

[Tech Note 755](#)

Purging the Operations & Performance 3.5 Database

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Introduction

This *Tech Note* details the purge Functionality for Operations & Performance 3.5.

Application Versions

- Operations & Performance 3.5

Overview

The Wonderware Operations and Performance Application collects data pertaining to jobs, Work Orders, Consumed Items, Produced Items, Entity status, and other detailed information related to Manufacturing. To accomplish this, MES has a very large and complex table structure that is developed in a relational database model.

This means that data that is contained in one table might have links in other tables that relate to each other. When maintaining such a table structure it is important that data removed from one table also has the relational data from the other tables removed as well. The **Purge** functionality focuses on those tables that can grow very large, which will result in decreased application performance.

Sample Scenario

The following example explains what actually happens to a Work order in the context of Purging the Database.

Purge Example

Current date = 5/21/2010

Day to Archive data = Daily

Days to Keep Data = 30

Required WO status for Archiving = Closed



FIGURE 1: PURGE SCENARIO GRAPHIC

- **Work Order ID 1279:** This work order, even though it was started on 2/1/2010, will not have any data deleted because the state of the Work Order is Started. Even though the rest of the criteria are met the Status of the Work Order must be CLOSED.

- **Work Order ID 1280:** This work order has been completed but since I have set the Required WO Status for Archiving equal to Closed, the data for this Work Order will not be purged. To make this Work Order available for Purging you would first need to open Supervisor to the Jobs window and for this Work Order change the Status to Closed. Once it was marked as closed the 30 day countdown begins.
- **Work Order ID 1281:** This Work Order was closed on 4/08 and has a status of Closed. This Work Order and all of its data will be purged from the database. The tables that are affected when a purge occurs are:
 - Error_Log
 - Shift_Exc
 - Shift_To_Go
 - TPM_Stat
 - WO
 - Item_Prod
 - Item_Cons
 - Item_Inv
 - Item_Transfer
 - Util_Log
 - Labor_Usage
 - Cert_Audit_Log
 - Dx_Log
 - Data_Log_16
 - Data_Log_48
- **Work Order ID 1282:** This Work Order meets the criteria for the Work Order Status but not the Days to Keep data. This data will not be deleted until 6/6/2010. This will be 30 days after the Work Order has been closed.
- **Work Order ID 1283:** This Work Order is closed and has closed on today's date. This data will be closed in 30 days from 5/21/2010. If this Work Order would changed status from Closed to either Started or Complete then the countdown stops and will start over again when the status goes back to Closed.

Configuration of Purge Functionality

Configuration the Purge functionality is done in the Configurator Module under the **General tab\Data Entry** (Figure 2 below).

System Parameter	Value
Data Entry	
Archive database name	UNKNOWN
Archive database server name	UNKNOWN
Day to archive data	Daily
Days to keep data (0=never delete)	0
Maintain distinct consumption records	No
Maintain distinct good production records	Yes
Maintain distinct reject production records	Yes
Required WO status for archiving	Complete
Time to archive data (HH:MM)	00:01
Verify quantity entry	No

- **Archive database name and Archive database server name:** These fields are used for future Archiving functionality and should not be edited.
- **Day to archive data:** Purge the database on a daily basis or on a specific day of the week.
- **Days to keep data:** How many days after a Work Order Status has met the criteria for Purging. At that time it will be deleted from the system. When set to **0** the data will never be purged.

- **Required WO status for archiving** (Complete or Closed): Defines the status of a Work Order for it to be considered for purging.

All **Complete** or **Closed** jobs must be marked as **Completed**. In other words, no jobs can be in a state of New, Ready, Running, or Suspended for both of these Work Order statuses.

Defined the Work Order status in the Supervisor Application/Jobs window (Figure 3 below).

The screenshot displays the Supervisor Application/Jobs window. On the left, a tree view shows the hierarchy: Finished Goods (Finished) > MyItem (MyItem) > 1 > 100 > 0.Mach1. The main area shows a blue box for 'Op100' with a gear icon and the text '0.Mach1 (4 of 1234567)'. Below this, a form is open for Work Order ID '1'. The form includes fields for Description, Item (MyItem), Starting Quantity (1234567 Pcs), Required Quantity (1234567 Pcs), Customer, Release Date/Time (5/19/2009 1:24:08 PM), Due Date/Time (5/19/2009 12:24:08 PM), Priority (50), and checkboxes for 'Not Deletable' and 'May Override Route'.

Work Order ID	Description
1	
Item	Status
MyItem (MyItem)	Completed
Starting Quantity	Required Quantity
1234567 Pcs.	1234567 Pcs.
Customer	Manufacturing Order
Release Date/Time	Due Date/Time
5/19/2009 1:24:08 PM	5/19/2009 12:24:08 PM
Priority	Notes
50	
<input type="checkbox"/> Not Deletable <input type="checkbox"/> May Override Route	

- **Time to Archive data** – Define the time at which the data will be purged. This should be done when no other backups are being performed.

The Purge functionality is executed in the Background service and is executed during the **DoDailyTask** housekeeping procedures.

Other database Upkeep Considerations

Other jobs that are recommended in order to keep the performance of the MES system at its peak level.

- Company IT departments should regularly back up the MES database.
- Truncating and shrinking the Transaction Log should also occur on a regular basis ([Tech Note 664 Truncating Operations & Performance Transaction Logs](#)).

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