DRAFT AGENDA

Model Based Machining
Cloud Services for Manufacturing

CAM to CAM Data Exchange
STEP-NC Implementors Forum
DMDII Mind the Gap Project

Kickoff Meeting

February 12 – February 13, 2013
Renaissance Orlando at Sea World Hotel, USA

DAY 1 THURSDAY FEBRUARY 12TH – TUTORIALS ON MODEL BASED MACHINING

08:00AM **Enabling Model Based Machining**
1. *CAD Models – Martin Hardwick, STEP Tools, Inc.*
2. *CAM Models – David Odendahl, Boeing*
3. *Tooling Models – Bengt Olsson, Sandvik*

(Outcome: Attendees will understand how to make model based machining programs from CAD, CAM and Tooling Catalog data).

10:00AM Break

10:30AM **New Cloud Services for manufacturing**
1. *NC Path Generation Service – Dan Finke, Penn State University*
2. *3D Process Monitoring Service – Graham Hemingway, Vanderbilt University*
3. *Tooling Optimization Service – Joe Fritz, STEP Tools, Inc.*

(Outcome: Attendees will understand how the new services add value to model based machining data)

12:00PM Lunch

01:00PM **Implementation using MTConnect**
1. *CNC Integration – David Loffredo, STEP Tools, Inc.*
2. *MTConnect feedback – Thanh Huynh, Okuma*

(Outcome: Attendees will understand how to machine from models)

03:00PM Break

03:30PM **Round1 (February 9th to July 31st)**

1. *Scope – Martin Hardwick, STEP Tools, Inc.*
2. *CAM Stage Models – Charles Gilman, General Electric*
3. *CNC Machining – Sid Venkatesh, Boeing*

(Outcome: Attendees will understand how model based machining will be tested in the first phase of the "Mind the Gap" project).

05:00PM Close

DAY 2 FRIDAY FEBRUARY 13TH – DMDII MIND THE GAP PROJECT KICKOFF

08:00AM **NC Code Generation Service**

ARL Penn State University

1. *System Design*
2. *Single setup operation*
3. *Multi setup operation*
4. *Manufacturing work instructions*
5. *Validate machining process*

(Outcome: Attendees will understand the deliverables for the NC Code Generation Service).

09:00AM **3D Process Monitoring Service**

ISIS Vanderbilt University

1. *System Design*
2. *Product Model display*
3. *Process Model display*
4. *Work Instruction display*
5. *Display in- process machining*

(Outcome: Attendees will understand the deliverables for the 3D Process Monitoring Service).

10:00AM Break

10:30AM **Tooling Optimization Service**

STEP-Manufacturing Team led by STEP Tools, Inc.

1. *System Design*
2. *Tool wear maximization*
3. *Feed/Speed optimization*
4. *Toolpath restart*
5. *Validation on test parts*

(Outcome: Attendees will understand the deliverables for the Tooling Optimization Service).

12:00PM Lunch

01:00PM **Industry Testing**

Boeing and General Electric

1. *Model Selection*
2. *Export stage models*
3. *Export process models*
4. *Export work instructions*
5. *Validate machining of test parts*

(Outcome: Attendees will understand the deliverables for the Industry Testing).

02:00PM **Review of Action Items**

STEP Tools, Inc.

1. *Stage Models*
2. *CNC Machining*
3. *Cloud Services*

(Outcome: Attendees will understand the next steps for the Mind the Gap project).

03:00PM Close