

PP 1: Display Stock/Requirements List

Exercise Use the SAP Easy Access Menu to display the Stock/Requirements List.

Time 5 min

Task Review the material status of your Deluxe Touring bike (finished good) in the Dallas plant using the Stock/Requirements list.

Name (Position) Lars Iseler (Production Order Worker)

The Stock/Requirements list contains up-to-date information on the current status of inventory on hand, requirements, and receipts. It is a dynamic list that allows you to view changes made to material status.

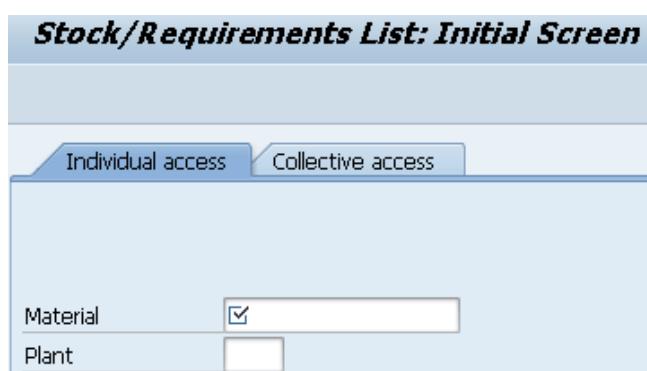
Stock/Requirements List

To review the material status, follow the SAP Easy Access menu path:

Menu path

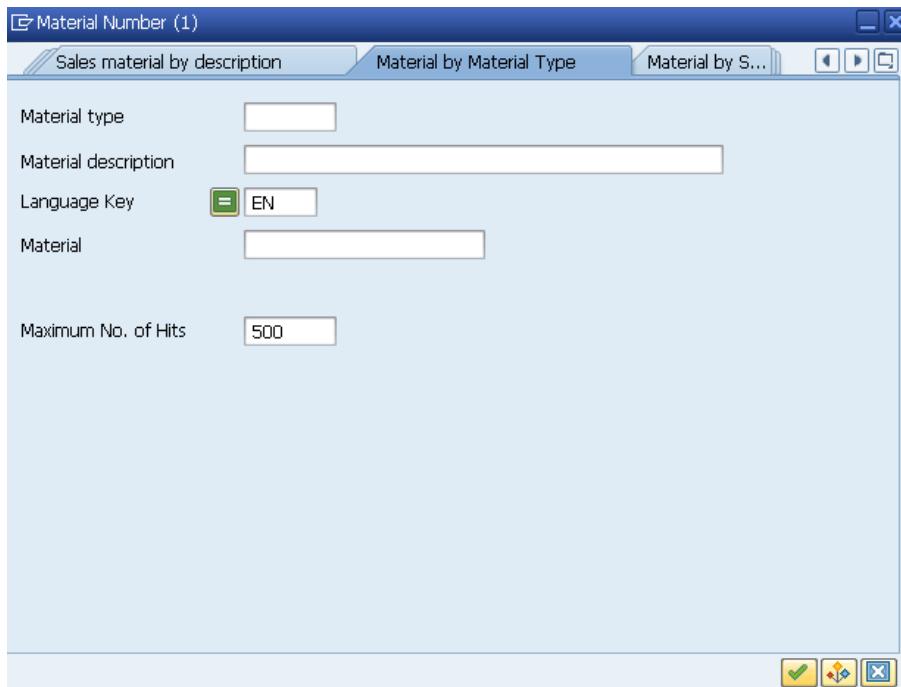
Logistics ▶ Production ▶ Production Planning ▶ Demand Management ▶ Environment ▶ Stock/Requirements List

The following screen will appear.



First of all, you need to find the material number(s) for your Deluxe Touring bikes. In order to do so, click in the Material field and press **F4** (or click on the search icon  next to the field). This will produce the Material Number search screen.

F4

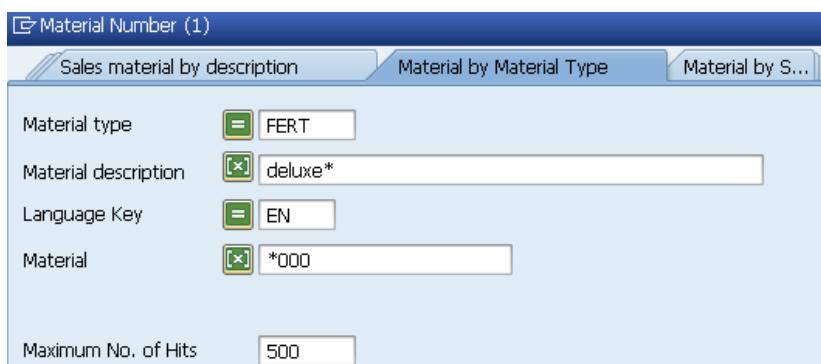


Make sure that you are on the Material by Material Type tab. If not, you can use the icon (in the top-right corner) to display a list of all search tabs available.

In the Material Type field, select **Finished Product (FERT)**. In order to display your Deluxe Touring bikes only, you need to define two more search criteria. First, in the Material Description field type **Deluxe***. Second, in the Material field (which is the field for the unique material number) type ***###**. Remember to replace **###** with your three-digit number, e.g. ***014** if your number is 014.

Finished Product
Deluxe*
*###

Compare your entries with the screen below before pressing Enter or clicking on to start the search.



The result of this search should give you a list of:

- a) all finished goods,
- b) which name (short description) starts with Deluxe,

c) which material numbers end with your number (###).

| Material Number (1) 3 Entries found | | |
|-------------------------------------|---------------------------|----------|
| Sales material by description | Material by Material Type | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| Material type: FERT | | |
| Material description | Language | Material |
| DELUXE TOURING BIKE (BLACK) | EN | DXTR1000 |
| DELUXE TOURING BIKE (RED) | EN | DXTR3000 |
| DELUXE TOURING BIKE (SILVER) | EN | DXTR2000 |

You should get a list of three different Deluxe Touring bikes – black, red and silver (please note that the material numbers in your screen will be different). Double-click on your red Touring bike which will copy its unique material number (**DXTR3###**) into the Material field.

DXTR3###

In addition to the material number, in the Plant field select GBI's manufacturing facility in Dallas (**DL00**). Then, press Enter or click on . You should be displayed a screen similar to the one shown below.

DL00

| Stock/Requirements List as of 12:07 hrs | | | | | | | |
|---|------------|----------|---------------------------|---------------|------|---------------|-----------|
| Show Overview Tree | | | | | | | |
| Material | DXTR3000 | | Deluxe Touring Bike (red) | | | | |
| Plant | DL00 | MRP Type | M1 | Material type | FERT | Unit | EA |
| A.. | Date | MRP ... | MRP element data | Reschedule... | E.. | Receipt/Reqmt | Available |
| | 06/17/2016 | Stock | | | | | |
| | 06/24/2016 | ----> | End of Planning Tim... | | | | |

As you can see, GBI has currently no red Deluxe Touring bikes on stock.
Repeat the same procedure for the other two deluxe bikes (black and silver).

How many black Deluxe Touring Bikes are available in Dallas?

pieces

How many silver Deluxe Touring Bikes are stored in the DL00 plant?

pieces

Click on to return to the SAP Easy Access Menu.



PP 2: Display Bill of Material

Exercise Use the SAP Easy Access Menu to display a bill of material.

Time 5 min

Task Review the components of your black Deluxe Touring bike and the components of the Touring Aluminum Wheel Assembly within the finished bike bill of material.

Name (Position) Jun Lee (Production Supervisor)

A bill of material (BOM) is a list of the components that are needed to create a given product. The list contains the description, the quantity, and unit of measure. The BOM can contain items of different item categories such as stock items, non-stock items, document items, and text items.

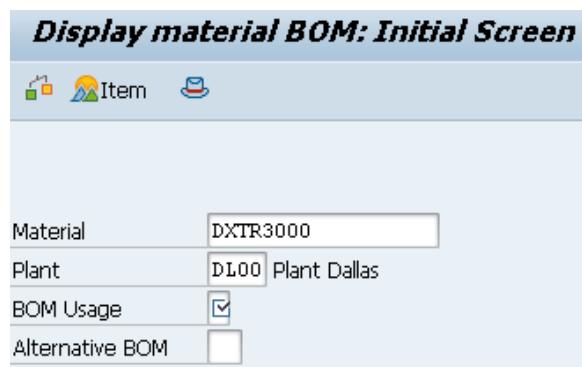
Bill of Material (BOM)

To review a bill of material, follow the menu path:

Menu path

Logistics ▶ Production ▶ Master Data ▶ Bills of Material ▶ Bill of Material ▶ Material BOM ▶ Display

This will produce the following screen.



The system should have already defaulted in the material number (**DXTR1###**) and the plant (**DL00**) from the previous exercise. It also assumes that you would like to display the BOM valid today (note Valid From and Valid to dates). In addition, the system requests the BOM usage. Click in the BOM Usage field and use **F4** to display possible usage types. Select usage type **1** for plant DL00. Then, press Enter to display the BOM of your black Deluxe Touring bike (please note that the material numbers in your screen will be different).

DXTR1###
DL00

F4
1

| Display material BOM: General Item Overview | | | | | | | | | | |
|---|----------|-----------------------------|---------------------------------|----------|----|-------------------------------------|--------------------------|------------|------------|--|
| | | | | | | | | | | |
| Material | DXTR1000 | Deluxe Touring Bike (black) | | | | | | | | |
| Plant | DL00 | Plant Dallas | | | | | | | | |
| Alternative BOM | 1 | | | | | | | | | |
| Material Document General | | | | | | | | | | |
| Item | Ict | Component | Component description | Quantity | Un | A... | Sts | Valid From | Valid to | |
| 0010 L | | TRWA1000 | Touring Aluminum Wheel Assembly | 2 | EA | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 01/01/2010 | 12/31/9999 | |
| 0020 L | | TRFR1000 | Touring Frame-Black | 1 | EA | <input type="checkbox"/> | <input type="checkbox"/> | 01/01/2010 | 12/31/9999 | |
| 0030 L | | DGAM1000 | Derailleur Gear Assembly | | EA | <input type="checkbox"/> | <input type="checkbox"/> | 01/01/2010 | 12/31/9999 | |
| 0040 L | | TRSK1000 | Touring Seat Kit | 1 | EA | <input type="checkbox"/> | <input type="checkbox"/> | 01/01/2010 | 12/31/9999 | |
| 0050 L | | TRHB1000 | Touring Handle Bar | 1 | EA | <input type="checkbox"/> | <input type="checkbox"/> | 01/01/2010 | 12/31/9999 | |
| 0060 L | | PEDL1000 | Pedal Assembly | 1 | EA | <input type="checkbox"/> | <input type="checkbox"/> | 01/01/2010 | 12/31/9999 | |
| 0070 L | | CHAN1000 | Chain | 1 | EA | <input type="checkbox"/> | <input type="checkbox"/> | 01/01/2010 | 12/31/9999 | |
| 0080 L | | BRKT1000 | Brake Kit | 1 | EA | <input type="checkbox"/> | <input type="checkbox"/> | 01/01/2010 | 12/31/9999 | |
| 0090 L | | MDOC1000 | Warranty Document | 1 | EA | <input type="checkbox"/> | <input type="checkbox"/> | 01/01/2010 | 12/31/9999 | |
| 0100 L | | PCKG1000 | Packaging | 1 | EA | <input type="checkbox"/> | <input type="checkbox"/> | 01/01/2010 | 12/31/9999 | |

The assembly indicator (column Asm; see circled area above) marks the item with components that have their own BOM. In this case, it is the Touring Aluminum Wheel Assembly.

Double-click on this checkbox (indicator for Wheel Assembly TRWA1###). This will produce the following screen.

Display assembly

| | | |
|---|------------|---------------------------------|
| Material | TRWA1000 | Touring Aluminum Wheel Assembly |
| Plant | DL00 | Plant Dallas |
| Usage | 1 | Production |
| Validity | | |
| Valid From | 06/17/2016 | |
| Valid to | 06/17/2016 | |
| Additional Data | | |
| Required qty | 2.000 | |
| <input type="button" value="Continue"/> <input type="button" value="Cancel"/> | | |

In the Display assembly screen, click on **Continue**. This will display the materials that make up the assembly of TRWA1###.

Repeat the procedure for your red and the silver Deluxe Touring bike to identify the differences in their bills of materials. You may open another (parallel) session to compare the BOMs in separate screens (use the icon in the system tool bar).

Click on twice to return to the SAP Easy Access Menu.

PP 3: Display Multi-Level Bill of Materials

Exercise Use the SAP Easy Access Menu to display a multi-level BOM. **Time** 5 min

Time 5 min

Task Review the BOM for your black Deluxe Touring bike from a multi-level hierarchy level.

Name (Position) Jun Lee (Production Supervisor)

To display a multi-level BOM, follow the menu path:

Menu path

Logistics ► Production ► Master Data ► Bills of Material ► Reporting ► BOM Explosion ► Material BOM ► Multilevel BOM

In the following screen, enter (or find) Material **DXTR1###** (replace ### with your number), Plant **DL00**, and BOM Application **PP01** (Production-General). Then, click on to display the BOM structure for your bike valid today. If the system requests a quantity, enter **1**.

DXTR1###
DL00
PP01

1

| Expllosion level | Item | Obj. | Component number | Object description | Ovfl | Comp. Qty (CU)n | Un | Ict | Ex. |
|------------------|------|------|------------------|--------------------------|------|-----------------|----|-----|-----|
| .1 | 0010 | | TRWA1000 | Touring Aluminum Wh... | | 2 | EA | L | |
| .2 | 0010 | | TRTR1000 | Touring Tire | | 2 | EA | L | |
| .2 | 0020 | | TRTB1000 | Touring Tube | | 2 | EA | L | |
| .2 | 0030 | | TRWH1000 | Touring Aluminum Wh... | | 2 | EA | L | |
| .2 | 0040 | | HXNT1000 | Hex Nut 5 mm | | 2 | EA | L | |
| .2 | 0050 | | LWSH1000 | Lock Washer 5 mm | | 4 | EA | L | |
| .2 | 0060 | | BOLT1000 | Socket Head Bolt 5x20... | | 2 | EA | L | |
| .1 | 0020 | | TRFR1000 | Touring Frame-Black | | 1 | EA | L | |
| .1 | 0030 | | DGAM1000 | Derailleur Gear Assembly | | 1 | EA | L | |
| .1 | 0040 | | TRSK1000 | Touring Seat Kit | | 1 | EA | L | |
| .1 | 0050 | | TRHB1000 | Touring Handle Bar | | 1 | EA | L | |
| .1 | 0060 | | PEDL1000 | Pedal Assembly | | 1 | EA | L | |
| .1 | 0070 | | CHAN1000 | Chain | | 1 | EA | L | |
| .1 | 0080 | | BRKT1000 | Brake Kit | | 1 | EA | L | |
| .1 | 0090 | | WDOC1000 | Warranty Document | | 1 | EA | L | |
| .1 | 0100 | | PCKG1000 | Packaging | | 1 | EA | L | |

Click on to go back to the initial screen. There, you click on (View). On the following screen, in the Display field group select **Variable list** and click on .

Variable list

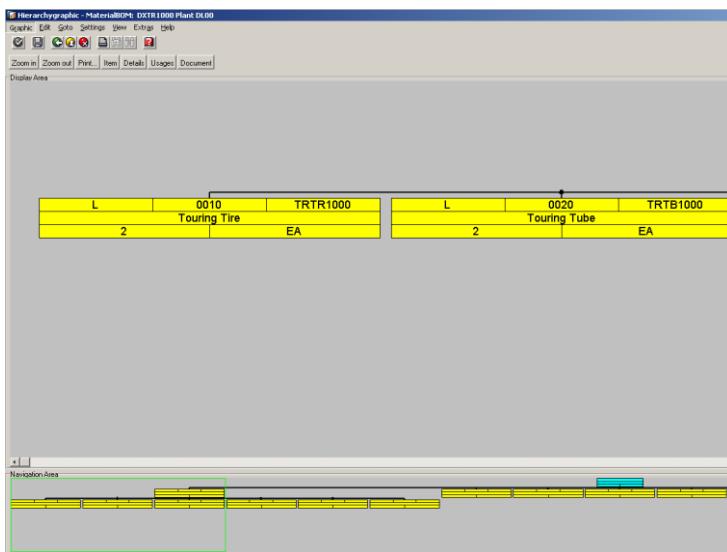
Explode BOM: Multilevel BOM: View

| | |
|---------------------------------------|---|
| | |
| Define view | Display |
| <input type="checkbox"/> Alt priority | <input checked="" type="checkbox"/> Variable list |
| <input type="checkbox"/> Scrap | Display <input type="text" value="SAPCSMLVMP01"/> |
| Restrict view | Print <input type="text" value="SAPCSMLVMP02"/> |

After reviewing the components of your Finished Bike, find and select the following item in the system menu:

Goto ► Graphic

This should produce the following BOM hierarchy graphic.



You can use the Zoom in and Zoom out buttons to resize the graphic.

Click on to exit the graphic screen. Then, click on again to return to the SAP Easy Access Menu.



PP 4: Display Routing

Exercise Use the SAP Easy Access Menu to display a routing.

Time 10 min

Task Review the routing for your black Deluxe Touring bike.

Name (Position) Jun Lee (Production Supervisor)

A routing is a series of sequential operations carried out to produce an end product. Routings contain information on where work is to be performed, steps that need to be completed, and time lines assigned for each operation.

Routing

To review a routing, follow the menu path:

Menu path

Logistics ► Production ► Master Data ► Routings ► Routings ► Standard Routings ► Display

Enter Material **DXTR1###** and Plant **DL00**. Then, click on to display the following list of operations.

DXTR1###
DL00

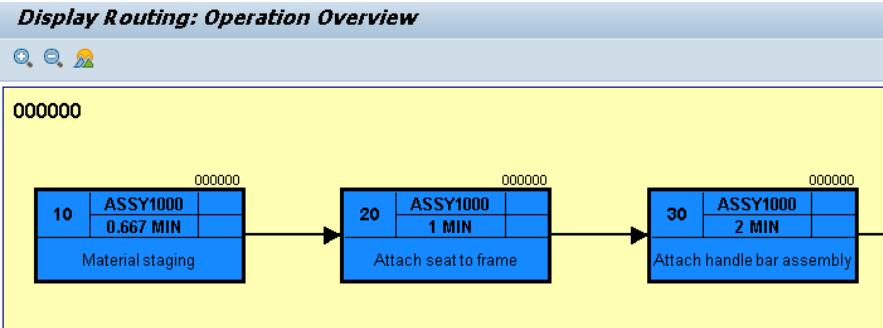
| Display Routing: Operation Overview | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|----------|-----------------------------|------------|----------|------------|---------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---------------|------|-------|-----------|-----------|---------|------|
| | | | | | | | | | | | | | | | | | | | | |
| Material | DXTR1000 | Deluxe Touring Bike (black) | Grp.Count1 | Sequence | 0 | | | | | | | | | | | | | | | |
| Operation Overv. | | | | | | | | | | | | | | | | | | | | |
| Op... | Sop | Work c... | Plnt | Co... | Standar... | Description | L... | P... | C... | O... | P... | C... | S... | Base Quantity | U... | Setup | U... | Activi... | Machine | U... |
| 0010 | | ASST1000 | DL00 | ASST | | Material staging | <input type="checkbox"/> | 15 | EA | 0 | MIN LABOR | 0 | MIN | |
| 0020 | | ASST1000 | DL00 | ASST | | Attach seat to frame | <input type="checkbox"/> | 1 | EA | 0 | MIN LABOR | 0 | MIN | |
| 0030 | | ASST1000 | DL00 | ASST | | Attach handle bar assembly | <input type="checkbox"/> | 1 | EA | 0 | MIN LABOR | 0 | MIN | |
| 0040 | | ASST1000 | DL00 | ASST | | Attach derailleur gear assm. to wheel | <input type="checkbox"/> | 1 | EA | 0 | MIN LABOR | 0 | MIN | |
| 0050 | | ASST1000 | DL00 | ASST | | Attach front and rear wheels to chain | <input type="checkbox"/> | 1 | EA | 0 | MIN LABOR | 0 | MIN | |
| 0060 | | ASST1000 | DL00 | ASST | | Attach brakes | <input type="checkbox"/> | 1 | EA | 0 | MIN LABOR | 0 | MIN | |
| 0070 | | ASST1000 | DL00 | ASST | | Attach peddles | <input type="checkbox"/> | 1 | EA | 0 | MIN LABOR | 0 | MIN | |
| 0080 | | INSP1000 | DL00 | ASST | | Test bike | <input type="checkbox"/> | 1 | EA | 2 | MIN LABOR | 0 | MIN | |
| 0090 | | PACK1000 | DL00 | ASST | | Disassemble | <input type="checkbox"/> | 1 | EA | 0 | MIN LABOR | 0 | MIN | |
| 0100 | | PACK1000 | DL00 | ASST | | Pack bike | <input type="checkbox"/> | 1 | EA | 0 | MIN LABOR | 0 | MIN | |
| 0110 | | PACK1000 | DL00 | ASST | | Move to storage | <input type="checkbox"/> | 15 | EA | 0 | MIN LABOR | 0 | MIN | |

Select to display the list of components. None of them is assigned to any specific operation (note that column Oper./Act. is empty).

| Item Overview | | | | | | | | | | | |
|--------------------------|------|------|--------|-----------|----------|-------------|------|------|------|---------|------|
| P.. | L... | Path | Ite... | Component | Quantity | Sort String | U... | I... | B... | Oper... | Seq. |
| <input type="checkbox"/> | 0 | 0 | 0010 | TRWA1000 | 2 | | EA | L | | | |
| <input type="checkbox"/> | 0 | 0 | 0020 | TRFR1000 | 1 | | EA | L | | | |
| <input type="checkbox"/> | 0 | 0 | 0030 | DGAM1000 | 1 | | EA | L | | | |
| <input type="checkbox"/> | 0 | 0 | 0040 | TRSK1000 | 1 | | EA | L | | | |
| <input type="checkbox"/> | 0 | 0 | 0050 | TRHB1000 | 1 | | EA | L | | | |
| <input type="checkbox"/> | 0 | 0 | 0060 | PEDL1000 | 1 | | EA | L | | | |
| <input type="checkbox"/> | 0 | 0 | 0070 | CHAN1000 | 1 | | EA | L | | | |
| <input type="checkbox"/> | 0 | 0 | 0080 | BRKT1000 | 1 | | EA | L | | | |
| <input type="checkbox"/> | 0 | 0 | 0090 | WDOC1000 | 1 | | EA | L | | | |
| <input type="checkbox"/> | 0 | 0 | 0100 | PCKG1000 | 1 | | EA | L | | | |

Select to go back to the operation overview. Then, click on .

This will display the following operation graphic.



Click on to go back to the operation overview. Then, find the following system menu item:

Extras ▶ Scheduling ▶ Schedule

This should produce the following screen.

The scheduling dialog box contains the following settings:

- Basic dates:** Start date 06/17/2016, Finish date (empty)
- Scheduling type:** 1 Forwards
- Lot size:** 10 EA
- Reduction:**
 - Reduction type: (empty)
 - Reduction Level: (empty)
 - Reduction strategy: (empty)
 - %red. floats b/a prd: (empty)

At the bottom right are and .

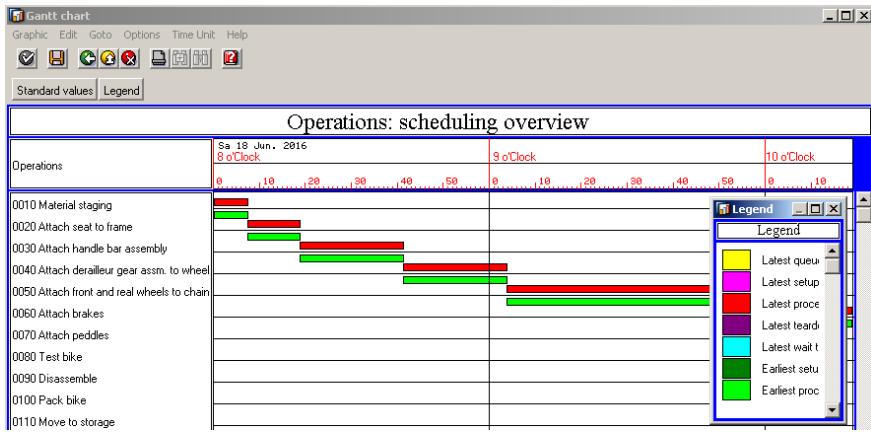
Enter Scheduling type **1** and Lot size **10**. Click on . In the following screen, find or enter overview variant **000000000001** (Operation segments). Confirm your entry with .

1
10
000000000001

In order to view the schedule in a Gantt chart, click on . Find the following system menu item:

Time unit ▶ Minute

Also, display the legend by clicking on .



Click on and on Yes to quit the Gantt chart. Then, click on to return to the SAP Easy Access Menu.

Yes



PP 5: Display Routing/BOM in Engineering Workbench

Exercise Use the Engineering Workbench to display a routing and a BOM.

Time 10 min

Task Review the BOM and routing simultaneously.

Name (Position) Jun Lee (Production Supervisor)

The Engineering Workbench (EWB) provides an environment where you have the ability to create, change, and delete BOM and routings. More importantly, it gives us the ability to create work lists and work on specific parts of a BOM or routing without locking the entire object.

Engineering Workbench
(EWB)

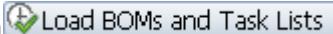
To review BOMs and routings simultaneously, follow the menu path:

Menu path

Logistics ▶ Production ▶ Master Data ▶ Engineering Workbench

In the following window, use the F4 help to find and select Current Working Area **FK** (Test Work Area). Then, click on .

FK

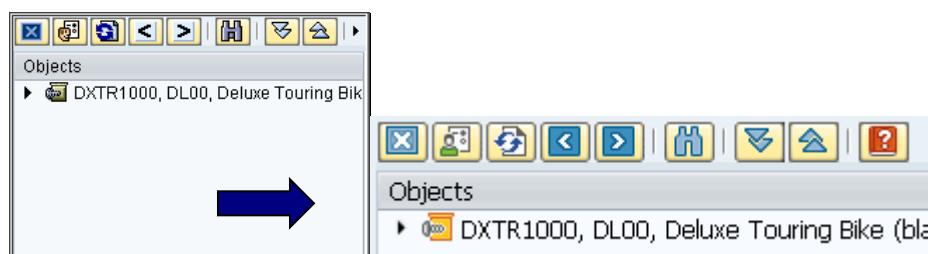
In the EWB: Selection Criteria for BOM Headers screen, enter (or find) Material **DXTR1###** (replace ### with your number) and Plant **DL00**. Then, click on .

DXTR1###
DL00

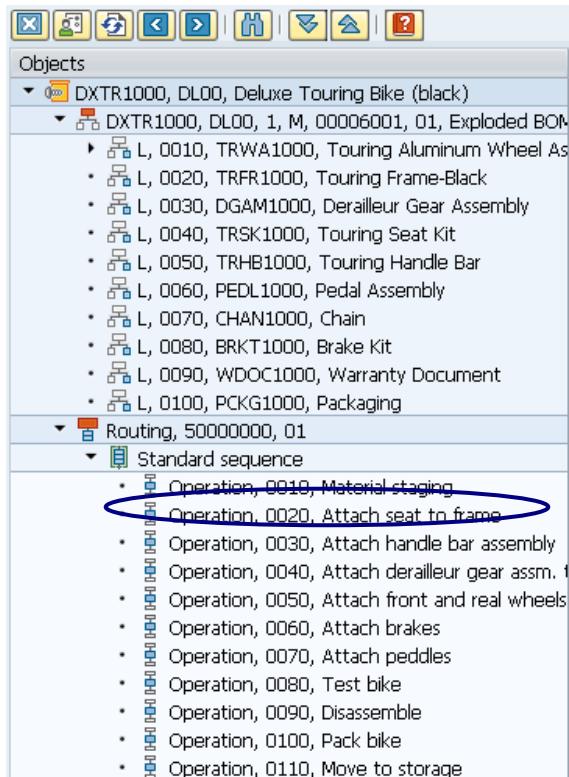
In the EWB: BOM Headers Overview screen, if the  icon is not grayed out, click on it to activate the browser. If the system requests a Change number in a separate screen, leave it blank and click on . If the system requests an Application, enter **PP01** and click on .

PP01

In order to see the icons  and , use the mouse to widen the browser window (as shown below).



Click on  (left) to select the line DXTR1###, DL00, Deluxe Touring Bike (black). Then, click on  to expand the tree completely. This might take a few seconds and will result in the following screen.



The subtree marked with comprises the entire BOM for your Deluxe Touring Bike, the subtree marked with lists all routing operations.

Double-click on operation **0020** (Attach seat to frame) to call up specific information. Here, you could change the routing details for this operation if necessary.

0020

Click on and on Yes to return to the SAP Easy Access Menu.

Yes



PP 6: Display Work Center

Exercise Use the SAP Easy Access Menu to display a work center.

Time 15 min

Task Review a work center in GBI's plant in Dallas.

Name (Position) Jun Lee (Production Supervisor)

A work center is a location where operations are carried out for a production order. Capacities (setup, machine, and labor) are assigned to work centers so that they can be allocated and consumed within an order in a controlled and predictable manner. The work center capacity is created in and assigned to a single work center.

Work center

To review a work center and the capacity assigned to it, follow the menu path:

Menu path

Logistics ▶ Production ▶ Master Data ▶ Work Centers ▶ Work Center ▶ Display

Enter Plant **DL00**. In the Work center field, use the **F4** help and Enter to display all work centers in Dallas. In the search results, double-click on the DL Assembly work center to select it which should copy its number (**ASSY1000**). Click on .

DL00
F4

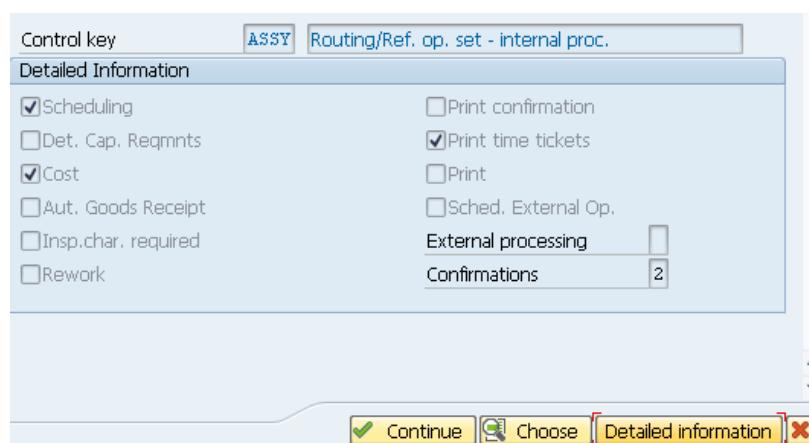
ASSY1000

On the Basic Data tab, find out who is the person responsible.

On the Default Values tab, click in the Control key field (**ASSY**) and select **F4**. On the following screen, single-click on the ASSY. Then, select

ASSY
F4

Detailed information which indicates what data is required when ASSY is used.



| Control key | | ASSY | Routing/Ref. op. set - internal proc. |
|--|--|------|---------------------------------------|
| Detailed Information | | | |
| <input checked="" type="checkbox"/> Scheduling | <input type="checkbox"/> Print confirmation | | |
| <input type="checkbox"/> Det. Cap. Reqmts | <input checked="" type="checkbox"/> Print time tickets | | |
| <input checked="" type="checkbox"/> Cost | <input type="checkbox"/> Print | | |
| <input type="checkbox"/> Aut. Goods Receipt | <input type="checkbox"/> Sched. External Op. | | |
| <input type="checkbox"/> Insp.char. required | External processing <input type="text" value="2"/> | | |
| <input type="checkbox"/> Rework | Confirmations <input type="text" value="2"/> | | |

Buttons at the bottom: Continue, Choose, Detailed information, Close.

Select Continue. Click on the Scheduling tab.

On the Scheduling tab, click in the Processing formula field and select Form. (Display formula). After acknowledging the formula, press to continue.

After selecting Formula (Test formula), enter Operation Quantity **100 EA**, Base Quantity **1**, No. of Splits **2**, Setup **7 MIN**, and Labor **7 MIN**. Then, select (Calculate). The following screen will appear.

| |
|--------|
| 100 EA |
| 1 |
| 2 |
| 7 MIN |
| 7 MIN |

Click on to continue. Did the Processing formula work correctly?

Labor
*
Operation quantity
/
Base quantity
/
Operation splits $((7 * 100) / 1) / 2 = 350$

Select to go back.

Click on to return to the SAP Easy Access Menu.

