3D Printing BOF Meeting Minutes
August 13, 2014

Meeting was called to order at approximately 1:00pm ET August 13, 2014.

Attendees

Danny Brennan (IBM)
Rob Gilson
Till Kamppeter (Canonical/OpenPrinting)
Shane Lin (Monotype)
Daniel Dressler
Daniel Manchala (Xerox - call in)
Ira McDonald (High North - call in)
Johannes Meixner (SuSE)
Joe Murdock (Sharp)
Mike Sweet (Apple)
Paul Tykodi (TCS - call in)
Bill Wagner (TIC)
Stephan Wieuhula
Rick Yardumian (Canon)

Agenda Items

1. IP Policy/Minutes
   a. IP policy announced, Mike Sweet taking minutes
2. Slides
   a. http://ftp.pwg.org/pub/pwg/BOFs/3d-printing/3d-bof-august-2014.pdf
   b. AMF goes beyond just layering, it can represent curved surfaces, specification of interior support structures, and multiple materials
      - Update slides to show AMF as 3D, alternative to STL and others
      - Not an open standard, which has hurt adoption
      - Q: Can the PWG work with ASTM to get an open version of AMF spec?
         - A: Mike and Paul can talk with them about it
         - Action: Mike and Paul to contact ASTM about opening AMF spec
         - Rob Gilson to provide additional contacts
   c. AMF just for batch processing, printers directly attached
      - See the need for a network protocol, but not there yet
   d. Q: Why focus on AMF?
      - A: To have a higher-level file that doesn't need printer-specific stuff (like G-code)
      - Avoids having hacks like STL in green, STL in blue, etc.
   e. Very little remote status monitoring/supplies

- Issue is not having sensors to provide the information
- All proprietary
- Contact Shapeways for some feedback on this (they do commercial 3D printing services)
f. Q: Is PWG SM applicable?
  - A: Yes
g. Q: Continue 3D printing BOFs?
  - A: Generally yes. But we need vendors who are interested in doing it to participate
  - Do another 1 hour session during the November 2014 F2F with status
h. Q: Should we prepare a marketing white paper for outreach?
  - A: Yes
  - Who to work on this?
    - Mike Sweet
    - Daniel Brennan
    - Daniel Dressler
    - Rob Gilson (reach out to Ulimaker)
    - Paul Tykodi
  - Do a press release announcing we are doing a white paper to reach out
  - White paper provides introduction to semantic model, common network issues that vendors will see, show how it applies to 3d printing, mention existing open source code, work towards open 3D formats, invite to participate
  - Maybe encourage more sensors/better reporting when it is possible to pass that info
  - Mailing list: 3d-printing@pwg.org; to subscribe:
    - https://www.pwg.org/mailman/listinfo/3d-printing
i. Tegh:
  - Web service/web sockets, json encoding, etc.
  - Not a problem since the semantic model applies to any binding, abstract model applies to specific protocol bindings.

Next Steps / Open Actions

- Action: Mike and Paul to contact ASTM about opening AMF spec