Lost in Infor M3 ? Use new tools for better directions - part 1

Most companies that use M3 are satisfied when their business processes run as they should, and a given input results in the expected output. For instance, a manufacturing receipt is reported and as a result we see a balance record and an updated manufacturing order, as well as updates to the transaction history and financial events.

Most of the time, implementation projects are extremely focused on these kinds of transactional outputs, with little thought given to the usability of the process. We typically make use of issue lists and focus only on the most challenging processes. Which makes sense when the goal is to put a new working system in place using limited resources. But recent M3 updates have introduced tools that enable excellent, tailored process support. And truth to be told, these tools are often overlooked.

But why not develop these fancy things after the initial project is finished?

That might be a viable strategy, but I'd like to point out a couple of key challenges:

1. There's more to this than just the fancy stuff like coloring, links etc. We're talking about major differences in operation that requiring dedicated testing, education and more.
2. Retention of competencies from the initial project also needs to be considered. Are we confident that the people involved, both consultants and staff, will still be available once the initial project is closed?

These challenges can of course be mitigated to some extent, but I still think we need to be better at incorporating these new tools directly in the original design. This might come at the cost of an increased budget, but in my opinion, it's more than worth it.

Example: Reporting of Goods receiving

Let's use an example of a process which most M3 customers use, reporting of goods receiving.

First of all, I know many M3 customers today use various mobility tools and the support of shipment advice in the goods receiving process. Naturally this changes the process considerably and the following might not be applicable out-of-the-box. But it should serve well enough as an example of the difference between using new tools and not.

Traditional goods receiving in M3:
The reporting of goods receiving is basically done by three different M3-programs (or their corresponding API transactions). Which of these programs is used, and in what order, is decided by parameters in M3. Each program is started independently, and the input value is typed in manually.

- PPS300 – Goods Receiving
  Initial reporting of goods that have arrived. Typically, the input used is a purchase order number or item number. This info is supplied by the supplier and taken from the

documentation that came with the goods. Once receipt of goods is reported, a receiving number is created to enable further reporting if necessary.

- PPS310 Quality Inspection
  The receiving number (identified typically in printed documents), is used to report the result of a quality inspection.
- PPS320 Put Away
  Again, alongside the receiving number we can use this program to place the approved goods in the selected location within the warehouse.

The standard setup of goods receiving has, in my opinion, two key shortcomings:

1. The dependency on printed information, both concerning the purchase number from the supplier and the internal receiving number.
2. The difficulty for staff involved in using M3 to identify work in progress. Staff will need competency across many programs and will be required to interpret various statuses in order to maintain full control of the process.

Goods receiving using new M3 tools:

Instead of having to rely on printed documents, we should be able to make M3 work for us! The idea is to create a single list program where all expected and ongoing transactions are displayed, with a clear signal of what the next step in the process is and a link to guide the user there.

A new list program can be built with standard tools only. Here's a short description:

- The version of M3 is 13.4 and the user interface is H5 (relevant also for older tech).
- The list shows purchase order lines and sorts by warehouse and expected delivery date.
- In case quality inspection or putaway is called for, the receiving number is retrieved.
- In order to guide the user, the ACTION-column will tell them what the next activity should be. It also provides a dynamic link to start the appropriate program (PPS300, -310, -320), with the corresponding purchase order line or receiving number initiated.

NOTE: the system prompts us to the next step rather than giving information only about the current stage!

- Information such as responsible buyer is included as well as a phone number in case any issues need to be sorted out.

- A filter is applied to 'status' to show only relevant records.

Again, what's important here isn't this specific functionality, it's how new, generic M3 functionality can fundamentally change business processes for the better.

The functionality used is as follows:

- Information Category (CMS010) is constructed with related tables.
- Serially connected virtual fields (numerical & formulas) are used to calculate columns 'QTY' and 'ACTION'.
- Link Manager contain mforms-scripts which dynamically start programs with the correct input.
- Conditional Styles, based on the value in column 'ACTION', enable hyperlinks relating to Link Manager.
- Bookmark is used to enable initiation of the list as a regular M3-program.

Summary

I'm happy to give more detail about the setup I've described here, but that would be a topic for another post – please do let me know in the comments if that would be of interest.

Using ACTION-columns like those I described above is a powerful way to make the system work for you by guiding the user through each step of the process. This isn't easy to accomplish in a standard ERP, which is why the process is fairly unique.

In my personal opinion, most M3 customers can benefit from taking advantage of the kind of generic functionality I've talked about above, though many aren't currently aware of the potential of such features. It's up to business consultants with broad competencies to span the gap between business practices and M3 technology in order to highlight the possibilities.

It isn't enough, to my mind at least, to call in expertise AFTER a new system is up and running. At that point, it's already too late - no system developer can work magic, no matter how well they know their stuff. The best work is done up front, during the initial project, and not after go-live.

LOST IN INFOR M3 ? USE NEW TOOLS FOR BETTER DIRECTIONS – PART 2

Table	Pfx	Description	Sts	Con	Key fld 1	Key fld 2	Key fld 3	Key fld 4	Key fld 5
CIDMAS	ID	Supplier	20	1	IBCONO	IBSUNO			
CMNUSR	JU	User definition	20	1	000		IBBUYE		
MITMAS	MM	Item Master File	20	1	IBCONO	IBITNO			
MPLIND	IC	PO line transactions	20	1	IBCONO	IBPUNO	IBPNLI	IBPNLS	IBPUSL

CMS010 is at the heart of many solutions in modern M3.

In this case, our main file is MPLINE, purchase order lines. Every record in this file is related to records from other files, listed above. To relate purchase transactions, we use a specific index to find the record that has the least progression in the flow (in case there are several receiving numbers on the same order line). User and Item file are related to fetch info, names, and phone numbers.

Virtual fields are very powerful, giving the user the ability to add logic using formulae and calculations. This becomes even more interesting when exploring the possibilities of sequential fields, which allow the output from a virtual field with previous sequence number (see picture) to be used in subsequent calculations of fields with higher sequence numbers.

By taking advantage of this functionality, you can create relatively complex conditions using a combination of calculations and formulae. But while the conditions are complicated, implementing them is actually very straightforward.

For example, we can produce a virtual field, &AC40, which outputs one of three potential values - RECEIVE, QUALITY, PUTAWAY - depending on several predefined conditions.

Now, you might argue that these conditions could be included in conditional styles (personalization), and that's true. But I would strongly recommend you keep all logic as close to M3 as possible. Not only is it more secure, it's also easier to change and deploy, and in many cases allows for more advanced customization.

ACTIONS ▾   OPTIONS ▾   RELATED ▾   TOOLS ▾   ⊞ ⊟ ✎ ▣ 🗑 ▣ ↻ ▤   ☑ ?▾ ☰

Panel Header

Information cat	LIST_EXPREC	Expected reception activities	
Virtual field	&AC10	Status	20-Active ▾

Detailed Information

Description	ACTION		Language
Name	ACTION	Message ID	
Field type	6-Logical formula ▾	Calc sequence	10
Field type	A-Alphanumeric ▾		
Field length	10		

Logical formula

Type	Field	Condition	Operand	Field	Specific value
N-Numeric ▾	ICREPN ▸	1-Equals (=) ▾	3-Specific value ▾		0.000000
0-Not defined ▾					
-Not defined ▾	▸	0-Not defined ▾	0-Not defined ▾	▸	
0-Not defined ▾					
-Not defined ▾	▸	0-Not defined ▾	0-Not defined ▾	▸	

Value if true	3-Specific value ▾	Value if false	1-Blank value ▾
Field	▸	Field	▸
Specific value	RECEIVE	Specific value	

Ⓑ Browse   Ⓔ Detail panel   <   **NEXT**

ACTIONS ▾   OPTIONS ▾   RELATED ▾   TOOLS ▾   ⊞ ⊟ ✎ ▣ 🗑 ▣ ↻ ▤   ☑ ?▾ ☰

Information cat	LIST_EXPREC	Expected reception activities	
Virtual field	&AC20	Status	20-Active ▾

Detailed Information

Description	ACTION		Language
Name	ACTION	Message ID	
Field type	6-Logical formula ▾	Calc sequence	20
Field type	A-Alphanumeric ▾		
Field length	10		

Logical formula

Type	Field	Condition	Operand	Field	Specific value
N-Numeric ▾	ICNEAC ▸	1-Equals (=) ▾	3-Specific value ▾	▸	1.000000
2-Or ▾					
N-Numeric ▾	ICNEAC ▸	1-Equals (=) ▾	3-Specific value ▾	▸	4.000000
0-Not defined ▾					
-Not defined ▾	▸	0-Not defined ▾	0-Not defined ▾	▸	

Value if true	3-Specific value ▾	Value if false	2-Object ▾
Field	▸	Field	&AC10 ▸
Specific value	QUALITY	Specific value	

Ⓑ Browse   Ⓔ Detail panel   <   **NEXT**

CMS012 Virtual Fields. Connect

ACTIONS ▾   OPTIONS ▾   RELATED ▾   TOOLS ▾

Panel Header

Information cat	LIST_EXPREC	Expected reception activities
Virtual field	&AC30	Status 20-Active

Detailed Information

Description	ACTION	Language
Name	ACTION	Message ID
Field type	6-Logical formula	Calc sequence 30
Field type	A-Alphanumeric	
Field length	10	

Logical formula

Type	Field	Condition	Operand	Field	Specific value
N-Numeric	ICNEAC	1-Equals (=)	3-Specific value		2.000000
2-Or					
N-Numeric	ICNEAC	1-Equals (=)	3-Specific value		3.000000
0-Not defined					
-Not defined		0-Not defined	0-Not defined		

Value if true	3-Specific value	Value if false	2-Object
Field		Field	&AC20
Specific value	PUTAWAY	Specific value	

B Browse   E Detail panel   < NEXT

CMS012 Virtual Fields. Connect

ACTIONS ▾   OPTIONS ▾   RELATED ▾   TOOLS ▾

Panel Header

Information cat	LIST_EXPREC	Expected reception activities
Virtual field	&AC40	Status 20-Active

Detailed Information

Description	ACTION	Language
Name	ACTION	Message ID
Field type	6-Logical formula	Calc sequence 40
Field type	A-Alphanumeric	
Field length	10	

Logical formula

Type	Field	Condition	Operand	Field	Specific value
N-Numeric	ICNEAC	1-Equals (=)	3-Specific value		9.000000
2-Or					
A-Alphanum	IBPUSL	5-Greater than or equ	3-Specific value		75
0-Not defined					
-Not defined		0-Not defined	0-Not defined		

Value if true	3-Specific value	Value if false	2-Object
Field		Field	&AC30
Specific value	FINISHED	Specific value	

B Browse   E Detail panel   < NEXT
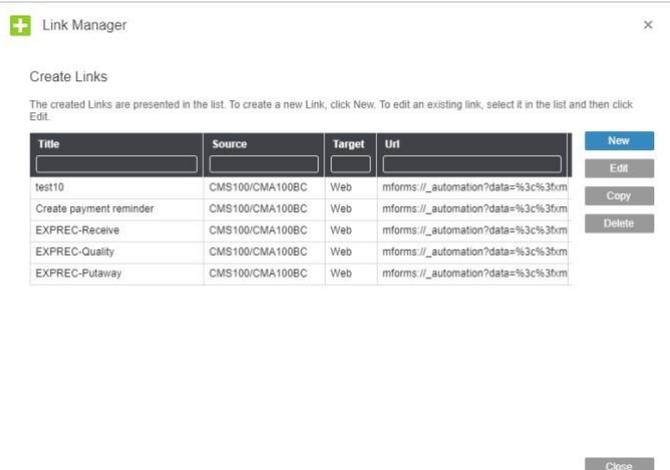
Link Manager is used to enable a structured approach to the use of dynamic links from a specific personalisation such as a hyperlink, meaning links can be changed without the need to deploy new personalisations.
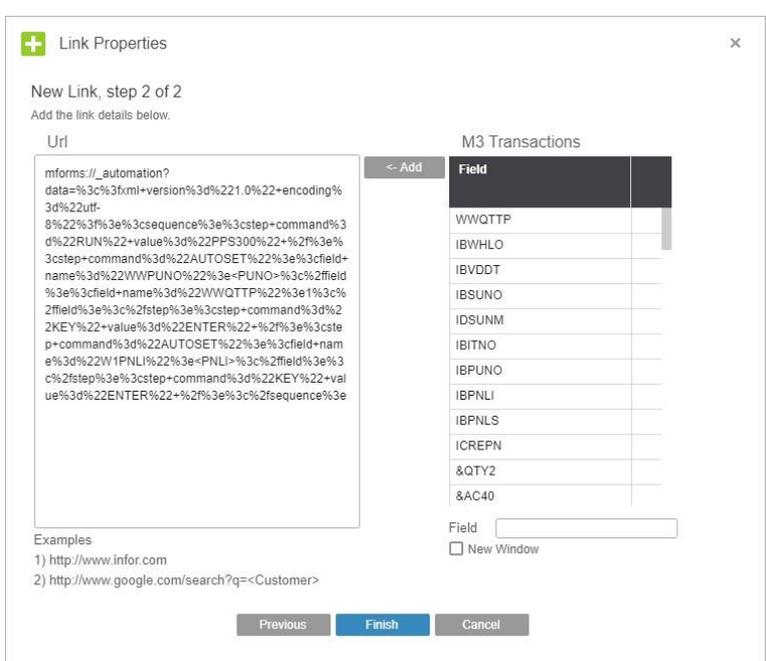
In this case I've used the mforms automation to create dynamic links to several reporting programs (PPS300,-310,-320). The dynamic values taken from the screen are purchase order number (PUNO) and receiving number (REPN).

You can also achieve this with bookmarks, but in this case the requisite panels were not bookmarkenabled in the relevant environment.

Conditional Styles

A conditional style is a format, such as background color or font style, that is applied to fields if a specified condition is true. To create a new conditional style for a field, click New. You can also edit, copy, or delete the conditional styles you created.

Conditions in the list are evaluated from top to bottom, and the first condition that is met is applied. Change the order of the conditions by clicking a condition and then clicking Move Up or Move Down.

Active	Target field	Name	Description	Preview	
☑	ACTION (AC4	RECEIVE		Preview field	
☑	ACTION (AC4	QUALITY		Preview field	
☑	ACTION (AC4	QUALITY		Preview field	

New...
Edit...
Copy...

Delete

Move Up
Move Down

Close

By using virtual fields & Link Manager as described above, personalisations become very simple.

Conditional Styles

Select the target field for which you want to create a conditional style, and then select the type of condition. Depending on the type you select, M3 H5 displays the condition that you can use.

Target field ACTION (AC40)

Text
ACTION (AC40)   Equals (=)   Specific Value   RECEIVE   ☐ Trim blank spaces   + -

Back   Next   Cancel

Each style is associated with a condition on the corresponding field value.

And again, any changes to the logic can then be managed in the relevant virtual fields - complex conditions can sometimes spiral out of control if managed here only.

And the corresponding link from Link Manager is pinpointed.

We now have the tools to put M3 to work for YOU – so let's use them!

We always love to hear from our readers – please leave a comment below!

//Martin Hilmersson

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