ORACLE NETSUITE

Advanced Manufacturing User Guide

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Using Advanced Manufacturing

The Advanced Manufacturing SuiteApp extends your NetSuite manufacturing routing into the Advanced Manufacturing Work Bench. This connection enables manufacturers to define work instructions, associate material usage, compare resource supply with demand, and establish planned start and end times. You can further refine your manufacturing process by accounting for downtime and loss or by adding labor codes. You can also configure work order processing to suit your locations.

Mobile devices can be used to capture and compile valuable shop floor data. This data can then be used to produce comprehensive operational performance reports to help improve future processes.

 Introducing Advanced Manufacturing

For more information about working with Advanced Manufacturing, see the following:

- Production Planning
- Scheduling Production
- Managing the Shop Floor
- Collecting Data
- Managing Reports
- Advanced Manufacturing Glossary

Production Planning

Production planning enables companies to optimize their manufacturing processes through the efficient use of available resources. The Advanced Manufacturing SuiteApp lets planners create capacity plans that capture and analyze an organization's production capacity. Effective production plans set the route for each item, estimates item start and end dates, and evaluates the available capacity for completing the work.

Advanced Manufacturing defines capacity as the maximum amount of work your work centers and equipment can complete over a given period.

Creating Rough Cut Capacity Planning

Rough Cut Capacity Planning (RCP) is a long term process that helps planners verify that the required capacity is available to meet production priorities.

Advanced Manufacturing RCP evaluates production demand against resource availability to report work center percentage use over a planning period. It can also compile data over that period to report on a work center's remaining capacity and labor and equipment resource demand estimates.

RCP plans reflect supply and demand based on the NetSuite data at a specified time. Plans can then be modified to create scenarios that show how revisions affect the outcome around changes in supply, demand, or both. For more information, see the help topic Creating Manufacturing Work Centers or Groups.

To create a new RCP plan:

1. Go to Advanced Manufacturing > Capacity Planning > Capacity Planning.
2. Click **Create Plan**.
3. Select the **Location** you want to create this plan for.
4. Enter a descriptive **Plan Name**. This field does not support special characters.

   For example, Planned Production Wk23.
5. Select a **Plan Type** from the list to establish demand by evaluating:
   - **Work Orders** – Open work orders in planned or released status.
   - **Sales Orders** – Open sales orders.
   - **Demand Plan** – The active defined demand plan.

   If you select sales orders or demand plan, capacity planning does not expand the plan to include child work orders.
6. Click the calendar icon to select **Horizon Start** date. Horizon start date must be a Monday.

   > **Note:** To reduce processing time, keep horizon periods as short as possible. For example, less than one week.
7. Click the calendar icon to select a **Horizon End** date.
8. Select **Week** from the **Time Fence** list.

   A time fence is a boundary between planning horizon periods that helps minimize shop floor and supplier schedule disruptions.
9. Click **Save The Plan**.

   The data may take a few minutes to compile.

For information about the Planned Demand subtab, see Adding Planned Demand Details.

For information about the Resource Supply subtab, see Adding or Editing Resource Supply Details.

Adding Planned Demand Details

The Planned Demand subtab displays the items to be produced within the selected horizon. You can use planned demand before creating a work order. You can also add demand to an existing plan or complete the add items to the Product Demand subtab.

Note: Each item added to the planned demand must be associated with a valid manufacturing routing. For more information, see the help topic Manufacturing Routing.

To add planned demand details:

1. Go to Advanced Manufacturing > Capacity Planning > Capacity Planning.
2. Select a **Location** from the list.
3. Click **List**.
4. Click **Edit** beside the plan you want to update.
5. Enter the **Order No** (number).
6. Enter the **Item No**.
7. Enter a product **Description**.
8. Enter a product **Quantity**.
9. Click the calendar icon to enter a **Production Date**.

   Production Date is based on the work order production start date.

   Demand is tied to this date, even when an operation sequence crosses over to the next planning period.
10. Click the calendar icon to enter a **Planning Period**.

    Planning Period is based on the time fence.
11. Click **Add**.
    - Click **Insert** to add another order.
    - Click **Remove** to delete the selected order.
12. Click **Save the Plan**.
13. To generate demand for the RCP, click the **Planned Demand** button.

Adding or Editing Resource Supply Details

The Resource Supply subtab displays the work center resources that are available within the selected horizon. To run resource supply scenarios, planners can change these standard supply values.

To add or edit resource supply details:

1. Go to Advanced Manufacturing > Capacity Planning > Capacity Planning.
2. Select a **Location** from the list.
3. Click **List**.

4. Click **Edit** beside the plan you want to update.
5. Enter the number of **Std. Days**.

   Standard days represent the time it takes an average skilled operator, working at a normal pace, to perform a specified task using a defined method.
6. Enter a **Head Count**.

   The number of people assigned to the operation.
7. Enter **Labor Shift Hours**.

   The number of hours the people assigned to the operation work in a day.
8. Enter the number of **Machines** required.
9. Enter the **Machine Shift Hours**.

   The number of hours the machines assigned to the operation are active in a day.
10. Click **Add**.
    - Click **Insert** to add another order.
    - Click **Remove** to delete the selected order.
11. Click **Save the Plan**.

    The following fields are recalculated:
    - Total Daily Labor
    - Period Labor Hours
    - Total Daily Machine
    - Period Machine Hours
12. To assign the corresponding supply resources to the plan, click the **Resource Supply** button.

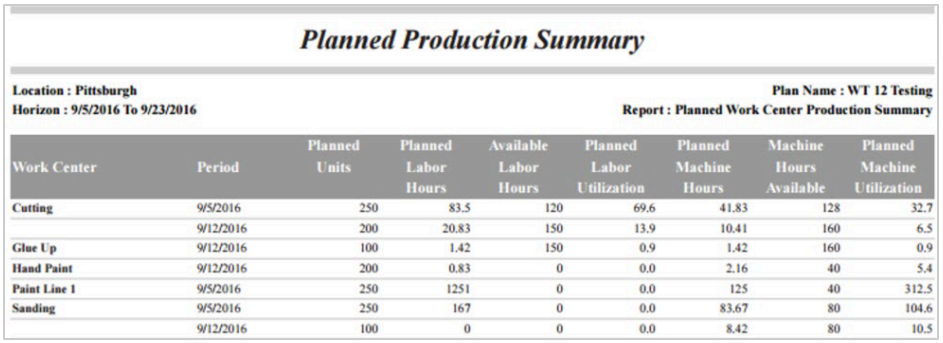
Creating Capacity Planning Reports

Planning reports show how effectively targets and performance goals were met. Reports display targets achieved, variances from the production budget, and areas for improvement.

To create a capacity planning report:

1. Go to Advanced Manufacturing > Capacity Planning > Capacity Planning Reports.
2. Select a **Capacity Plan** from the list.
3. Click **Display Plan** to update the work center summary table for review.
   - The **Work Center** – where the work is being done.
   - **Units Planned** – represents the number of items to be produced in this plan.
   - **Planned Labor Hours** – the number of hours labor is assigned to the plan.
   - **Labor Hours Available** – the number of labor hours available to the plan.
   - **Planned Labor Utilization %** – the percentage of total labor hours to be used in the plan.
   - **Planned Machine Hours** – the number of hours machines are assigned to the plan. This number is positive even when available hours is zero.
   - **Machine Hours Available** – the number of machine hours available to the plan.
   - **Planned Machine Utilization %** – the percentage of total machine hours to be used in the plan.

4. **Select** a **Report** type:
   - **Work Center Planned Production Summary** – Display planned production load for a work center. Load is the sum of the number of times all planned and actual orders are run on the work center in a specified period.

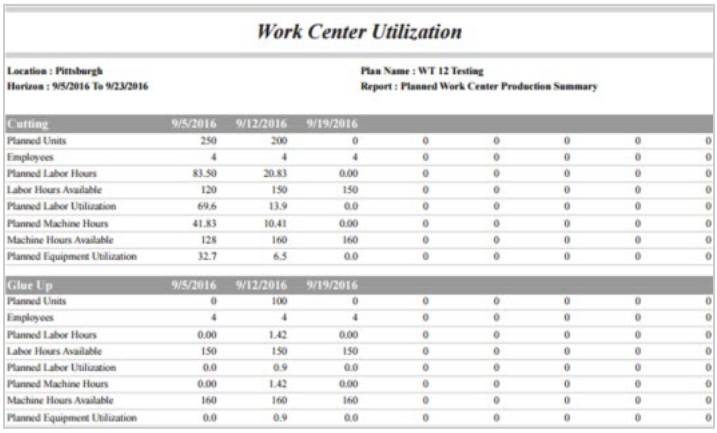


Planned Production Summary

Location : Pittsburgh **Plan Name : WT 12 Testing**
Horizon : 9/5/2016 To 9/23/2016 **Report : Planned Work Center Production Summary**

Work Center	Period	Planned Units	Planned Labor Hours	Available Labor Hours	Planned Labor Utilization	Planned Machine Hours	Machine Hours Available	Planned Machine Utilization
Cutting	9/5/2016	250	83.5	120	69.6	41.83	128	32.7
	9/12/2016	200	20.83	150	13.9	10.41	160	6.5
Glue Up	9/12/2016	100	1.42	150	0.9	1.42	160	0.9
Hand Paint	9/12/2016	200	0.83	0	0.0	2.16	40	5.4
Paint Line 1	9/5/2016	250	1251	0	0.0	125	40	312.5
Sanding	9/5/2016	250	167	0	0.0	83.67	80	104.6
	9/12/2016	100	0	0	0.0	8.42	80	10.5

   - **Work Center Utilization by Period** – Review available work center hours against recorded work center use. The system reports utilization measurements for both labor and machines by work center.



Work Center Utilization

Location : Pittsburgh **Plan Name : WT 12 Testing**
Horizon : 9/5/2016 To 9/23/2016 **Report : Planned Work Center Production Summary**

Cutting	9/5/2016	9/12/2016	9/19/2016					
Planned Units	250	200	0	0	0	0	0	0
Employees	4	4	4	0	0	0	0	0
Planned Labor Hours	83.50	20.83	0.00	0	0	0	0	0
Labor Hours Available	120	150	150	0	0	0	0	0
Planned Labor Utilization	69.6	13.9	0.0	0	0	0	0	0
Planned Machine Hours	41.83	10.41	0.00	0	0	0	0	0
Machine Hours Available	128	160	160	0	0	0	0	0
Planned Equipment Utilization	32.7	6.5	0.0	0	0	0	0	0
Glue Up	**9/5/2016**	**9/12/2016**	**9/19/2016**					
Planned Units	0	100	0	0	0	0	0	0
Employees	4	4	4	0	0	0	0	0
Planned Labor Hours	0.00	1.42	0.00	0	0	0	0	0
Labor Hours Available	150	150	150	0	0	0	0	0
Planned Labor Utilization	0.0	0.9	0.0	0	0	0	0	0
Planned Machine Hours	0.00	1.42	0.00	0	0	0	0	0
Machine Hours Available	160	160	160	0	0	0	0	0
Planned Equipment Utilization	0.0	0.9	0.0	0	0	0	0	0

5. Click **Print Report**.

Editing Work Orders for Scheduling

Work order management helps control process workflow and increase operational visibility by organizing and tracking changes. It helps advance organizational efficiency and processes through improved productivity and customer service while producing actionable performance records.

To edit work orders:

1. Go to Transactions > Manufacturing > Enter Work Orders > List.

   For more information, see the help topic Entering an Individual Work Order.
2. Click **Edit** next to the work order you want to update.
3. Click the **Advanced Manufacturing** subtab.

   AM Planned Start Date is automatically populated based on finite scheduling details.
4. Click the calendar icon to select a scheduled **Delivery Date**.

5. Select a **Planning Priority Code** from the list.
6. Select an **Assembly Shop Category**.

   If the work order traveler has already been generated, the **Traveler Printed** box is selected.
7. Optionally, enter an **AM Work Order Code**.

   This entry does not affect scheduling or release order.
8. Click **Save**.

Scheduling Production

Production scheduling enables you to arrange, control, and optimize production or manufacturing workloads over a fixed period of time. Scheduling allocates machine resources to efficiently complete work orders based on a FIFO sequence setup by the planner.

For more information, about scheduling production, see:

- Infinite Capacity Scheduling
- Finite Scheduling
- Releasing Work Orders

Infinite Capacity Scheduling

Infinite capacity scheduling attempts to establish a detailed strategy for scheduling orders and operations. It does not account for current work center capacity or resource use. This strategy can result in resource overloads.

NetSuite uses infinite capacity scheduling to schedule work. For more information, see the help topic Mass Creating Work Orders.

Finite Scheduling

Finite capacity scheduling planning considers the facility's current and future capacity. It then compiles this data to organize and release work that uses available resources effectively. Advanced Manufacturing finite scheduling optimizes work center throughput (assigned work completed as quickly as possible).

 Finite Scheduling

Planners can influence both the work order sequence and the number of assets that a work order can use at one time.

While creating an Advanced Manufacturing finite capacity schedule, be aware that:

- Work orders not associated with a NetSuite routing should not be scheduled.
- By default, operations are scheduled to be completed on a single asset determined by earliest availability.
- You can define concurrency (occurring at the same time) to allow work order operations to run simultaneously over multiple assets.

  The number of concurrent assets should not exceed the number of assets assigned to the manufacturing work bench operation sequence.
- Planned status work orders do not support full scheduling or end-to-end scheduling even when Auto-Scheduling is enabled.

To create a finite capacity schedule, you must release work orders in sequence after they are created. For more information, see Releasing Work Orders.

Releasing Work Orders

To create a finite capacity schedule, work orders must be released in sequence after they are created. You can release just one work order or many work orders at the same time.

After release the work order status changes and the operation start and end dates are reset to reflect the finite capacity schedule.

To release work orders:

1. Go to Advanced Manufacturing > Finite Scheduling > Release Work Orders.
2. Complete the Display Filters section.
   a. Select the work order **Location**.

      A work order is created for a specific manufacturing location. The planner sets this filter to establish the scheduled location.
   b. Optionally, select a **Production Class** to filter displayed work orders.
   c. Click the calendar icon to select a **Horizon Start** date.

      Horizon start date must be a Monday.

      > **Note:** To reduce processing time, keep horizon periods as short as possible. Generally less than one week.
   d. Click the calendar icon to select a **Horizon End** date.
   e. Select how to display **Planned Orders**:

      The planner can capture work orders that have not been scheduled, or to prioritize work orders associated with a future period.

      - **Display All** – Include all work orders in a planned or planned firm state regardless of horizon date.
      - **Use Date Filter** – Include all work orders in a planned status with an initial start date between the horizon start and end dates.
      - **Display OK to Schedule Only** – Include only work orders marked OK to Release.

        Do not select this option If your administrator has not enabled the AM Work Order Schedule Check script.
   f. Select a **Released Orders** option:

      The planner can review existing commitments to capacity and re-schedule them when necessary.

      - **Use Date Filter** – Include all work orders in released state with a start date between the horizon start and end dates.

        Use to reschedule released work orders.
      - **Do Not Display** – Do not list work orders that have been released.
   g. Select a **Sort By** filter.
   h. To perform a secondary sort, select a **Then By** filter.
   i. If a single work order needs to be reviewed or released, enter it in the **Specific Work Order** field.

      > **Note:** If this step is used, it is generally completed first.
3. Complete the Work Orders to Release section.
   a. Click the calendar icon to select a **Schedule Date**.
   b. Select Forward or Backward Schedule from the **Schedule Method** list.
   c. Select a **Child Work Orders** option:

      A child work order is created for a sub-assembly.

      - **Release Child Orders**:
        - **Planned** – The status changes to release and the child work order is scheduled.

- **Released** – The work order status is rescheduled but the status stays the same.
- **Do Not Release Child Work Orders** – The child work order is ignored. The status and planned dates stay the same.

For more information, see the help topic Special Order Items.

d. Click **List Work Orders**.

The **Select Work Orders to Release** subtab displays the work orders and their status:

- **Planned or Planned Firm**
- **Released** (status and work load released)
- **In Process**
- **Completed, Closed, or On Hold**

i. To determine work order release sequence:

- Check the **WO Release** boxes in the order you want them released.

  The **Sequence** field is automatically populated to match the order of your selection.

- Optionally, edit the sequence number in the **Sequence** field.

ii. Click **Sort Demand**.

e. To preview the schedule before the work orders are released, click **Preview Schedule**.

After you have previewed the schedule, click **Go Back**.

f. Click **Release Work Orders**.

A notice alerts the planner that the work orders have been submitted for scheduling.

After acknowledging the message, the planner can continue releasing work orders.

For steps to review and edit work orders, see Reviewing and Editing Work Orders.

Reviewing and Editing Work Orders

Use the following steps to review and edit work orders.

To review and edit work orders:

1. Go to Advanced Manufacturing > Finite Scheduling > Work Order Management.
2. Select a **Work Center** from the list.

> **Note:** Work Order Management does not support more than 150 - 200 tasks for an individual work center. If an error occurs, shorten the date range.

3. Select a **Job Status**.
4. Click the calendar icon to select a **Horizon Start** date.

   Horizon start date must be a Monday.

> **Note:** To reduce processing time, set horizon days as short as possible. Generally less than one week.

5. Click the calendar icon to select a **Horizon End** date.
6. Select a Detail or Summary **View Format**.

7. Click **List Work Orders**.
8. To display the plan by Machine and Labor, click the **Work Calendar** subtab.

   Each day in the horizon displays the work order number, item number and description. It also displays the hours, quantity, and the time it took to complete the work order.
9. To display the work order operations details, check the box beside the work order, and then click **View Contents**.
10. To create a planning report, click **Displays**.

    For more information, see the help topic Production Planning Reports.
11. To open the data entry form to record work order production, loss, downtime, and labor, click **Production Data Entry**.

    For more information, see the help topic Tracking Production Results.
12. Click the **Master Plans** subtab to view the following information:
    - **Mfg. Operations** – Routing steps, run time (rate x planned quantity), and cycle time (run time + set up time)

      The acronym NaN alerts manufacturers that no material is on hand.
    - **Material Requirements** – Materials associated with the work order
    - **Related Work Order** – All child work orders with valid routings
    - **Production Results** – Recorded production results
    - **Production Loss** – Recorded production loss
    - **Equipment Down Time** – Recorded downtime
    - **Labor Charges** – Recorded labor charges

Managing the Shop Floor

Shop floor management prioritizes, tracks, and reports against production orders and schedules. This management activity includes evaluating current resource status, labor and machine use, as well as other supporting information where it happens.

Shop floor management controls the activities and the flow of materials inside the plant, including employees, materials, machines, and production time. This activity generally begins after planning.

Managing the Shop Floor

See the following help topics for managing the shop floor:

- Working With Shop Floor Travelers
- Viewing Documents

Working With Shop Floor Travelers

A work order traveler is a system-generated document that provides shop floor personnel with the manufacturing specifications needed to perform the job. For example, process steps, materials, quantities, work instructions, or supporting barcodes for mobile devices.

A traveler is typically printed when the job is released and travels with the job as it progresses through the shop. Advanced Manufacturing offers an editable template traveler that works for both discrete and batch manufacturing.

See the following help topics for working with shop floor travelers:

- Generating a Work Order Traveler
- Printing a Work Order Traveler
- Searching For a Work Order Traveler
- Viewing a Work Order Traveler

Generating a Work Order Traveler

Use the following steps to generate a work order traveler.

To generate a work order traveler:

1. Go to Advanced Manufacturing > Generate Traveler(s) > Generate Work Order Traveler(s).
2. Select the **Location** you want to generate a traveler for.
3. Select a **Status Filter** from the list:
   - **Unprinted Work Orders** – Display only the work orders within the data range that have not already been generated.
   - **All Work Orders** – Display all work orders within the data range, whether travelers were generated or not. This is useful for regenerating travelers.
4. Click the calendar icon to select a **Start Date** based on the work order production start date.
5. Enter the work order **End Date**.

Work orders are listed only if their end date is equal to or after the end date entered.

6. Select a traveler from the **Select Document** list.
7. Click **List Work Orders**.
8. On the **Work Order** subtab, check the box beside the travelers you want to print.

   Click **Mark All** if you want to select all work orders.
9. Click **Submit Print Job**.

   The document may take a few minutes to generate.

Printing a Work Order Traveler

Use the following steps to print a work order traveler.

To print a work order traveler:

1. Go to Advanced Manufacturing > Documentation > File Folders.
2. In the **File Cabinet**, click your traveler folder.

   Work order travelers are stored in the Advanced Manufacturing SuiteApp folder created by your administrator. For example, the folder name could be AM Travelers.
3. Beside the traveler you want to view, click **Edit** or **View**.
4. Click **Print**.

   Click **Download** to save the traveler.

Searching For a Work Order Traveler

Use the following steps to search for a work order traveler.

To search for a work order traveler:

1. Enter a keyword in the search field.
2. Click **Search**.

   The results are listed in the right panel.
3. You can search based on keywords found in file names and folder names.

Viewing a Work Order Traveler

Use the following steps to view a work order traveler.

To view a work order traveler:

1. Go to Advanced Manufacturing > Documentation > File Folders.
2. Click the **Travelers** folder.
3. Beside the traveler you want to open, click **Download**.

Viewing Documents

The Advanced Manufacturing Documentation menu directs you to the NetSuite File Cabinet. You can safely store and organize documents and associate them with a company, customer, contact, vendor, task, event, or case record. For more information, see the help topic File Cabinet Folders.

To view documents:

1. Go to Advanced Manufacturing > Documentation > File Folders.
2. To view or download a document, refer to the following:
   - Working with Email Templates
   - Using Letter Templates
   - Advanced PDF/HTML Templates
3. Click **New Folder** to add a folder or file to the File Cabinet.

Collecting Data

Use the Advanced Manufacturing SuiteApp to record and collect tactical data. This information can help an organization review and adjust their manufacturing and production processes.

Collecting Advanced Manufacturing Data

Tracking Production Results

Track production results to capture information about the volume of manufacturing achieved. This information drives NetSuite transactions to adjust inventory levels and their associated cost without operator input other than recording the number of items produced.

Warning: Modifying start and end times in the tablet with employees in different time zones causes inconsistent quantity results in the work order completion record. You must be in the same time zone as all employees who modify start and end times.

To track production results:

1. Go to Advanced Manufacturing > Data Collection > Enter Results/Loss/Downtime/Labor.
2. Enter a **Work Order** number.
3. Enter the **Operation No** you want to report results for.
4. To display updated data, check the **Refresh Lists After Save/Edit** box.

   NetSuite automatically fills the **Work Center**, **Assembly Item**, and **Operation Name** fields.
5. On the **Results** subtab, enter the production **Run Time (min)**.
6. Enter the production **End Time**.

   Use the 7/11/2020 7:25:04 am format.
7. Enter the **Quantity** produced.

   Do not include scrap.
8. If applicable, enter the **Lot/Serial #** number.
9. For lot/serial items, enter an optional **Expiration Date**.
10. (Optional) Select an **Asset Name** from the list.

    This information can provide operational detail for other types of reporting.

    If you do not select an asset, NetSuite uses the asset the work order was scheduled for.
11. (Optional) Select the name of the **Employee** who entered the data.
12. Click **Save**.

Recording Material Loss

Material loss can be recorded as waste, scrap, defects, or spoilage. These issues occur in most manufacturing environments, which accounts for differences between the quantity input and output.

NetSuite and Advanced Manufacturing restrict material loss to report scrap of a completed assembly item. This is a produced item that has no use or cannot be sold.

To record material loss:

1. Go to Advanced Manufacturing > Data Collection > Enter Results/Loss/Downtime/Labor.
2. Click the **Material Loss** subtab.
3. Enter the **Time** the material loss occurred.

   Use the 7/11/2020 7:25:04 am format.
4. Enter the **Loss Quantity**.
5. Select a **Loss Reason**.

   For example, untrained operator, incorrect specification, or machine breakdown.
6. (Optional) Select the **Asset Name**.

   If you do not select an asset, NetSuite uses the asset the work order was scheduled for.
7. (Optional) Select the name of the **Employee** who entered the data.
8. Click **Save**.

Recording Downtime

Downtime refers to a period of time when a system fails to perform its primary function. Downtime is usually a result of system failure due to an unplanned event. For example, human error, equipment failure, or resource shortage.

Planned events can also be recorded as downtime. For example, routine maintenance.

To record downtime:

1. Go to Advanced Manufacturing > Data Collection > Enter Results/Loss/Downtime/Labor.
2. Click the **Downtime** subtab.
3. Enter the downtime **Start Time**.

   Use the 7/11/2020 7:25:04 am format.
4. Enter the total time in minutes the asset was not available in the **Duration (Min)** field.
5. Select a **Downtime Reason**.

   For example, machine breakdown, power outage, or material shortage.
6. (Optional) Select the asset affected from the **Asset Name** list.

   If you do not select an asset, NetSuite uses the asset the work order was scheduled for.
7. (Optional) Select the name of the **Employee** who entered the data.
8. Click **Save**.

Recording Labor

Labor represents the amount of human resources (man hours) used to produce goods and services during a manufacturing operation.

To record labor:

1. Go to Advanced Manufacturing > Data Collection > Enter Results/Loss/Downtime/Labor.

2. Click the **Labor** subtab.
3. Enter the time the labor resource was assigned to the operation in the **Start Time** field.

   Use the 7/11/2020 7:25:04 am format.
4. Enter the total labor hours to charge against the operation in the **Duration (Hrs)** field.
5. Select the **Labor Code**.

   For example, general assembler, quality engineer, or supervisor.
6. Enter the total number of resources the operation used in the **Resource Count** field.
7. (Optional) Select the **Asset Name**.

   If you do not select an asset, NetSuite uses the asset the work order was scheduled for.
8. (Optional) Select the name of the **Employee** who entered the data.
9. Click **Save**.

   This information is tracked and associated with the work order.

Using the Scanner to Enter Data

Important: NetSuite 2021.1 discontinued the advanced manufacturing scanner. NetSuite will not accept new account provisions or installations. Existing installations can continue to use the scanner without any change in functionality. To continue reporting shop floor data using a scanner, contact your account manage, and see the help topic Manufacturing Mobile Overview.

The Advanced Manufacturing SuiteApp lets you launch the scanner feature after you log in to NetSuite using a Data Scanner role.

Use barcode scanning devices that read web forms to collect production data described in the following topics:

- Tracking Production Results
- Recording Material Loss
- Recording Downtime
- Recording Labor

Two-Factor Authentication (2FA)

NetSuite Advanced Manufacturing only supports the Data Scanner role and does not support two-factor authentication accounts. Customers working in other user roles may experience two-factor authentication errors. See the help topic Using 2FA

To launch the scanner from outside NetSuite, set the Data Scanner role as the default status. See the help topic Setting Role-Based Preferences.

To use the scanner to enter data:

1. Go to Advanced Manufacturing > Scanner Data Entry > Scanner (Login).

   Alternatively, work with your administrator to bookmark the scanner interface URL in your device to avoid having to first access NetSuite.
2. Enter your **Email** address and **Password**.
3. Tap or click **Login**.

4. Select one of the following actions:
   - Manufacturing Action
   - Inventory Action
   - Shipping Action

> **Note:** Express Production and LPN Actions are not default features. Contact your NetSuite Administrator for more information.

Manufacturing Action

Use the Manufacturing Action feature to extract data from the shop floor or issue material (BOM components) to the work order. For information about Manufacturing Action options, see the following help topics:

- Record Production
- Record Downtime
- Record Loss (Scrap)
- Record Labor
- Issue Material
- End Job

Initiating a Manufacturing Action

Use the following steps to initiate a manufacturing action.

To initiate a manufacturing action:

1. Tap the **Manufacturing Action** button.
2. In the **Start Job** page, enter or scan the shop floor traveler.

   This data populates the **WO** and **Operation** fields.
3. Tap **Start/Resume Job**.

   The time the job starts or resumes appears in the top left corner of the Manufacturing Actions window.
4. After a job starts or resumes, select a Manufacturing Actions option:
   - Record Production
   - Record Downtime
   - Record Loss (Scrap)
   - Record Labor
   - Issue Material
   - End Job

Record Production

The Record Production page displays the employee badge number. The field is empty if the employee does not have a badge.

To record production:

1. Enter the item **Quantity**.
2. Tap **Save**.

   Production record end time is recorded after you click **Save**.

   Start time is the job start time or the last recorded production end time.
3. In the **Record Production (Lot)** window, enter a **Lot Number**.
4. Enter a **Quantity**.
5. (Optional) Enter an **Expiration Date** in YYMMDD format.
6. Tap **Save**.

Record Downtime

Downtime start time defaults to the scanner location time. Scanner start time defaults to the current day's date. If user preference time and scanner time are the same, the scanner calculates downtime duration after you tap save. If times are not synched, enter a labor downtime start time/duration and start time/end time in HH:MM (24 hour clock) format.

To record downtime using a scanner:

1. Enter a **Downtime Reason**.
2. Enter a **Start** date in HH:MM format (24 hour clock).

   The scanner calculates downtime duration.
3. Tap **Save**.

Record Loss (Scrap)

Use the following steps to record scrap using a scanner.

To record loss using a scanner:

1. Enter a **Scrap Reason**.

   For example, spoilage, container breakage, or left over material.
2. Enter a scrap **Quantity**.
3. Tap **Save**.

   Scrap time is recorded at the time you click save.

Record Labor

Labor start time defaults to the scanner location time. Scanner start time and end time default to the current day's date. If user preference time and scanner time are the same, the scanner calculates labor duration after you tap save. If user preference time and machine time are not synched, enter a start time/end time for labor in the HH:MM (24 hours clock) format.

To record labor using a scanner:

1. Enter a **Labor Type**.
2. Enter **Crew Size** (number of workers).

3. Enter a **Start** date.
4. Enter an **End** date.
5. Tap **Save**.

Issue Material

To issue non-controlled material using a scanner:

1. Scan the item to issue.
2. Enter the **Bin ID** identifying where the item is located on the shop floor.
3. (Optional) Enter the item **Lot** or **Serial** number.
4. Enter the **Quantity** items to be used in the manufacturing operation.

   If your administrator configured material conversions, a Unit of Measure appears.

   Report quantity in the displayed units.
5. Tap **Save**.

End Job

The End Job window summarizes total production, scrap, downtime duration, and labor.

To end the job, tap **Confirm Job End**.

Inventory Action

Inventory Action provides scanner access to Bin Transfer, Lot Controlled Bin Transfer, PO Receipt, and Lot Controlled PO Receipt. You can receive multiple purchase orders by adding and saving items individually. Tap **Inventory Action** to access these features.

For more information, see the following inventory actions:

- Receiving a Purchase Order Using a Scanner
- Receiving Lot Controlled Purchase Orders
- Transferring Non-Controlled Bins
- Transferring Lot Controlled Bins

Receiving a Purchase Order Using a Scanner

Complete the Receive Purchase Order window to receive a purchase order using a scanner.

To receive a non-controlled purchase order using a scanner:

1. Enter the receiving **Purchase Order** number.
2. Enter the **Item** number.
3. In the **To Bin** field, enter the bin number the item is going to.
4. Enter the received **Quantity**.
5. Tap **Save**.

Receiving Lot Controlled Purchase Orders

Complete the Receive PO - Lot Controlled window to receive purchase orders with lot controlled items or a mix of non-controlled and lot-controlled items. Lot numbers are not required for non-controlled items, but are required for controlled items.

To receive a lot controlled purchase order:

1. Enter a **Purchase Order** number.
2. Enter an **Item**.
3. In the **To Bin** field, enter the bin the item is going to.
4. Enter the **Quantity**.
5. Enter a **Lot Number**.
6. Enter an optional **Expiration Date** in YYMMDD format.
7. Click **Save**.

Transferring Non-Controlled Bins

Complete the Bin Transfer window to move or transfer non-controlled items from one bin to another.

To transfer a non-controlled bin:

1. In the **From Bin** field, enter the bin number the item is taken from.
2. Enter the **Item** name.
3. In the **To Bin** field, enter the bin the item is going to.
4. Enter the **Quantity** you are transferring.
5. Tap **Save**.

Transferring Lot Controlled Bins

Complete the Bin Transfer (Lot) window to transfer a lot controlled item from one bin to another.

To transfer lot controlled bins:

1. In the **From Bin** field, enter the bin number the item is taken from.
2. Enter an **Item** name.
3. Enter the item **Lot Number**.
4. In the **To Bin** field, enter the bin the item is going to.
5. Enter the **Quantity** you are transferring.
6. Click **Save**.

To display an item's bin location, enter the item information in the **Scanner Find** field, and then tap **Find**.

Shipping Action

The Shipping Action feature lets you initiate shipping transactions. To pack or ship an item, change the default in the AM Admin record. Non-controlled and lot-controlled items appear in the same window.

Shipping Action provides access to the bin transfer features. See Transferring Non-Controlled Bins and Transferring Lot Controlled Bins.

For information about the shipping action option, see Entering Sales Orders.

Entering Sales Orders

The Sales Order screen enables you to account for controlled and non-controlled items.

To enter sales orders:

1. Enter a **Sales Order** number.
2. Enter an **Item**.
3. In the **From Bin** field, enter the bin number the item is taken from.
4. Enter the **Quantity**.
5. Enter a **Lot Number**.

   For non-controlled items, leave the Lot Number box empty.
6. Tap **Save**.

Entering Tablet Data

The presence of tablets on the shop floor enables workers to record events as they occur. Using tablets for data entry offers the following benefits over NetSuite forms and handheld scanners:

- The Advanced Manufacturing tablet interface presents a view of work to be completed, information about each operation, and data capture details.
- Shop floor travelers are no longer required.
- Tablet settings control display and filtering to better focus your work.
- Data entry is available in Real Time and Normal Mode.

Click the following links for more information about the Advanced Manufacturing tablet interface:

- Defining Tablet Settings
- Defining Tablet Filter Settings
- Logging In to the Tablet
- Working in Normal Mode
- Working in Real Time Mode
- Working With a Conventional Work Order Tablet

Note: Some date formats are not supported. For more information, see the help topic Date Formats.

Logging in to a tablet to enter tablet data:

1. Go to Advanced Manufacturing > Tablet Data Entry > Tablet.
2. Enter your NetSuite **Email** address and **Password**.
3. Tap **Login**.

Tap the tablet header icons to:

- **Menu** - Refresh or return to the work queue.
- **Filter** - Define which columns to include in real time quick searches.

  Filters are available only in the work queue.
- **Settings** - Define how the tablet is used.
- **Exit** - Log out of the tablet.

Defining Tablet Settings

Use the Tablet Settings window to define how you want to use Advanced Manufacturing on your tablet.

To define tablet settings:

1. Click the **Settings** icon ( ).
2. Select a **Normal** or **Real Time** Data Entry Mode.

   For more information, see Working in Real Time Mode or Working in Normal Mode.
3. Turn on **Hide Auto Issue Items** to hide materials configured to be issued automatically.
4. Enter the number of results the filter displays in the **Filter List Length** field.
5. Enter the number of downtime rows to display in the **Downtime Row Count** field.
6. Enter the number of scrap rows to display in the **Scrap Row Count** field.
7. Enter the number of downtime columns to display in the **Downtime Column Count** field.
8. Enter the number of scrap columns to display in the **Scrap Column Count** field.
9. Enter the number of material issue rows to display in the **Material Issue Row Count** field.
10. Enter the number of material issue columns to display in the **Material Issue Column Count** field.
11. Enter how to display time on the tablet in the **Time Format** field.
12. Tap **OK**.

    To save your settings, in the work queue tap **Save Defaults**.

Defining Tablet Filter Settings

The Tablet Filter icon appears in the Work Queue header and beside each column heading that has a filter applied to it. The Filter Settings window lets you define which columns you want to include in your tablet quick search.

To define tablet filter settings:

1. Tap the **Filter** icon ( ) to open the **Filter Settings** window.
2. Select the **Quick Search Columns** you want to filter.

   Tap **Select All** to choose all columns.
3. Tap a **Work Order Status**.
4. Select whether to **Enable/Disable Auto End Date**.
5. Enter the number of days to add to the current date to auto-populate end dates in forms in **Auto End**.

You can also tap **Select** to open the keypad.

6. Tap **OK**.

Logging In to the Tablet

Use the following steps to log in to the tablet.

To login to the tablet:

1. Go to Advanced Manufacturing > Tablet Data Entry > Tablet.
2. Enter your NetSuite **email** address and **Password**, and then click **Login**.
3. In the Work Queue, click **List** to select the **Work Center** you want to work in.
4. To choose a **Start Date**, tap **Select** to open the date picker.
5. To choose an **End Date**, tap **Select** to open the date picker.
6. To display specific information in the work queue, enter a search phrase in the **Quick Search** field.

   Clear the search field to display all available work queue operations that match the Work Center and Date filters.
7. Tap **OK**.

Working in Normal Mode

Normal mode segregates data collection by type and enters historical data into date fields. Each Normal Mode tab displays information about the operation and data being entered.

NetSuite lets you assign an alternate Units of Measure to assemblies and work orders. The system automatically converts units back to base units for transaction processing.

To enter material issue, labor, downtime, scrap, and production in normal mode:

1. Click the **Material Issue** tab.
   a. Tap **List** to select an **Item**:
      - **Description** – Automatically populates with an item description
      - **Lot/Serial** – Displays when the selected item has a lot/serial number

        After you enter data, the tablet reviews the available quantity and then filters the bin list to display items with the lot number.
      - **Bin** – Displays when the selected item has Use Bins enabled.

        If bin is entered before Lot, the lot selection filters to display only items in the bin.

   b. Enter the **Quantity** to be issued.

      An error appears when the issued quantity is more than the available bin quantity.

   c. Tap **Save**.
2. On the **Labor** tab, select the **Start** and **End Date**.
   a. Enter start and end **Times** in the HH:MM (24 hour) format. For example, enter 14:00 instead of 2:00 p.m.

      The read-only **Duration** field automatically populates.

   b. Tap **List** to select a **Labor Type**.

Labor types for the location you are entering information for display.

> **Note:** The values for these fields are determined by customer configuration and can differ from the displayed examples.

c. Tap **List** to select a **Labor Code** (planning skill code).

d. In the **Count** field, enter the number of labor resources.

e. (Optional) Select the **Asset**.

Only displays assets assigned to the manufacturing work bench for the item being produced and the operation being reported on are displayed.

f. (Optional) Select the **Employee** name from the list.

g. Tap **OK**.

h. Tap **Save**.

Tap **Continue** to enter more information.

The labor record is posted after production results are entered. Administrative settings must be enabled to use actual labor on transactions. Reported labor is available for operational reporting.

3. On the **Downtime** tab, select the **Start** and **End Date**.

Current date is the default.

a. Enter start and end **Time** in the HH:MM (24 hour) format. For example, enter 14:00 instead of 2:00 p.m.

The read-only **Duration (Minutes)** field automatically populates.

b. Select a **Downtime Category**.

For example, mechanical, planned, setup, or test.

> **Note:** The values for these fields are determined by customer configuration and can differ from the displayed examples.

c. Select a **Downtime Reason**.

For example, color change or setup.

d. (Optional) Select the **Asset**.

Displays only assets assigned to the manufacturing work bench for the item being produced.

e. (Optional) Select the **Employee** name from the list.

f. Tap **OK**.

g. Tap **Save**.

Tap **Continue** to enter more information.

The downtime record is posted after production results are entered. Administrative settings must be enabled to use downtime to influence transaction run times. Reported downtime is available for operational reporting.

4. On the **Scrap** tab, select the **Start Date**.

Current date is the default.

a. Enter the start **Time** in the HH:MM format.

b. Enter the scrap **Quantity**.

c. Enter a scrap **Category**.

For example, color, appearance, or length.

d. Enter a scrap **Reason**.

For example, too long or too short.

> **Note:** The values for these fields are determined by customer configuration and can differ from the displayed examples.

e. (Optional) Select the **Asset**. For example, Saw 1.

Displays only assets assigned to the Manufacturing Work Bench for the item being produced.

f. (Optional) Select the **Employee** name from the List.

g. Tap **OK**.

h. Tap **Save**.

Tap **Continue** to enter more information.

The scrap record is posted after production results are entered. Administrative settings must be enabled to use scrap to influence completion or material issuance transactions. Reported scrap is available for operational reporting.

5. On the **Production** tab, select the **Start** and **End Date**.

Current date is the default.

a. Enter the start and end **Time** in the HH:MM (24 hour) format. For example, enter 14:00 instead of 2:00 p.m.

b. Enter the item **Lot/Serial** number.

This field is displayed when the assembly item is defined as lot or serial. The Lot/Serial field cannot contain spaces.

> **Note:** This field is displayed for non Lot Controlled/Serialized Assembly items.

c. Enter the **Quantity**.

If the item is serialized, the quantity must be 1.

d. (Optional) Select the **Asset**. For example, Saw 1.

Only assets assigned to the manufacturing work bench for the item being produced are displayed.

e. (Optional) Select the **Employee** name from the list.

f. Tap **OK**.

g. Tap **Save**.

Working in Real Time Mode

Real Time Mode reduces the amount of data the operator has to enter into the system. Real Time describes how date and time fields are interpreted to streamline data entry.

Relevant fields are populated with the date and time corresponding to the operators actions.

- **Red tablet background** – The operation is stopped and production is halted.
- **Green tablet background** – The operation and production are running.
- **Header page** – Displays current work order, operation, and item information

To enter production, material issue, scrap, and downtime in real time mode:

1. In the work queue, select the work order you want to update and enter data for.

   Real Time Mode loads after you select an operation in work queue mode.

2. Tap **Start**.

   The tablet displays the current start date and time.

   The remaining form fields are enabled to capture data types.

3. To end the job, click **Stop**.

   Use for temporary stops, such as a major break, or a permanent stop when the operation is complete.

   To restart the job, click **Start**.

4. Tap the **Production** button.

   a. In the popup window, enter the number of items that have been processed:

      - For the last operation, enter the number of assemblies produced and ready to go into inventory.
      - For all other operations, enter the number of assemblies that have been processed through that step.

   b. Tap **OK**.

      The new production record current production status indicates the number of completed assemblies (without completion errors). It also indicates the assemblies to be processed to satisfy the work order.

5. Tap the **Material Issue** button beside the material to be issued to the work order.

   > **Note:** If the material to be issued does not appear on a visible button, tap **Other**.
   >
   > Select the item from the list.

   a. In the popup window, enter the number of items to be produced.

   b. When applicable, enter a **Lot** or **Serial** number.

   c. Enter a **Bin** number.

   d. Tap **OK**.

6. Tap the **Scrap** button beside the scrap reason that best describes why the assembly item is deemed unacceptable.

   a. If the scrap reason does not appear on a visible button, tap **Other**.

      i. In the popup window, enter a scrap **Category**.

      ii. Enter a scrap **Reason**.

      iii. Tap **OK**.

   b. In the popup window, enter the number of assemblies being scrapped.

   c. Tap **OK**.

7. Tap the **Downtime** button beside the downtime reason that best describes the disruption to production.

   The tablet background turns orange to indicate that downtime is being recorded.

   a. If the downtime reason does not appear on a visible button, tap **Other**.

      i. In the popup window, enter a downtime **Category**.

      ii. Enter a downtime **Reason**.

iii. Tap **OK**.

b. Tap **Downtime** again to stop recording downtime.

c. Tap **OK**.

Working With a Conventional Work Order Tablet

The NetSuite Advanced Manufacturing interface supports conventional work orders. The tablet work queue and data entry forms offer the following functionality:

- Available work orders appear in a list
- Assembly and Work Order details display in collapsible headers
- Color coded progress bar
- Smart component list

To log in to the tablet:

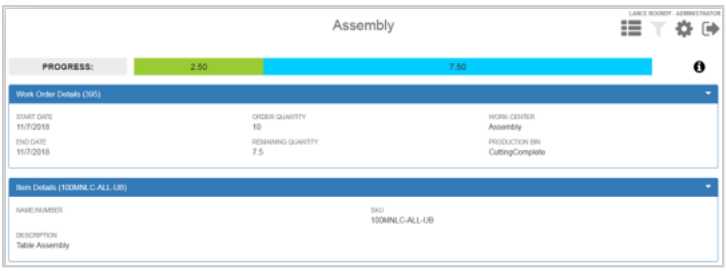
1. Go to Advanced Manufacturing > Tablet Data Entry > Tablet.
2. Enter your NetSuite **Email** address and **Password**.
3. Tap **Login**.

   The conventional work order and routing work order tablet interface Settings sections contain the same features. For more information, see Entering Tablet Data
4. In the Work Queue, to display conventional work orders, enter the **Work Center** name and then press **Enter**.

   Alternatively, you can click List and then select a work center.
5. To choose a **Start Date**, tap **Select** to open the date picker.
6. To choose an **End Date**, tap **Select** to open the date picker.
7. To display specific information in the work queue, enter a search phrase in the **Quick Search** field.

   Clear the search field to display all available work queue operations that might match the work center and date filters.
8. Tap **Save**.

   The search results display Work Order Details and Item Details in collapsible headers:



The Progress Bar

The conventional work order progress bar is color coded to help you identify your assembly work order status.

- A Green bar displays the number of work order items recorded as built.

Conventional work orders do not use intermediate records. After you submit production counts, the build transaction immediately displays in the tablet showing the number of units built across all transactions.

- The Blue bar displays the number of assemblies available to be built, based on bin and lot/serial number plugins.
- The Red bar appears when there are not enough materials in the bins to produce the remaining assemblies.

For example, your assembly is scheduled to build 10 bicycles. Currently, 2.5 bikes have been built, so the progress bar highlights 2.5 in green. The 7.5 bicycles expected to be built are highlighted blue. If the required materials (BOM components) are not staged to the appropriate bin for manufacturing, the amount is highlighted red.

Work Order Details

The work order details pane is displayed in a collapsible header. They contain work order information such as Start and End Dates, order quantities, work center, and production bin details.

Item Details

The item details pane is also displayed in a collapsible header. Item details can be item name or number, a description of the item, SKU, or other item details.

The Component List

The Component List enables you to track and report material consumption against the work order.

1. To record production, beside **Quantity Produced**, click **Select** to open the keypad.
2. Enter the quantity to be produced in the **Quantity Produced** field.

   The Bill of Material (BOM) for the assembly item displays the expected number of units for BOM components. The units are based on per unit usage numbers, and then establish the actual number needed. These figures adjust in response to the amount entered in the Quantity Produced field.

   - The **Available** column displays the quantity of material based on bin and lot/serial plugins.
   - The **Expected** column displays the quantity required to produce a number of assemblies based on the Bill of Materials.
   - The **Actual** column defaults to the quantity that plugins are capable of locating to apply to the build.

     The operator can override this quantity to reflect the amount used in production.

     - If the Actual quantity is less than the Expected quantity, a red line appears in the Actual column and the Record button is disabled.
     - If the Actual quantity is over or under allocated, but are still within the available quantity, the line remains red. However, the Record button is enabled.

Inventory Details

The Inventory Details columns displays NetSuite icons to indicate whether the all inventory details are provided  or partial inventory details were provided  .

For example, if the expected and actual column figures agree, the inventory detail displays the all details icon  . But if the quantity produced figure doesn't match the Lot/Serial figure, the no/partial detail  icon appears.

In-line Editing

If your assembly consumption figures are incorrect and are highlighted red, click the  partial detail icon to open the in-line editing window. The inline editing window displays the number of inventory detail lines found by the plugins. This window lets you adjust the record to make it ready to submit. For more information, see the help topic Mobile Devices.

Managing Reports

The Advanced Manufacturing SuiteApp offers a variety of reports that you can use to present and analyze real-time manufacturing results. Each report appears in a separate window where you can preview results and refine your criteria before saving or printing them.

To save any report, in the report viewer tool bar, click Export, and then click Save or Print. The available formats are XML, CSV, PDF, HTML, Excel, TIFF, or Word.

Reports are grouped based on usage:

- Administrative Reports
- Production Planning Reports
- Shop Floor Reports
- Operating Reports

Administrative Reports

Administrative reports let you monitor the production process and respond when errors occur. You can quickly resolve them and ensure that similar errors do not occur in future operations.

The following are the administrative reports:

- Reviewing the WOs That Didn't Schedule Report
- Reviewing the Production Data Entry Errors Report

Reviewing the WOs That Didn't Schedule Report

This WOs That Didn't Schedule report displays the reasons Finite Scheduling processes fail. For example, incorrect workbench configuration.

To review work orders that didn't schedule:

1. Go to Advanced Manufacturing > Planning Reports > WOs That Didn't Schedule.
2. Click **View** beside the item you want to view.

   All work order items that did not schedule correctly (no asset assigned) appear on the report.
3. To display the operations that are not scheduled, in the report, click the work order number.

> **Note:** Review this report daily and correct any work order errors to prevent further scheduling issues.

Reviewing the Production Data Entry Errors Report

The Production Data Entry Errors report displays reasons for automated work order transactions (completion and material issuance) failures. For example, incorrect workbench configuration or unavailable material components.

To review the Production Data Entry Errors report:

1. Go to AM > Manufacturing Reports > Production Data Entry Errors.

2. Review the report to see any errors due to production data entry.

Production Planning Reports

Production Planning reports show how effectively targets and performance goals were met. Reports display targets achieved, variances from the production budget, and identify areas for improvement.

The following are the production planning reports:

- Creating a Planning Report
- Creating Material Shortage Reports

Creating a Planning Report

Use the following steps to create a planning report.

To create a planning report:

1. Go to Advanced Manufacturing > Finite Scheduling > Work Order Management.
2. Complete the Work Order Management page and then click **Displays**.

   For more information, see Finite Scheduling.
3. On the **Production Planning Reports** window, select a **Chart** from the list.
4. Select an **Horizon Scale**: Hour and Day, Day and Week, Week and Month.
5. Select a **Department**.
6. Select a **Work Center**.
7. Click the calendar icon to select a **Horizon Start** date. Horizon start date must be a Monday.

   Note: To reduce processing time, keep horizon periods as short as possible. Generally less than one week.
8. Click the calendar icon to select a **Horizon End** date.
9. Enter a **Work Order** number.
10. **Select** a **Status**.
11. Click **Display Report**.
12. After reviewing the chart, click **Go Back**.

Creating Material Shortage Reports

You can create both a detailed and summarized Material Shortage report.

To create the Material Shortage Report – Detail:

1. Go to Advanced Manufacturing > Planning Reports > Material Shortage Report – Detail.
2. To display the number of items missing from the order, in the report click the work order number.

   This report lists brief descriptions of work orders that have at least one component where the total required item quantity cannot be committed. The work order must be in Released status. For more information, see the help topic Committing Orders.

To create the Material Shortage Report – Summary:

1. Go to Advanced Manufacturing > Planning Reports > Material Shortage Report – Summary.
2. View the report.

   This report lists brief descriptions of work orders that have at least one component item quantity that cannot be committed.

Shop Floor Reports

Shop Floor Reporting is an efficient way to quickly report production information. It provides such details as operation status, the quantity of both manufactured and discarded items, and accumulated operator hours.

Report Name	Path	Description
Work Order Reports	Go to Advanced Manufacturing > Planning Reports > Work Order Report.	Displays all work orders in different stages of completion. Use this report to review open work orders.
Dispatch List – Planed Operations Scorecard	Go to Advanced Manufacturing > Planning Reports Dispatch List > Planned Operations Scorecard.	Lists work orders and the completed quantity for each operation sequence.
Dispatch List – Manufacturing Operation Tasks	Go to Advanced Manufacturing > Planning Reports Dispatch List > Manufacturing Operation Tasks.	Lists work orders that did not schedule correctly.
Material Issue Report	Go to Advanced Manufacturing > Planning Reports > Material Issue Report.	Lists work orders where the required item quantity has not been issued. The Material Issue report lists work orders in planned, released, or in process status. Work orders start on or before the current date and the quantity needed is less than the quantity used. Generate and review this report daily. Click Edit or View to display a work order. Click the item to open the Item form.
Work Order Production Results	Go to Advanced Manufacturing > Planning Reports > Work Order Production Results.	Lists work orders and the quantity completed. The Production Result report lists all production results where the completion failed due to an error. Generate and review this report daily. Resolve all errors before closing the work order.

Operating Reports

Operational reports reflect current manufacturing activity. These reports are intended to support an organization's daily activities.

Report Name	Path	Description
Downtime Report – Detail	Go to Advanced Manufacturing > Manufacturing Reports > Downtime Report – Details.	Lists all downtime event details during the defined time period
Downtime Graph – Category	Go to Advanced Manufacturing > Manufacturing Reports > Downtime Graph – Category.	Displays the categories associated with downtime events during a defined time period
Downtime Graph – Reason	Go to Advanced Manufacturing > Manufacturing Reports > Downtime Graph – Reason.	Displays the reasons downtime events occurred during the defined time period
Production Loss Report – Detail	Go to Advanced Manufacturing > Manufacturing Reports > Production Loss Report – Detail.	Displays all production loss (scrap) details
Production Loss Graph – Category	Go to Advanced Manufacturing > Manufacturing Reports > Production Loss Graph – Category.	Displays the material loss categories associated with production loss over a defined time period
Production Loss Graph – Reason	Go to Advanced Manufacturing > Manufacturing Reports > Production Loss Graph – Reason.	Displays material loss reasons associated with production loss over a defined period
Labor Report	Go to Advanced Manufacturing > Manufacturing Reports > Labor Report.	Displays the material loss reasons and descriptions of why production loss events occurred over a defined time period
Operating Report – Detail View	Go to Advanced Manufacturing > Manufacturing Reports > Operating Report – Detail View.	Displays a detail view of an operation
Operating Report – Work Order View	Go to Advanced Manufacturing > Manufacturing Reports > Operating Report – Detail View.	Displays work order operation performance over a defined time period
Operating Report – Employee View	Go to Advanced Manufacturing > Manufacturing Reports > Operating Report – Employee View.	Lists the names of the employees reporting on an operation

Advanced Manufacturing Glossary

Term	Definition
Assembly Item	An inventory item made up of several components but identified as a single item. Assemblies are manufactured by combining raw materials you stock.
Backflush	Used in Just-In-Time environments to delay costing until goods are finished. Costs are not recorded until after the event has taken place. Standard costs are then used to work backwards to flush out the manufacturing costs eliminating detailed cost tracking.
Bill of Materials (BOM)	Lists the raw materials, sub-assemblies, intermediate assemblies, sub-components, parts, and the quantities needed to manufacture a product.
Bins	Bins identify where inventory items are stored and to track on-hand quantities.
Capacity Planning	Enables planners to determine the production capacity an organization needs to meet product demands. This is the maximum amount of work the organization is capable of in a time-period.
CSV Imports	A single process for transferring one to many, small to medium-sized data sets from other applications into NetSuite. Avoids the need for manual data entry.
Downtime	A period of time that a system is unavailable and fails to perform its primary function.
Finite Scheduling	Produces a specific amount of work within a defined time period. Finite Capacity Scheduling considers resource limitations to ensure that work proceeds evenly and efficiently.
Forward Scheduling	The scheduler knows the start date and calculates forward to determine the order completion date. Schedule the first operation to the last.
Horizon	A future time period where departments that support production plan production work and determine material requirements.
Infinite Capacity Scheduling	Presents a detailed strategy for scheduling orders and operations, but does not consider current work center capacity or resource load. Resource overloads can occur.
Labor	The amount of physical, mental, and social effort used to produce goods and services in an economy.
Labor Shift Hours	The number of hours the operation people work in a day.
License Plate Number (LPN)	LPN is generally associated with containers, but it does not always represent a physical entity (for example, a box). You can also define an LPN as a collection of items.
Location	Advanced Manufacturing Locations refer to company plants or warehouses anywhere in the world and are linked to NetSuite Location Names.
Lot Control	Ensures that each inventory item that flows through a warehouse can be tracked to its group of origin (lot).
Machine Shift Hours	The number of hours the operation machines are active in a day.
Material Loss	Can come in the form of waste, scrape, spoilage and defects that occur during handling, storage, or manufacturing loss.
Rough Cut Capacity Planning (RCP)	The long term planning process that balances available and required resource to the master schedule. Advanced Manufacturing evaluates demand (assembly item) against supply (work center availability) to report percentage work center use over time.

Routing Records	A template that lists the steps required to build an assembly item.
Scrap	The unusable loss which is measurable, has some value, and can be sold or repurposed.
Serialization	An item identified by an assigned serial number (an inventory item).
Shop Floor	The area of a manufacturing facility where assembly or production processes are completed. The shop floor can include equipment, inventory, or storage areas, and can be automated, have workers, or a combination.
Shop Floor Management	Supports the consistent development of processes and procedures where they happen. By being in production areas, managers can focus on deviations from standards to ensure that decisions are accelerated and solutions are implemented. A traveler is typically printed when the job is released and travels with the job as it progresses through the shop.
Standard Days	Standard days represent the time an average skilled operator, working at a normal pace, needs to perform a specified task using a prescribed method.
Subsidiaries	A company (child) owned by another company (parent). Advanced Manufacturing uses subsidiaries in OneWorld accounts.
Throughput	The amount of a product or service a company can produce and deliver to a client in a specific period of time. The total volume of production through the facility (machine, work center, department, plant, or network of plants).
Time Fence	A boundary between planning horizon periods that helps minimize shop floor and supplier schedule disruptions.
Traveler	A system generated document that provides shop floor personnel with the manufacturing specifications needed to perform the job. For example, process steps, materials, quantities, date ranges, locations, inventory, barcodes, and operations.
Warehouse Management System (WMS)	A software application that supports daily warehouse operations. WMS programs enable centralized task management such as tracking inventory levels and stock locations.
Work Bench	An Advanced Manufacturing Work Bench is linked to a NetSuite Routing Record.
Work Center	Can consist of one or more people and machines and can represent a logical grouping of machines, a department, or a cost center.
Work In Process (WIP)	WIP represent a company's partially finished goods waiting for completion and eventual sale or the value of these items. These items are either just being fabricated or waiting for further processing in a queue or a buffer storage.
Work Order	In manufacturing, a work order is converted from a sales order to show that work is about to begin manufacturing, building, or engineering products.
Work Order Management	Enables you to control process workflow through a series of steps that increases operational visibility and helps to organize and track changes. It helps improve productivity and customer service while producing actionable performance records to aid in improving organizational efficiency and processes.

- Advanced Manufacturing Overview
- Configuring Advanced Manufacturing Prerequisites
- Defining Administration Settings
- Configuring Assemblies and Routings
- Creating Advanced Manufacturing Records
- Production Planning

- Scheduling Production
- Managing the Shop Floor
- Collecting Data
- Managing Reports