DPI Single Screen Work Order

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Overview

The single screen work order allows the creation of the following documents through a single point of data entry: Work Order, Labor Confirmation, Goods Issues (both inventory and local/direct purchases).

Consolidating data into one screen is intended to save time and eliminate the need to run multiple SAP transactions. SAP standard transactions are still available for use on complex work orders, or orders where incorrect information needs to be corrected.

Keep in mind that though I have seperated the full processing of an order into distinct procedures, these procedures can be combined into different groups depending on your needs. As an example, there is no need to exit the transaction, and come back into ZIW32_DPI just to TECO a work order, you can TECO a work order after the final changes have been saved.

With the ease of use increased, it is my hope that some counties will consider using the single screen work order to create and print orders for mechanics to complete rather than verbally instructing and waiting for completed paperwork to come in. This will not apply in all situations, but it can potentially revolutionize your inventory management, by giving you a real time accounting of your current inventory. It will also allow you to see what work has been done by whom, and what work still needs to be accomplished by whom.

Procedures

Your individual settings need to be updated before using the single screen work order process.

A. Edit Default Settings

1. From the **SAP R/3 System** screen, enter transaction code *ZIW31_DPI*
2. Click or press **Enter**. **Create Order** screen displays.
3. Enter any inventory number in the **Inventory number** field (do not press enter).
4. Follow the menu path **Extras > Settings > Default values** to change default settings.
5. Select the **General** tab. Enter or select a value for each of the following fields:
    a. **Planning plant –** 6000
    b. **Planner Group –** 0xx (e.g 005 for Ashe, 092 for Wake)

c. **Main work center –** TECHWORK/your maintenance plant (in the blank field to the right)

d. **Example:** TECHWORK/6091 – (Vance County Bus Garage)

6. Select the **Ext. procurement** tab. Enter or select a value for each of the following fields:

   a. **Purch. Group –** A99 UNASSIGNED

   b. **G/L acct –** 52331003

   c. **Material group -** VMRS

7. Click .

8. Click .

9. Click to exit this transaction.

10. When it asks you if you want to save the data entered on the work order, **click No**.

B. Special Instructions for Warranty Orders (TD-18W)

The objective of the TD-18W is to capture what our 5 year warranty is used to cover. Right now that information is unknown. This data is extremely important for understanding problem areas of the vehicle for future specifications and discussing trends with the manufacturers. These work orders will be entered differently because of this. The order should encompass the entire task from when the vehicle is taken out of service for repair until the vehicle is returned to service. This may be multiple days.

When creating the work order the description of the order is operation 10 on the TD-18W. This should give a description of the part of the vehicle repaired under warranty. Format: {Bus #} {Mileage} Warranty – {Part Repaired/Replaced}
Example: 510 (15182) Warranty – EGR Cooler

The order should be coded with PMActType 012 - Warranty

There are two new required dates in the top section. Malfunction start date is when the vehicle was removed from service to be repaired. Malfunction end date is when the vehicle was repaired and able to return to service. These can be the same.

Complaint and Cause are only necessary for customer performed warranty (CPW). They are there to make it easier for office personnel to file claims. If the vehicle went to the dealer for repair these are optional fields.

All operations entered into SAP on a warranty work order need to be coded with a key word at the start, see the list below:

1. Warranty – This captures the primary part repaired and the associated VMRS code. It is essential that the first six digits of the VMRS code are correctly entered. No time is to be placed on this operation. Please see the BSIP VMRS code document at http://www.ncbussafety.org/BSIP/Resources.html . If multiple items were repaired by a dealer under warranty additional warranty operations can be added. For CPW orders the repair lines will cover all items repaired by the LEA.

2. Dealer – This captures who performed the warranty repair. No time or VMRS code is to be placed on this operation. **Example 1:** Dealer – White's International Wilson **Example 2:** Dealer – CPW

3. Travel – LEA personnel travel time. There is no VMRS code. For dealer repairs use the 037 reason code. For CPW repairs use the 038 reason code. Nearly all work orders should have some travel time associated with them.

4. Repair – Any repairs or diagnostics done by LEA personnel. Proper VMRS codes should be used as was the case with Warranty operations. If all repairs were performed by a dealer there may be no repair operations on the work order.

The materials section should be used as normal for CPW orders and most likely will go unused when the dealer is doing the repair.

C. Create Work Order

1. From the SAP R/3 System screen, enter transaction code *ZIW31_DPI.*

2. Click or press **Enter**. The ***Create Order*** screen displays.

3. Enter DP01 in the order type field.

Be sure you have the correct Order type - you cannot change this field without "backing out" of the transaction after your initial entry.

4. Enter or select a value for **one** of the following required fields in the header:

   - **Inventory no.** – inventory number of vehicle
   - **Equipment** – SAP equipment number

5. Click or press **Enter**.

6. Enter or select a value for each of the following required fields:

   - **Repair Description** – description of work done (first operation)

- Format: [Vehicle/Inventory Number] [Mileage] [First Operation]

Note: The description/first operation should not be travel time, unless that is the only operation.

- **PMActType** – maintenance activity type

7. Click or press **Enter**.

8. Enter or select value for the following header fields:

   - **Person Resp** – Mechanic responsible for work, or mechanic responsible for assuring the work is done. Entering the same person for every work order defeats the purpose of entering something into this field.
   - **Cause** – Click on the matchcode and select the appropriate cause code.

> You must click on the right side field and select the appropriate cause code. The system will populate both fields.

9. Click or press **Enter**.

Work Order Operations

> The first operation should default in from the Header. It can be different from the header if preferred.

10. Enter or select a value for each of the following fields in the **Operations/Labor Confirmation** section:

    - **Short text** – short description of the operation
    - **VMRS Code** – VMRS Code (nine digits)

11. Click or press **Enter**.

12. Click . The ***Create Order*** dialog box displays.

13. Select **whether you wish to print**

14. Click or press **Enter**. The ***Create Order: Display messages*** dialog box displays.

15. Click or press **Enter**.

16. System goes directly to **ZIW32_DPI** screen.

> You can continue processing the work order or exit the transaction.

D. Update Work Order – Enter Labor / Change Operations

The work order must be released and in process before labor can be entered and confirmed.

> Skip steps 1 through 4 if continue processing the work order after putting it in process.

1. From the **SAP R/3 System** screen, enter transaction code *ZIW32_DPI*.
2. Click or press **Enter**. The ***Change Order (DPI): Initial Screen*** displays.
3. Enter the work order number in the **Order** field.
4. Click or press **Enter**. The ***Change Order*** *screen displays*.

> If you need to enter time for two technicians against one operation step, highlight the operation, click copy operation and then click save. You will then be able to enter time on each separate operation for each technician. There is no way to enter two technician's time on a single operation using the single screen work order.

5. If you need to add any additional operations you may do so at this point and click save to have them saved to the order so that you can continue with operation 6.
6. Enter or select a value for each of the following fields in the **Operations/Labor Confirmation** section:
   - **Actual work** – number of hours taken to perform task
   - **Pers. No.** – personnel number of mechanic
   - **Reason** – reason code
   - **VMRS Code** - If appropriate and if it has not already been entered
   - **Confirm. Text** – (Optional)
7. Click or press **Enter**.
8. Click . The ***Change Order: Display messages*** dialog box displays.
9. Click . The ***Change Order*** screen displays.

10. If you have completed the order fully including all materials and time, please see section F on how to technically complete the work order.

11. Click to exit the transaction.

E. Update Work Order – Enter Materials (on-Hand)

1. From the **SAP R/3 System** screen, enter transaction code *ZIW32_DPI*.

2. Click or press **Enter**. The ***Change Order (DPI): Initial Screen*** displays.

3. Enter the work order number in the **Order** field.

4. Click or press **Enter**. The ***Change Order*** screen displays.

> Skip steps 1 through 4 if continue processing the work order after putting it in process.

5. Enter or select a value for each of the following fields in the **Materials Used** section for each material:

   - **Material** – DOT material number
   - **Requirement qty** - quantity
   - **OpAc** – operation step for which material used
   - **PInt** – maintenance plant
   - **Sloc** – storage location
   - **Res./Purc. Req** – Defaults to Immediately

> The **OpAc** is a required field. If you forget to enter the operation step the ***Operation List*** will display. Select the appropriate operation.
>
> You can assign as many materials as needed to an operation.

6. Click or press **Enter**.

7. If there is insufficient quantity you will receive a warning message. If you press enter it will allow you to continue. However, the part will **NOT** be issued until you resolve the deficiency and save the order again. You should never TECO an order which has un-issued parts. (unless making other arrangements for them to be issued)

> A reservation is automatically created for the material. You will see that reservation number next to the materials.

8. Click . The ***Change Order: Display messages*** dialog box displays.

> A goods issue is automatically created for the quantity entered if the quantity on hand is greater than the requirement quantity.

9. Click . The ***Change Order*** screen displays.

10. Each material will now have a material document number listed on its line. If you do not see the material document number than the part has not been issued; This is likely due to insufficient quantity. Do **NOT** TECO the order until you resolve the problem.

11. If you have completed the order fully including all materials and time, please see section F on how to technically complete the work order.

12. Click to exit this transaction.

F. Update Work Order – Enter Local/Direct Purchases

> Skip steps 1 through 4 if continue processing the work order after putting it in process.

1. From the **SAP R/3 System** screen, enter transaction code ZIW32_DPI.

2. Click or press **Enter**. The ***Change Order (DPI): Initial Screen*** displays.

3. Enter the work order number in the **Order** field.

4. Click or press **Enter**. The ***Change Order*** screen displays.

5. Highlight and copy the order number (Ctrl-C) for use on the ZFB61 screen.

6. Click . The ***Enter vendor invoice: Company code 7800*** screen displays (**ZFB61**).

7. Process transaction as normal.

8. Click on dialog box. ***Change Order*** screen displays.

9. Click . The ***Change Order: Display messages*** dialog box displays.

10. Click . The ***Change Order*** screen displays.

11. Click to exit this transaction.

G. TECO Work Order

> Skip steps 1 through 4 if continuing to process the work order after putting it in process.

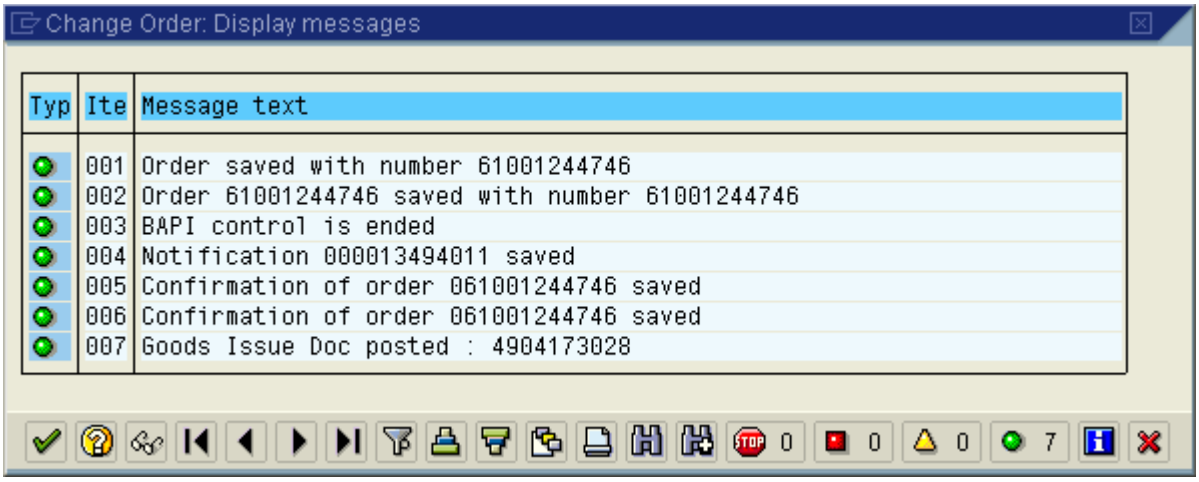
1. From the **SAP R/3 System** screen, enter transaction code *ZIW32_DPI*.
2. Click or press **Enter**. The ***Change Order (DPI): Initial Screen*** displays.
3. Enter the work order number in the **Order** field.
4. Click . The ***Change Order*** screen displays.
5. Click . The ***Complete*** dialog box displays.
6. Enter the reference date for the order. This is the day that the work was actually completed and signed off on by the mechanic.

Note: All orders should have a reference date set so that the reference date may be used in the future to determine actual work completion dates. This is especially important for legal purposes.

7. Click . The ***Change Order: Display messages*** dialog box displays.
8. Click . The ***Change Order*** screen displays
9. Click to exit this transaction.

H. Hints and Tips

- Important messages are displayed in the *Change Order: Display messages* dialog box.



- Ideally, all messages should be green. All "red" flags must be investigated to determine the cause of the failure. If you get a "red" message, you may want to print your messages unless you know what is wrong. Once the display window is closed, the messages will no longer be in the system.

- Helpful hints on messages that you will see in the display window:

    - **Order saved with number -** contains the work order number. Although the system takes you directly to the **Change Order** screen when the order is put in process and the work order field is populated, this does not occur when you click in order to process a direct charge/local purchase. Note this order number on the TD-18 when it is first displayed in the ***Change Order: Display messages*** dialog box.
    - **BAPI control is ended** – It is important for this system message to have a green flag.
    - **Goods Issue Doc posted** – contains the material document number for the part issued
    - **Confirmation of order** – contains the mechanics time confirmation document number

- **Other helpful hints:**

    1. Enter materials **<u>after</u>** the order has been put in process. If you attempt to enter materials before putting the order in process, you will get an unrecoverable error and must exit and retry.

2. To print an order after it has been put in process, go to transaction IW3D and enter the work order number. This can be used to print out a work order after the parts have been issued out.

3. In order for the transaction to automatically create reservations, allow goods issue and labor confirmations, it must be released and saved. An order in CRTD status cannot have time and materials issued to it.

4. Up until a work order is TECOd you may use ZIW32_DPI as many times as you wish to put on new operations and materials.

5. Do not TECO the work order until all data has been saved **FIRST**. If you TECO the order and there are any errors in the save, you will be unable to correct them with ZIW32_DPI.

6. To go back to the beginning and create a new work order, type (or select) /nZIW31_DPI in the transaction box at the top and then press enter. You should only use this after your information has been saved. If you only need to go back to the change order (ZIW32_DPI) then you can simply press F3 or the back button.

7. If you make an error in time confirmations or materials you may cancel them using standard SAP transactions. Simply get the confirmation or material document number from ZIW32_DPI and use it in either IW45 (Cancel order confirmation) or MIGO (Cancellation of Material Document)