1. **Order Entry**
2. **Order Booking**
3. **Reservation**
4. **Pick Release**
5. **Pick Confirm/ Move Order Transaction**
6. Ship Confirm
7. Enter Invoice
8. Complete Line
9. Close Order
10. **Order Entry**

This is first stage, When the order is entered in the system, it creates a record in order headers and Order Lines table.

* Enter header details: Once you enter details on the order header and save it or move it to lines, record goes to one table OE\_ORDER\_HEADERS\_ALL FLOW\_STATUS\_CODE = ENTERED, BOOKED\_FLAG = N), Primary key=HEADER\_ID
* + No record exists in any other table for this order till now.
* Enter Line details for this order: Enter different item numbers, quantity and other details in line tab. When the record gets saved, it goes to one table. Order header details will be linked with line details by order HEADER\_ID. OE\_ORDER\_LINES\_ALL (FLOW\_STATUS\_CODE = ENTERED, BOOKED\_FLAG = N, OPEN\_FLAG = Y) Primary key= LINE\_ID

**2.Order Booking**  
This is next stage, when Order is booked then the Flow status changed from Entered to Booked. At this stage, these below table get affected.

* OE\_ORDER\_HEADERS\_ALL (FLOW\_STATUS\_CODE as BOOKED, BOOKED\_FLAG updated to Y)
* OE\_ORDER\_LINES\_ALL (FLOW\_STATUS\_CODE as AWAITING\_SHIPPING, BOOKED\_FLAG updated Y)
* WSH\_DELIVERY\_DETAILS (DELIVERY\_DETAIL\_ID is assigned here, RELEASED\_STATUS ‘R’ ready to release, LINE\_ID comes as SOURCE\_LINE\_ID)
* WSH\_DELIVERY\_ASSIGNMENTS (DELIVERY\_ASSIGNMENT\_ID is assigned for DELIVERY\_DETAIL\_ID present in WSH\_DELIVERY\_DETAILS, DELIVERY\_ID remains blank till this stage)

\*In shipping transaction form order status remains "Ready to Release".

At the same time, Demand interface program runs in background And insert into inventory tables MTL\_DEMAND, here LINE\_ID come as a reference in DEMAND\_SOURCE\_LINE

**3. Reservation**

This step is required for doing reservations SCHEDULE ORDER PROGRAM runs in the background and quantities are reserved. Once this program get successfully get completed, the MTL\_DEMAND and MTL\_RESERVATIONS table get updated. LINE\_ID gets updated in DEMAND\_SOURCE\_LINE\_ID in both the tables.

**4. Pick Release**  
Pick Release is the process of putting reservation on on-hand quantity available in the inventory and pick them for particular sales order.

Pick release can be done from 'Release Sales Order' form or 'Pick release SRS' program can be scheduled in background. In both of these cases all lines of the order gets pick released depending on the Picking rule used. If specific line/s needs to be pick release it can be done from 'Shipping Transaction form. For this case Pick Release is done from 'Release Sales Order' form with Pick Confirm=NO.  
Once pick release is done these are the tables get affected:

* If step 3 is not done then MTL\_RESERVATIONS gets updated now.
* WSH\_NEW\_DELIVERIES (one record gets inserted with SOURCE\_HEADER\_ID= order header ID, STATUS\_CODE=OP =>open)
* WSH\_DELIVERY\_ASSIGNMENTS (DELIVERY\_ID gets assigned which comes from WSH\_NEW\_DELIVERIES)
* WSH\_DELIVERY\_DETAILS (RELEASED\_STATUS ‘S’ ‘submitted for release’)
* MTL\_TXN\_REQUEST\_HEADERS
* MTL\_TXN\_REQUEST\_LINES (LINE\_ID goes as TXN\_SOURCE\_LINE\_ID)
* (move order tables. Here request is generated to move item from Source (RM or FG) sub-inventory to staging sub-inventory)
* MTL\_MATERIAL\_TRANSACTIONS\_TEMP (link to above tables through MOVE\_ORDER\_HEADER\_ID/LINE\_ID, this table holds the record temporally)
* MTL\_SERIAL\_NUMBERS\_TEMP (if item is serial controlled at receipt then record goes in this table)
* MTL\_SERIAL\_NUMBERS (enter value in GROUP\_MARK\_ID )

\*In shipping transaction form order status remains "Released to Warehouse" and all the material still remains in source sub-inventory. We need to do Move Order Transaction for this order. Till this no material transaction has been posted to MTL\_MATERIAL\_TRANSACTIONS

**5. Pick Confirm/ Move Order Transaction**

Items are transferred from source sub-inventory to staging Sub-inventory. Here material transaction occurs.

Order line status becomes 'Picked' on Sales Order and 'Staged/Pick Confirmed' on Shipping Transaction Form.

* MTL\_MATERIAL\_TRANSACTIONS\_TEMP (Record gets deleted from here and gets posted to MTL\_MATERIAL\_TRANSACTIONS)
* OE\_ORDER\_LINES\_ALL (FLOW\_STATUS\_CODE ‘PICKED’ )
* MTL\_MATERIAL\_TRANSACTIONS (LINE\_ID goes as TRX\_SOURCE\_LINE\_ID)
* MTL\_TRANSACTION\_ACCOUNTS
* WSH\_DELIVERY\_DETAILS (RELEASED\_STATUS becomes ‘Y’ => ‘Released’ )
* WSH\_DELIVERY\_ASSIGNMENTS
* MTL\_ONHAND\_QUANTITIES
* MTL\_SERIAL\_NUMBERS\_TEMP (record gets inserted after putting details for the item which are serial controlled at 'Sales order issue')
* MTL\_SERIAL\_NUMBERS (record gets inserted after putting details for the item which are serial controlled at 'Sales order issue')

\* This step can be eliminated if we set Pick Confirm=YES at the time of Pick Release

**6. Ship Confirm**  
Here ship confirm interface program runs in background. Data removed from WSH\_NEW\_DELIVERIES.

The items on the delivery get shipped to customer at this stage.

* OE\_ORDER\_LINES\_ALL (FLOW\_STATUS\_CODE ‘shipped’)
* WSH\_DELIVERY\_DETAILS (RELEASED\_STATUS ‘C’ ‘Shipped’, SERIAL\_NUMBER if quantity is ONE)
* WSH\_SERIAL\_NUMBERS (records gets inserted with the DELIVERY\_DETAIL\_ID reference, only in case of shipped quantity is two or more)
* MTL\_TRANSACTION\_INTERFACE
* MTL\_MATERIAL\_TRANSACTIONS (linked through Transaction source header id)
* MTL\_TRANSACTION\_ACCOUNTS
* Data deleted from MTL\_DEMAND, MTL\_RESERVATIONS
* Item deducted from MTL\_ONHAND\_QUANTITIES
* MTL\_SERIAL\_NUMBERS\_TEMP (records gets deleted from this table)
* MTL\_SERIAL\_NUMBERS (Serial number stauts gets updated CURRENT\_STATUS=4 , 'Issued out of store')

**7. Enter Invoice**

After shipping the order the order lines gets eligible to get transferred to RA\_INTERFACE\_LINES\_ALL. Workflow background engine picks those records and post it to RA\_INTERFACE\_LINES\_ALL. This is also called Receivables interface, that mean information moved to accounting area for invoicing details. Invoicing workflow activity transfers shipped item information to Oracle Receivables. At the same time records also goes in the table RA\_INTERFACE\_SALESCREDITS\_ALL which hold details of sales credit for the particular order.

RA\_INTERFACE\_LINES\_ALL (interface table into which the data is transferred from order management) Then Autoinvoice program imports data from this table which get affected into this stage are receivables base table. At the same time records goes in

RA\_CUSTOMER\_TRX\_ALL (CUST\_TRX\_ID is primary key to link it to TRX\_LINES table and TRX\_NUMBER is the invoice number)  
RA\_CUSTOMER\_TRX\_LINES\_ALL (LINE\_ATTRIBUTE\_1 and LINE\_ATTRIBUTE\_6 are linked to order number and LINE\_ID of the orders)

**8.Complete Line**  
In this stage order line level table get updated with Flow status and open flag.  
OE\_ORDER\_LINES\_ALL (FLOW\_STATUS\_CODE ‘shipped’, OPEN\_FLAG “N”)

**9.Close Order**  
This is last step of Order Processing. In this stage only OE\_ORDER\_LINES\_ALL table get updated. These are the table get affected in this step.  
  
OE\_ORDER\_LINES\_ALL (FLOW\_STATUS\_CODE ‘closed’, OPEN\_FLAG “N”)

OE\_ORDER\_HEADERS\_ALL

O2C Cycle Technical Flow

**Generic Order to Cash Cycle**

Standard Order to Cash Cycle  
Entered: - When the Order is Created in the system EBS below tables are affected  
 select \* from oe\_order\_headers\_all  
 (FLOW\_STATUS\_CODE = ENTERED, BOOKED\_FLAG = N)  
 select \* from oe\_order\_lines\_all   
 ( FLOW\_STATUS\_CODE = ENTERED, BOOKED\_FLAG = N, OPEN\_FLAG = Y)  
 select \* from oe\_transaction\_types\_tl  
   
After the Order is Booked   
 select \* from oe\_order\_headers\_all  
 (FLOW\_STATUS\_CODE = Booked, BOOKED\_FLAG = Y)  
 select \* from oe\_order\_lines\_all   
 (Flow\_status\_code = Awaiting\_Shipping, BOOKED\_FLAG = Y)  
 select \* from wsh\_delivery\_details   
 (Release\_status= R - ready to release, SOURCE\_LINE\_ID = order Lines’s LINE\_ID)  
 select \* from wsh\_delivery\_assignments  
 (DELIVERY\_ASSIGNMENT\_ID  = wsh\_delivery\_details.DELIVERY\_DETAIL\_ID, DELIVERY\_ID remains blank till this stage)  
 In shipping transaction form order status remains “Ready to Release”.   
 At the same time, Demand interface program runs in background and insert into inventory tables MTL\_DEMAND, here LINE\_ID come as a reference in DEMAND\_SOURCE\_LINE.  
 select \* from mtl\_demand  
 (DEMAND\_SOURCE\_LINE = order Lines’s LINE\_ID)  
   
Reservation:  
 This step is required for doing reservations. SCHEDULE ORDER PROGRAM runs in the background and quantities are reserved. Once this program get successfully completed, the MTL\_DEMAND and MTL\_RESERVATIONS tables get updated   
 select \* from mtl\_demand  
 (DEMAND\_SOURCE\_LINE = order Lines’s LINE\_ID)  
 select \* from mtl\_reservations  
  
Pick Released  
   
 Pick Release is the process of putting reservation on on-hand quantity available in the inventory and pick them for particular sales order.   
 Pick Release can be done from   
 (N) Shipping >Release Sales Order > Release Sales Order or ‘Pick release SRS’ program can be scheduled in background.  
  If specific line needs to be pick release, it can be done from ‘Shipping Transaction form’. For this case Pick Release is done from ‘Release Sales Order’ form with Pick Confirm=NO.  
 select \* from oe\_order\_headers\_all  
 (Flow\_status\_code = Booked)  
 select \* from oe\_order\_lines\_all   
 (Flow\_status\_code = Picked)  
 select \* from wsh\_delivery\_details   
 (Release\_status= S)  
 select \* from wsh\_delivery\_assignments  
 ((DELIVERY\_ASSIGNMENT\_ID  = wsh\_delivery\_details.DELIVERY\_DETAIL\_ID, DELIVERY\_ID which comes from WSH\_NEW\_DELIVERIES)  
 select \* from mtl\_demand   
 (records populated)  
 select \* from mtl\_reservations   
 (records populated)  
 After the Pick Release for the Order is done WSH\_NEW\_DELIVERIES a new record gets inserted   
 select \* from wsh\_new\_deliveries  
 ( SOURCE\_HEADER\_ID= order header ID, STATUS\_CODE=OP (Open))  
 select \* from MTL\_MATERIAL\_TRANSACTIONS   
 (Two records: 1.issue item (-ve) 2.Revieced item in Sub Inv (+ve))  
  
Pick Confirm/ Move Order Transaction:  
Items are transferred from source sub-inventory to staging Sub-inventory. Here material transaction occurs.  
Sales Order lines status is changed to ‘Picked’ and in the Shipping Transaction Form the status is shown as ‘Staged/Pick Confirmed’.  
  
Ship Confirmed  
(N) Shipping >Transaction  
Interface Trip Stop Program (Update OE\_INTERFACE\_FLAG = Y and INV\_INTERFACED\_FLAG = Y in the WSH\_DELIVERY\_DETAILS table)  
select \* from oe\_order\_headers\_all  
(Flow\_status\_code = Booked)  
select \* from oe\_order\_lines\_all (Flow\_status\_code = Shipped)  
select \* from wsh\_delivery\_details (Release\_status= D  and OE\_INTERFACE\_FLAG = Y and INV\_INTERFACED\_FLAG = Y )  
select \* from wsh\_delivery\_assignments  
select \* from mtl\_demand (records deleted)  
select \* from mtl\_reservations (records deleted)  
select \* from wsh\_new\_deliveries  
select \* from MTL\_MATERIAL\_TRANSACTIONS (One more record populated: 1.sale order issue (-ve))  
  Shipping Module :   
select \* from WSH\_DELIVERY\_LEGS  
select \* from WSH\_TRIP\_STOP  
select \* from WSH\_TRIP  
  
Interface   
select \* from RA\_INTERFACE\_LINES\_ALL  
select \* from RA\_INTERFACE\_SALESCREDITS\_ALL   
Run Workflow Background Process  
(N)(M) View>request>(B)Submit New Request >(RB)Single Request >(B)OK  
for Item Type: OM Order Line  
This request submit Internally “ADS, (Autoinvoice Master Program)” Which will import the invoice to Receivables Module  
select \* from RA\_CUSTOMER\_TRX\_ALL (INTERFACE\_HEADER\_ATTRIBUTE1 = Sales Order Number)  
select \* from RA\_CUSTOMER\_TRX\_LINES\_ALL   
select \* from AR\_PAYMENT\_SCHEDULES\_ALL  
Create Receipts  
(N)Responsibility > Receivables  
AR\_RECEIVABLE\_APPLICATIONS\_ALL  
select \* from oe\_order\_headers\_all  
(Flow\_status\_code = Closed)  
STATUS on AR\_CASH\_RECEIPTS\_ALL is changed to APP  
AMOUNT\_DUE\_REMAINING is became 0  
  
Standard Order to Cash Cycle with backOrder  
Entered  
Booked  
Pick Released  
Ship Confirmed  
(N) Shipping >Transaction  
During the ship confirm activity we can do backorder the unshipped quantity.  
a. Enter the sales order number in the query manager form (B) Find  
b. Go to (T) Lines/LPN’s tab  
c. Enter the Shipped quantity and backordered quantity  
d. Go to (T) Delivery  
e. Select Ship confirm action  
f. Select the radio button Ship enterd Quantitied  
g. Select Backorder in unspecified quantity field  
Two records created in OE\_ORDER\_HEADERS\_ALL   
RELEASE\_STATUS = B for backorder in WSH\_DELIVERY\_DETAILS  
-- Find the Line\_nummber   
SELECT    TO\_CHAR (l.line\_number)  
       || DECODE (l.shipment\_number,  
                  NULL, NULL,  
                  '.' || TO\_CHAR (l.shipment\_number))  
       || DECODE (l.option\_number,  
                  NULL, NULL,  
                  '.' || TO\_CHAR (l.option\_number))  
       || DECODE (  
             l.component\_number,  
             NULL, NULL,  
                DECODE (l.option\_number, NULL, '.', NULL)  
             || '.'  
             || TO\_CHAR (l.component\_number))  
       || DECODE (  
             l.service\_number,  
             NULL, NULL,  
                DECODE (l.component\_number, NULL, '.', NULL)  
             || DECODE (l.option\_number, NULL, '.', NULL)  
             || '.'  
             || TO\_CHAR (l.service\_number)) LINE\_NUMBER  
      ,h.order\_number, l.ORDERED\_ITEM, l.\*  
  FROM oe\_order\_headers\_all h, oe\_order\_lines\_all l  
 WHERE h.header\_id = l.header\_id AND l.open\_flag = 'Y'  
 AND h.header\_id =  2525423  
  
--=============================================================  
-- Find Onhand Item Quanitity for perticular Sales Order   
  SELECT ola.line\_id,  
         mo.inventory\_item\_id,  
         OLA.ORDERED\_ITEM,  
         wdd.SUBINVENTORY,  
         mmt.organization\_id,  
         OLA.ORDERED\_QUANTITY,  
         SUM (mo.TRANSACTION\_QUANTITY)  
    FROM wsh\_delivery\_details wdd,  
         oe\_order\_lines\_all ola,  
        -- wsh\_delivery\_assignments wda,  
         MTL\_MATERIAL\_TRANSACTIONS mmt,  
         mtl\_onhand\_quantities mo  
   WHERE     wdd.source\_line\_id = ola.line\_id  
         AND ola.header\_id = 2502719  
        -- AND wdd.DELIVERY\_DETAIL\_ID = wda.DELIVERY\_DETAIL\_ID  
         AND mmt.source\_line\_id = ola.line\_id  
         AND wdd.subinventory = mmt.SUBINVENTORY\_CODE  
         AND mo.inventory\_item\_id = ola.inventory\_item\_id  
         AND mmt.organization\_id = mo.organization\_id  
         AND mo.SUBINVENTORY\_CODE = mmt.SUBINVENTORY\_CODE  
         AND wdd.released\_status = 'B'  
GROUP BY ola.line\_id,  
         mo.inventory\_item\_id,  
         OLA.ORDERED\_ITEM,  
         wdd.SUBINVENTORY,  
         mmt.organization\_id,  
         OLA.ORDERED\_QUANTITY  
--having SUM(mo.TRANSACTION\_QUANTITY) < OLA.ORDERED\_QUANTITY  
ORDER BY 1, 2   
  
--===========================================================  
To generate a debug for Pick Release:  
  
1. Following Profile Options need to be set before each test case, then reset after completion:  
     OM: Debug Level - set to 5  
     WSH: Debug Enabled - set to Yes  
     INV: Debug Trace - set to Yes  
2. The following Profile Option once set do not need to be changed.  
     WSH: Debug Level - set to Statement  
  
  
     INV: Debug Level - set to 11 >