Infoteam Tips & Tricks

Extensibility & M3

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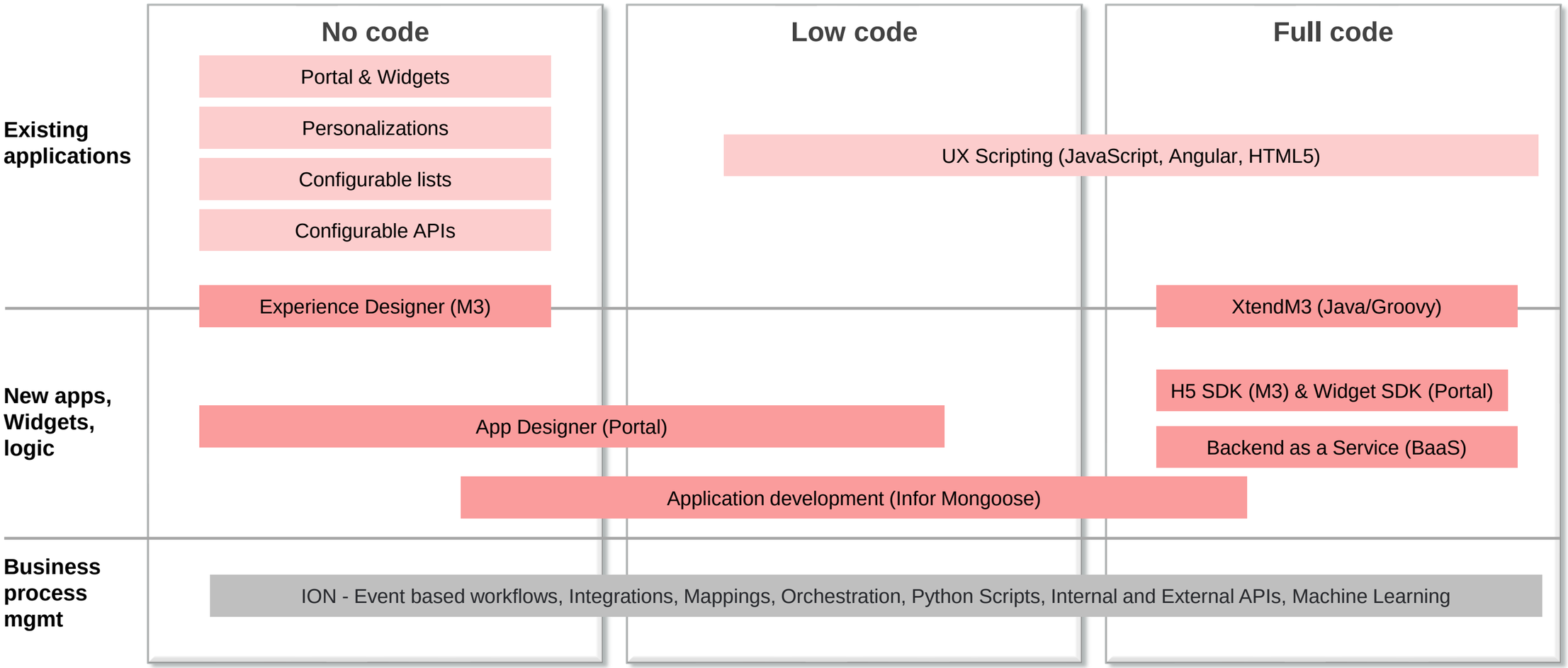
CloudSuite Extensibility Tools



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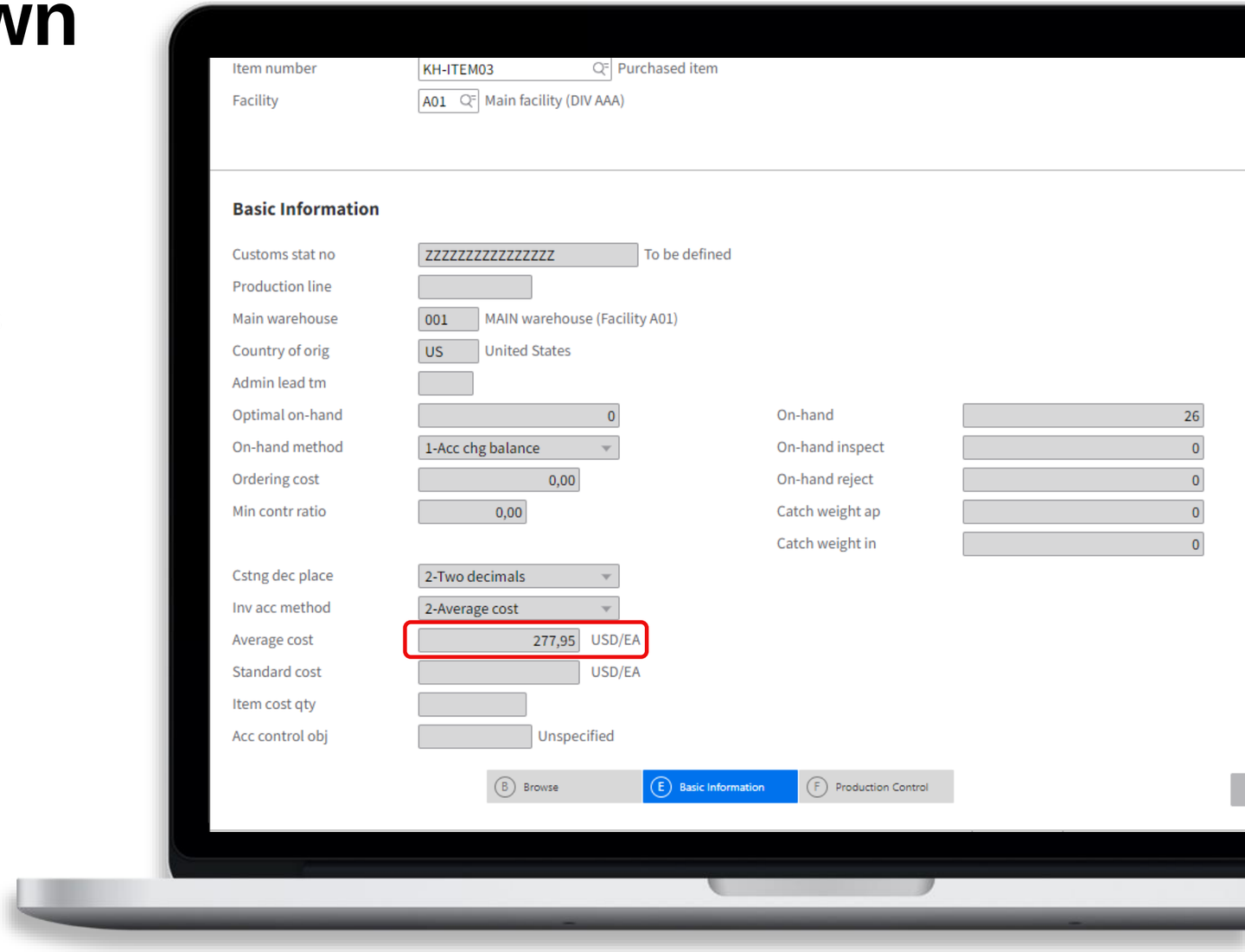
Average Cost Break Down

Requirement

Average cost needs to be broken down into several parts and stored in a table. Also all historical values must be stored.

- Material
- Freight
- Customs



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Average Cost Break Down

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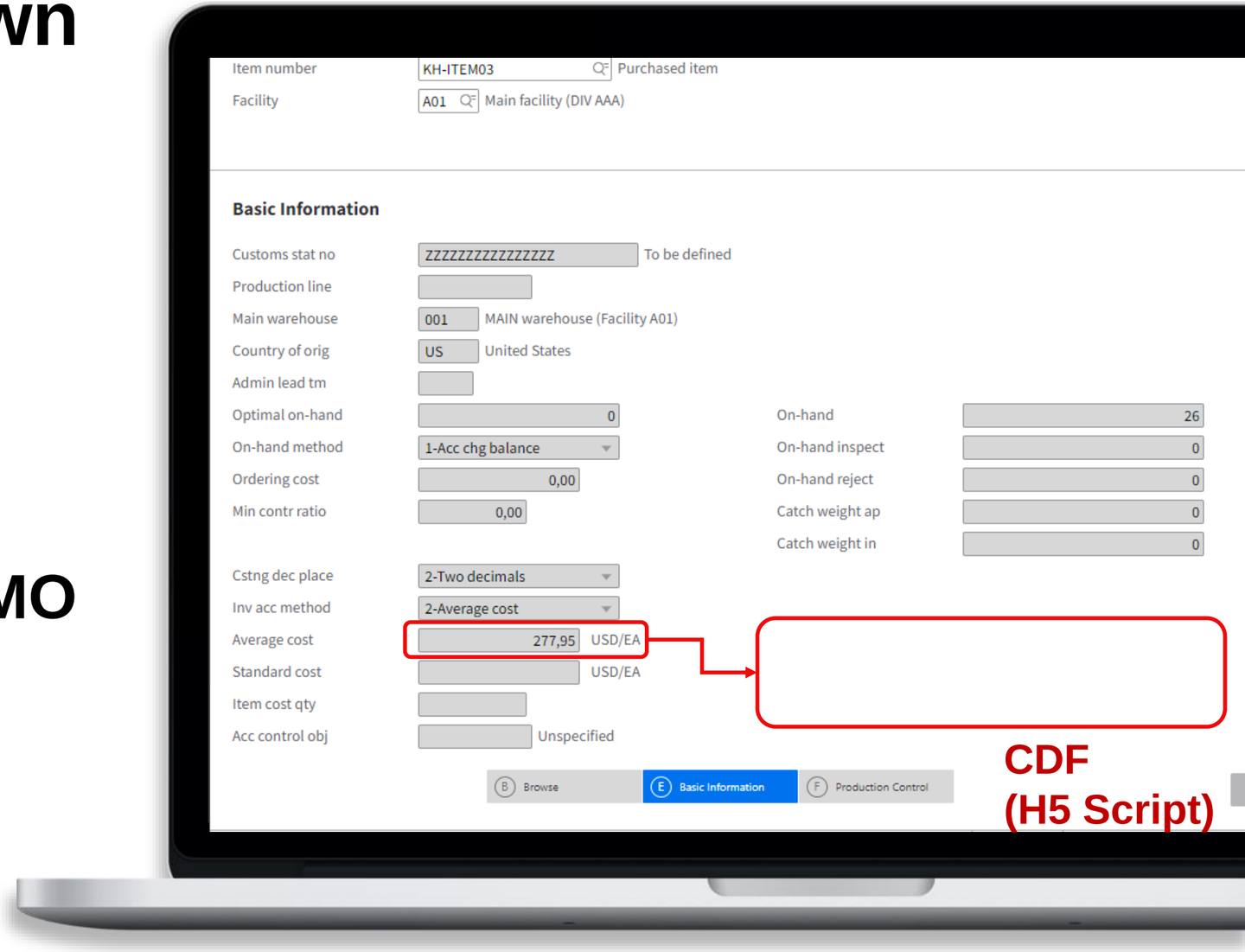
DEMO

Step 1 – Add the fields via CDF as a prototype



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Early Announcement

M3 Core: Restrictions on usage of Customer defined fields (CUGEXx and functions CMS080/081 for transactional tables

As is described in several documents as well as in user documentations the customer defined fields ar only allowed to be used in production for master data tables. The recommended solution is to build tailored dynamic XtendM3 tables. Using XtendM3 for this results in a future proof solution with much better performance and control of usage/fields added. Please also note that solutions based on Dynamic tables results in specific table names, field layouts, and indexes suitable for each different us cases. This results in a much simpler handling when the additional information is used in M3 lists, reports as well as outside M3 like data fabric, Data Lake, work flows etc. Due to this CUGEXx is only recommended for isolated, very simple use case.

Please note that the CUGEXx is still highly recommended for testing and POC work during the development phase of a solution where the final solution for production is based on XtendM3. This regardless of the type of data (master or transactional) it is applied to.

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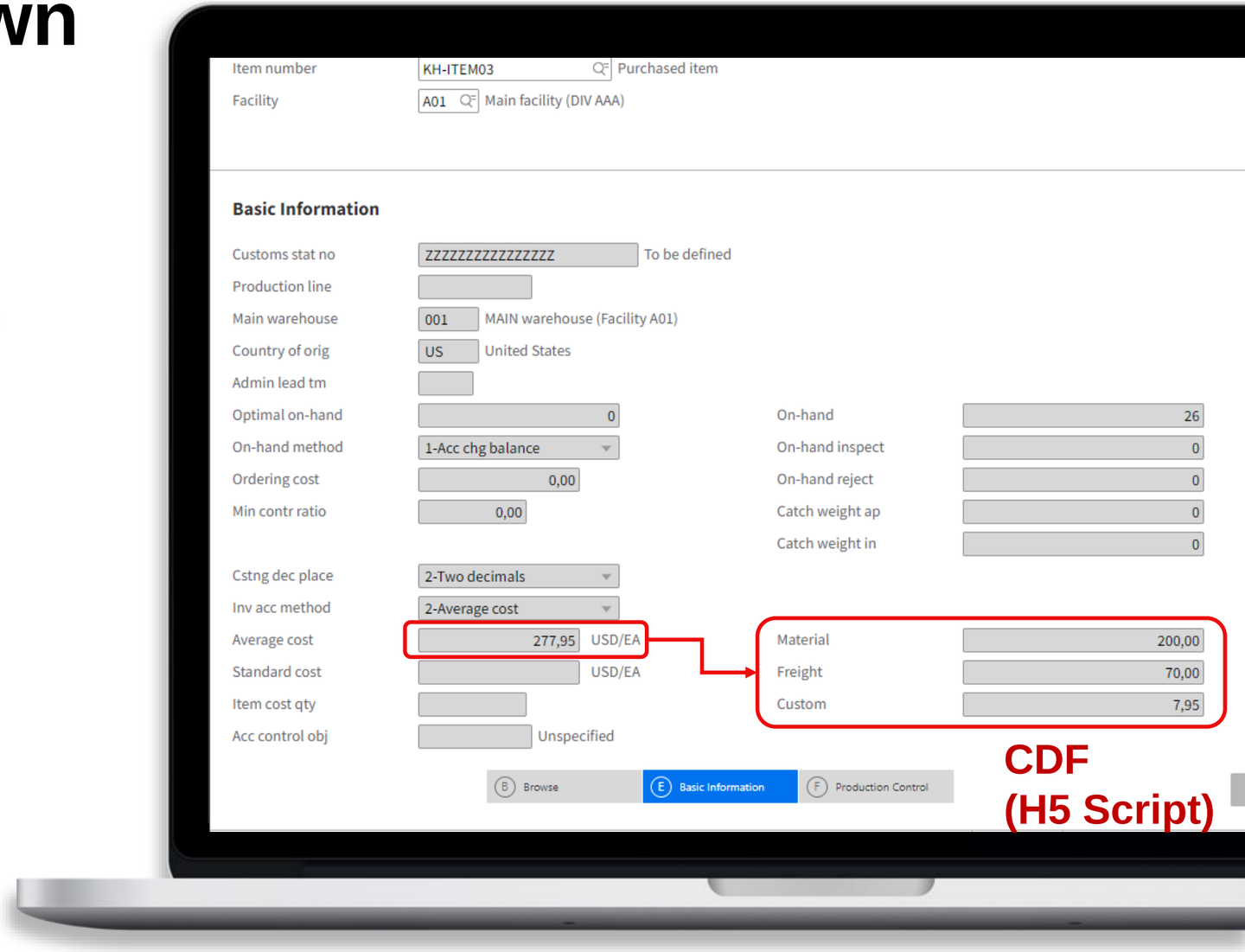
Step 1 – Add the fields via CDF as a prototype

Step 2 – Activate Event Based API



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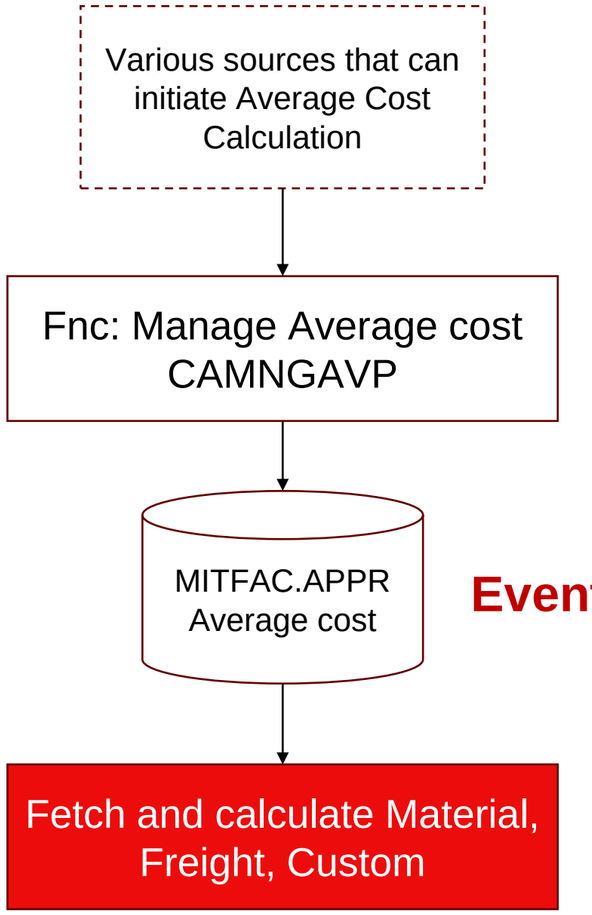
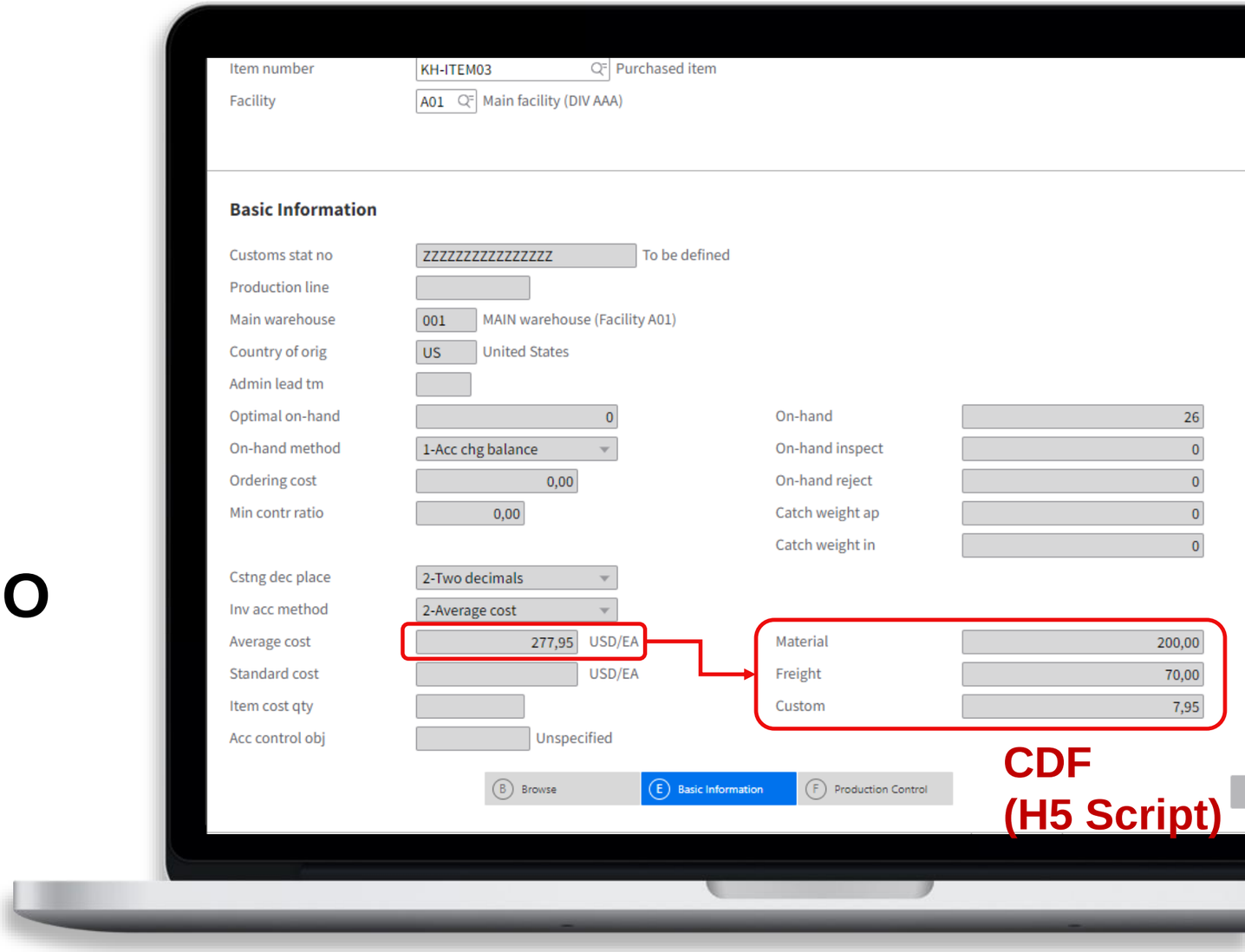
Solution Outline



DEMO



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Average Cost Break Down

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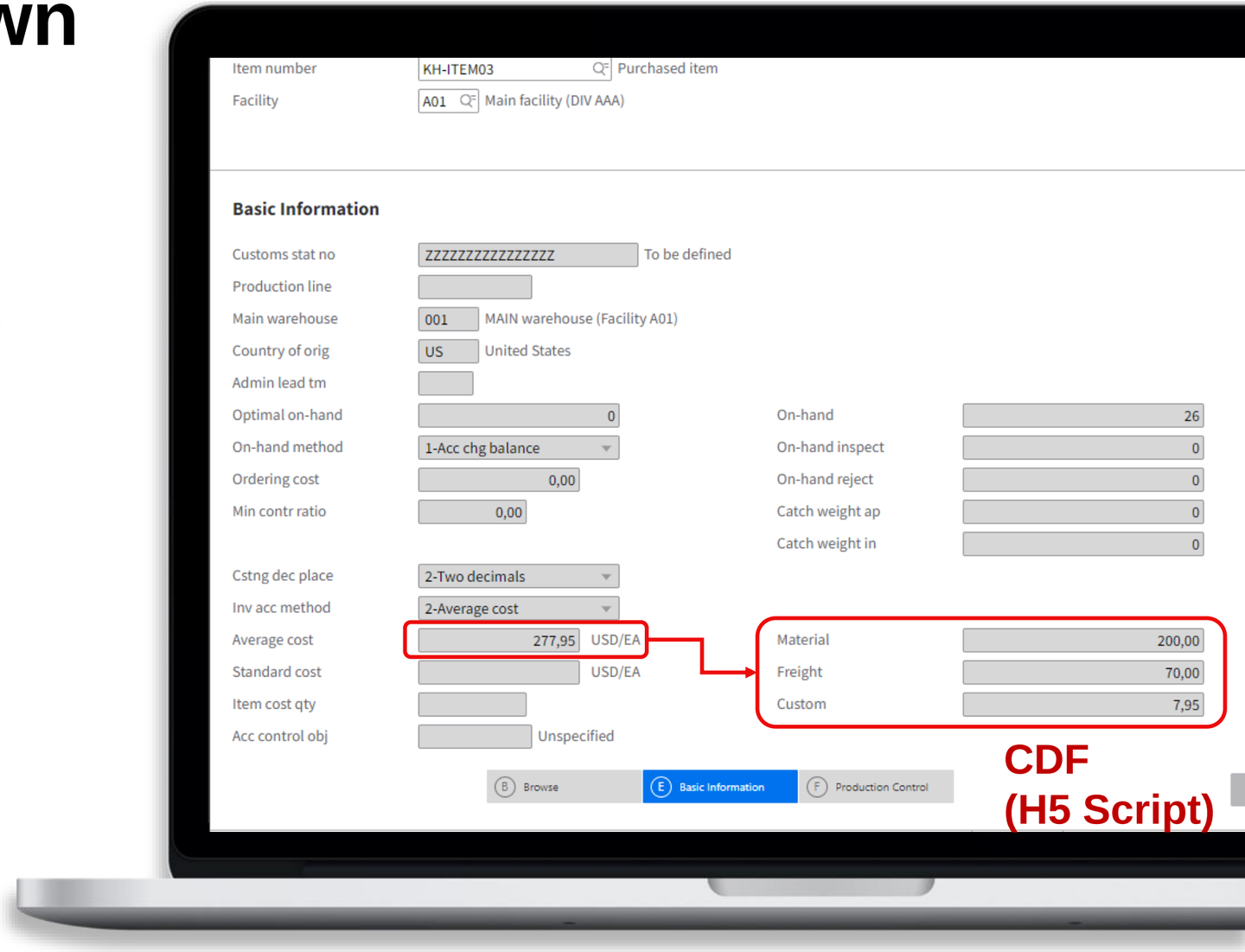
Step 1 – Add the fields via CDF as a prototype

Step 2 – Activate Event Based API

Step 3 – Build dynamic table



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Solution Outline

Various sources that can initiate Average Cost Calculation

Fnc: Manage Average cost CAMNGAVP

MITFAC.APPR Average cost

Event CMS045

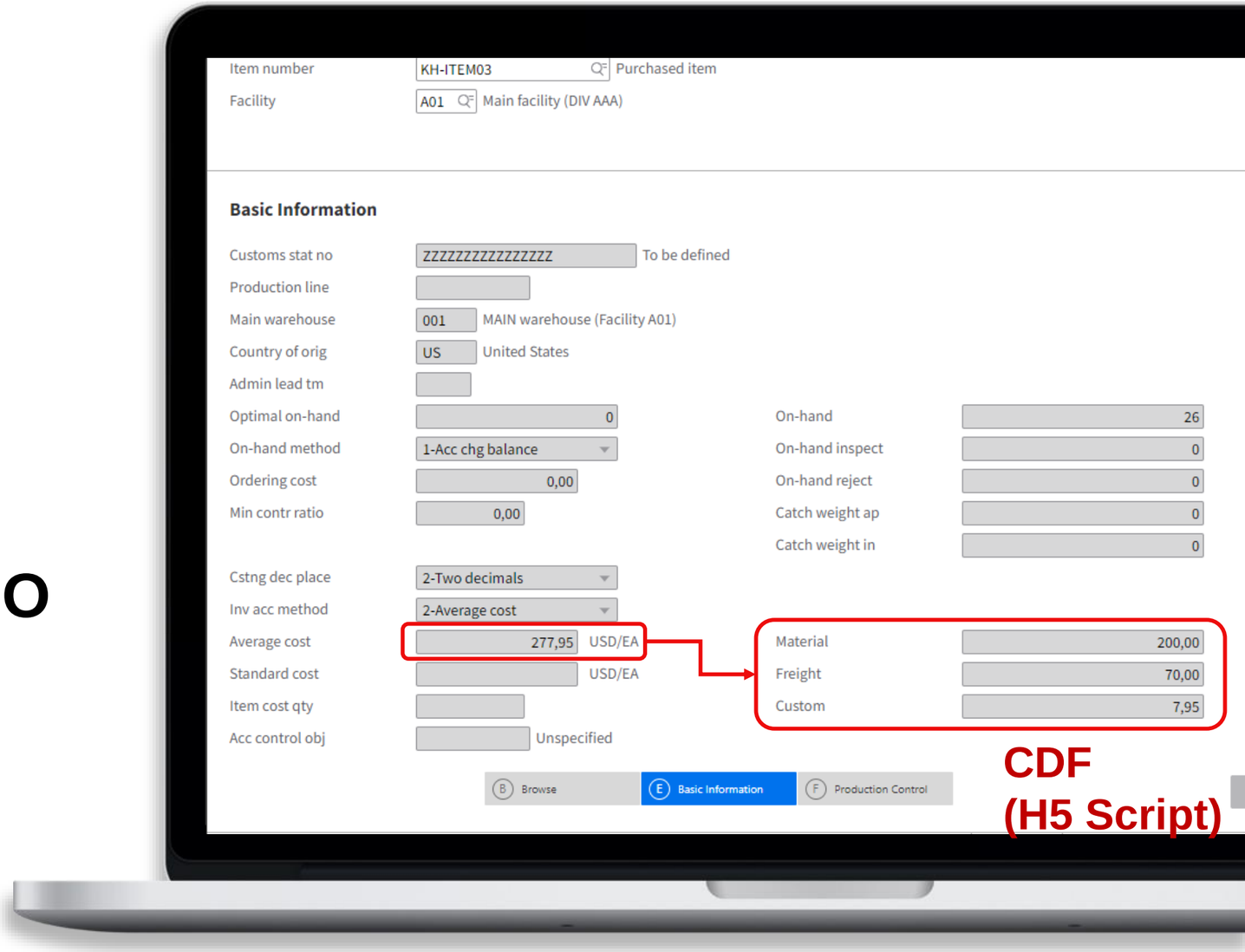
Fetch and calculate Material, Freight, Customs

XtendM3 API

- Average Cost
- Material
- Freight
- Custom
- Timestamp and DB keys

Dynamic Table

DEMO



CDF (H5 Script)

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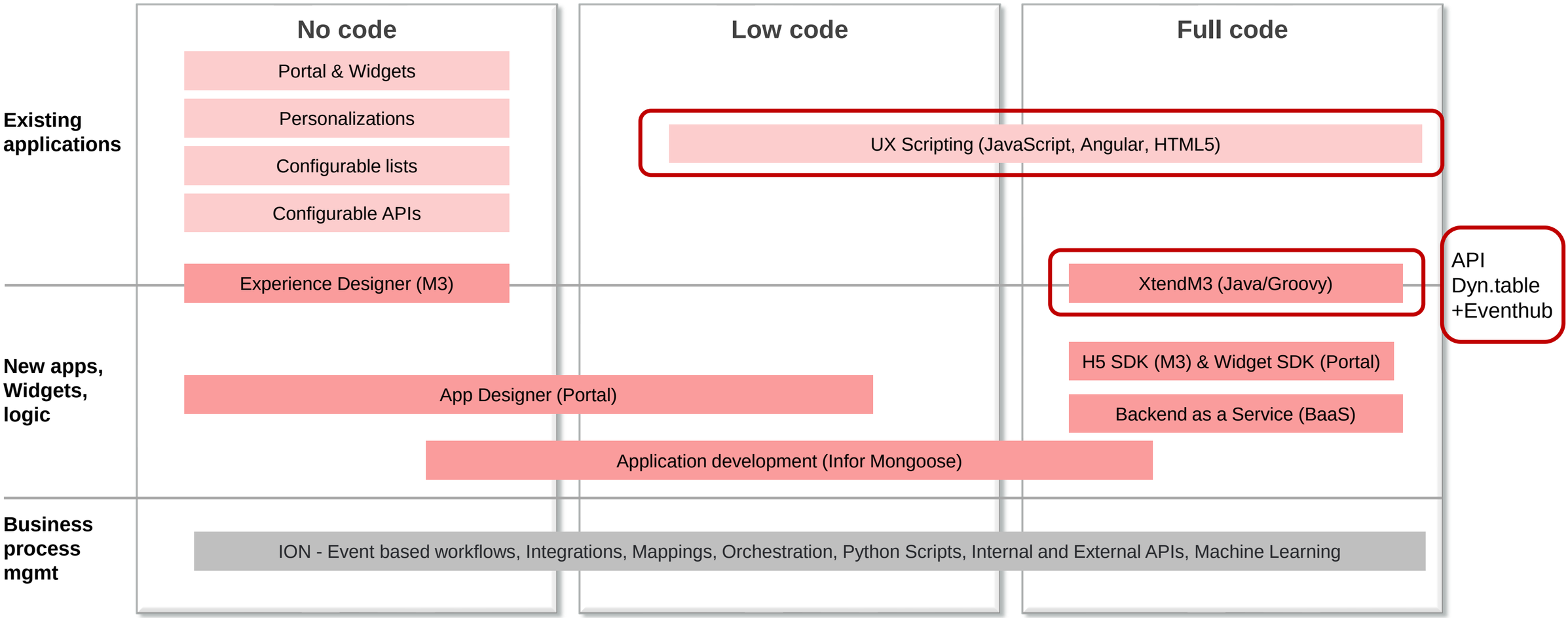

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Performance / Robustness Considerations

What are the performance implications of the extension?

What happens if the user starts working with large volumes of data?

Are we developing defensively or are we assuming everything will work ideally?

What happens if some of the infrastructure is down but other parts operating?

Good idea to consider these questions!

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Combine Technologies

Choosing the right type of extension requires understanding of the problem we are trying to solve, the different technologies and their limitations.

Get familiar with KB 1858460

A common mistake is where people know a specific extension technology and then apply it to every possible problem.

Use Cases	Programming Skills Required								
	Custom Fields	Custom List	H5 Script	H5 SDK (Web Mashup SDK)	Mongoose	XtendM3	MForms Automation	Experience Designer	App Builder
Add Fields to an existing M3 Panel	✓		✓						
Read/Write data to an open M3 Panels' fields	✓		✓			✓			
Read/Write data to a M3 Panels' fields when not open							✓		
Call M3 APIs			✓	✓	✓	✓		✓	
Call ION APIs			◦◦	✓	✓	✓			✓
Create a New Panel				✓	✓			✓	✓
Create custom business logic			✓	✓	✓	✓			
Directly Trigger Workflows			✓	✓	✓				✓
Read / Write Files (upload/download)			✓	✓	✓	✓			
Logic at M3 Presentation Layer	✓		✓	✓	✓		✓	✓	✓
Logic at M3 Application Layer						✓			
Add Column from key tables		✓	✓	?	?	?			
Add Column from other tables		✓	✓	?	?	?			
Create Custom Table						✓			
Perform CRUD on M3 Database						✓			
Create Custom M3 APIs						✓			

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Extensibility

XtendM3

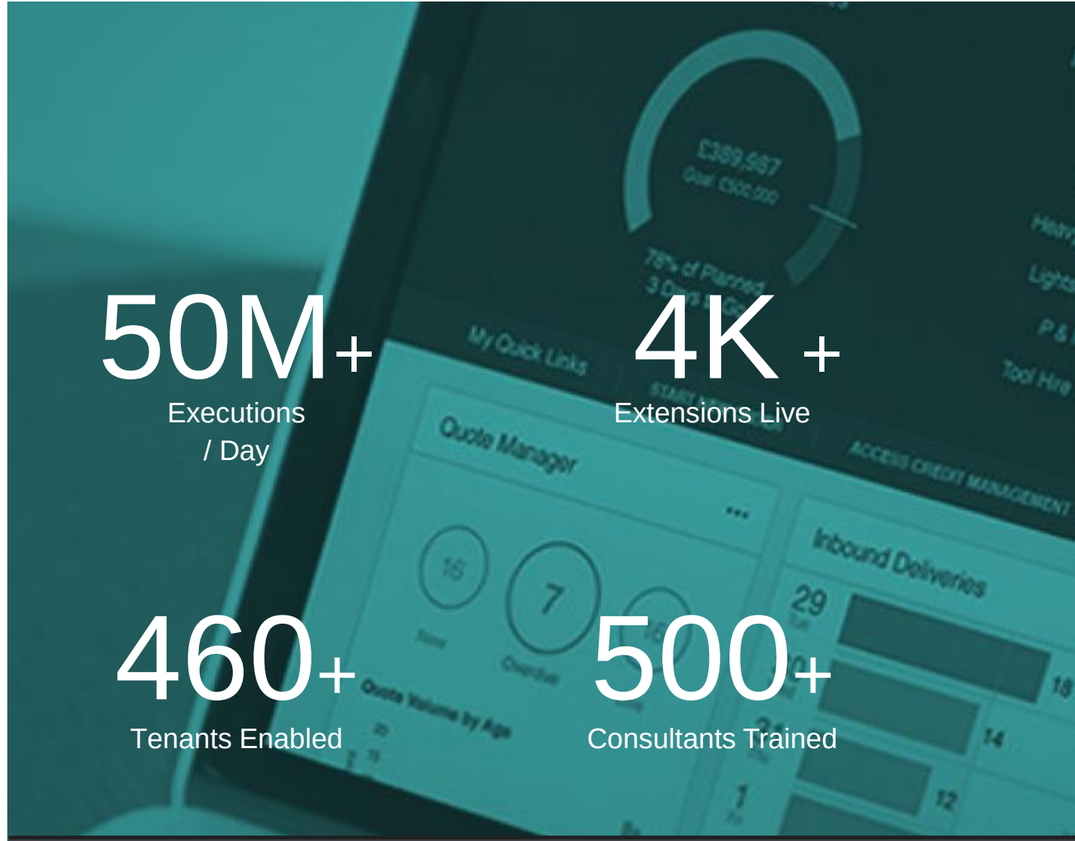
Customization tool for modifying and extending M3 Business Engine logic

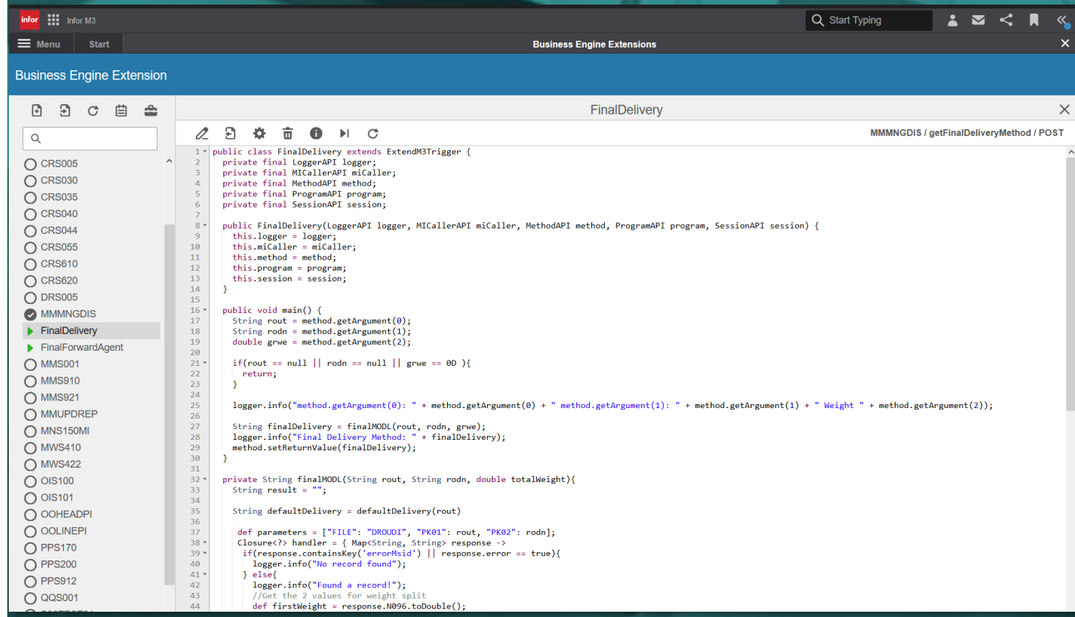
Typical use cases

- Business engine logic needs to be tailored to fit business requirement
- A custom API is needed
- An existing standard API misses an input field and/or logic
- Transactional data needs to be stored and accessed with high performance

Operates via extension points or as stand alone functions

- 63 well defined business engine logic extension points
- Almost every M3 panel in every M3 program has a pre and/or post extension point
- Almost every API transaction in M3 has a pre and/or post extension point





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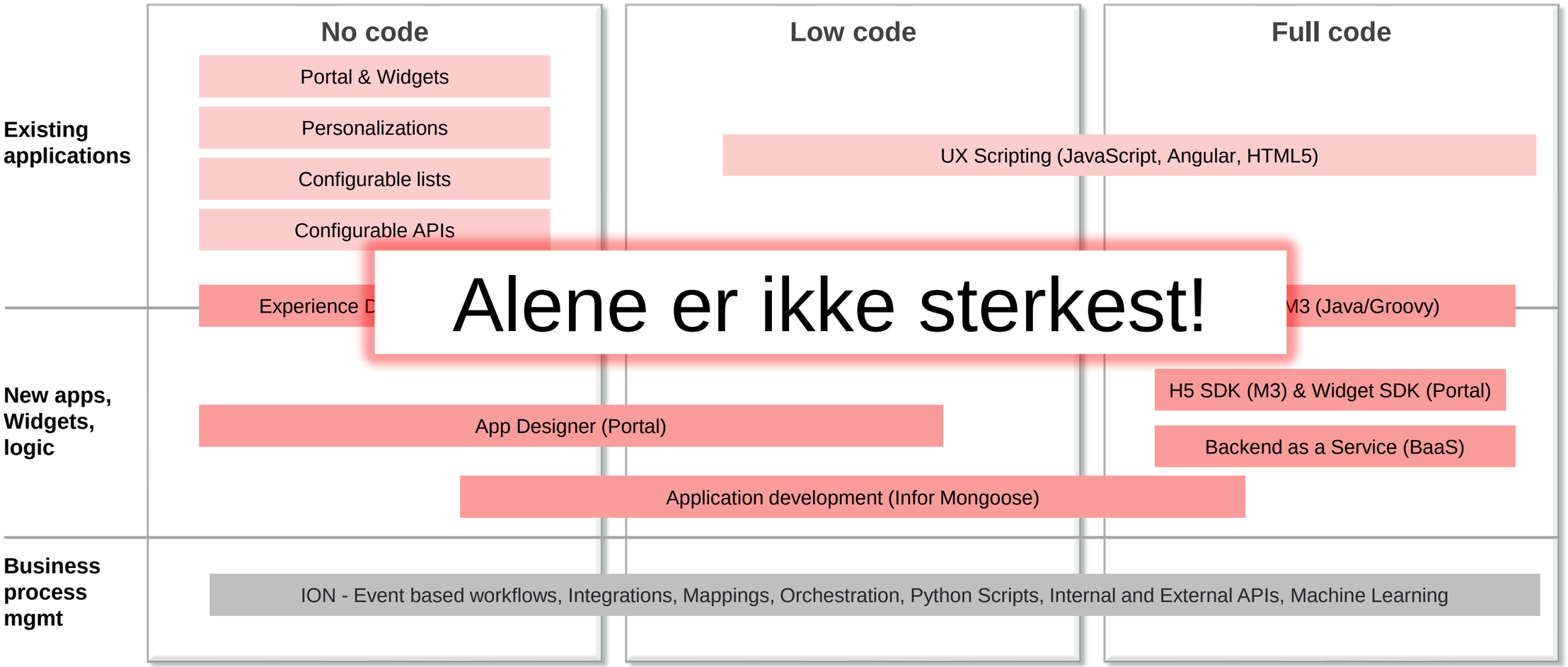

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