printpal.io

PrintWatch Release Notes

The official Release Notes for PrintWatch 1.2.1.

1.0 PrintWatch 1.2.1 Release Notes

The document formatted release notes for PrintWatch can be found here.

1.1 Major Features

The major features and their descriptions are listed below:

- Web Application: significant changes have been made to the Web Application that give the user the ability to easily manage all of their printers. The new Web Application includes:
    - Main management page for all printers
    - Individual printer management pages
        - Access to the webcam
        - Change PrintWatch settings on the fly. These settings auto-sync with the OctoPrint plugin
        - Print job information panel
        - Print job controls panel (pause print, resume print, cancel print)
- PrintWatch Tab: the PrintWatch logo in the PrintWatch tab has been reduced in size. The "Send Feedback" button has been removed.
- DNS: the API now uses the "ai.printpal.io" domain.
- Video streaming module: the video streamer module has added exception catching.

1.2 Bug Fixes

- Video Streamer module - exceptions caused by the video stream being captured would interrupt the inference loop of PrintWatch and cause the detections to cease. This has been fixed with exception catching.

1.3 Known Issues

There are no known issues.

1.4 Future Features

The major features planned for the next release are listed below:

- Anomaly Detection: a User-Friendly interface for setting up and managing Anomaly Detection. This will be configured via the Web Application. For most consumer desktop 3D printers, this may be limited to detecting issues with the heating units.
    - Printers with more feedback I/O will benefit extremely from this update
- Bed clearing: a Machine Learning model/CV algorithm to indicate that the bed is clear and ready for another print. This is useful for automated printing or batched jobs. This will be deployed via the new Web Application.
- Robust Print defect support: Machine Learning models will support detection of more various types of print defects in addition to common QC related checks.
    - Most likely defect types (based on availability of data): blobbing, clog, stringing
    - Quality Control related checks: zits, under/over extrusion, blobs, layer lines
    - Extrusion detection:

    - Good extrusion: nozzle is extruding at a correct nominal rate
    - No extrusion: gantry is moving but no material is flowing from the extruder
- Robust notifications: receive notifications via telegram, discord, and more. Contact us to request a platform.
- Status alerts: receive status notifications set by your criteria. E.g. receive a notification when the print job is finished.
- ROI Slicing: select the area within the frame to run detections on. This is good for users that have noisy backgrounds, high resolution cameras, and low amounts of hardware (this allows for one camera to be used to detect on multiple printers). This is currently supported when using the API.