



Customer
Conference

**Automated Transactions in BC? Let me
explain**

Today's Presenter



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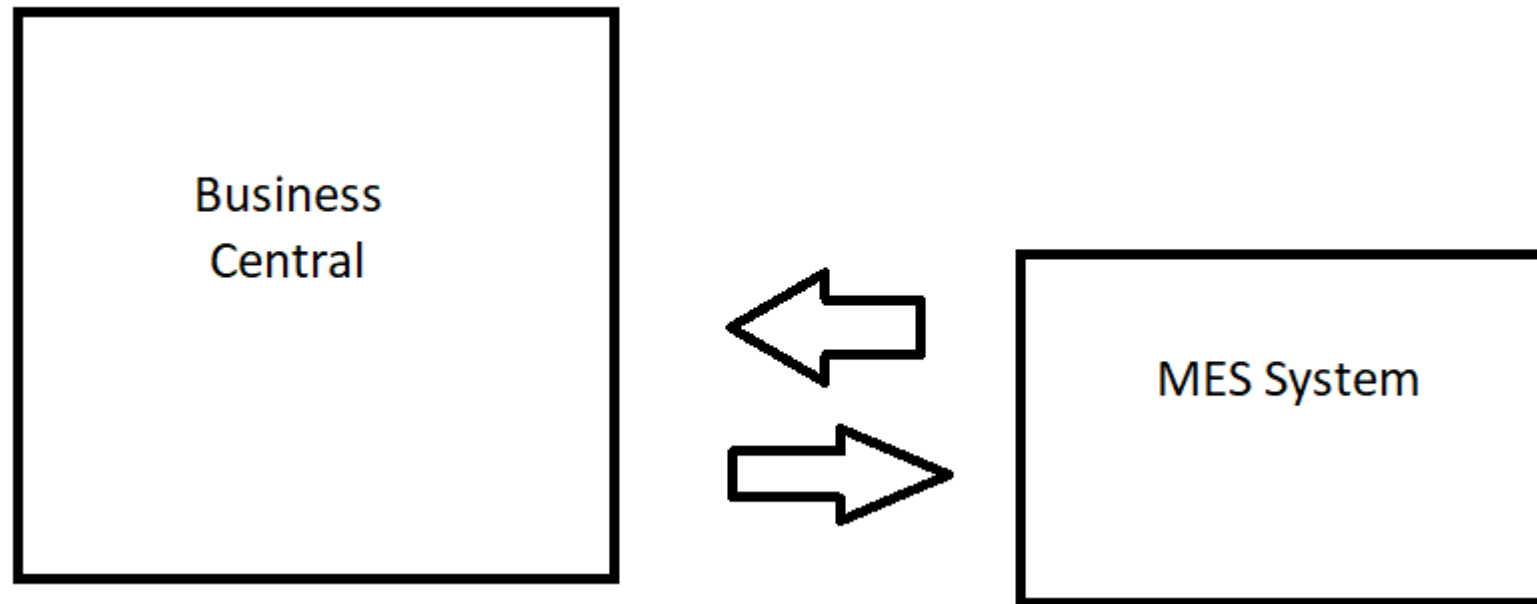
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What we're looking at today

- ✓ Automated postings in BC
 - ✓ The Problem
 - ✓ Design
 - ✓ Solution
 - ✓ Code Snippets
 - ✓ Other Possibilities

The Problem

- ✓ Making two systems talk to each other
- ✓ Purchase, Sales, Production, Inventory...



The Design

- ✓ How to recreate manual efforts
- ✓ Resetting values
- ✓ “How would Business Central do it?”
- ✓ Item Tracking?
- ✓ Errors?

The Solution

- ✓ Staging Table Style integration
- ✓ 17 working transaction types
 - ✓ Sales
 - ✓ Purchase
 - ✓ Production
 - ✓ Transfers
 - ✓ Inventory
- ✓ Custom Business Rules

The Solution

- ✓ Modules
- ✓ Commits
- ✓ Interactive Page for watching transactions

```
trigger OnRun()
begin
    Code();
end;

1 reference
local procedure Code()
var
    Transaction: Interface INVCMESTransactionable;
    Type: Integer;
    TransactionsTypes: List of [Integer];
    i: Integer;
begin
    for i := 1 to 2 do begin
        SetFailedErrorToNew();

        TransactionsTypes := Enum::"INVC MES Transaction Type".Ordinals();

        foreach Type in TransactionsTypes do begin
            Transaction := Enum::"INVC MES Transaction Type".FromInteger(Type);
            Transaction.DoAction();
        end;
    end;
end;
```

Real Use

- ✓ Thousands of “Transactions” / Day
- ✓ Minimal User impact
- ✓ Automated by Job
- ✓ Manual Control

Real Use

Dynamics 365 Business Central

Sandbox_Dev

BM

←

MES Staging

✓ Saved

Search

+ New

Edit List

Delete

More options

Entry No. ↓		MES Transaction No.	Related MES Transaction No.	Transaction Type	Transaction Status	Type	Document No.	Document Line No.	No.	Posting Date	
	1	12345	0	Prod. Order Create	Success	Item		0	1011	5/2/2022	
	2	12346	0	SO Shipment	Success	Item	SO12456	10000	2456	5/2/2022	
	3	12346	0	SO Shipment	Success	Item	SO12456	20000	2457	5/2/2022	
	4	12346	0	SO Shipment	Success	Item	SO12456	30000	2458	5/2/2022	
	5	12347	0	Prod. Order Consumption	Success	Item	101123	0	1011	5/2/2022	
→	6	⋮	0	Prod. Order Output	Success	Item	101123	0	1011	5/2/2022	

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Real Use

Dynamics 365 Business Central Sandbox_Dev

Job Queue Entries

Search + New Edit List Delete Edit View Show Error Set Status to Ready Set On Hold Restart Run once (foreground) ...

Status	User ID	Object Type to Run	Object ID to Run	Object Caption to Run	Description	Job Queue Category Code	User Session Started	Earliest Start Date/Time	Sc
Ready	BMENADUE	Codeunit	4190	2010 Item Management	Auto-created for automatic of re...			10/10/2019 10:00 AM	
Ready	BMENADUE	Report	1001	Strategic Applicant Requests	Auto-created for automatic of re...			10/10/2019 10:00 AM	
On Hold	BMENADUE	Codeunit	2140	ExtensionFlow Execution	Auto-created for automatic of re...		10/10/2019 10:00 AM	10/10/2019 10:00 AM	
On Hold	BMENADUE	Codeunit	2141	ExtensionFlow Execution	Auto-created for automatic of re...		10/10/2019 10:00 AM	10/10/2019 10:00 AM	
Ready	BMENADUE	Codeunit	4191	Item Management	Auto-created for automatic of re...			10/10/2019 10:00 AM	
→ On Hold	BMENADUE	Codeunit	50017	INVC Handle MES Staging	INVC Handle MES Staging			4/5/2020 12:00 AM	

Real Use

Dynamics 365 Business Central

Sandbox_Dev

MES History

Search + New Edit List Delete More options

Entry No. ↑	MES Transaction No. ↑	Related MES Transaction No.	Transaction Type	Transaction Status	Type	Document No.	Document Line No.	No.	Posting Date	Unit Cost	Unit Price	Tracking No.
→ 1	12345	0	Prod. Order...	Success	Item		0	1011	5/2/2022	0.00	0.00	
2	12346	0	SO Shipment	Success	Item	SO12456	10000	2456	5/2/2022	0.00	0.00	
3	12346	0	SO Shipment	Success	Item	SO12456	20000	2457	5/2/2022	0.00	0.00	
4	12346	0	SO Shipment	Success	Item	SO12456	30000	2458	5/2/2022	0.00	0.00	
5	12347	0	Prod. Order...	Success	Item	101123	0	1011	5/2/2022	0.00	0.00	
6	12348	0	Prod. Order...	Success	Item	101123	0	1011	5/2/2022	0.00	0.00	

Enhancements

- ✓ Work Bench Style
- ✓ Setups to Control Business Rules
- ✓ Don't need all 17? No problem
- ✓ Metrics

Enhancements

ch

← Prod. Order Create Work Bench ✓ Saved

Search + New Edit List Delete Actions Fewer options

Carry Out Action

→	<input checked="" type="checkbox"/>	⋮	7	New	123456	MAIN	LAB	5/3/2022	5/10/2022
	<input checked="" type="checkbox"/>		8	New	123456	MAIN	LAB	5/3/2022	5/10/2022
	<input checked="" type="checkbox"/>		9	New	123456	MAIN	LAB	5/3/2022	5/10/2022
	<input type="checkbox"/>		10	New	98745	MAIN	LAB	5/3/2022	5/10/2022
	<input type="checkbox"/>		11	New	654561	MAIN	LAB	5/3/2022	5/10/2022

Fin
Ne

Enhancements

MES Integration Setup

Tolerances

Over Ship Tolerance	<input type="text" value="0.00"/>	Under Receive Tolera...	<input type="text" value="0.00"/>
Under Ship Tolerance	<input type="text" value="0.00"/>	Inventory Rounding P...	<input type="text" value="0.00"/>
Over Receive Tolerance	<input type="text" value="0.00"/>		

Enabled

Sales Shipments	<input checked="" type="checkbox"/>	Inventory Adjustments	<input type="checkbox"/>
Sales Returns	<input type="checkbox"/>	Prod. Order Create	<input type="checkbox"/>
Purchase Receipts	<input type="checkbox"/>	Prod. Order Consume	<input checked="" type="checkbox"/>
Purchase Returns	<input checked="" type="checkbox"/>	Prod. Order Output	<input checked="" type="checkbox"/>
Transfer Shipments	<input checked="" type="checkbox"/>	Prod. Order Finish	<input checked="" type="checkbox"/>
Transfer Returns	<input checked="" type="checkbox"/>	Prod. Order Cancel	<input checked="" type="checkbox"/>

Enhancements

Retry

Retry Enabled ☒

Retry Interval (Mins)

Area to Retry

Sales Shipments Enable ☒

Sales Returns Enable ☐

Purchase Receipts Enable ☐

Purchase Returns Enable ☒

Transfer Shipments Enable ☒

Transfer Returns Enable ☒

Inventory Adjustment ☐

Prod. Order Create Enable ☐

Prod. Order Consume ☒

Prod. Order Output Enable ☒

Prod. Order Finish Enable ☒

Prod. Order Cancel Enable ☒

Enhancements

Ongoing Sales

Sales Quotes	Sales Orders	Sales Invoices
2	4	7
>	>	>

Ongoing Purchases

Purchase Orders	Ongoing Purch... Invoices	Purch. Invoices Next Week
5	3	0
>	>	>

MES Status

MES Status

Success	New Transactions	Error All Time	All Transactions
35	5	0	40
>	>	>	>

User Tasks

My User Tasks

Pending User Tasks
0
>