The Printer Working Group

IPP Workgroup Session

February 4, 2025

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

Before We Begin...

- PWG Antitrust Policy:
  - https://www.pwg.org/chair/membership_docs/pwg-antitrust- policy.pdf
  - The IEEE-ISTO Printer Working Group ("PWG") will not become involved in the business decisions of its Members. The PWG strictly complies with applicable antitrust laws. Every PWG meeting attendee shall comply with this policy. The PWG Officers and PWG Workgroup Officers are responsible to ensure that this policy is adhered to in all PWG activities.
- PWG Intellectual Property Policy:
  - https://www.pwg.org/chair/membership_docs/pwg-ip-policy.pdf
  - TL;DR: Anything you say in a PWG meeting or email to a PWG address can be used in a PWG Document
  - (but please do read the IP policy above if you haven't done so)
- **This meeting is being recorded to assist in preparation of minutes but will not be published**

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

Agenda

February 4, 2025 (US Eastern Standard Time)

When	What
10:00 - 11:30	PWG Plenary
11:30 - 12:00	IPP WG: Status & Last Calls
12:00 - 12:45	Lunch Break
12:45 - 14:00	IPP WG: IPP Everywhere v2.0

February 5, 2025 (US Eastern Standard Time)

When	What
10:00 - 10:30	IPP WG: Envelope Media Size Names
10:30 - 11:15	IPP WG: IPP Console Extensions v1.0 (CONSOLE)
11:15 - 12:00	IPP WG: IPP Firmware Update Extensions v1.0 (FWUPDATE)
12:00 - 12:45	Lunch Break
12:45 - 13:45	IPP WG: 3D Printing Discussions
13:45 - 14:00	IPP WG: Next Steps

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

Charter

- Current charter:
  - https://ftp.pwg.org/pub/pwg/ipp/charter/ch-ipp-charter-20240510.pdf
- The Internet Printing Protocol (IPP) workgroup is chartered with the maintenance of IPP and the IETF IPP registry, and support for new clients, network architectures (Cloud, SDN), MFD/Imaging service bindings, and emerging technologies such as 3D Printing
- In addition, we maintain the IETF Finisher MIB, Job MIB, and Printer MIB registries, the PWG MIBs, the PWG Semantic Model schema, and handle synchronization with changes in IPP

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

Errata

- Pending:
  - PWG 5100.6-2003 (IPP Page Overrides v1.0): 2 issues
  - PWG 5100.8-2003 (IPP "-actuals" v1.0): 1 issue
  - PWG 5100.9-2009 (IPP Printer State Extensions v1.0): 2 issues
  - PWG 5100.13-2023 (IPP Driver Replacement Extensions v2.0): 2 issues
  - PWG 5100.15-2014 (IPP FaxOut v1.0): 2 issues
  - PWG 5100.19-2015 (IPP Implementor's Guide v2.0): 9 issues
  - PWG 5107.3-2019 (MFD Alerts v1.1): 1 issue
- In-Progress:
  - PWG 5100.14-2020 (IPP Everywhere v1.1): 4 issues
  - PWG 5100.18-2015 (IPP Shared Infrastructure Extensions v1.0): 8 issues
  - PWG 5100.20-2020 (IPP Everywhere v1.1 Self-Cert): 1 issue
  - PWG 5100.22-2019 (IPP System Service v1.0): 3 issues

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

Working Drafts in Last Call

- IPP Shared Infrastructure Extensions v1.1 (INFRA)
  - https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippinfra11-20240807.pdf
  - Stable draft
  - Prototyped in PAPPL
  - IPP WG Last Call ends February 7, 2025 at 10pm ET

- IPP System Service v1.1 (SYSTEM)
  - https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippsystem11-20241011.pdf
  - Stable draft
  - Prototyped in PAPPL
  - IPP WG Last Call ends February 7, 2025 at 10pm ET

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

Other Active Working Drafts

- IPP Encrypted Jobs and Documents v1.0 (TRUSTNOONE)
  - https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ipptrustnoone10-20210519.pdf
  - Prototype draft
  - Initial prototyping in CUPS branch, still needs work
- IPP OAuth Extensions v1.0 (OAUTH)
  - https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippoauth10-20240624-rev.pdf
  - Stable draft
  - Prototyped in CUPS and PAPPL
  - PWG Last Call Q1 2025
- ACME-Based Provisioning of IoT Devices:
  - https://datatracker.ietf.org/doc/draft-sweet-iot-acme/
  - In limbo, discussions continue on IETF SETTLE mailing list:
    - https://mailman3.ietf.org/mailman3/lists/settle.ietf.org/

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

The Printer Working Group

Lunch Break

February 4, 2025

IPP workgroup resuming at 12:45pm ET

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

IPP Everywhere v2.0

- Prototype draft:
  - https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippeve20-20250129-rev.pdf
  - Prototype draft
- Major update of v1.1:
  - IPP-USB, TLS, and several more attributes required
  - Get-Printers/IPP System Service required for print servers
  - New Paid Imaging and Print to a Recipient use cases/categories/conditional requirements
  - SLP dropped as a discovery protocol
- Proposed schedule:
  - Stable draft and IPP WG Last Call Q2 2025

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

IPP Everywhere Printer Self-Certification Manual v2.0

- Interim draft:
  - https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippeveselfcert20-20220510-rev.pdf
- Major update of v1.1:
  - New GUI tools
  - Feature-based self-certification
  - More document tests
- Proposed schedule:
  - Prototype draft Q3/Q4 2025

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

IPP Everywhere Printer Self-Certification Process v2.0

- How to handle exceptions going forward?
  - Make the connection to Github issues explicit, add the issue number(s) to the submitted results?
  - Could we distribute updated test files between full tool releases? Then when an exception is requested due to a test issue, we can supply an updated test to resolve the exception...
-

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

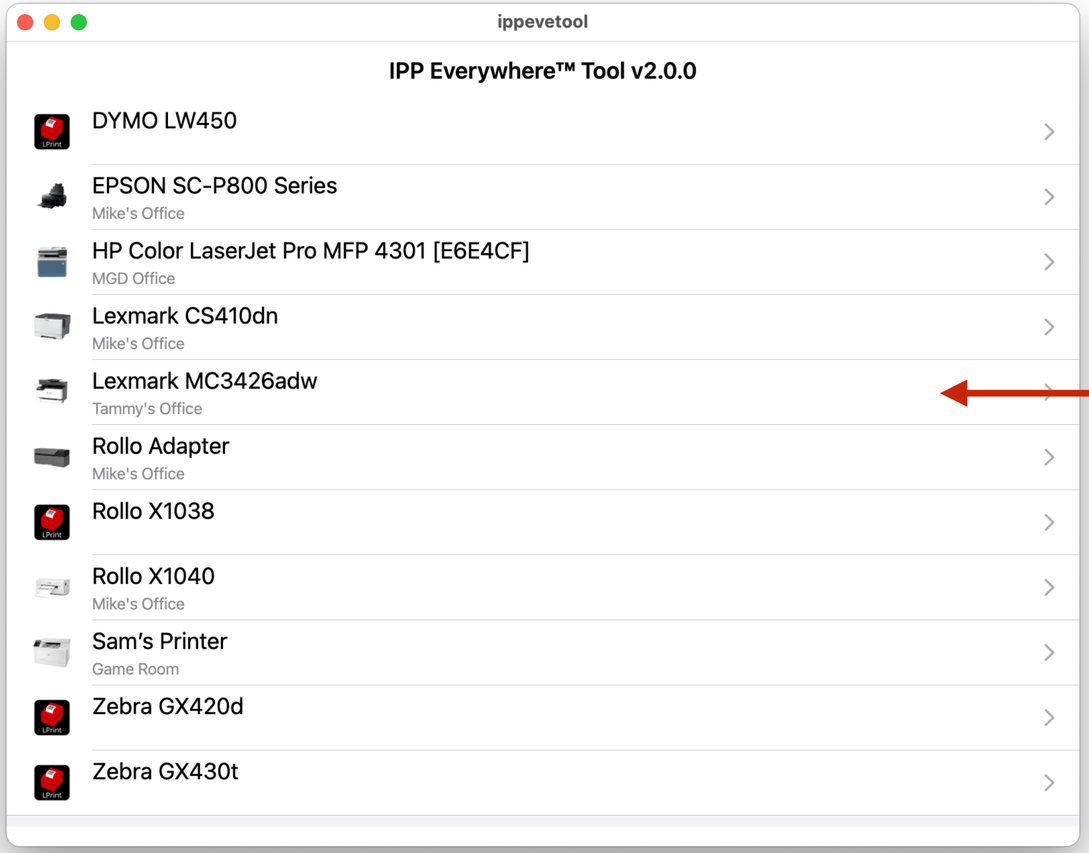
IPP Everywhere Printer Self-Certification Tools v2.0

- Github projects:
  - https://github.com/istopwg/ippeveselfcert
    - "master" branch has Flutter/Dart-based "ippevetool" to run tests (still very alpha)
  - https://github.com/OpenPrinting/libcups
    - Submodule of ippeveselfcert repository
    - New modular IPP tests for individual specifications handle print/no-print and required/not-required
- Flutter-based GUI
  - Dart for UI code, C FFI interface to libcups IPP/DNS-SD/ipptool code
  - Windows, macOS, and Linux, potential future Android + iOS/iPadOS versions
  - Discover printers/servers
  - View TXT and IPP values
  - Identify printer
  - Print files
  - Run self-certification tests
  - Run arbitrary ipptool test files

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

IPP Everywhere Printer Self-Certification Tools v2.0

Scroll to see more printers

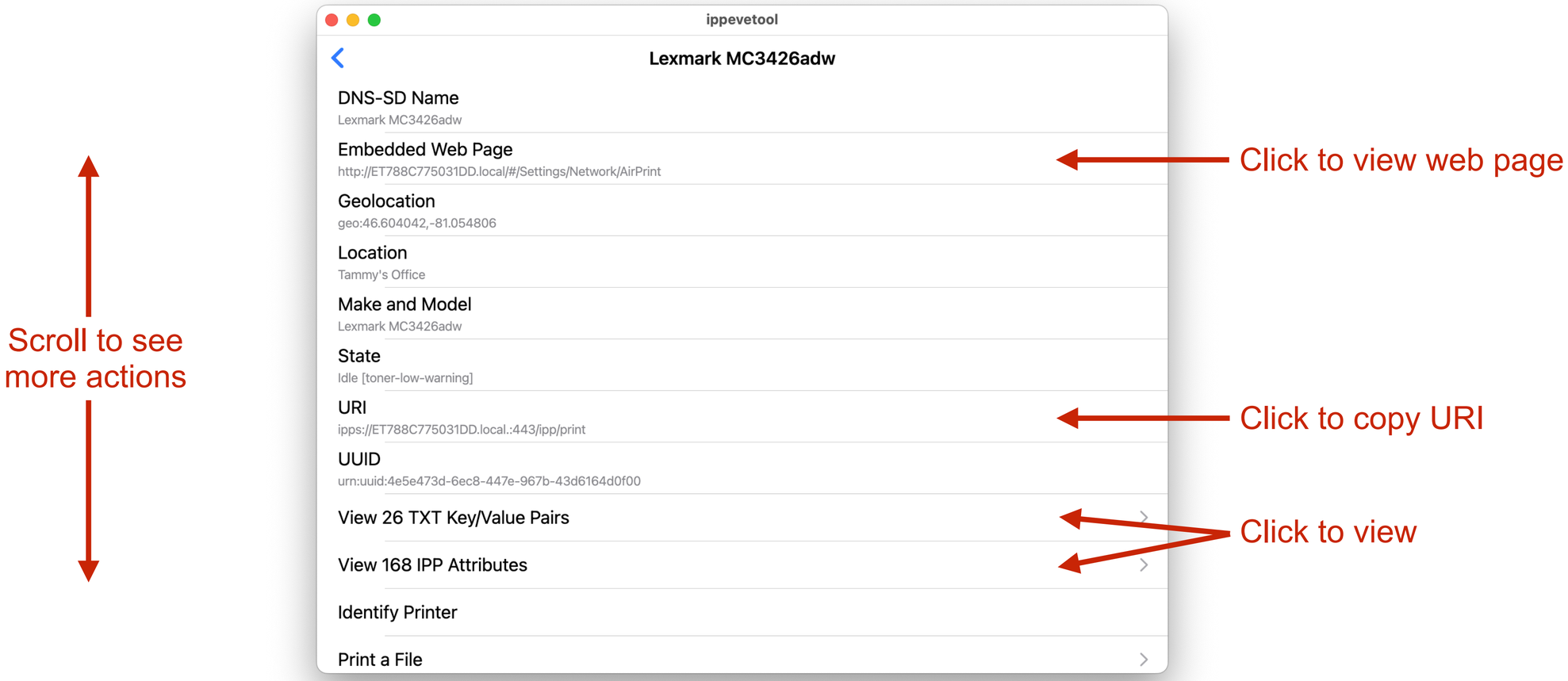


Click to view printer

Main Window

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

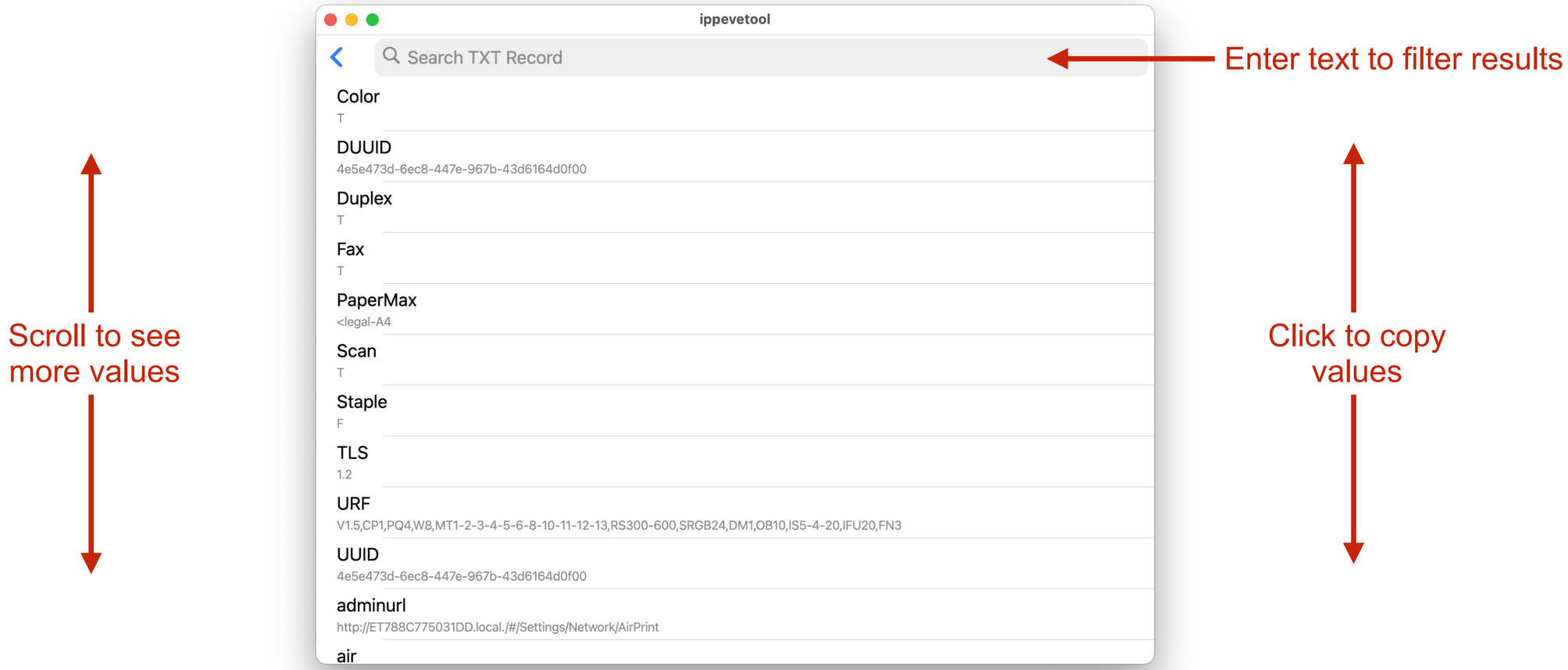
IPP Everywhere Printer Self-Certification Tools v2.0



Printer Window

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

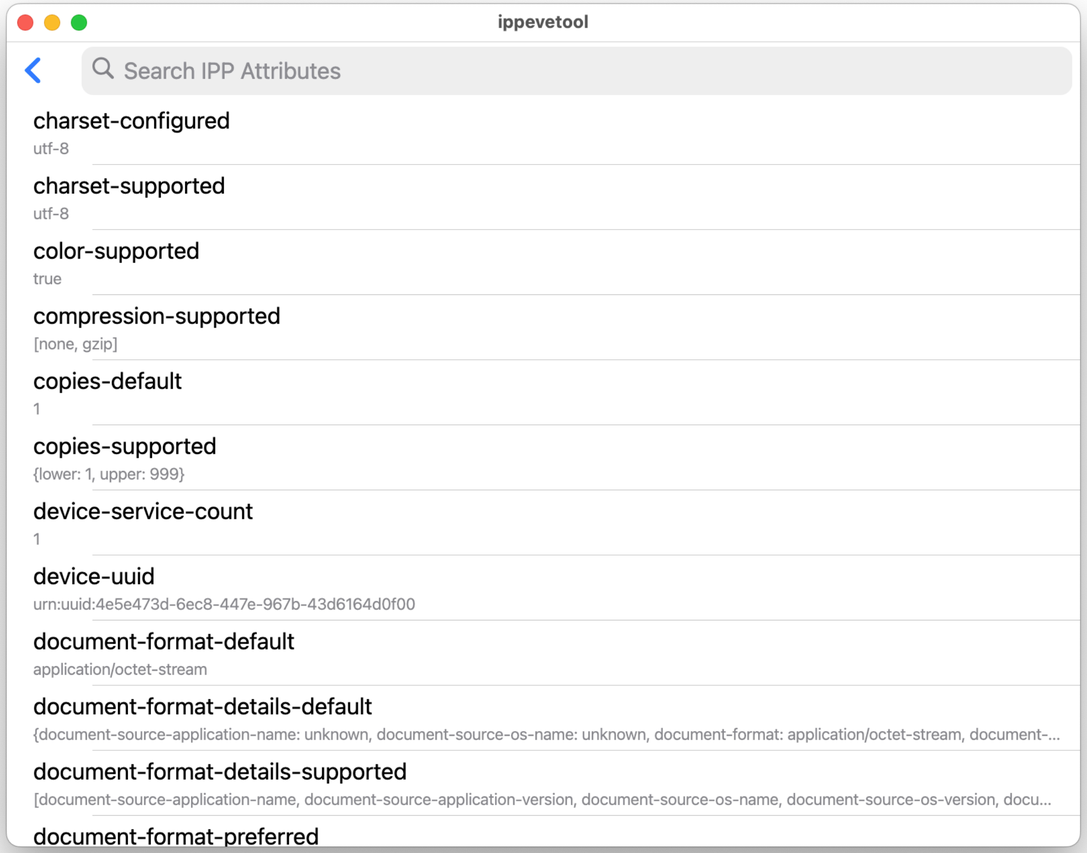
IPP Everywhere Printer Self-Certification Tools v2.0



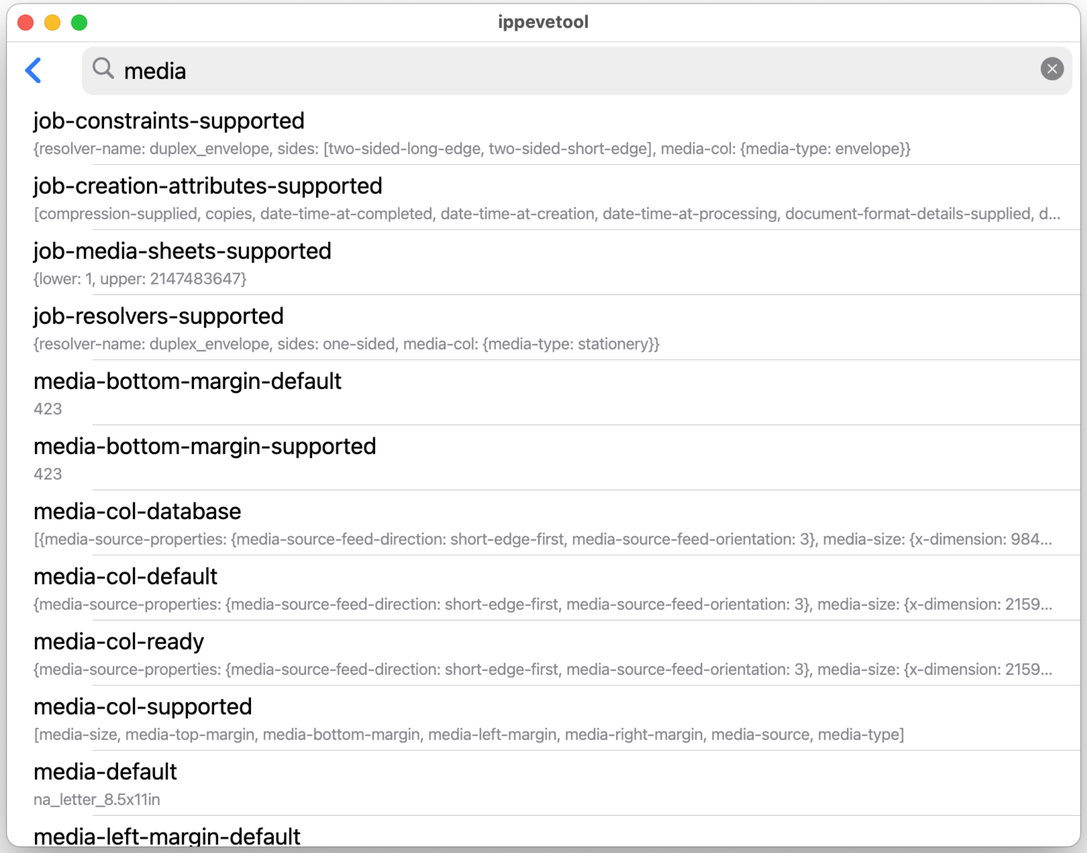
DNS-SD TXT Record Window

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

IPP Everywhere Printer Self-Certification Tools v2.0



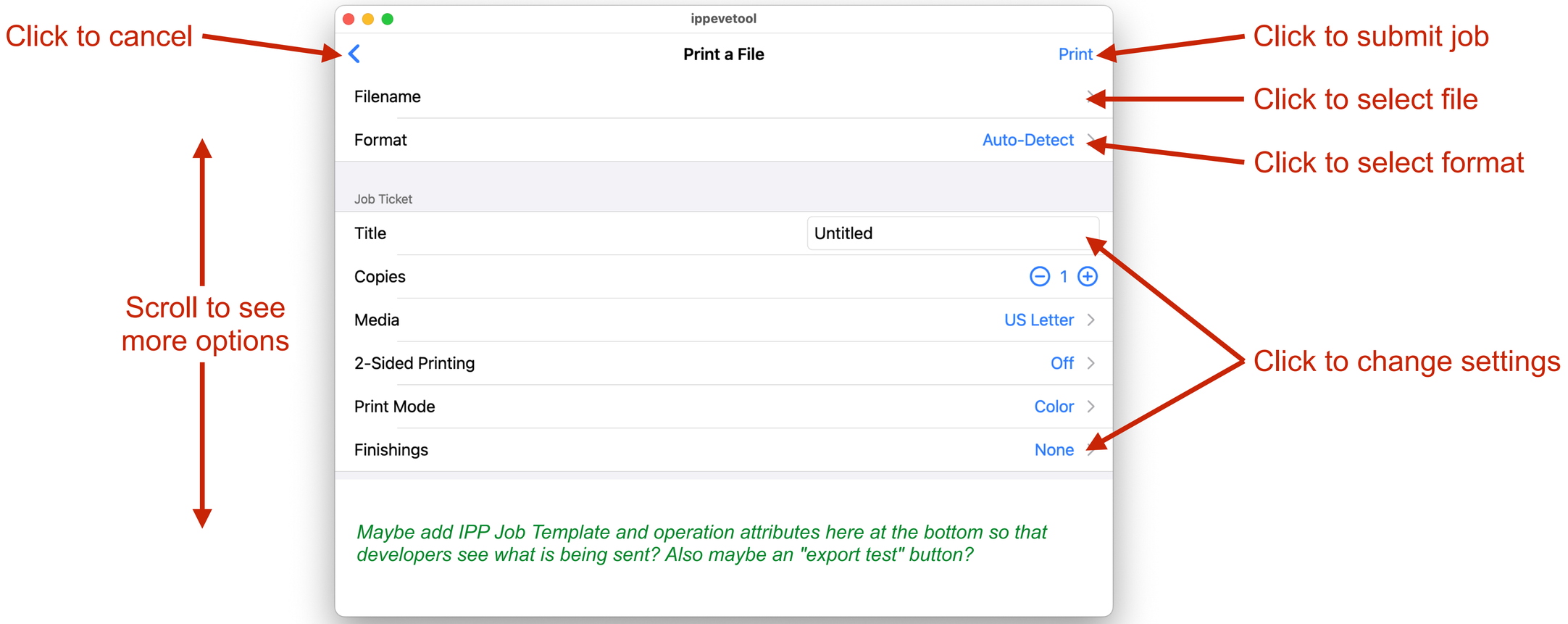
IPP Attributes Window



IPP Attributes Window w/Filter

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

IPP Everywhere Printer Self-Certification Tools v2.0



Print Window

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

The Printer Working Group

IPP Workgroup Session

February 5, 2025

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

Before We Begin...

- PWG Antitrust Policy:
  - https://www.pwg.org/chair/membership_docs/pwg-antitrust- policy.pdf
  - The IEEE-ISTO Printer Working Group ("PWG") will not become involved in the business decisions of its Members. The PWG strictly complies with applicable antitrust laws. Every PWG meeting attendee shall comply with this policy. The PWG Officers and PWG Workgroup Officers are responsible to ensure that this policy is adhered to in all PWG activities.
- PWG Intellectual Property Policy:
  - https://www.pwg.org/chair/membership_docs/pwg-ip-policy.pdf
  - TL;DR: Anything you say in a PWG meeting or email to a PWG address can be used in a PWG Document
  - (but please do read the IP policy above if you haven't done so)
- **This meeting is being recorded to assist in preparation of minutes but will not be published**

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

Agenda

February 5, 2025 (US Eastern Standard Time)

When	What
10:00 - 10:30	IPP WG: Envelope Media Size Names
10:30 - 11:15	IPP WG: IPP Console Extensions v1.0 (CONSOLE)
11:15 - 12:00	IPP WG: IPP Firmware Update Extensions v1.0 (FWUPDATE)
12:00 - 12:45	Lunch Break
12:45 - 13:45	IPP WG: 3D Printing Discussions
13:45 - 14:00	IPP WG: Next Steps

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

Envelope Media Size Names

- Current envelope media size names are "flap agnostic"
  - No way to know whether the flap is on the short edge ("portrait") or long edge ("landscape") based on the name
  - Normally we do not distinguish media variants (type/color/etc.) in the media size name
    - The localized name normally indicates that certain sizes are envelopes, but not where the flaps go, etc.
  - Except for roll-fed media, media size names are always expressed in portrait orientation (width < length)
- Japanese envelope sizes are explicit about flap location
  - "You" sizes have the flap on the long edge
  - "Kakugata" sizes have the flap on the short edge
- ISO 269:1985 defines the C-series envelope sizes
  - **This standard has been withdrawn by the ISO!**
  - This 4-page (including boilerplate) standard defines the C0 through C8 sizes as well as two "types" of envelopes: banker shape when the flap is on the long edge and pocket shape when the flap is on the short edge
  - Banker shape corresponds to the Japanese "You" designation while pocket shape corresponds to the Japanese "Kakugata" designation

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

Envelope Media Size Names (con't)

- The policy in section 5 of PWG 5101.1-2023 specifies that only one media size name be registered for a particular width and length:
  - https://ftp.pwg.org/pub/pwg/candidates/cs-pwgmsn21-20230915-5101.1.pdf#page=18
- The current "media-col" Job/Document Template collection member attributes do not provide intent for the envelope flap location
- Some sizes historically have a "standard" flap location
  - Long edge:
    - ISO DL
    - US #8 (Personal), Monarch, #9, #10, #11, #12, and #14
    - JIS You 4 and 6
  - Short edge:
    - Japanese Chou 2, 3, 4, and 40
    - Japanese Kakugata 1, 2, 3, 4, 5, and 8

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

Envelope Sizes: Solutions

- Many IPP clients localize sizes based on their dimensions
  - Two media with the same dimensions are treated as a single size
  - Two media with portrait and landscape dimensions are treated as two sizes, landscape size currently show with "dimensional" name (e.g. "235x120mm" instead of "You Chou 3"
- Extend "media" size names:
  - Add envelope size names in PWG 5101.1 as needed with corresponding long-edge flap sizes:
    - "jpn_you2_162x114mm" Japanese You 2
    - "jpn_youchou3_235x120mm" for the long edge version of "jpn_chou3_120x235mm"
    - "iso_NAME-long-edge_LxWmm" to the long edge versions of "iso_NAME_WxLmm"
  - Provide guidance - landscape dimensions for long edge flap envelope sizes, "NAME-long-edge" unless a exclusively a national size
- Extend "media-col" member attributes:
  - Landscape "media-size" dimensions
  - "media-source-properties" specifies location of envelope flap: "media-source-feed-orientation" for flap location (top of envelope as viewed) and "media-source-feed-direction" for short/long edge.
- Contact IPP client developers to add localizations for new envelope sizes

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

IPP Console Extensions v1.0 (CONSOLE)

- Interim draft:
  - https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippconsole10-20250127.pdf
- Registration for exposing SNMP prtConsole values and the printer's embedded web server "home page"
- Proposed schedule:
  - Prototype draft Q1/Q2 2025
- Goals:
  - Support remote monitoring of the console text and indicator lights
  - Provide a vendor-neutral URL for the embedded web interface

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

IPP Firmware Update Extensions v1.0 (FWUPDATE)

- Interim draft:
  - https://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippfwupdate-20241024-rev.pdf
- Registration for monitoring and managing firmware updates
- Proposed schedule:
  - Prototype draft Q1/Q2 2025
- Goals:
  - Good user experience
  - Simple Client interface
  - Secure/safe updates

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

The Printer Working Group

Lunch Break

February 5, 2025

IPP workgroup resuming at 12:45pm ET

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

3D Printing and Scanning Discussions

- Current documents:
  - PWG 5100.21-2019: IPP 3D Printing Extensions v1.1
  - PWG 5199.5-2017: PWG 3D Print Job Ticket and Associated Capabilities v1.0 (PJT3D)
  - PWG 5199.7-2019: PWG Safe G-Code Subset for 3D Printing v1.0
- Discussion:
  - America Makes Spring TRX and RAPID+TCT

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

America Makes Spring TRX and RAPID+TCT

- America Makes Spring TRX and RAPID+TCT 2025
  - April 8-10 in Detroit, MI
  - Should we send someone (Paul?) to attend?

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

The Printer Working Group

Next Steps

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

Next Steps

- IPP Console Extensions v1.0 (Mike)
  - IPP WG Last Call in Q1/Q2 2025
- IPP Firmware Update Extensions v1.0 (Smith)
  - IPP WG Last Call in Q1/Q2 2025
- IPP OAuth Extensions v1.0 (Mike/Piotr)
  - PWG Last Call in Q1 2025
- IPP Shared Infrastructure Extensions v1.1 (Mike)
  - PWG Call for Objections in Q1 2025
- IPP System Service v1.1 (Mike)
  - PWG Call for Objections in Q1 2025
- IPP Everywhere v2.0/Printer Self-Certification Manual v2.0/Self-Certification Tools v2.0
  - Restart development Q1/Q2 2025

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.

More Information

- We welcome participation from all interested parties
- IPP Working Group web page
  - https://www.pwg.org/ipp/index.html
- Subscribe to the IPP mailing list
  - https://www.pwg.org/mailman/listinfo/ipp
- IPP WG holds bi-weekly phone conferences announced on the IPP mailing list
  - Next conference calls scheduled for Thursday, February 27 and March 13, 2025 at 3pm ET

Copyright © 2025 The Printer Working Group. All rights reserved. The IPP Everywhere and PWG logos are trademarks of the IEEE-ISTO.