LYNQ

Integration Whitepaper

LYNQ MES Integration for MYOB 2020 R2

OCTOBER 2021

Contents

Version History

The revision history pertains only to changes in the content of this document or any updates made after distribution. It does not apply to the formatting of this document.

Date	Version	Description	Author(s)	Related Versions
6th Oct 2021	1.0	Approved Version	Sarah Paradise-Brown	• APS 11.0.29.0 • MOM 5.1.14.0 • API 7.0.26.0
10TH Feb 2022	1.1	Updated Version	Sarah Paradise-Brown	• APS 11.0.30.0 • MOM 5.1.16.0 • API 7.0.27.0

Introduction

This whitepaper describes the underlying integration technology and architecture utilised in the integration between LYNQ and MYOB. The whitepaper aims to educate customers and partners on the different integration touchpoints available and describes the purpose of the integration settings in the API component, of LYNQ. Integration to MYOB is designed to be plug and play, with minimal configuration steps required. However, to fully maximise the benefits of integrating LYNQ with MYOB, this whitepaper should be referenced. The later sections in this whitepaper, details the data that must be maintained in MYOB for LYNQ to effectively function.

Revisions to this whitepaper will be made when integration capabilities are added or removed.

Terminology

This section explains the terminology used in this document.

Terminology	Explanation
LYNQ	Collective name for the LYNQ solution
APS or LYNQ aps	Desktop based, detailed scheduling component of LYNQ
MOM or LYNQ mom	Web based frontend of LYNQ
API or LYNQ api	Web based ERP integration component of LYNQ
REST API	MYOB's native RESTful API

Certification

MYOB, a global provider of ERP systems are involved in the approval of the integration design and its capabilities. Customers and partners, wishing to suggest enhancements to the integration should do so, by logging into the LYNQ Support Portal and then by selecting Ideas from the Product Menu.

LYNQ MES was listed on the MYOB Marketplace on the 11th August 2021.

MYOB Architecture Summary

This section details the MYOB architecture.

Type	Explanation
Type	Web Applications and restful API
Deployment	On premise, Private Cloud, SaaS
Underlying Database	MS SQL Server
Supported Languages	
Multi Company	Separate MYOB database for each company

Supported MYOB Versions

This section details the MYOB versions which the LYNQ integration supports.

Version	Supported	Limitations
MYOB 2020 R2 Build 2020.6	Yes	

Supported LYNQ Versions

This section details the LYNQ versions which the MYOB integration supports.

Version	Supported	Limitations
LYNQ aps 11.0.29.0 LYNQ mom 5.1.14.0 LYNQ api 7.0.26.0	Yes Yes Yes	

Deployment Options

This section details the supported deployment options.

ERP Deployment		LYNQ Deployment		
		On Premise	Cloud Services	SaaS
MYOB	On Premise	Supported	Supported	Not Supported
	Private Cloud	Supported	Supported	Not Supported
	SaaS	Supported	Supported	Not Supported

Notes:

- Supported – Deployment is fully supported in this type of environment
- Not Supported – Deployment is not available in this type of environment
- Not Recommended – Deployment may be subject to performance or security vulnerabilities in this type of environment and not recommended
- Not Viable – Deployment has limited or no commercial benefits in this type of environment

MYOB SaaS is realised as a containerised Private Cloud service. This option is only available under the MYOB OEM agreement.

API Limitations

This section explains the known limitations of the API.

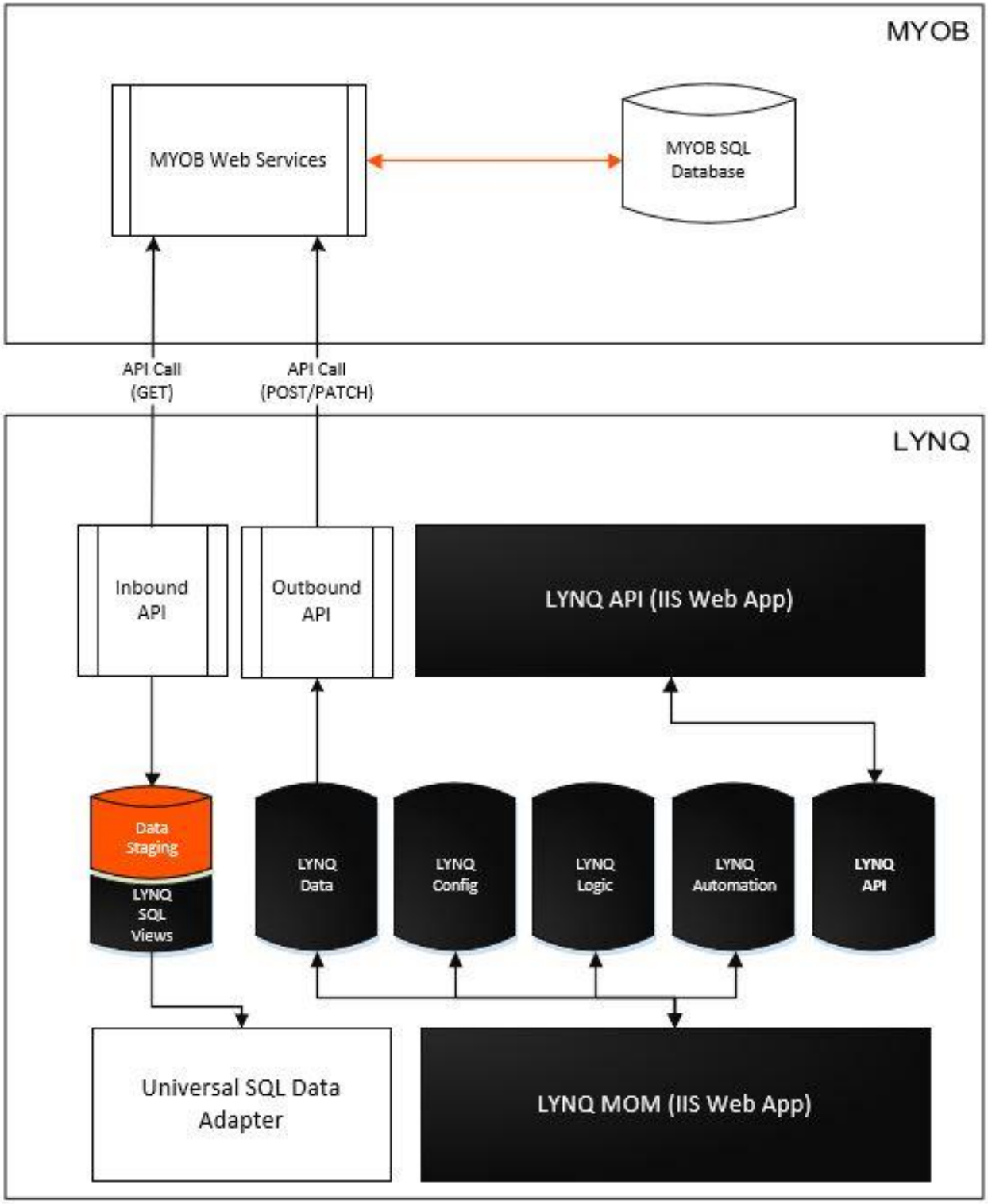
Limitation	Effects	Workaround
MRP Orders	Note: MRP orders can be scheduled for capacity purposes but LYNQ excludes MRP Orders when updating schedule data in MYOB.	None

Integration Methods

This section summarises the different Integration methods utilised.

LYNQ Integration Type	
MYOB to LYNQ	REST API
LYNQ to MYOB	APS - REST API MES - REST API

Integration Topology



Multi-Site Support

MYOB multi-site support is realised via separate MYOB company databases. Every MYOB company database requires a dedicated LYNQ mom installation. The LYNQ aps and LYNQ api components support multiple companies and these components only need to be installed once.

NOTE: Sandbox installations of LYNQ must be isolated from production installations. This is achieved by installing a second instance of all components of LYNQ (LYNQ mom, LYNQ aps & LYNQ api).

Inbound & Outbound Integration

Inbound data is read via REST API services from MYOB and downloaded to the LYNQ SQL staging database. The data in the LYNQ staging database is transformed by LYNQ's proprietary Business Process Layer (BPL). The BPL represents a collection of SQL views which are created during installation and maintained with future software upgrades. All SQL views reside in the staging database and are prefixed with the software author's name (LYNQ). The syntax used within the SQL views is optimised for performance, concurrency and is realised using no-lock data reads. LYNQ refer to this method of inbound integration as 'REST API Integration'.

REST API Integration is performed:

- LYNQ aps
  - as per data download settings (MYOB to LYNQ) in the LYNQ api component
- LYNQ mom
  - as per data caching intervals settings in the LYNQ mom component

Inbound Datasets

Endpoint Name	Dataset	Sub dataset (LYNQ table)	Method
Default	Non stock item	ANonStockInventoryItemCrossReference AnonStockItem AnonStockItemSalesCategory AnonStockItemVendorDetail	REST API
Default	Stock item	AstockItem AstockItemVendorDetail AstockItemWarehouseDetail AsubItemStockItem	REST API
Default	Sales order	AsalesOrder AsalesOrderDetail AsalesOrderDetailAllocation	REST API
Default	Purchase order	ApurchaseOrder ApurchaseOrderDetail ApurchaseSettings	REST API
Default	Employee	Employee AemployeeSettings	REST API
Default	Customer	Acustomer	REST API
Default	Vendor	Avendor	REST API
Default	Item class	AitemClass AitemClassAttribute	REST API
Default	Item warehouse	AitemWarehouse	REST API
Default	Warehouse	Awarehouse AwarehouseLocation	REST API
Manufacturing	Production order detail	AoperationDetail AorderAttributeDetail AorderMaterialDetail AorderOperationDetail AorderOverheadDetail AorderStepDetail AorderToolDetailAProductionOrder AproductionOrderDetail	REST API

		AproductionOrderOperationTotal AproductionOrderTotals	
Manufacturing	Bill of material	AbillOfMaterial	REST API
Manufacturing	BOM attributes	AbomAttributes AbomOverheadDetail	REST API
Manufacturing	Machine	Amachine AmachineDetail	REST API
Manufacturing	Material entry	AmaterialDetail AmaterialEntry AmaterialEntryDetail AmaterialEntryDetailAllocation	REST API
Manufacturing	MRP display	AMRPDisplay	REST API
Manufacturing	Tool	ATool AToolDetail	REST API
Manufacturing	WorkCentre	AWorkCenter AWorkCenterOverheadDetail	REST API

Data downloaded into the LYNQ staging database preserves the endpoint output terminology. A full list of SQL tables and fields referenced in the LYNQ SQL views can be found within System Insights in LYNQ mom.

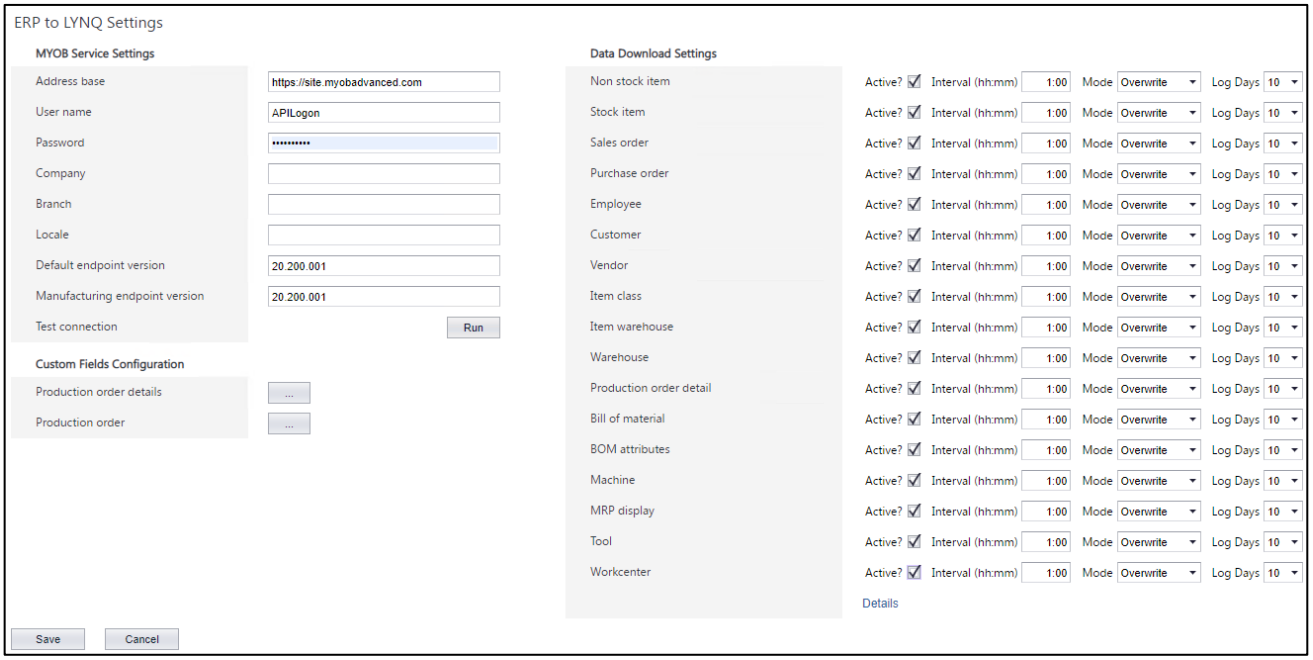
Inbound Integration to APS

Inbound LYNQ API Settings

To download data to the LYNQ staging database, you must configure the **'MYOB to LYNQ'** API provider from the LYNQ api component. Within the settings you are able to configure the MYOB service settings, map any custom fields, define which data sets are downloaded and how frequently datasets are downloaded.

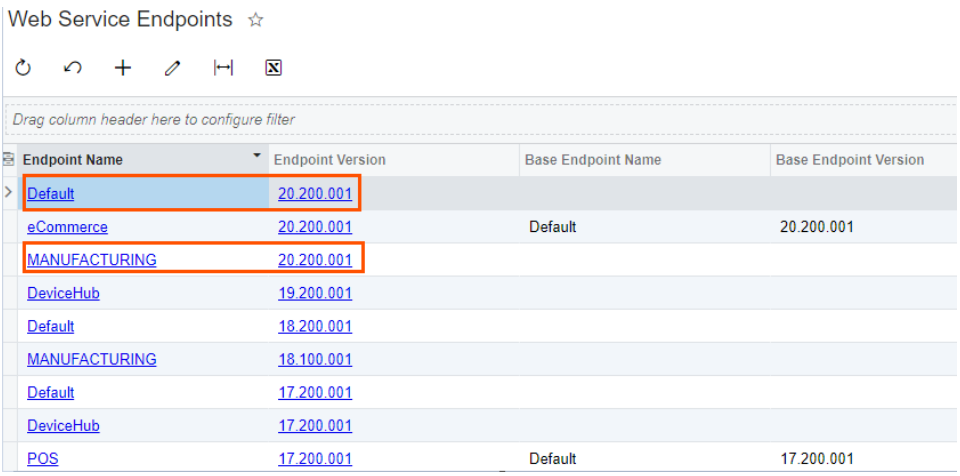
It is recommended that you enable all datasets for download to LYNQ and the datasets are downloaded at the same interval.

ERP to LYNQ Settings:



MYOB Service Settings

The table below, explains the different settings that are required in the MYOB Service Settings section:

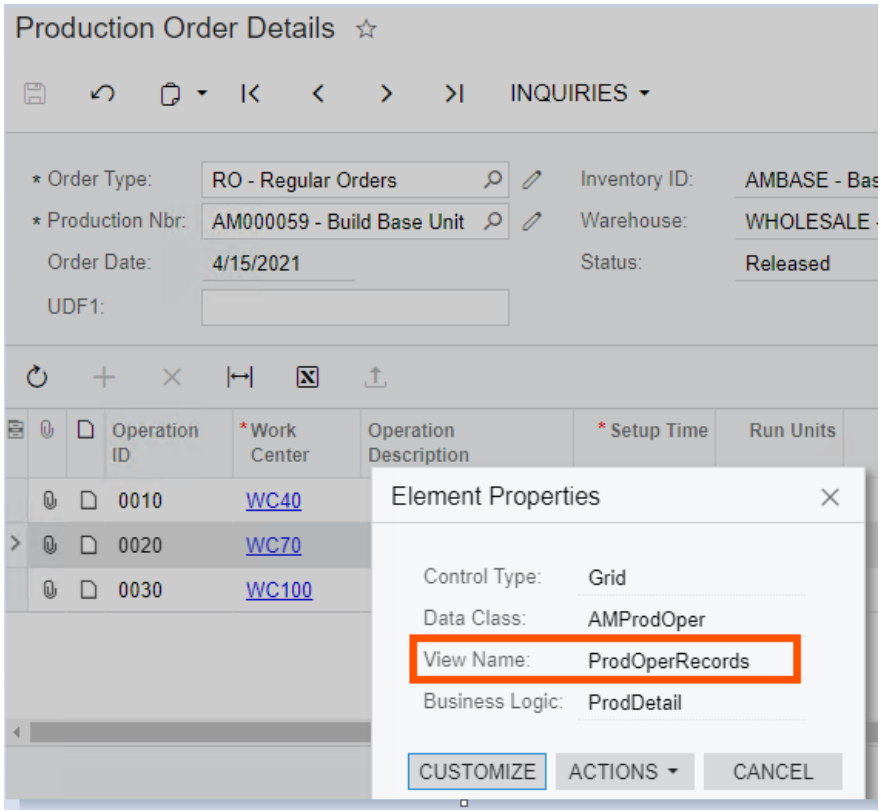
Setting	Purpose
Address base	Installation URL for MYOB
Username	Username that has required access level
Password	Password (encrypted on display)
Company	Specify company in a multi company environment. If blank, the default database would be accessed.
Branch	Leave blank
Locale	Leave blank
Default endpoint version	LYNQ reads standard webservice endpoints. Versions can be found by accessing MYOB screen SM2070PL: 
Manufacturing endpoint version	See above (default endpoint version)
Test connection	Click run to test the MYOB Service Settings are correct

Web Service Endpoints

Drag column header here to configure filter

Endpoint Name	Endpoint Version	Base Endpoint Name	Base Endpoint Version
Default	20.200.001		
eCommerce	20.200.001	Default	20.200.001
MANUFACTURING	20.200.001		
DeviceHub	19.200.001		
Default	18.200.001		
MANUFACTURING	18.100.001		
Default	17.200.001		
DeviceHub	17.200.001		
POS	17.200.001	Default	17.200.001

Custom Fields Configuration

Setting	Purpose
Production order details	This functionality is used to map user defined fields added at the production order details level. MYOB does not support overlap or parallel operations, whereby LYNQ does. To support this functionality in LYNQ, user defined fields must be added first in MYOB. 2 fields should be created at the operation level: • Overlap (Text) • Overlap Value (int) Once the fields have been created you can configure the overlap field settings in LYNQ api: 1. Click on details 2. Specify the view name 3. Enter the field names (i.e. UsrOverlap and UsrOverlapValue) NOTE: To find the view name, open the production order details screen in MYOB and use Ctrl+Alt+Mouse Click (click on the field). A popup will reference the view name. User defined fields appear in web services with a “Usr” prefix. 
Production Order	This functionality is used to map user defined fields added at the production order level. To support this functionality in LYNQ, user defined fields must be added first in MYOB. (i.e. View ProdMaintRecords). Once mapped in LYNQ api, the data in the Production Order user fields table can be referenced in the relevant LYNQ SQL views.

The fields mapped must be added manually to the

Data Download Settings

The table below, explains the different settings that are required in the Data Download Settings section.

Setting	Purpose
Active	Determines whether data will be downloaded for the dataset
Interval	Determines how frequently data will be downloaded for the dataset
Mode	Determines if data will be downloaded in overwrite or append mode. Note: Due to REST API architecture and performance limitations, append mode is NOT currently supported.
Log Days	Determines how long the log file will be retained for the dataset

Global API Settings

Within LYNQ api Global Settings, the maximum number of concurrent service requests and the maximum number of service requests per minute must be configured.

API Settings

Setting	Purpose
Concurrent service request	Set the maximum number of concurrent web services API requests as per your MYOB license settings. This can be found by navigating to License Monitoring Console (SM604000) in MYOB.
Service request per minute	Set the maximum number of web services API requests per minute as per your MYOB license settings. This can be found by navigating to License Monitoring Console (SM604000) in MYOB.

APS Task Panel Columns

Data downloaded from MYOB is visible in many of the LYNQ screens. The tables in this section explains the mapping between MYOB data and LYNQ data in the task panel grid screens in Visual APS. Use the column settings function to add any columns not visible by default. Refer to the LYNQ user guide for other default columns that are not dependent upon the integration with MYOB.

Order Level

LYNQ Column	MYOB Data
Job Class	Production Order - Order Type
Job Order	Production Order – Production Number
Status	Production Order - Status
Planner	Stock Item - Product Manager ID
Location	Production Order - Warehouse
Product	Production Order - Inventory ID
Description	Stock Item - Description
Product Class	Stock Item – Item Class
Unit	Production Order - UOM
Ordered	Production Order - Quantity to Produce

ERP	Production Order – Start End
Date Method	Production Order - Scheduling Method
Customer	Production Order – Customer
Sales Order Number	Production Order – SO Order Number

Operation Level

LYNQ Column	MYOB Data
Job Order	Production Order Details - Production Number
Operation	Production Order Details – Operation ID
Description	Production Order Details – Operation Description
In/Out	Outside Flag – defaults to N (API is not available to display outside processes tab within Production Order Detail)
Work Center	Production Order Details – Work Center
Work Unit	Work Centre – (Top 1 n) Machine
Operators	Defaults to 1
Queue	Production Order Details – Queue Time
Setup (Hrs)	Production Order Details – Setup Time
Run (Unit Hrs)	Production Order Details – Run Time
Wait	Not supported by MYOB
Teardown	Not supported by MYOB
Move	Production Preferences
Required	Production Order Details – Qty to Produce
Scheduled Start	Production Order Details – Start Date
Scheduled Due	Production Order Details – End Date
ERP	Production Order Details – Start End

Outbound Integration from APS

Integrated APS Transactions

LYNQ has the ability to synchronise APS scheduling data back to MYOB. The following data updates are supported.

Data updated within MYOB by APS:

API endpoint	Fields updated	API method request
ProductionOrder	SchedulingMethod	PUT/POST
ProductionOrder	StartDate	PUT
ProductionOrderDetail	PlanEndDate	PUT
ProductionOrderDetail	PlanStartDate	PUT
ProductionOrderDetail	WorkCenter	PUT

NOTE: scheduling/re-scheduling of the production order can only occur against the order statuses below:

- Planned
- Released

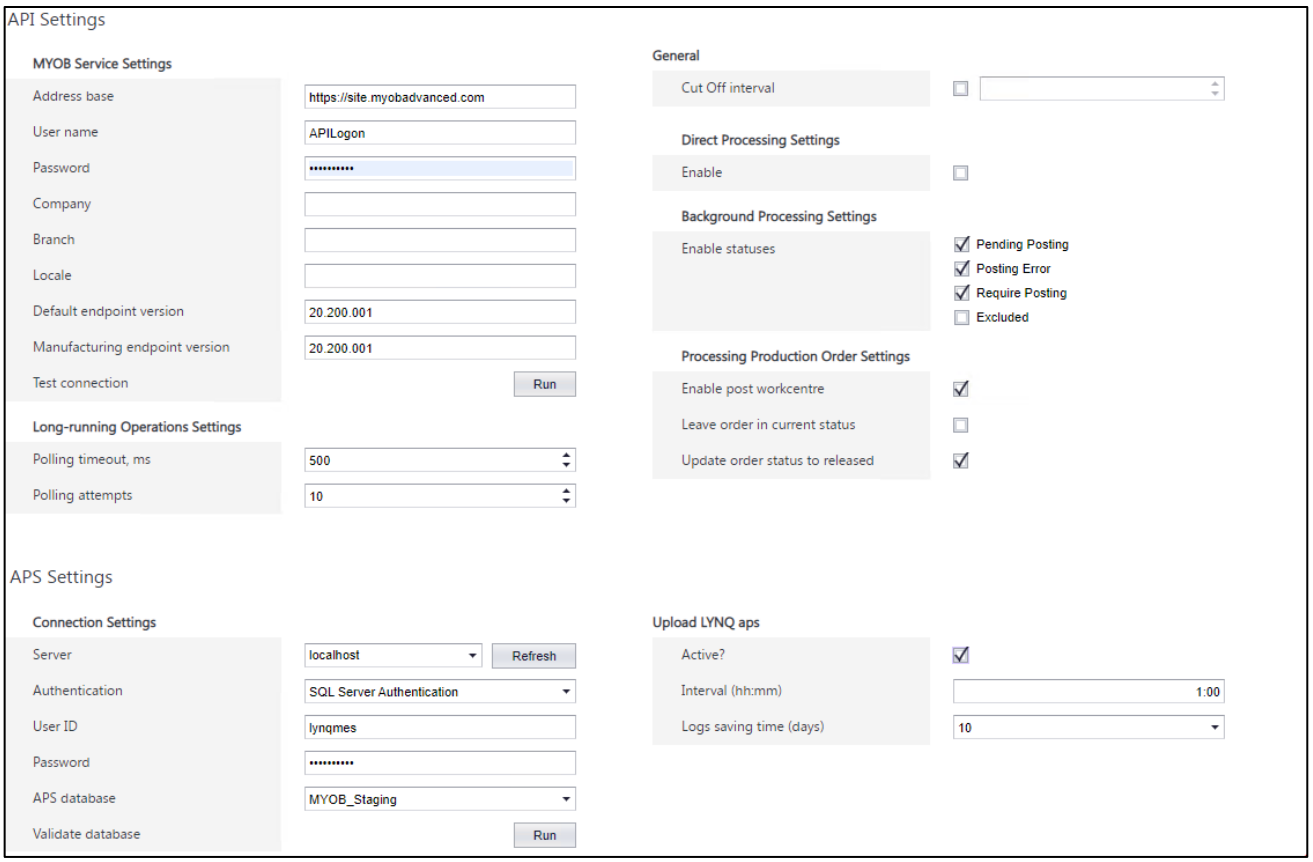
Due to limitations of MYOB, it is not possible to perform rescheduling when the production order has the statuses below:

- Closed
- In Process
- Completed
- Cancelled

To perform the outbound integration of APS to MYOB via REST services, you must configure the following settings in both LYNQ aps and LYNQ api:

1) LYNQ api component
    a. LYNQ aps to MYOB API provider Settings
2) LYNQ aps component
    a. APS Integration Settings

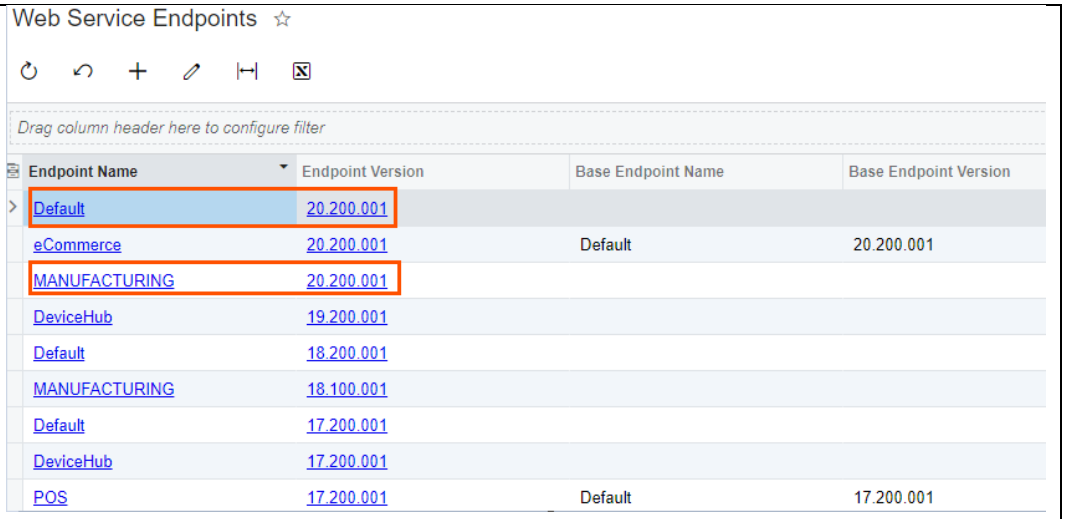
Outbound LYNQ API Settings



MYOB Service Settings

The table below, explains the different settings that are required in the MYOB Service Settings section:

Setting	Purpose
Address base	Installation URL for MYOB
Username	Username that has required access level
Password	Password (encrypted on display)
Company	Specify company in a multi company environment. If blank, the default database would be accessed.
Branch	Leave blank
Locale	Leave blank
Default endpoint version	LYNQ reads standard webservice endpoints. Versions can be found by accessing MYOB screen SM2070PL. Refer to the API Limitations section to understand differences in supported endpoint functionality.

	 Web Service Endpoints Drag column header here to configure filter Endpoint Name / Endpoint Version / Base Endpoint Name / Base Endpoint Version Default 20.200.001 eCommerce 20.200.001 Default 20.200.001 MANUFACTURING 20.200.001 DeviceHub 19.200.001 Default 18.200.001 MANUFACTURING 18.100.001 Default 17.200.001 DeviceHub 17.200.001 POS 17.200.001 Default 17.200.001
Manufacturing endpoint version	See previous setting
Test connection	Click run to test the MYOB Service Settings are correct

General Settings

Setting	Purpose
Cut Off interval	Determines the age (in number of days) of the records to be processed

Direct Processing Settings

Setting	Purpose
Enable	Enable if integration will be triggered by the APS user clicking Save and Publish after using the instant sync option in APS

Background Processing Settings

Setting	Purpose
Enable statuses	If background processing is enabled the statuses to be processed: • Pending Posting – order is scheduled and is pending to be posted. • Posting Error – order has errors when posting • Require Posting – order requires posting and will be posted during next save and publish action triggered from APS. • Excluded – order is excluded from posting Background processing updates MYOB automatically at a specific interval.

Processing Production Order Settings

Setting	Purpose
Enable post work centre	Determines if the work centre against the MYOB production order will be overwritten upon save and publish when scheduled to an alternative work centre.
Leave order in current status	Determines if the order status will rename in the same status after scheduling.

APS Settings – Connection Settings

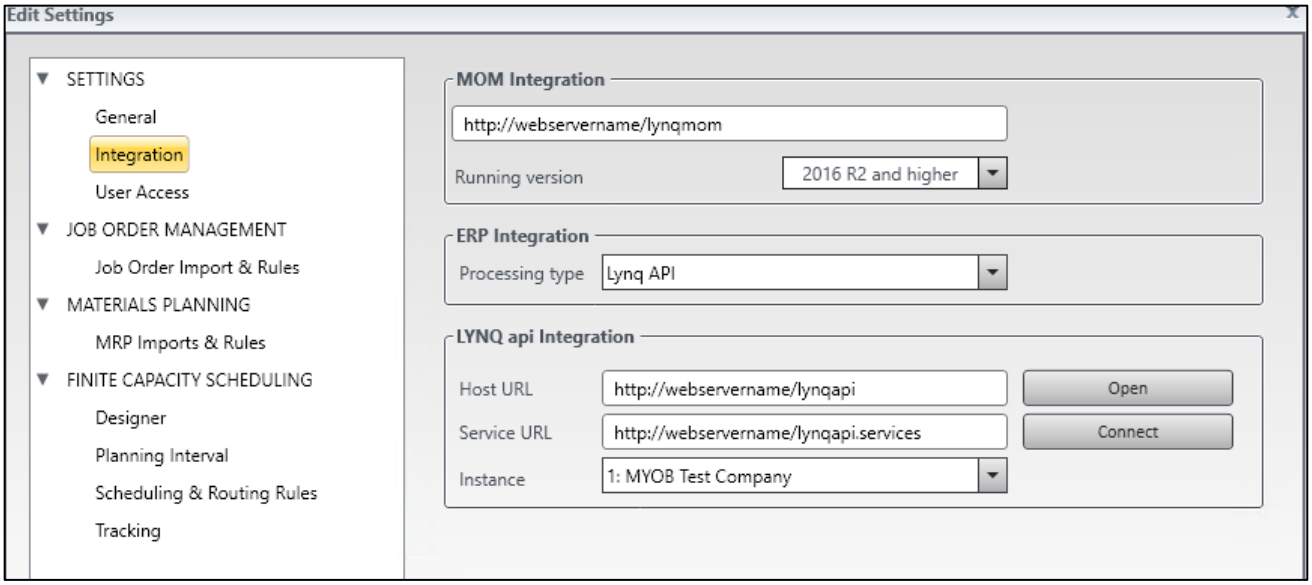
Setting	Purpose
Server	SQL Server Name (where LYNQ Staging Data resides)
Authentication	Method for authenticating with the SQL Server
User ID	SQL Login Name
Password	SQL Password
APS Database	LYNQ Staging SQL Database

APS Settings – Upload LYNQ aps

Setting	Purpose
Active	Use this setting to activate or deactivate automatic processing
Interval (hh:mm)	Set the occurrence of automatic transactions posting process The minimum interval is 1 minute
Log saving time (days)	Set the log history retention duration for this integration. Log history is normally used for the support and troubleshooting purposes.

APS Integration Settings

Additional integration settings are controlled by the user within LYNQ aps:



Setting	Purpose
MOM integration	Determines the URL of the LYNQ mom installation. When set, the user will be able to open reports and dashboards in LYNQ mom directly from LYNQ aps.
Running version	Field used by Legacy installations of LYNQ. Set to 2016 R2 and higher.
Processing type	Determines the integration processing type. Set to Lynq API.
Host URL	Determines the LYNQ api URL address. Use the Tab Key to automatically populate the Service URL based upon the Host URL value provided.
Service URL	Determines the LYNQ api Services URL address
Instance	Determines the LYNQ api instance to use. Select the correct instance for the company open in APS.

MYOB - LYNQ schedule traceability

There is no formal traceability realised between MYOB and LYNQ APS of schedule updates. However, if the SchedulingMethod field in MYOB is set to "User Dates", it would imply that the scheduled dates were updated by LYNQ.

Inbound Integration to MOM

Inbound LYNQ API Settings

- LYNQ api settings not required

Outbound Integration from MOM

LYNQ mom performs outbound integration to MYOB using REST API. In all cases, LYNQ uses MYOB's endpoints to post LYNQ transactions to MYOB.

Integrated MOM Transactions

LYNQ Transaction	Transaction Type	Post	Unpost	Comments
Labour	Productive Time	Yes	Yes	Posting a Labour transaction from LYNQ will generate a direct labour type transaction in MYOB. Actual Labour posted is visible from the Production Order Details screen.
	Non Productive Time	Yes	Yes	Posting an In-Direct Labour transaction from LYNQ will generate an in-direct labour type transaction in MYOB. NPT is posted direct to a GL Code.
Equipment Time	Productive Time	No	No	Machine time is always backflushed in MYOB when a quantity is posted.
	Non Productive Time	No	No	There is no ability in MYOB to log machine non-productive time.
Quantity	Operation Good Quantity	Yes	Yes	Posting a Quantity transaction from LYNQ will update the Qty Complete against the operation in MYOB. If the operation includes machine time this will be posted automatically. If a quantity transaction is reported against the last operation, the Production Order Qty Complete will be updated and the finished goods will be receipted into stock. In LYNQ, when a user

				enters a quantity transaction for the final operation, the screen indicates to the user that a Job Receipt will happen. The integration will observe any requirements to backflush labour and materials in MYOB. If labour or material is backflushed, it is recommended that transactions rules are created in LYNQ to exclude actual labour and material issues from posting to MYOB. LYNQ does not support the ability for the user to enter expiration dates for Serial or Lot Numbers. If the Lot or Serial number is left blank, the next number from the MYOB number series will be used. If specifying a Lot or Serial number manually in the LYNQ transaction, the number must be in the same format as the number series for the Lot/Serial Class specified against the stock item in MYOB. If the number does not match the format, MYOB will automatically use the next number in the series.
Scrap	Operation Scrap Quantity	Yes	Yes	Posting a Scrap transaction from LYNQ will update the Qty Scrapped against the operation in MYOB. If the operation includes machine time, this will be posted automatically. If a scrap transaction is reported against the last operation, the Production Order Qty Scrapped is updated.

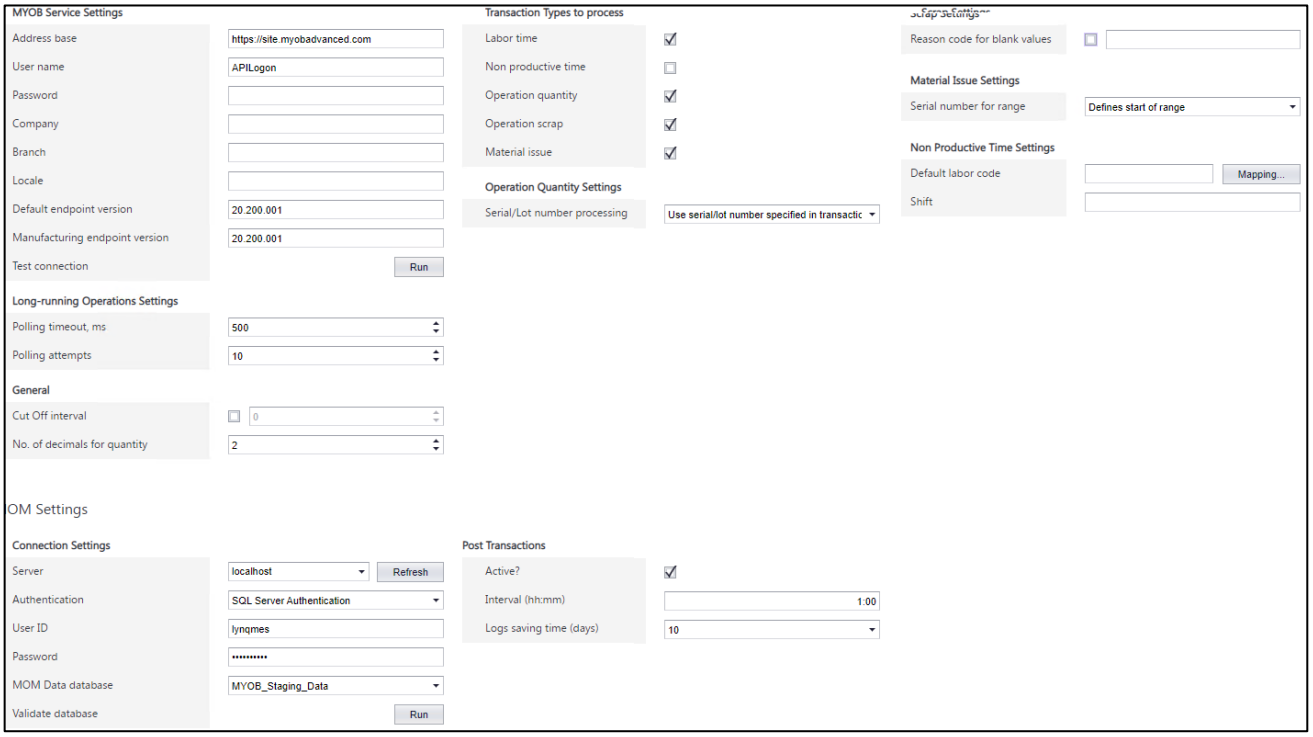
				The integration will observe any requirements to backflush labour and materials in MYOB. If labour or material is backflushed, it is recommended that transactions rules are created in LYNQ to exclude actual labour and material issues from posting to MYOB.
	Job Status	No	No	Currently, the API does not support changing the order status. The same applies to operational status. This functionality will be included in LYNQ, once the API supports this capability.
Material Issue		Yes	Yes	Posting a Material Issue transaction from LYNQ will update the Material Qty Actual field against the Production Order in MYOB and issue the material from stock.
Material Reject		No	No	There is no ability in MYOB to reject components. This functionality will be included, once MYOB supports this capability.
Status	Operation Status	No	No	Operational status is not editable via UI (therefore API doesn't allow changes) and changes depending on order processing.
	Job Status	No	No	Currently, the API does not support changing the order status. The same applies to operational status. This functionality will be included in LYNQ, once the API supports this capability.
Production Issues		No	No	There is no ability in MYOB to log production issues.

Note: Transaction Unposting is realised via posting of the same transaction with the opposite (negative) value.

Outbound LYNQ API Settings

Outbound integration settings can be enabled or disabled for each instance of LYNQ mom. The integration settings are configured within the LYNQ api component. LYNQ api can support multiple instances of LYNQ mom and each instance can have different settings.

LYNQ mom to MYOB API Settings:



Service Settings

Service settings define how LYNQ will connect to MYOB using the REST services.

Setting	Purpose
Address base	Installation URL for MYOB
Username	Username that has required access level
Password	Password (encrypted on display)
Company	Specify company in a multi company environment. If blank, the default database would be accessed
Branch	Leave blank
Locale	Leave blank
Default endpoint version	LYNQ reads standard webservice endpoints. Versions can be found by accessing MYOB screen SM2070PL
Manufacturing endpoint version	See previous setting

Test connection	Click run to test the MYOB Service Settings are correct Web Service Endpoints ☆ Drag column header here to configure filter Endpoint Name / Endpoint Version / Base Endpoint Name / Base Endpoint Version Default / 20.200.001 eCommerce / 20.200.001 / Default / 20.200.001 MANUFACTURING / 20.200.001 DeviceHub / 19.200.001 Default / 18.200.001 MANUFACTURING / 18.100.001 Default / 17.200.001 DeviceHub / 17.200.001 POS / 17.200.001 / Default / 17.200.001

Long Running Operations Settings

Setting	Purpose
Polling timeout, ms	Delay in (milliseconds) before the integration checks transaction status. Recommended 500 (may need adjusting)
Polling attempts	Number of retries. Recommended 20 (may need adjusting)

General Settings

General settings define basic integration settings that apply to different transaction types.

Setting	Purpose
Cut Off interval	Number of days cut off range that LYNQ api should post transactions. (i.e. post transactions where accounting date is within last 30 days)
No of decimals for quantity	Number of decimals that LYNQ api should round Quantity and Material Issue transaction values.

Transaction Types to Process

Setting	Purpose
Labour time	Enable this setting to post labour time transactions
Non-productive time	Enable this setting to post labour and equipment non-productive time • See section Non-Productive Time Settings for additional information
Operation quantity	Enable this setting to post operation good quantity. • See section Operation Quantity Settings for additional information • See section Job Receipt Settings for additional information.
Operation scrap	Enable this setting to post operation scrap quantity • See section Scrap Settings for additional information
Material issue	Enable this setting to post material issue transactions (specific issues as per MYOB terminology)

Operation Quantity Settings

Settings in this section are only applicable if the 'Operation quantity' Transaction is enabled within the Transaction Types settings section.

Setting	Purpose
Lot traceability processing	Select behaviour for Lot items processing. • Set lot traceability number to equal job number ○ Use this option to set lot traceability number same as transaction job number • Use lot traceability number specified in the transaction Use this option to force LYNQ to use lot traceability number captured within transaction (entered in LYNQ Workbench, Timesheets or Transaction review)
Serial number processing	Select behaviour for serial items processing • Use serial numbers specified in transaction ○ Use this option to force LYNQ to use serial numbers captured within transaction (entered in LYNQ Workbench, Timesheets or Transaction review)

Scrap Settings

Use these setting to specify Operation scrap transaction behaviour.

Setting	Purpose
Reason Code for Blank Values	Use this setting to specify a default scrap reason code. This scrap reason will be applied only when the LYNQ operation scrap transaction does not contain a scrap reason. Note, Scrap reason entered in this setting must match to MYOB scrap reason definitions.

Material Issue Settings

Use these settings to specify LYNQ integration behaviour when posting material issue transactions.

Setting	Purpose
Serial number for range	Select behaviour for serial items processing; number specified in transaction • Defines start of range • Defines end of range

Non-Productive Time Settings

Use these settings to specify the LYNQ integration behaviour when posting labour time transactions against non-productive activity.

Non-productive activity relates to labour collected against the 'indirect downtime' types of time classification (breaks, breakdowns, meetings, etc). Diversion code, field that identifies transaction time classification, can be found within LYNQ transaction review functionality.

Setting	Purpose
Default labour code	Set default MYOB's non-productive code for cases if such is not specified within LYNQ transaction (normally specified on LYNQ diversion code definition). Additionally, set mapping scheme between LYNQ and MYOB non-productive codes.
Shift	Set default work centre code to be used in cases if not recorded within the transaction.

MOM Settings

MOM settings define which MOM database LYNQ api should read from when posting transactions to MYOB. From the MOM Settings area, integration can be enabled or disabled from periodic synchronisations to MYOB.

Connection Settings

Setting	Purpose
Server	SQL Server Name (where the LYNQ MOM Data database resides)
Authentication	Method for authenticating with the SQL Server
User ID	SQL Login Name
Password	SQL Password
MOM Data Database	LYNQ MOM Data Database
Validate Database	Select run to check that the database selected contains MOM data

Post Transactions Settings

Setting	Purpose
Active	Use this setting to activate or deactivate automatic transaction posting process. Note, this setting is ignored when you manually trigger transaction posting from the within LYNQ Transaction review functionality (Sync menu button) or LYNQ api integrations list screen.
Interval	Set the occurrence of automatic transactions posting process. The minimal value is 1 minute.
Log Saving Days	Set the log history retention duration for this integration. Log history is normally used for the support and troubleshooting purposes.

MYOB API Methods

MYOB API	API method
ReleaseLabourEntry	POST
ReleaseMoveEntry	POST
ReleaseMaterialEntry	POST

MYOB - LYNQ Traceability

Every transaction posted by LYNQ api is marked with LYNQ unique transaction numeric ID. Normally this ID is stored within Transaction 'Reference' field in the format LYNQ_ID={value}

Common Posting Errors

Error	Reason
The operation is in progress	Increase the value in the Polling timeout, ms field in the long running operations section in the LYNQ mom to MYOB integration settings window.

LabourTime Error: 'Inventory ID' cannot be empty.; 'Labour Code' cannot be empty.; 'Operation ID' cannot be empty.; 'Production Nbr' cannot be empty.; 'UOM' cannot be empty.; More 1 error(s)...	The transaction cannot be posted when:
	• The order is not released
	• The transaction is missing data
	  ○ Operation ID
	  ○ Production Nbr
	  ○ UOM
	  ○ Labour Code

Quantity Error: 'Operation ID' cannot be found in the system.; The RO AM000609 production order with the Planned status cannot be used in this process.	The Production Order must be released before transactions can be posted. Production Order Maintenance > Actions > Release
LabourTime Error: Labour Time cannot be zero.; Quantity cannot be zero.	The transaction cannot be posted when the labour time is less than 1 minute.
Quantity Error: 'Location' cannot be empty.	The Quantity Transaction in LYNQ is missing a location "Bin" value
LabourTime Error: 'Labour Code' cannot be empty.	Use the Labour Code Mapping in LYNQ api to set the LYNQ code 'Undefined' with the MYOB Labour Code.
MaterialIssue Error: One or more lines have unassigned Location and/or Lot/Serial Number	MYOB does not know where to issue the material from. You can automatically issue lots and serials but you must at least provide a bin value in the Transaction.

Data Management

This section details data that must be maintained in MYOB and why it is required by LYNQ. Inaccurate or missing data will affect how LYNQ functions and how LYNQ integrates with MYOB.

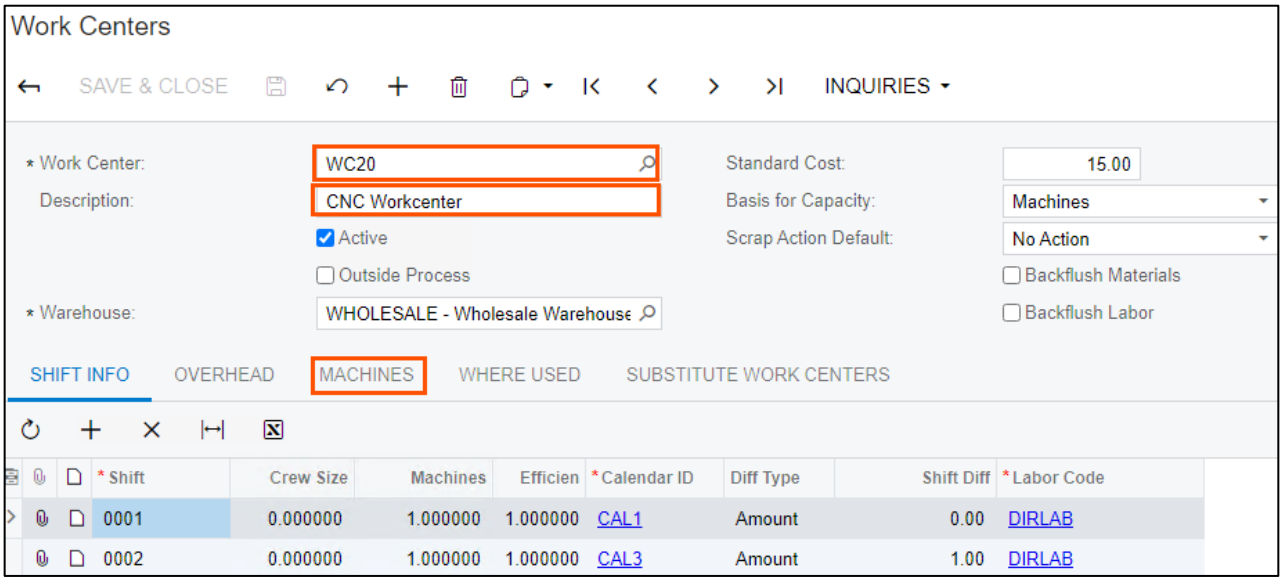
Resource Management

Work Centres

MYOB's work centre entity defines the resource work unit requirement. A work centre is not treated as a LYNQ resource but instead as a grouping element for downstream resources: machine(s).

It is important that work centre records are created and maintained in MYOB and at least one machine should be created within work centre to allow scheduling in LYNQ aps. Work Centres and machines are read using the REST API method. Work Centres do not need to be imported into LYNQ.

Screen ID in MYOB AM207000:



Important fields to maintain in Work Centers:

MYOB Setting	Reason
Work Center ID	The work centre ID is referenced throughout LYNQ
Work Center Description	The work centre description is referenced throughout LYNQ
Standard Cost	The standard labour cost
Machines	The machines that are related to the work centre. Machines are optional from an MYOB perspective but are treated as primary resources used for scheduling and data collection in LYNQ. NOTE: An operation in MYOB does not have a field for machine, LYNQ defaults the machine to the random TOP 1 Machine from the same work centre if the machine is not set against the operation, for data collection purposes. In cases where the machine is not specified for the work centre, LYNQ will show the operation as 'invalid for scheduling'. The indicator will appear red. A machine must be specified to schedule within LYNQ.

Machines

MYOB machines are treated as primary LYNQ resources. Multiple machines may be defined under a single work centre. Machines are required for scheduling and must be setup to define capacity.

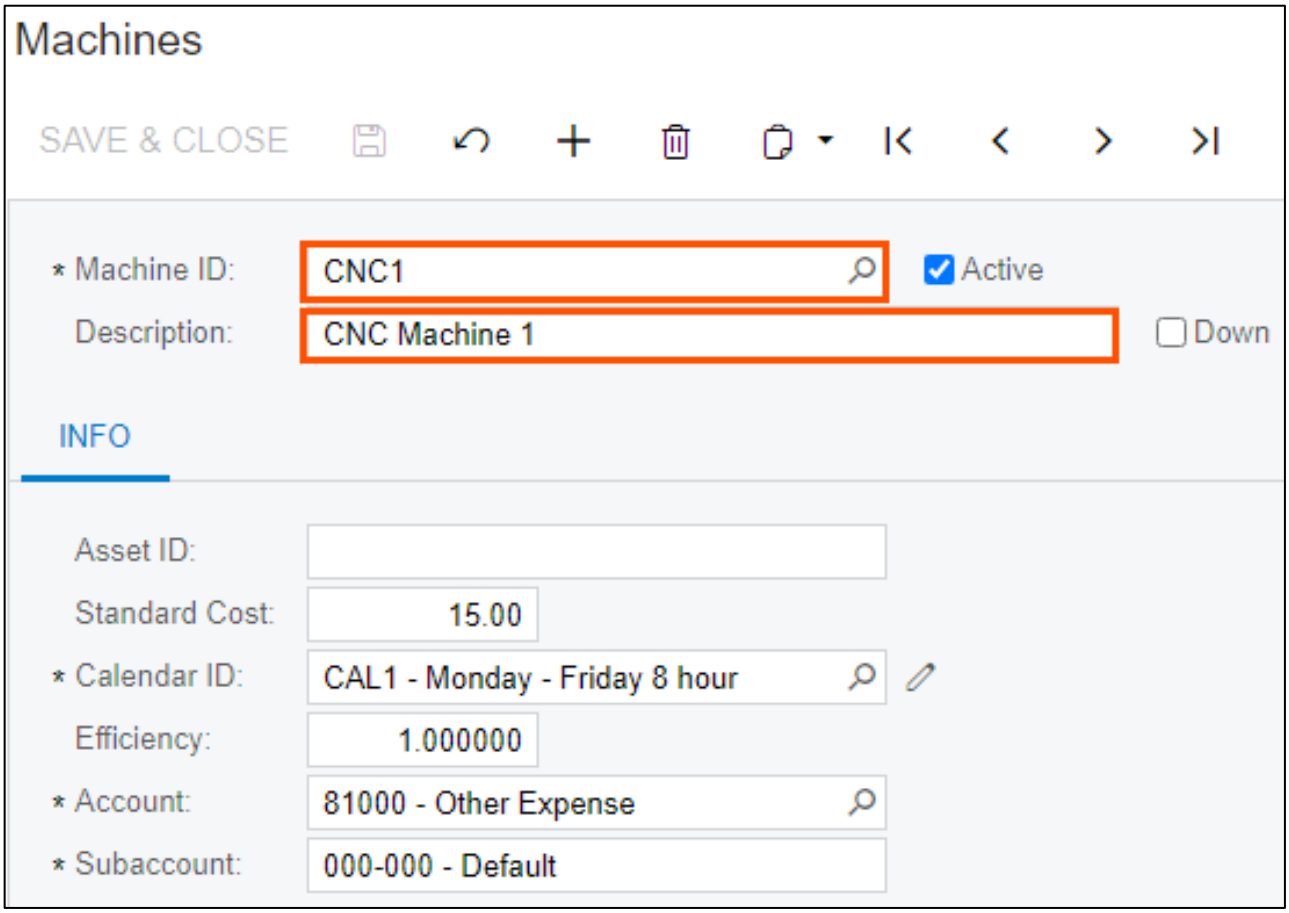
LYNQ requires at least one machine to be created for every work centre. Integration between MYOB machines and LYNQ machines involves a two stage of resource import process:

1. MYOB to LYNQ aps
    a. APS supports machine extended properties for calendars and shift changes
    b. APS machine planning and scheduling
2. LYNQ aps to LYNQ mom
    a. Supports extended properties for execution management and data collection

Important fields to maintain in Machine screen:

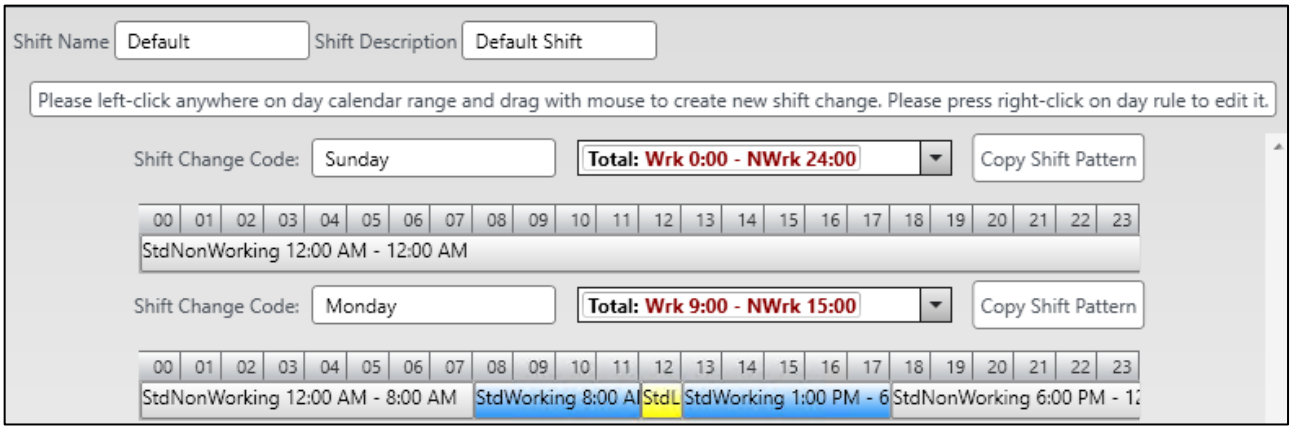
MYOB Setting	Reason
Machine ID	The machine code is referenced throughout LYNQ
Machine Description	The machine description is referenced throughout LYNQ
Standard Cost	The standard machine cost

Machines Screen ID in MYOB AM204500:



Note: LYNQ does not utilise MYOB's shift ID attached to the work centre. You must setup shifts for each machine in LYNQ aps, to define (finite) capacity. Subcontract resources should have a 24 x 7 shift applied.

LYNQ aps Shift Definition:



Alternative Machines

LYNQ is not utilising MYOB's substitute work centres. Instead, APS alternatives should be used.

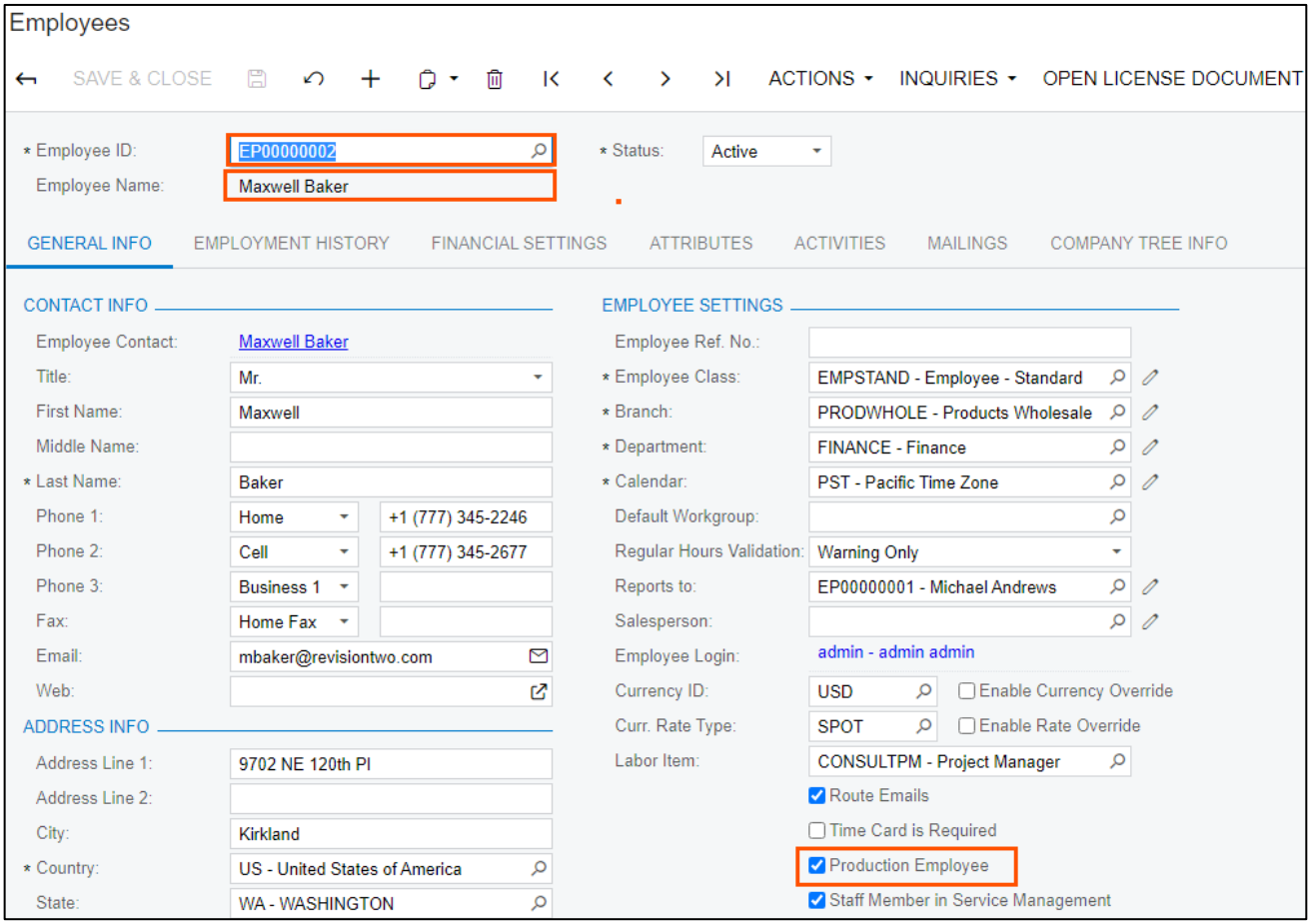
Secondary Constraints

MYOB supports secondary constraints (tools) definition per operation. See operation secondary constraint section for additional details.

Employees

MYOB supports manufacturing employee definition as part of its core WIP module. MYOB employee integration requires a manual employee import process. Once imported, employees are extended with execution management and data collection properties. It is also possible to manually create employees in LYNQ. This may be used in cases where you do not want to maintain temporary employees in MYOB. However, to post transactions from LYNQ to MYOB, an MYOB employee code must be set against the employee seat in LYNQ.

Employee Screen ID in MYOB EP2030PL:



Important fields to maintain in Employees:

MYOB Setting	Reason
Employee	The employee code used throughout LYNQ
Name	The employee name is used for informational purposes in LYNQ
Production Employee	The employee can be used for production reporting transactions

Capacity Definition

LYNQ is not utilising MYOB's capacity definition.

Machine capacity is driven by the APS capacity definition and includes:

- Calendars
- Default calendar resource quantity
- Shift changes
- Production schedule

Definition Management

Jobs

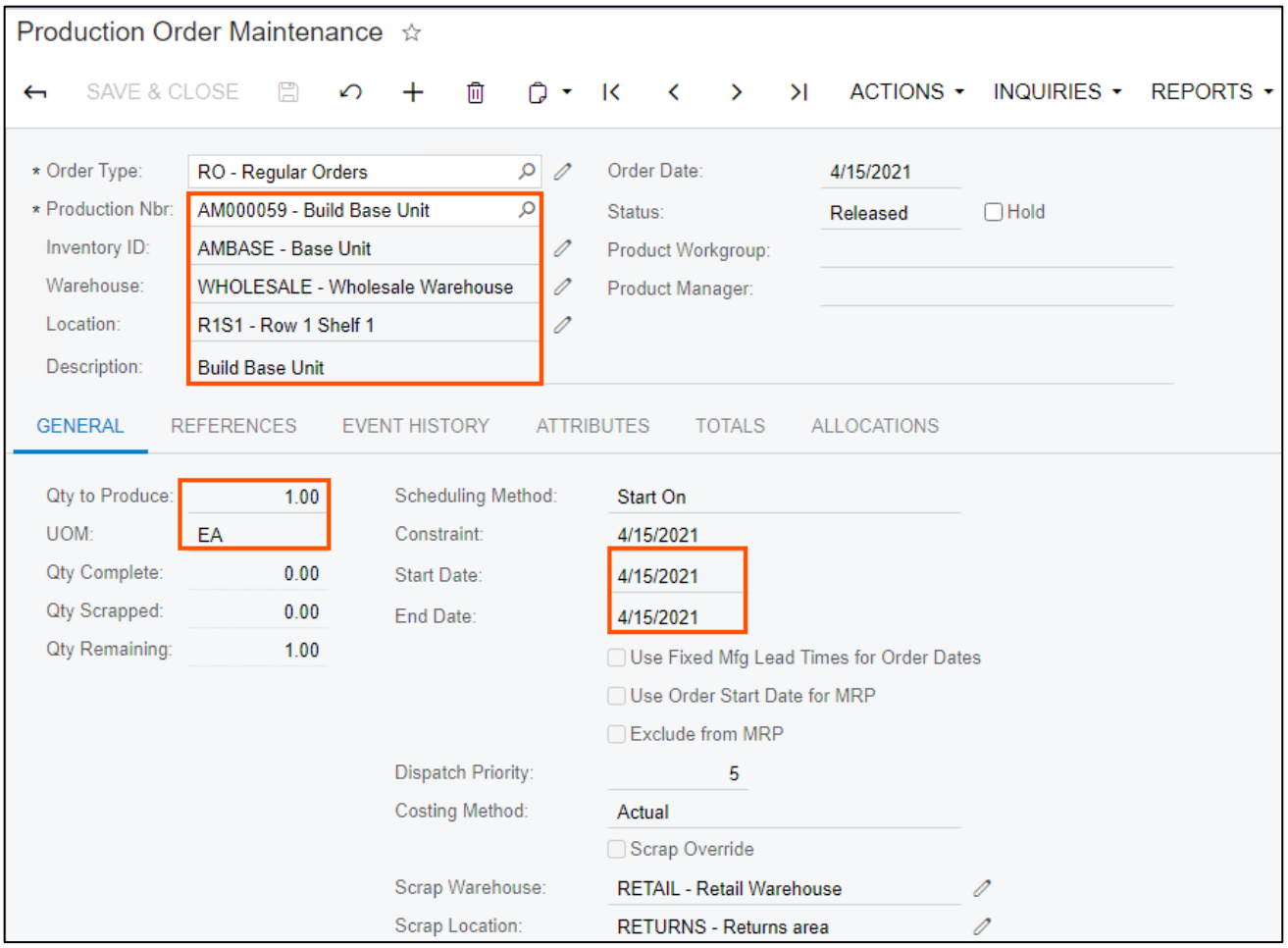
Manufacturing demand (Production Order) is presented as a single record job, producing definitive product (no multiple products per job). The job structure consists of a list of operations and a list of components

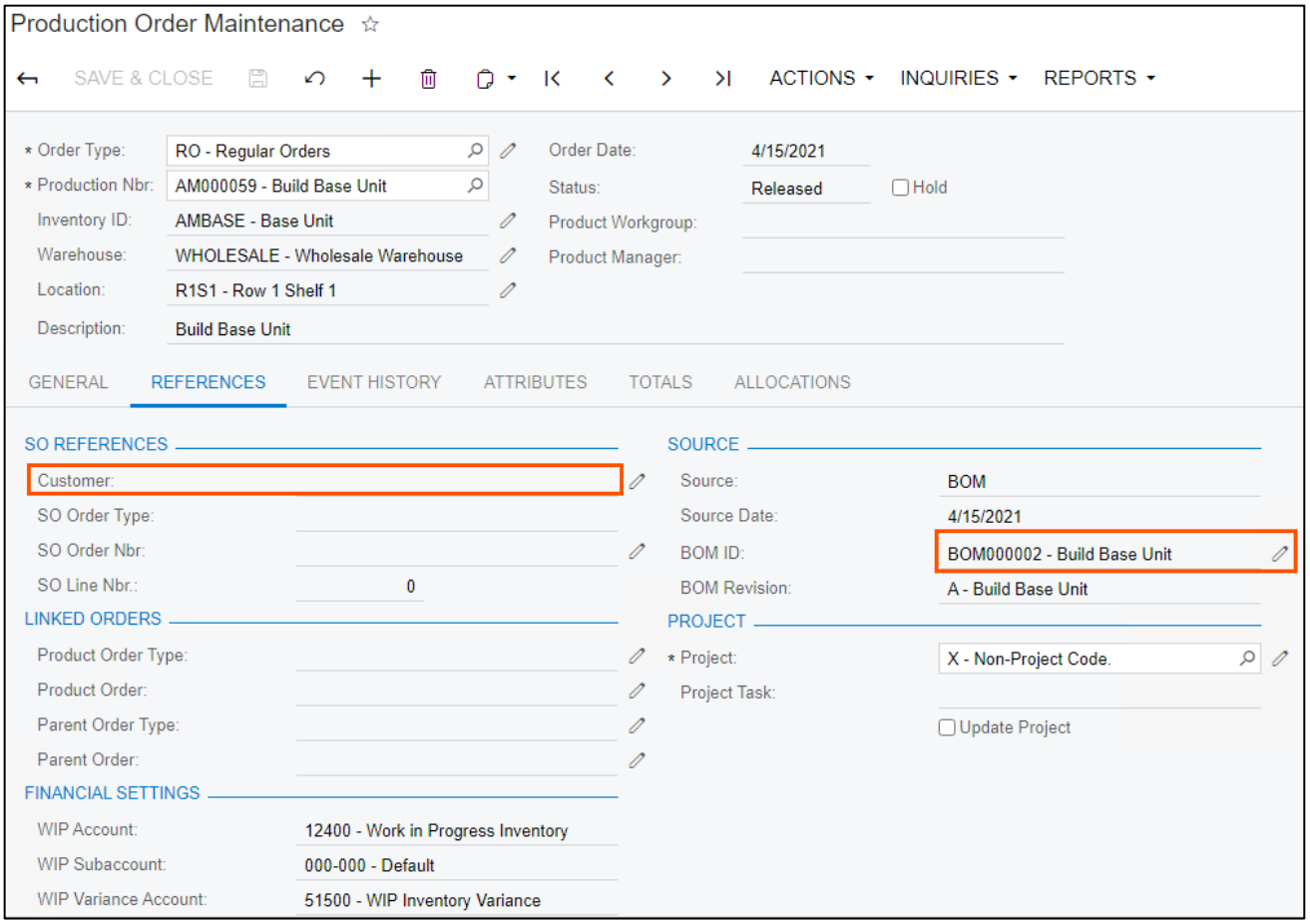
(materials). The job quantity is defined as a gross or net quantity to produce. Gross quantity factors in potential operational or job scrap probability. MYOB does not support job batching or job split functionality.

Job definition data is used extensively in detailed scheduling, dispatching, execution management, data collection, tracking and performance analysis.

New or updated jobs will appear or be updated in LYNQ when the data is refreshed or re-cached. Refer to the 'Inbound and Outbound Integration' section for technical information.

Production Order Screen ID in MYOB AM201500:





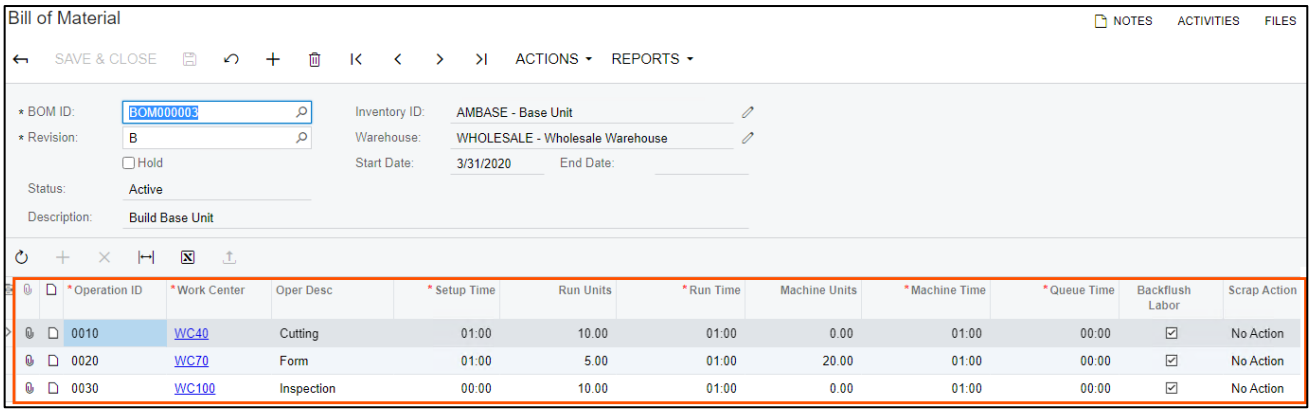
Important fields to maintain in Production Order Entry:

MYOB Setting	Reason
Inventory ID	Finished Goods Stock item to be manufactured
Description	Read into LYNQ for informational or filtering purposes
BOM ID	The job must have a BOM with at least one internal operation
Customer	Read into LYNQ for informational or filtering purposes
Quantity to Produce	A positive quantity of the stock item that is required to be made
UOM	LYNQ supports alternative Units of Measure
Start Date	The default scheduled start date until scheduled in APS
End Date	Used to determine the optimal scheduling start date when scheduling backwards. Read into LYNQ for information purposes and filtering purposes.

Internal Operations

LYNQ reads the operation details from the production order in MYOB and not directly from bill of materials. When a production order is entered in MYOB, the relevant operations are copied to the production order based on the BOM ID selected. Users may amend the operation details for any particular production order and refresh data in LYNQ to reference the latest operation details.

Bill of Material Screen ID in MYOB AM2080PL:



Important fields to maintain in Bill of Material (Internal Operations):

MYOB Setting	Relation to LYNQ
Operation ID	Operation number defines the sequence of operations when scheduling. Please note – current version of MYOB endpoints transforms operation number to int type. I.e. if in MYOB you see operation number “0010” – LYNQ will present it as “1”.
Work Centre	Defines the work centre for the operation
Setup Time	Time needed for setup of the operation on the machine. Single occurrence per operation. Setup time does not have resource requirements, i.e. how many resources are consumed for the duration of setup portion. MYOB does not maintain a conditional setup occurrence matrix. Setup time is supported by LYNQ and available for detailed scheduling and data collection purposes.
Run Units	The number of units produced per Run Time
Run Time	The time, in hours and minutes (00:00) required to produce the Run Units. For example, an operation requires 1 hour and 20 minutes to produce 1000 gallons of a liquid; the Run Units would be 1000 and the Run Time would be 01:20. Run time is supported by LYNQ and available for Scheduling and Data Collection purposes. Note: if run units are 0 , run time will be 0 as well as run time should be always multiplied by run units.
Machine Units	The number of units produced per Machine Time
Machine Time	The time, in hours and minutes (00:00) required to produce the Machine Units.
Queue Time	This is the amount of time that the inventory will sit at the work centre prior to it being started. This time is used by scheduling or capacity planning. Queue time is considered at the beginning of the operation.
Move Time	This is the hours required after the operation is completed to move it to the next operation. Move time is read from Production Preferences

	AM1020000 and not manually specified against the operation definition.
Tools tab (Tool ID)	Tool set can be specified to identify a secondary resource (multiple constraint) that is required for the operation. Number of tools is not limited to a single resource.
Tools tab (qty required)	Tool set quantity defines number of tools required

Please note, currently MYOB doesn't support definition of overlap/parallelism. However, LYNQ is capable to handle it. Therefore, it was implemented via UDF fields. 2 UDF fields must be added in MYOB on operation level and mapped in the dynamic fields section of LYNQ api.

These fields are:

- Overlap flag can hold two values: P – percentage; Q – quantity
- Overlap value - numeric field with the value
- When defined NEXT operation will start according to the values defined.

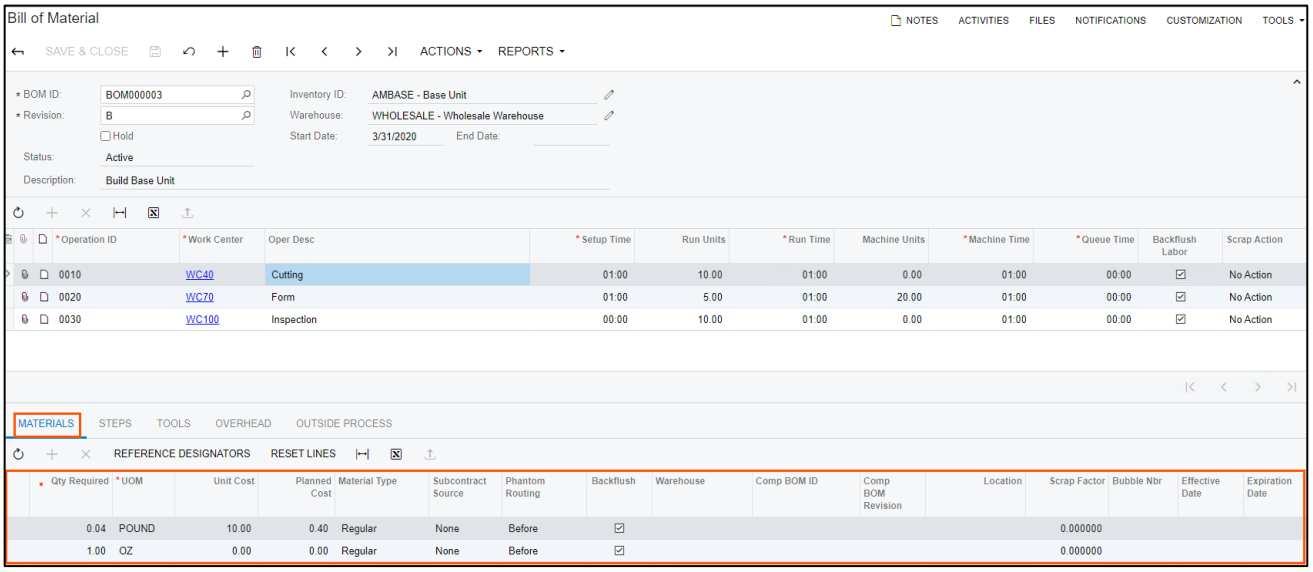
Subcontract Operations

MYOB has an option to mark operation as an outside process, however that information is not exposed on default manufacturing endpoint. Once available, this will be incorporated into the standard LYNQ functionality.

Materials

LYNQ reads the component details from the production order in MYOB and not directly from the Bill of Material. When a production order is entered in MYOB, the relevant components are copied to the production order based on the BOM ID selected. Users may amend the component details for any particular production order and refresh data in LYNQ to reference the latest operation details.

Bill of Material Screen ID in MYOB AM2080PL:



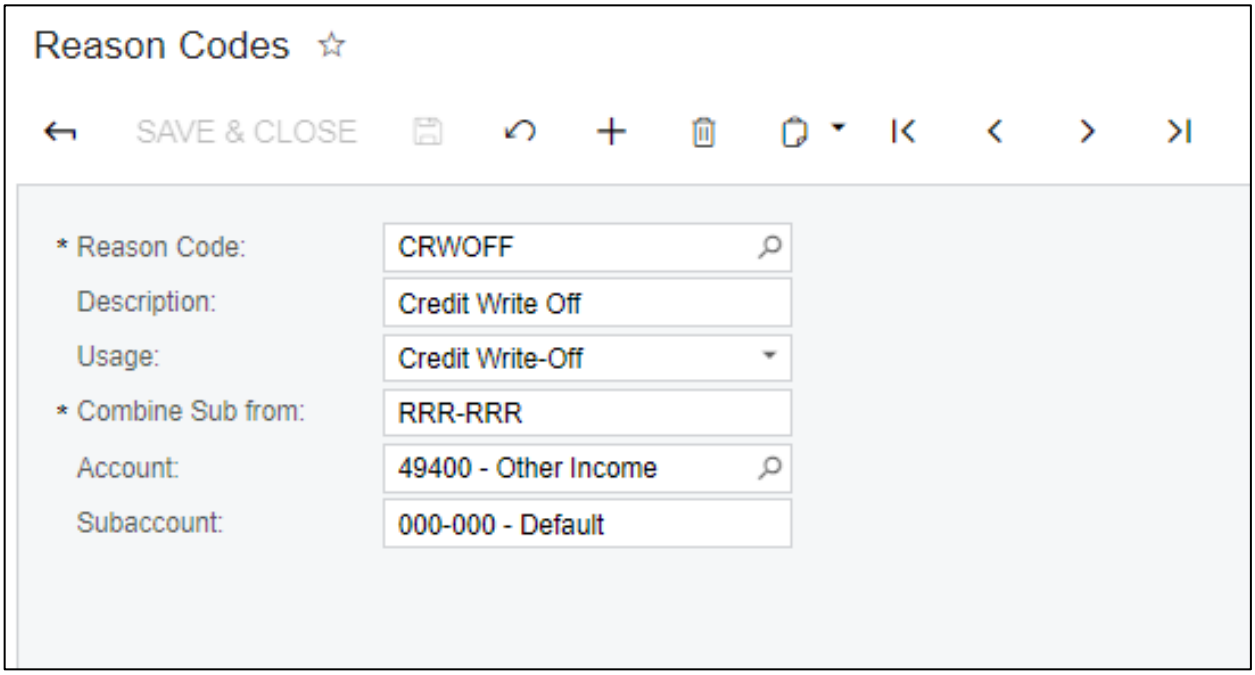
Important fields to maintain in Bill of Material (Materials):

MYOB Setting	Relation to LYNQ
Non-Stocked	Included within the captured bill of material in LYNQ. Non stocked components have a zero material requirement within LYNQ. They can still be posted as a material transaction from LYNQ.
Stock Code	Included within the captured bill of material in LYNQ.
Warehouse	LYNQ uses this warehouse when issuing materials. If a warehouse is not specified, the warehouse against the job will be used.
Unit of Measure	MYOB has the ability to specify various units of measure for a component. Within the APS material planning function, the material quantity requirement is recalculated to the stocking unit of measure quantity. LYNQ uses as per bill of material unit of measure definition within the workbench for data collection purposes.
Quantity Required	Included within the captured bill of material in LYNQ

Scrap Reasons

Scrap reasons are used for data collection. If you scrap a quantity you must specify a valid scrap reason code for the transaction to successfully post to MYOB. Matching scrap codes must exist in LYNQ and MYOB. The reason codes must be manually created in both MYOB and LYNQ.

MYOB Scrap Reason Maintenance Screen ID CS211000:



Important fields to maintain in Reason Codes:

MYOB Setting	Relation to LYNQ
Reason Code	To post scrap from LYNQ to MYOB, both systems must maintain the same scrap reason codes.
Description	Informational purposes only in LYNQ

Non-Productive Codes

Non-Productive codes can be mapped to diversion codes in LYNQ. In MYOB, one can define labour codes using screen ID AM206500. There are two types available: direct and indirect. For labour downtime, one needs to map indirect labour code (ERP code) to LYNQ code.

MYOB Labour Codes Maintenance Screen ID AM206500:

Labor Codes

Type	* Labor Code	Description	* Labor Account	Labor Sub	Overhead Account	Overhead Sub
Indirect	CLEANING	Indirect Labor	51000	000-000	51100	000-000
Direct	DIRLAB	Direct Labor	51000	000-000		
Indirect	INDIRLAB	Indirect Labor	51000	000-000	51100	000-000

Stock Codes

LYNQ observes the maximum number of decimals field value in LYNQ api, when posting material issue and other quantity transactions from LYNQ to MYOB. Note: ensure that the number of decimals you set in LYNQ api is sufficiently large enough to meet the maximum number of decimals set against the stock codes. Refer to the 'Outbound LYNQ api settings' section for further information.

Stock Code Traceability

MYOB offers three options for stock code traceability. All methods are supported in LYNQ:

- Not Tracked: No tracking of the lot or serial numbers will be performed for items of the class.
- Track Lot Numbers: Tracking of the lot numbers will be performed for items of the inventory lot/serial class.
- Track Serial Numbers: Tracking of the serial numbers will be performed for items of the inventory lot/serial class.

If tracked, you must enter a valid serial or lot number when using material issues and or job receipts in LYNQ.

Co-Products

MYOB supports co-products definition. Co-products are defined as negative BOM components. LYNQ supports issuing of negative co-products (receipt into stock) as part of Material Data Collection.

Parent & Sub Jobs

MYOB supports a 'one to one' sub job to parent job relation only. LYNQ understands this relation and will automatically show the relationship between master and sub job in LYNQ.

Job Status

MYOB Jobs progress through a defined workflow of statuses:

- Planned
- Released

- Cancelled
- Complete
- Closed
- On hold

Note, for the purpose of performance, LYNQ operates with jobs that are closed no longer than 30 days ago (limitation on the SQL view level).

Projects

MYOB supports 'multiple to one' jobs to project relation. LYNQ understands this relation.

Suggested (MRP) Job

MYOB supports MRP generated Jobs – Suggested Jobs. The suggested jobs definition consists of a list of routing operations and required components (materials) as per BOM defined on the finished product. LYNQ only supports MRP suggested Jobs with endpoint version 20.00 and above.

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