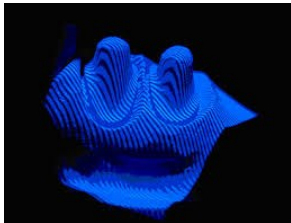# 3-D Scanning, Reverse Engineering and Metrology Seminar

Please join CCAT and Cimquest as we present some of the most robust tools in existence for 3D Scanning, Reverse-engineering and Metrology.

3D scanning and reverse-engineering products have made great strides over the past decade, both in ease of use as well as power and performance. Additionally the technology for both scanning of 3D models and reverse-engineering has dropped significantly in price, rendering the technology much more achievable for small and mid-size companies.

Cimquest will be delivering a presentation that will include the live scan of a mechanical part, using Blue-Light scanning technology. Once the scan is acquired, we will go on to present the reverse-engineering process and present how one could go from scanned data into a usable, editable, history-based CAD model for a variety of CAD systems. The process we will be presenting actually uses the acquired scanned model as somewhat of a template that we then derive a solid model from. Due to the process and software capability, the resultant solid model can contain the user's full design intent, as if the model was created from scratch in their native CAD system.

We will then present computer-aided metrology software and show how a CAD model and a scan can be used to produce a complete, date and time-stamped inspection report. We'll cover the features of defining the inspection datums on the CAD model, transferring of those datums to the scan and go through a feature-based alignment method to line up the scan with the CAD. Once positioned, we will show color mapping, Go / NoGo plots, 3D Annotations, GD&T and cross sectional views, including Whisker plots, showing the accuracy of the scan as compared to the CAD.

3D Scanning and reverse-engineering serve as a front-end to a host of CAD, CAE, CAM and 3D Printing applications. The inspection process will demonstrate the huge advances that have been made in computer-aided Metrology systems and the speed and accuracy by which scanning and inspection reports can be produced.

CIMQUEST
MANUFACTURING SOLUTIONS

Date	Location	Registration
3/1/16	CCAT	*No fee to attend with Pre-registration*
1:00-3:00 pm	Advanced Manufacturing Center	For easy sign up:
Refreshments Provided	409 Silver Lane, East Hartford, CT	http://www.etouches.com/RE

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