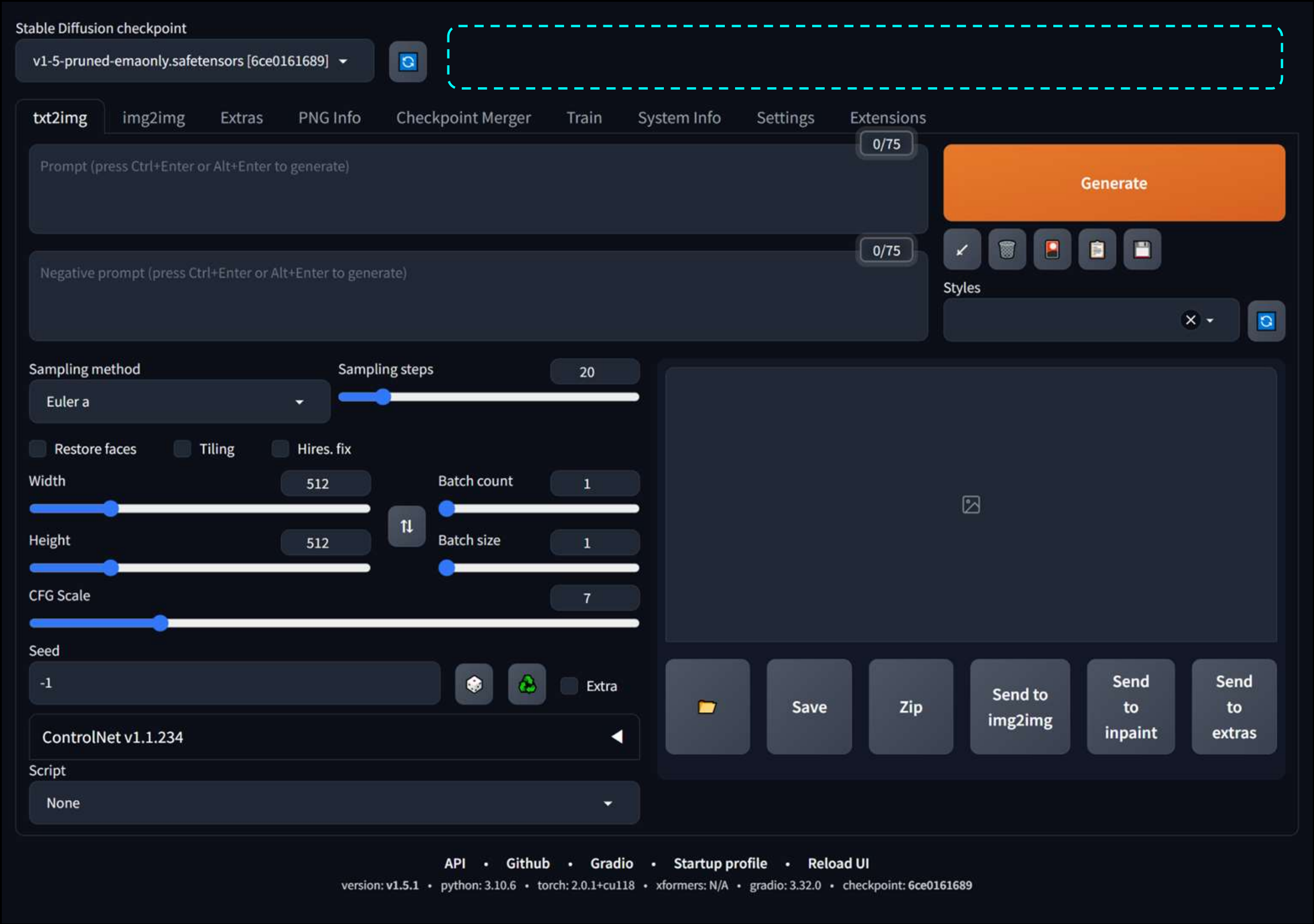
3 - 02

# Quick Setting

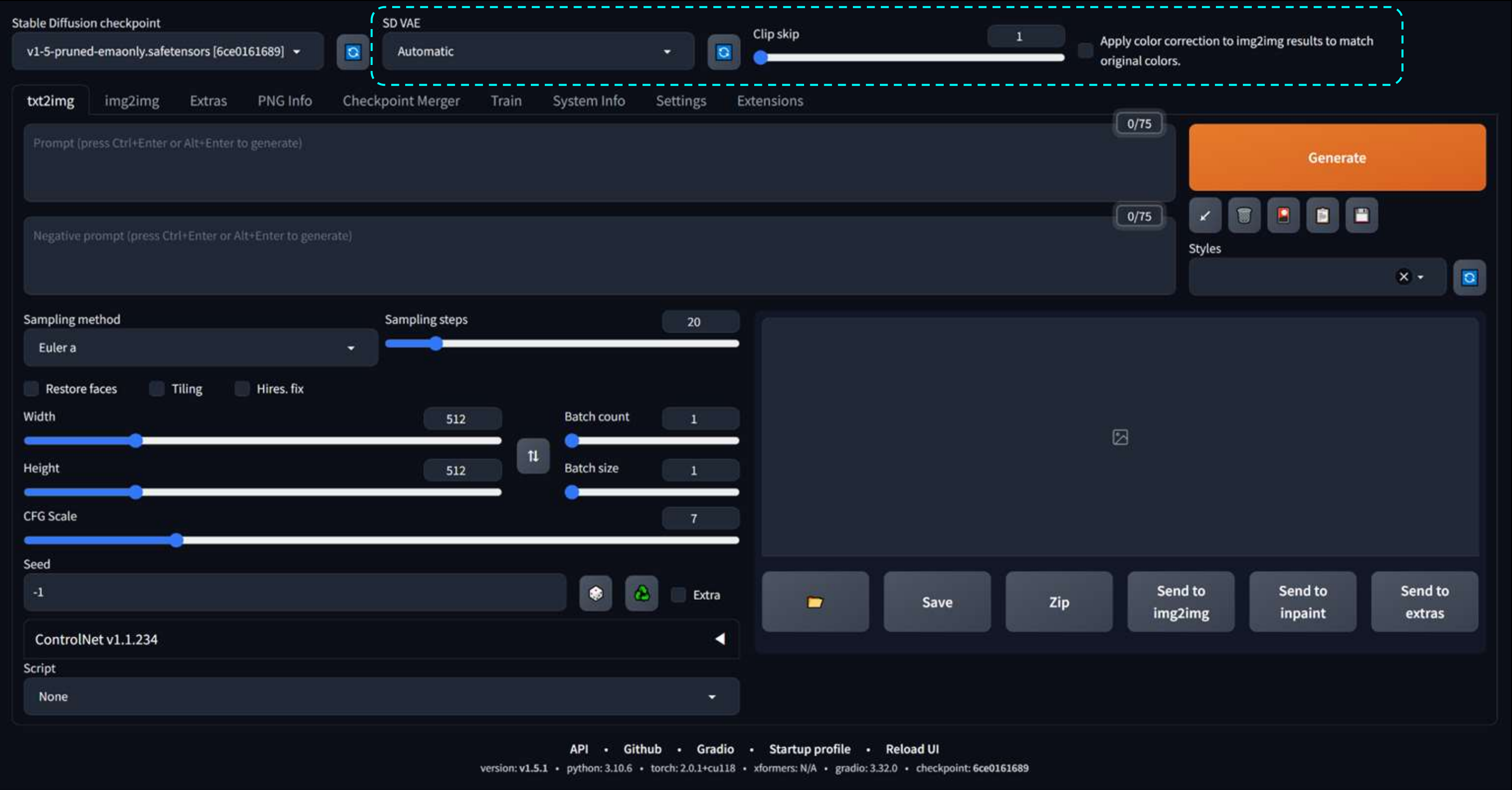
## 3-2.Quick Setting

AUTOMATIC 1111 Webui에서 자주 사용하는 옵션을 Main menu에 보이도록 합니다.

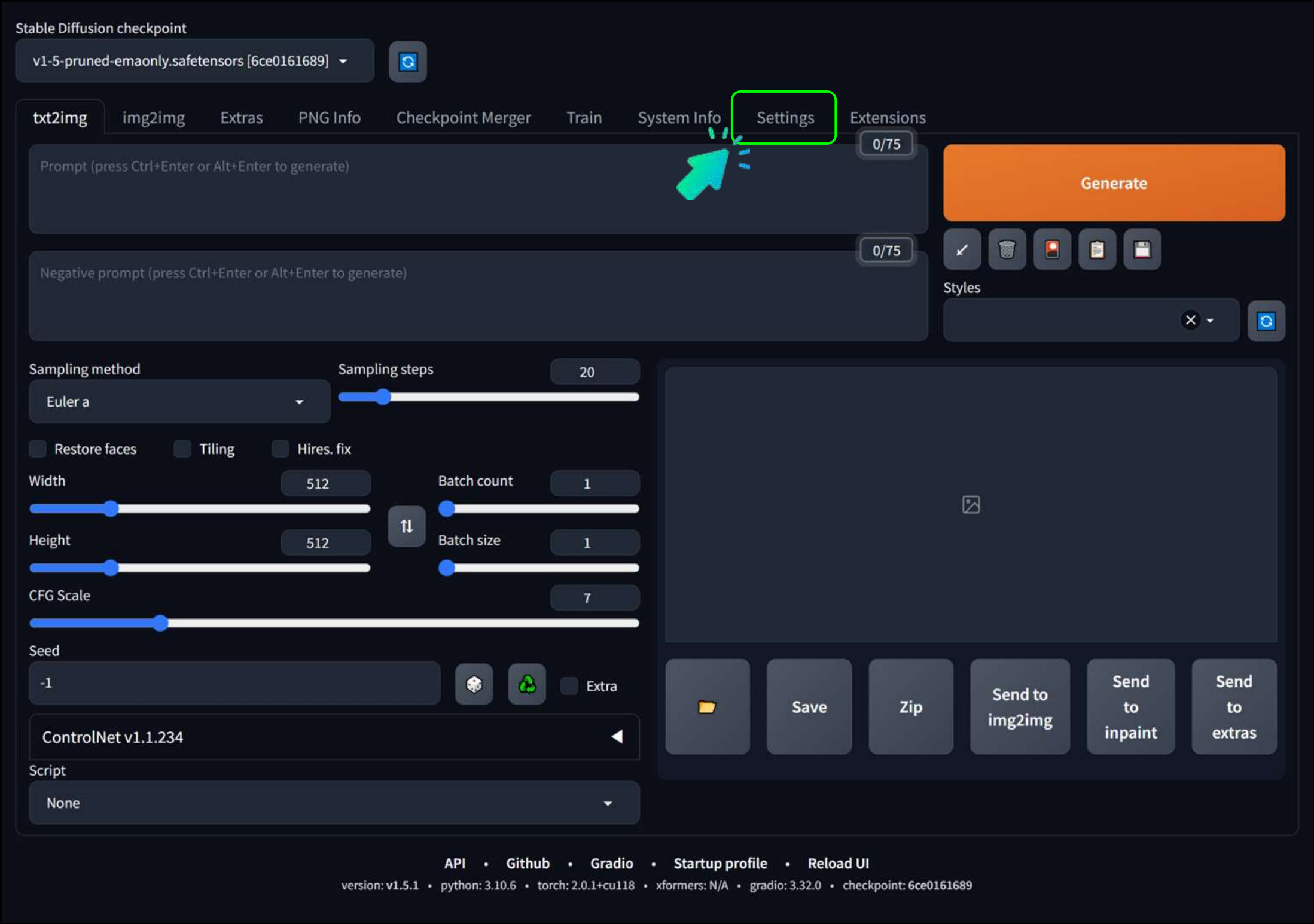
# 3-2.Quick Setting



# 3-2.Quick Setting



# 3-2.Quick Setting



# 3-2.Quick Setting

User interface

Infotext

Live previews

Sampler parameters

Postprocessing

Canvas Hotkeys

Tag

Autocomplete

ControlNet

Defaults

Sysinfo

Actions

Licenses

Show all pages

☐ Navigate image viewer with gamepad

Gamepad repeat period, in milliseconds

250

☒ Show generation progress in window title.

☒ Use dropdown for sampler selection instead of radio group (requires restart)

☒ Show Width/Height and Batch sliders in same row (requires restart)

Ctrl+up/down precision when editing (attention:1.1)

0.1

Ctrl+up/down precision when editing <extra networks:0.9>

0.05

Ctrl+up/down word delimiters

.,\!/?%^\*.;:[]='~()

☒ Alt+left/right moves prompt elements

[info] Quicksettings list (setting entries that appear at the top of page rather than in settings tab) (requires restart)

sd\_model\_checkpoint ×

sd\_vae ×

CLIP\_stop\_at\_last\_layers ×

img2img\_color\_correction ×

×



## 3-2.Quick Setting

`sd_model_checkpoint`, `sd_vae`, `CLIP_stop_at_last_layers`, `img2img_color_correction`

## 3-2.Quick Setting







3 - 03

# User Commandline Setting

### 3-3. User Commandline Setting

`webui-user.bat`에 **Command**를 입력하여 **다양한 Setting**을 사용할 수 있습니다.

## 3-3. User Commandline Setting

### webui-user

The recommended way to specify environment variables is by editing `webui-user.bat` (Windows) and `webui-user.sh` (Linux):

- `set VARNAME=VALUE` for Windows
- `export VARNAME="VALUE"` for Linux

For example, in Windows:

```
set COMMANDLINE_ARGS=--allow-code --xformers --skip-torch-cuda-test --no-half-vae --api --ckpt-dir A:\\stable-diffusic
```

### 3-3. User Commandline Setting > 유용한 Command

- `--no-half-vae` Vae 모델을 16bit로 변환하지 않습니다.
- `--theme dark` Webui 실행 시 테마를 어두운 버전으로 적용합니다.
- `--autolaunch` Webui 구동이 준비되면 자동으로 Webui 화면까지 띄웁니다.
- `--medvram` 낮은 GPU 메모리 사용시 안정적인 사용을 위한 부분적 최적화를 진행합니다.  
(생성속도 저하)

### 3-3. User Commandline Setting > webui-user.bat 수정

```
@echo off

set PYTHON=
set GIT=
set VENV_DIR=
set COMMANDLINE_ARGS=--theme dark --no-half-vae --autolaunch

call webui.bat
```

### 3-3. User Commandline Setting > webui-user.bat 수정 > 메모리

```
@echo off

set PYTHON=
set GIT=
set VENV_DIR=
set COMMANDLINE_ARGS=--theme dark --no-half-vae --autolaunch --medvram

call webui.bat
```

### 3-3. User Commandline Setting > webui-user.bat 수정 > 메모리

```
@echo off

set PYTHON=
set GIT=
set VENV_DIR=
set COMMANDLINE_ARGS=--theme dark --no-half-vae --autolaunch --lowvram

call webui.bat
```



### 3-3. User Commandline Setting > webui-user.bat 수정



05

# Webui 운용 #1

PART-01