Digital Bridge
Marriage of Physical and Digital Technologies
J.V. Manufacturing Co., Inc.

- Designers and builders of high-speed, high-production carbide progressive stamping dies and precision components for customers worldwide.
- Founded June 4, 1975 by John C. Vecchi and Samuel A. Gruber
- Two locations in Natrona Heights, PA
  - Totaling 125,000 square feet
  - Staff of 110 employees
- Aerospace, Appliance, Automotive, Consumer Products, Cosmetics, Green Products, Medical and Nuclear Power applications
- Always innovating
Challenges

- Finding skilled labor
- Ease of onboarding
  - Lack of specific machine knowledge
  - Wide variety of skill levels and experience
  - Time consuming to train and get up to speed
- Workforce flexibility
  - Cross-training
- Increasing efficiency
  - Readily accessible information
  - Reducing setup times
- How can technology help with our challenges?
- Looking to the future with Industry 4.0

I’d like to introduce you to one piece of tech we’re investigating.
A case study
New digital technologies in action

- New employee
- 6 years of EDM machining experience at different Mfg companies on different equipment
- New digital technology, Athena, enabled me to apply my knowledge so I was producing parts in less than half an hour
  - In the past I would have needed several days to familiarize myself with the machine control
  - Athena performed the control navigation for me
- All I needed to do was ask Athena for the machine to perform the actions I desired
- Productive in minutes rather than days
Introducing The Industrious Assistant

Machining focused
Words / Lexicon
Intelligent assistant engine for machining
Hands free machine control interaction

ATHENA

J.V. Manufacturing Co., Inc.

October 31, 2019

digitalbridge 2019

Catalyst Connection
Your Strategic Partner for Manufacturing Growth
How Does Athena Help

- Set Up
- Run Machine
- Tooling
- Maintain Machine
- Learn Machine
Assistant Capabilities Mapped to Operator Needs
How is Athena Structured

- Interoperability (Much more than only voice)
  - Visual
  - Tactile
  - Text
  - Email

- Platform provides a toolkit for Machine tool builders

- End customer tool kit
  - Provides information when where and how the user needs it
    - Customer created commands / enable access to Customer network files

- Independent of internet

- Machine or user initiated interactions
Sample Functionality

- Unsolicited messages
  - Near completion notifications
  - Inadequate consumable life to produce part
  - Machine errors / warnings / stoppages

- Ability to connect to customers intranet to provide rapid access to customer specific information
  - Part Drawings
  - Setup sheets
  - Travelers
  - Inspection instructions

- Coaching capabilities
  - Short video tutorials
    - Makino created
    - Customer created
    - Production sequencing optimization

- Provide ability to sequence commands together in order to provide step by step guidance
J.V. Manufacturing Value

- Ease onboarding operators who lack familiarity with machine
- Improves workforce flexibility
  - No longer constrained by knowledge of control navigation
- Providing information to make even the most skilled people more efficient /effective
  - Improved part processing consistency / quality

Helping to enable our people
Questions?