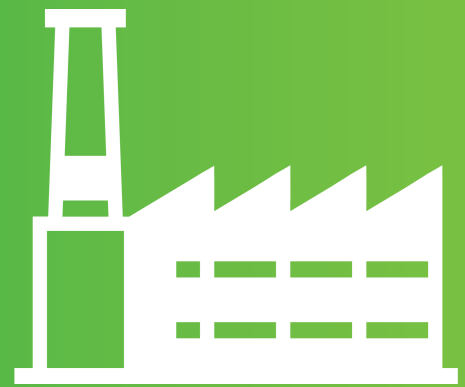


Webhooks

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Introduction to Webhooks

By using **Webhooks** it's possible to easily pass data to other third party web based applications. In addition to communicating with other external applications, **Webhooks** facilitate the extension of MOM data displayed in the workbench, workbench reporting screens and on customizable report pages.

Webhooks in MOM allows parameterised query strings to be passed to any web based application where there is a common form of data. **Webhooks** are designed to be flexible and an understanding of the use of parameters in MOM and the third party application is required to configure this feature. **Webhooks** is a new feature that was first released in **LYNQ 2016 R2 SP1**.

Examples of the types of applications **Webhooks** may be used with:

- Third party reporting/app services such as:
 - Microsoft SSRS, Microsoft Power Apps/Power BI, Crystal Reports
- Document management applications (i.e SharePoint)
- Web based ERP Applications
- Label Printing Software (i.e Bartender)
- Local MOM web pages
- Any type of web based application that supports query string parameters.

Webhooks can pass parameterised queries in 3 different ways:

- **Browser Default**
the URL is opened in a new browser window
- **Overlay**
the URL is opened as an overlay on the current page
- **As a service**
the URL is passed to the third party service in the background

Webhooks can be used in these application areas in MOM:

- Workbench (Employee and Equipment)
- Workbench Standard Reporting Screen
- Workbench Report Single Button (Function)
- Reports and Dashboards (where there is a customize option)

To configure **Webhooks** in MOM, try the examples provided in this document to gain a basic understanding of how webhooks are configured. In these step by step instructions, you will create a **Webhook** that will:

- Open the Job Card from the Workbench screen (Example 1)
- Open the Job Card the Workbench Report screen (Example 2)
- Open the Job Card from the Employee Performance screen (Example 3)



Note: Examples provided in this guide are for learning purposes only. They do not demonstrate how powerful webhooks can be, when configured with other third party applications. Contact the support team for further details.

Industry Standard:

Please note that the **Webhooks** functionality delivered in MOM differs technically to **Webhooks** most widely used by developers for retrieving and storing data from a certain event.

Recognizing Parameters in Query Strings

Not all web pages support parameters to be passed in the query string value. It is easy to identify when a parameter can be passed. In the example below, the question mark (?) character identifies the value **ferret** is passed as a parameter for **name**.

`http://example.com/over/there?name=ferret`

The ampersand (&) character is used to pass multiple parameters. In the example below, **name** and **color** are passed as parameters.

`http://example.com/path/to/page?name=ferret&color=purple`



Note: Web Applications Most web-based applications are capable of receiving query strings that include parameter values.

Configuring Parameters for a Webhook

Within **Advanced Settings** you first need to define the parameters that will be passed to the third party application and the URL of the third party application itself. In this simple example, you will learn how to pass the Job Code as a parameter to the Job Card.

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1. From the MOM home page click **Settings**
2. Click **Advanced Settings**
3. Click **Definitions**
4. Click **Webhooks**
5. If this is the first time you are configuring **Webhooks** it's best to first delete all pre-shipped **Webhook** examples. Select each **Webhook** and click **Delete**
6. Once all pre-shipped **Webhooks** have been deleted, Click **New**
7. Enter a **Name for the URL** = (i.e. Job Card)
8. Enter a **Description** = (i.e. Job Card)
9. Select **Browser Default** as the **Behavior**
10. Enter the URL = i.e. `http://Servername/SiteName/MenuPages/Tracking/JobStatusDetails.aspx`
11. Enter the **URL parameter** = ID in the name field
12. Enter the **Display Name** = Job Code
13. Enable all options under the **Audit Log** section
14. Click **Save**

HOME | PLANNING | WORKFORCE | FACTORY

Edit Webhook

SAVE CLOSE

General

Name: Job View

Description:

Behaviour: Browser default

URL: `http://localhost/lynqmom/MenuPages/Tracking/JobStatusDetails.aspx`

Open

Audit log

Enable audit logging


Include in recent webhooks

Enable re-call option

Enable edit of parameters

PARAMETERS WHERE USED

New	Name	Display Name
Delete	ID	Job Code

 **Note: Permissions:** You must be logged in as a user with rights to advanced setting to configure **Webhooks**.

Configuring Data Passed by a Webhook

Now that you have defined the parameter for the **Job Card** webpage, you must choose where to show the **Webhook** and what data fields from MOM will be passed into the parameter values.

Within the settings of the **Workbench On-Screen Element** you can configure the **Webhook** in 3 different ways:

- **Control Settings > Show Webhook Button**
 - When enabled the **Webhook** will appear on the main Workbench screen and the user must manually click on the Webhook Button to execute the page
- **Reporting Settings > Show Webhook Button**
 - When enabled the **Webhook** will appear on the **Workbench Report** screen and the user must manually click on the **Webhook Button** to execute the page
- **Reporting Settings > Form Submission Webhooks**
 - When enabled the **Webhook** will automatically execute when the user clicks **Report** from the **Workbench Report** screen



Note: Different Behavior: Different terminals can be configured with different webhook behavior.

Example 1 Display Webhook in Workbench

i In this example you will configure the **Webhook** so it is displayed on the main **Workbench Report** page.

1. From the MOM home page click **Settings**.
2. Click **Advanced Settings**.
3. Click **Workbench**.
4. Click **Elements**.
5. Double click on the **Workbench (Employee) On-Screen Element** to edit the properties.
6. Click on **Settings for Scheduled Tasks**.
7. Tick **Show Webhook Button** and click on the eclipse button [...].
8. Select the **Job Card** from the **Webhook** dropdown
9. Click on the eclipse button [...].
10. Select **Job.Code** from the field dropdown list.
11. Click on **OK** twice.
12. Click on **Save**.

Workbench On Screen Element Settings

General	Quantity
Track performance abnormality <input checked="" type="checkbox"/> ...	Show quantity field <input checked="" type="checkbox"/>
Use validation ...	Use extended details <input checked="" type="checkbox"/> Quantity ▾
Provide option to add comments <input type="checkbox"/>	Show details on same page <input type="checkbox"/>
Report non-productive <input type="checkbox"/>	Use validation ...
Show webhook button <input checked="" type="checkbox"/> ...	
Form submission webhooks <input type="checkbox"/> ...	

Webhook Selection

Webhooks		
New	Value	Webhook
Delete	Default	Job Card ▾ ...

Parameter Selection

Parameters - Job Card	
Job Code	Job.Code ▾



Note: Multiple Webhooks: It is possible to create multiple Webhooks to link MOM to different applications.





Example 2 Display Webhook on Reporting

i To test the **Webhook** is working correctly from the **Report** screen: Click into the **Workbench** as an employee.

1. Select a **Task**.
2. Click on the **Report** button.
3. Click on the **Job Card** button.
4. If configured correctly, the **Job Card** will open for the task selected in a new browser window.

Report Screen

Details:		Report:	
Start Date	4/11/2019 12:00 AM	Quantity	<input type="text" value="1"/>
Activity	Run		<input type="text" value=""/> Notes
Job	W227	Equipment	MBFA / MBFA01
Stock Code	B100	Status	No change
Description	Bicycle		
Operation	1		
Description	Bicycle Assembly		
Qty (Planned)	1.00		
Qty (Today)	0.00		
Scrap (Today)	0.00		
Remaining	1.00		
Hrs (Today)	0.02		
Equipment	MBFA / MBFA01		



Multiple Webhooks

It's possible to display multiple **Webhooks** on the **Workbench**. The **Webhook** button behavior changes when multiple **Webhooks** are configured. When multiple **Webhooks** are configured you will see one button called **Webhooks** on the **Workbench**. After clicking on the **Webhooks** button you will be able to select the relevant **Webhook** by name.

Single Webhook Visualization on the Workbench

DAN FISHERMAN
[09 Mar-3:15 PM] - 00:09
Direct Uptime - Production
MBFA / MBFA01

86	0	0	0
Availability	Performance	Quality	OLE

Job list (+/- 3 days)

Start Date	Activity	Job	Stock Code	Description
4/11/2019 12:00 AM	Run	W229	B100	Bicycle

Start Stop Report Attachments **Job Card**

Multiple Webhook Visualization on the Workbench

DAN FISHERMAN
[09 Mar-3:15 PM] - 00:03
Direct Uptime - Production
MBFA / MBFA01

66	0	0
Availability	Performance	Quality

Job list (+/- 3 days)

Start Date	Activity	Job	Stock Code	Description
4/11/2019 12:00 AM	Run	W229	B100	Bicycle

Start Stop Report Attachments **Webhooks**

Webhooks

- Job Card
- Bill of Material

Note: Display Names: Default display names can be replaced with custom values by changing the Webhooks value field.





Example 2 Display Webhook on Reporting

i To test the **Webhook** is working correctly from the **Report** screen: Click into the **Workbench** as an **employee**.

1. Select a **Task**.
2. Click on the **Report** button.
3. Click on the **Job Card** button.
4. If configured correctly, the **Job Card** will open for the task selected in a new browser window.

Report Screen

Details:		Report:	
Start Date	4/11/2019 12:00 AM	Quantity	1
Activity	Run		Notes
Job	W227		
Stock Code	B100	Equipment	MBFA / MBFA01
Description	Bicycle	Status	No change
Operation	1		
Description	Bicycle Assembly		
Qty (Planned)	1.00		
Qty (Today)	0.00		
Scrap (Today)	0.00		
Remaining	1.00		
Hrs (Today)	0.02		
Equipment	MBFA / MBFA01		







Example 2 Display Webhook on Reporting

i To test the **Webhook** is working correctly from the **Report** screen: Click into the **Workbench** as an **employee**.

1. Select a **Task**.
2. Click on the **Report** button.
3. Click on the **Job Card** button.
4. If configured correctly, the **Job Card** will open for the task selected in a new browser window.

Report Screen

Details:		Report:	
Start Date	4/11/2019 12:00 AM	Quantity	1
Activity	Run		Notes
Job	W227		
Stock Code	B100	Equipment	MBFA / MBFA01
Description	Bicycle	Status	No change
Operation	1		
Description	Bicycle Assembly		
Qty (Planned)	1.00		
Qty (Today)	0.00		
Scrap (Today)	0.00		
Remaining	1.00		
Hrs (Today)	0.02		
Equipment	MBFA / MBFA01		



Example 3 Display Webhook on a Report

i Wherever you see an option to customize a grid view, you have the ability to configure a **Webhook**. In this example you will configure the **Employee Performance Audit** screen to show the **Job Card Webhook**.

1. Click on **Employee Performance** in **Workforce Manager**.
2. Click on **Audit** tab.
3. Click **Customize**.
4. Click **Webhooks** eclipse button [...].
5. Enter **Job Card** in the **Name** column
6. Select **Task.Job** from the **Value** dropdown list
7. Select **Job Card** from the **Webhook** dropdown list
8. Click on the eclipse button to the right of the **Webhook** field [...].
9. Select **Task.Job** from the field dropdown list.
10. Click on **OK** twice.
11. Search for the new field by typing **Web** in the **Field Type** column heading.
12. Tick the left checkbox field and enter a sequence number to enable this field to be displayed on the grid.
13. Click **Save**.

Webhook Selection

New	Name	Value	Webhook
Delete	Job Card	Task.Job	Job Card

Filter by Field Type

HOME | PLANNING | WORKFORCE | FACTORY

Edit Webhook

SAVE CLOSE

General

Name: Job View

Description:

Behavior: Overlay window

URL: http://localhost/lynqmom/MenuPages/Tracking/JobStatusDetails.aspx

Open

Audit log

Enable audit logging

Include in recent webhooks

Enable re-call option


Enable edit of parameters

How to Identify Parameters in MOM

A number of reports in MOM use parameters.

Reports where parameters are used:

Report	Parameter(s)	Parameter Value
Equipment Loading	Fclt	Equipment ID
Production Job List	Dpt	WorkCenter Name
Equipment Job List	Dpt & fc	WorkCenter Name & Equipment ID
Employee Status Details	Emp	Employee ID
Equipment Details	Fclt	Equipment ID
Employee Performance	R	Employee ID
Equipment Performance	F	Equipment ID

 **Note: Parameter Names:** Be aware than different reports may have different parameter names for the same value. For example, the **Employee ID** parameter is different on the **Employee Status Detail** report and the **Employee Performance Report**.

Data Field Names Used as Parameters

When creating **Webhooks** for complex query strings, a good understanding of the structure of the data in MOM is required. In most cases, the fields listed in the table below will be commonly used as parameters to third party applications.

Product Area	Workbench Column Name	Data Field Name
Workbench	Start Date	Operation.Scheduled Start Date
Workbench	Job	Job.Code
Workbench	Stock Code	Job.Stock Code
Workbench	Description	Job.Description
Workbench	Operation	Operation.Operation
Workbench	Qty (Planned)	Operation.Quantity Ordered
Workbench	Qty (Today)	Local.Qty (Today)
Workbench	Scrap (Today)	Local.Scrap (Today)
Workbench	Remaining	Local.Remaining
Workbench	Hours (Today)	Local.Hrs (Today)
Workbench	Equipment	Equipment.Equipment



Note: Naming Conventions: Data field names may be different to those in the table opposite. Replace Job for Order if not available.

Additional Webhook Settings

A number of additional settings can be configured against a **Webhook**.

HOME | PLANNING | WORKFORCE | FACTORY

Edit Webhook

SAVE
CLOSE

General

Name:

Description:

Behavior:

URL:

Audit log

Enable audit logging

Include in recent webhooks

Enable re-call option

Enable edit of parameters

Webhook Audit Log Settings

Setting	Purpose
Enable audit logging	Specifies whether the webhook is enabled for audit logging. Logs are visible from the Log Tab of System Insights. Only webhooks with a behavior of 'call as a service' can be audited.
Include in recent webhooks	Specifies whether the webhook will be displayed using the recent webhooks on screen element. Only webhooks with a behavior of 'call as a service' can be viewed in recent webhooks.
Enable re-call option	Specifies whether the webhook can be re-called from recent webhooks.
Enable edit of parameters	Specifies whether the webhook parameters can be edited.

 **Note: Where Used:** Use the Where Used tab on the Edit Webhook screen to see where the Webhook is used throughout MOM