
ERP TECH

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Shop Floor Data Collection and Automation

MFGStream for Fourth Shift

Overview and Demo

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infor



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Agenda



Introduction



ICG's Approach & Value We Deliver



Why Data Collection?



What is MFGStream?



Success Stories

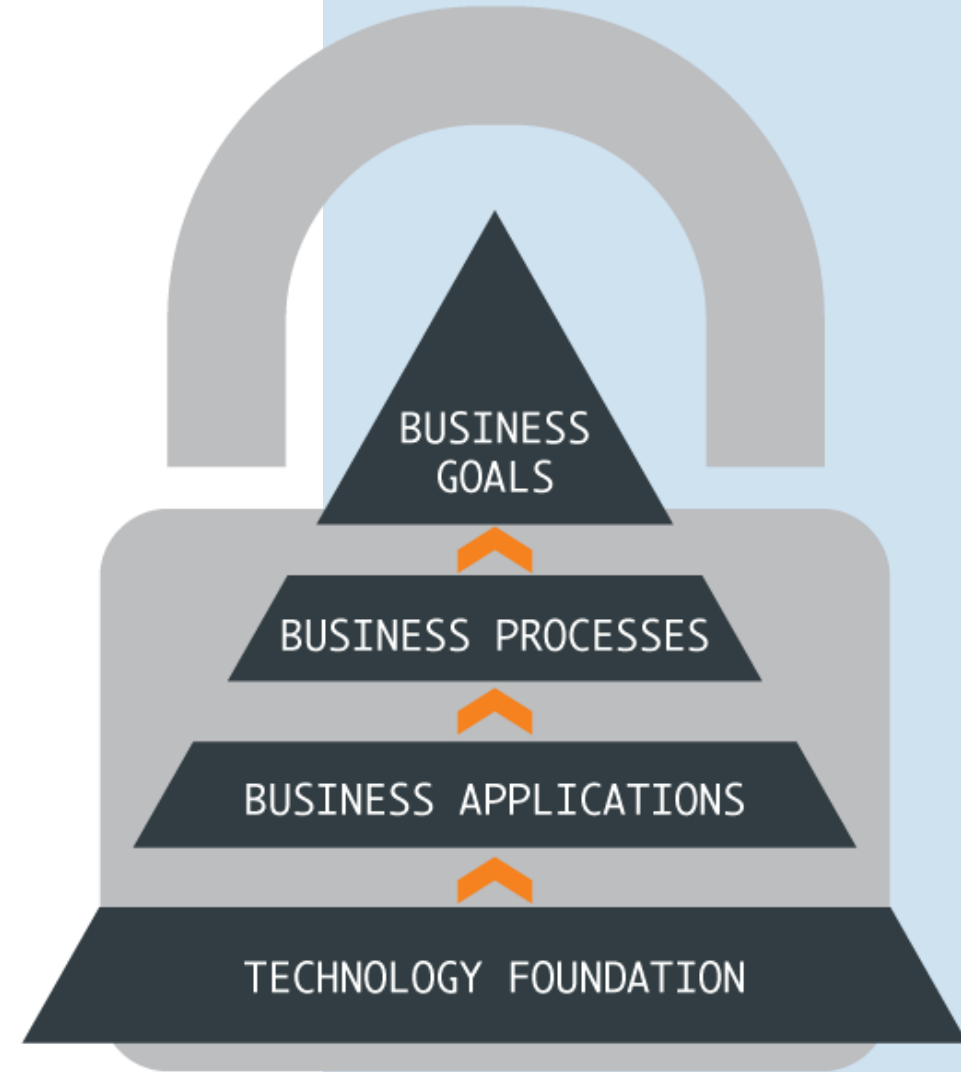


Discussion & Next Steps

The ICG Approach

A solid **technology foundation** delivers your **business applications** when and where you need them. These two combined implement your unique **business processes**, allowing you to reach your **goals**.

ICG is a process-driven business technology company that ensures your IT platform securely delivers your applications and processes whenever and wherever you need them.



O U R M I S S I O N :



Deliver innovative and reliable business and technology solutions that exceed our client's expectations, resulting in reduced cost, improved efficiency, and a guaranteed ROI.



O U R V I S I O N :



Enable enterprises of all sizes to leverage technology for business growth and success.



Value We Deliver

ERP SOLUTIONS

One-Stop Shop for Fourth Shift, VISUAL, Acumatica

- Sell ERP
- Cloud Hosting
- Implementation
- Optimization
- ERP Upgrades
- Training
- Develop/Customization
- And More!

ICG is uniquely qualified with both IT and ERP under one roof!



IT SERVICES

We Architect & Implement Strategic IT Solutions:

- Managed Services
- Technical Support
- Cybersecurity
- Cloud Infrastructure
- Data Center Infrastructure
- Virtual Desktop Infrastructure
- TSR and Health Checks
- And More!



Why Data Collection?

AREN'T THE ERP'S SCREENS
ENOUGH FOR COMPANIES?

DOESN'T THE ERP'S BUSINESS
PROCESS LOGIC FIT EVERYONE?

- An ERP's screens display and accept input for business activities the ERP was meant to support
- The business processes supported by an ERP are well-defined and operate using the assumptions and data that comprise the solution
- But what if you have data which has no place in the ERP, or your business processes don't fit within the ERP – then what?

Things that don't fit...

- Remove user decisions based on data – either within the ERP or external to it
- Add logic to business processes the ERP is unaware of or does not support
- Enable users to do transactions in a different sequence than the ERP demands
- Automatically print whatever labels and documents are needed as part of a transaction
- Cause multiple transactions to occur within the ERP based on a single transaction



And More...

- ERP user interfaces tend to be confusing and loaded with fields – simple is best on the shop floor!
- Business processes change, so the application delivering shop floor functionality needs to be nimble and easily altered as required
- Technology is ever-changing and the shop floor application must be adaptable and embrace new peripherals as needed



What does MFGStream deliver?



Supports VisiBar Scripts

Don't lose the investment

- The costliest part of implementing data collection is the business process logic
- Option to run existing VisiBar scripts on MFGStream

Support VisiWatch Scripts

- Optional Business Process Automation (BPA) to run your existing scripts



Develop Functions in VBA

Developer-Friendly Language

- No longer hampered by the cryptic function designer
- Common language known by many

Modern Functionality

- Direct calls to Printing
- Direct calls to SSRS
- Take Pictures with Scanner Cameras



Support for Modern Technology

Modern Platform

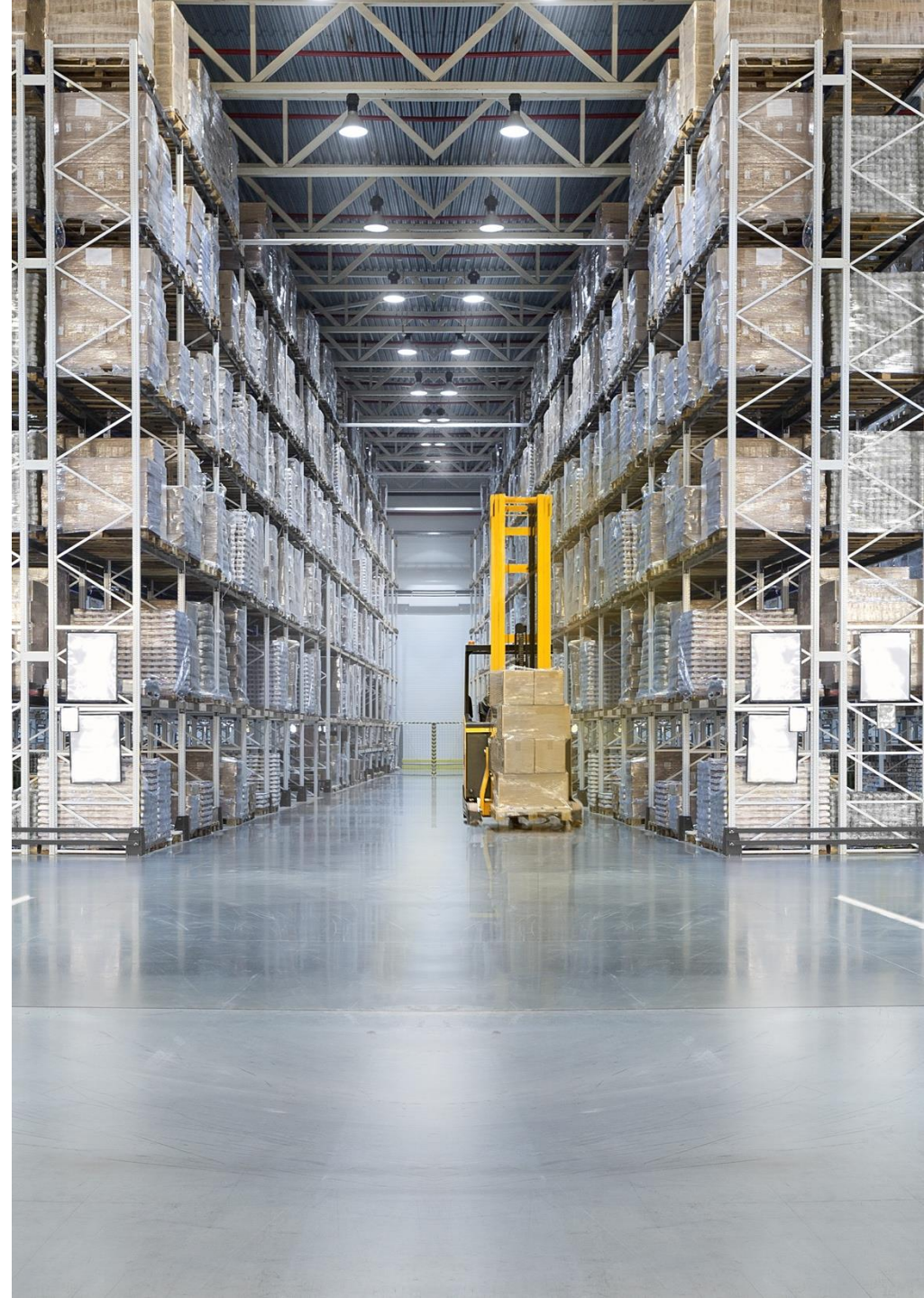
- Multi-Processor
- Multi Threaded
- Current OS Versions

Modern User Experience

- Android Devices
- Tablets
- 2D Scanners
- True Browser Support

What is MFGStream?

- Customization Platform
 - ERP agnostic
 - VBA scripting
 - Specialized functions for ERP
- Data Collection
 - Real time Point-of-Use
 - VisiBar compatibility
- Automation
 - Event-based triggers
- Printing and Scanning
 - 1D and 2D barcodes, RFID
 - Labels and documents



Data Collection

- Real-time transactions, directly from the shop floor
- Simplified prompt-based workflow
- Scan barcodes, prints labels
 - Mobile Scanner, Tablets, PCs
 - Label Printers, Document Printers, Display Boards
- Device and ERP agnostic
- Fully customizable scripts
- Base Fourth Shift Scripts
 - PORV, MORV, PICK, IMTR, SSII, SSIL
- Optional VisiBar Compatibility Layer

Automation

- Event and time-based triggers
 - ERP Transactions
 - Files, Email, External API
- Common scripting language
 - Share code with Data Collection (common libraries, functions)
- Common actions include ...
 - Create an ERP transaction
 - Send an e-mail
 - Print a document
 - Write to a file, database, API



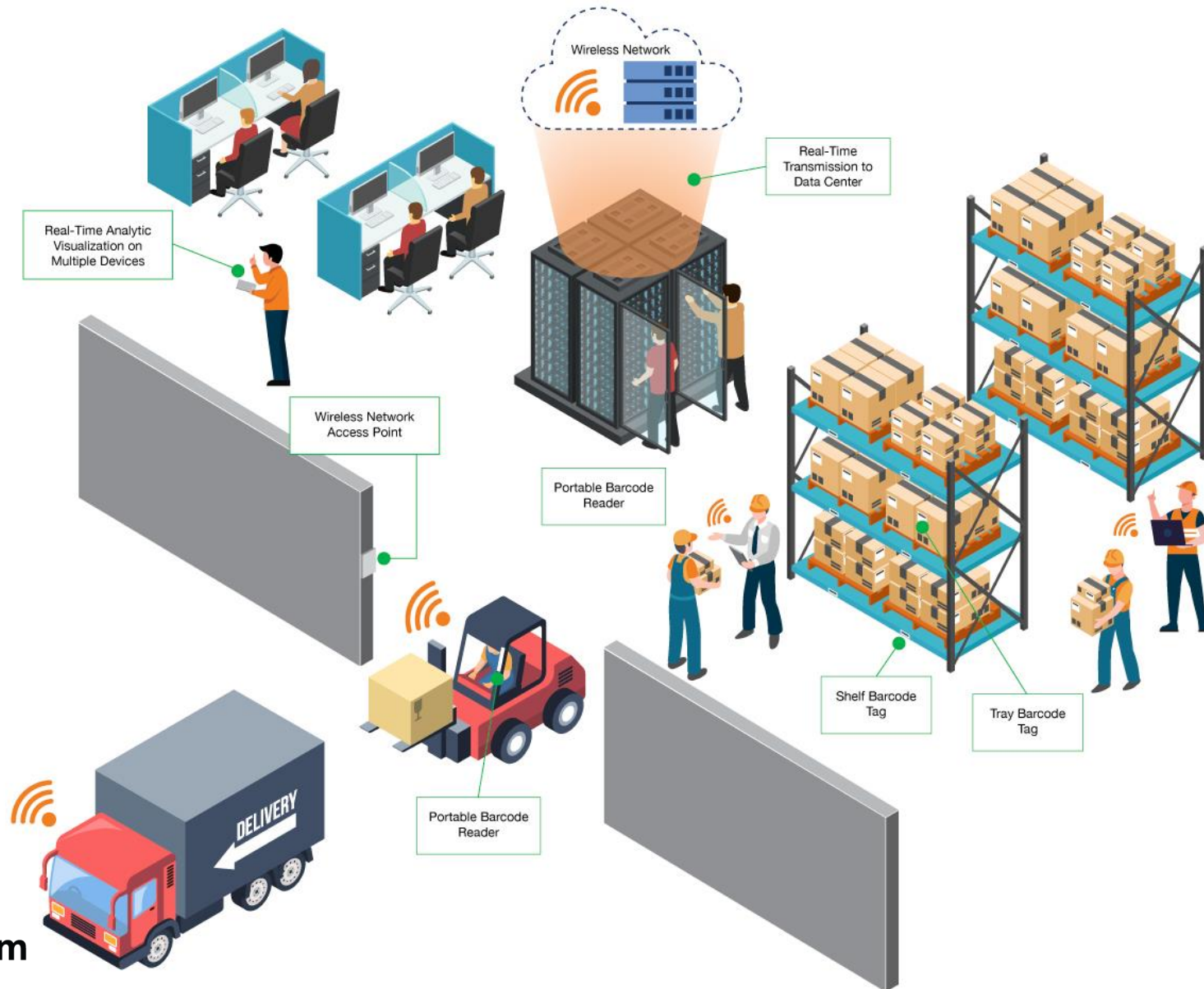
Includes Standardized Scripts for Fourth Shift:

- PO Receiving – PORV
- Inventory Move – IMTR
- Issue Material – PICK
- MO Receiving – MORV
- Stock Inquiry – SSII, SSIL
- User Login/Security and Menu



- Most common transactions
- Usable out-of-the-box, without modification
- Requires FSTI
- Can be customized
 - Printing
 - Business Logic
 - And More...

Manufacturing and Warehouse Automation Example



Success Story: Weasler

- Replaced custom in-house data collection application
- MFGStream Base Scripts modified to match and improve upon functionality in existing custom application
 - Custom logic for controlling over-receiving and over-issuing
 - Custom scrap reporting logic
 - Interface data with other existing in-house applications
- New PO Receiving script to handle complex inbound containers
 - Mixed items and POs on a single pallet, dozens of pallets per truckload
 - Saves approximately 1 hour per overseas shipment
- New job progress/completion status script with display board
- MFGStream Code is simpler to maintain

Success Story: Vaderstad

- Base Scripts for PORV and IMTR
- Modernized PO Receiving Workflow
 - Before: Material unloaded, stored, quantity and location written on packing slips, handed in to office for PORV
 - PORVs occur 2-3 days later; difficulty handling wrong PO #, mismatched item numbers, illegible writing, etc.
 - After: Material unloaded, receiver performs real-time PORV and prints item label, material is stored, packing slip handed in for validation
 - Improved visibility and handling of vendors shipping wrong product or quantities, shipping orders early
- Barcoded Bin Locations, create stock locations in Fourth Shift
- Material Handlers perform real-time IMTR when moving material

Success Story: Amity

- Implemented custom script for reporting production completions
 - Simple workflow: Scan MO, verify WC, start/stop detection with verification, completion quantity.
 - Data Logged to custom table for first phase
 - Single script captures data to support multiple transactions:
 - Labor Hours Tracking: PICK to WC[R]
 - Labor Pieces: PICK to WC[C]
 - Completed Last Operation: MORV
- Base scripts for PORV, IMTR, Stock Locations

Success Story: True Fitness

- Replaced VisiBar with MFGStream
- Driven by need to replace aging scanners
 - VisiBar Client only supports Windows CE
 - VisiBar Web Client not compatible with existing scripts
 - Requires extensive script modifications with loss of functionality
 - MFGStream works on any device with a browser
- MFGStream runs all original VB scripting, “lift and shift”
- Users immediately commented that VB scripts run 2-3x faster
- In-house developers re-writing several scripts in MFGStream VBA-based language – easier to maintain, more functionality

MFGStream Demo



MFGStream – What Else?

What Else Can You Do With MFGStream?



Custom Integrations

Integrate workflow with virtually any third-party system – Web API, SQL databases, etc.



IOT Support

Integrated support for Azure Internet of Things



RFID

Integration of full line of Zebra RFID products – portable and stationary



PLC and Machine Integration

Send and receive production data with your ERP system, KPIs, etc.



Discussion and Questions





Thank You!