

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

Dependencies

Package	Purpose
<code>pywin32</code>	SolidWorks COM API access
<code>PyQt6</code>	Graphical user interface

Setup

Run the installer once to create a virtual environment and install all dependencies:

```
python install.py
```

Then activate the environment:

```
.venv\Scripts\activate
```

Usage

GUI

```
python -m src --gui
```

Or simply run without arguments:

```
python -m src
```

CLI

```
python -m src path\to\file.sldprt
```

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

Project Structure

```
SW2024-05-2STEP/
  install.py      Setup script (creates venv + installs deps)
  pyproject.toml  Package metadata
  requirements.txt Python dependencies
  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 will attach to a running SolidWorks instance if one is open, or start a new one automatically.
- Supported input formats: `.sldprt` (part), `.sldasm` (assembly).
- Output is always a `.step` file (ISO 10303).

Version History

Version	Date	Changes
0.1.0	2026-02-20	Initial release — CLI + GUI skeleton