

# **PLANT MAINTENANCE MODULE (PM)**

## **Recording of Measuring Points**

In SAP, the **measuring points** of Equipment / Functional Locations are the various parameters that indicate their healthiness status/performance. All the measuring points pertaining to each Equipment/Functional Location should be predefined and created as master data. Each measuring point would be assigned a unique ID by the system.

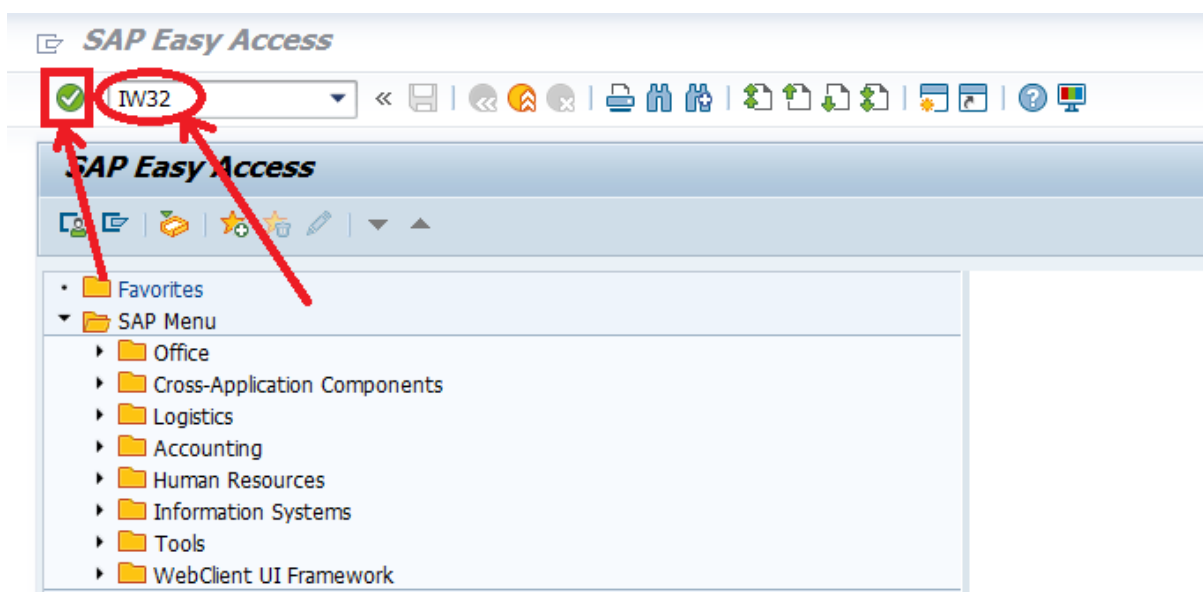
The periodical tests to be performed on various equipment/functional locations are defined as **activities/operations** in the respective equipment/functional location **task lists**.

The 'Measuring points' if any to be recorded against various tests performed on equipment/functional location are defined as 'PRT' for the respective activities in the 'Equipment Task list' / 'Functional Location Task List'.

The **values/readings** of measuring points (i.e. PRTs) are recorded in the **concerned maintenance order** whenever such tests are performed from time to time as part of maintenance activities carried out. Consequently **measurement documents** would be created by the system accordingly for each measuring point.

In this document, the process of recording measuring point readings against various activities/operations in the maintenance order is illustrated with relevant screen shots.

**Step-1:** Enter the T-code **IW32** in the command field and click **enter** button as indicated below.



**Step-2:** Enter the **maintenance order** number against which the testing activity has been carried out and click **enter** button as shown below.

**Change Order: Initial Screen**

Header data   Operations   Components   Costs   Additional data   Planning   Control

Order: 2000000294

**Step-3:** Click the **Enhancements** tab as indicated below.

It may be noted that the '**Enhancements**' tab in Production data base is indicated as '**Allot/Dev Det**' in the below screen shots since the same has been taken from Development data base.

**Change Corrective Maintenance Order 2000000294: Central Header**

Order: PM02 2000000294 Maint works in Nidadavolu 132KV SS

Sys.Status: REL NMAT PRC SETC

HeaderData   Operations   Components   Costs   Partner   Objects   Additional Data   Location   Planning   Control   **Allot/Dev Det**

Person responsible: PlannerGrp M11 / 5116 MNT1 NIDADAVOLU  
Mn.wk.ctr MNT / 5116 MAINTENANCE

Notification: 0.00 INR  
PMActType CRM Corrective Main...  
SystCond. ☐  
Address

Dates: Bsc start 09.01.2019 Priority 2 High  
Basic fin. 09.01.2019 Revision

Reference object: Func. Loc. FB-132KV-NDDV-PTP... FB-132KV-NIDADAVOLU-PEDATADEPALLI-01  
Equipment

First operation: Operation cleaning of panels Cckey  
WkCtr/Plnt MNT / 5116 Ctrl key PM01 Acty Type ☐ PRT  
Work durtn Number Opn dur. ☐ Comp.

**Step-4:** Click the **Create Meas. Readings** button as indicated below.

Change Corrective Maintenance Order 2000000294: Central Header

Order: FM02 | 2000000294 | Maint works in Nidadavolu 132KV SS

Sys.Status: REL NMAI PRC SETC

HeaderData | Operations | Components | Costs | Partner | Objects | Additional Data | Location | Planning | Control | Allot/Dev Det

ALLOTMENT DETAILS

Indent ☐ **Create Meas. Readings**

Allotment Status ☐ **Display Meas. Readings**

Outbound Delivery ☐

PGI-Issue from store ☐

MIGO-Mat. receipt ☐

Components Stock ☐

**Step-5:** In this screen, all the measuring points to be recorded against various operations/activities of the maintenance order would be displayed.

It may be noted that all the details such as **Activity no, operation short text, Functional location, equipment, measuring point ID, measuring point description and unit of measurement** would be displayed for each reading to be entered.

**Enter Meas. Reading, Meas. Date and Meas. Time** in the fields as indicated in the below screen shot against the respective measuring points and click **save** button as shown below. It may be noted that that **Meas. Date** and **Meas. Time** may be entered with the help of **F4** option available at these fields.

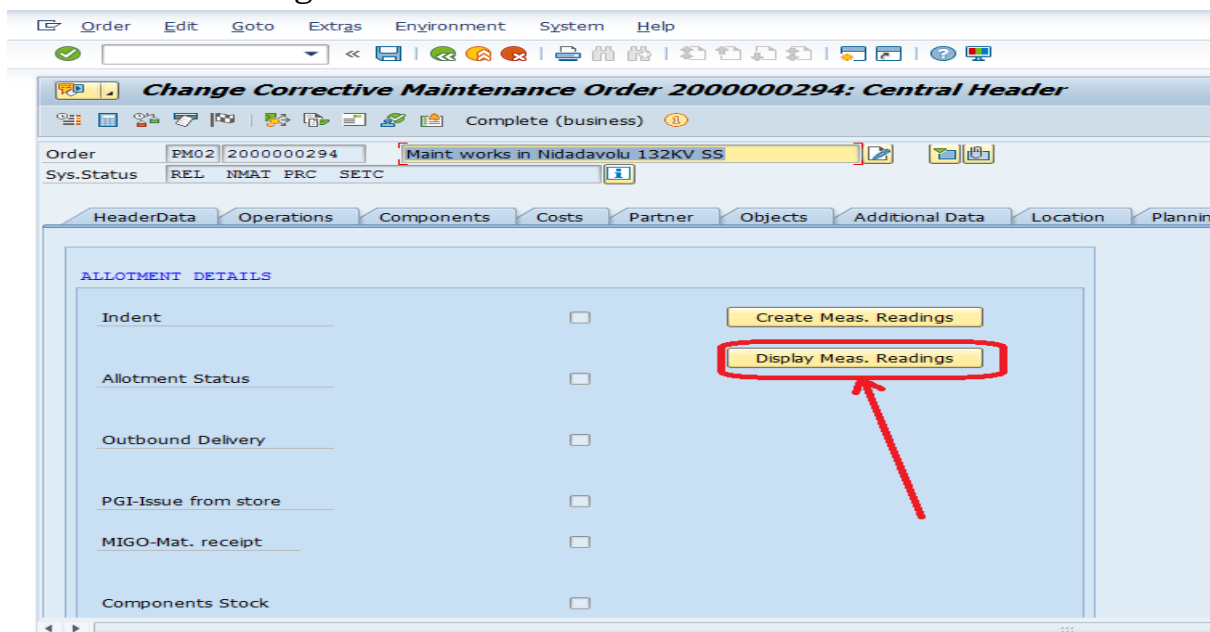
Create Meas. Doc for PRT in Work Order

Activity No	Oper. Short Text	Functional Location	Equipment	PRT Sr. No	Meas. Point	Meas. Point Desc.	UOM	Meas. Reading	Meas. Date	Meas. Time
0090	Testing of current Relay R PH	FB-132KV-NDDV-PTPL-01	10114985	10	1435945	Operated Value of current for Highset/LR	A	15	09.01.20...	10:30:00
0090	Testing of current Relay R PH	FB-132KV-NDDV-PTPL-01	10114985	20	1435755	Thermal Value of current for Highset/LR	A	20	10.01.20...	11:45:00
0090	Testing of current Relay R PH	FB-132KV-NDDV-PTPL-01	10114985	30	1436023	O/C Plug Setting Multiplier Set Value/LR	SET	0		00:00:00
0090	Testing of current Relay R PH	FB-132KV-NDDV-PTPL-01	10114985	40	1435989	ACT T of oprtn of Relay for 10*Rphset IN	MSE	0		00:00:00
0090	Testing of current Relay R PH	FB-132KV-NDDV-PTPL-01	10114985	50	1435946	ACT T of oprtn of Relay for 2*R-Phset IN	MSE	0		00:00:00
0090	Testing of current Relay R PH	FB-132KV-NDDV-PTPL-01	10114985	60	1435785	ACT T of oprtn of Relay for 3*R-Phset IN	MSE	0		00:00:00
0090	Testing of current Relay R PH	FB-132KV-NDDV-PTPL-01	10114985	70	1435865	ACT T of oprtn of Relay for 5*R-Phset IN	MSE	0		00:00:00
0090	Testing of current Relay R PH	FB-132KV-NDDV-PTPL-01	10114985	80	1435909	O/C Relay R-phase pick-up Value	A	0		00:00:00
0090	Testing of current Relay R PH	FB-132KV-NDDV-PTPL-01	10114985	90	1435825	Th T of oprtn of Relay for 10*Rphset IN	MSE	0		00:00:00
0090	Testing of current Relay R PH	FB-132KV-NDDV-PTPL-01	10114985	100	1435910	Th T of oprtn of Relay for 2*R-Phset IN	MSE	0		00:00:00
0090	Testing of current Relay R PH	FB-132KV-NDDV-PTPL-01	10114985	110	1435911	Th T of oprtn of Relay for 3*R-Phset IN	MSE	0		00:00:00
0090	Testing of current Relay R PH	FB-132KV-NDDV-PTPL-01	10114985	120	1436024	Th T of oprtn of Relay for 5*R-Phset IN	MSE	0		00:00:00
0090	Testing of current Relay R PH	FB-132KV-NDDV-PTPL-01	10114985	130	1435786	O/C Time Setting Multiplier Set Value/LR	SET	0		00:00:00
0100	Testing of current Relay Y PH	FB-132KV-NDDV-PTPL-01	10114985	10	1435826	Operated Value of current for Highset/LY	A	0		00:00:00
0100	Testing of current Relay Y PH	FB-132KV-NDDV-PTPL-01	10114985	20	1435787	Thermal Value of current for Highset/LY	A	0		00:00:00
0100	Testing of current Relay Y PH	FB-132KV-NDDV-PTPL-01	10114985	30	1435866	O/C Plug Setting Multiplier Set Value/LY	SET	0		00:00:00
0100	Testing of current Relay Y PH	FB-132KV-NDDV-PTPL-01	10114985	40	1435947	O/C Time Setting Multiplier Set Value/LY	SET	0		00:00:00
0100	Testing of current Relay Y PH	FB-132KV-NDDV-PTPL-01	10114985	50	1435948	ACT T of oprtn of Relay for 10*Yphset IN	MSE	0		00:00:00
0100	Testing of current Relay Y PH	FB-132KV-NDDV-PTPL-01	10114985	60	1435827	ACT T of oprtn of Relay for 2*Y-Phset IN	MSE	0		00:00:00
0100	Testing of current Relay Y PH	FB-132KV-NDDV-PTPL-01	10114985	70	1435990	ACT T of oprtn of Relay for 3*Y-Phset IN	MSE	0		00:00:00
0100	Testing of current Relay Y PH	FB-132KV-NDDV-PTPL-01	10114985	80	1435867	ACT T of oprtn of Relay for 5*Y-Phset IN	MSE	0		00:00:00
0100	Testing of current Relay Y PH	FB-132KV-NDDV-PTPL-01	10114985	90	1436025	O/C Relay Y-phase pick-up Value	A	0		00:00:00
0100	Testing of current Relay Y PH	FB-132KV-NDDV-PTPL-01	10114985	100	1435828	Th T of oprtn of Relay for 10*Yphset IN	MSE	0		00:00:00
0100	Testing of current Relay Y PH	FB-132KV-NDDV-PTPL-01	10114985	110	1436026	Th T of oprtn of Relay for 2*Y-Phset IN	MSE	0		00:00:00
0100	Testing of current Relay Y PH	FB-132KV-NDDV-PTPL-01	10114985	120	1436027	Th T of oprtn of Relay for 3*Y-Phset IN	MSE	0		00:00:00
0100	Testing of current Relay Y PH	FB-132KV-NDDV-PTPL-01	10114985	130	1435788	Th T of oprtn of Relay for 5*Y-Phset IN	MSE	0		00:00:00

The '**Meas.Date**' and '**Meas.Time**' indicate the actual date and time of performing the test and taking the reading. The above details entered here would be updated in the concerned **measurement document** also. In case the same are not entered, system would consider the **system date** and **system time** of entering the reading by default and the same would be updated in the measurement document.

After **saving** the entries, system would create measurement documents for each of the measuring points.

**Step-6:** Click **Display Meas. Readings** button as indicated below for viewing the entered readings and measurement documents created.



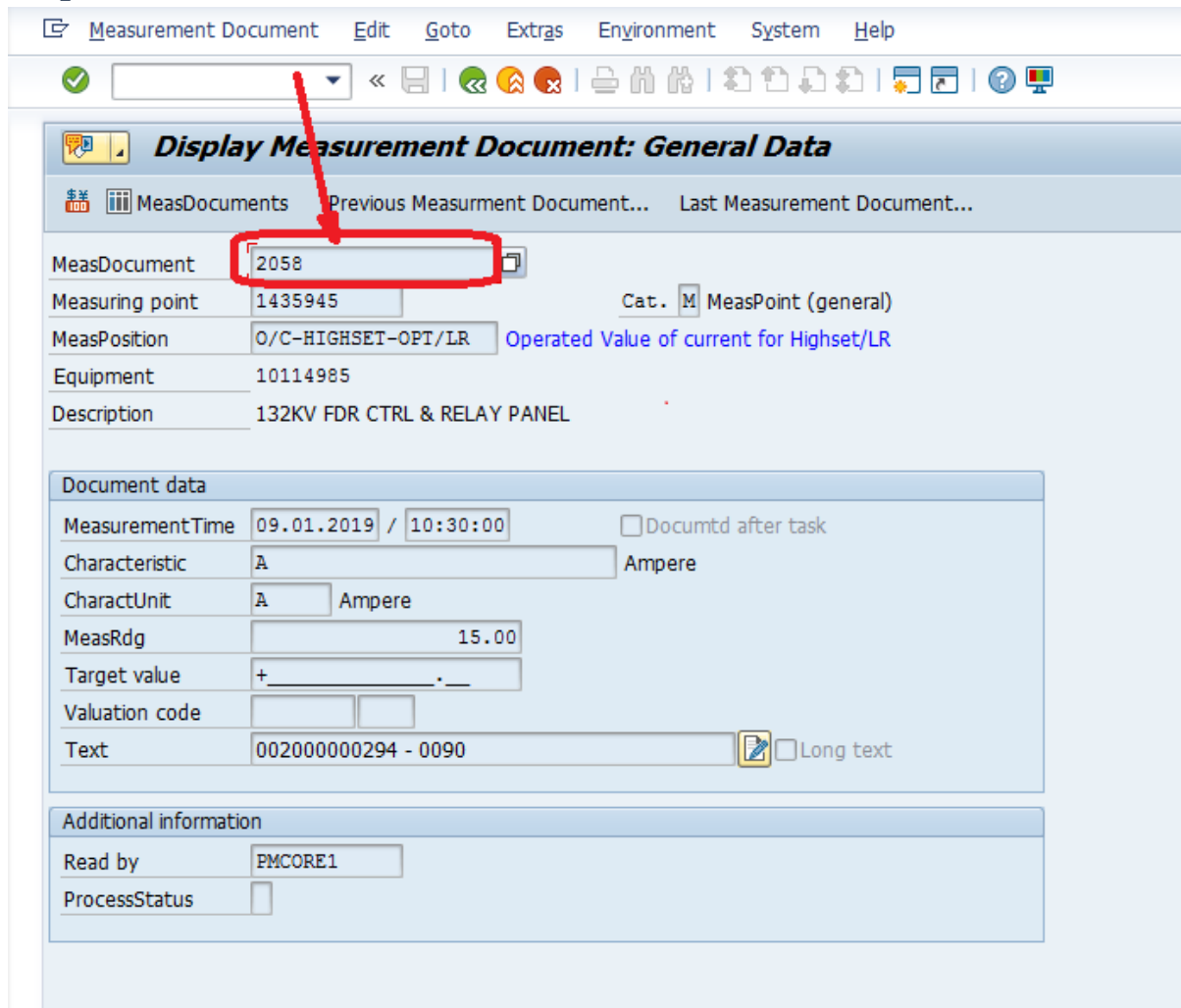
**Step-7:** Readings entered are displayed as shown below.

Further, it may be noted that Measurement documents **2058** and **2059** are created as shown below. **Double click** the document number to view the document.

Display Meas. Doc for PRT in Work Order

Order No	Activity No.	Operation short text	Functional Location	Equipment Number	PRT Item No.	Measuring Point	Mea. Point Desc	Reading	UOM	Meas. Doc. No	Meas. Date	Meas. Time	Creat
2000000294	0090	Testing of current Relay R PH	FB-132KV-IIDV-PTPL-01	10114985	10	1435945	Operated Value of current for Highset/L	15	A	2058	09.01.2019	10:30:00	PMCO
2000000294	0090	Testing of current Relay R PH	FB-132KV-IIDV-PTPL-01	10114985	20	1435755	Thertcal Value of current for Highset/LR	20	A	2059	10.01.2019	11:45:00	PMCO

### Step-8:



Measurement Document Edit Goto Extras Environment System Help

Display Measurement Document: General Data

MeasDocuments Previous Measurement Document... Last Measurement Document...

MeasDocument 2058

Measuring point 1435945 Cat. M MeasPoint (general)

MeasPosition O/C-HIGHSET-OPT/LR Operated Value of current for Highset/LR

Equipment 10114985

Description 132KV FDR CTRL & RELAY PANEL

Document data

MeasurementTime 09.01.2019 / 10:30:00 ☐ Document after task

Characteristic A Ampere

CharactUnit A Ampere

MeasRdg 15.00

Target value + .

Valuation code

Text 002000000294 - 0090 ☐ Long text

Additional information

Read by PMCORE1

ProcessStatus

***It may be noted that once the reading of a measuring point is entered and saved, it would not any more appear in the list of measuring points to be recorded in the same maintenance order i.e in the list as shown in the step-5 above.***

***In the same procedure explained above, the other measuring point readings should also be entered and saved after performing the corresponding tests.***

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