

# Printer Working Group

Plenary – February 10, 2010

Scottsdale, AZ

(Hosted by MWAi)

# Plenary Agenda

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- Administrivia
  - Need replacements for PWG Chair and IDS WG Secretary
- ISO JTC1 SC28 –PWG Liaison
- PWG Working Group Status [WG Chairs]
  - MFD (Semantic Model)
  - WIMS (DMTF CIM, PMP, Power Management)
  - IPP (IPP v2)
  - IDS (Imaging Device Security)
- Next Meeting Details

# Administrivia

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- Welcome and Introductions
- Assign Minutes Taker
- Approve/Modify Agenda
- Approve Previous Plenary Minutes
- Review PWG Patent Policy
- Agenda for the Week
- Future PWG Meeting Schedule
- 2010 Membership (current status)
- PWG Officers

# PWG Patent Statement



- PWG standards may include the known use of essential patents and patent applications provided the PWG Chair receives assurance from the patent holder or applicant with respect to patents whose infringement is, or in the case of patent applications, potential future infringement the applicant asserts will be, unavoidable in a compliant implementation of either mandatory or optional portions of the standard. This assurance shall be provided without coercion. This assurance shall be either:
  - a) A general disclaimer to the effect that the patentee will not enforce any of its present or future patent(s) whose use would be required to implement either mandatory or optional portions of the proposed PWG standard against any person or entity complying with the standard; or
  - b) A statement that a license for such implementation will be made available without compensation or under reasonable rates, with reasonable terms and conditions that are demonstrably free of any unfair discrimination.
- The PWG is not in a position to give authoritative or comprehensive information about evidence, validity or scope of patents or similar rights, but it is desirable that any available information should be disclosed. Therefore, all PWG members shall, from the outset, draw PWG's attention to any relevant patents either their own or of other organizations including their Affiliates that are known to the PWG members or any of their Affiliates, although PWG is unable to verify the validity of any such information.

# Inappropriate Topics for PWG WG Meetings

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- Don't discuss the validity/essentiality of patents/patent claims
- Don't discuss the cost of specific patent use
- Don't discuss licensing terms or conditions
- Don't discuss product pricing, territorial restrictions, or market share
- Don't discuss ongoing litigation or threatened litigation
  - Don't be silent if inappropriate topics are discussed  
...do formally object.

# Agenda for the Week

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## **Tues Feb. 9**

9:00 AM - 12:00 PM MFD (part 1)

12:00 PM - 1:15 PM Lunch (MWAi presentation)

1:15 PM - 2:45 PM MFD (part 2)

2:45 PM - 3:00 PM Break

3:00 PM - 5:00 PM WIMS

# Agenda for the Week

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## **Wed Feb. 10**

9:00 AM - 10:30 AM MFD (part 3)

10:30 AM - 10:45 AM Break

10:45 AM - 11:30 AM Plenary (part 1)

11:30 AM - 12:30 PM Lunch

12:30 PM - 1:45 PM Plenary (part 2)

1:45 PM - 3:15 PM IPP Everywhere BOF

3:15 PM - 3:30 PM Break

3:30 PM - 5:00 PM IPP

# Agenda for the Week

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## **Thurs Feb. 11**

9:00 AM - 12:00 PM IDS

12:00 PM - 1:15 PM Lunch

1:15 PM - 3:30 PM IDS



# 2010 PWG Meeting Schedule

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- Feb 2-4                      Scottsdale, AZ (MWAi)
- Apr 6-8                      Camus, WA (Sharp)
- Jun 8-10                      Rochester, NY (Xerox)
- Aug 10-12                      Bagsværd, Denmark (MPI Tech)
  - shift to Aug 3-5?
  - Attendees for August? Please do survey:  
<http://www.surveymonkey.com/s.aspx?sm=q2v9XcXMx9dmJ0aRfwqIjA3d3d>
- Oct 18(week of)              Lexington, KY (Lexmark)
- Dec 7-9(host: TBD)

# 2010 Membership: 24 Members, 6 Unpaid (as of 2/01/2010)

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- ✓ **366 Software**
- ✓ **Apple Inc.**
- ✓ **Canon, Inc.**
- ✓ **Coretronic**
- ✓ **Dell**
- × **Epson**
- ✓ **Fuji Xerox Co. Ltd.**
- ❖ **Hewlett-Packard**
- × **Intermate A/S (Kodak)**
- ❖ **InfoPrint Solutions/Ricoh**
- ✓ **Konica Minolta**
- ❖ **Kyocera Corporation**
- ✓ **Lexmark International**
- ✓ **Microsoft**
- ✓ **MPI Tech**
- ✓ **MWA Intelligence Inc.**
- ✓ **NEC Display Solutions**
- ❖ **Northlake Software, Inc**
- ✓ **Oki Data**
- ❖ **Samsung Electronics**
- ✓ **Sharp Labs of America**
- × **Sigma-Tel=>Conexant**
- ✓ **Toshiba**
- ✓ **Xerox Corporation**
- ✓ **Zoran Imaging Division**
- ❖ **Tykodi Consulting Services LLC.**
- ✓ **Technical Interface Consulting**

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>✓ <b>Paid, agreement signed</b></li><li>❖ <b>Unpaid, agreement signed</b></li><li>× <b>Unpaid, agreement unsigned</b></li></ul> |
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# PWG Officers

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- PWG Chair
  - Need a new Chair
- PWG Vice-Chair
  - Nancy Chen, Oki Data
- PWG Secretary
  - Paul Tykodi, Tykodi Consulting Services LLC

# ISO JTC1 SC28 – PWG Liaison

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- Status
  - Presented PWG and PWG standards at the last SC28 plenary meeting on Jan. 22, 2010 (by Lee Farrell)
  - Lee Farrell has drafted the official liaison relationship establishment letter ready to be sent to SC28
  - The relationship establishment letter will be sent to SC28 as soon as the new PWG Chair is on board.

# PWG Working Group Status

# PWG Plenary Status Report MFD Working Group

February 10, 2010  
Scottsdale, AZ  
PWG F2F Meeting

# Purpose of the effort

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**The MFD working group is concerned with the modeling of imaging services and subunits that comprise a network connected Multifunction Device. The Objectives are:**

- Drive to a standard semantic definition for MFD's Subunits, Services, Jobs and Documents.
  - Agreement on the semantics of their attributes, operations and parameters.
- Currently being addressed are an overall MFD specification, Copy Service and FaxOut Service.
  - The Print, Scan and Resource Services have been completed
- The definition of a framework for the complete model is an objective.

# Approved Documents:

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## Print Service: *Approved January 2004*

- PWG5105.1  
PWG Semantic Model Specification Version 1.00
- <ftp://ftp.pwg.org/pub/pwg/candidates/cs-sm10-20040120-5105.1.pdf>

## Scan Service: *Approved April 2009*

- PWG5108.02-2009:  
Network Scan Service Semantic Model and Service Interface Version 1.0
- <ftp://ftp.pwg.org/pub/pwg/candidates/cs-sm20-scan10-20090410-5108.02.pdf>

## Resource Service: *Approved July 2009*

- PWG5108.03-2009  
Network Resource Service Semantic Model and Service Interface Version 1.0
- <ftp://ftp.pwg.org/pub/pwg/candidates/cs-sm20-resource10-20090703-5108.03.pdf>



# In Progress Documents:

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## MFD Model and Overall Semantics:

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- MFD Model and Overall Semantics – January 11, 2010 Interim Draft
- <ftp://ftp.pwg.org/pub/pwg/mfd/wd/wd-mfdoverallmod10-20100111.pdf>

## Copy Service:

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- Copy Service: Semantic Model and Service Interface – January 2, 2010 Interim Draft
- <ftp://ftp.pwg.org/pub/pwg/mfd/wd/wd-mfdcopymodel10-20100102.pdf>

## FaxOut Service:

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- FaxOut Service:  
Semantic Model and Service Interface – January 26, 2010 Interim Draft
- <ftp://ftp.pwg.org/pub/pwg/mfd/wd/wd-mfdfaxoutmodel10-20100126.pdf>

# Schema Status:

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- Initial version of Power Management data has been added under SystemDescription
- Initial proposed System Service has been added
  - Allows access to system wide elements (e.g. system counters, all subunits, all conditions)
- All the existing services have had their interfaces “homogenized”

# Remaining Services

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- Services planned to be addressed after the current Services are complete. (Subject to change based on group consensus)
  - MFD System Service
  - FaxIn Service
  - EmailIn Service
  - EmailOut Service
  - Transform Service

# Next Steps

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- Work to complete the MFD specification.
  - Delay PWG wide Last Call and Formal Vote until at least one service normatively dependant on this specification reaches Last Call status
- Complete Copy Service specification and find resource to prototype (possibly Xerox)
- We need people to step up as editors of remaining service specifications. The MFD specification reduces the amount of work to produce a service specification. The current Copy specification and FaxOut specification can be used as templates.

## More Info/How to participate

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- **We welcome more participation from member companies**
- **The group maintains a Web Page for MFD That includes links to the latest documents, schema and a browsable version of the schema**

<http://www.pwg.org/mfd/index.html>

## More Info/How to participate

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- **Information on subscribing to the MFD mailing list is available at**  
<<https://www.pwg.org/mailman/listinfo>>
- **MFD holds periodic phone conferences, with dates, call numbers and agenda announced on the MFD mail list.**

# PWG Plenary Status Report

## Workgroup for Imaging Management Solutions (WIMS)

**Printer Working Group  
Face-to-Face Meeting**

**February 10, 2010  
Scottsdale, Arizona**

# Purpose of the effort

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- **The WIMS working group is concerned with:**
  - Supporting the remote management of Hardcopy Imaging devices by the definition of new and the recasting of previously-defined imaging device and service management elements for mapping into standard management semantics and protocols, including but not limited to SNMP, CIM, and Web Services Management
  - Continuing update and extension of the DMTF/CIM classes concerned with Imaging Devices and Services.
  - Continuing support and update of the printer-related PWG and IETF published MIB documents
  - Continuing support and update of the specifications produced by the former PWG MIB Working Group (PMP) as well as by the PWG WIMS Working Group.



# Work Items for the WG

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## • **What We're Doing**

- Supporting the existing IETF and PWG Printer and related MIB documents, including the advancement, extension and expansion of these specifications.
- Advancing a basic public management elements structure for Hardcopy Services and Devices that draws upon existing structures and that utilizes a set of management elements that is consistent over the various management protocols and methods.
- Update, Create and Prototype DMTF/CIM Imaging MOFs, with the objective of ensuring Hardcopy Device and Service management via a Web Services approach that is consistent with the basic public management elements structure

## • **What We're NOT Doing**

- We are not addressing the delivery of Hardcopy services.
- We are not specifically concerned with security issues related to Hardcopy Devices or Services, although management must recognize and accommodate the requirements and constraints demanded by security.
- We are not defining a management service or protocol.

# Current Activities - CIM



## ➤ **Printer Classes**

- Rick is using new DMTF CR tool to create change requests for updated MOFs
  - CIM\_Printer.mof / pdf (editorial fixups and deprecations)
  - CIM\_PrintChannel.mof / pdf (add new enums from IANA Printer MIB)
  - CIM\_PrintInputTray.mof / pdf (delete duplicate property)
  - CIM\_PrintInterpreter.mof / pdf (add new enums from IANA Printer MIB)

## ➤ **PrintService Classes**

- CIM\_PrintJob, CIM\_PrintService, CIM\_PrintServiceCapabilities, and CIM\_PrintServiceSettings mof's are done
- PrintQueue, PrintSAP and other small classes still need some update.
- Diagram of the extended CIM Printing classes must be written in Visio and PDF, per DMTF process
- New CIM Change Requests (CRs) must be written

## ➤ **Printer Proxy CIM Provider**

- Rick remains interested in feedback on user's experiences with the SNMP-CIM interpreter package. Information and code is available at:
  - ❑ [ftp://ftp.pwg.org/pub/pwg/wims/cim/DellPrinterProviderProxyPrototype\\_README.txt](ftp://ftp.pwg.org/pub/pwg/wims/cim/DellPrinterProviderProxyPrototype_README.txt)
  - ❑ [ftp://ftp.pwg.org/pub/pwg/wims/cim/DellPrinterProviderProxyPrototype\\_v10.zip](ftp://ftp.pwg.org/pub/pwg/wims/cim/DellPrinterProviderProxyPrototype_v10.zip)

# Current Activities - PMP

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- Dell has reported that information in IEEE1284 Device Id "COMMAND SET" document has been prototyped. The Document status has been raised to "Stable"
- The current stable draft is posted at:  
<ftp://ftp.pwg.org/pub/pwg/pmp/wd/wd-pmp1284cmdset10-20100125.pdf>
- The document has been put into PWG Last Call, prior to being voted on for advancement to Candidate Standard. Last call will end nominally on 25 February.
- With the timely resolution of Last Call comments, it is anticipated that this document will be set for balloting for advancement to PWG Candidate Standard, with voting complete by the April 2010 Plenary meeting.

# Current Activities – Imaging Power Management

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- The Power Management Imaging Systems Documents include:
  - Power Management Model for Imaging Systems 1.0
  - Imaging System Power MIB v1.0
  - PWG-IMAGING-SYSTEM-POWER-MIB
  
- See the most recent versions of these “wd-wimspower10” documents at:  
<ftp://ftp.pwg.org/pub/pwg/wims/wd/>
  
- Proposed schedule has documents reviewed and awaiting MIB prototype implementation by February 2010. After prototype and adjustment of the documents to address issues that arise during prototype, specification documents will be up for PWG last call and Ballot.

# Potential MIB Activities

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- **Printer Port Monitor MIB**
  - update spec
  - interoperability testing ?
  - advance PPM to PWG standard ?
- **Identify Printer MIB Problems**
  - MIB will be basis for future WS management. Therefore, MIB problems will delay development and/or restrict effectiveness of WS Imaging Management utilities.
  - Users and Fleet Management Agencies both need to understand some of MIB implementation variations, and should have some place to voice the questions.
- **MFD MIB or MIB extensions?**
  - Many attempts, of varying completeness, started in the past, especially MFD Alerts.
  - MFD group is addressing service semantics; need to address management elements

# Next Steps

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- Continue with the CIM effort, eventually to include the CIM Printer Profile.
- Continue the Hardcopy Imaging Device Power Management Project, including prototype implementation of the Imaging System Power MIB.
- Maintain and update existing set of Printer- and MFP-related specifications.
- Attempt at increased contact with user community understand needs and identify real hardcopy device management requirements and use cases.

# More Info/How to participate

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- We welcome participation from PWG member companies and input from the user community
- The group maintains a Web Page and separate WIKI pages for WIMS and for CIM update
  - <http://www.pwg.org/wims/index.html>
  - <http://pwg-wiki.wikispaces.com/WIMS>
  - <http://pwg-wiki.wikispaces.com/WIMS-CIM>
- To subscribe to the WIMS mailing list, go to :
  - <https://www.pwg.org/mailman/listinfo/wims>
- WIMS holds periodic phone conferences. Dates and agenda on PWG Google Calendar.
  - <http://www.google.com/calendar/embed?src=istopwg%40gmail.com>
  - Contact WIMS Chair for phone number and access code.

# PWG Plenary Status Report IPP Working Group

February 10, 2010  
Scottsdale, AZ, PWG F2F Meeting



# IPP WG Officers

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- IPP WG Chair:
  - Paul Tykodi (TCS)
- IPP WG Secretary:
  - Michael Sweet (Apple)
- IPP WG Document Editors:
  - Tom Hastings (formerly Xerox) – IPP JPS2
  - Ira McDonald (High North) – IPP Version 2.0
  - Mike Sweet (Apple) – IPP Version 2.0

# IPP WG Current Status

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- IPP Version 2.0 First Edition
  - PWG Candidate Standard – defines IPP/2.0 and IPP/2.1
  - <ftp://ftp.pwg.org/pub/pwg/candidates/cs-ipp20-20090731-5100.10.pdf>
- IPP Printer State Extensions (PSX)
  - PWG Candidate Standard – IPP Printer/Finisher alerts
  - <ftp://ftp.pwg.org/pub/pwg/candidates/cs-ippstate10-20090731-5100.9.pdf>

# IPP WG Current Status

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- IPP Job and Printer Operations Set2 (JPS2)
  - WG Last Call
  - Resubmit-Job, Cancel-Jobs, Cancel-My-Jobs, job save, proof print, etc.
  - <ftp://ftp.pwg.org/pub/pwg/ipp/wd/wd-ippjobprinterext10-v16-20100111-rev.pdf>
- IPP Version 2.0 Project Charter
  - PWG SC Approved – adds IPP Job and Printer Operations Set2
  - <ftp://ftp.pwg.org/pub/pwg/ipp/charter/ch-ippv2-20090819.pdf>
- IPP/2.0 Second Edition
  - Initial draft posted
  - <ftp://ftp.pwg.org/pub/pwg/ipp/wd/wd-ipp20-20100126-rev.pdf>

# IPP JPS2 Prototyping

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- Add table

# IPP WG Next Steps

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- IPP Job and Printer Operations Set2 (JPS2)
  - Get prototype experience
  - PWG Last Call in Q1 2010 (w/IPP Version 2.0 2nd Ed)
- IPP Version 2.0 Second Edition
  - Review and update drafts
  - PWG Last Call in Q1 2010 (w/JPS2)
- IPP 2.0/2.1/2.2 Interoperability Testing
  - Interoperability event in Q2/Q3 2010
- IPP Everywhere?

# IPP WG Info / Participation

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- We welcome participation from all interested parties
- IPP Working Group web page
  - <http://www.pwg.org/ipp/index.html>
- IPP Working Group wiki
  - <http://pwg-wiki.wikispaces.com/IPP>
- Subscribe to the IPP mailing list
  - <http://www.pwg.org/mailhelp.html>
- IPP WG holds bi-weekly phone conferences announced on the IPP mailing list

# PWG Plenary Status Report IDS Working Group

February 10, 2010  
Scottsdale, AZ, PWG F2F Meeting

Joe Murdock (Sharp)  
Brian Smithson (Ricoh)

# Purpose of the effort

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- The industry is moving beyond basic authentication for access to corporate networks to a more detailed assessment of the “health” of devices before allowing them to access the network.
  - Examples of what’s being measured for PC Clients:
    - OS Type, Version, Patch Level
    - Anti-virus Type, Version, Definition Level, Is Active
- Hardcopy Devices attach to networks, but there’s no standard set of metrics that is used to assess an HCD.
  - As a result, HCDs are treated as an exception and are allowed to attach to the network based solely on a MAC address.
- Our goal is to provide the metrics and mechanisms that allow HCDs to fully participate in assessment-protected networks.



# Work Items for the WG

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- What We're Doing
  - We are defining a standard set of metrics that can be measured or assessed in Hardcopy Devices to gauge if they should be granted access to a network.
  - Current targets are MS NAP and IETF NEA.
  - We are defining example "bindings" for how these metrics are used in the individual network assessment protocols.
- What We're NOT Doing
  - We are NOT defining any new assessment protocols, nor assessment extensions to existing authentication protocols.
  - We are NOT endorsing any of the competing network assessment protocols (TNC, NAC, NAP, NEA). Our goal is to enable Hardcopy Devices to participate in any/all of them.

# Administration

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- IDS WG Chairs
  - Joe Murdock (Sharp)
  - Brian Smithson (Ricoh)
- IDS WG Secretary:
  - <open>
- IDS WG Document Editors:
  - HCD-ATR: Jerry Thrasher (Lexmark)
  - HCD-NAP: Joe Murdock (Sharp), Brian Smithson (Ricoh)
  - HCD-NEA: Randy Turner (Amalfi), Jerry Thrasher (Lexmark)

# Current Status

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- HCD Assessments Attributes document is stable.
- HCD-NAP Binding Document is stable.
- HCD-NEA Binding Document is under development.
  - Target completion date of Q2 2010.
- Investigating ways to get network management applications to support IDS attributes
  - Developing IDS Marketing Rational document
  - Microsoft System Center/ForeFront products
    - No recent contact with Microsoft
    - There is an issue about how to deploy HCD NAP in practice: how can we get MS's SHV to recognize and apply HCD\_ATR?
  - Symantec Endpoint Protection product line
    - Initiating contact with Symantec

# Next steps

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- Finish NEA binding specification – (Q2 2010)
- Seek approval/adoption with respect to assessment protocol vendors.
- Address deployment issues
  - How to securely populate and update SHVs with HCD attributes and base values from vendors?
  - Should we first target the MS SCCM SHV by defining HCD responses that do not require SHV changes?
- Address remediation issues.
  - Should remediation mechanisms be vendor-specific? Or HCD-industry specific? Or can it be solved in a general way?
- Interaction with TCG Hard Copy Working Group

# Other Questions / Comments

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# Next PWG Meeting

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- April 6-8 at Camas, WA, hosted by Sharp

Sharp Labs America (SLA)  
5750 NW Pacific Rim Blvd.  
Camas, WA 98607

Thanks to MWAi for Hosting!