

SW2024-05-2STEP

Converts SolidWorks 2024 SP05 native files (.sldprt, .sldasm) to STEP format using the SolidWorks COM API.

Requirements

Requirement	Version
Operating System	Windows
SolidWorks	2024 SP05
Python	>= 3.10 (dev/build only)

For End Users — Standalone Executable

No Python installation required.

1. Download SW2024-05-2STEP.exe from the releases page.
2. Double-click to launch the GUI.
3. Select your .sldprt or .sldasm file and click **Convert to STEP**.

For Developers

Setup

Run setup.bat once. It will:

- Install Python 3.11 automatically via winget if not already present.
- Create a virtual environment (.venv).
- Install all dependencies.

setup.bat

Build Standalone Executable

After setup, run build.bat to produce dist\SW2024-05-2STEP.exe:

build.bat

Run in Dev Mode

.venv\Scripts\activate

:: Launch GUI

python -m src --gui

:: Convert via CLI

python -m src path\to\file.sldprt

python -m src path\to\file.sldprt -o C:\output\result.step

Dependencies

Package	Purpose
pywin32	SolidWorks COM API access
PyQt6	Graphical user interface
pyinstaller	Standalone .exe build (dev only)

Project Structure

SW2024-05-2STEP/	
setup.bat	Developer setup (Python + venv + deps)
build.bat	Build standalone .exe via PyInstaller
sw2step.spec	PyInstaller build configuration
pyproject.toml	Package metadata
requirements.txt	Runtime dependencies
requirements-dev.txt	Development dependencies (includes PyInstaller)
README.md	This file
doc.pdf	Generated documentation
src/	
__init__.py	
__main__.py	Entry point (CLI + GUI launcher)
converter.py	SolidWorks COM API conversion logic
gui.py	PyQt6 graphical interface

Notes

- SolidWorks must be **installed and licensed** on the machine.
- The converter attaches to a running SolidWorks instance if one is open, or starts a new one automatically.
- Supported input formats: `.sldprt` (part), `.sldasm` (assembly).
- Output is always a `.step` file (ISO 10303).
- The `dist/` and `build/` folders are excluded from version control.

Version History

Version	Date	Changes
0.2.0	2026-02-20	Add standalone .exe build via PyInstaller, replace install.py with setup.bat
0.1.0	2026-02-20	Initial release — CLI + GUI skeleton