LYNQ

LYNQ 2019 User guide

LYNQ 2019 USER GUIDE

SEPTEMBER 2019

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How to use this guide

Knowledgebase
To assist further with your learning, register on our portal to watch videos and read our knowledgebase articles and more
support.lynqmes.com

Training Plans
This guide covers the basic features typically used by our users. If the user guide doesn't give you everything you need our Solution Consultants can provide tailored training plans to help you with your learning. Drop us an email and tell us about any specific requirements you may have.
service@lynqmes.com

Advanced Users
If you are looking for an advanced training guide for your users, contact our service team and they will gladly send you a copy.
service@lynqmes.com

LYNQ is reinventing manufacturing execution system (MES) software for small to midsize manufacturers looking for a configurable, plug-and-play offering to digitalise and drive their factory performance. Formed around international standard IEC62264, LYNQ's all-in-one solution can plan, track, automate, analyse and optimise factories to increase efficiency, productivity and profitability.

This guide is designed to cater for new users who required an introduction to the basic features of LYNQ. You should refer to the following user guides for advanced application use.

LYNQ Advanced Guides:

- Advanced User Guide
- Factory Automation Feature Guide
- Webhooks Feature Guide
- Integration White Paper

Visual APS Advanced User Guide:

- Advanced Resource Settings
- Resource Mapping
- Alternative Resources
- Secondary Constraints for tools
- Product and Global Constraints
- Changeover Minimization
- Bottleneck Scheduling
- Advanced Scheduling Techniques

Anyone learning LYNQ will need to be proficient in the Inventory and Manufacturing areas of the Enterprise Resource Planning application.

It is recommended that you also view the corresponding online page as indicated in the tips column panel (left column). Online pages are continually updated and provide additional links to other relevant pages. The PDF version of the user guide is only updated annually after each major software release.

When learning using this user guide, you should refer to the glossary. The glossary explains the mapping between the terms used in the user guide and the terms used for your Enterprise Resource Planning application. This allows the user guide to be written in a common language, that supports all LYNQ customers and partners. The glossary can be found from the LYNQ help menu.

LYNQ

Components of LYNQ

Online Version
Click here to read this page online. The online version provides additional links to other related information.

LYNQ mes
A hybrid product combining web based and desktop applications to provide the best possible customer and user experience.

LYNQ - Manufacturing Operations Management

Frontline managers need complete visibility and control of the shop floor to prevent problems. Collecting data by conventional methods can be complicated, time-consuming and expensive.

With LYNQ's configurable shop floor data collection (SFDC) terminals you are able to gather time, attendance and production data from your employees and equipment easily from any device with a browser. Clocking terminals and interactive job lists simplify the execution of production plans and data capture of start and stop times, downtime, labour hours, materials issued, quantities reported, scrap and more

With LYNQ's out of the box factory performance and loss insight you can baseline and drive your business to world class standards for overall labour effectiveness (OLE), overall equipment effectiveness (OEE) and total effective equipment performance (TEEP).

Visual APS - Advanced Planning & Scheduling

With LYNQ's comprehensive advanced, finite capacity based, planning and scheduling (APS), you can quickly and accurately schedule while minimising downtime. Deliver to your customers faster and in the most cost-effective way, by creating production plans that factor in constraints around machines, tooling, personnel and inventory to make smarter use of your materials and resources.

LYNQ api - Application Program Interface

With LYNQ api you can connect to your Enterprise Resource Planning and third-party applications.

Importing your LYNQ license

Online Version
Click here to read this page online. The online version provides additional links to other related information.

LYNQ mom license
The license for LYNQ mom is stored in a sub directory of the LYNQ mom website folder. Once applied all users will be able to see the new license details.

LYNQ aps license
The license for LYNQ aps is stored in a sub directory of the LYNQ aps application folder. The license must be applied on each computer or server where LYNQ aps is installed.

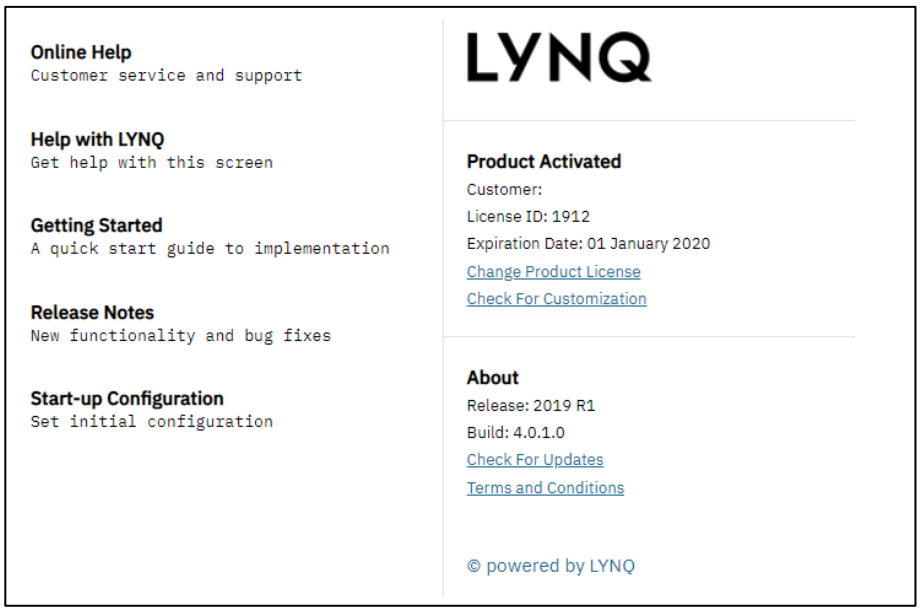
LYNQ api license
The license for LYNQ api is stored in a sub directory of the LYNQ api website folder. Once applied all users will be able to see the new license details.

A valid license file must be applied to each component of LYNQ. The license is applied during installation. A new license must be applied annually and under the following conditions:

1. The legal name of the license has changed
2. The no. of licensed seats has changed

How to import a new LYNQ mom or LYNQ aps license

1. From LYNQ mom or LYNQ aps click on Help.
2. Click on Change Product License.
3. Click Upload license manually to upload a physical license file or
4. Select Get License Online if you know the license name



How to import a new LYNQ api license

1. From LYNQ api click Settings > Licensing
2. Click Upload license manually to upload a physical license file or
3. Select Get License Online if you know the license name

LYNQ

Navigating LYNQ

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Product Version
The version of LYNQ installed

Company name
The company you are working in.

User name
The windows user name you are logged into LYNQ with.

Message Center
See messages and management alerts from the factory floor.

Issue Log
Review, assign and resolve your production issues.

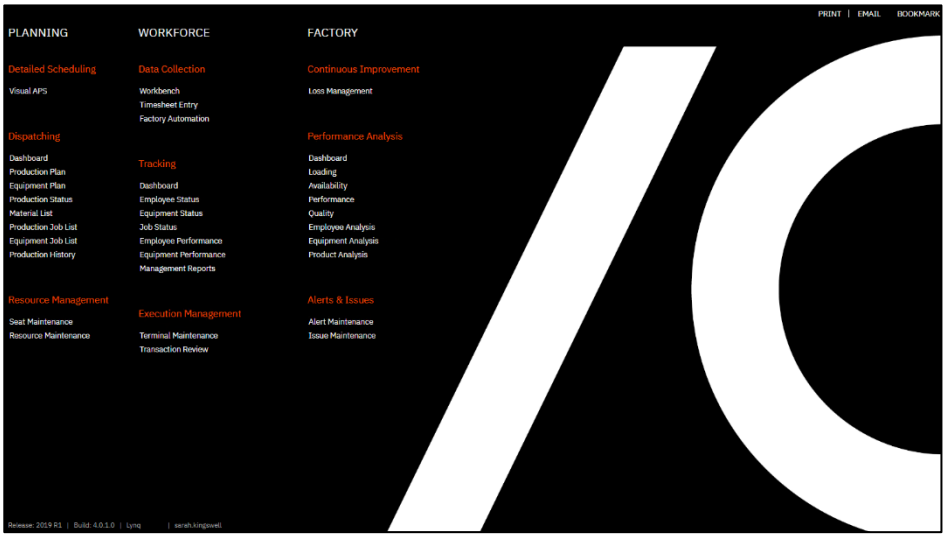
Document Library
Add files, forms and links to Job orders, Employees and Equipment.

Personal settings
Switch to a different user or set language or localisation

Help
Access online help with videos and other articles.

Bookmark
For frequently used dashboards, views, or reports.

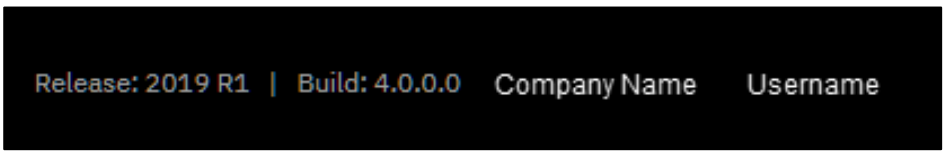
You access LYNQ via a web browser. You will need to contact your systems administrator to obtain the correct URL for your instance of LYNQ. Once logged into LYNQ you will find links to the other components such as Visual APS and LYNQ api. You must however have Visual APS installed on your computer or on a terminal server to access this component. LYNQ will try to find the Visual APS application on the computer or server where your browser is running from. Your rights to the features in LYNQ will be controlled by your systems administrator. When rights are disabled, you will still see the menu option but will not be able to open the feature that has been restricted.



What is at the top of the home page?

Your systems administrator will control your rights to the features in LYNQ. When rights are disabled, you will still see the menu option but will not be able to open the feature that has been restricted.

What is at the bottom of the home page?



All other features of LYNQ can be accessed directly from the home page.

LYNQ

Settings

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Settings
To determine the global defaults for the site name, language and localisation. User's wanting to display the site in different languages or localisations can do so from personal settings.

Email Settings
To send emails from LYNQ via the message center, you must specify email account credentials. This account will appear as the sender on all email activity

Database Settings
Do not change these settings unless you have been instructed to do so. Changing these settings will update the web.config file.

Settings for LYNQ are accessed from the home page by clicking on the settings menu in the top right-hand corner of the screen. Most settings are configured automatically during installation and some settings may be managed after installation. It is important that changes are not made on this screen without a good understanding of their meaning. Incorrectly setting some of the values on this screen will cause LYNQ to stop working. In particular, please pay careful attention to the database and integration settings when changing these settings. Typically these settings do not need to be changed after LYNQ has been installed

Section	Field	Meaning
General Settings	Company Name	Site Display Name
	Add ERP Database Name	Append Database Name to site Name
	Localization	Default Site Localization
	Language	Default Site Language
	Administrator(s)	Site Administrator(s) separated by semi colon
	Admin e-mail	Administrators email address
Email Settings	From	From address for all Messaging
	Alias	Alias address for all Messaging
	Server	SMTP Server address
	Port	SMTP Port Number
	Account	Mailbox account
	Password	Mailbox password
	Enable SSL	SSL required/not required
Database Settings	Source	Database connection string details for ERP Database
	Data	Database connection string details for LYNQ Data Database
	Config	Database connection string details for LYNQ Config Database
	Logic	Database connection string details for LYNQ Logic Database
	Automation	Database connection string details for LYNQ FA Database
	Cache	Database connection string details for LYNQ Live Data Database
LYNQ api Settings	Host	LYNQ api site name
	Service	LYNQ api service name
	Instance	LYNQ api instance name

LYNQ

Advanced Settings (General)

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Overview
In most cases general settings will not need to be changed once LYNQ has been configured.

Data Caching
LYNQ caches data periodically for better performance of the application. Data is read from Enterprise Resource Planning during the caching process. Adjust the values here if you want to cache data more frequently. Setting these values too low can be load on your SQL server. You can force caching of data by selecting Refresh. Data caching affects the data you see in reports and dashboards

General settings are used to manage default application settings in relation to data collection, display of decimals, group security and data management. The application is shipped with these default settings.

To access General Settings:

1. From the LYNQ Home menu select Settings
2. Select Advanced Settings
3. Select General

General	
Enable find as you type filter	Enabled
Split equipment by primary type	False

Data Collection	
Employee status (default)	Out/Off
Equipment status (default)	Out/Off
Clock out warning after (hrs)	14.0
Terminal timeout after (secs)	600
Clocked time (default)	Office Time
Data selector (default)	Operation Selection
Report quantity (maximum)	1000000.00
Report scrap (maximum)	1000000.00
Supervisor workbench access	True
Store data at lowest level	True
Enable Automation	False
Automation polling interval (sec)	10
Data buffer interval (sec)	60

Data Caching Interval (s)	
Tasks	620
Tasks schedule	630
Operations	610
Materials	640
Jobs	600
Employees	3600
Equipment	3600
APS planning statistics	3600

Display Decimals	
Hours	2
Quantities	2
Material quantity	2
Other	2

Messages and Alerts	
Validity period, days	30

Financial Loss	
Labour rate	25.00
Employee revenue rate	125.00
Overhead rate	35.00
Equipment revenue rate	175.00
Financial loss currency	$

Advanced Settings (General)

Overview
In most cases general settings will not need to be changed once LYNQ has been configured.

Group Security & Messaging	
Direct (single level)	False
Dependent (multi-level)	False
File Upload Settings	
Upload file max size	5MB
API	
Enable REST API	True

LYNQ

System insights

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Overview
Stay informed and check the overall health of LYNQ by using the Systems Insight screen.

Please wait
Be patient with this screen. It can take a minute or two to run on larger databases.

Troubleshooting
A great feature used by support when troubleshooting the application at the technical level.

System Insights displays the current health and state of your LYNQ application. This page is used by system administrators to troubleshoot and diagnose areas of LYNQ that are not functioning as expected. The SQL account that is specified in Settings, Database Settings must have SQL admin rights for this page to function properly.

Any values on the page that are highlighted red should be investigated for the continued operational health of LYNQ. This page provides at a glance a quick way to identify if there are any underlying SQL views that are not functioning correctly due to violation of key constraints. This is particularly useful when the database of the Enterprise Resource Planning application that LYNQ is connected to is set to a collation that is case sensitive. LYNQ is not a case sensitive application and therefore SQL views may not execute if there are duplicate keys returned.

One example of this is where two Product records have been created in the Enterprise Reource Planning application that differ on case. LYNQ would treat the value PRODUCTA and producta as a duplicated value. If duplicate keys are returned by the LYNQ SQL views, the application will be severely affected and, in some cases, partly or fully inaccessible by users. It is therefore important to understand these limitations and monitor the health of the application to ensure the application is fully operational.

LYNQ

System insights

Databases
Don't forget to backup your databases and put them in your maintenance plans.

Posting
If you see a high number of transactions that have a status of posting this might imply that the application pool settings need to be fine-tuned. Check out our knowledge base articles on this subject.

Views
Data is read from Enterprise Resource Planning using LYNQ's proprietary views. Sometimes these views are customised to give you some extra data mapped through to LYNQ. Be aware that views can get overwritten with an upgrade. Best to let LYNQ help you perform your upgrade. You can book us through the support desk.

Platform Service
The LYNQ Platform Windows Service consolidates your activity into transactions. This service may stop due to heavy load on the server or it failed to start during a server reboot. Check this service is running on the Web Server.

Use the System Insights feature for a quick view of:

Tab Name	Sub Name	Purpose
Dashboard	Seats	No of licensed seats activated vs number of seats purchased
	Database Size	Size in MB of the databases used by LYNQ
	Top Table	The largest table in LYNQ by size in MB
	Top View	The largest view in LYNQ by number of rows
	Validation	Views that duplicates or errors
	Windows Service	Last date and time when the LYNQ Platform service executed
	Raw Data	No of raw data records waiting to be processed by the LYNQ Platform service. A high number of records indicates that the LYNQ Platform service is not running
	Analytics	Status of analytical statistics with option to recalculate.
	Events	Background processing of events from the workbench and or factory automation. Values in the Invalid and Accept Error fields indicate there is any issue converted raw events into transaction data.
	Transactions	Number of transactions generated by the timesheet or workbench feature, split by transaction status.
	Transactions posting SQL View	Transactions that are approved and waiting to be posted to Enterprise Resource Planning
Views	N/A	List of all proprietary SQL views used by LYNQ. This tab can be used to identify views which have duplicate key values. Drill down on the number of duplicates to understand which data is causing issues with the execution of the view
Tables	N/A	List of all proprietary SQL tables used by LYNQ. This tab can be used to job order tables by size and row count.
Logs	N/A	Access to different log files generated by LYNQ
Events	N/A	A report of all events received via factory automation, Workbench and Actions in LYNQ
Automation	N/A	A view of current factory automation signals

LYNQ

Document library

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Go Paperless
LYNQ supports a paperless shop floor by providing electronic work instructions (EWI) to the shop floor in various forms (static files, simple forms or by providing links to instructional videos). The provision of online document control offers a countermeasure to operator shortages involving documentation helping to eliminate time and materials as a result of paperwork trails

Links can also be used to connect job orders, operations, employees and equipment to online file document management repositories when regulatory or other requirements demand version control, archiving and audit trails.

Links can further be used to display other types of files such as CAD drawings in DWG or DXF file formats. All you need is to ensure that a suitable viewer is installed on the tablet or the panel PC device where you want to view the files from.

You can attach files and drawings in Word, Excel, PDF, JPEG, PNG or other file formats to Jobs, Operations, Employees and Equipment. These files are available to view only and cannot be changed.

Attaching a static file to a job order

1. Click on the Document Library
2. Click Job orders and then select the specific job record/s
3. Click Add File and select Add File to Job
4. Drag and drop or click to browse to attach your files to the selected jobs
5. Click Save

Attaching a static file to an employee

1. Click on the Document Library, Employees and then select the specific employee record/s
2. Click Add File and select Add File to Employee
3. Drag and drop or click to browse to attach your files to the selected employee
4. Click Save

Attaching a static file to equipment

1. Click on the Document Library
2. Click Equipment and then select the specific job order record/s
3. Click Add File and select Add File to Equipment
4. Drag and drop or click to browse to attach your files to the selected equipment
5. Click Save

LYNQ

Document library

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Online Forms
Create online forms to record basic information and checks during the production process. Note: this should only be used where there is no audit trail, version control and/or archiving requirement. Where this is a requirement see working with document management systems.

Excel & Work
Copy and paste from Excel or Word (formatting may change)

Attaching a simple form to a job

1. Click on the Document Library
2. Click Job orders and then select the specific job record/s
3. Click Add Form and select Add Form to job
4. Create your form or checklist in the WYSIWYG Editor
5. Click Save

You can link to document management systems such as Qpulse® or Sharepoint® (Microsoft Office 365) to view videos and work with controlled shop packet information where audit trails, version control and archiving is a requirement.

Care should be taken to organize your document library within your document management system to make it easy for the operator, supervisor or manager to work with.

For example, rather than link individual documents to specific operations, if the document library is organized it may be easier to link to a shop packet library for the specific job that contains all information such as videos, assembly instructions, checklists, quality control forms and other controlled documents.

While this method requires a level of understanding from the user, it requires far less administration and still ensures that only the paperwork related to that specific job is used.

Linking to an online document library for a specific job

1. Click on the Document Library
2. Click Job orders and then select the specific job order record
3. Click Add Link and select Add URL to job
4. Place your cursor in the Link field
5. Copy and paste the URL from your document management system library
6. Place your cursor in the Link Description field
7. Enter a description for the link (e.g. Shop Packet)
8. Click Save

LYNQ

Storing your profile

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Versions
You should only import a profile into LYNQ when the source and destination instances are on the same version number.

Backups
Save a copy of your profile before making any significant changes to advanced settings.

Config Database
An exported profile is a textual representation of the configuration tables in XML format.

Factory Defaults
LYNQ is shipped with a default profile and loaded during installation. Do not delete this profile as it can be used to reset to factory settings.

Reset Profile
Do not reset your profile unless you really want to wipe all of your settings.

Most of the settings configured in LYNQ are stored in the configuration database. These settings can be saved as a profile and exported to file. This is a really useful feature if you want an easy way to transfer configuration settings to another instance of LYNQ.

For data integrity purposes, unfortunately not everything can be stored and exported in the profile. Nearly all of the settings found in advanced settings are exported. However, refer to the table below to understand what's not included in a profile export.

Feature	Sub Feature	Excluded
Seats	Users	Users
	Seat Properties	Settings such as photo, crew and Factory Automation
	Groups	Seat to group relationships which affect Alerts, Access Controls
	Terminals	Linked Equipment
	Transaction Rules	Rules which are defined by Equipment and/or Employee
	Alerts	Settings relating to measured Resources
	Workbench Onscreen Elements	Setting related to associated equipment and login as equipment

How to export your LYNQ Profile

You may be asked by the support team to export your settings for troubleshooting purposes or may use this feature to transfer settings from one site to another. Complete the following steps to export your current settings.

1. Click on Settings, Advanced Settings
2. Click on the Profiles Tab
3. Click on Save Current
4. Enter a new name and description (i.e. Profile – Current System Date)
5. Click on Save
6. Select the profile that was saved in step 5
7. Select Export to File
8. The profile will be saved in your windows downloads folders

To export settings, the user must be a member of the Administrators Group.

LYNQ

Detailed scheduling

Features
Look out for these features in this section of the user guide. For advanced users of Visual APS, refer to the Advanced User Guide.

LYNQ provides detailed scheduling so your organisation can easily

- Schedule multiple resources
- Customise load of scheduling demand
- Build customisable workflows for identification of scheduling priorities
- View powerful grids and views of job prioritisation
- View high resolution calendar-based Gantt graphical planning boards
- Manually and auto schedule individual operations, sequenced operations within a job and sequenced jobs with sub job hierarchies
- Drag and drop schedule with enhanced impact behaviours
- Forward and backward auto schedule with rule and priority-based scenarios for scheduling optimisation
- Semi-automatically reschedule late operations with autofit, shift, replace, move and schedule around options
- Fix jobs and period fencing (pinning)
- Apply alternative resource scheduling with item/operation-based constraints
- Apply variable resource constraint consumption strategies
- Apply what If and capable to promise (CTP) scenarios for capacity and materials
- Dynamic scheduling and execution alerts
- Apply materials planning and availability analysis
- Capacity plan
- Publish and dispatch

Navigating Visual APS

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Reset Layout
You can reset the layout back to factory settings by clicking on file, company settings, and reset layout.

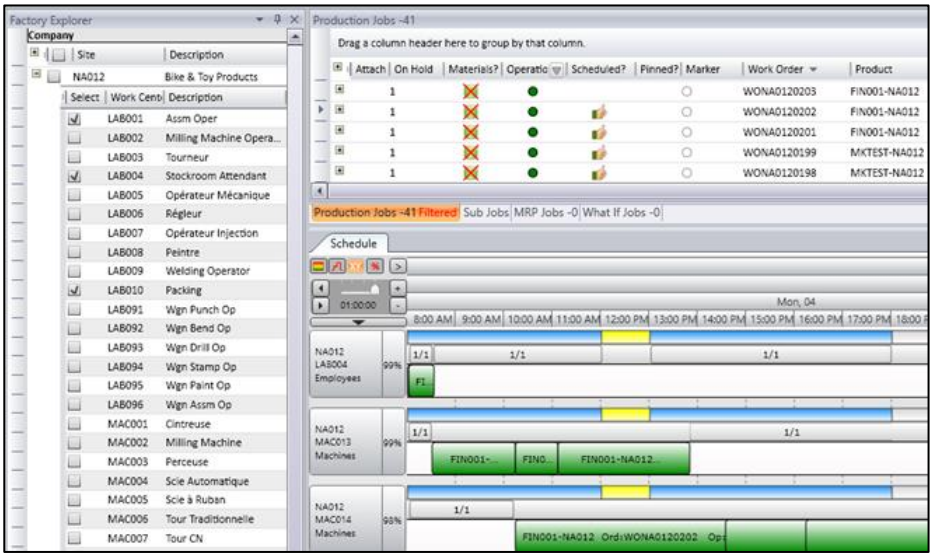
Task Panel Columns
Column settings are saved in your Visual APS profile that is stored in your windows user profile.

Imported Equipment
Equipment, which has been imported from your ERP, will appear in the factory explorer.

The Visual APS graphical interface is divided into three main sections.

- Factory Explorer
- Task Panel
- Schedule Board

Each section can be resized, pinned or moved around the screen as per your desired preferences. The schedule board can be displayed on another monitor to utilise the entire screen size.



Factory Explorer

The Factory Explorer Panel provides an outline view of the manufacturing facility. A checkbox against the resource allows you to indicate whether it should be displayed in the schedule board. They appear to the left of the board in alphanumeric job order.

Task Panel

The Task Panel displays your job orders, dependant on the Job Import Rules defined in Settings. Tabs show the total number of job orders currently contained in its grid. The job order counter is dynamic and responds to a data refresh, changes in the setting or filters. The column that you see in the task panel can be customised by right clicking on the column heading.

Schedule Board

The schedule board displays all scheduling information related to the resource and it's shift times and activities. The start and end date/time for scheduled job orders are graphically represented. Vertical lines divide the time bar in various increments.

Navigating Visual APS

Features
Look out for these features in this section of the user guide. For advanced users of Visual APS, refer to the Advanced User Guide.

Quick Access Toolbar

The Quick Access Toolbar appears at the top left of the screen above the File menu. It includes some of the most common commands for easy access.

- Save and Publish
- Refresh Data
- Unschedule Selected Items
- Highlight Job order
- Load Required Resource's
- Unload All Resource's
- Perform Auto Scheduling
- Show Resource Consumption

Ribbon Menu

Visual APS includes 9 different ribbon menus. Ribbon menus provide a fast method of seeing and utilising functions in Visual APS.

This ribbon menu can be collaspsed to free up space for other windows. To collapse the ribbon menu, right click on an area in the ribbon menu and select Collapse Ribbon. To restore the ribbon menu, right click on a menu option on a visible ribbon menu and select Expand Ribbon.

Planning Interval

The Planning Interval is the period specified in which you want to make scheduling changes. Scheduling cannot be performed outside of the planning interval. The planning interval can be changed at any time from the ribbon menu The default planning interval setting may be set by user in the Visual APS settings window.

Company

Visual APS supports multiple companies and it's easy to know which company you are logged into by viewing the company name next to the Welcome Tab under the File Menu.

Opening a company

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Last Company
When you exit Visual APS, company connection information will be saved within your windows user profile. The next time you open Visual APS, the company will automatically load. The load company at startup setting in general settings will determine whether the last company opened is loaded automatically.

SQL Security
Refer to the Advanced User Guide to understand how to setup security in SQL for Visual APS.

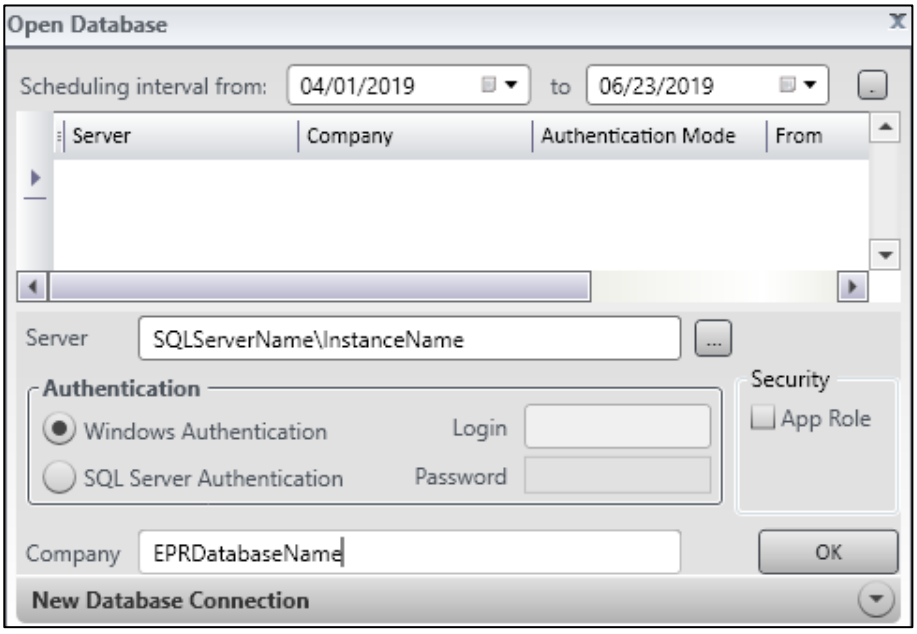
Multiple Companies
It's possible to open multiple companies at the same time.

You can launch the Visual APS Desktop Client from the LYNQ home page or directly from the shortcut on your desktop. You will need to contact your systems administrator to obtain the correct Enterprise Resource Planning database to connect to. You must also have been setup as a user in Visual APS to use the application.

To open a company with Visual APS

1. From the File Menu, select Open
2. Click New Database Connection
3. In the Server field enter the name of the SQL server where Enterprise Resource Planning resides
4. Select the correct authentication method as setup by your administrator
5. Select the App Role security setting if turned on by your administrator
6. In the Company field enter the Enterprise Resource Planning database name

Click OK to open the company



LYNQ

Rearranging the layout

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Reset Layout
You can reset the layout back to factory settings by clicking on file, company settings, and reset layout.

Filtering
Filters may be applied for any column or columns in the task panel. When a filter is applied, the tab name shows the number of jobs followed by the word filtered in red.

Task Panel Columns
Column settings are saved in your Visual APS profile, which is stored in your windows user profile.

Imported Equipment
Equipment, which has been imported from ERP, will appear in the factory explorer.

You can rearrange the layout of Visual APS to suit your individual requirements. Users with dual screens may prefer to show the schedule board on a second screen.

How to Move the Factory Explorer, Task Panel or Scheduling Board

1. Select and hold the left mouse button on the window header. A colored area indicates the window you are moving. Small icons indicate the possible locations to move the window.
2. Drag the window to the new location on the screen. Point to one of the icons to dock the window to that location. Or drag it anywhere to open that panel in a separate window (floating).

How to Resize the Factory Explorer, Task Panel or Scheduling Board

1. Point the mouse on the job order of the window until the resizing cursor appears.
2. Click and hold the left mouse button and drag the job order as needed.
3. Release the left mouse button.

How to Float the Factory Explorer, Task Panel or Scheduling Board

1. Click on the small arrow at the top right of the window that you want to float.
2. Select floating from the menu. The panel is now in a separate window. You can also simply double-click the window header.

How to Dock the Factory Explorer, Task Panel or Scheduling Board

Windows are automatically docked. If you have previously floated a window, you can redock it by moving it to one of the docked locations indicated by the small icons that appear when you move a window.

How to Auto Hide the Factory Explorer, Task Panel or Scheduling Board

1. Select the Auto hide icon on the right side of the window header.
2. The window is hidden on the side it was docked to. Hover over the window name to see it or click on the name to open it.

Factory explorer in more detail

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Hierarchies
The groups that you see in the Factory Explorer are read from Enterprise Resource Planning directly. The resources that you see under the group names are typically imported by running the Import option from Visual APS.

You are able to manage the resources that you see in the schedule board by using simple techniques below:

- Check the box next to a resource it in the schedule board.
- Check the box next to a resource group to view all of the associated Resources in the schedule board.
- Uncheck the box next to a resource to remove it from the schedule board.
- Check or clear the checkbox at the top of the factory explorer panel (to the left of the column headings) to view or remove all resources from the schedule board

It's possible to restrict which resources a user is able to see.

To restrict access by user

1. From the File Menu, select Company Settings
2. Click User Access
3. Click By Planner
4. Select the User
5. Place check marks against the resources you wish them to see
6. Click OK

In addition to restricting which resources a user can see, you also have the ability to prevent any resource groups from being displayed where there are no resources underneath them.

To hide resources groups where there are no associated resource

1. From the File Menu, select Company Settings
2. Click Designer
3. Click Hide resource groups where there are no associated resources
4. Click OK

Task panel in more detail

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Sorting Columns
Quickly sort columns by clicking on the column name.

Default Task View
By default, the task panel will show the job order and then the operations underneath them. To see the operations you need to expand each job order. You can change this view so that the task panel shows a list of operations instead. To do this click on the manage menu and select list by operation.

Sub Job orders Tab
The sub job orders tab will show a view, which relates the sub job order to its parent or master job order.

Volume of job orders
The planning interval does not affect the volume of job orders that you see in the Task Panel. The interval is used for calculating your capacity.

To change the job order of the columns in the task panel drag a column header to a new location. Visual APS retains the changes and the task panel will again appear in this job order when the software is reopened. A number of additional columns are available and can be added to the task panel.

To add columns to the task panel

1. Right click on a column heading
2. Click Column Settings
3. Expand the required entity in the left window
4. Click on the + symbol
5. Customise the label of the column if required
6. Set the desired position by changing the number value
7. Click the arrow symbol to change column position
8. Click on OK

To remove columns from the task panel

1. Right click on a column heading
2. Uncheck the column in the right window
3. Click OK

The types of job orders that appear in the task panel are controlled by settings in Visual APS. These settings are in the Visual APS profile which is stored in the user's windows profile folder. You can change which job orders are loaded, whether job orders should only be loaded for a particular planner code and whether job orders should be loaded within the current planning internal

To customise the types of job order that are loaded in the task panel

1. From the File Menu, select Company Settings
2. Click Job order Import & Rules
3. Click on the Production or MRP tab
4. Change the settings to show All, Scheduled Only or Excluded
5. Click OK

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Task panel column explanation

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Share your settings
After you have spent some time getting your columns to look just as you want them, why not send your profile to other users. You can save you profile from Company Settings.

User Defined Fields
Visual APS has a number of different User Defined Fields that can be displayed as columns. By Default these columns are not mapped to any data fields in the Enterprise Resource Planning application. Contact LYNQ Support if you want to map these fields to values from your Enterprise Resource Planning application.
support@lynqmes.com

The task panel includes a number of different columns. Understanding the most the meaning behind each of the columns will improve your experience of the application.

The table below provides some explanations of most frequently used columns.

Field Name	Description
Attach	This provides the ability to add a document related to a job order or an item. When a job order document is attached, a paperclip icon is displayed in this column.
Materials?	Provides a visual indicator as to whether materials are available at the start date of the job order.
Operations?	This round coloured symbol indicates if there is adequate information for Visual APS to schedule the operation or job order. • Green = Valid for scheduling • Red = Cannot be scheduled • Yellow = Does not need to be scheduled • Grey = Needs to be validated (by clicking on the line)
Scheduled?	This column is blank if a job order is not scheduled. When scheduled, the graphic may be; • Thumbs up with yellow cuff = scheduled/unsaved • Thumbs up with green cuff = scheduled / saved • Warning sign = partial scheduling of some operations
Pinned?	Provides a visual indicator if the job order has been pinned. This job order can no longer be moved unless the pin is removed first.
Marker	Markers appear as user defined visual indicators that can be set against job orders. Markers can be color coded and used for sorting and filtering purposes.
Possible Errors	Available capacity for a resource may change when settings or shifts are amended. After saving amendments, a dialog box appears asking if any job orders should be ignored, unscheduled or marked as possible errors. This column will display a red circle with an x as the possible error designation. The job orders or operations should be verified. To remove this icon, use the resolve possible errors function.
Scheduled Start	When imported from Enterprise Resource Planning, this is the job order/operation planned start date. This field will be updated once the Job order/Operation is scheduled within Visual APS with the actual scheduled start date.
Scheduled Due	When imported from Enterprise Resource Planning, this is the job order/operation planned due date. This field will be updated once the Job order/Operation is scheduled within Visual APS with the actual scheduled due date.
ERP Name	The field name that you see will be your Enterprise Resource Planning application name This field shows the original planned scheduled due date from the Enterprise Resource Planning application. This date does not change when the job order is scheduled.
Job ordered	The total quantity to produce on the Job order.
Reported	How many units have been produced against the job order.
Remaining	Shows the difference between the job ordered quantity and the reported quantity.
Running Late?	Shows whether the job order is running late based on its planned schedule.

Schedule board in more detail

Online Version
Click here to read this page online.

Zoomi in and out
Use the + & - icons on the top left-hand corner of the schedule board to zoom in and out or alternatively access the zoom in and out functions from the Review menu.

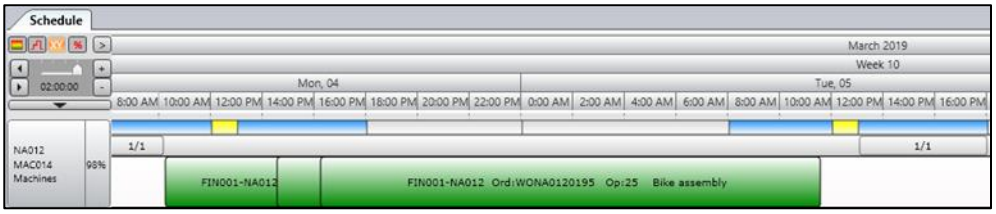
Changing Colours
You can customise the colours of different types of job orders and tasks. Click on Company Settings and on Designer Settings to change the colours to suit your preferences.

Labels
You can change the way job orders are viewed on the scheduling board. The labels function provides the ability to view job orders broken down by set up, run and processing times within the operation. This is particularly useful when minimising changeovers

Hide Completed
Select the Hide Completed Operations setting in Company Settings, Scheduling Routing Rules, Routing to stop a completed operation from appearing and consuming resources on the scheduling board.

The schedule board is arranged into three horizonal sections. Immediately below the date and time lines you will see:

- Resource capacity
- Resource availability
- Task sequence in blocks of time



Resource capacity

The top line indicates the resource capacity defined by shifts. It displays the work unit scheduled hours in coloured blocks for working / non-working or other activities. In the example above the blue area indicates working the blocks on the timeline that represents working time.

Resource Availability

The middle line presents resource availability at any point of time. This information can be presented in %, quantity or coloured equalizer modes. These options are represented by the following icons and views can be amended by selecting the corresponding image. This option changes the representation only for resource with the enabled resource mode.

Task sequence in blocks of time

The bottom line displays scheduled tasks in blocks on a line in the sequence they are scheduled. The tasks cover the time required for that item to be produced. The time consumption is calculated according to the route parameters of the resource (i.e., item units per hour, number of workers, calendar rules, etc.).

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Shortcut keys

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A Better Experience
Shortcut keys can help improve your user experience. Take some time to learn a few of the most common ones.

Some standard MS-Windows shortcuts are available for use in Visual APS. These are optional and are primarily used from the task panel and other grids.

:

Program key combinations	
CTRL + A	Select all the items in the current grid
CTRL + C	Copy the selected field
CTRL + R	Refreshes data from Enterprise Resource Planning
CTRL + S	Saves or Updates Enterprise Resource Planning
CTRL + Y	Redo
CTRL + Z	Undo

Mouse key combinations	
CTRL button + mouse wheel scroll	Changes the planning board zoom +/-; point to a specific spot to zoom there
ALT + drag and drop scheduling	Uses the Autoshift Function
SHIFT + mouse wheel scroll	Move a Task on the Planning Board to the closest limit (e.g. another scheduled task)
SHIFT + left mouse	Task Panel selection of a group of jobs
CTRL + left mouse	Task Panel selection of specific jobs

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Adding new activities

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Deleting Activites
Activities cannot be deleted once they have been created. Think carefully before creating these.

The work calendar is a combination of both activities and shifts which represents the working hours, holiday calendar, breaks, plant shutdowns and shift schedules. Before you can use LYNQ for detailed scheduling, you must define a work calendar. Work calendars are configured within Visual APS and are setup independently of Enterprise Resource Planning.

Before a resource can be available for scheduling purposes, the resource must be associated with a Shift. Shifts are used to define the available capacity of a resource. Shifts contain different activity types to identify working time from non-working time and downtime. A shift may contain multiple activity types.The default activity type included in the application are:

- Working time
- Non-working time
- Lunch time
- Maintenance time
- Approved overtime

To create new activities

1. Click on the Home Menu
2. Click Activities
3. Click Add New
4. Enter a value in the Activity Code field
5. Enter a suitable description in the Activity Description field
6. Select a Color for the activity by clicking [...]
7. Click OK
8. Click OK

Shifts

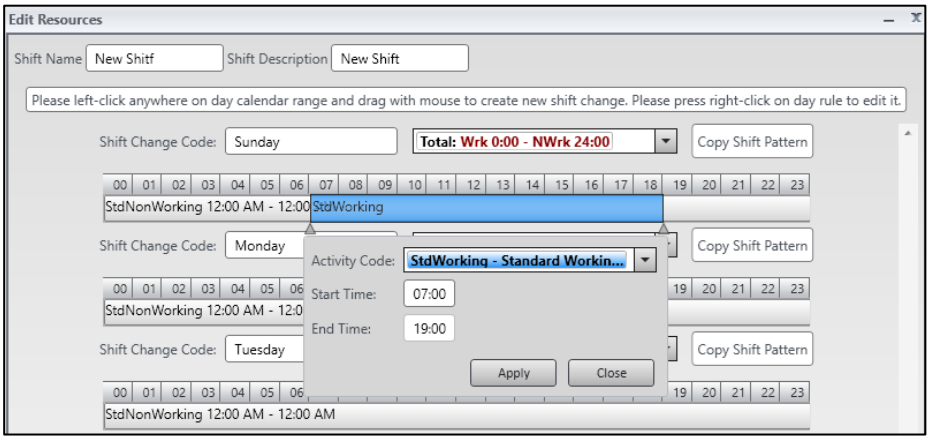
Online Version
Click here to read this page online. The online version provides additional links to other related information.

Making Changes
Click on the Home Menu and then Shifts to edit your default shifts.

By default LYNQ is pre-configured with two shift patterns. These rarely suit the shift patterns for every manufacturer. New shifts can be created to suit new operational requirements.

To create a new shift

1. Click on the Home Menu
2. Click on Shifts
3. Click Add New
4. Enter a value in the Shift Name field
5. Enter a value in the Shift Description field
6. Select the day of the week when the shift applies
7. Using the left mouse button drag to hightlight the time from and to.
8. Select the correct type of activity code for the shift
9. Repeat steps 7 & 8 to overlay different activities within the shift (i.e lunch)



Once you have created your new shift for a day, you can copy the same shift pattern to other days in the week.

To copy the same shift to another day

1. On the day you want to copy, left click on Copy Shift Pattern
2. With the left click still activated, drag and drop the shift to the relevant day
3. Repeat steps 1 and 2 for all days you want to have the same shift

Assign a new shift to a resource

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Rebuild
If you are not immediately seeing changes after updating your work unit properties, you may need to tick the rebuild check box on the work unit record

At any time, you can reset the shift against a resource. When the resource has scheduled operations, you should decide how you wish to handle this before changing the resource.

When changing a shift against a resource you wil be asked what to do with existing scheduled operations

Your choices are:

- Nothing
- Unschedule operations
- Mark operations as possible errors

To assign a shift for a single resource

1. Right click on the resource in the schedule board
2. Click on Edit
3. Select a different shift in the shift column
4. Click Rebuild if a shift was previously assigned to the resoure
5. Click OK
6. Select how you wish to manage scheduled activities
7. Click OK

To assign a shift for multiple resources

1. Click on the Home Menu
2. Click on Work units
3. Select a different shift in the shift column
4. Click Rebuild if a shift was previously assigned to the resoure
5. Click OK
6. Select how you wish to manage scheduled activities
7. Click OK

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Making shift changes (single)

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Remove shift rule
To remove shift rules, right click on the day(s) in the calendar view and select Set to Default.

At any time, you can make changes to a shift. There may be occassions where you want to include non-working time into your shifts to relect shutdown or holiday periods.

Shift changes can be applied to

- A single resource
- Multiple resources

To change the shift for a single resource

1. Navigate to the Factory Explorer
2. Expand the relevant site
3. Locate the work unit
4. Right click on the work unit
5. Click Shift (Change)
6. Click on Add New
7. Enter a value in the Shift change code field (i.e. shutdown)
8. Under the timeline left click and drag to highlight the time (i.e. 00:00 to 00:00)
9. Set the Activity Code to StdNonWorking
10. Click OK
11. Click on the heading Ungrouped from the Day Shift Changes task panel
12. Right click on Shutdown
13. Click Copy
14. Select the dates (i.e 18th Dec to 1st Jan) by click/hold of left mouse button
15. Right click on 1st January
16. Click Paste
17. Click Apply
18. Click YES to rebuild the calendar
19. Click Nothing
20. Click OK

Making shift changes (multiple)

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Remove shift rule
To remove shift rules, right click on the day(s) in the calendar view and select Set to Default.

Changes can be made to multiple resources at a time.

To change the shift for multiple resources

1. Click on the Home Menu
2. Click on Changes
3. Tick the relevant sites and work units
4. Right click on the work unit
5. Click on Add New
6. Enter a value in the Shift change code field (i.e. shutdown)
7. Under the timeline left click and drag to highlight the time (i.e. 00:00 to 00:00)
8. Set the Activity Code to StdNonWorking
9. Click OK
10. Click on the heading Ungrouped from the Day Shift Changes task panel
11. Right click on Shutdown
12. Click Copy
13. Select the dates (i.e 18th Dec to 1st Jan) by click/hold of left mouse button
14. Right click on 1st January
15. Click Paste
16. Click OK
17. Click Apply
18. Click YES to rebuild the calendar
19. Click Nothing
20. Click OK

Work Units

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Remember to refresh
If you create any new work units in Enterprise Resource Planning, remember to refresh Visual APS before you run the import process.

What to import
You don't have to import all work units into Visual APS. You can be selective during the import process

Resources are defined as personnel, equipment and/or materials. Resources such as employees and work units are associated to shifts and help define your production capacity. Resources are typically imported from Enterprise Resource Planning and their settings can be extended further in LYNQ. Before resources are available for scheduling, they must be associated to a shift. A default shift can be selected during import of the resource from Enterprise Resource Planning.

Primary and secondary resources are imported:

Order	Data Type	Imported To	Imported From
1	Work Units	Visual APS	Visual APS
2	Tools	Visual APS	Visual APS
3	Employees	LYNQ Website	LYNQ Website
4	Work Units	LYNQ Website	LYNQ Website
5	Tools	LYNQ Website	LYNQ Website

1. Open Visual APS
2. Click on the Home Menu
3. Click on Import
4. If Visual APS recognises that there are new Work Units available for import, a Work Unit dialog box will appear
5. At this point, you have the option to declare any default values for the new Work Unit(s)
6. Click OK
7. Select the Work Units to import from the grid view
8. Click on OK

Work Units

Remember to refresh
If you create any new work units in Enterprise Resource Planning, remember to refresh Visual APS before you run the import process.

Once imported you will see the work units under the associated work centre in the factory explorer. Note, if tools are supported by Enterprise Resource Planning, these will be included in the import work unit process and can be seen in the factory explorer under the work centre of Tools.

To import Work Units imported into Visual APS to LYNQ

1. From LYNQ select Seat Maintenance
2. Select Seats
3. Select Import
4. Select Import Equipment
5. Select the required Work Units
6. Select OK
7. Double click on the new equipment record to edit properties
8. In the group section, assign the work unit to the appropriate group
9. Click Active
10. Review and select appropriate value for "Planned availability calculated by"
11. Click Save

To import Employees from Enterprise Resource Planning to LYNQ

1. Open LYNQ
2. Select Seat Maintenance
3. Select Seats
4. Select Import
5. Select Import Employees
6. Select the required resources
7. Select OK
8. Double click on the new employee to edit properties
9. In the group section, assign the employee to the appropriate group
10. Review and select appropriate value for "Planned availability calculated by"
11. Click Active
12. Click Save

LYNQ

Work unit properties

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Rebuild
If you are not immediately seeing changes after updating your work unit properties, you may need to tick the rebuild check box on the work unit record.

Visual APS allows additional properties to be set against a work unit. Refer to the Advanced User Guide for Float resources and consumption settings.

Work unit properties

Section	Field	Value
Resources	Infinite Resource	Indicates no limits to capacity
	Resource Type	Type of resource
	Default Resource Qty	Default No. of Resources
	Float Resource Usage	Float Resources based on Type
	Float Resource Usage Type	All/Less or Equal/Greater or Equal
	Float Discrete Resource Usage	Float Resources based on min/max
	Min Resource Consumption	Min no. of resources required
	Max Resource Consumption	Max no. of resources required
	Recommended Load Level (%)	Recommended load level percentage
	Split Task Consumption (Min)	Minimum time during which a task can be started when splitting tasks
	Split Task Interruption (Max)	Maximum time interruption when splitting tasks
Shifts	Shift	Default shift

How to configure work unit properties

1. From the Factory Explorer or Schedule board right click on the work unit
2. Click Edit
3. Change the properties as required
4. Click OK

Material availability

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Saving Calculations
User have the ability to take a snapshot of the material calculation information. This can be useful if additional analysis needs to be performed outside of Visual APS against the stock data. The data relating to material calculations is stored in the Enterprise Resource Planning database in the LYNQ stock info tables.

Visual APS provides a material indicator column in the task panel to indicate to the planner, the availability of material for different types of orders. The material indicator is updated whenever the calculate material function is run. This feature can be run manually when the calculate method is set to manual or when you open or refresh Visual APS when the calculate method is to auto.

Setting calculation method to manual or auto

1. Click on the Plan menu
2. Click MRP - Settings
3. Click on the General Tab
4. Select Manual or Auto from the Material Calculation lookup

Due to the complexities of material calculations, setting Visual APS to automatically recalculate can significantly slow down performance of Visual APS. Every time Visual APS is refreshed and opened, Material Calculations are performed. Therefore, it is recommended that the material calculation method is set to manual, so the user can control when recalculations will occur

Setting calculation method to manual or auto

1. Click on the Plan Menu
2. Click Recalculate
3. Select Yes to save the current plan prior to running recalculate
4. Select production job orders Task Panel
5. The material column will now be updated

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Material indicators

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Click here to read this page online. The online version provides additional links to other related information.

Excluding or Including
The Planner can elect to include or exclude job orders, or reserve stock in the calculations Visual APS performs by clicking on the Plan menu

The Material Status Indicator appears against each job order in the task panel, Double clicking on the Material Status Indicator will drill down to the Bill of Material and provide an availability view for each component.

The same color coding is adopted throughout the Bill of Material. Drilling down further on a specific component material status icon displays a list of job orders that are consuming or replenishing the component. This can help you determine which components may be shifted from another shop job order or re-sequenced.

Indicator	Meaning
	Not included in material calculation
	All materials available at start date
	Some materials not available at start date
	No Materials available at the start date
	All materials available and reserved in the calculation
	Some materials available and reserved in the calculation
	No materials available and reserved in the calculation

Job orders that have a yellow or red material indicator may require further action. For example,you may not want to schedule a job order order where there are known shortages. To identify which component(s) have a shortage, double click on the Material Indicator to show the availability of materials by component. Drilling down futher on the material indicator for the componet ill show which job orders are consuming or replenishing the component.

When materials are attached to Operations, Visual APS provide greater accuracy of material requirements. When an operation is not declared in the Bill of Material the material required date is calculated for the start date of the job order order. When specifying an operation for a component within a Bill of Material, Visual APS will validate the material on the start date of the Operation rather than the job order order. This is very important to help control inventory as all the materials won't be job ordered too early for the capacity where they will be used.

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Material shortages

Online Version
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Export to Excel
To inform procurement of any shortages export the overview reports to excel.

MRP limitations
It is important to note that the MRP and Material

Availability functions are not designed to replace materials management in Enterprise Resource Planning. It is intended to assist the planner during the planning and scheduling process. By using markers, planners are able to mark job orders that have material issues.

MRP shortages
Shortages are not seen as a constraint in Visual APS. Job orders with shortages can still be scheduled. To overcome this, use the marker to job orders with shortages and excludes these job orders during scheduling

The MRP View feature in provides a stock enquiry of the current quantities for components over a period of time.The MRP Views feature supports up to 100 periods by day or week.

MRP Overview

Each component used on a job order is returned in a grid view. The rows are ordered first by location then by product. If Visual APS has calculated any shortages for a component the quantity will be highlighted in red text. The number of job orders affected by this shortage can be seen in the Job orders affected column. Doubling clicking on the quantity value provides the user with a drill down into the individual order details.

MRP Selected

Works in the same ways as MRP Overview but is useful for checking one or a few job orders at a time.

To review shortages for all job orders

1. Click on the Plan Menu
2. Click Recalculate
3. Click on the Plan Menu
4. Click on Overview
5. Select the Period Type Day or Week
6. Enter the number of periods to review in the Period field
7. Click on Apply

To review shortages for a selected job orders

1. Click on the Plan Menu
2. Click Recalculate
3. Highlight the job order you want to review from the task panel
4. Click on the Plan Menu
5. Click on Selected
6. Select the Period Type Day or Week
7. Enter the number of periods to review in the Period field
8. Click on Apply

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Material calculation settings

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Settings
The settings you make in company settings are saved to your user profile which is stored in your windows user profile folder. If you want other users to use the same MRP settings, give them a copy of your profile

A number of setting are available to control how material calculations are performed. Material status is calculated based on the supply and demand settings within company settings, MRP import & rules.

Include Past Active job orders

Include past active ordrers is a setting that helps deal with job orders with a due date less or earlier than today. These are considered already in the past but may still be active. It is not possible to consume materials in the past, so how do we want to see these job orders from a material viewpoint? Users can completely exclude these job orders from the calculation (and you will see those with an X) by not checking this box. Or users can include those job orders in the material calculation but look at a different start date. By default, this effective start date is set to today, or you can consider it into the future (i.e. +10 days).

This helps answer the question when will the materials for late job orders be available? You should really reschedule these job orders for the date when they will be kit clear or leave themas they are and enable material validation to include them. If you include past active job orders, it is difficult to know what is available tomorrow. So, the setting of "today" lets Visual APS know that the job order is late but the replenishment will occur today and that material will be available. The stock for tomorrow will include the past due quantities.

Group Locations

In Group locations the warehouse used in the calculation for material requirements is read from the Bill of Material captured against the job order order. Sometimes the stock on hand in the default warehouse is not enough but stock may be available at another warehouse and you want to include another warehouse in the material calculation. For that reason, Visual APS has a function to group warehouses together. When grouping warehouses all stock movements for the grouped warehouses can be viewed in the stock information window

LYNQ

Scheduling basics

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Planning Interval
The planning interval can be changed by clicking on the Schedule Menu. To change the default planning interval select Company Settings, Planning Interval. These settings are saved in your Visual APS profile and only apply t o you.

The planning interval in Visual APS defines the period of time where scheduling can occur. You cannot perform scheduling outside the planning interval. The planning interval is defined under the settings area in Visual APS and saved to the user's settings file. The Planning Interval can also be changed at any time by going to the Schedule menu and select Interval. By default, this is set to 12 weeks. The interval for planning is visible in The Title Bar at the top of the Visual APS window along with the server name, database name, and date and time when the was was last loaded.

There are two primary methods of scheduling in Visual APS

Forward scheduling

- Forward scheduling takes a job order order with a number of tasks and allocates those tasks to resources as early as possible, in other words when resources become available. There is also an option for Visual APS to schedule forward from a specific day.

Backward scheduling

- Backward scheduling takes a job order order with a number of tasks and allocates those tasks to resources in reverse job orders, from last to first operation, and schedules the task on the resource.

You can either manually drag and drop a job order or an operation onto the schedule board or use the auto scheduling feature.

You can only schedule a job order or an operation when there is sufficient resource capacity. By default Visual APS will try to schedule the resources that are captured against the job order's routing in Enterprise Resource Planning. If insufficient resoures are available you may only be able to schedule the job order partially or not at all. It's best to enable the schedule around function when you want to schedule an entire set of operations for a job order. This will enable you to schedule all operations together.

When using schedule around it is important to remember that operations will only be scheduled when there is available capacity. If you drag and drop operation 20 to a time on the schedule board which is right at the beginning of your planning interval, any operations that come before operation 20 will not be scheduled as these would need to be scheduled before the start of our planning interval

LYNQ

Prioritising what to schedule

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Markers
Visual APS allows you to define multiple markers to help prioritise and categorise your job orders.

Understanding how production should be prioritised is an important consideration for any manufacturer. All manufacturers have at least works job orders, some of which are urgent, others of which are less so. Hence the need to prioritise how job orders are scheduled. The priorities that are set, will ultimately drive the schedule and is a main factor for how scheduled dates are calculated.

To help prioritise job orders, Visual APS provides different features to help you:

- Markers
- Basic and Advanced Filters
- Workflow Filters
- Grouping

Markers

- Markers appear as user defined visual indicators that can be set against shop job orders on the task panel window. Markers can be color coded and used for sorting and filtering purposes.

To create a new marker

1. Click on the manage menu
2. Click on markers
3. Click on the marker1 tab
4. Enter i.e. critical in the value field
5. Click on add
6. Click on the circle to the right critical
7. Click on i.e. red from the color palette
8. Click on OK
9. Click on OK

To set a marker against a job order

1. From theTask Panel select the couple of job orders that are critical
2. Right click and select Markers
3. Click Marker1
4. Click i.e. Critical

LYNQ

Prioritising what to schedule

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Save filter to file
You can save your filters and share the xml file that is saved with other users.

Save filter to menu
Saving filters to the workflow menu is a relatively new feature in Visual APS. You can now save your filters so they appear just for yourself or they can be saved and used globally by other users.

Filtering Columns
Columns can be quickly filtered by clicking on the arrow to the right of the column name.

Advanced Filtering
Right click on the column heading and select Filter Settings to perform more complex filtering. From the Edit Filters windows you can save the filter to file or save the filter so that it appears on the workflow tab.

Grouping Tasks
Drag the column to the area above the column heading to group tasks by column value

You can also sort job orders in the task panel. In the default view, the task panel displays job orders by ascending job order number. In order to change the presentation of the job orders, any column can be selected as the primary sort. Select on a column header to sort the data according to that criteria. Select the column header again to sort in the reverse job order. The arrow next to the column header indicates the job order of the sort. Select a third time to remove the sort.

Basic and advanced filters

The application provides two types of filters:

- Basic filters are created from column headings and allow you to manage which job orders are visible based on the chosen criteria.

- Complex filters are used for multiple criteria selections and then the filter can be saved and/or shared with other users or attached to the workflow menu .

The use of filters allows you to prioritise job orders ready for scheduling.

To create a filter in the task panel

1. Right click on any column heading in the Task Panel
2. Click Filter Settings
3. Click AND
4. Click Add Criterion field
5. Select a column in the first field
6. Select an operator in the second field
7. Enter a condition in the value field
8. Click OK

To save a filter to file

1. Right click on any column heading in the Task Panel
2. Click Filter Settings
3. Click AND
4. Click Add Criterion field
5. Select a column in the first field
6. Select an operator in the second field
7. Enter a condition in the value field
8. Click Save to File
9. Enter a file name and location
10. Click Save
11. Click OK

Prioritising what to schedule

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Multiple groups
You can group on more than one column heading.

Groups Resetting
Groups are reset when data is refreshed or when the application is closed

When creating filters you can save the filter as a workflow item.

To create a workflow filter

1. Right click on any column heading in the Task Panel
2. Click Filter Settings
3. Click AND
4. Click Add Criterion field
5. Select a column in the first field
6. Select an operator in the second field
7. Enter a condition in the value field
8. Click Save to Menu
9. Select Who the Worklow will apply to
10. Click Add New
11. Enter a Name for the Workflow
12. Click OK
13. Click OK
14. The filter will now be available on the Workflow Menu

Grouping can be used when scheduling job orders based on a particular characteristic. For example, you may want to minimize change overs by scheduling all job orders for the same product together..

To group job orders in the task panel

1. Drag the column heading to the top of the task panel

The data will be grouped by column dragged. Use the + and - icons to the left of each grouping to expand or collapse the contents of the group. Sub groups can be added by dragging additional column headings to the top of the task panel.

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Manual scheduling

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Valid Operations
To change the color of the valid for scheduling indicator from red to green you must update the job order order in Enterprise Resource Planning and refresh the Visual APS data.

Drag and Drop
Visual APS takes you automatically to the first work unit to be scheduled when dragging the job order onto the schedule board

Not Scheduling
If you find you are unable to schedule a large batch of job orders entirely, it's likely your planning internval has insufficient capacity. Either increase your planning ,interval,reduce the number of job orders to schedule or increase the number of resources.

Before operations can be manually or automatically scheduled, they must be recognised by LYNQ as being valid for scheduling. The valid for scheduling indicator must be green for Visual APS to schedule it. The indicator is displayed on the task panel at the job order level and at the operation level.

You will notice that the valid for scheduling indicator will have mainly 3 different colour codes. Each colour represents a different meaning:

1. Green meaning the operation has time to be scheduled
2. Yellow meaing the operation has already been completed by qty or status
3. Red meaning Visual APS doesn't know what resources must be scheduled

The routing will define the number of resources required. When scheduling you must have sufficient resources available. You will be able to see this on the resource availability bar in the schedule board for a given resource. You can quickly edit the number of resources by right clicking and selecting edit on the resource in the schedule board.

To manually schedule, the planner is able to simply drag and drop either the job order order or individual operations onto the desired slot on the schedule board. This is particularly useful when a job order order is required to run on a specific day or time.

To schedule job orders using drag and drop

1. Click on the Schedule Menu
2. Click on Schedule Around and check Left and Right
3. Click either forward or backward scheduling
4. Select a job order order from the task panel
5. Right click and select load required work unit
6. Click and hold the selected job order order
7. Drag it down to correct time on the schedule board

Auto scheduling

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Scheduling Sequence
When the auto schedule dialog window appears if grouping shop job orders by grid grouping the first job order to be scheduled it will be the one at the top of the list. If grouping by index, then scheduling priority it will be from lowest to highest number.

Grid Grouping
The default grid grouping setting can be changed in Company Settings, Scheduling & Routing Rules, Auto.

Auto scheduling is one of two methods for scheduling job orders in Visual APS. The production planner has full control over the sequencing of job orders and is then able to use the auto schedule feature to place these onto the schedule board. Auto schedule will ensure that job orders are scheduled in the predefined job order in the next free slot based on the required and available resources.

It's possible to prioritise schedule job orders using two different methods:

- Grid grouping
- Priority index

To auto schedule by sequencing job orders using grid grouping

Auto Scheduling uses the sequence the job orders appear in the scheduling grid to schedule them in order. It's possible to drag rows up and down to change the sequence of job orders.

1. Select a range of job orders to schedule
2. Right click and click auto schedule
3. Re-arrange the sequence by dragging job orders up or down
4. Click schedule by grid grouping
5. Click Schedule
6. Click OK twice

To auto schedule by sequencing job orders using priority index

Each job order can be given a number of priority which will then represent the job order in which these are scheduled on the schedule board.

1. Select a range of job orders to schedule
2. Right click and click auto schedule
3. Click schedule by priority Index
4. Click the job order that must take priority, and right click
5. Click Set Priority > 1
6. Click the other job orders that are not as urgent, and right click
7. Click Set Priority > 2
8. Click Schedule
9. Click OK twice

LYNQ

Unschedule a job order/operation

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Planned Start/End
When job orders or operations are unscheduled, the planned start and end dates will revert back to the original dates

Scheduled job orders and operations are easily unscheduled. There are a couple of ways to unschedule in Visual APS.

1. Right click on the job order or operation in the task panel
2. Click Unschedule or press delete on your keyboard

1. Highlight the operation on the schedule board
2. Right click and select Unschedule or press delete on your keyboard

Once un-scheduled rememer to save and publish your changes to the plan to update LYNQ and Enterprise Resource Planning.

LYNQ

Firming the plan using pinning

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Pin Indicator
The Pin Indicator shows in the task panel and in the schedule board

Visual APS offers the option to freeze job orders or operations to the production schedule for a period of time, this is done using the Pin function. Pinning the operations to the scheduling board means that those operations cannot be moved or unscheduled unless you remove the Pin.

The "frozen" period will vary depending on the manufacturing environment but it marks the boundary of which changes to the schedule be made, anywhere outside this period job orders can be moved or re-scheduled.For example, a company "freezes" the production schedule for 1 week. The Production Planner and Production supervisor meet once a week to review the plan for the following week and once agreed, its pinned to the scheduling board, meaning no one can make changes to the plan unless agreed.

There are two ways to pin in Visual APS

- Pin (for selected job orders and operations)
- Pin Advanced (by date interval and work unit)

To use pin so no changes can be made

1. Click on the Review Menu
2. Highlight a job order, a range or job orders or an individual operation
3. Click Pin
4. Notice now that your selection will have a pin showing in the pin column
5. Pinning can be reversed by click Remove Pin

To use pin advanced so no changes can be made

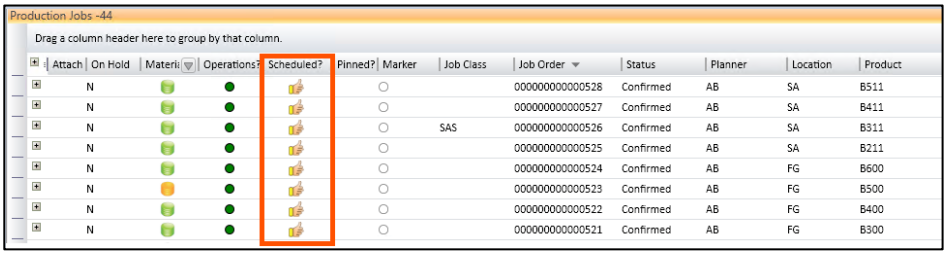
1. Click on the Review Menu
2. Click Pin Advanced
3. Set the Pin Interval from and to dates
4. Click the selected sites and or work units
5. Click Pin
6. Pinning can be reversed by clicking Unpin

Saving and publishing

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Save & Publish
Depending on the Enterprise Resource Planning application in use, Visual APS will either update the scheduled dates on the job order directly or by using LYNQ api. The integration settings can be checked from the home, settings menu.

The thumbs up image in the scheduled column will turn yellow when you manually or auto schedule a job order. If the scheduled column does not display the thumb icon, the job order has either only scheduled partial operations or scheduling was not successful. When all operations are scheduled and the scheduled column is yellow the order is virtually scheduled. At this point Enterprise Resource Planning and data collection will be unaware of the scheduled dates. You can at this point make any changes before committing the schedule back to Enterprise Resource Planning.



To dispatch the orders for data collection, the save and publish function must be used.

To save and publish:

1. Select Save and Publish from the Quick Access Toolbar or
2. Use CTRL + S

Once published, the thumbs up image in the scheduled column will turn green.

Capable to promise

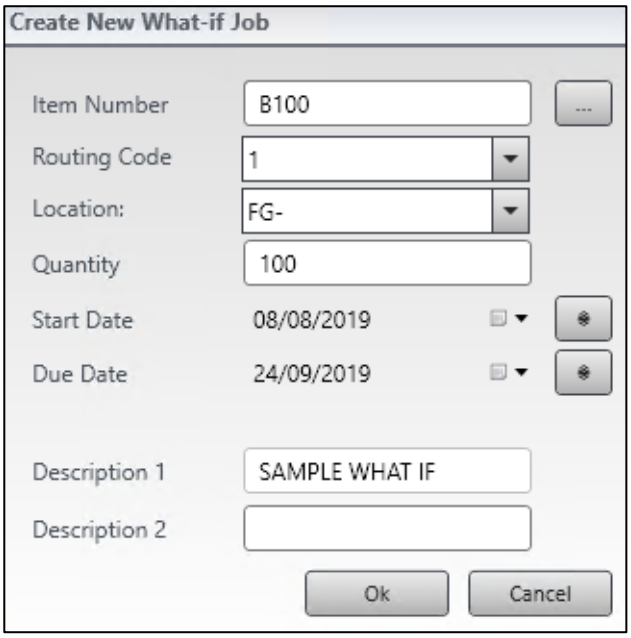
Online Version
Click here to read this page online. The online version provides additional links to other related information.

Capable to Promise
What-if job orders provide an ability to calculate capable to promise dates

The What-if job order feature allows you to create a job order that is not saved within Enterprise Resource Planning so that you can estimate a production unit's capacity without affecting any of the Enterprise Resource Planning data. Once created the what-if job order can also be scheduled, it may be determined that a live manufacturing job order order should be created. The what-if job order can then be unscheduled and remain on the task panel or it can be deleted.

To create a What-If job order

1. Click on the Schedule Menu
2. Click on Add What If
3. Select product number, Routing code, Location, Quantity and Date
4. In description 1 and 2 reference for instance customer name and quote number
5. Select OK.



Once the What-If order has been created it will appear in the What-If Jobs tab under the Task Panel. The material indicator will show the availability of the components for the What-If order. Double click the indicator to review the earliest date when the material will be available. With this date known you can now schedule the what-if order on that date.

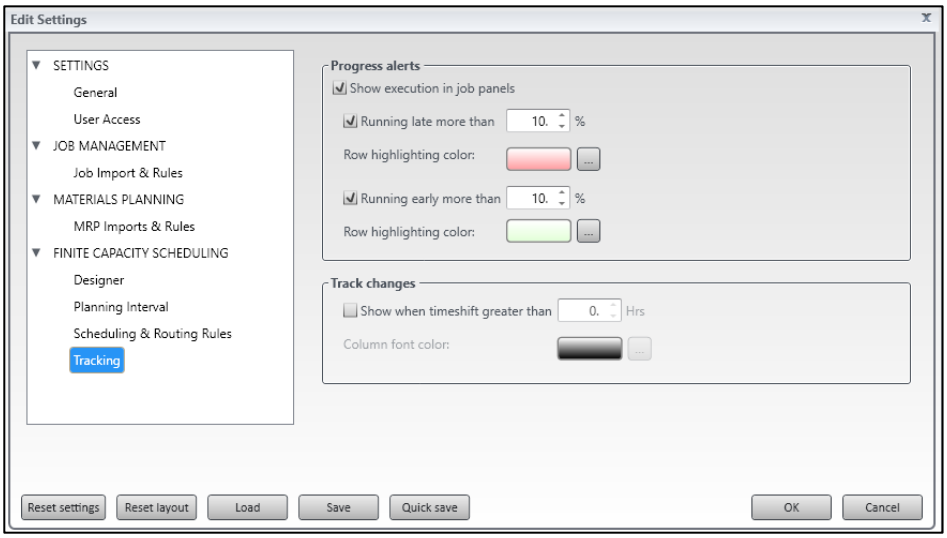
Calculating potentially late

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Re-Scheduling
Rescheduling can be targeted to a specific work unit. In order to do this, Schedule Around should be turned off first, and then only the targeted work unit should be loaded in the Schedule. Whilst the Calculate function still calculates all potentially late jobs, in this scenario, only the jobs for the selected work unit will be rescheduled.

Further reading
Check out the articles in the knowledgebase relating to rescheduling potentially late for further information support.lynqmes.com

Calculate potentially late highlights any job orders on both the schedule board & the task panel that are in jeopardy of becoming late. Visual APS can calculate which future operations are potentially going to be late, and can reschedule those along with the operations already running late. The potentially late function can only be executed you have enabled tracking from the settings menu. This is located in Company Settings, Tracking.



To calculate potentially late job orders or operations

1. Click on the Manage Menu
2. Click Calculate from the Potentially Late options

Observe which operations have been flagged as potentially late (these are highlighted in blue on the task list and have a blue vertical band to the left of the operation in the Planning board).

To reschedule potentially late job orders or operations

1. Click on the Manage Menu
2. Click Reschedule from the Potentially Late options

Note that all Shop Job orders/operations highlighted during the calculation process have now been virtually rescheduled. Any manual adjustments can be made to the rescheduling proposal at this point. Once complete, select Save and Publish to apply the changes.

Dashboards and reports

Crystal Reports
Reports are saved in the application folder and can be customised if required. Be aware that upgrades to the application will override any changes made to reports. So keep a backup of your reports

Crystal Reports
All published reports can be viewed from your web browser.

Capacity Chart
The capacity chart is a really useful tool for the planner. Check out the articles in the knowledgebase relating to the capacity chart for further information
support.lynqmes.com

There are a number of dashboards and reports available to support the user. Refer to the table below for all the reports available in Visual APS.

Report Type	Report Name
Capacity	Chart
Published	Dashboard
	Production Plan
	Equipment Job order List
	Materials List
Tracking	Job order Status
	Production History
Print	Plan
Export	Production Job orders
	MRP Job orders
	What-if Job orders
Reports	Production Plan
	Job order Ticket
	Late Delivery

Dispatching

Future Activity
Dashboards and reports are based on planned future activity and provide insight as to how this will impact your resources (equipment utilisation) and your product output (job order fulfilment).

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LYNQ provides dispatching functionality to support the administration and coordination of schedules as part of Detailed Scheduling.

Core features include:

- Dashboard
- Production Plan
- Equipment Plan
- Production Status
- Material Lists
- Production Lists
- Equipment Lists
- Production History

Planning KPIs

There are various references to key performance indicators in Planning. If you can't measure it, you can't improve it... to increase your productivity and lower production costs you need to benchmark your performance and minimize loss within your manufacturing process.

Planned Utilisation

Planned Utilisation, also known as loading, considers the proportion of calendar time that has been scheduled for production (run time). You can set whether the scheduled hours includes or excludes setup, teardown and processing time. By default, these times are considered as downtime.

Calculation	Scheduled Hours / Calendar Hours
Measure	It is measured as a percentage (%). The higher the percentage the better.
Report(s)	Dashboard shows the planned equipment utilisation for the selected equipment within the selected date range Equipment Plan shows the planned equipment utilisation for each piece of equipment. Each card can be drilled into for further detail.

Planned Job order Fulfilment

Tells you whether the jobs that are due to start have been scheduled to start. Based on the principle that if a job has not been scheduled to start then it is unlikely to be fulfilled

Calculation	Number of jobs scheduled / Number of jobs planned
Measure	It is measured as a percentage (%). The higher the percentage the better.
Reports(s)	Dashboard shows the planned job order fulfilment for a specific date range.

Dispatching Dashboard

Resources
The total number of resources available for the selected equipment

Calendar Hours
The total number of calendar hours for the selected resources and time period

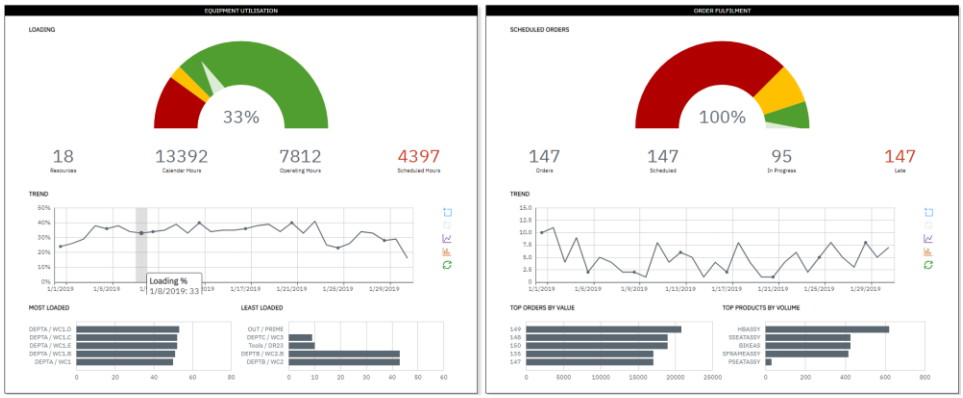
Operating Hours
The total number of shift hours for the selected resources and time period

Scheduled Hours
The total number of planned productive hours for the selected resources and time period

The dashboard located in dispatching, is used to balance equipment utilisation and order fulfilment to maximise factory output. Order fulfilment considers the number of planned job orders that are found within the selected date range (start, end or spanning) and how many of those are:

1. Scheduled
2. In Progress
3. Late (did not start by the planned start date)

The plates are clickable allowing further drill down



To open the dashboard from Visual APS:

1. Select the Reports Menu
2. Select Dashboard

If the dashboard is greyed out, the MOM integration settings have not been configured.

To set the MOM integration settings:

1. Select the File Menu
2. Select Company Settings
3. Select the General Tab
4. Enter the URL of the MOM Site (i.e. http://webservername/lynqmom) in the MOM Integration field

To open the dashboard from LYNQ

1. Select Dashboard from the menu section Dispatching

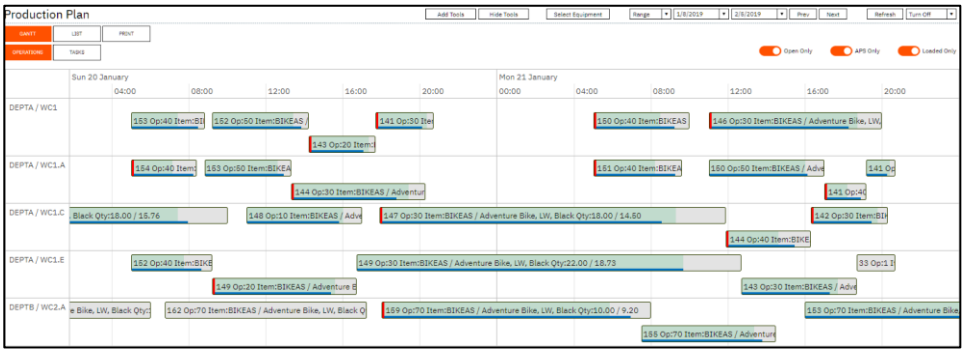
Production plan

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Gantt View
A Gantt chart by operations and tasks of your production schedule.

List View
A list view by operations and tasks of your production schedule

The production plan is an online view of orders that have been scheduled in Visual APS, providing visibility of the plan for non APS users. The production plan has a Gantt view for both operations and tasks and and can be viewed in list format. The print plan option provides a shop packet style report to be printed which supports barcodes.



Progress indicators are updated in real-time, providing excellent visibility of work in progress.

- GREEN centre – labour reported
- RED centre – labour hours exceeded
- BLUE bar – quantity reported
- RED bar – quantity exceeded
- RED vertical bar – issues

Double clicking on the order on the production plan, will show the job card. To sort the production plan by date, use the List View and sort by start date Sorting by start date provides a simple job order list view of the entire schedule and what should be being worked on. You can of course filter and customise this list to get to the information you want.

To open the production plan from Visual APS:

1. Select the Reports Menu
2. Select Production Plan

If the production plan is greyed out, the MOM integration settings have not been configured.

To set the MOM integration settings:

1. Select the File Menu
2. Select Company Settings
3. Select the General Tab
4. Enter the URL of the MOM Site (i.e. http://webservername/lynqmom) in the MOM Integration field

To open the production plan from LYNQ

1. Select Production Plan from the menu section Dispatching

Equipment plan

Online Version
Click here to read this page online. The online version provides additional links to other related information.

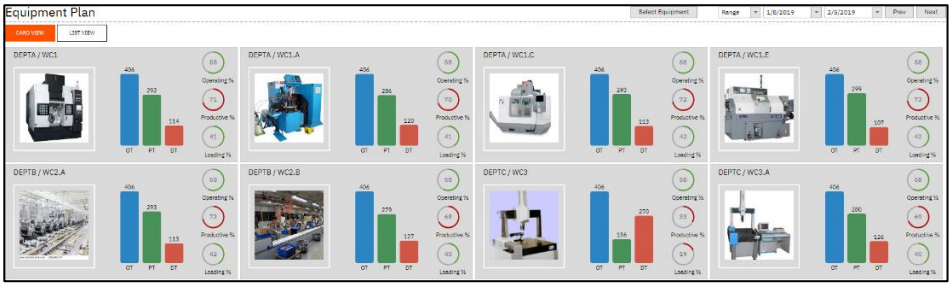
Purpose
Review the impact of the production plan on your equipment. Drill into each equipment card to view loading detail and expected daily output

Card View
Displays graphical summary of equipment selected. Clicking on equipment card takes user to extended details of equipment loading

List View
Line by line report by equipment. From here users can click on the Equipment name to view extended details of equipment loading Additionally in this view, there is a link to view the schedule for each piece of equipment. Below each column heading there is a search/filter box. The pin next to the search box provides a set of filtering options. Additionally, in List view there is functionality to export reports, create custom filters and customise layouts

Review the impact of the production plan on your equipment. Drill into each equipment card to view loading detail and expected daily output.

- "OT" = Operating Time (Shift Time)
- "PT" = Productive time
- "DT" = Downtime



To open the equipment plan from Visual APS:

1. Select the Reports Menu
2. Select Equipment Plan

If the equipment plan is greyed out, the MOM integration settings have not been configured.

To set the MOM integration settings:

1. Select the File Menu
2. Select Company Settings
3. Select the General Tab
4. Enter the URL of the MOM Site (i.e. http://webservername/lynqmom) in the MOM Integration field

To open the equipment plan from LYNQ

1. Select Equipment Plan from the menu section Dispatching

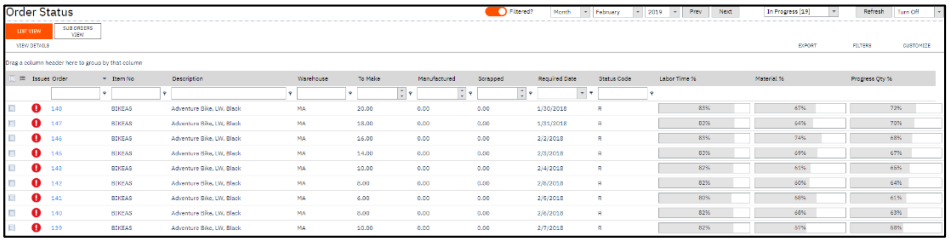
Production status

Online Version
Click here to read this page online. The online version provides additional links to other related information.

List View
Line by line report by job order. From here users can click on the Job order number to view Job order Card details. Below each column heading there is a search/filter box. The pin next to the search box provides a set of filtering options. Additionally, in List view there is functionality to export reports, create custom filters and customise layouts. The bottom of the report shows the number of items in the report and the number of pages. Page size can be adjusted to display up to 200 rows per page.

Sub Order View
As per the list view but with sub job orders

Review open job orders to check their status. Use progress bars to gain visibility of hours booked, materials issued and overall progress at a glance. Drill to view specific job order details including attached documents and issues recorded.



To open the Production Status from Visual APS:

1. Select the Reports Menu
2. Select Production Status

If the Production Status is greyed out, the MOM integration settings have not been configured

To set the MOM integration settings:

1. Select the File Menu
2. Select Company Settings
3. Select the General Tab
4. Enter the URL of the MOM Site (i.e. http://webservername/lynqmom) in the MOM Integration field

To open the Production Status from LYNQ:

1. Select Production Status from the menu section Dispatching

Material list

Online Version
Click here to read this page online. The online version provides additional links to other related information.

List View
Line by line report of Material requirements. Click the arrow to the left of a Material code to view list of job orders requiring that material. From here users can click on the job order number to view Job order Card details. Below each column heading there is a search/filter box. The pin next to the search box provides a set of filtering option

View specific material requirements by individual resources for today or this week designed to support cell manufacture and for use with mobile and/or tablet devices.

To open the Material List from LYNQ:

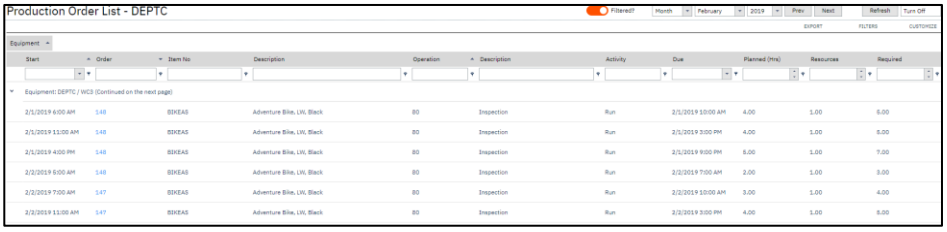
1. Select Material List from the menu section Dispatching

Production job list

Online Version
Click here to read this page online. The online version provides additional links to other related information.

List View
Line by line report (grouped by equipment) of job orders. Click arrow to left of Equipment name to expand job order list. Click on Job order number to view Job order Card details. Below each column heading there is a search/filter box. The pin next to the search box provides a set of filtering options. Additionally, in List view there is functionality to export reports, create custom filters and customise layouts

View job order lists by resource groups for today or this week designed for use with mobile and/or tablet devices.



To open the Production Job List from Visual APS:

1. Select the Reports Menu
2. Select Production Job List

If the Production Job List is greyed out, the MOM integration settings have not been configured.

To set the MOM integration settings:

1. Select the File Menu
2. Select Company Settings
3. Select the General Tab
4. Enter the URL of the MOM Site (i.e. http://webservername/lynqmom) in the MOM Integration field

To open the Production Job List from LYNQ:

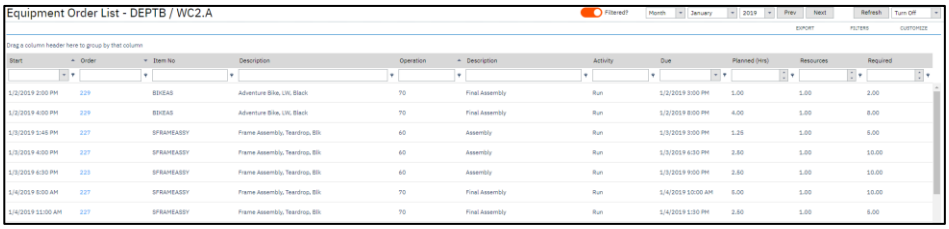
1. Select Production Job List from the menu section Dispatching

Equipment job list

Online Version
Click here to read this page online. The online version provides additional links to other related information.

List View
Line by line report (grouped by equipment) of job orders. Click arrow to left of Equipment name to expand job order list. Click on Job order number to view Job order Card details. Below each column heading there is a search/filter box. The pin next to the search box provides a set of filtering options. Additionally, in List view there is functionality to export reports, create custom filters and customise layouts

View of job order lists by individual resources for today or this week designed for use with mobile and/or tablet devices.



To open the Equipment Job List from Visual APS:

1. Select the Reports Menu
2. Select Equipment Job List

If the Equipment Job List is greyed out, the MOM integration settings have not been configured.

To set the MOM integration settings:

1. Select the File Menu
2. Select Company Settings
3. Select the General Tab
4. Enter the URL of the MOM Site (i.e. http://webservername/lynqmom) in the MOM Integration field

To open the Equipment Job List from LYNQ:

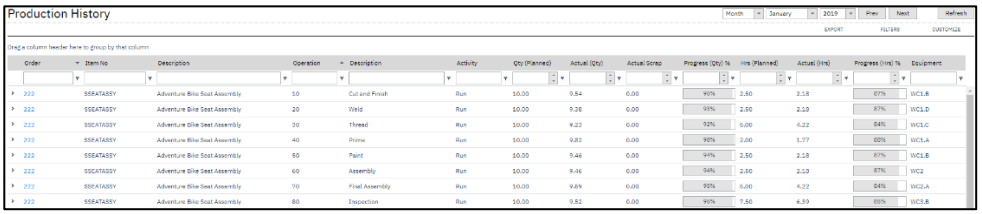
1. Select Production Job List from the menu section Dispatching

Production history

Online Version
Click here to read this page online. The online version provides additional links to other related information.

List View
Line by line report by job orders. From here users can click to the left of the job order number to view transaction details of the job order. Notes can be added to transactions from here. Below each column heading there is a search/filter box. The pin next to the search box provides a set of filtering options. Additionally, in List view there is functionality to export reports, create custom filters and customise layouts.

View activity history in relation to both open and closed job orders.



To open Production History:

1. Select Production History from Dispatching

Resource management

Features
Look out for these features in this section of the user guide.

LYNQ provides resource management to support the administration of information relating to resources required for manufacturing.

Core features include:

- Seat Maintenance
- Resource Maintenance

LYNQ

Seat maintenance

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Seats
The license for LYNQ is stored in a sub directory of the LYNQ website folder. Once applied all users will be able to see the new license details.

Pre-configured roles
LYNQ is shipped with some default roles. If these do not suit your organisation, you can create new ones.

It's often the case that all users require access to LYNQ, unlike Visual APS and LYNQ api which is accessed by a smaller group of individuals. Seats need to be maintained in all 3 components separately.

Your license dictates the number of seats you can activate.

Built-in rights, roles and groups are shipped with the application. They provide you with varying levels of security permissions out of the box which are associated to a group which can be customized to suit your organizational requirements. Groups are effectively a representation of your organizational structure. You can add or remove users to or from any built-in group or any groups that you create. You can also add or remove rights assignments to built-in roles or your own roles except for the administrator role. Before a user can access areas of the application, the user must be assigned to one or more groups. Seats are a collective term for resources such as users, employees and equipment. Users are managed under seats.

Let's take a look at the Seat Maintenance feature under Planning Administration in more detail.

Menu	Sub Name	Purpose
Seat Maintenance	Seats	A collective term for resources such as users, employees and equipment.
	Rights	Rights are used to assign permissions to a role. Rights cannot be amended or deleted.
	Roles	Roles comprise of one or more built-in rights. You can create your own roles to suit the responsibilities within your organization. Groups can be associated with one or more roles. The built-in roles shipped with the application and their associated rights include:
	Groups	Groups are used to organize seats into a hierarchical structure which models those found in your organization.
	Crews	Seats can be assigned to a crew. Crews can be used in workbench for data collection purposes.

LYNQ

Users seats

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Resources
It's possible to create 3 different types of resource; users, employees and equipment.

Activate
You will see a message 'no seat assigned' if you do not activate your seats.

Not enough seats
Users and employees can be linked so they do not consume two seats. This will help to reserve seats for other users. If you need more seats contact the service team.

To access LYNQ a user seat must be created for the user. Users are associated to active directory accounts. Application security rights are related to the group the user is a member of.

If the user requires access to the workbench and/or timesheet functions and/or you want to collect OLE data for the user, you must create an associated employee seat. Equipment seats can be created in situations where equipment is linked to a workbench and OEE is required.

How to create a new seat in LYNQ for a user

1. From the Planning Menu, select Seat Maintenance
2. Click Seats
3. Click New
4. Click New User
5. In the Login field enter the domain user account name
6. Click Find
7. Click Save
8. Click Close
9. Double click on the new employee to edit the properties
10. In the group section, assign the user to the correct group
11. Click Active
12. Click Save

LYNQ

Employee seats

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Importing
When importing an employee, the workbench ID will automatically be set to the employee number. Once activated, the employee can clock into the workbench using their employee number.

Deactivating seats
When you deactivate a seat you will to be able to re-use them for data collection purposes. Be aware that deleting a seat may lose the history for the seat.

Resources such as employees and equipment records can be imported from your Enterprise Resource Planning application or created locally within LYNQ. It's suggested that records are imported where possible to reduce additional maintenance. When importing records, employees are imported directly from the Enterprise Resource Planning application and no further steps are required.

The steps below explain how to import employee resources from your Enterprise Resource Planning application and also how to create resources directly in LYNQ.

Importing employees and work centres into LYNQ from your Enterprise Resource Planning application

1. Select Seat Maintenance
2. Select Seats
3. Select Import
4. Select Import Employee or Import Equipment
5. Select the required resources
6. Select OK
7. Double click on the new employee or equipment to edit properties
8. In the group section, assign the user to the correct group
9. Click Active
10. Click Save

How to create a new seat in LYNQ directly for an employee

1. Select Seat Maintenance
2. Click Seats
3. Click New
4. Click New Employee
5. Enter a value in the First Name field
6. Enter a value in the Last Name field
7. Enter a value in the Workbench ID field
8. Enter the related Enterprise Resource Planning employee code in the Employee ID field
9. Click on Save
10. Click on Close
11. Double click on the new employee to edit properties
12. In the group section, assign the employee to the correct group
13. Click Active
14. Click Save

LYNQ

Equipment seats

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Importing
If you try to import equipment in LYNQ without first importing the equipment in Visual APS, the equipment will not be available for import.

Local equipment
You can manually create equipment records in either Visual APS or LYNQ. The steps are the same as creating a local employee record

Activated
When an equipment record is active the equipment can be used for OEE purposes. Additional functionality in the workbench will be turned on. Equipment transactions are generated for active equipment and you have the ability to record downtime activity to support OEE and TEEP calculations.

Equipment must first be imported in Visual APS and then imported into LYNQ.. LYNQ maintains a relationship of equipment records between both applications. An equipment record will be created based on where the equipment belongs to. If the equipment is reorganised in your Enterprise Resource Planning application, the equipment record should be deleted and re-imported in Visual APS and LYNQ. If you try to import equipment in LYNQ without first importing the equipment in Visual APS, the equipment will not be available for import.

How to import equipment from Enterprise Resource Planning into Visual APS

1. Refresh Visual APS
2. Click on Home
3. Click on Import
4. Set the Resource type to Machine – Machine Hours
5. Select the correct shift for the machine
6. Click on OK
7. Expand the site and select the correct work unit
8. Click on OK

Importing equipment from Visual APS into LYNQ

1. From the Planning Menu, select Seat Maintenance
2. Select Seats
3. Select Import
4. Select Import Equipment
5. Select the required resource
6. Select OK
7. Double click on the new equipment record to edit properties
8. In the group section, assign the user to the correct group
9. Click Active
10. Click Save

LYNQ

Resource maintenance

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Personalise
Personalise your resources by giving them photos. It looks really cool in the workbench and on status pages.

No of Resources
Watch out for this setting. It can affect what you see in some of the dashboards and reports that show the no of resources.

Planned Availability
Watch out for this setting. It can affect what you see in some of the dashboards and reports that show the no of resources. If you are using Visual APS, equipment resources should be set to V-APS

Factory Automation
LYNQ's factory automation feature allows data to be collected automatically from a resource. Refer to the Advanced User guide for further details of this powerful feature.

LYNQ allows for additional properties to be set against resources. Properties can be set for

- Employees
- Equipment

To edit the properties for a resource

1. Open LYNQ
2. Click on the Resource Maintenance menu
3. Double click on the resource

Section	Field	Value
General	Active	Seat is active/inactive
	Photo	Photo of resource
	Crew	Default crew for resource
	First Name	Resource's first name
	Last Name	Resource's last name
	Display Name	Resources display name
Capacity	No. of Resources	Default no. of resources
	Planned Availability Calculation	Clocked Time Availability is calculated as relation between actual Up time to actual Total time Basic Calendar Availability is calculated as relation between actual up time to basic calendar value of planned hours for a specified day. V-APS Resource Calendar Availability is calculated as relation between actual Up time to Planned Up as per V-APS schedule for specified Work unit/Machine
Workbench	ID	ID for accessing the workbench
	Password	Password to access the workbench
	Time zone offset	Difference between resources time and the LYNQ server time
Groups	Group Name	The group the resource belongs to. Groups are integrated with messaging and alerts and can also be used to restrict certain functionality within the workbench.

LYNQ

Data collection

Features
Look out for these features in this section of the user guide.
Refer to the Advanced Uses Guide to understand the factory automation feature.

Frontline managers need complete visibility and control of the shop floor to prevent problems. Collecting data by conventional methods can be complicated, time-consuming and expensive.

With LYNQ's configurable shop floor data collection (SFDC) terminals you are able to gather time, attendance and production data from your employees and equipment easily from any device with a browser. Clocking terminals and interactive job lists simplify the execution of production plans and data capture of start and stop times, downtime, labour hours, materials issued, quantities reported, scrap and more.

Core features include:

- Workbench
- Timesheet
- Factory Automation

Workbench

Stop Clock Approach
Unlike the Timesheet which is used to manually enter transactions, the workbench provides a stop clock approach to tracking time. It is an extremely accurate way of tracking employee and equipment time.

Highly Configurable
The workbench is highly configurable. Refer to the advanced user guide for further information.

The workbench feature provides real time tracking of your factory's activities. Designed to interact with manufacturing workers and equipment on the shop floor, the workbench typically runs on portable devices such as tablets and iPads but can still be run on computers and laptops. As LYNQ is a fully web enabled application, users can access the workbench from any remote location. Whether this is from a separate factory location or whilst on the move from a mobile device, the workbench is a scalable and flexible data collection solution.

The workbench layout is divided into 3 distinct sections.

Area	Purpose
Header	Navigational area for switching between employee/equipment Lookup option to select additional equipment Color coded live activity status Grey Bar – undefined activity Green Bar – setup activity Yellow Bar – setup, teardown, wait activity KPI information relating to employee/equipment Live message center new message indictor Quick navigation to the workbench clock-in screen (HOME)
Body (Job order List)	Task list filtered by period: Active task(s) for employee Scheduled task(s) by equipment
Footer	Buttons to perform functions set by the terminal configuration Green Buttons – functions for employee Grey Buttons – functions for equipment (data collection enabled)

The workbench will behave differently depending on the whether the equipment is activated for data collection. The Active Yes/No setting against the equipment record, will determine the functionality available to the user and the level of data that is captured for analytical and tracking purposes.

Key differences between data collection activated equipment

Active	Behavior
Yes	Both employee and equipment transactions are generated Analytical data to support OLE/OEE/TEEP
No	Only employee transactions are generated Analytical data to support OLE

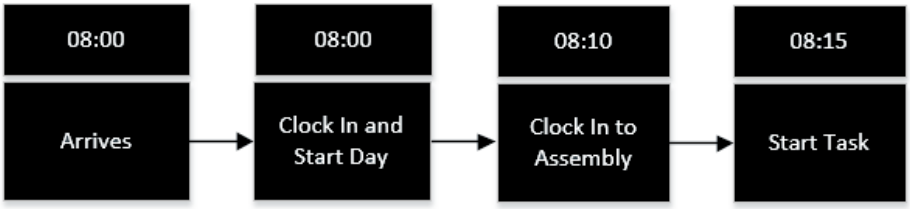
Start your day

Online Version
Click here to read this page online. The online version provides additional links to other related information.

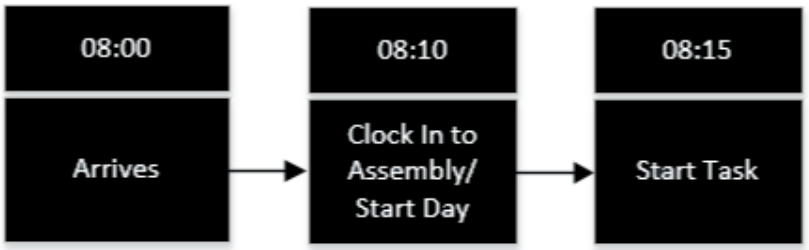
Password Protect
Terminals can be password protected and multiple users can access the same terminal from multiple locations.

Start day may be performed from either an entrance/clock-in terminal or a shop floor data collection terminal. When the employee selects the function to Start Day, the date and time is recorded as the start of their office time.

Using the example below, an employee enters the building and immediately clocks in to the entrance terminal and progresses to Start Day. The employee then takes 10 minutes to walk to his actual place of work. 5 minutes later, he starts his first task of the day. During this time LYNQ has calculated his total office time as 15 minutes.

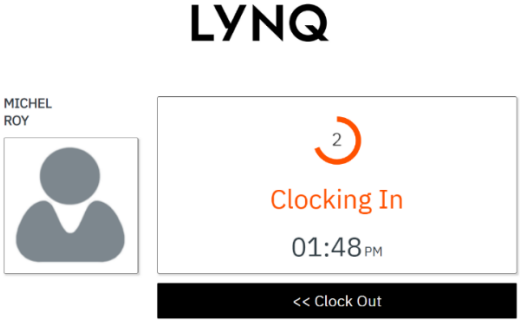


Using the example below, an employee enters the building and takes 10 minutes to walk to his actual place of work. He clocks into the Assembly terminal and selects the function to Start Day. 5 minutes later, he starts his first task of the day. During this time LYNQ has calculated his total office time as 5 minutes.



Clock in to start your day using the entrance terminal

1. Click Workbench
2. Click Terminals
3. Click Entrance
4. Enter a valid employee ID that is activated
5. Click Login



LYNQ

Messages

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Clocked in Status
Unless configured otherwise, the employee will only be able to send and receive messages within the workbench

Once clocked into the workbench an employee will have instant access to messages that have been sent and received to/from their immediate line manager. It's advisable to review all messages prior to starting any work activities for the day. If there are any unread messages the mail icon will appear orange to alert the employee to check their messages.

The following steps describe how to send messages

1. Select Messages.
2. Select New.
3. Enter a value in the subject field.
4. Enter a value in the body field.
5. Select Send.

The message will be sent automatically to the employee's line manager. The message center indicator will change color on the line manager's screen to indicate they have a new message.

LYNQ

Starting and stopping a task

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Task Colours
The colours of different task types can be customised under advanced settings, definitions, diversions.

Continuous tracking
You do not need to keep the browser open to track labour. Even after closing the browser, LYNQ will continue to track hours.

Stopping tracking
To stop the tracking of employee or equipment hours, select stop task. The end day function will also stop tracking hours for running tasks.

Multiple Tasks
If your configuration allows you are able to start multiple tasks. How time is allocated between these tasks is determined on your advanced settings. Refer to the advanced user guide for further information.

The workbench splits operations into tasks. You can have more than one task for an operation. This may be the case when your operation involves both setup and runtime time elements. Instead of seeing just one task with both time elements, you will see two tasks. This allows you to manage operations at a granular level.

Tasks can be started by selecting a scheduled task from the equipment job order list or by clicking on the add task option in either the employee workbench or the equipment workbench. LYNQ is configured to automatically start job orders on the planned equipment when an employee starts a task from the employee workbench. The reverse behavior will happen if an employee starts a task from the equipment workbench.

Labour and equipment time will be captured from the moment the task is started.

To start a scheduled task from the equipment job order list Click on chosen linked equipment in the workbench.

1. Click Turn On
2. You will now see tasks scheduled for this equipment
3. Click on the task you want to start
4. Click Start

Once the task has been started you will see an indicator against the task in the workbench showing that either the employee and/or equipment is running the task. In addition the employee or equipment in the header section will have a coloured vertical line to the left of the image to indicate what type of task is running.

Starting an un-scheduled task

1. Click Add Task
2. Click on the task you want to start
3. Click OK

Stopping a task

1. Click on the task you want to stop
2. Click Stop

Report operational quantity

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Report Multiple
You can select multiple job orders when reporting a quantity. The report screen will move to the next job order once reported.

Report Screen
The report screen can be customised if you wish to see additional fields. Refer to the advanced user guide for further details.

Reject Codes
The reject codes that you see in the dropdown box should mirror the reject codes you have in Enterprise Resource Planning

Quantities for an operation are entered using the report function. The task in the workbench will show the number of remaining quantities to complete for that particular task. Quantities can only be entered for runtime operations.

You can report good and bad quantities throught the report function.

To report good quantity completed

1. Click on the Task
2. Click Report
3. Enter the appropriate quantity in the Quantity field
4. Click on Report

The Qty (Today) column is updated, and the remaining quantity column is reduced by the good quantity reported. A transaction for the quantity will be created and can be seen in the Transaction Review screen.

To report bad quantity completed

1. Click on the Task
2. Click Report
3. Enter the appropriate quantity in the Reject field
4. Select a reject reason code
5. Enter any additional comments
6. Click on Report

The reject (Today) today column is updated, and the remaining quantity column is reduced by the bad quantity reported. A transaction for the quantity will be created and can be seen in the Transaction Review screen.

LYNQ provides an option to report materials as you report quantity. When this setting is enabled, the user is automatically directed to issue materials after reporting a quantity if material is attached to the operation. See the section Report Material Issues for further information.

LYNQ

Report status complete

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Re-open Operation
Don't forget report status can be used to re-open a completed operation

The status field on the report screen allows you to change the status of a task.

The options for changing status are

- No change
- Complete
- Re-open

When a task is processed as complete the task will disappear from the workbench screen and a new transaction for a status change is generated.

When a task is processed as re-open the task will re-appear on the workbench screen and a new transactions for a status change is generated.

To report a task as complete

1. Click on the Task
2. Click on Report
3. Select Complete from the Status lookup
4. Click on Report

To report re-open a task

1. Click on the Task
2. Click on Report
3. Select Re-open from the Status lookup
4. Click on Report

Report production issues

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Abnormal Tracking
LYNQ may be configured to automatically prompt you to raise a production issue if you are reporting slower or faster than expected runtime. The track abnormal progress setting in advanced settings controls this behaviour.

Production issues can be raised at any time through the workbench. Employees can quickly raise issues using the pre-defined issue types. Issues are visible form the Issue Log screen and any other relevant screens that the issue relates to. Depending on your issue management process you may consider whether you allow employees to raise production issues from the Workbench.

Predefined production issues include:

- Breakdowns
- Health & Safety
- Minor Stops
- Production Rejects
- Reduced Speed
- Setup & Adjustments
- Startup Rejects

To manually raise a production issue:

1. Click production issue
2. Click on a type of issue
3. Click on an issue
4. Select the appropriate task from the task lookup field
5. Select the specific work unit from the equipment lookup field
6. Select the employee from the employee lookup field
7. Enter a value in the hours field
8. Enter a comment in the comments field
9. Click OK

Once the production issue is raised by the employee, it will appear in the Issue Log. Unresolved issues will be indicated by an orange circle above the issue log menu. Once resolved the orange circle with disappear.

It's also possible to raise production issues automatically from the equipment workbench with the alerts feature. For further information refer to the advanced user guide.

Report material issues

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Bins, Serials & Lots
You must specify when reporting, any additional attributes for material. This is important in cases when the material is lotted or serialised or when the material is stored in a bin location.

Extended Details
Columns will only appear for data that is required. You must split the entry by quantity if the lot number, serial number or bin is a unique value.

Validation Rules
Validation rules determine whether you are able to enter material or kit issues without specifying extended details. Refer to the advanced user guide for further details.

Material can be reported from the workbench. Materials are associated to the job order or operation and captured when the job order is created.

There are two different functions available to issue materials

- Material Issue to issue against the select job order or operation
- Kit Issue to issue against multiple job orders and by parent qty

To perform a material issue

1. Click on a Task
2. Click Issue Materials
3. Click on the relevant job order in the header section
4. Enter a quantity in the Issue Materials field
5. If the material is binned, lotted or serialised click the extended details button to the right of the quantity field
6. Enter the correct extended details such as serial number etc.
7. Click OK

To perform a kit issue

1. Click on a Task
2. Click Kit Issue
3. Filter the list if required
4. Enter the required quantity in the Enter job order qty field.
5. If the material is binned, lotted or serialised click the extended details button to the right of the quantity field
6. Enter the correct extended details such as serial number etc.
7. Click OK

Transactions for both material and kit issues are created immediately after reporting and can been viewed in the Transaction Review screen

LYNQ

Report non-productive time

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Integration
It's possible to configure buttons on the workbench for non-productive time that relate to a works job order. This will ensure your non-productive time is posted to Enterprise Resource Planning.

There are various buttons on the workbench that allow an employee to report non-productive time. Non-productive time may be applied when the employee goes on a break, goes to lunch, goes into meetings or is performing training related activites.

The workbench can be customised to support the different types of non-productive time for your organisation. Refer to the advanced user guide for further details on this subject.

By default the workbench will continue to track hours against tasks when the user selects any of the non-productive buttons.

To report non-productive time (Break)

1. Click on Break
2. Click Return to Previous (on return)

To report non-productive time (Lunch)

1. Click on Lunch
2. Click Return to Previous (on return)

Reporting production

Online Version
Click here to read this page online. The online version provides additional links to other related information.

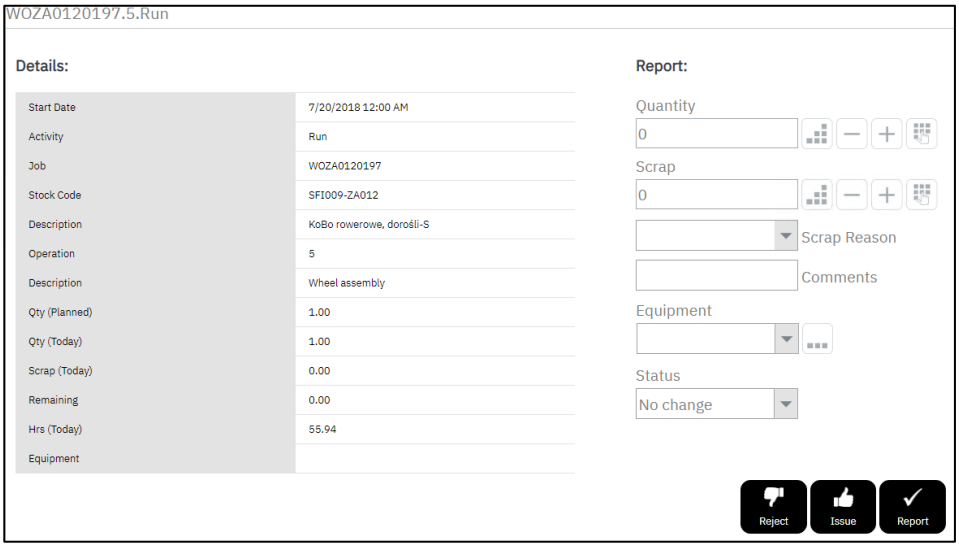
Production Reporting
The report screen will provide a visual indicator to the user when reporting production will take place.

Production reporting is entered using the same report function as operational quantity. Production is reported when a quantity is entered against a job order for the last operation of activity type Run.

Production will however only post to Enterprise Resource Planning when the option to post this is turned on in the LYNQ api Integration settings. When entering quantity transactions for the final run operation, additional information will be required if the finished good item is serialized, lotted or to be receipted into a warehouse that has bins enabled.

Additional details must be entered by clicking on the Extended Details button.

Refer to report operational quantity for further information.



End your day

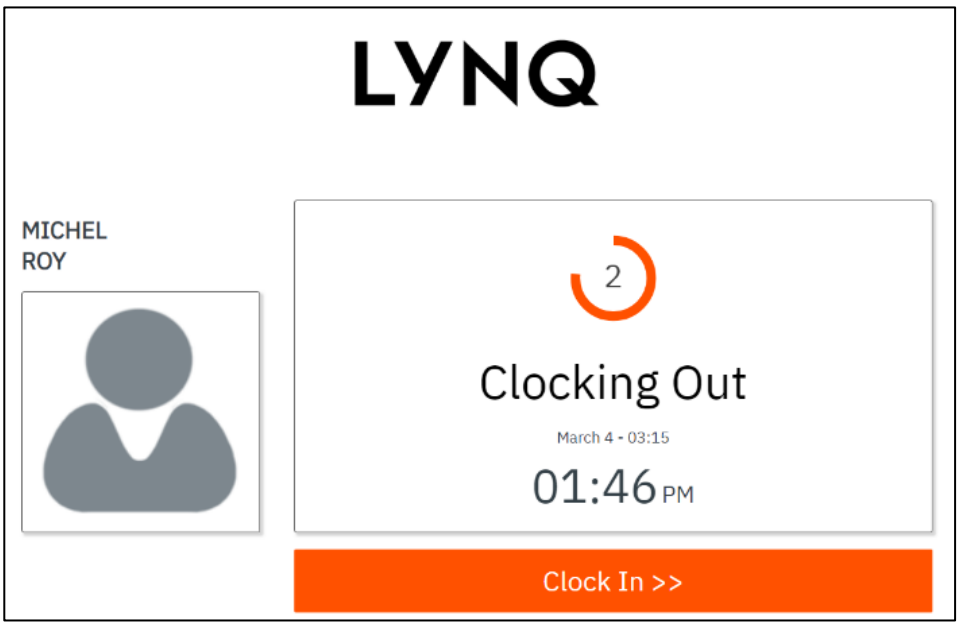
Online Version
Click here to read this page online. The online version provides additional links to other related information.

Equipment Off
The equivalent end day function for equipment is turn off. You should turn off your equipment where appropriate before ending our day.

The end day function is used to clock the employee out of the workbench. Any active tasks will be stopped immediately and the employee's status will change to clocked off. The employee's office time will stop being accounted for. The end day function can be run multiple times per day. By default, the end day function is provided on entrance terminals and shop floor data collection terminals.

To end your day

1. Click on the **Employee** workbench.
2. Select End Day.



LYNQ

Timesheet

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Default Values
The layout and default values provided in Timesheets can be customised by Administrators within Advanced Settings

Timesheet entries can be used by employees to enter data rather than using the real time tracking in the workbench. Timesheet entries are manually created by the application user and can be approved, submitted or excluded from posting no differently than transactions generated by the workbench feature.

The types of transactions supported by the timesheet include:

- Labour hours
- Quantity
- Scrap
- Status changes

To enter a transaction in the timesheet

1. Click Timesheet Entry
2. Click [...] in the Employee field
3. Select Employee
4. Click OK
5. Click [...] in the Task field
6. Select Task
7. Click OK
8. Click [...] in the Equipment field
9. Select Equipment
10. Click OK
11. Enter a value in the Hours, Quantity, Reject or Status field
12. Click the + symbol
13. Click Save

Once saved, the transaction will appear in the Transation Review screen and data will shortly appear under reports and dashboards.

LYNQ

Tracking

Current Activity
Dashboards and reports are based on actual current activity and provide insight into how individual resources (employees and equipment) are performing today and your actual product output (parts count).

LYNQ provides several features to track, summarise and evaluate information related to resources utilised in production. Including live dashboards with supporting metrics for Overall Labour Effectiveness (OLE) and Overall Equipment Effectiveness (OEE).

Core features include:

- Tracking dashboard
- Employee Status
- Equipment Status
- Job Status
- Employee Performance
- Equipment Performance
- Management Reports

LYNQ

Employee KPIs

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Employee Availability
Known as worker efficiency, considers the relationship between actual work time related to production jobs and the actual attendance (clocked) time of the employee.

Employee Performance
Known as worker effectiveness, compares the actual run rate produced by the employee with the planned run rate. To determine the actual run rate a production quantity must be reported.

Employee Quality
Known as the worker quality ratio, is the relationship between the good quantity and the total quantity produced. To determine the quality ratio a production quantity must be reported. For the ratio to be less than 100% a scrap (bad) quantity must be reported.

Employee Availability

Calculation	Actual Work Time / Actual Attendance Time
Measure	It is measured as a percentage (%). The higher the percentage the better.
Report(s)	Dashboard shows overall worker efficiency for today Employee Status shows a worker's efficiency for today Employee Performance shows current and historical efficiency for an individual worker

Employee Performance

Calculation	Planned Run Time x Production Quantity / Actual Run Time
Measure	It is measured as a percentage (%). The higher the percentage the better.
Report(s)	Dashboard shows overall worker performance for today for all workers Employee Status shows a worker's performance for today Employee Performance shows current and historical performance for an individual worker

Employee Quality

Calculation	Good Quantity / Total Quantity
Measure	It is measured as a percentage (%). The higher the percentage the better.
Report(s)	Dashboard (Tracking) – shows overall worker quality ratio for today for all workers Employee Status (Tracking) – shows a worker's quality ratio for today Employee Performance (Tracking) – shows current and historical quality ratio for an individual worker

LYNQ

Overall labour effectiveness (OLE)

Online Version
Click here to read this page online. The online version provides additional links to other related information.

(OLE)
Availability, performance and quality as a single key performance indicator (KPI). The average value of OLE in a manufacturing company is 40%. World class manufacturers operate at 75% or above depending on their industry (KPI).

Overall Labour Effectiveness (OLE)

Calculation	Availability x Performance x Quality
Measure	It is measured as a percentage (%). The higher the percentage the better.
Report(s)	Dashboard shows the overall effectiveness for today for all workers Employee Status shows a worker's overall effectiveness for today Employee Performance shows current and historical overall effectiveness for an individual worker

LYNQ

Equipment KPIs

Online Version
Click here to read

Equipment Availability
Known as equipment efficiency, considers the relationship between actual productive time and the planned busy time of the equipment. You can set the planned busy time for each piece of equipment to be based on the schedule, the start/stop time or calendar time. See seat maintenance to set this value.

Equipment performance
Known as equipment effectiveness, compares the actual run rate produced by the equipment with the planned run rate. To determine the actual run rate a production quantity must be reported.

Equipment Quality
Known as the equipment quality ratio, is the relationship between the good quantity and the total quantity produced. To determine the quality ratio a production quantity must be reported. For the ratio to be less than 100% a scrap (bad) quantity must be reported

Equipment Availability

Calculation	Actual Productive Time / Planned Busy Time
Measure	It is measured as a percentage (%). The higher the percentage the better.
Location	Dashboard shows overall equipment efficiency for today Equipment Status shows equipment efficiency for today Equipment Performance shows current and historical efficiency for an individual piece of equipment

Equipment Performance

Calculation	Good Quantity / Produced (Total) Quantity
Measure	It is measured as a percentage (%). The higher the percentage the better.
Location	Dashboard shows overall quality ratio for today for all equipment Equipment Status shows the quality ratio for a specific piece of equipment for today Equipment Performance shows the current and historical quality ratio for an individual piece of equipment

Equipment Quality

Calculation	Good Quantity / Produced (Total) Quantity
Measure	It is measured as a percentage (%). The higher the percentage the better.
Location	Dashboard shows overall quality ratio for today for all equipment Equipment Status shows the quality ratio for a specific piece of equipment for today Equipment Performance shows the current and historical quality ratio for an individual piece of equipment

LYNQ

Overall equipment effectiveness (OEE)

Online Version
Click here to read this page online. The online version provides additional links to other related information.

(OEE)
Represents equipment availability, performance and quality as a single key performance indicator (KPI). The average value of OEE in a manufacturing company is 60%. World class manufacturers operate 85% or above depending on their industry

Overall Equipment Effectiveness (OLE)

Calculation	Availability x Performance x Quality
Measure	It is measured as a percentage (%). The higher the percentage the better.
Location	Dashboard shows overall equipment efficiency for today Equipment Status shows equipment efficiency for today Equipment Performance shows current and historical efficiency for an individual piece of equipment

Tracking dashboard

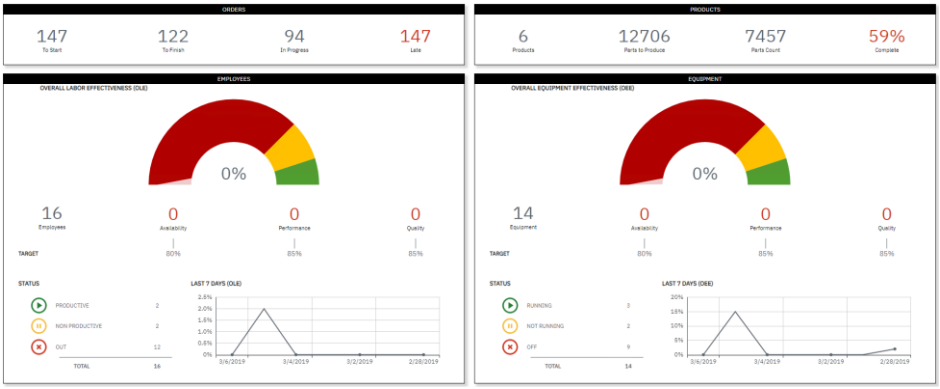
Online Version
Click here to read this page online. The online version provides additional links to other related information.

OLE
Views showing overall labour effectiveness. Availability, performance and quality

OEE
Views showing overall equipment effectiveness. Availability, performance and quality

Products
Views showing products, parts to produce, parts count and % complete

High level view of your job orders, products, employees and equipment. Select specific employees and equipment to view status and performance for a selected time period.



To open the Dashboard:

1. Select Dashboard in Tracking

LYNQ

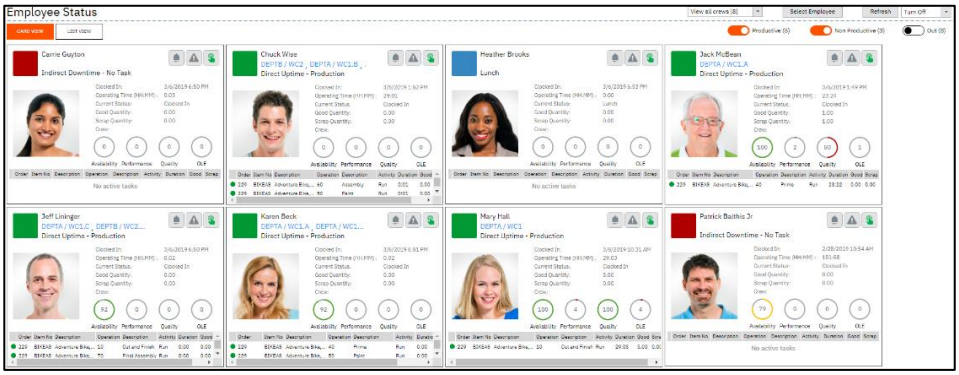
Employee status

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Card View
Displays a card summary of the employees selected. Clicking on employee card takes you to extended details of employee status

List View
A line by line report by employee. Click on the employee name to view extended details of employee status. Additionally, in this view, there is a link to view the job order status for each job order the employee is involved with. Below each column heading there is a search/filter box. The pin next to the search box provides a set of filtering options. Additionally, in list view there is functionality to export reports, create custom filters, customize layouts, and apply defined actions to multiple records.

Employee status provides an at a glance live view of employees, what their current status is, what they are working on, and how they are performing during their shift. Drill down into each employee card for a detailed view. Use status indicators to access their workbench to help with clocking and other management issues.



From this simple, single status screen you can get a lot of information. The coloured plates show you their status.

- GREY – Out
- GREEN – Productive
- YELLOW – Direct downtime (setting up machine)
- GREEN & YELLOW – working productively on some job orders while setting up others
- RED – Non-productive (breaks, lunch etc...)

From this screen you can also see any alerts or issues that are happening, allowing team leads and supervisors to work to resolve the problems ASAP. If you have the permissions you can open the workbench terminal they are working from by clicking on the green finger icon.

To open Employee Status:

1. Select Employee Status in Tracking

LYNQ

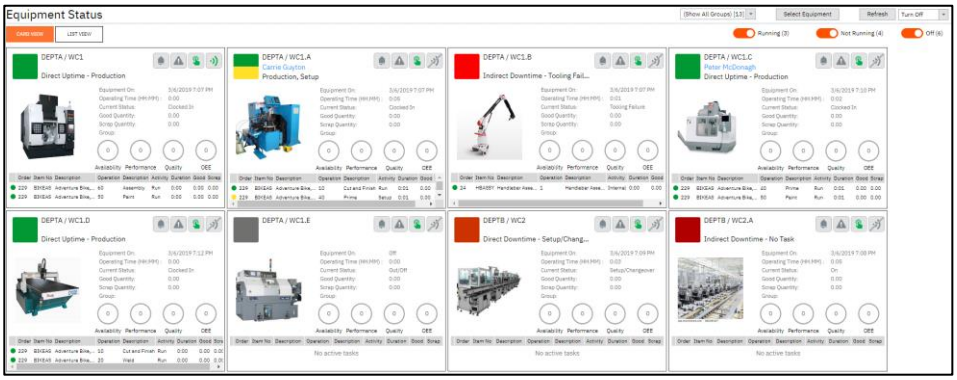
Equipment status

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Card View
Displays a card summary of the equipment selected. Clicking on equipment card takes you to extended details of equipment

List View
A line by line report by equipment. Click on the equipment name to view extended details of equipment status. Additionally, in this view, there is a link to view the job order status for each job order the equipment is involved with. Below each column heading there is a search/filter box. The pin next to the search box provides a set of filtering options. Additionally, in list view there is functionality to export reports, create custom filters, customize layouts, and apply defined actions to multiple records.

Equipment status provides an at a glance live view of your equipment, what the current status is, what jobs they are running, and how they are performing during the shift. Drill down into each equipment card for a detailed view. Use status indicators to access the equipment workbench for management purposes.



From this simple, single status screen you can get a lot of information. The coloured plates show you their status.

- GREY – Off
- GREEN – Running
- YELLOW – Direct downtime (for example setup or teardown)
- RED – Indirect downtime (breakdowns and failures)

From this screen you can also see any Alerts or Issues that are happening with the equipment. This allows team leads and supervisors to work to resolve these problems ASAP and prevent further loss. You can also access the equipment terminals from this screen.

To open Equipment Status:

1. Select Equipment Status in Tracking

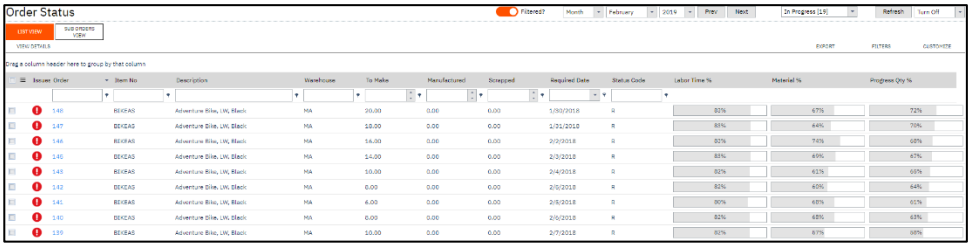
LYNQ

Job status

Online Version
Click here to read this page online. The online version provides additional links to other related information.

List view
The sub job view provides the same details as the list view but from here you can expand and see the sub job order information.

Job status provides a review open job orders to check their current live status. Use progress bars to gain visibility of hours booked, materials issued and overall progress at a glance. Drill down to view specific job details including attached documents and issues recorded.



Live indicators show:

- Labour % - shows how much labour has been expended on the Job Order
- Materials % - show what % of materials have been issued to the Job Order so far
- Progress % - shows how the Job Order is progressing based on Operational Quantity reporting

You can also see which Job Orders have issues.

To open Job Status:

1. Select Job Status in Tracking

LYNQ

Employee performance

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Dashboard
Graphical presentation of employee performance including at a glance Hrs/Qty stats, Key Performance Indicators, and Loss percentages.

Summary
Period level line by line representation of employee performance with filtering functions and export facility.

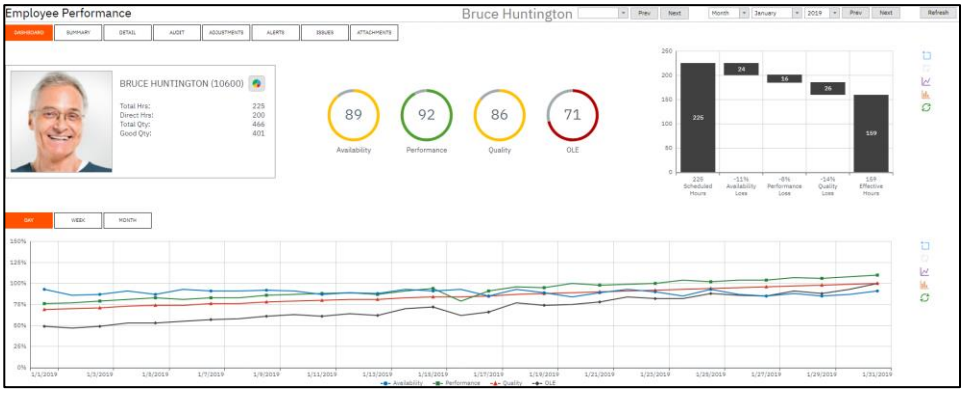
Detail
Operation level line by line representation of employee performance with customization, filtering and export facilities.

Audit
Chronological transaction level report for detailed analysis with filtering and export facilities.

Alerts & Issues
Report of any alerts & issues.

Attachments
View or delete attachments.

Employee Perfomance provides detailed analysis of an individual employee's performance over time with audit trails and a record of the issues encountered. This report displays the overall labour effectiveness (OLE) results with support metrics for Availability, Performance and Quality.



To open Employee Performance:

1. Select Employee Performance in Tracking

LYNQ

Equipment performance

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Dashboard
Graphical presentation of equipment performance including at a glance Hrs/Qty stats, Key Performance Indicators, and Loss percentages.

Summary
Period level line by line representation of equipment performance with filtering functions and export facility.

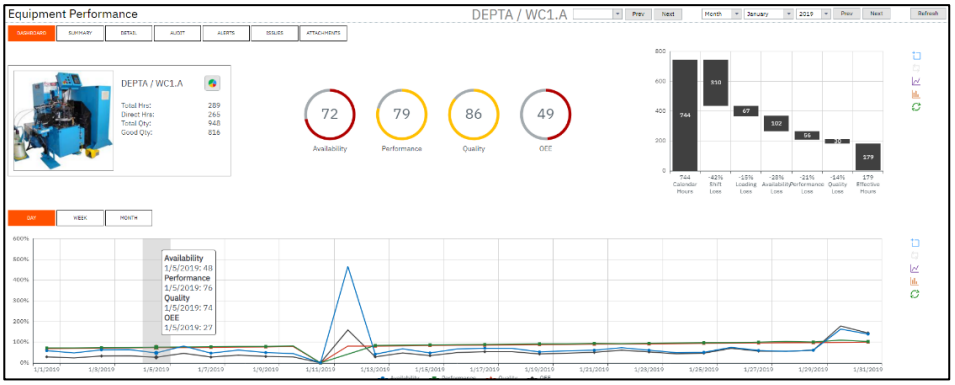
Detail
Operation level line by line representation of equipment performance with customization, filtering and export facilities.

Audit
Chronological transaction level report for detailed analysis with filtering and export facilities.

Alerts & Issues
Report of any alerts & issues.

Attachments
View or delete attachments.

Equipment Perfomance provides detailed analysis of an individual piece of equipments performance over time with audit trails and a record of the issues encountered. This report displays the overall equipemnt effectiveness (OEE) results with support metrics for Availability, Performance and Quality.



To open Equipment Performance:

1. Select Equipment Performance in Tracking

LYNQ

Management Reports

Online Version
Click here to read this page online. The online version provides additional links to other related information.

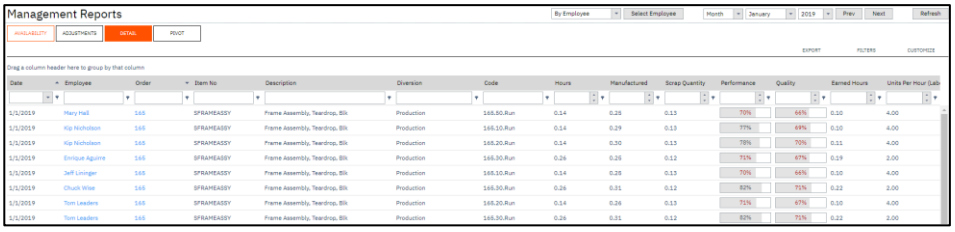
Availability
Report of availability, with filters to display separate values for uptime/downtime. Default shows total.

Adjustments
Detailed reports by operational type (Downtime, Uptime) with direct access to edit clock-in/out times.

Detail
Operation level line by line representation of employee's performance with customization, filtering and export facilities.

Pivot
Facility to view, create and edit Pivot table reports. Customize function displays fields available.

Reports provide analytics associated with the resoures availability (uptime/downtime) for management purposes. Includes daily clock hours reconciliation and option to create custom management reports using pivot tables.



To open Management Reports:

1. Select Management Reports in Tracking

Execution management

Execution Control
Control which production activities are available to your users with configurable terminals

LYNQ provides you with an ability to define and fully customise the execution of your production activites.

Core features include:

- Terminal Maintenance
- Transaction Review

LYNQ

Terminal Maintenance

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Password Protect
Terminals can be password protected and multiple users can access the same terminal from multiple locations.

Terminals are a feature in LYNQ that determine the functions that are available to a user for data collection and reporting purposes. The terminal definition represents a collection of predefined workbench elements which can be easily added or removed to suit the functions of your employees. Terminals are highly customizable and a flexible feature of the application. There are 2 types of terminal in LYNQ:

- Clock-In terminal
- Shop Floor terminal

Clock-In terminals are typically located at the entrance of the building or production unit to track employees clock in and clock out time. This type of terminal may be used by all employees regardless of their functional role. Clock-In terminals are typically limited in their functionality.

Shop Floor terminals are typically located on the shop floor and situated within the relevant production unit. These terminals can be configured by equipment, crew or employee to display scheduled/unscheduled shop job orders or only shop job orders within a specific time frame or within custom filter definitions. Additional elements can be included, (e.g. Break, Lunch, Material Issue, Kit Issue, Production Issues) providing employees with the ability to complete all their reporting requirements from one simple screen.

LYNQ is shipped with 8 pre-configured workbench terminal definitions ready for immediate use. The configuration of these terminals has been designed to service well established manufacturing models and you can start to use them as a template with minimal further configuration.

Terminal Name	Description
1 – Entrance	Clock in and out to start/end your data
2 – Basic	Basic terminal with limited options
3 – Advanced	Advanced terminal with extended functionality
4 – Crew	Advanced terminal with crew functionality
5 – Time Entry	Time entry terminal for employees using timesheets
6 – Equipment	Equipment terminal with downtime tracking
7 – Materials	Advanced terminal with materials issue capabilities
8 – Office	Office terminal for non-manufacturing personnel

LYNQ

Workbench buttons

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Custom Buttons
LYNQ is shipped with pre-configured buttons for common tasks. You can create your own buttons and display them on different terminals. Refer to the advanced user guide for further information

Buttons on the workbench can apply to employees or equipment or to both types of resources. The buttons on the workbench are fully customisable and additional information can be found in the advanced user guide.

Button	Purpose	Employee	Equipment
Start Day	Clock employee in	X	
Start	Start selected task(s)	X	
Stop	Stop selected task(s)	X	
Report	Report quantity, scrap, status for selected job order(s)	X	
Add Tasks	Start unscheduled task(s)	X	X
Recent Tasks	View of recent tasks that are started/stopped	X	
Barcode Entry	Select task(s) by scanning a barcode	X	
Break	Break diversion	X	
Lunch	Lunch diversion	X	
Meeting	Meeting diversion	X	
Training	Training diversion	X	
Issue Materials	Issue materials for active task(s)	X	
Kit Issue	Kit issue of materials for active/non- active tasks	X	
Messages	Compose, read and view application messages	X	
Production Issue	Create production issue	X	
My Time	Report time by manual timesheet entry	X	
End Day	Clock Out	X	
Turn On	Turn equipment on		X
Equipment Failure	Report downtime due to equipment failure		X
Tooling Failure	Report downtime due to tooling failure		X
Unplanned Maintenance	Report downtime due to unplanned maintenance		X
Material Shortage	Report downtime due to material shortage		X
Operator Shortage	Report downtime due to operator shortage		X
Setup/Changeover	Report downtime due to setup/changeover		X
Turn Off	Turn equipment off		X

Copying terminals

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Unique Terminals
Create unique terminals for your different work units. This allows you to control how you want different terminals to behave

Creating new terminals is easily achieved by using the copy function within terminal maintenance. When copying terminals, the functions associated with the terminal are also copied. Refer to the advanced user guide to better understand how terminals can be customised in much further detail.

To copy a terminal:

1. Click Terminal Maintenance
2. Tick one of the pre-defined terminals
3. Click Copy
4. Enter a suitable value in the Name field for the new Terminal
5. Select [...] in the Linked Equipment field
6. Click on the work units the new terminal will relate to
7. Click OK
8. Click Save.

To test your new terminal:

1. Click Workbench
2. Click Terminals
3. Select your new terminal created earlier
4. Enter an employee ID
5. Click Login

LYNQ

Transaction review

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Transaction Generation
The LYNQ Platform Windows Service on the Web Server is responsible for consolidating your activity into actual transactions that can be posted to Enterprise Resource Planning. The workbench will still operate with this service not running but you will not see new transactions in the Transaction Review screen until the service is started.

Record Security
It's possible to configure LYNQ so supervisors and line managers can only see their own team member's transaction records. Refer to the Advanced User Guide for further information.

All actvities performed within the workbench are converted into summary transactions so they can be reported on easily in LYNQ and posted to Enterprise Resource Planning. Depending on your configuration, transactions may appear immediately after peforming the activity or at differnet stages in your day. (i.e. when you go to break, lunch or end day). Refer to the advanced user guide for further information on this subject.

The table below provides an overview of which different transaction types are created based on the type of activity performed.

Activity	Transaction Type	Default Status	Integrated to ERP
Office Time (No Task)	Labour	Excluded	No
Labour	Labour	Unposted	Yes
Machine Time	Machine Time	Excluded	Yes
Quantity (Operation & Production Reporting)	Quantity	Unposted	Yes
Operation Reject	Scrap	Unposted	Yes
Indirect (i.e. Break)	Labour	Excluded	No
Indirect by Job order	Labour	Unposted	Yes
Material Issue	Material Issue	Approved	Yes
Kit Issue	Material Issue	Approved	Yes
Production Issue	Production Issue	Excluded	No
Status	Status	Unposted	Yes

By default, indirect transactions such as break, lunch etc, machine time transactions and production issue transactions are excluded from posting to Enterprise Resource Planning. Transaction rules determine the default status of transactions. Depending on your configuration, you may have different transaction rules configured to change the default approval status.

Refer to the advanced user guide for further information on this subject.

To open Transaction Review:

1. Select Transaction Review in Execution Management

LYNQ

Transaction review functions

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Process flow
The job order of the tabs in the transaction review screen help to the approval and posting process flow.

Different Functions
The functions change depending upon which tab you display.

Let's take a look at the layout and the different functions on the transaction review screen to understand what it means. The screen is split into tabs.

Submitted

If LYNQ is not configured to automatically approve transactions, new transactions generated by the Workbench and the Timesheet feature will appear in the Submitted tab with a default status of unposted. Once the transaction has been approved it will appear under the Approved tab with a status of Pending Posting.

Approve	**Approve an unposted transaction**
New	Create a new transaction
Edit	Edit an unposted transaction
Copy	Copy an existing transaction
Exclude	Exclude an unposted transaction

Approved

The approved tab shows all transactions that have been approved for posting to Enterprise Resource Planning. Transactions with a status of Pending Posting, Posted or Posting Error can be seen from this tab.

Approve	Re-approve a transaction with the status of posting error
Unpost	Unpost a posted transaction or reset status to unposted
New	Create a new transaction
Edit	Edit a transaction with the status of pending posting
Copy	Copy an existing transaction
Exclude	Exclude a transaction with the status of pending posting
Delete	Delete a transaction with the status of pending posting

Errors

The errors tab shows transactions which have produced an error when posting to Enterprise Resource Planning. Double click on the transaction to see the error description

Approve	**Re-approve a transaction with the status of posting error**
Edit	Edit a transaction with the status of posting error
Copy	Copy an existing transaction
Exclude	Exclude a transaction with the status of posting error
Delete	Delete a transaction with the status of posting error

LYNQ

Transaction review functions

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Customise
Use the customise function to add or remove columns on the screen. Each tab can have different columns showing.

Transaction types
Use the transaction types filter to show filter different transaction types.

All

The All tab shows all transactions regarding of their status.

Approve	Approve an unposted transaction
Unpost	Unpost a posted transaction
New	Create a new transaction
Edit	Edit an unposted transaction
Copy	Copy an existing transaction
Exclude	Exclude a transaction
Delete	Delete an unposted/pending posting transaction

Excluded

The exclusions tab shows transactions which have been excluded from posting to Enterprise Resource Planning. (i.e. Indirect Task Codes such as break, lunch, training, meetings, office time)

Approve	Approve a transaction with the status of excluded
New	Create a new transaction
Edit	Edit a transaction with the status of excluded
Copy	Copy an existing transaction
Delete	Delete a transaction with the status of excluded

LYNQ

Approving transactions

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Grouping
Grouping your employee data can help to speed up the approval process. No-one wants to review every single transaction generated. Start by grouping by employee and then by transaction type. Look at the totals reported for labour. Does the total hours look correct for the employee? If so, approve them from the grouped view. It's quicker and leaves you more time to investigate just the exceptions.

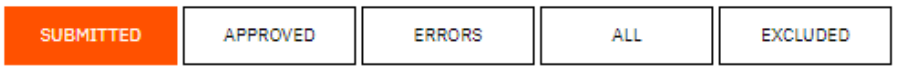
Exclude
There may be times where the employee has generated a transaction in LYNQ but you don't want to post this to Enterprise Resource Planning. This may be where a user has completed the same activity in Enterprise Resource Planning and posting the transaction from LYNQ will duplicate the transaction. In these cases just simply exclude the transaction. Excluded transactions are not posted to Enterprise Resource Planning.

Approving transactions is easy to do and should be done regularly to ensure Enterprise Resource Planning maintains accurate analysis and financial data. Throughout the approval and posting process you will see the transaction change it's status.

Transaction Status	Meaning
Excluded	Transaction has been excluding from posting to Enterprise Resource Planning
Unposted	Transaction has not been approved for posting to Enterprise Resource Planning
Pending Posting	Transaction has been approved and will be posted on next sync to Enterprise Resource Planning
Posted	Transaction has been posted to Enterprise Resource Planning
Posting Error	Transaction cannot be posted to Enterprise Resource Planning due to an error
Pending Unposting	Transaction already posted to Enterprise Resource Planning but will be reversed on next sync to Enterprise Resource Planning
Unposting	Transaction has not successfully been reversed from Enterprise Resource Planning

Use the transaction screen if you wish to approve transactions on a periodic basis regardless of the employee or job order order which can be done in other screens. While the transaction screen shows every detail and each and every transaction can be reviewed, you should consider whether this is (a) an effective use of manager/supervisor time and (b) practical to do so.

Transactions that need to be approved can be reviewed from the submitted tab.



To approve transactions

1. Click Transaction Review
2. Click on the Submitted Tab
3. Set the Date Filter
4. Filter records if required that must be approved.
5. Select all transactions to be approved (left of the Notes column)
6. Click Approve

Once approved the transactions will no longer be seen under the submitted tab but instead will appear under the approved tab. The status of the transaction will change to pending posting. The next time LYNQ api executes it's integration schedule, the transaction will be posted to Enterprise Resource Planning. You can however force the integration to Enterprise Resource Planning by clicking on the sync button.

LYNQ

Adjusting transactions

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Forget to clock out?
If you are forever adjusting employee hours because they have forgotten to clock out, you can automatically setup a schedule to clock out the employee. You can clock out individual employees or a group of employees. You can also do this for break times too or in fact any other type of diversion. Refer to the Advanced User Guide for further information.

There may be times where inaccurate labour time is recorded. This may be due to the employee forgetting to stop a task or perform the end day function. Adjusting time must be completed from the Management Reports screen for office time and labour time.

To adjust Clock In/Out Time

1. Click Management Reports
2. Click on the Adjustments Tab
3. Select the relevant employee
4. Select the relevant day
5. Click Edit under the date from the left window pane
6. Set the correct Clock In and Clock Out date/time
7. Click OK

To adjust the task hours

1. From the same adjustment screen
2. Click Show Transaction List from the right window pane
3. Locate the inaccurate transaction(s)
4. Double click on the transaction
5. Enter the correct duration in the Labour (Hrs) field
6. Click Save
7. Select the transaction you have edited
8. Click Approve

LYNQ

Reversing transactions

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Correcting Mistakes
Dealing with a high volume of posting issues is not good use of your time. You may want to review your processes to ensure that users are using the workbench correctly. Some validation is performed only on posting to Enterprise Resource Planning and good discipline is required.

Transactions with a status of posted cannot be edited. To amend a posted transaction, the transaction must be reversed using the Unpost function. When unposting a transaction, the transaction will be reversed in Enterprise Resource Planning and the status of the transaction in LYNQ will change from posted to Unposted. Transactions with a status of unposted can be edited and re-approved and posted again to Enterprise Resource Planning.

To reverse a posted transaction

1. Click Transaction Review
2. Click on the Approved Tab
3. Select the correct date filter to locate the posted transaction
4. Select the transaction to edit and click Unpost.
5. The status of the transaction will change to PendingUnposting

The next time LYNQ api executes the integration, the transaction will be reversed in Enterprise Resource Planning and the status of the transaction in LYNQ will change to Unposted. The transaction will be reversed on the original transaction date.

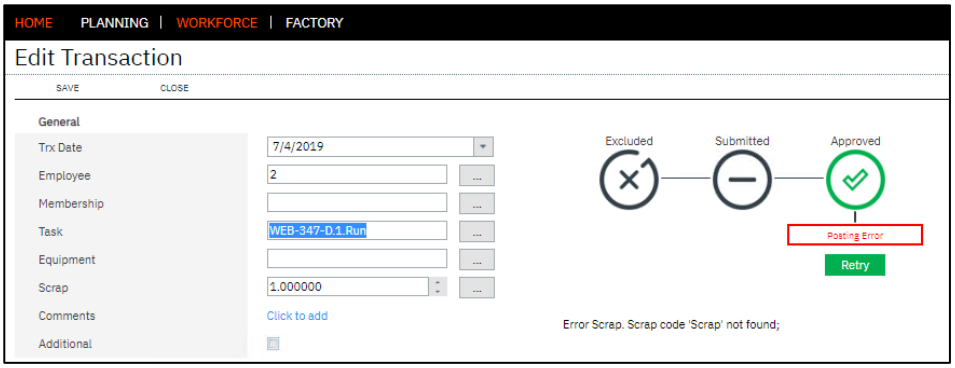
Transaction errors

Online Version
Click here to read this page online. The online version provides additional links to other related information.

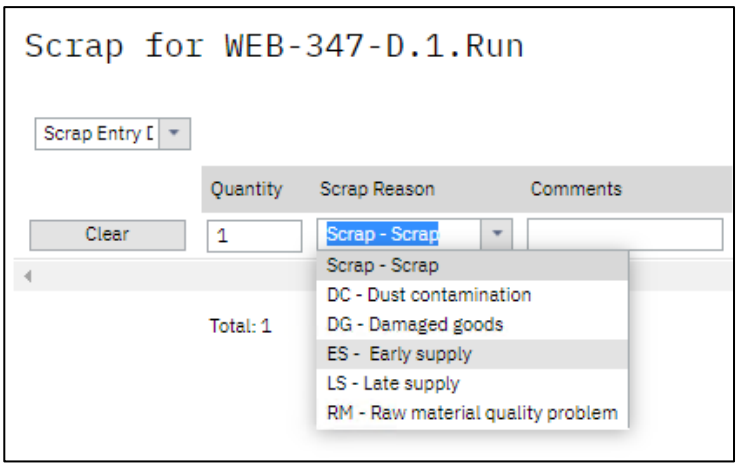
Lots of errors?
Dealing with a high volume of posting issues is not good use of your time. You may want to review your processes to ensure that users are using the workbench correctly. Some validation is performed only on posting to Enterprise Resource Planning and good discipline is required.

There may be occasions where a transaction generated by LYNQ fails to post to Enterprise Resource Planning. Transactions that cannot post due to an error should be corrected and re-approved for posting. Transactions that cannot post to Enterprise Resource Planning can be viewed from the Errors tab in the Tranaction Screen. The transaction will have a status of posting error.

Double click on the transaction to view the details



In the example above the transaction cannot post due to an incorrect scrap reason code. To correct the transaction, the scrap reason code can be edited by clicking on [...] to the right of the scrap field and then the transaction can be set to Retry. Selecting retry from the transaction edit screen will change the status of the transaction to Pending Posting. The next time LYNQ api executes the integration, the transaction will be posted.



Transactions that cannot be posted from LYNQ can be set to Accepted. This means that any corrections will need to be made manually in Enterprise Resource Planning.

In previous versions of LYNQ the labour value was the only field that could be edited in the Transaction Review Screen. This made the correction of data errors long winded to resolve with the user having to copy, delete and then edit the copied transaction.

Transaction errors

Online Version
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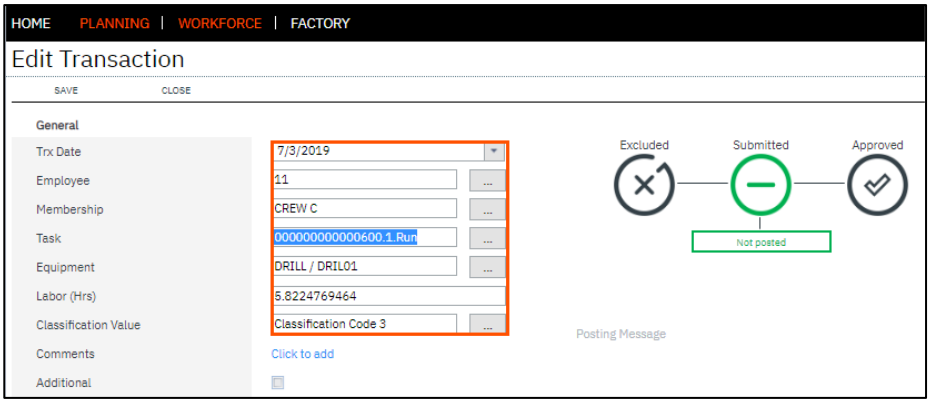
Lots of errors?
Dealing with a high volume of posting issues is not good use of your time. You may want to review your processes to ensure that users are using the workbench correctly. Some validation is performed only on posting to Enterprise Resource Planning and good discipline is required.

Now when editing Transactions, it's possible to edit:

1. Transaction Date
1. Employee Code
2. Membership Code
3. Task Code
4. Labour Hrs
5. Classification Value



For a full list of errors please logon to the support portal and search based on your error code www.support.lynqmes.com

LYNQ

Continuous Improvement

Dashboard
Graphical presentation of employee performance including at a glance Hrs/Qty stats, Key Performance Indicators, and Loss percentages.

Summary
Period level line by line representation of employee performance with filtering functions and export facility.

Detail
Operation level line by line representation of employee performance with customization, filtering and export facilities.

Audit
Chronological transaction level report for detailed analysis with filtering and export facilities.

Adjustments
Detailed reports by operational type (Downtime, Uptime) with direct access to edit clock-in/out times.

Alerts & Issues
Report of any alerts & issues.

LYNQ supports Six Sigma methodologies such as DMAIC (Define, Measure, Analyse, Improve, and Control) by providing the definition of what to measure, the measurement itself and the analysis so that loss can be targeted, reduced and/or eliminated.

This helps to drive continuous improvement within your environment, bringing manufacturing processes under control with greater efficiency and productivity as a result.

Core features of Continous Improvement:

- Loss Management

Loss management

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Six Big Loss
LYNQ supports continuous improvement by providing Six Big Loss, Loading and other analysis. It not only provides the key performance indicators (KPI's), but also provides the metrics and the means of measurement, out of the box

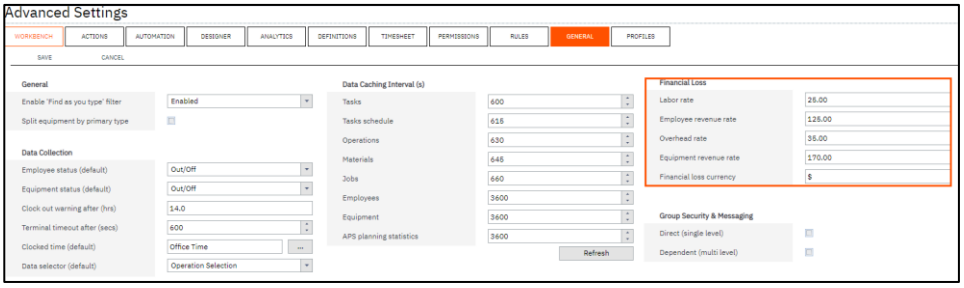
LYNQ supports Six Sigma methodologies such as DMAIC (Define, Measure, Analyse, Improve, and Control) by providing the definition of what to measure, the measurement itself and the analysis so that loss can be targeted, reduced and/or eliminated. This helps to drive continuous improvement within your environment, bringing manufacturing processes under control with greater efficiency and productivity as a result.

The Loss Management report has been enhanced to include four financial loss visualisations:

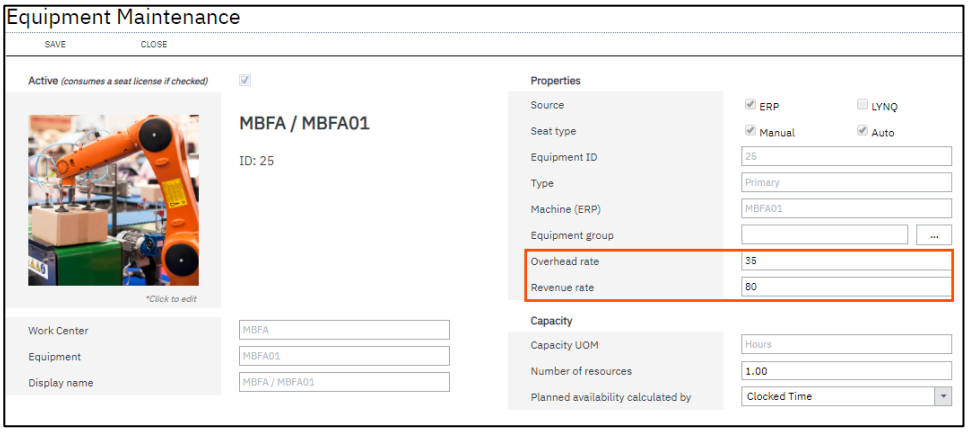
- %
- Hour
- Rate
- Revenue

A default system wide labour rate, employee revenue rate, overhead rate, equipment revenue rate can be setup in Advanced Settings/General. Rates can also be setup at the seat level in seat maintenance which will override the system wide settings.

Financial settings in Advanced Settings:



Rate settings in Equipment Maintenance



LYNQ

Loss management

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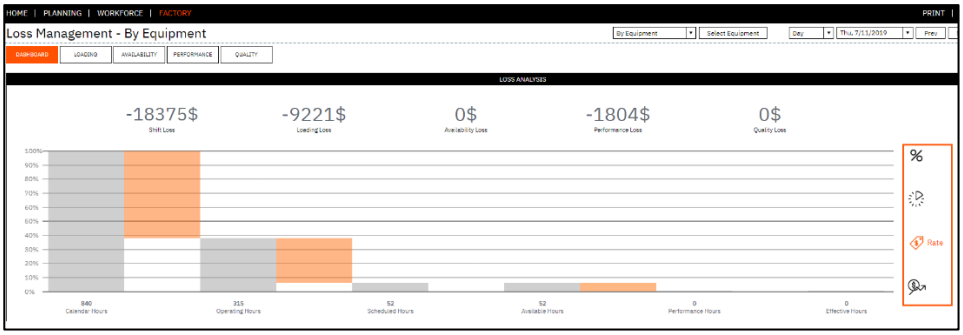
Six Big Loss
LYNQ supports continuous improvement by providing Six Big Loss, Loading and other analysis. It not only provides the key performance indicators (KPI's), but also provides the metrics and the means of measurement, out of the box

The Loss Management Dashboard displays realisation of loss across your manufacturing operations with every loss identified, classified (Six Big Loss) and quantified to allow for counter measures to be applied and continuous improvement to be made.



Different Visualisations of Loss Management

Visualisation	Type	Meaning
	Loss Management by %	Shows the loss in percentage of hours for your manufacturing operation
	Loss Management by Hour	Shows the loss in hours for your manufacturing operation
	Loss Management by **Rate**	Shows the loss at cost value for your manufacturing operation
	Loss Management by Revenue	Shows the loss at revenue value for your manufacturing operation

LYNQ

Performance analysis

Historical Activity
Dashboards and reports are based on actual historical activity and provide insight into how multiple resources (employees and equipment) have performed over time, what was produced and details of any production variances (planned vs actual)

LYNQ provides numerous Live factory dashboards including supporting metrics for Total Effective Equipment Performance (TEEP)

Core features include

- Dashboard
- Loading
- Availability
- Performance
- Quality
- Employee Analysis
- Equipment Analysis
- Product Analysis

LYNQ

Factory KPIs

Online Version
Click here to read this page online.

Factory Utilisation
Known as plant loading or utilisation, considers the proportion of calendar time that has been scheduled for production (run time).

Factory Availability
Known as plant efficiency, considers the relationship between actual productive time and the planned busy time of the equipment. Factory availability shows the aggregated availability based on your resources.

Factory Performance
Known as plant effectiveness, compares the actual run rate produced by the plant with the planned run rate. Factory performance shows the aggregated availability based on your resources (employee or equipment).

Factory Quality
Known as the plant quality ratio, is the relationship between the good quantity and the total quantity produced. Factory performance shows the aggregated output quality based on your resources (employee or equipment). To determine the quality ratio a production quantity must be reported.

Factory Utilisation

Calculation	Scheduled Hours / Calendar Hours
Measure	It is measured as a percentage (%). The higher the percentage the better.
Report(s)	Loading shows the planned plant utilisation with comparisons to last month and last quarter. It also provides insight as to why plant utilisation is not 100%.

Factory Availability

Calculation	Actual Productive Time / Planned Busy Time
Measure	**It is measured as a percentage (%). The higher the percentage the better.**
Report(s)	**Availability shows the plant availability with comparisons to last month and last quarter. It also provides insight as to why plant availability was not 100%.**

Factory Performance

Calculation	Planned Run Time x Production Quantity / Actual Run Time
Measure	It is measured as a percentage (%). The higher the percentage the better.
Report(s)	Performance shows the plant effectiveness with comparisons to last month and last quarter. It also provides insight as to why plant performance was not 100%.

Factory Quality

Calculation	Good Quantity / Total Quantity
Measure	It is measured as a percentage (%). The higher the percentage the better.
Report(s)	Quality shows the plant output quality with comparisons to last month and last quarter. It also provides insight as to why plant output quality was not 100%.

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Product KPIs

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Product Throughput
Considers process performance in terms of the produced quantity and the actual uptime. Product throughput can be reviewed based on employee or equipment throughput.

Product Quality
Considers the relationship between the good quantity and the produced quantity. Product quality can be reviewed based on employee or equipment throughput to provide visibility of patterns and greater understanding of where counter-measures need to be applied for increase product output.

Product Throughput Rate

Calculation	Parts Count (based on actual uptime) / Ideal Count (based on planned uptime)
Measure	It is measured as a percentage (%). The higher the percentage the better.
Report(s)	Loading shows the planned plant utilisation with comparisons to last month and last quarter. It also provides insight as to why plant utilisation is not 100%.

Product Quality Ratio

Calculation	Good Quantity / Produced (Total) Quantity
Measure	It is measured as a percentage (%). The higher the percentage the better.
Report(s)	Product Analysis – shows product quality ratio by production process (operation)

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Total effective equipment performance (TEEP)

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Total Effective Equipment Performance
(TEEP), shows how well a manufacturing unit or plant is performing relative to calendar hours.

Total Effective Equipment Performance

Calculation	Loading x Availability x Performance x Quality
Measure	It is measured as a percentage (%). The higher the percentage the better.
Report(s)	Dashboard shows the current & historical total effective equipment performance for a specific manufacturing unit or for the entire plant

Factory dashboard

Online Version
Click here to read this page online. The online version provides additional links to other related information.

TEEP
Showing both OEE and TEEP key performance indicators.

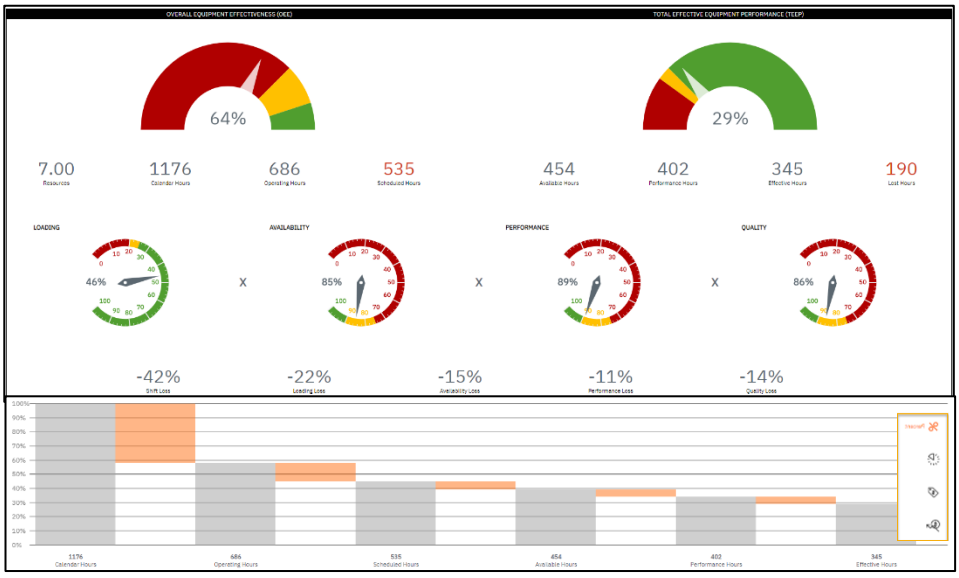
Available Hours
The total number of actual productive hours for the selected resources and time period.

Performance Hours
The calculated hours based on the total quantity produced (good and bad).

Effective Hours
The calculated hours based on only the good quantity produced.

Lost Hours
The total number of hours lost in producing only good product when compared with scheduled (planned) hours.

Performance Analysis Dashboard provides factory level analytics of equipment showing both overall equipment effectiveness (OEE) and total effective equipment productivity (TEEP) key performance indicators. Drilldown to supporting metrics and measurement of Loading, Availability, Performance and Quality.

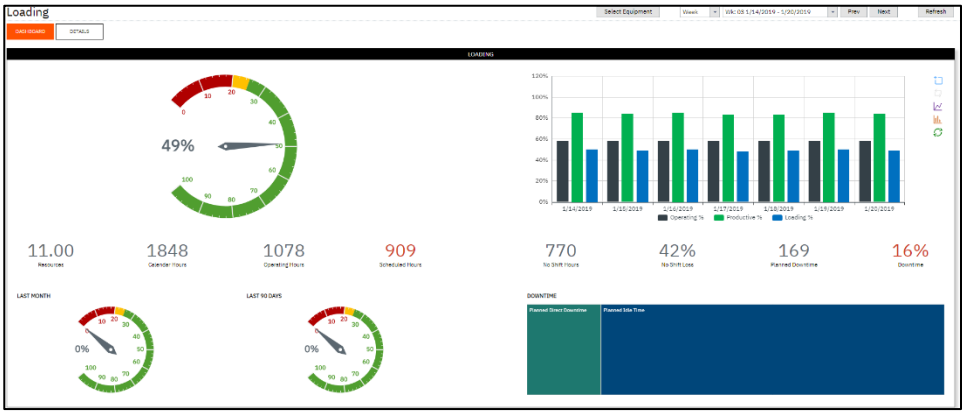


To open Performance Analysis Dashboard:

1. Select Dashboard in Performance Analysis

Loading

The Loading Report provides detailed analysis of the loading position of resources with comparisons to last month and/or quarter to understand trends. Use this to compare your planned uptime with all the time available (calendar time) to gain insight of asset utilisation to support capital expenditure and other management decisions.



To open Loading:

1. Select Loading in Performance Analysis

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Operating Hours
The total number of shift hours for the selected resources within the time period.

Scheduled Hours
The total number of planned productive hours for the selected resources within the time period.

No Shift Hours
The total hours lost as a result of having no shift within the selected time period.

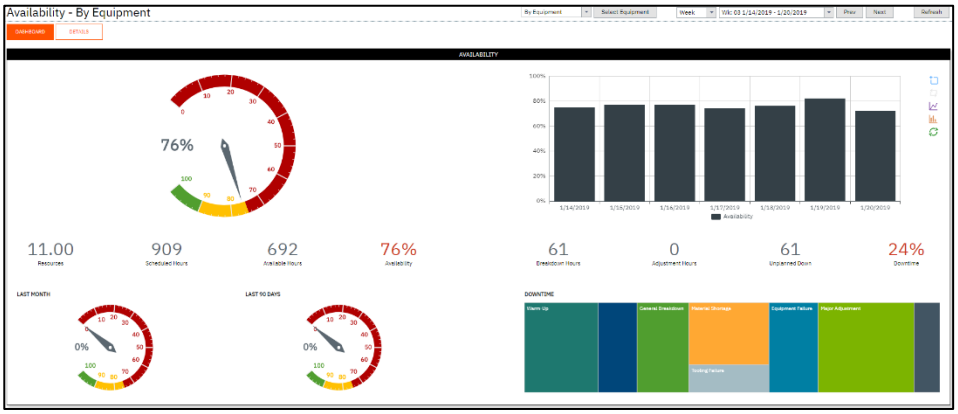
No Shift Loss
The total hours lost as a result of having no shift within the selected time period (shown as a percentage).

Planned Downtime
The total planned downtime hours within the selected time period. Operating hours - scheduled hours where scheduled hours are productive (uptime) hours.

Downtime
The ratio shown as a percentage of the planned downtime compared with planned operating time.

Availability

The Availability Report provides detailed analysis of the availability of employees or equipment with comparisons to last month and/or quarter to understand trends. Use this to gain insight of your actual uptime compared with your planned uptime and see where unplanned downtime occurs in relation to equipment breakdowns, tooling failures, operator shortages and more.



To open Availability:

1. Select Availability in Performance Analysis

Online Version
Click here to read this page online.

Scheduled Hours
The total number of planned productive hours for the selected resources and time period.

Available Hours
The total number of actual productive hours for the selected resources and time period.

Availability
The percentage of actual uptime compared with planned uptime for the selected resources and time period.

Breakdown Hours
Unplanned hours lost as a result of breakdown.

Adjustment Hours
Unplanned hours lost as a result of setup and adjustments.

Unplanned Down
The total hours lost as a result of unplanned issues relating to the selected resources and time period.

Downtime
The ratio shown as a percentage of the unplanned downtime compared with schedule (planned) hours for the selected resources and time period.

LYNQ

Quality

Online Version
Click here to read this page online.

Performance Hours
The calculated hours based on the total quantity produced (good and bad) for the selected resources within the time period.

Effective Hours
The calculated hours based on the good quantity produced for the selected resources within the time period.

Quality
The ratio shown as a percentage of the effective hours compared with the performance hours.

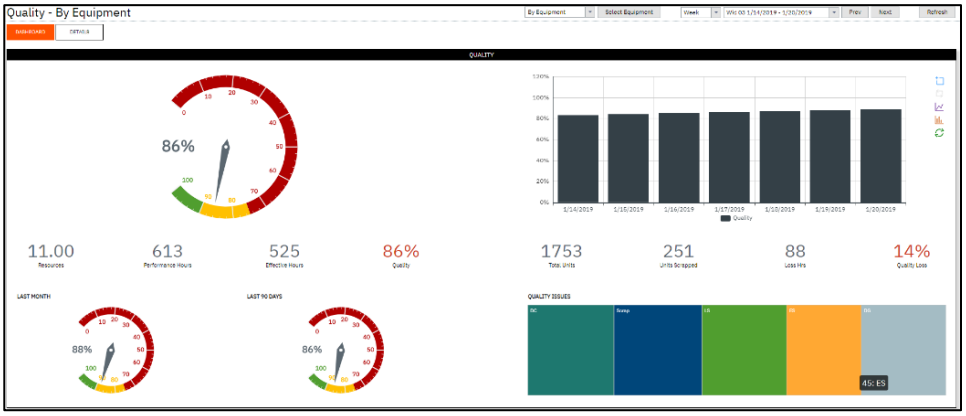
Total Units
The total number of units actually produced (good and bad) by the selected resources within the time period.

Units Scrapped
The total number of bad products produced by the selected resources within the time period.

Loss hours
The difference between calculated performance and calculated effective hours.

Quality Loss
The ratio shown as a percentage of hours lost in the production of bad product.

The Quality Report provides detailed analysis of the quality output from employees or equipment with comparisons to last month and/or quarter to understand trends. Use this to gain insight by resource of where product quality issues have affected your output.



To open Quality:

1. Select Quality in Performance Analysis

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Employee analysis

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Dashboard
Graphical presentation of employee's performance including at a glance Hrs/Qty stats, Key Performance Indicators, and Loss percentages.

By Employee
Line by Line report by employee with facility to customise, create advanced filters and export.

By Period
Line by Line report by period with facility to create advanced filters and export.

By Diversion
Line by Line report by employee with Diversion information (Production/Setup etc) with facility to customise, create advanced filters and export.

Availability
Line by Line report by employee with Availability information (Uptime/Downtime) with facility to customise, create advanced filters and export.

The Employee Analysis report provides detailed analysis of employee performance. Filter by individual employees or analyse performance for a specific group of employees. Further analyse by date or diversion

To open Employee Analysis:

1. Select Employee Analysis in Performance Analysis

LYNQ

Equipment analysis

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Dashboard
Graphical presentation of equipment performance including at a glance Hrs/Qty stats, Key Performance Indicators, and Loss percentages.

By Equipment
Line by Line report by equipment with facility to customise, create advanced filters and export. Links to Equipment Performance report.

By Period
Line by Line report by period with facility to create advanced filters and export.

By Diversion
Line by Line report by equipment with Diversion information (Production/Setup etc) with facility to customise, create advanced filters and export.

Availability
Line by Line report by equipment with Availability information (Uptime/Downtime) with facility to customise, create advanced filters and export.

The Equipment Analysis report provides detailed analysis of equipment performance. Filter by individual equipment or analyse performance for a specific group of equipment. Further analyse by date or diversion.

To open Equipment Analysis:

1. Select Equipment Analysis in Performance Analysis

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Product analysis

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Performance
Combined graphical presentation and detailed report (by stock code), with link to individual stock code performance details.

Quality
Combined graphical presentation and detailed report (by stock code), with link to individual stock code quality details.

The Product Analysis report provides output and quality analysis for products by employee and/or equipment.

To open Product Analysis:

1. Select Product Analysis in Performance Analysis

LYNQ

Alerts & Issues

Customisable
Customise your alerts and issues to provide better management and control of your manufacturing environment.

LYNQ provides alerts and issues which can be triggered by the data being collected helps to ensure control.

Core features include

- Alert Maintenance
- Issue Maintenance

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Alert maintenance

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Activate Alerts
By default alerts are turned off. You can enable alerts easily from the alert maintenance screen. You must specify the alert thresholds, which resources are measured, and which resources will receive the defined alert.

LYNQ provides your organisation with a number of pre-defined Management Alerts which can be configured to monitor performance, quality, or vailability for either employees or equipment. Users that are assigned as a group owners will automatically receive Management Alerts for group members (employees or quipment) as defined in groups.

A management alert can be configured in such a way that an alert will be triggered when certain conditions in the organization are not met. An alert can be configured to automatically generate an issue. You may want to consider an alert as a warning and an issue as a problem that requires root cause analysis. The problem (issue) needs investigating and to avoid any repeat issues arising, corrective action taken.

Alerts can be configured to:

- Generate a message (Visible in the message center and dashboards and reports)
- Generate an email (sent externally via SMTP)
- Generate a production issue (visible in the issue log and other dashboards and reports)

Default alerts available

Alert Name	Threshold
Employee Availability	75-120
Employee Downtime	0-15
Employee Group Availability Hours	75-120
Employee Group Performance	75-120
Employee Group Quality	75-120
Employee Non Conformance	75-120
Employee Performance	75-120
Employee Quality	75-120
Employee Availability	75-120
Equipment Availability	75-120
Equipment Downtime	0-15
Equipment Group Availability	75-120
Equipment Group Performance	75-120
Equipment Group Quality	75-120
Equipment Non Conformance	0-15
Equipment Performance	75-120
Equipment Quality	75-120
Time Since Clock In	0-0.07

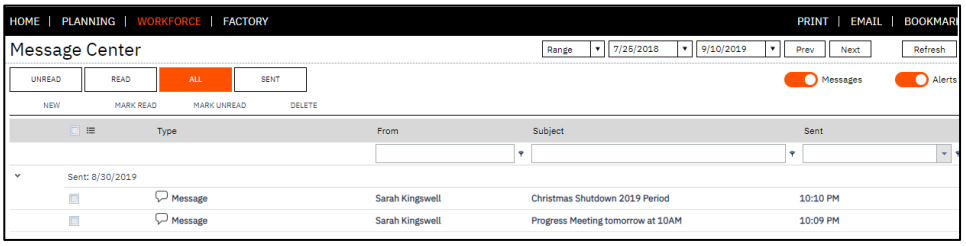
LYNQ

Message center

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Messaging Shop Floor
Shop floor users don't usually have their own domain accounts or email accounts but with the message center you can share information with these users easily.

The message center allows you to send and receive messages to and from the shop floor. Review performance and other data alerts. The messages you see in the message center are only related to your own user seat.



To read and send messages

1. From LYNQ home page click on message center
2. Click New to create new message
3. In the To field select the recipient
4. Enter a subject
5. Enter your message in the body section
6. Click Send

Messages can be sent by employees from the workbench where the message button has been added to the terminal design. Messages from the shop floor are sent dependant upon the group security and message settings in Home, Advanced Settings, General

Employees working in the workbench do not have the ability to select who the message is sent to. The recipient of the message is determined by the owners of the group(s) that the employee is a member of. Groups are associated to the employee in seat maintenance and Group Owners are associated to Users.

Issue maintenance

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Custom Issues
Refer to the Advanced User Guide to setup Custom Issues for reporting and analytical purposes.

LYNQ provides your organization with a number of pre-defined production issue codes for reporting and analytical purposes. Additional production issue codes can be created to meet the reporting and analytical requirements of the organization.

Default issues include:

Type	Category	Classification
Availability	Breakdown	Breakdowns
	Setup and Adjustments	Setup and Adjustments
Performance	Minor Stops	Cleaning/Checking
		Component Jams
		Delivery Blocked
		Equipment Wear
		Obstructed Product Flow
		Sensor Blocked
	Reduced Speed	Operator Inefficiency
		Rough Running
	Under Design Capacity	Under Design Capacity
Quality	Rejects	Production Rejects
	Start-up Rejects	Start-up Rejects
Custom	Health & Safety	Accident
		Near Miss
	Loading	Loading Issue

Production issues are created either:

- Manually from the Issue Log option
- By using the Track Performance Abnormality Setting which is configured in the Workbench Onscreen Element. When turned on, LYNQ will prompt the user to enter a reason why performance is abnormal
- Via an alert which is configured to trigger an issue

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Issue log

Online Version
Click here to read this page online. The online version provides additional links to other related information.

Issues from Alerts
Check out the Advanced User Guide to learn how alerts can be used to configure powerful alerts across your factory.

When new Production Issues are raised by Manufacturing Employees, issues can be assigned to any user that has been created as a full application User. Typically, issues would be assigned to the Manufacturing Employees Supervisor or Line Manager. Once an issue has been created, the Production Issues Icon for the assigned application user will change to orange. The assigned application user can either resolve the issue or assign the issue to another user.

To assign an issue to a user

1. From LYNQ home page click on Issue Log
2. Select the issue
3. Click Assign
4. Select the user the issue will be assigned to

To resolve an issue

1. From LYNQ home page click on Issue Log
2. Select the issue
3. Click Resolve
4. The issue will now appear as resolved

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LYNQ Your business. Understood.