Interface Standards for Portable Coordinate Measuring Systems

CMSC General Session Workshop
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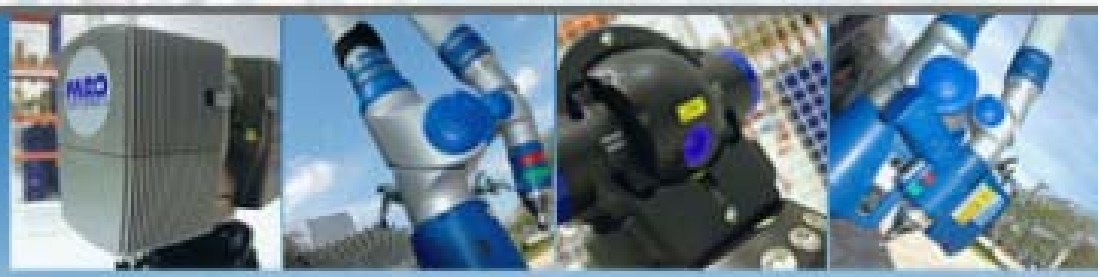

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Interoperability Status

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Hardware

- *Laser Trackers*
  - *Ethernet (wired or wireless)*
  - *Proprietary SDK – Open interface for 3rd party software and custom applications*
  - *Proprietary TrackArm link*
- *Articulated Arms*
  - *USB and Serial communication*
  - *Proprietary SDK – Open interface for 3rd party Scanner Hardware and 3rd Party software*
  - *Proprietary link to tracker*
  - *Non-Contact Scanner shares Arm interface*
- *Non-Contact Scanners (large scale)*
  - *Ethernet communication*
  - *Proprietary SDK – Open interface for 3rd parties.*

Software

- *FARO software only runs FARO products*
- *Third party software uses proprietary developer's kits to provide a single software product that can run multiple pieces of software.*
- *Different types/brands of hardware have different interfaces, but the 3rd party software companies can make the front end the same.*

Interoperability Pains

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Hardware Company Perspective

- *Difficult to support hardware running on many different software products*
  - *We don't always know how the hardware is being driven. Items like sample rates, beam break handling and measurement modes are hardware specific.*
- *Some hardware companies are blocked from running other hardware with their software*
  - *The way it is today, hardware company's native software often cannot support competitor's products.*

Interoperability Future?

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Hardware Company Perspective

- *All Software has access to all hardware*
- *Standard hardware interface provides high level access to proprietary SDK.*

Interoperability – What should we do?

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Hardware Company Perspective

- *Shortest path to interoperability is to open hardware interfaces to all.*
- *New standards would limit functionality and development of new products.*