

PLANT MAINTENANCE MODULE(PM)

Indenting Towers and Tower Parts in O&M

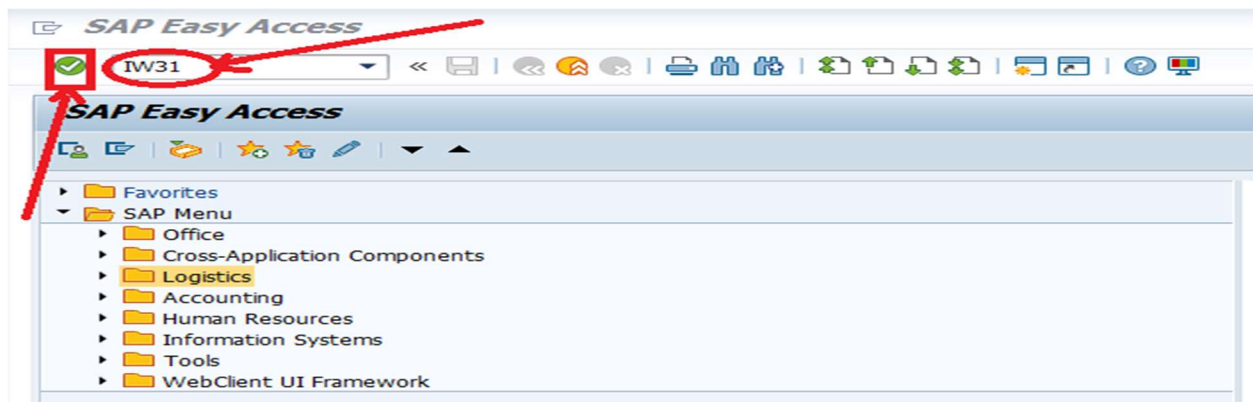
As part of O&M activities, various material components/equipment are indented by the field maintenance wings. The indented items are allotted either by the Transmission wing or by the concerned zonal offices.

The process of indent and allotment of EHT Towers/Tower parts is similar to that of the other inventory items. But unlike the other inventory items, EHT towers are the assemblies of various tower child parts of different dimensions. In SAP, the **assembled tower is denoted as 'Tower Bom'**. The word 'bom' indicates 'Bill of Materials'.

In SAP Materials Management (MM) module, it is configured in such a way that stocks of both 'Towers' (BOM) and 'individual tower child parts' can be maintained in the central stores. Both the above two items are treated as separate inventory items and are assigned separate material numbers. It is possible to indent/allot and issue either the tower as whole or only certain components of the tower.

The process of indenting 'towers' and 'tower parts' is explained below in detail with relevant screen shots.

STEP-1: For indenting and withdrawal of any material component, a maintenance order should be created first. Enter the 'T-Code' IW31 in the command field and click the enter button as indicated below for creation of maintenance order.



STEP-2: It may be noted that in the **create order screen** displayed, the first field i.e order type is a mandatory field to be filled in. The second and third fields may also be entered as indicated below.

STEP-4: In the next field, enter the priority of the work by selecting the same from the **drop down** menu.

The screenshot shows the 'Create Order: Initial Screen' with a toolbar at the top. The 'Header data' section contains the following fields: 'Order Type' (PM01), 'Priority' (2 High, circled in red with an arrow pointing to it), 'Func. Loc.' (empty), 'Equipment' (empty), 'Plng plant' (empty), and 'Bus. Area' (empty). The 'Reference' section has checkboxes for 'Create Follow-On Order' (unchecked), 'Operations' (checked), 'Components' (checked), 'Relationships' (unchecked), and 'Document Links' (unchecked). There are also input fields for 'Order' and a search button.

STEP-5: In the next field, the **ID** of the concerned functional location wherein the works are carried out should be entered. It can be selected through the search button available beside the field. If the search button is clicked, the **Display functional location** screen would be displayed. In this screen the search parameters as indicated in the below two screen shots may be entered.

In the **functional location section** of the screen, **LN*** may be entered in the functional location field as indicated in the first screen shot shown below, in order to fetch only the **line** functional location objects. Further, the maintenance plant ID may be entered in the **location data** as indicated below, for fetching the line functional locations available in the selected plant.

The screenshot shows the 'Display Functional Location: Functional Location Selection' screen. The 'FuncLocation Selection' section is highlighted with a red box and contains the following fields: 'Functional Location' (LN*, circled in red with an arrow pointing to it), 'Partner' (empty), 'Selection Profile' (empty), and an 'Address' button. The 'Classification' section has 'Class Type' (empty), 'Class' (empty), and an 'Include Subordinate Classes' checkbox (unchecked). The 'Linear Data' section has 'Segment' (empty), 'Start Point' (empty), 'End Point' (empty), and 'Length' (empty), each with a 'to' field and a search button.

Display Functional Location: Functional Location Selection

Display Functional Location: Functional Location Selection

Planning plant		to		
Planner group		to		
Construction type		to		
Catalog profile		to		
AuthorizGroup		to		
Business Area		to		
Main work center		to		
Reference location		to		
FunctLocCategory		to		
Permit		to		


Location Data/Account Assignment

Maintenance plant	5117	to		
Location		to		
Room		to		
Plant section		to		
Work center		to		
ABC indicator		to		
Sort field		to		
Controlling Area		to		
Company Code		to		
Cost Center		to		

STEP-6: Now click the **execute** button.

Display Functional Location: Functional Location Selection

Display Functional Location: Functional Location Selection



Planning plant		to		
Planner group		to		
Construction type		to		
Catalog profile		to		
AuthorizGroup		to		
Business Area		to		
Main work center		to		
Reference location		to		
FunctLocCategory		to		
Permit		to		

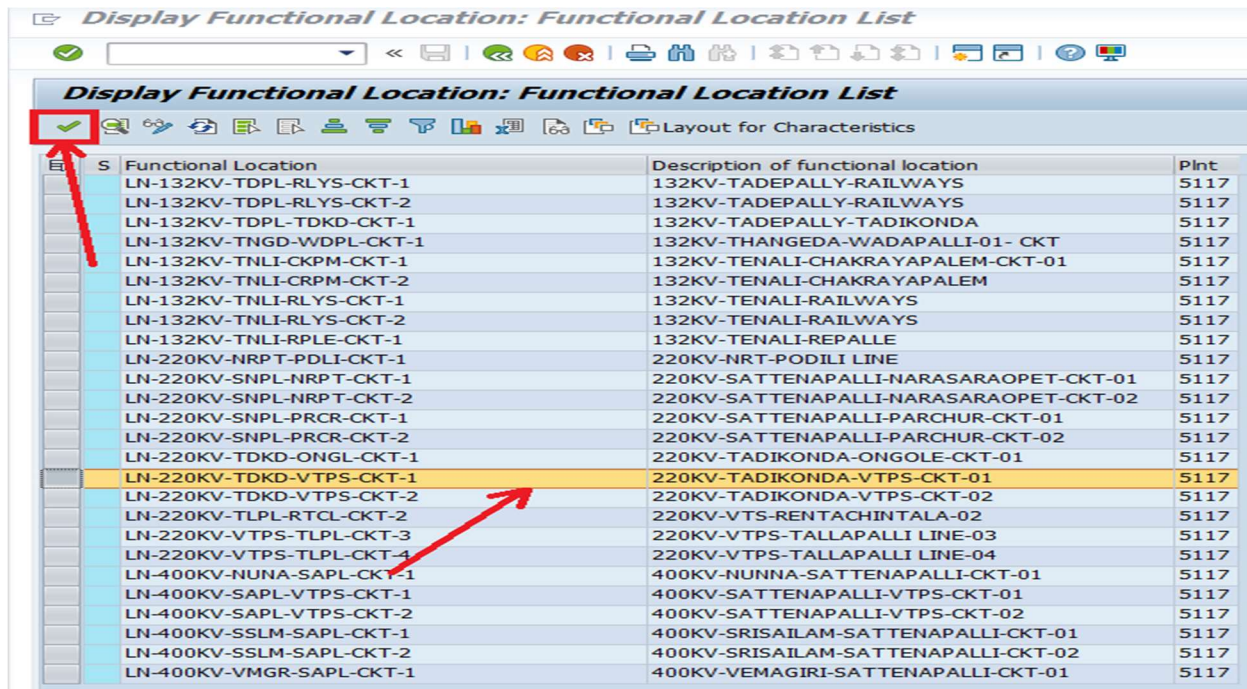
Location Data/Account Assignment

Maintenance plant	5117	to		
Location		to		
Room		to		
Plant section		to		
Work center		to		
ABC indicator		to		
Sort field		to		
Controlling Area		to		
Company Code		to		
Cost Center		to		

STEP-7: In the display functional location screen, the list of all the lines existing under the maintenance plant 5117 would be displayed.

Now select the required functional location by clicking at the beginning of the line and click the **enter** button as shown below.

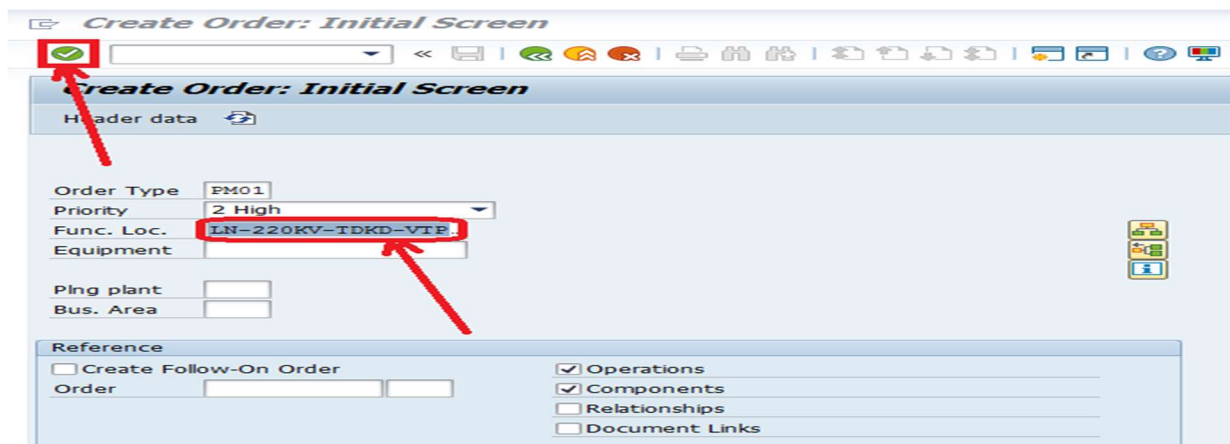
Display Functional Location: Functional Location List



Functional Location	Description of functional location	Plnt
LN-132KV-TDPL-RLYS-CKT-1	132KV-TADEPALLY-RAILWAYS	5117
LN-132KV-TDPL-RLYS-CKT-2	132KV-TADEPALLY-RAILWAYS	5117
LN-132KV-TDPL-TDKD-CKT-1	132KV-TADEPALLY-TADIKONDA	5117
LN-132KV-TNGD-WDPL-CKT-1	132KV-THANGEDA-WADAPALLI-01- CKT	5117
LN-132KV-TNLI-CKPM-CKT-1	132KV-TENALI-CHAKRAYAPALEM-CKT-01	5117
LN-132KV-TNLI-CRPM-CKT-2	132KV-TENALI-CHAKRAYAPALEM	5117
LN-132KV-TNLI-RLYS-CKT-1	132KV-TENALI-RAILWAYS	5117
LN-132KV-TNLI-RLYS-CKT-2	132KV-TENALI-RAILWAYS	5117
LN-132KV-TNLI-RPLE-CKT-1	132KV-TENALI-REPALLE	5117
LN-220KV-NRPT-PDLI-CKT-1	220KV-NRT-PODILI LINE	5117
LN-220KV-SNPL-NRPT-CKT-1	220KV-SATTENAPALLI-NARASARAOPET-CKT-01	5117
LN-220KV-SNPL-NRPT-CKT-2	220KV-SATTENAPALLI-NARASARAOPET-CKT-02	5117
LN-220KV-SNPL-PCR-CKT-1	220KV-SATTENAPALLI-PARCHUR-CKT-01	5117
LN-220KV-SNPL-PCR-CKT-2	220KV-SATTENAPALLI-PARCHUR-CKT-02	5117
LN-220KV-TDKD-ONGLE-CKT-1	220KV-TADIKONDA-ONGOLE-CKT-01	5117
LN-220KV-TDKD-VTPS-CKT-1	220KV-TADIKONDA-VTPS-CKT-01	5117
LN-220KV-TDKD-VTPS-CKT-2	220KV-TADIKONDA-VTPS-CKT-02	5117
LN-220KV-TLPL-RTCL-CKT-2	220KV-VTS-RENTACHINTALA-02	5117
LN-220KV-VTPS-TLPL-CKT-3	220KV-VTPS-TALLAPALLI LINE-03	5117
LN-220KV-VTPS-TLPL-CKT-4	220KV-VTPS-TALLAPALLI LINE-04	5117
LN-400KV-NUNA-SAPL-CKT-1	400KV-NUNNA-SATTENAPALLI-CKT-01	5117
LN-400KV-SAPL-VTPS-CKT-1	400KV-SATTENAPALLI-VTPS-CKT-01	5117
LN-400KV-SAPL-VTPS-CKT-2	400KV-SATTENAPALLI-VTPS-CKT-02	5117
LN-400KV-SSLM-SAPL-CKT-1	400KV-SRISAILAM-SATTENAPALLI-CKT-01	5117
LN-400KV-SSLM-SAPL-CKT-2	400KV-SRISAILAM-SATTENAPALLI-CKT-02	5117
LN-400KV-VMGR-SAPL-CKT-1	400KV-VEMAGIRI-SATTENAPALLI-CKT-01	5117

STEP-8: The selected **functional location ID** would flow into the Func.Loc field in the **create order** screen. Now click the enter button as shown below.

Create Order: Initial Screen



Header data

Order Type: PM01
Priority: 2 High
Func. Loc.: LN-220KV-TDKD-VTPS
Equipment:
Plng plant:
Bus. Area:

Reference
☐ Create Follow-On Order
Order:
☒ Operations
☒ Components
☐ Relationships
☐ Document Links

STEP-9: In the create breakdown maintenance order screen enter the description of the work in the **description** field as shown below, within forty characters.

Order: PM01 000000000001

Sys.Status: CRID MANC NTUP

HeaderData Operations Components Costs Partner Objects Additional Data

Person responsible
 PlannerGrp: L06 / 5117 LIN06SD5 4TADIKOND
 Mn.wk.ctr: LINES / 5117 LINES
 Person resp...

Notificatn: 000000000001
 Costs: INR
 PMActType: BD Break Down
 SystCond.:
 Address:

Dates
 Bsc start: 02.08.2018
 Basic fin.: 02.08.2018
 Priority: 2 High
 Revision:

Reference object
 Func. Loc.: LN-220KV-TDKD-VTP...
 Equipment: 220KV-TADIKONDA-VTPS-CKT-01

Malfnctn data Damage Notif. dates
 Malf.start: 02.08.2018 13:21:41 Breakdown

STEP-10: Now click the **enter** button.

Order: PM01 000000000001

Sys.Status: CRID MANC NTUP

HeaderData Operations Components Costs Partner Objects Additional Data

Person responsible
 PlannerGrp: L06 / 5117 LIN06SD5 4TADIKOND
 Mn.wk.ctr: LINES / 5117 LINES
 Person resp...

Notificatn: 000000000001
 Costs: INR
 PMActType: BD Break Down
 SystCond.:
 Address:

Dates
 Bsc start: 02.08.2018
 Basic fin.: 02.08.2018
 Priority: 2 High
 Revision:

Reference object
 Func. Loc.: LN-220KV-TDKD-VTP...
 Equipment: 220KV-TADIKONDA-VTPS-CKT-01

Malfnctn data Damage Notif. dates
 Malf.start: 02.08.2018 13:21:41 Breakdown

STEP-11: Now click the **components** tab. Any material indents should be raised in the components tab. It may be noted that this material indent is for withdrawal of material items lying as stock in the central stores and **not for procurement through purchase process.**

Create Breakdown Maintenance Order : Central Header

Order: PM01 \$000000000001 Replacement of 220 KV Tower/Tower parts
 Sys.Status: CRID MANC NTUP

HeaderData Operations **Components** Costs Partner Objects Additional Data

Person responsible
 PlannerGrp: L06 / S117 LIN06SD5 STADIKOND
 Mn.wk.ctr: LINES / S117 LINES
 Person resp...

Notificatn: \$000000000001
 Costs: INR
 PMActType: BD Break Down
 SystCond.:
 Address:

Dates
 Bsc start: 02.08.2018 Priority: 2 High
 Basic fin.: 02.08.2018 Revision:

Reference object
 Func. Loc.: LN-220KV-TDKD-VTP... 220KV-TADIKONDA-VTPS-CKT-01
 Equipment:

Malfcnctn data Damage Notif. dates

STEP-12: In the components tab, the material numbers of the required tower/tower parts and the required quantities are to be entered. The material numbers can be selected through the search button.

Create Breakdown Maintenance Order : Component Overview

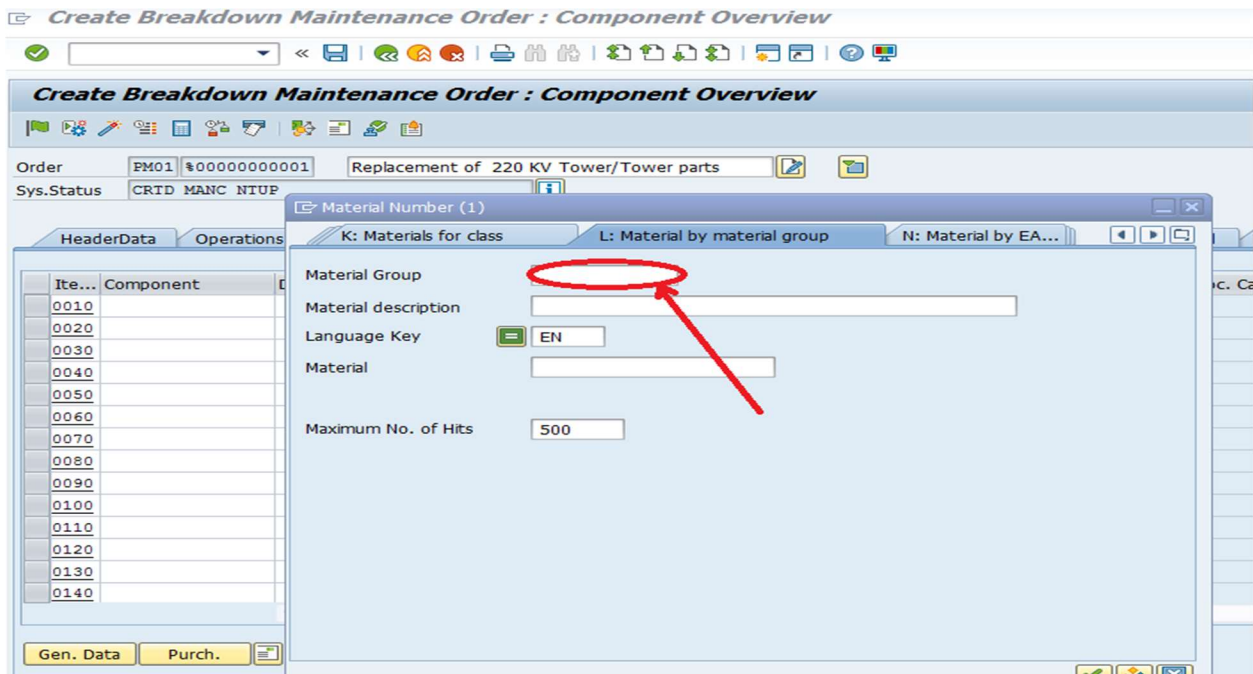
Order: PM01 \$000000000001 Replacement of 220 KV Tower/Tower parts
 Sys.Status: CRID MANC NTUP

HeaderData Operations Components Costs Partner Objects Additional Data Location Planning Control Other Details

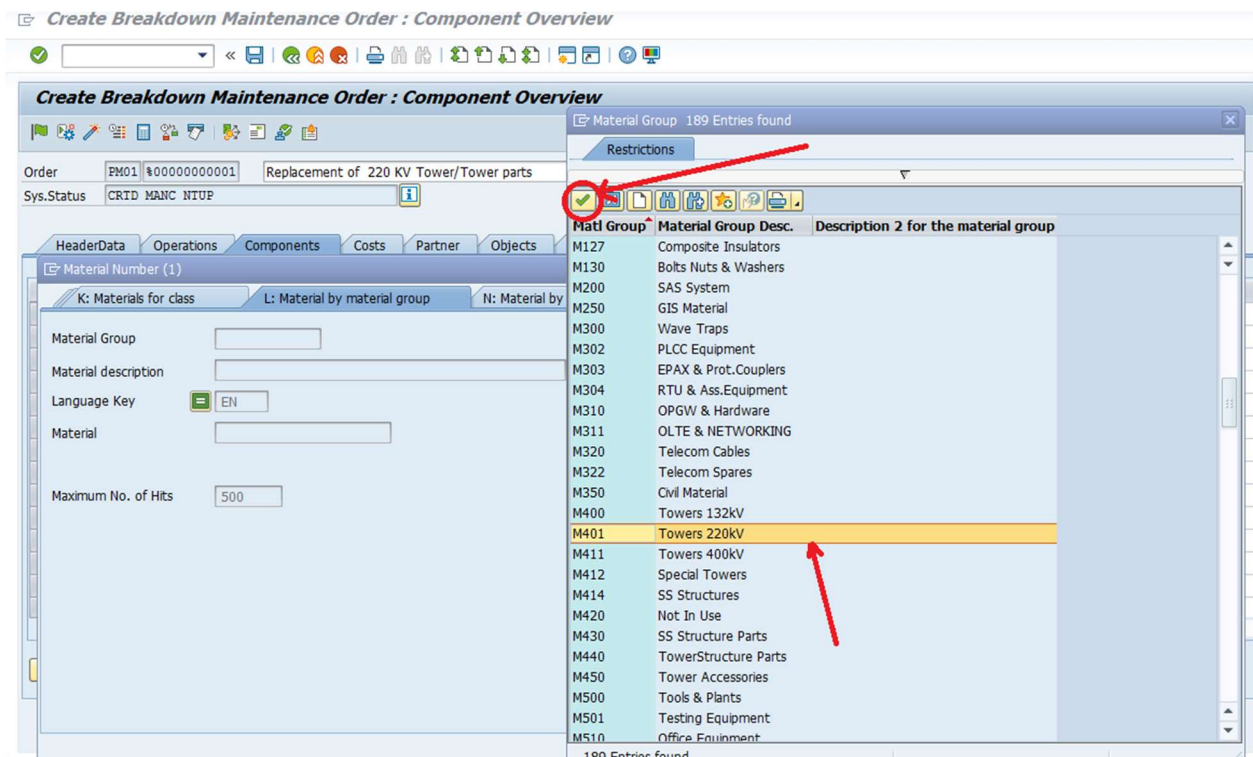
Ite...	Component	Description	LT	Reqmt Qty	UM	IC	S..	SLoc	Plnt	Act	Batch	Proc. Category
0010												
0020												
0030												
0040												
0050												
0060												
0070												
0080												
0090												
0100												
0110												
0120												
0130												
0140												

Gen. Data Purch. List Graph... Assy Material Where-Used Repl. Catalog

STEP-13: Click the search button available beside the **component** field. A pop up window would be displayed. It is easy to select the required material number through **Material group**. The inventory material items are grouped as per material group. Click the **down arrow** available beside the material group field.



Step-14: All the material groups would be displayed in a separate pop up window. Select the required material group and click enter button as shown below. As it is proposed to indent 220 kv tower in the illustrated example, the same is selected as indicated below.



STEP-15: The selected material group code (M401 in the present example) would flow into material number pop up window. Click the enter button in the pop up window as shown below.

STEP-16: Now all the 220KV towers(**Tower Boms**) that are included in the selected group would be displayed in a separate window. Select the required tower and click **enter** button in the window as shown below.

Material Description	Language	Material
220KV C TYPE TEMPLATE UPTO +12 EXTN (L&T)	EN	80000105
220KV C TYPE TOWER +12M EXTN (L&T)	EN	80000111
220KV C TYPE TOWER +3 EXTN(L&T)	EN	80000108
220KV C TYPE TOWER +6M EXTN (L&T)	EN	80000109
220KV C TYPE TOWER +9M EXTN	EN	80000110
220KV CN AUX X-ARM	EN	80000157
220KV CN TYPE NORMAL TOWER	EN	80000153
220KV CS +12 STUBS & CLEATS	EN	80000145
220KV CS +12 TEMPLATE	EN	80000143
220KV CS +6 TEMPLATE	EN	80000141
220KV CS +9 TEMPLATE	EN	80000142
220KV CS STUB & CLEATS	EN	80000144
220KV CS TYPE +12 EXTN TOWER	EN	80000150
220KV CS TYPE +3M EXTN	EN	80000147
220KV CS TYPE +6M EXTN	EN	80000148
220KV CS TYPE +9M EXTN	EN	80000149
220KV CS TYPE NORMAL TOWER	EN	80000146
220KV D TYPE DE TYPE X ARMS	EN	80000117
220KV D TYPE NORMAL TOWER	EN	80000116
220KV D TYPE STUBS & CLEATS	EN	80000112
220KV D TYPE STUBS&CLEATS FOR +12M EXTN	EN	80000113
220KV D TYPE TEMPLATE UPTO +12MT (L&T)	EN	80000115
220KV D TYPE TEMPLATE UPTO +9MT (L&T)	EN	80000114
220KV D TYPE TOWER +12M EXTN	EN	80000121
220KV D TYPE TOWER +3 EXTN (L&T)	EN	80000118
220KV D TYPE TOWER +6 EXTN(L&T)	EN	80000119
220KV D TYPE TOWER +9M EXTN (L&T)	EN	80000120
220KV L&T C TYPE TEMPLATE	EN	80000106
220KV L&T C TYPE TEMPLATE UP TO +6MTR	EN	80000104
220KV L&T D TYPE TOWER	EN	80000110

STEP-17: The **material id** of the selected **Tower BOM** would flow into the **components tab** in the **create Breakdown maintenance order** screen as shown below.

Enter the required quantity in the **Reqmt Qty** field and Click **enter** button as indicated below.

The screenshot shows the SAP 'Create Breakdown Maintenance Order : Component Overview' screen. The 'Components' tab is selected. The 'Component' column contains the value '80000153' and the 'Reqmt Qty' column contains the value '1'. Red arrows point to these fields. A green checkmark icon is visible in the top left corner.

STEP-18: It may be observed that the **description** field and **plant** field are updated once the enter button is clicked. Now select the line in the beginning and click the **list** button as indicated below, for display of the list of tower components that are present in the **Tower BOM**.

The screenshot shows the SAP 'Create Breakdown Maintenance Order : Component Overview' screen. The 'Components' tab is selected. The 'Component' column contains the value '80000153' and the 'Description' column contains the value '220KV CN TYPE NORMAL TOWER'. The 'Plant' column contains the value 'S117'. The 'List' button is highlighted with a red circle. Red arrows point to the 'Description' field, the 'Plant' field, and the 'List' button.

Note1 : In case the total **tower BOM** is required to be indented, it is sufficient if the **tower BOM ID** is entered as indicated above. If only certain components of the **tower BOM** are to be indented, the same can be selected in the components **list** to be displayed as indicated below.

Note 2 : The available stock of the indented Tower BOMs/Tower parts in various stores can be verified in the **components stock report** in the **Enhancement (Other Details)** tab, by clicking the same. The **Enhancement (Other Details)** tab is explained in the **STEP-37** below.

STEP-19: In the displayed **tower bom**, if only certain parts are required to be indented, press the control button in the computer key board and select the required items by clicking on the respective lines as indicated in the below screen shot, wherein four nos tower parts are selected and then click **enter** button as shown below.

Material	Component desc.	TYPE	Valid from	1	KG		
80000153	220KV CN TYPE NORMAL TOWER		02.08.2018				
80000153	220KV CN TYPE NORMAL TOWER			1		KG	
60010963	CN-3-200X200X20-3802	L		1		NO	
60010964	CN-4-200X200X20-3802	L		2		NO	
60010965	CN-5-200X200X20-3802	L		1		NO	
60010966	CN-7-PL 12-586-135	L		8		NO	
60010967	CN-8-200X200X20-586	L		4		NO	
60010968	CN-9-PL 10-435-235	L		8		NO	
60010969	CN-10-PL 10-315-220	L		4		NO	
60010970	CN-11-80X80X6-2944	L		2		NO	
60010971	CN-12-FL 10-185-280	L		4		NO	
60010972	CN-13-50X50X6-2952	L		2		NO	
60010973	CN-14-50X50X6-2952	L		2		NO	
60010974	CN-15-PL 10-305-325	L		2		NO	
60010975	CN-16-PL 10-255-280	L		2		NO	
60010976	CN-17-100X100X8-4301	L		2		NO	
60010977	CN-18-100X100X8-4301	L		2		NO	
60010978	CN-19-65X65X6-4332	L		4		NO	
60010979	CN-20-65X65X6-4332	L		4		NO	
60010980	CN-21-50X50X6-542	L		4		NO	
60010981	CN-22-50X50X6-542	L		4		NO	
60010982	CN-23-50X50X6-862	L		4		NO	
60010983	CN-24-50X50X6-1320	L		4		NO	
60010984	CN-25-50X50X6-1320	L		2		NO	
60010985	CN-25-X-50X50X6-1320	L		2		NO	
60010986	CN-26-50X50X6-1081	L		4		NO	
60010987	CN-26-A-50X50X6-840	L		2		NO	
60010988	CN-27-50X50X6-1081	L		2		NO	

STEP-20: It may be noted that the selected tower parts are updated in the components tab as shown below. Now the **Sloc** field indicated in the screen shot is also to be updated.

Create Breakdown Maintenance Order : Component Overview

Order: FM01 \$000000000001 Replacement of 220 KV Tower/Tower parts

Sys.Status: CRID MANC

HeaderData Operations Components Costs Partner Objects Additional Data Location Planning Control Other Details

Ite...	Component	Description	LT	Reqmt Qty	UM	IC	S..	SLoc	Plnt	Act	Batch	Proc. Category
0010	80000153	220KV CN TYPE NORMAL TOWER			1	NO	L		S117	0010		Reservation for Order
0020	60010965	CN-5-200X200X20-3802			1	NO	L		S117	0010		Reservation for Order
0030	60010972	CN-13-50X50X6-2952			2	NO	L		S117	0010		Reservation for Order
0040	60010977	CN-18-100X100X8-4301			2	NO	L		S117	0010		Reservation for Order
0050	60010981	CN-22-50X50X6-542			4	NO	L		S117	0010		Reservation for Order
0060									S117			
0070									S117			
0080									S117			
0090									S117			
0100									S117			
0110									S117			
0120									S117			
0130									S117			
0140									S117			

Gen. Data Purch. List Graph... Assy Material Where-Used Repl. Catalog

The **Sloc** field indicates Storage location. In respect of the indents raised by the lines maintenance wings, the storage location of the concerned **lines sub division** should be entered. After allotment and withdrawal of the material from central stores, the received materials would be reflected as stock in the storage location. The **sloc** can be selected from the search button available beside the **sloc** field.

STEP-21: Click the search button beside the **sloc** field. In the list of storage locations displayed in the pop up window, select the storage location of the concerned **lines sub division** and click enter button.

Create Breakdown Maintenance Order : Component Overview

Order: FM01 \$00000000001 Replacement of 220 KV Tower/Tower parts
 Sys.Status: CRID MANC

HeaderData Operations Components Costs Partner Objects Additional Data Location

Item	Component	Description	LT	Reqmt Qty	UM	IC	S..	SLoc	PInt
0010	80000153	220KV CN TYPE NORMAL TOWER		1	NO	L			5117
0020	60010965	CN-5-200X200X20-3802		1	NO	L			5117
0030	60010972	CN-13-50X50X6-2952		2	NO	L			5117
0040	60010977	CN-18-100X100X8-4301		2	NO	L			5117
0050	60010981	CN-22-50X50X6-542		4	NO	L			5117

Component 80000153: Plants/Storage Locs (1) 34 Entries found

Restrictions

PInt	SLoc	Description	Unrestricted	Unrestr. Consgr
5117	B022	132KV Tadepalli	0.000	0.000
5117	B023	132KV RENTAPALLA	0.000	0.000
5117	B024	132KV Vinukonda	0.000	0.000
5117	B025	132KV PIDUGURALLA	0.000	0.000
5117	B026	132KV Karampudi	0.000	0.000
5117	B027	132KV Tangeda	0.000	0.000
5117	B028	132KV Macherla	0.000	0.000
5117	B206	220 KV TDK	0.000	0.000
5117	B207	220KV NARSARAOPET	0.000	0.000
5117	B208	220KV Tallapali	0.000	0.000
5117	B209	220KV Rentachintla	0.000	0.000
5117	B318	ADE EHTL GNT	0.000	0.000
5117	B319	ADE EHTL PDGRL	0.000	0.000
5117	B320	ADE EHTL Talpalli	0.000	0.000
5117	B321	AEE TLC SD1 GNT	0.000	0.000
5117	B322	AEE TLC SD2 GNT	0.000	0.000
5117	B323	ADE MRT Guntur	0.000	0.000
5117	B324	ADE MRT NRT	0.000	0.000
5117	B325	ADE TRE&Prot GNT	0.000	0.000
5117	B507	DE O&M GNT	0.000	0.000
5117	B508	DE O&M NRT	0.000	0.000
5117	B509	EE CONS GNT	0.000	0.000
5117	B510	DE MRT&Trans GNT	0.000	0.000
5117	B603	SE OMC GNT	0.000	0.000

34 Entries found

Gen. Data Purch. List Graph... Assy Material Where-Used

STEP-22: The **sloc** field should be filled in all the component lines as shown below.

Create Breakdown Maintenance Order : Component Overview

Order: FM01 \$00000000001 Replacement of 220 KV Tower/Tower parts
 Sys.Status: CRID MANC

HeaderData Operations Components Costs Partner Objects Additional Data Location Planning Control Other Details

Item	Component	Description	LT	Reqmt Qty	UM	IC	S..	SLoc	PInt	Act	Batch	Proc. Category
0010	80000153	220KV CN TYPE NORMAL TOWER		1	NO	L		B318	5117	0010		Reservation for Order
0020	60010965	CN-5-200X200X20-3802		1	NO	L		B318	5117	0010		Reservation for Order
0030	60010972	CN-13-50X50X6-2952		2	NO	L		B318	5117	0010		Reservation for Order
0040	60010977	CN-18-100X100X8-4301		2	NO	L		B318	5117	0010		Reservation for Order
0050	60010981	CN-22-50X50X6-542		4	NO	L		B318	5117	0010		Reservation for Order

Gen. Data Purch. List Graph... Assy Material Where-Used Repl. Catalog

STEP-23: Now click the save button as indicated below.

Create Breakdown Maintenance Order : Component Overview

Order: PM01 \$000000000001 Replacement of 220 KV Tower/Tower parts
 Sys.Status: CRID MANC

Ite...	Component	Description	LT	Reqmt Qty	UM	IC	S..	SLoc	Plnt	Act	Batch	Proc. Category
0010	80000153	220KV CN TYPE NORMAL TOWER		1	NO	L		B318	5117	0010		Reservation for Order
0020	60010965	CN-5-200X200X20-3802		1	NO	L		B318	5117	0010		Reservation for Order
0030	60010972	CN-13-50X50X6-2952		2	NO	L		B318	5117	0010		Reservation for Order
0040	60010977	CN-18-100X100X8-4301		2	NO	L		B318	5117	0010		Reservation for Order
0050	60010981	CN-22-50X50X6-542		4	NO	L		B318	5117	0010		Reservation for Order
0060									5117			
0070									5117			
0080									5117			
0090									5117			
0100									5117			
0110									5117			
0120									5117			
0130									5117			
0140									5117			

Gen. Data Purch. List Graph... Assy Material Where-Used Repl. Catalog

STEP-24: The system would display in the status bar as indicated below that order number so and so is saved. In the present example **order no: 100000531** is created.

It may be noted that since the maintenance order type selected is **PM01** i.e break down maintenance order, a notification also is created by the system by default whenever a maintenance order is created. In the present example **notification no: 10000000510** is created by default.

Order Edit Goto Extras Environment System Help

Create Breakdown Maintenance Order: Initial Screen

Header data

Order Type: PM01
 Priority:
 Func. Loc:
 Equipment:
 Plng plant:
 Bus. Area:

Reference

☐ Create Follow-On Order
 Order:
☒ Operations
☒ Components
☐ Relationships
☐ Document Links

Order 100000531 saved with notification 10000000510

Note:- It may be noted that the quantities of the tower components fetched from the tower BOM and entered in the components tab as explained above pertain to **one number** 220KV CN Type Normal Tower. In case these parts are required to be indented for more than one number of the same tower, then quantity of each of the tower parts needs to be multiplied by that number. In such a case instead of multiplying each component separately, the following procedure explained from **STEP-25** to **STEP-29** may be followed.

STEP-25: Click the **Operations** tab as indicated below.

The screenshot shows the 'Create Breakdown Maintenance Order : Component Overview' window. The 'Operations' tab is selected and highlighted with a red circle and an arrow. The window displays a table with the following data:

It...	Component	Description	LT	Reqmt	Qty	UM	IC	S...	SLoc	Plnt	Act	Batch	Proc. Category
0010	80000153	220KV CN TYPE NORMAL TOWER		1	NO	L		B318	5117	0010			Reservation for Order
0020	60010965	CN-5-200X200X20-3802		1	NO	L		B318	5117	0010			Reservation for Order
0030	60010972	CN-13-50X50X6-2952		2	NO	L		B318	5117	0010			Reservation for Order
0040	60010977	CN-18-100X100X8-4301		2	NO	L		B318	5117	0010			Reservation for Order
0050	60010981	CN-22-50X50X6-542		4	NO	L		B318	5117	0010			Reservation for Order
0060									5117				
0070									5117				
0080									5117				
0090									5117				
0100									5117				
0110									5117				
0120									5117				
0130									5117				
0140									5117				

STEP-26: In the Operation Overview screen, click Ex-Factor button as indicated below.

The screenshot shows the 'Create Breakdown Maintenance Order : Operation Overview' window. The 'Operations' tab is selected. The 'Ex. Factor' button is highlighted with a red box and an arrow. The window displays a table with the following data:

Act	SOp	Work ctr	Plant	Co...	StTextK	S...	Operation short text	LT	VI	S...	Actual work	Work
0010	LINES		5117	PM01			Test 10082018 tower indent				0	
0020	LINES		5117	PM01							0	
0030	LINES		5117	PM01							0	
0040	LINES		5117	PM01							0	
0050	LINES		5117	PM01							0	
0060	LINES		5117	PM01							0	
0070	LINES		5117	PM01							0	
0080	LINES		5117	PM01							0	
0090	LINES		5117	PM01							0	
0100	LINES		5117	PM01							0	
0110	LINES		5117	PM01							0	
0120	LINES		5117	PM01							0	
0130	LINES		5117	PM01							0	
0140	LINES		5117	PM01							0	

STEP-27: In the pop up window opened, **enter** the activity number. It may be noted that the tower/tower parts in the present example are being indented against activity **0010**. The activity number can be seen in the line level of **components** tab also.

Further in the **new execution factor field**, enter the number of towers with which the tower components are to be multiplied, and click the copy button as shown in the next screen shot below.

Change Execution Factor

Order: FM01 \$000000000001 Replacement of 220 KV Tower/Tower parts

Sys.Status: CRTD MANC

HeaderData Operations Components Costs Partner Objects Additional Data Location Planning Control Other Details

Act	SOp	Work ctr	Plant	Co...	StTextK	S...	Operation short text	LT	VI	S...	Actual work	Work
0010	LINES		5117	FM01			Test 10082018 tower indent				0	
0020	LINES		5117	FM01							0	
0030	LINES		5117	FM01							0	
0040	LINES										0	
0050	LINES										0	
0060	LINES										0	
0070	LINES										0	
0080	LINES										0	
0090	LINES										0	
0100	LINES										0	
0110	LINES										0	
0120	LINES		5117	FM01							0	
0130	LINES		5117	FM01							0	
0140	LINES		5117	FM01							0	

General Internal External Dates Act. Data Enhancement Ex. Factor Catalog

Change Execution Factor

Order: FM01 \$000000000001 Replacement of 220 KV Tower/Tower parts

Sys.Status: CRTD MANC

HeaderData Operations Components Costs Partner Objects Additional Data Location Planning Control Other Details

Act	SOp	Work ctr	Plant	Co...	StTextK	S...	Operation short text	LT	VI	S...	Actual work	Work
0010	LINES		5117	FM01			Test 10082018 tower indent				0	
0020	LINES		5117	FM01							0	
0030	LINES		5117	FM01							0	
0040	LINES										0	
0050	LINES										0	
0060	LINES										0	
0070	LINES										0	
0080	LINES										0	
0090	LINES										0	
0100	LINES										0	
0110	LINES										0	
0120	LINES		5117	FM01							0	
0130	LINES		5117	FM01							0	
0140	LINES		5117	FM01							0	

General Internal External Dates Act. Data Enhancement Ex. Factor Catalog

STEP-28: Now click the **components** tab.

Create Breakdown Maintenance Order : Operation Overview

Order: PM01 \$00000000001 Replacement of 220 KV Tower/Tower parts

Sys.Status: CRID MANC NIUP

HeaderData Operations **Components** Costs Partner Objects Additional Data Location Planning Control Other Details

Act	SOp	Work ctr	Plant	Co...	StTextK	S...	Operation short text	LT	VI	S...	Actual work	Work
0010	LINES		5117	PM01			Test 10082018 tower indent				0	
0020	LINES		5117	PM01							0	
0030	LINES		5117	PM01							0	
0040	LINES		5117	PM01							0	
0050	LINES		5117	PM01							0	
0060	LINES		5117	PM01							0	
0070	LINES		5117	PM01							0	
0080	LINES		5117	PM01							0	
0090	LINES		5117	PM01							0	
0100	LINES		5117	PM01							0	
0110	LINES		5117	PM01							0	
0120	LINES		5117	PM01							0	
0130	LINES		5117	PM01							0	
0140	LINES		5117	PM01							0	

General Internal External Dates Act. Data Enhancement Ex. Factor Catalog

STEP-29: It may be noted that the originally entered quantities in STEP-20 above are multiplied with '2', the execution factor entered in STEP-27 above.

Create Breakdown Maintenance Order : Component Overview

Order: PM01 \$00000000001 Replacement of 220 KV Tower/Tower parts

Sys.Status: CRID MANC NIUP

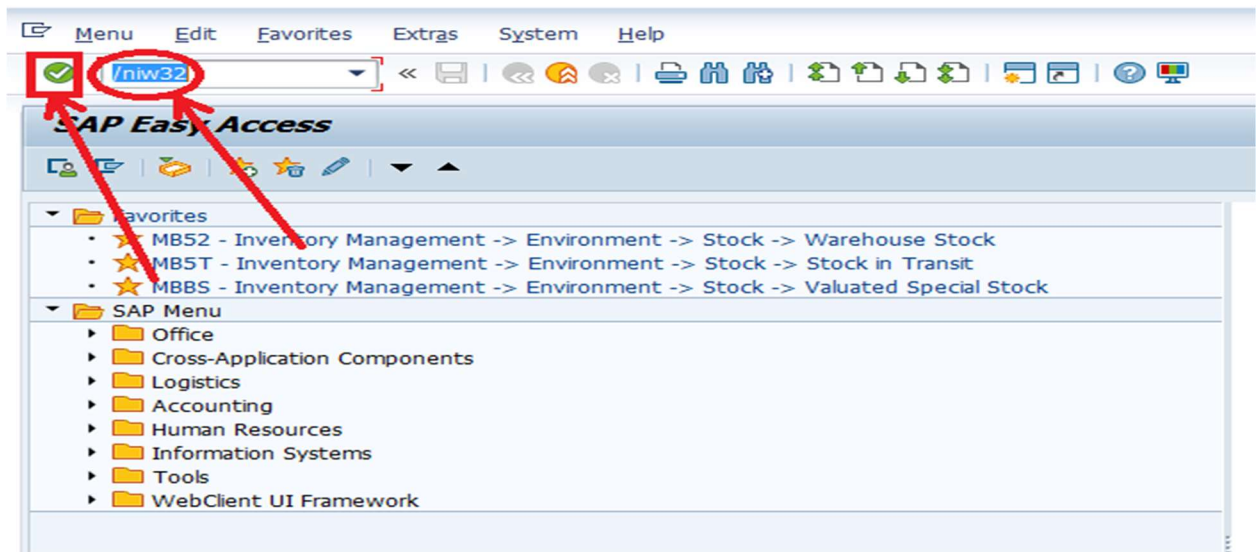
HeaderData Operations Components Costs Partner Objects Additional Data Location Planning Control Other Details

It...	Component	Description	LT	Reqmt Qty	UM	IC	S.	SLoc	Plnt	Act	Batch	Proc. Category
0010	80000153	220KV CN TYPE NORMAL TOWER		2	NO			B318	5117	0010		Reservation for Order
0020	60010965	CN-5-200X200X20-3802		2	NO			B318	5117	0010		Reservation for Order
0030	60010972	CN-13-50X50X6-2952		4	NO			B318	5117	0010		Reservation for Order
0040	60010977	CN-18-100X100X8-4301		4	NO			B318	5117	0010		Reservation for Order
0050	60010981	CN-22-50X50X6-542		8	NO			B318	5117	0010		Reservation for Order
0060									5117			
0070									5117			
0080									5117			
0090									5117			
0100									5117			
0110									5117			
0120									5117			
0130									5117			
0140									5117			

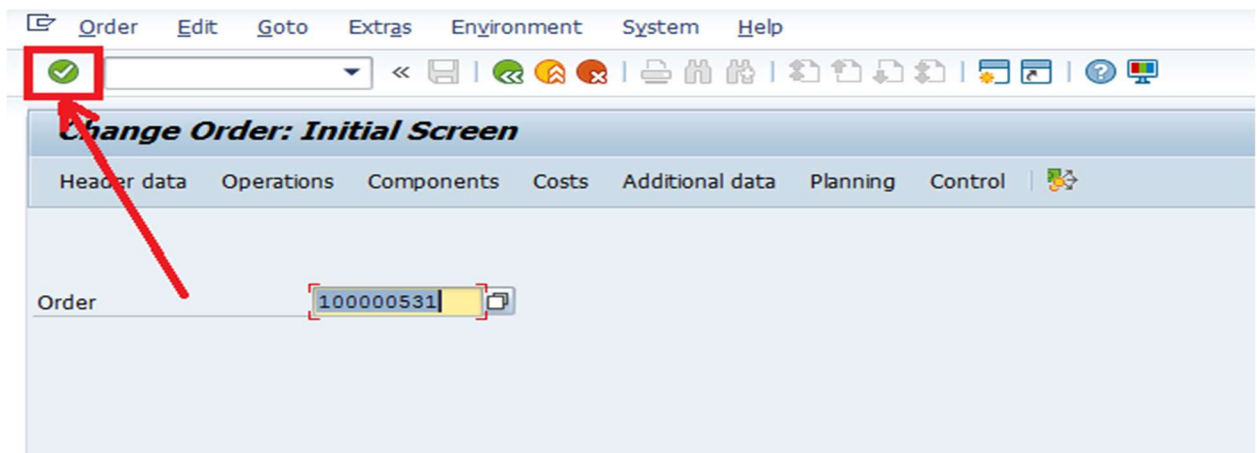
Gen. Data Purch. List Graph... Assy Material Where-Used Repl. Catalog

Now the maintenance order should be **released** by the concerned Executive Engineer by logging in with his SAP user ID. After release, the order should again be **saved**.

STEP-30: Enter the T-Code **/NIW32** in the command field and click the **enter** button as indicated below.



STEP-31: Click **enter** button.



STEP-32: It may be noted that the maintenance order is now in created status. The same is indicated as **CRTD** in the status field as shown in the

below screen shot. Now the concerned Executive Engineer may click the **green colored flag button** for release of the maintenance order, as indicated below.

The screenshot shows the SAP 'Change Breakdown Maintenance Order 100000531: Central Header' interface. A red box highlights a green flag icon in the top toolbar. Another red circle highlights the 'Sys.Status' field, which contains 'CRTD MANC PRC'. The 'Order' field shows 'PM01 100000531' and the description 'Replacement of 220 KV Tower/Tower parts'. The 'Person responsible' section shows 'PlannerGrp: LO6 / 5117 LIN06SD5 4TADIKOND'. The 'Dates' section shows 'Bsc start: 02.08.2018' and 'Basic fin.: 02.08.2018'. The 'Reference object' section shows 'Func. Loc.: LN-220KV-TDKD-VTP...' and 'Equipment: 220KV-TADIKONDA-VTPS-CKT-01'. The 'Malfnctn data' section shows 'Malf.start: 02.08.2018 13:34:22' and a 'Breakdown' checkbox.

STEP-33: Now the **green colored flag button** would disappear and system would display a message in the status bar as shown below that '**order will be released after update**'. Now click **save** button.

The screenshot shows the same SAP interface after clicking the green flag button. The 'Sys.Status' field now contains 'REL MSPT PRC SETC'. The 'Complete (business)' status is shown in the top toolbar. A red box highlights the 'Save' button (floppy disk icon) in the top toolbar. A red arrow points to a message in the status bar at the bottom: 'Order 100000531 will be released after update'. The 'Malfnctn data' section remains the same.

STEP-34: The screen as shown below would be displayed with a message in the status bar that maintenance order is saved. Now click **enter** button.

The screenshot shows the 'Change Order: Initial Screen' in SAP. The top toolbar contains a green checkmark icon, which is highlighted with a red box and an arrow. The status bar at the bottom displays the message: 'Order 100000531 saved with notification 10000000510', which is also highlighted with a red box and an arrow.

STEP-35: It may be observed that the maintenance order is now changed to released status which is indicated by **REL** as shown below.

The screenshot shows the 'Change Breakdown Maintenance Order 100000531: Central Header' in SAP. The 'Sys.Status' field is highlighted with a red circle and an arrow, showing the value 'REL'. Other fields visible include 'PlannerGrp' (L06 / S117), 'Mn.wk.ctr' (LINES / S117), 'Dates' (Bsc start: 02.08.2018, Basic fin.: 02.08.2018), and 'Reference object' (Func. Loc.: LN-220KV-TDKD-VTP..., Equipment: 220KV-TADIKONDA-VTPS-CKT-01).

Note: It may be noted that no further changes can be made to the indented materials in the **components tab**, once the maintenance order is in **released** status.

STEP-36: Now click the **Enhancement (Other Details)** tab as shown below.

The screenshot displays the SAP 'Change Breakdown Maintenance Order 100000531: Central Header' window. The 'Other Details' tab is selected and highlighted with a red circle and a red arrow. The form contains several sections: 'Person responsible' with fields for PlannerGrp (LO6 / 5117), Mn.wk.ctr (LINES / 5117), and Person resp.; 'Dates' with Bsc start (02.08.2018), Basic fin. (02.08.2018), Priority (2 High), and Revision; 'Reference object' with Func. Loc. (LN-220KV-IDKD-VTP) and Equipment (220KV-TADIKONDA-VTPS-CKT-01); and 'Malfnctn data' with Malfnctn start (02.08.2018) and a Breakdown checkbox. The top menu bar includes Order, Edit, Goto, Extras, Environment, System, and Help.

STEP-37: It may be noted that in the **Enhancement (Other Details)** tab, various **material documents** generated in SAP system during the process of indent/allotment and issue of material components through the respective maintenance order, are displayed in the order of generation of the documents as shown below. Through this information, it is easy for the SAP users to know the status of the process at any point of time.

Components Stock :- The bottom most button indicates the stock report of the components indented in the **components tab**.

If the **execute button** against **components stock** is clicked, the available stock of all the items indented in the **components tab**, across the various plants including **stores plants** is displayed. From the above report, the end user can know whether the material items indented are available in stores for allotment.

This report is generated immediately after entering any component number in the components tab, even before saving of the maintenance order.

Hence it is possible to modify the indented items based on the stock availability in the stores, in the created status of the maintenance order.

Indent:- After release of maintenance order, the system automatically creates separate **STRs (Stock Transfer Requisitions)** which are also called **Purchase requisitions**, for each of the indented material components based on which the allotment authority i.e either the Transmission Wing in Vidyut Soudha or the concerned zonal office can make the allotment of material as per priority. The indent raising field units should check whether the **STRs** for their indented components are created.

Before creation of **STR**, the check box would be empty and the execute button would not appear. After the maintenance order is released, the indent check box is checked and the execute button gets highlighted, indicating that STRs are created by the system. It may take about five minutes for creation of **STR**.

The screenshot shows the SAP 'Change Breakdown Maintenance Order 100000531: Central Header' window. The 'ALLOTMENT DETAILS' tab is selected. In the 'Indent' row, the checkbox is checked, and the 'Execute' button is highlighted. In the 'Components Stock' row, the checkbox is also checked, and its 'Execute' button is highlighted. Red arrows point to these elements.

Click the **execute** button available against the **indent** as shown above. To view the STRs (Purchase Requisitions) created against each of the indented material components as shown below.

The screenshot shows the 'List Display of Purchase Requisitions' window. The table lists six purchase requisitions created against the maintenance order 100000531. Red boxes highlight the requisition numbers and the 'Execute' button for each row.

Item	S	D	I	A	Material	Short Text	Quantity	Un	C	Deliv. Date	Matl Group	Plant	SLoc	PGr	Requisnr.	TrackingNo	Vendor	Fixed vend	SPlt	POrg	Agmt.	Item
Purchase requisition					7000000538																	
10	N				80000155	220KV CN TYPE NORMAL TOWER	8,873.400	KG	D	20180803	M401	5117	B318	Central 02	100000531		1040	1040	1000			
Purchase requisition					7000000539																	
10	N				80010985	CN-S-200X200X20-3802	228.120	KG	D	20180803	M440	5117	B318	Central 02	100000531		1040	1040	1000			
Purchase requisition					7000000540																	
10	N				80010977	CN-18-100X100X8-4301	104.084	KG	D	20180803	M440	5117	B318	Central 02	100000531		1040	1040	1000			
Purchase requisition					7000000541																	
10	N				80010972	CN-13-50X50X6-2952	26.568	KG	D	20180803	M440	5117	B318	Central 02	100000531		1040	1040	1000			
Purchase requisition					7000000542																	
10	N				80010981	CN-22-50X50X6-542	9.756	KG	D	20180803	M440	5117	B318	Central 02	100000531		1040	1040	1000			

NOTE: It may be noted that before creation of the indent, the system would first check the stock of indented material in the ***indented virtual storage location***. Indent would be created only for the additional quantity of the indented item over and above the available stock.

For example if a quantity of 'x' is indented and a quantity of 'Y' is reflected as stock in the ***indented virtual storage location***, then indent would be created only for a quantity of (X-Y).

In case the indented quantity is less than or equal to the quantity available in the virtual location as stock i.e if X is less than or equal to Y, then indent would not be created at all. Hence the stock of any item in the virtual storage location should be checked before raising indent for that item.

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