



Proficiency Plant Applications 2023

SQL Programming



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doc@ge.com

DB Schema

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Chapter 1. DB Schema

Overview

This document describes the database schema in Plant Applications. The database schema defines the relational database tables used in Plant Applications.

SQL programming allows you to query the application database which is organized in table structure. You can execute SQL queries to retrieve information such as the work order id, the number of incomplete operations, the clocked on operation status, the segment actuals, the route ids, and so on from the application database. The database schema tables provide the consolidated information related to Plant Applications.

Work Order Schema

Work orders are created for a specific product and must be completed on a production line. You can create work orders manually using Work Order Manager, and Route Editor applications. The work order schema information can be used to generate reports that are helpful in identifying and resolving the issues in plant operations.

Table 1. Work Order

Column Name	Description
CreatedOn	Work order created date and time.
CreatedBy	The user who created the work order.
LastModifiedOn	The latest date and time at which the work order was modified.
LastModifiedBy	The user who modified the work order.
ConcurrencyToken	System Fields.
Id	Work Order identifier (Id).
Name	Unique name for the work order.
RouteDefinitionId	Route associated with the work order or Route Id. (route.Route)
SegmentsDefinitionId	Id of the Segment Definition Document.

Table 1. Work Order (continued)

Column Name	Description
	(Segments Definitions table)
PP_Id	Event dimension and variable values when PE was bound to Process Order (PP_Id).
PL_Id	Planned Line on which the work order will be executed or Planned Line Id.
Prod_Id	Production Line on which the work order is executed or Production Line Id.
Status	Status of the Work Order: 10 - Not Ready 20 - Ready 30 - In Progress 40 - Complete 50 - Cancelled
PlannedStartDate	The planned date and time to begin work on the work order.
PlannedEndDate	The planned date and time to complete the work on the work order.
PlannedQuantity	Quantity of product planned to manufacture as part of the work order.
DiscreteVirtualUnitId	Production Unit Id, where the lots are created.
NumberOfIncompleteMaterialLotActuals	Number of incomplete Material Lot Actuals.
Priority	Priority in which the work order must be completed.
CancelledOn	The date and time at which the work order was cancelled.
CompletedOn	The date and time at which the work order was completed.

Table 1. Work Order (continued)

Column Name	Description
ReadyOn	The date and time at which the work order is ready to be processed.
StartedOn	The actual start date and time of the work order.
CompletedBy	The user who completed the work order.

Table 2. Material Lot Actuals

Column Name	Description
Id	Id of the Material Lot Actuals.
LotIdentifier	Lot name/Serial Number.
WorkOrderId	Work Order Id.
Status	Status of the Material Lot Actuals: 21 - Not Started 30 - In Progress 40 - Complete
ConcurrencyToken	System Fields.
NumberOfIncompleteSegmentActuals	Number of incomplete operations.
NumberOfActiveLotHolds	Number of Holds.
PlannedQuantity	Planned Quantity.
InitialPlannedQuantity	Initial Planned Quantity.
ProductionEventId	Production Event for the lot (Events Table).
CreatedBy	The user who created the Material Lot Actuals.
CreatedOn	The date on which the user created the Material Lot Actuals.
CancelledBy	The user who cancelled the Material Lot Actuals.
CancelledOn	The latest date and time at which the Material Lot Actuals was cancelled.

Table 3. Segment Actuals

Column Name	Description
Id	Id of Segment Actuals.
MaterialLotActualId	Id of Material Lot Actuals.
SegmentId	Operation's Segment Id inside Segments Definition Document.
PU_Id	Production Unit Id, where the operation is executed.
Status	Status of the Segment Actuals: 10 - Not Ready 20 - Ready 30 - In Progress 40 - Complete 50 - Cancelled 60 - Skipped 70 - Excluded
NumberOfActiveOperationHolds	Number of Active Operation Holds.
CompletedBy	The user who completed the work order.
CompletedOn	The date and time at which the operation was completed.
ReadyOn	The date and time at which the operation is ready to be started.
StartedBy	The user who clocked-on the operation.
StartedOn	The actual start date and time of the operation.
CompletedQuantity	Quantity completed.
ProductionEventId	Production Event Id (Events table) for the operation.

Table 3. Segment Actuals (continued)

Column Name	Description
UserDefinedEventId	User Defined Event Id for the operation. (User Defined Events table)

Table 4. Complete Quantity Records

Column Name	Description
Id	Id of Complete Quantity Records.
SegmentActualId	Operation's Segment Actual Id.
QuantityCompletedBy	The user who performed the operation on the quantity.
Quantity	The quantity of the lot on which you have performed the operation.
QuantityCompletedTime	The date and time at which an operation was completed on the quantity.