

Toulouse Meeting Agenda WG15 Digital Manufacturing

Monday May 13th to Thursday May 16th, 2019

Monday May 13th – Standards development

- 08:00AM Participate in SC4 plenary
- 10:00AM Coffee break
- 10:30AM Introductions
Project Review – ISO 23592 (QIF), AP238, ISO 23247
Finalization of meeting agenda
- 12:00PM Lunch
- 01:00PM ISO 23247 Digital Twin manufacturing framework – CD Preparation
Part 1 – Overview
Part 2 - Architecture
- 03:00PM Break
- 03:30PM ISO 23247 Digital Twin manufacturing framework – CD Preparation
Part 3 – Information Models
Part 4 – Communication Protocols
- 05:00PM Close

Tuesday May 14th – Standards development

- 08:00AM AP238 Model Based Manufacturing – DIS Preparation
Review of Modular ARM -1000 new objects
- 10:00AM Break
- 10:30AM 10303-59 Product Data Quality and Digital Manufacturing
Joint meeting with WG12
- 12:00PM Lunch
- 01:00PM AP238 & AP235
Integration of Product, Process and Materials

03:00PM	Break
03:30PM	Digital Twin Part 21 <i>Requirements for digital twin manufacturing</i>
05:00PM	Close

Wednesday May 15th – Standards development

08:00AM	ISO 23247 Digital Twin manufacturing framework – CD Preparation <i>Part 1 – Overview</i> <i>Part 2 - Architecture</i>
10:00AM	Break
10:30AM	WG15 will attend the AP242 session of Industry Day
12:00PM	Lunch
01:00PM	ISO 23247 Digital Twin manufacturing framework – CD Preparation <i>Part 3 – Information Models</i> <i>Part 4 – Communication Protocols</i>
03:00PM	Break
03:30PM	Preparing for Los Angeles meeting <i>Digital Twin Part 21 NWI submission</i> <i>ISO 23247 (Framework) CD submission</i> <i>AP238 e2 (STEP-NC) DIS submission</i> <i>ISO 23592 (QIF) DIS submission</i>
05:00PM	Close

Thursday May 16th – Digital Manufacturing Implementors Forum

08:00AM	Small Scale Digital Twin machining <i>MTCConnect, STEP and QIF integration</i> <i>Martin Hardwick STEP Tools, Inc.</i>
08:30AM	AutomationML demonstration <i>TBD</i>
09:00AM	Materials Database (Granta) demonstration <i>Afina Lupulescu, ASM International</i>
09:30AM	Open

10:00AM	Break
10:30AM	<p>Applications Roundtable</p> <ul style="list-style-type: none"> • Context-Based Machine Monitoring/State Display <i>David Odendahl, Boeing & OMAC</i> • Cutter Assembly Management <i>Bengt Olsson, Sandvik</i> • Integrated Flexible GD&T <i>Larry Maggiano, Mitutoyo</i> • Standards-Based Digital Twins of Complete Machining Systems <i>Gordon Shao, NIST</i> • Seamless Tooling Optimization <i>Thomas Lundholm, KTH</i> <i>Darya Botkina, KTH</i>
12:00PM	Lunch
01:00PM	<p>Medium Scale Digital Twin “robot drill and fill”</p> <p><i>Participation by Robot CNC vendors</i></p> <p><i>Participation by CAD/CAM vendors</i></p> <p><i>Participation by OEM’s</i></p>
03:00PM	Break
03:30PM	<p>Los Angeles Meeting Preparation</p> <p><i>Proof of concept for “drill and fill”</i></p> <p><i>Vendor invitation lists</i></p>
05:00PM	Close

Friday May 16th – DMIF Digital Twin Demonstration at Mitutoyo facility in Toulouse - Open to public (rsvp required - no cost)

08:00AM	Introductions
08:30AM	<p>Digital Twin and the Digital Thread</p> <p><i>From CAD to CAM to CNC to CMM to CAD</i></p> <p><i>David Odendahl, Boeing</i></p>
09:00AM	<p>Digital Twin demonstration</p> <p><i>Larry Maggiano, Mitutoyo America</i></p>
09:30AM	<p>Participation in Future Digital Twin Projects</p> <p><i>Martin Hardwick, STEP Tools</i></p>