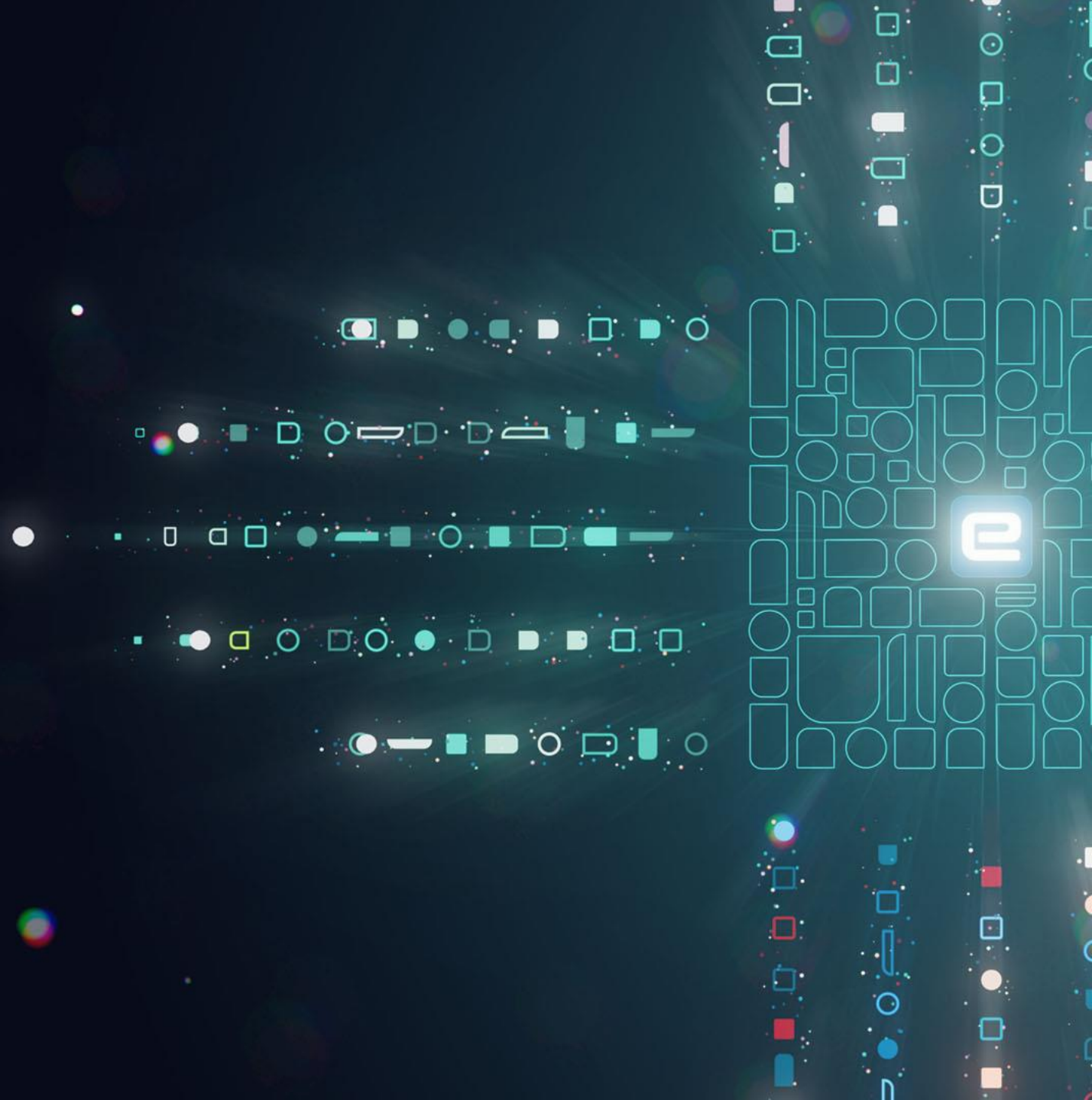


**EPICOR**  
Insights 2024

# Production Activity Summary & HMI Integration

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Phone: 262.352.3591  
May 2024



Business Context **01**

The Challenge **02**

The Solution **03**

Technical Solution

- Architecture
- PLC/HMI Configuration
- ERP Configuration
- Bridge Application
- Results

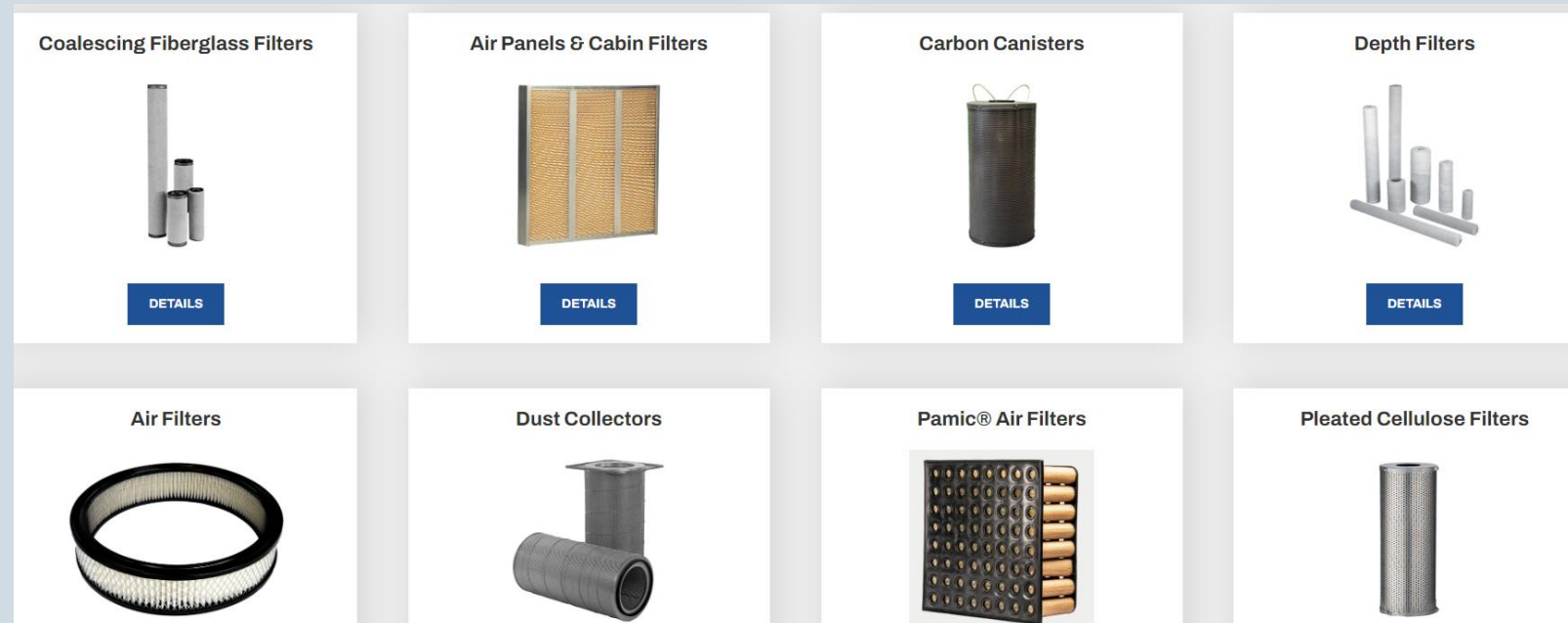
# Business Context

## The Company..

- Founded in 1980
- Waukesha, Wisconsin



## Products

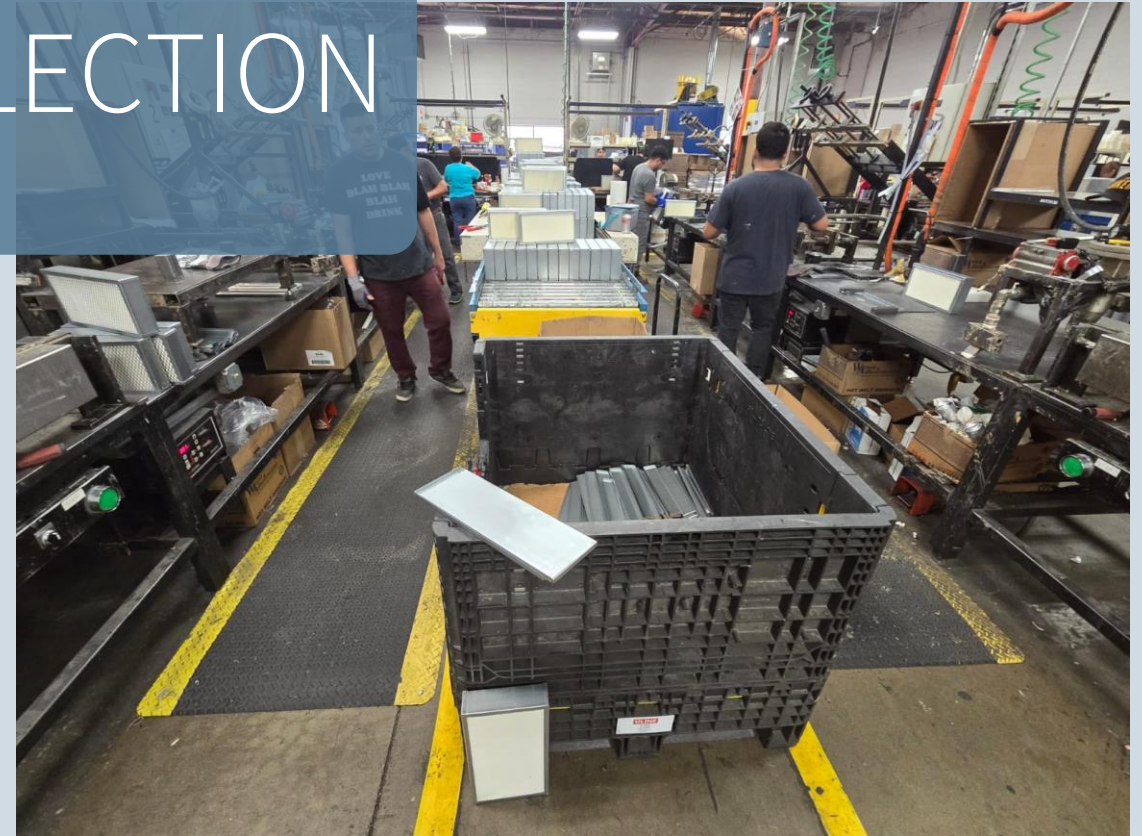




## DATA COLLECTION



Real-Time Feedback



Diagnostic Analytics

Manual data collection is inefficient and expensive

Epicor ERP and MES already deployed

Market conditions demand higher volume

HeatPress step is a known constraint



Automate Data Entry



Use an HMI for  
Factory Floor Display



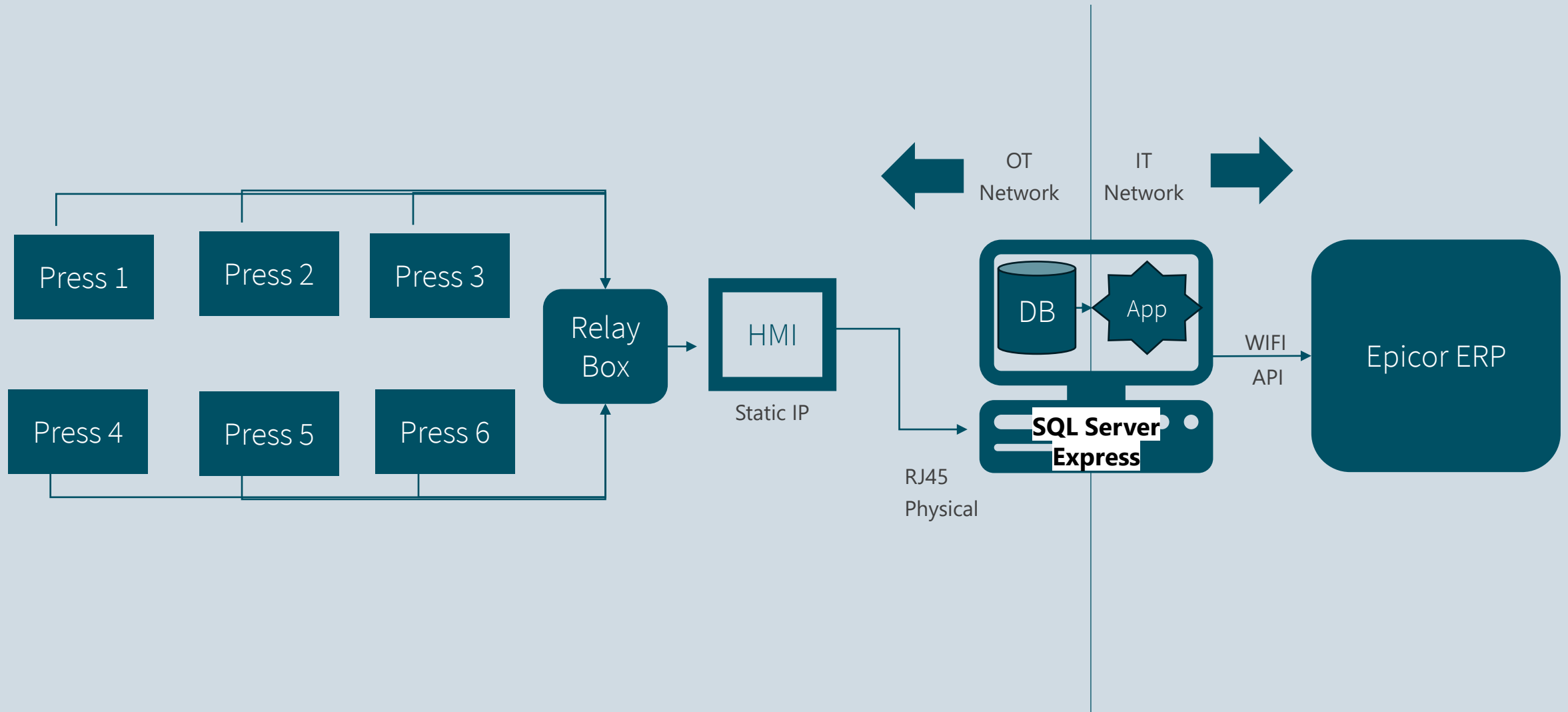
Leverage Epicor ERP  
Core capability



# Technical Solution



# Technical Architecture

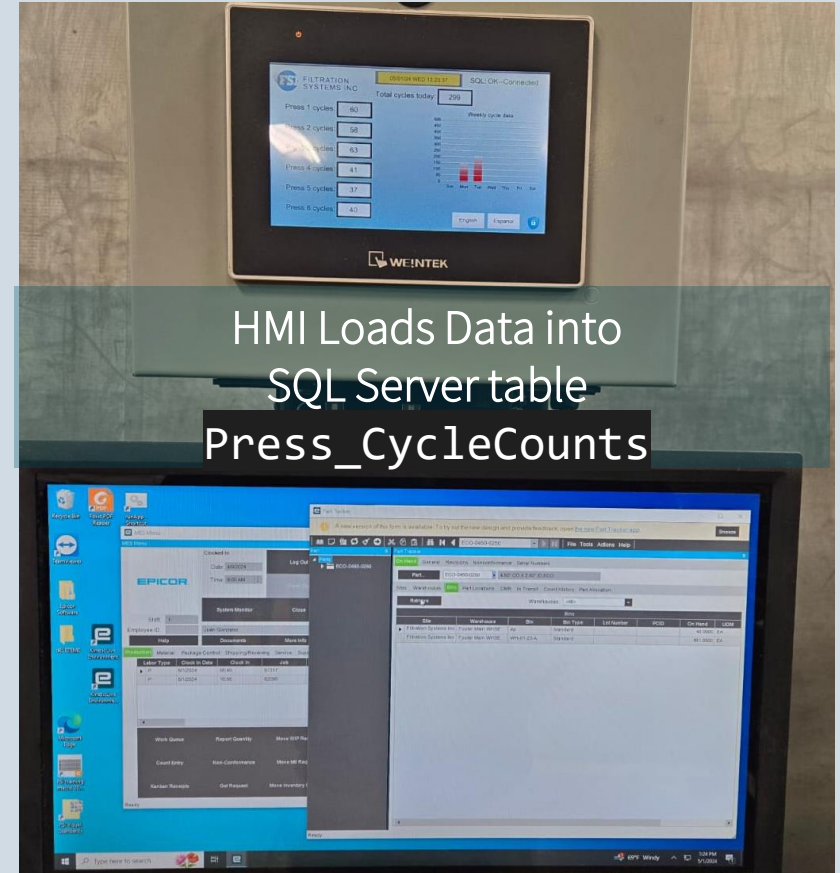
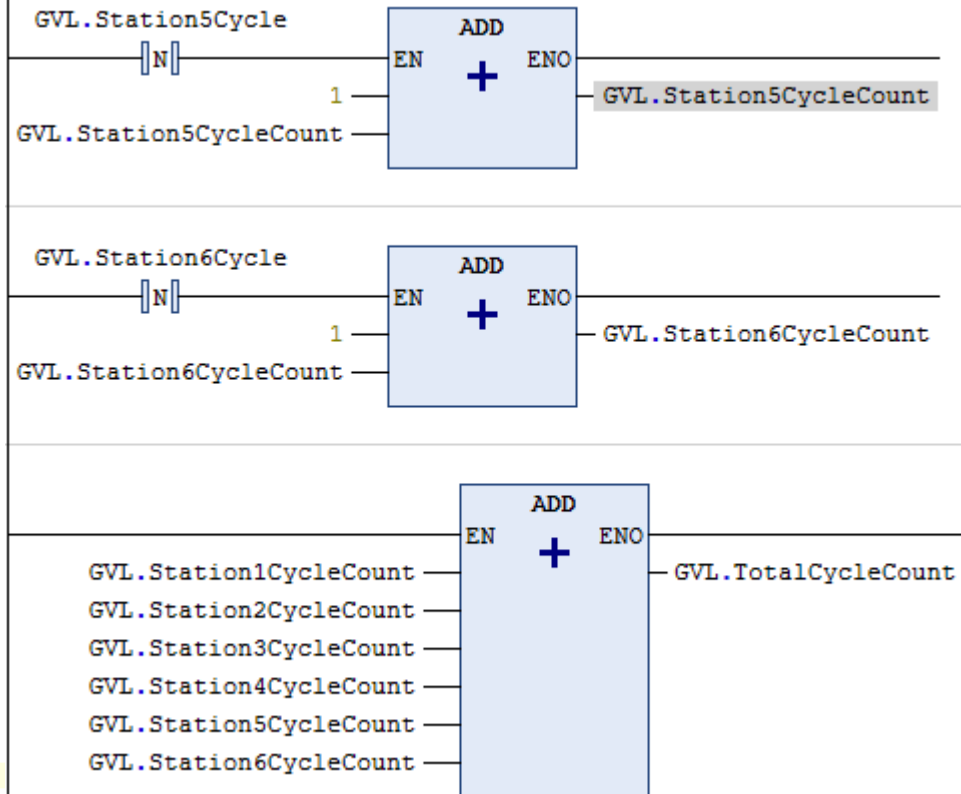


VAR\_GLOBAL

//IO Map variables

```
// SLOT 1 INPUT 0
input0:BOOL;
// SLOT 1 INPUT 1
input1:BOOL;
// SLOT 1 INPUT 2
input2:BOOL;
// SLOT 1 INPUT 3
input3:BOOL;
// SLOT 1 INPUT 4
input4:BOOL;
// SLOT 1 INPUT 5
input5:BOOL;
// SLOT 1 INPUT 6
input6:BOOL;
// SLOT 1 INPUT 7
input7:BOOL;

// SLOT 1 OUTPUT 0
out0:BOOL;
// SLOT 1 OUTPUT 1
out1:BOOL;
// SLOT 1 OUTPUT 2
out2:BOOL;
// SLOT 1 OUTPUT 3
out3:BOOL;
// SLOT 1 OUTPUT 4
out4:BOOL;
// SLOT 1 OUTPUT 5
out5:BOOL;
```



1

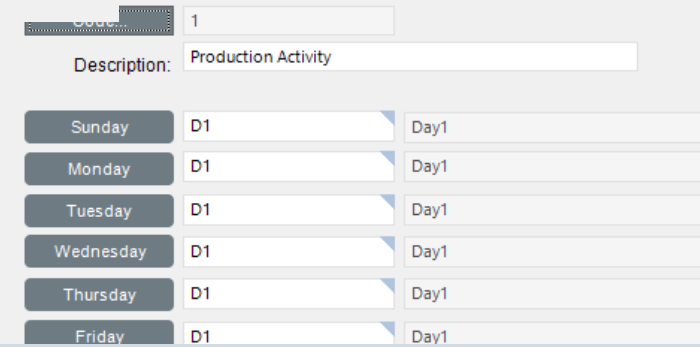
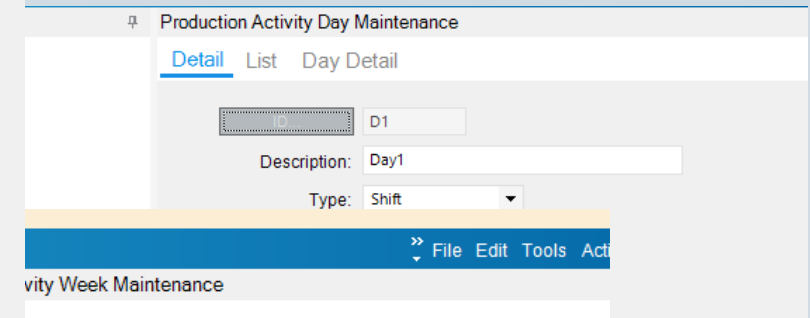
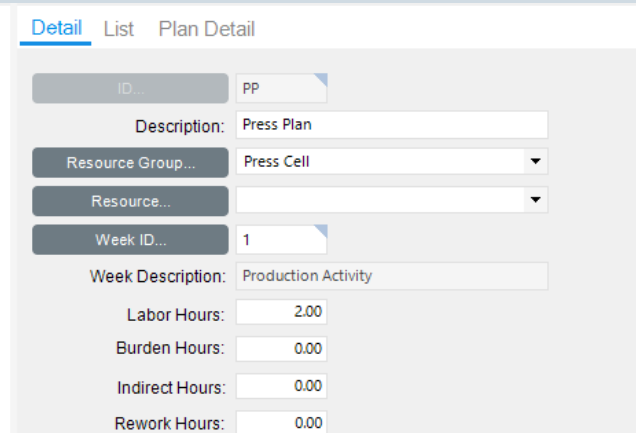
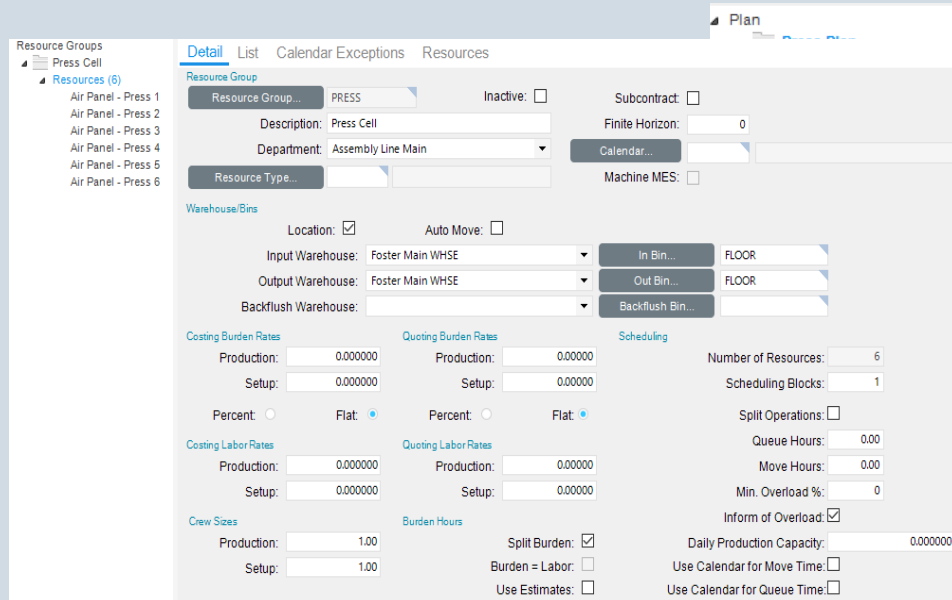
Define Your Resource Groups

2

Define Your Plan

3

Define Your Production Activity



Query SQL  
Express

Publish to Epicor  
using API

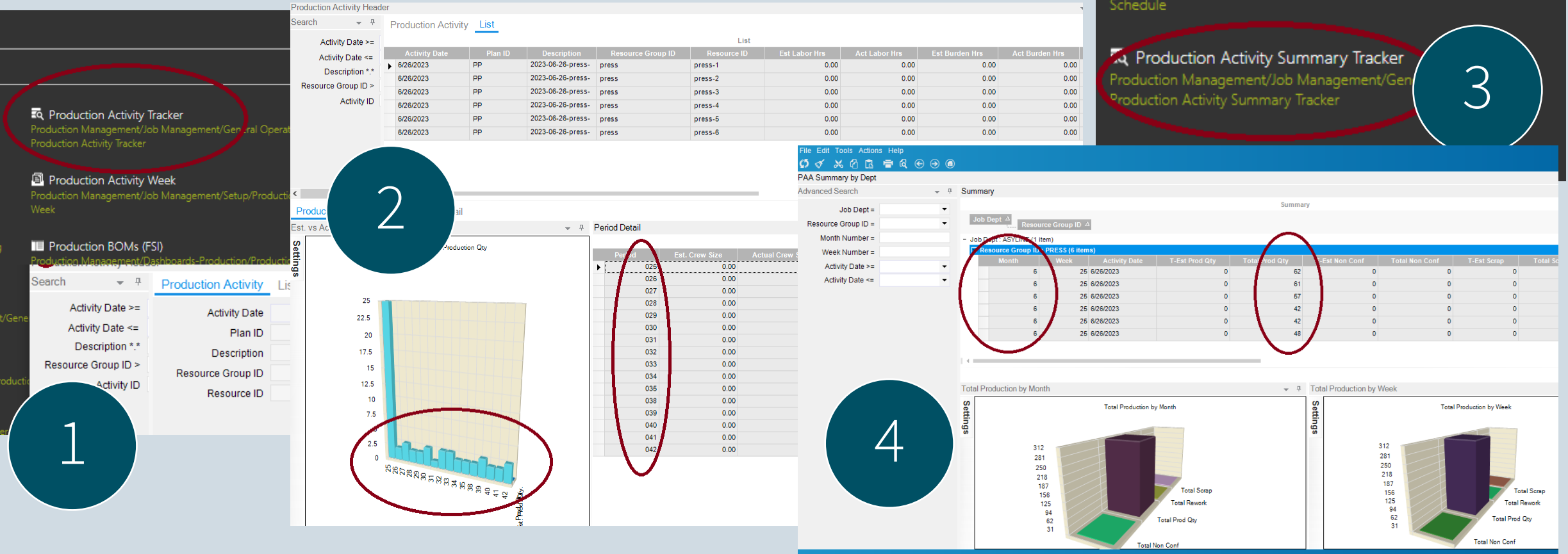
```
//ProdActivities
data = {
  "Company": COMPANY,
  "PAPlanID": "PP",
  "Description": f"{dateNow[:10]}-{pa['ResourceID']}",
  "ResourceGrpID": "press",
  "ResourceID" : pa["ResourceID"],
  "ActivityDate": ActivityDate
}
sendERP("Erp.Bo.ProdActivitySvc/ProdActivities",
data)
```

```
//PActDtls
data = {
  "Company": COMPANY,
  "ActID": ActID,
  "PAPeriod": dtlItm["PAPeriod"],
  "ActProdQty": dtlItm["ActProdQty"],
  "EndTime": EndTime
}
sendERP("Erp.Bo.ProdActivitySvc/PActDtls",
data)
```



## Production Activity Tracker

## Production Activity Summary Tracker





1

PLCs & HMIs can be connected with ERP using a bit of Technical Expertise

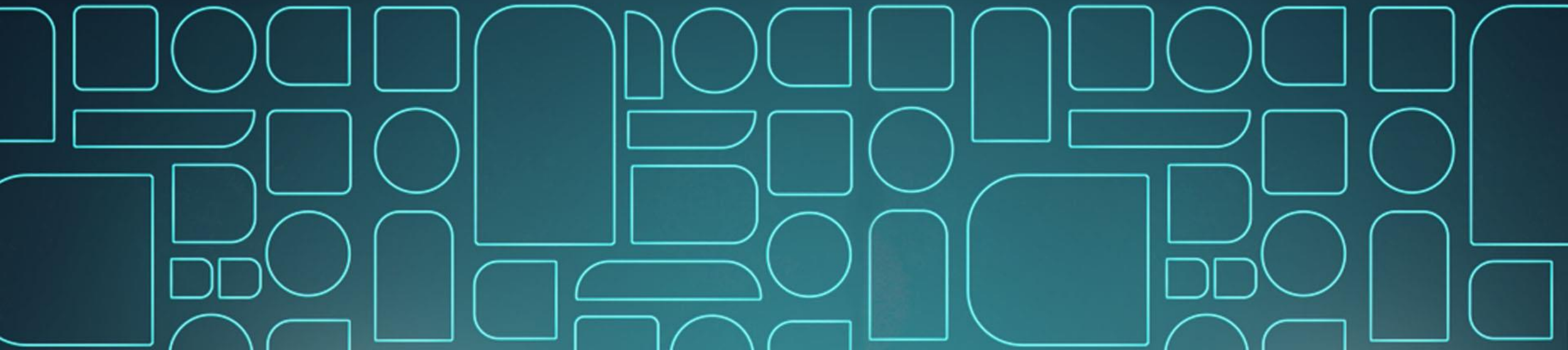
2

Epicor ERP already has advanced capabilities to record and manage production activities

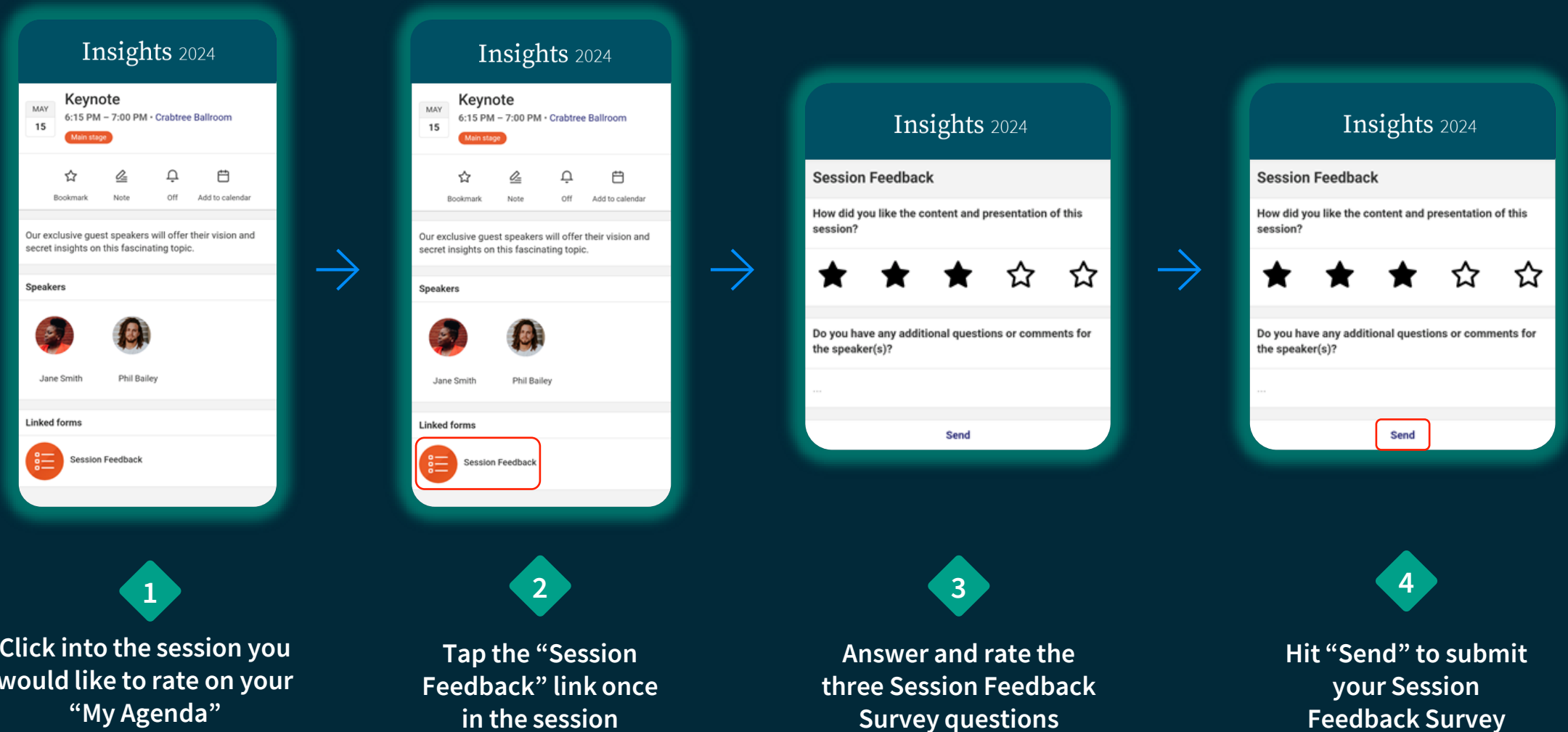
3

Start the project with a Business Problem.. **Not a Technical Solution**

# Questions?



# Insights 2024 Mobile App Session Feedback Survey



# Thank you!

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