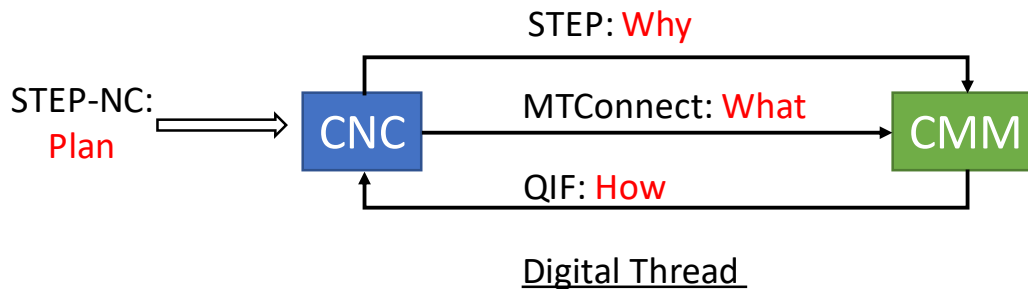


Build Anywhere Challenge V4 at IMTS 2018

In order to demonstrate that the digital thread enables “build anywhere”, we are asking IMTS vendors to participate in one, two or three of the following three challenges.

1. **Measure Anywhere**: add semantic dimensions and tolerances to a part you are already planning to machine so we can validate its tolerances using a CMM.
2. **Machine Anywhere**: machine a part to be supplied by us so we can validate its semantic tolerances using a touch probe.
3. **Make Anywhere**: machine a part that will be released on the day of the challenge so we can validate its semantic tolerances using a digital twin.



The inputs and outputs for each challenge are shown below. In each challenge, the input will include a STEP file containing design requirements and manufacturing solutions, and the output will include a QIF file describing how well the part meets the tolerances described in the requirements.

For the first challenge, you can use define your own machining solution and we will define a measurement solution. For the second challenge, we will provide machining and measurement solutions for different tooling configurations. For the third challenge, we will work with you to make a digital twin using a machining and measurement solution released on the day of the show.

For the first challenge, you can connect your CNC to a CMM using sneaker net. For the second challenge, your CNC will need a touch probe that can be connected to a CMM server using MTConnect. For the third challenge, your CNC will need to be connected to a digital twin simulator using a high speed MTConnect.

	QIF	STEP	MTConnect	
			[1-10Hz]	[100-1000Hz]
Measure Anywhere	X	X	-	-
Machine Anywhere	X	X	X	-
Make Anywhere	X	X	-	X

Schedule (July 2017 to November 2018)

- Month 1 - endorsement of standards groups
- Month 2 – endorsement of challenge sponsors
- Month 3, 4, 5 – presentations to interested parties
- Months 6 to 12 – rehearsals at test sites
- Month 14 & 16 – IMTS and JIMTOF