



Dear Members of the Manufacturing Community,

We are delighted to invite you to join us in **Hartford, Connecticut** for demonstrations of our new standards for CNC machining. The meeting will be held on **Wednesday and Thursday, October 1st and 2nd** at **the Connecticut Center for Advanced Technology (CCAT)**.

Why STEP-NC machining?

STEP is a standard for CAD design data that is supported by nearly all CAD systems and has been extensively tested and used by industry for the past 10 years. STEP-NC is an extension of STEP for CNC machining that adds CAM process and tool path data to the CAD design data so that applications can measure and optimize the quality of a part during machining.

At this meeting the ISO team developing STEP standards for manufacturing will demonstrate the advantages of STEP-NC for advanced machining applications. An impeller will be machined in a titanium alloy, and measured on-line using a FARO arm and off line using a CMM machine. The demonstration will show that:

- Feeds and speeds can be adjusted on the machine to meet the latest manufacturing schedule while minimizing tool wear.
- Surface measurements can be taken using robot arms, gauges and probes and used to adjust tool path geometries for extra accuracy during final pass machining.
- Complete models of the product and process enable real time simulation and error checking for first part correct machining

The meeting

The first day of the meeting will be held at the United Technology Research Center (UTRC) on the Pratt and Whitney Campus in Hartford. This day of the meeting will feature the machining and measurement of the impeller part. The day will start with an introduction to the STEP-NC concept by machining experts. This will be followed by five axis machining of the impeller in a titanium alloy, in process measurement of the part using a FARO arm, and corrective action to finalize the machining. The day will conclude with a round panel discussion by experts from Boeing, CCAT, Sandvik, Mitutoyo, STEP and the National Institute of Standards and Technology (NIST).

The second day of the meeting will take place in the meeting facilities of the Connecticut Center for Advanced Technology (CCAT). The technical agenda will feature the latest enhancements proposed to make machining more efficient, accurate and flexible. These will include proposals for dynamic feed speed optimization that will be finalized at the meeting, and new proposals for computing and managing corrective tool paths that will be discussed for the first time at this meeting. There will also be discussions on new standards for machine tool simulation and cutting tool data exchange.

Who should attend

Industry leaders and practitioners with an interest in CNC machining efficiency and accuracy are strongly encouraged to attend these meetings. Those that want to evaluate the benefits of the standards should only need to attend the first day. Those that have a strategic interest in ensuring that the efficiency, accuracy and flexibility of the standards apply to their applications should attend both days.

Registration Fees and Policies

There is a \$50 per day registration fee for this meeting to cover food costs. Those wishing to attend are asked to contact meeting_registration@steptools.com for the latest registration information. Registration is necessary so that the hosts can track attendance and coordinate transport between the hotels and meeting sites. The registration deadline is September 26th 2008. For overseas visitor's arrival on or before Tuesday September 30th is recommended. Hartford has an airport with limited international service to Europe. The New York City and Boston airports are both within easy driving distance.

Workshop Meals

Light lunches and break refreshments will be provided by the organizers using the registration fee.

Social Events on Wednesday October 1st

A social event on the evening of October 1st will be a chance for registrants to discuss the events of the day in a more informal setting. The following URL includes pictures from the social event at the highly successful meeting held in Sweden by STEP Manufacturing in March 2008: http://www.steptools.com/library/stepnc/2008_sweden/

Hotel Information

<p>Sheraton Hartford Hotel Preferred Conference Hotel 10 minute walk to CCAT Rate: Approximately \$79-199 (€50-128) 100 East River Drive East Hartford , Connecticut 06108 USA</p>	<p>Hartford Marriott Downtown 20 minute walk to CCAT Rate: Approximately \$270-380 (€172-243) 200 Columbus Blvd Hartford, Connecticut 06103 USA</p>
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