
Answer-Sheet-Studio

發佈 0.0

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語言 / Language : 繁體中文 | *English*

[點此下載程式 \(ZIP\)](#)

Answer Sheet Studio 讓老師可以產生可列印的答案卡，並在本機進行影像辨識（不會上傳到雲端）。

1.1 最簡單開始（推薦）

1. 下載 ZIP 並解壓縮。
2. macOS：雙擊 `start_mac.command`；Windows：雙擊 `start_windows.vbs`。
3. 若尚未安裝 Python，啟動器會提示下載/安裝官方 Python（依照畫面一路按確認即可）。
4. 安裝完成後再執行一次啟動器；瀏覽器會自動開啟 `http://127.0.0.1:8000`。
5. 在網頁裡先「下載答案卡」，再上傳掃描 PDF 做影像辨識。

1.2 系統需求

- macOS 13+ 或 Windows 11
- Python 3.10+（建議 3.11；支援 3.10–3.13）。若尚未安裝 Python，啟動器可協助下載官方安裝程式。
- Windows 安裝 Python 時請勾選「Add python.exe to PATH」（並保留 `py` launcher）
- 第一次安裝需要網路下載 Python 套件（FastAPI、PyMuPDF、OpenCV、NumPy 等）

1.3 功能說明（進階）

- **下載答案卡**：輸入標題、科目、班級、題數（最多 100 題）、每題選項（ABC / ABCD / ABCDE），產生單頁 PDF。
- **上傳影像辨識**：上傳多頁 PDF（每頁一位學生）。會輸出 `results.csv`（題號為列、學生為欄）、`ambiguity.csv`（空白/模稜兩可/多選）與 `annotated.pdf`（標註辨識結果）。
- **啟動器**：雙擊啟動器（`start_mac.command` 或 `start_windows.vbs`）即可建立虛擬環境、安裝套件、啟動伺服器並開啟 `http://127.0.0.1:8000`。

1.4 使用注意事項

- 進行影像辨識時，**題數與 每題選項（ABC/ABCD/ABCDE）** 必須與答案卡一致。
- 想要結果更穩定：建議用較深的筆、掃描 **300dpi**，並避免歪斜/旋轉。

1.5 輸出檔案

辨識完成後，檔案會寫入 `outputs/<job_id>/`：

- `results.csv`
- `ambiguity.csv`
- `annotated.pdf`
- `input.pdf`（原始上傳檔）

1.6 更新

- 開啟 `http://127.0.0.1:8000/update`，上傳最新 ZIP（GitHub Releases 或 `main.zip`）。更新後會自動重新啟動。

1.7 Debug Mode（回報問題用）

一般使用者不需要使用 Debug Mode。

- 開啟 `http://127.0.0.1:8000/debug`，輸入 Job ID（`outputs/` 底下的資料夾名稱）。
- 下載 `results.csv`、`ambiguity.csv`、`annotated.pdf`、（必要時再下載 `input.pdf`），提供給開發者協助排查。

1.8 排除問題

- **pip install failed** —檢查 launcher log，確認有網路、Python 版本為 3.10+；若你是 Python 3.14，建議改用 3.10—3.13。
- **Port already in use / permission denied** —啟動器會檢查 port；若 macOS 防火牆阻擋 Python，請到 System Settings > Network > Firewall 放行。
- **Server not opening** —先看 launcher log 找出錯誤；也可以在 `.venv` 裡直接跑 `python run_app.py` 方便除錯。

Download (ZIP)

Answer Sheet Studio lets teachers generate printable answer sheets and run local OMR recognition (no cloud upload).

2.1 Requirements

- macOS \geq 13 or Windows 11
- Python **3.10+** (3.11 recommended; 3.10–3.13 supported). If Python isn't installed yet, the launcher can help download the official installer.
- On Windows, ensure “Add python.exe to PATH” during installation (and keep the `py` launcher enabled if offered).
- Internet access the first time to download Python packages (FastAPI, PyMuPDF, OpenCV, NumPy, etc.).

2.2 Quick Start

2.2.1 macOS

1. Double-click `start_mac.command` (or run `chmod +x start_mac.command` once if prompted).
2. If Python isn't installed, the launcher offers to download and open the installer (from python.org). After installation finishes, run `start_mac.command` again.
3. First run creates `.venv` and installs requirements; later runs reuse the existing `.venv` (unless requirements changed).
4. Your browser opens `http://127.0.0.1:8000`. Close the browser when you're done; the server auto-exits after a period of inactivity.

2.2.2 Windows 11

1. Double-click `start_windows.vbs`. If Python isn't installed, it will offer to download/install Python 3.11 automatically (recommended).
2. If you install Python manually, check “Add python.exe to PATH” during installation (and keep the `py` launcher enabled if offered).
3. First run installs requirements; later runs reuse the existing `.venv` (unless requirements changed). If Windows Defender prompts for network access, allow it so the server can bind to localhost.

2.3 Features

- **Download page** —choose title, subject, class, number of questions (up to 100), and choices per question (ABC/ABCD/ABCDE). Generates a single-page PDF template.
- **Upload page** —drop a multi-page PDF scan. Recognition exports `results.csv`, `ambiguity.csv`, and `annotated.pdf`.
- **Launcher** —sets up `.venv`, installs requirements, starts the local server, and opens the browser.
- The web UI supports **English** and **Traditional Chinese**.

2.4 Important Notes

- For recognition, the **number of questions** and **choices per question** must match the generated answer sheet.
- For more stable results: use a darker pen/pencil, scan at **300dpi**, and avoid skew/rotation.

2.5 Output Files

After recognition, files are written under `outputs/<job_id>/`:

- `results.csv`
- `ambiguity.csv`
- `annotated.pdf`
- `input.pdf` (original upload)

2.6 Updating

- Open `http://127.0.0.1:8000/update` and upload the latest ZIP (from GitHub Releases or `main.zip`). The app will restart automatically.

2.7 Debug Mode

- Open `http://127.0.0.1:8000/debug` and enter the Job ID to download diagnostic files.

2.8 Troubleshooting

- **pip install failed** —Check the launcher log; ensure network access and Python 3.10+. If you're on Python 3.14, try Python 3.10–3.13.
- **Port already in use / permission denied** —The launcher checks port availability.
- **Server not opening** —Use the launcher log or run `python run_app.py` inside `.venv` for debugging.