

SAP Manufacturing Execution 15.2.3

Object Models Guide

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About This Guide

Target Audience

Members of the Professional Services Organization (PSO) or other System Integrators (programmers).

Guide Overview

This guide contains diagrams of the object models in SAP Manufacturing Execution, including overview diagrams and detailed object designs.

About SAP Manufacturing Execution Documentation

SAP Manufacturing Execution documentation includes:

- § Online help
- § Online library

Online Help

SAP Manufacturing Execution provides comprehensive online help within each of its activities. To access help, do one of the following:

- § Click the Help link in the upper right-hand corner.
- § In a specific activity, click the Help icon: .
- § In Maintenance activities, you can also click the Help menu and then click either Contents to view help that includes a Table of Contents, an Index, and a Search feature, or Activity Overview to display an overview of the activity you are in.

Online Library

In addition to online help, SAP Manufacturing Execution provides an online library of guides to various features of the system.

You can access the online library directly from the installation CD-ROM by opening the HTML version of the index, which is `Documentation\index.htm`.

`Index.htm` lists the current documentation set. You must have the Adobe Acrobat Reader installed to view the PDF files.

Text Conventions

This document uses the following conventions to help you differentiate general names and values from specific names and values:

<code>monospace</code>	Indicates commands, XML tags and attributes, and code. Monospace type can also indicate other names or text ("literals") that are entered or appear as shown.
<i>italics</i>	Indicates a value that can vary. This value may be supplied by you or by some other source.
<code>[]</code>	Indicates the enclosed parameter is optional. The brackets are not part of the syntax (they should not be typed, and do not appear, in the tag, command, or line of code).
<code> </code>	Indicates that only one of the values on either side of the pipe () may be used. For example, the following statement means that the right side of the equals sign (=) may be A or B or C. <code>x = A B C</code>

Italics Example

The `<TOTALS/>` tag is an XML tag used in SAP Manufacturing Execution Xchange XML messages. The example below shows the syntax of the `<TOTALS/>` tag. In this case, values designated by *n* are added by Xchange.

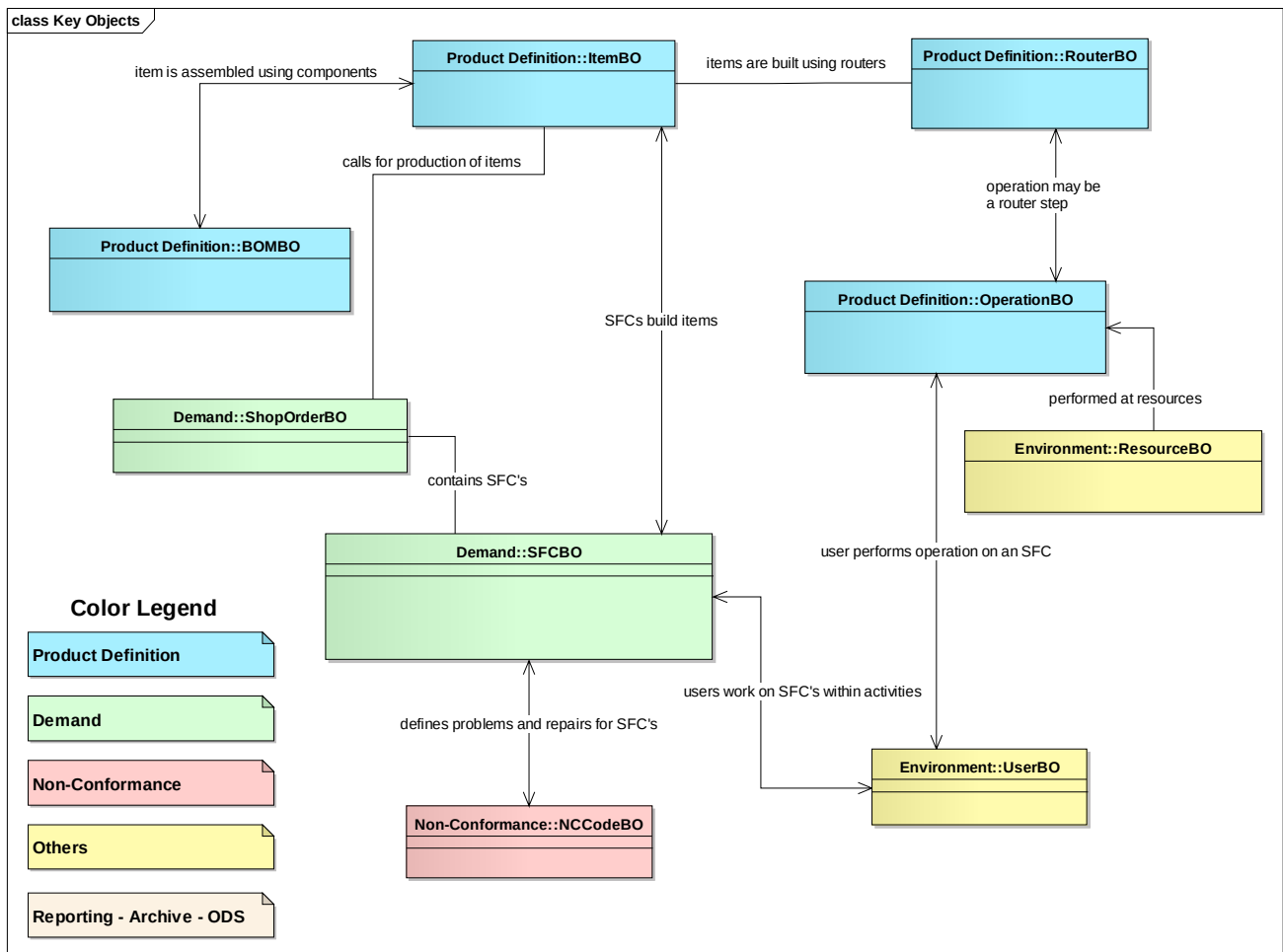
Below is the format of the `<TOTALS/>` tag:

```
<TOTALS failed="n" total="n" invalid="n" succeeded="n"/>
```

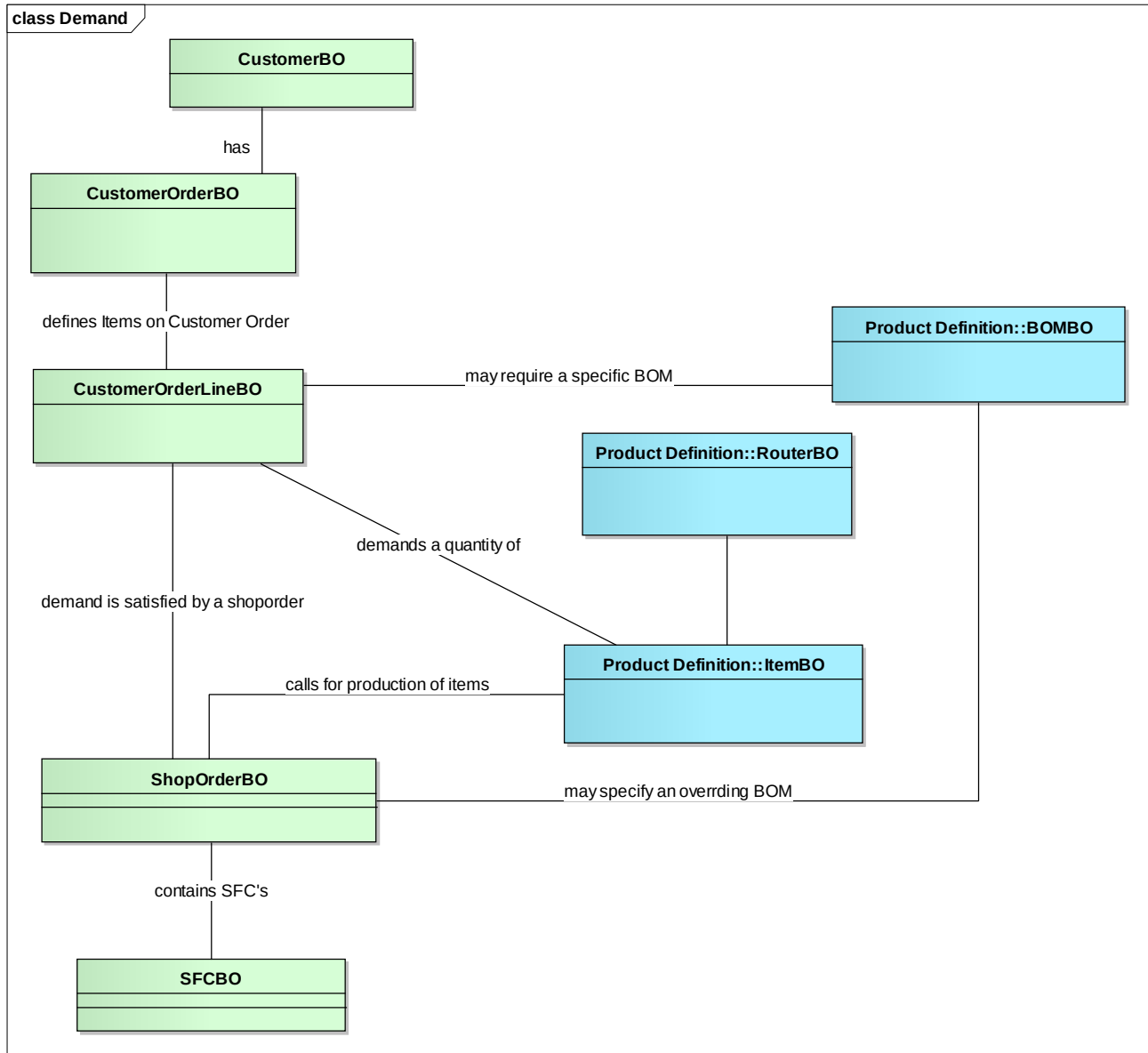

Object Model Overview Diagrams

These overview diagrams show the main objects and their relationships to each other. These diagrams do not show the attributes (columns) for the objects.

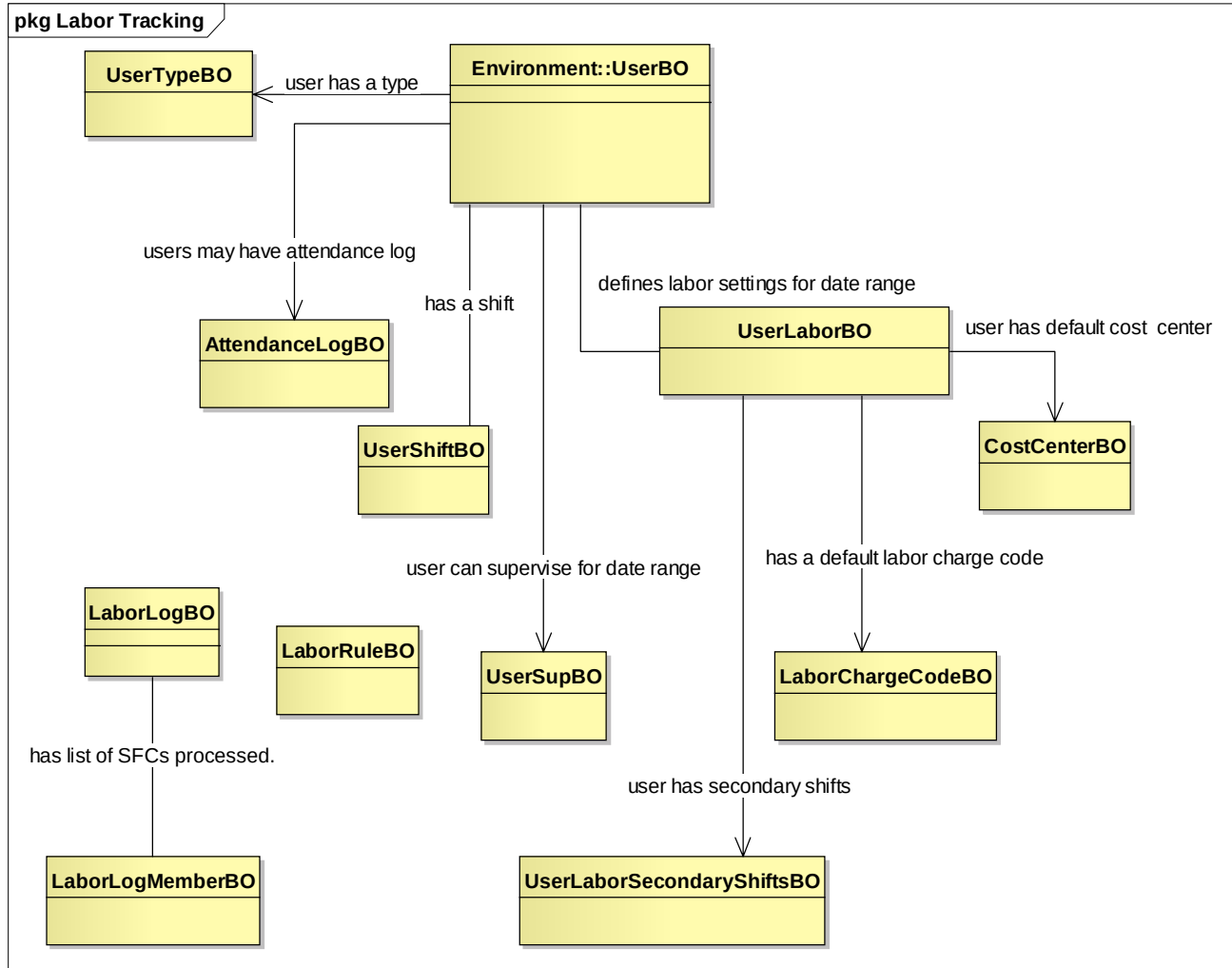
Key Objects



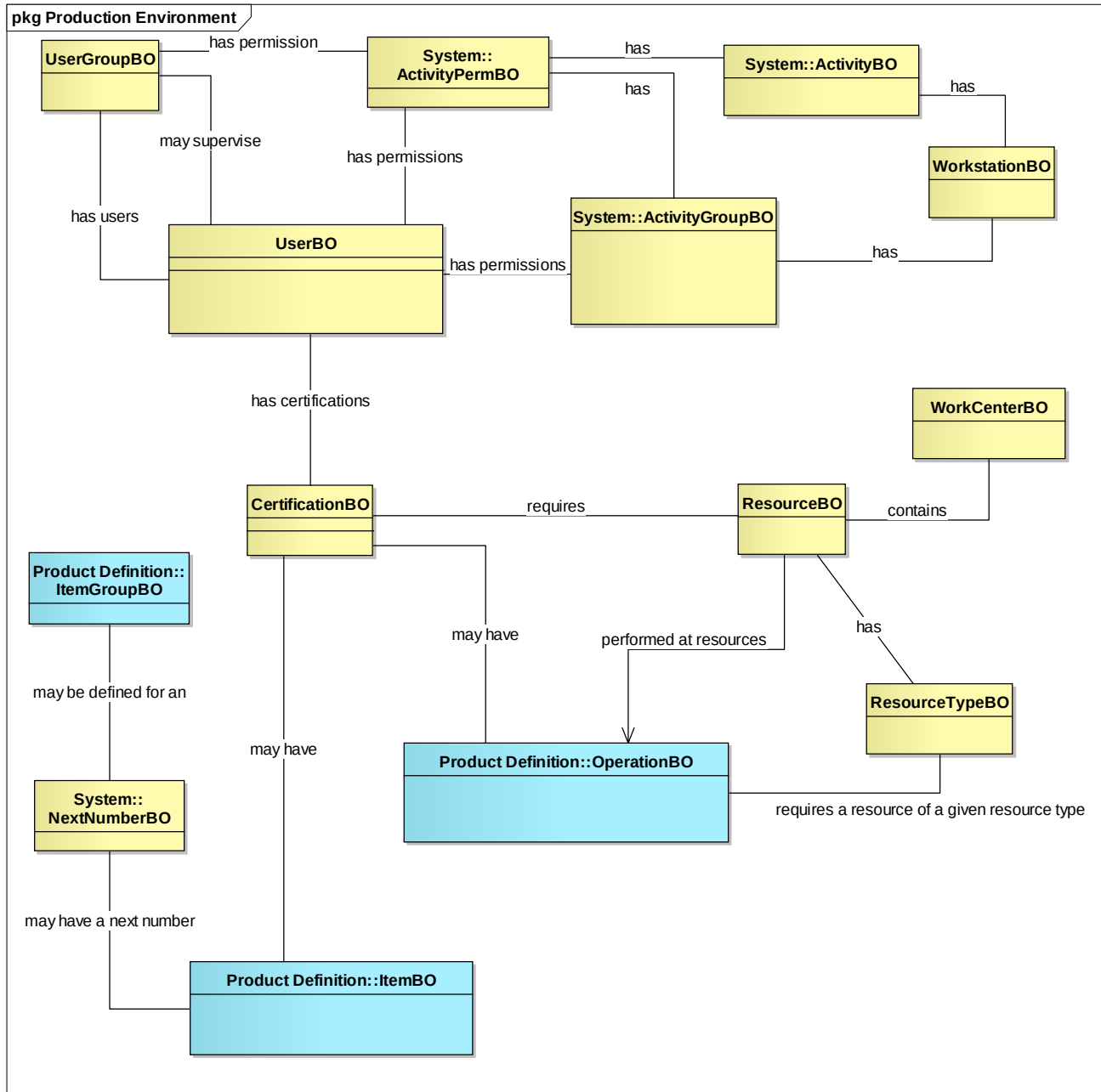
Demand



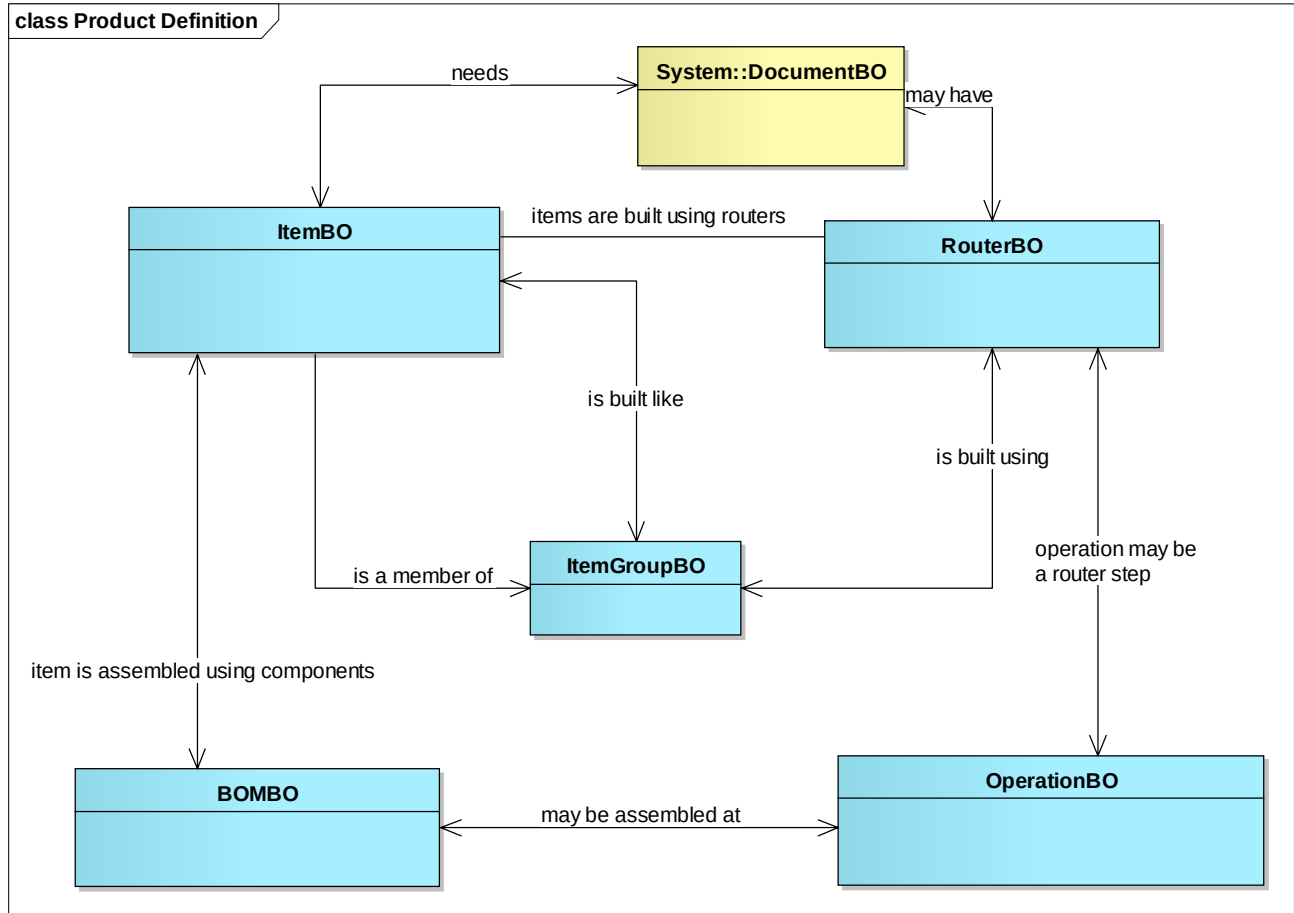
Labor Tracking



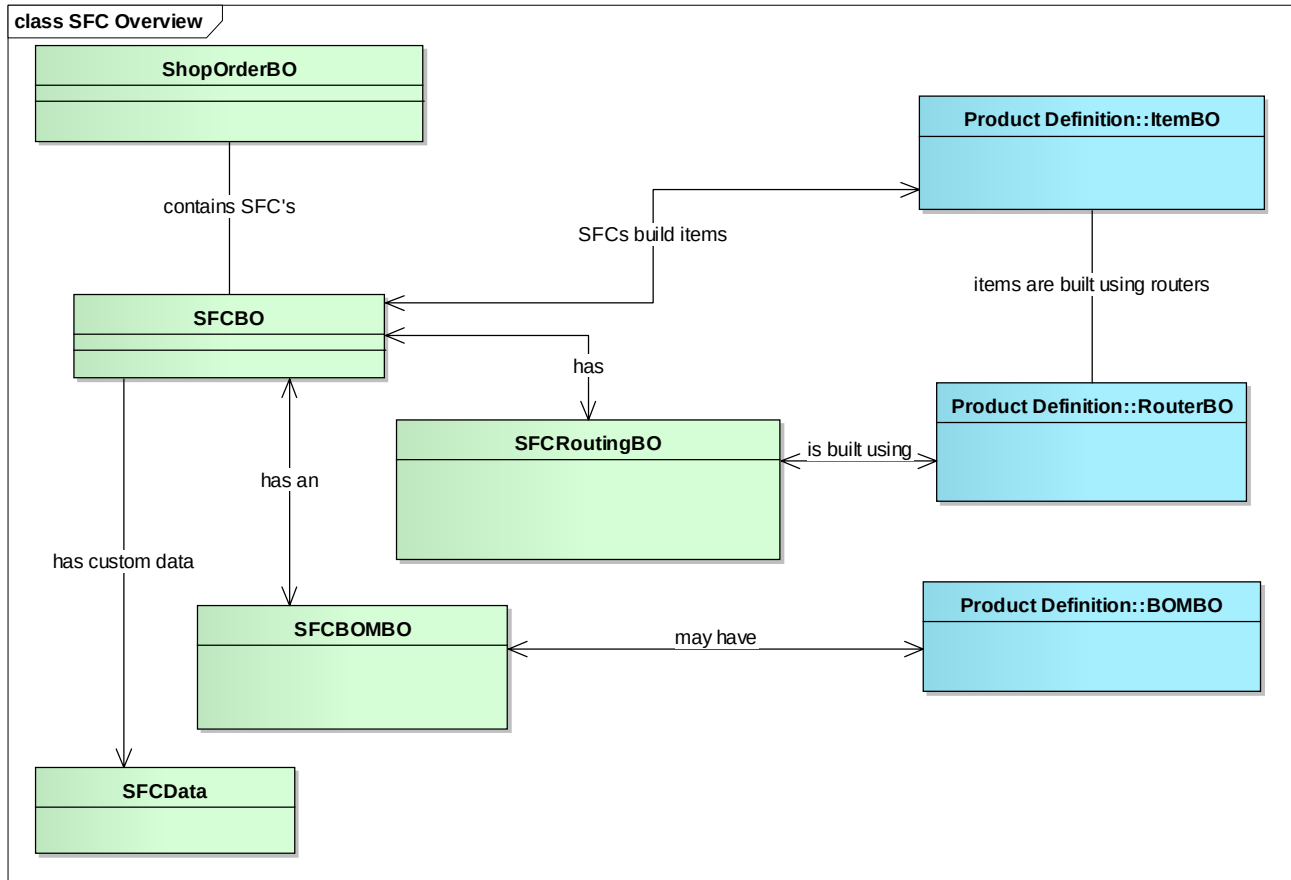
Production Environment



Product Definition



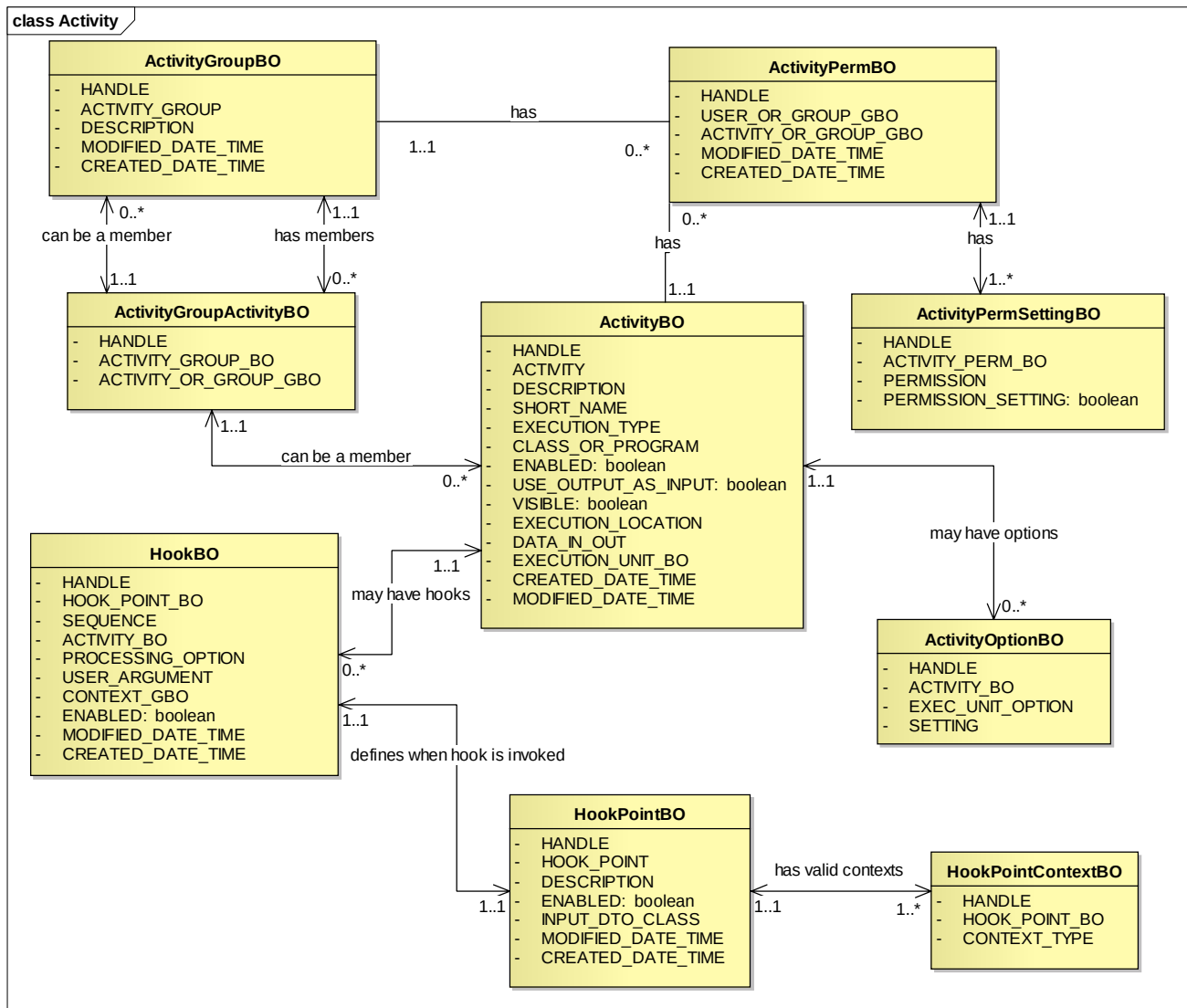
SFC Overview



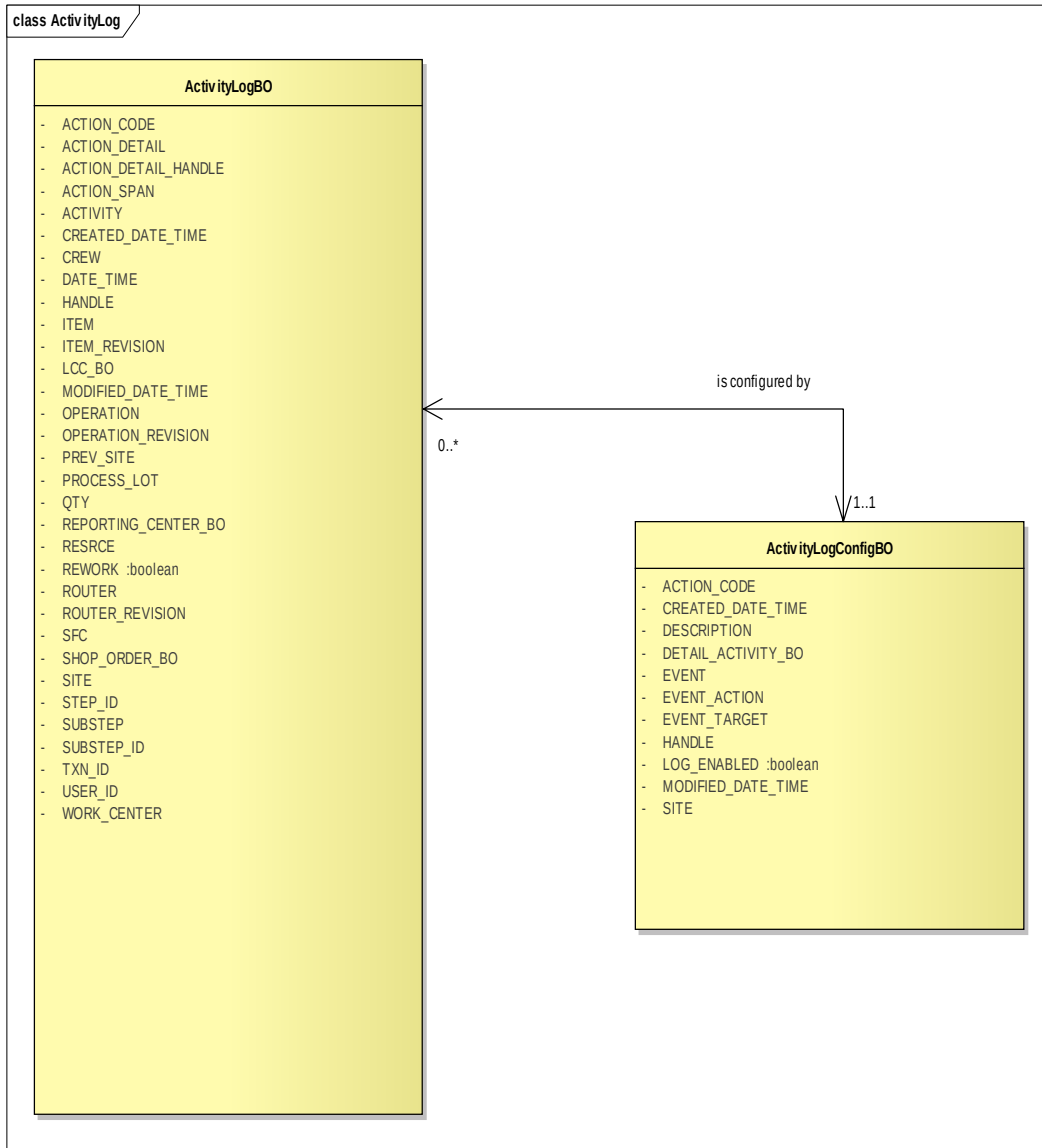
Object Model Detailed Diagrams

This section contains detailed class diagrams showing each object and its attributes (columns).

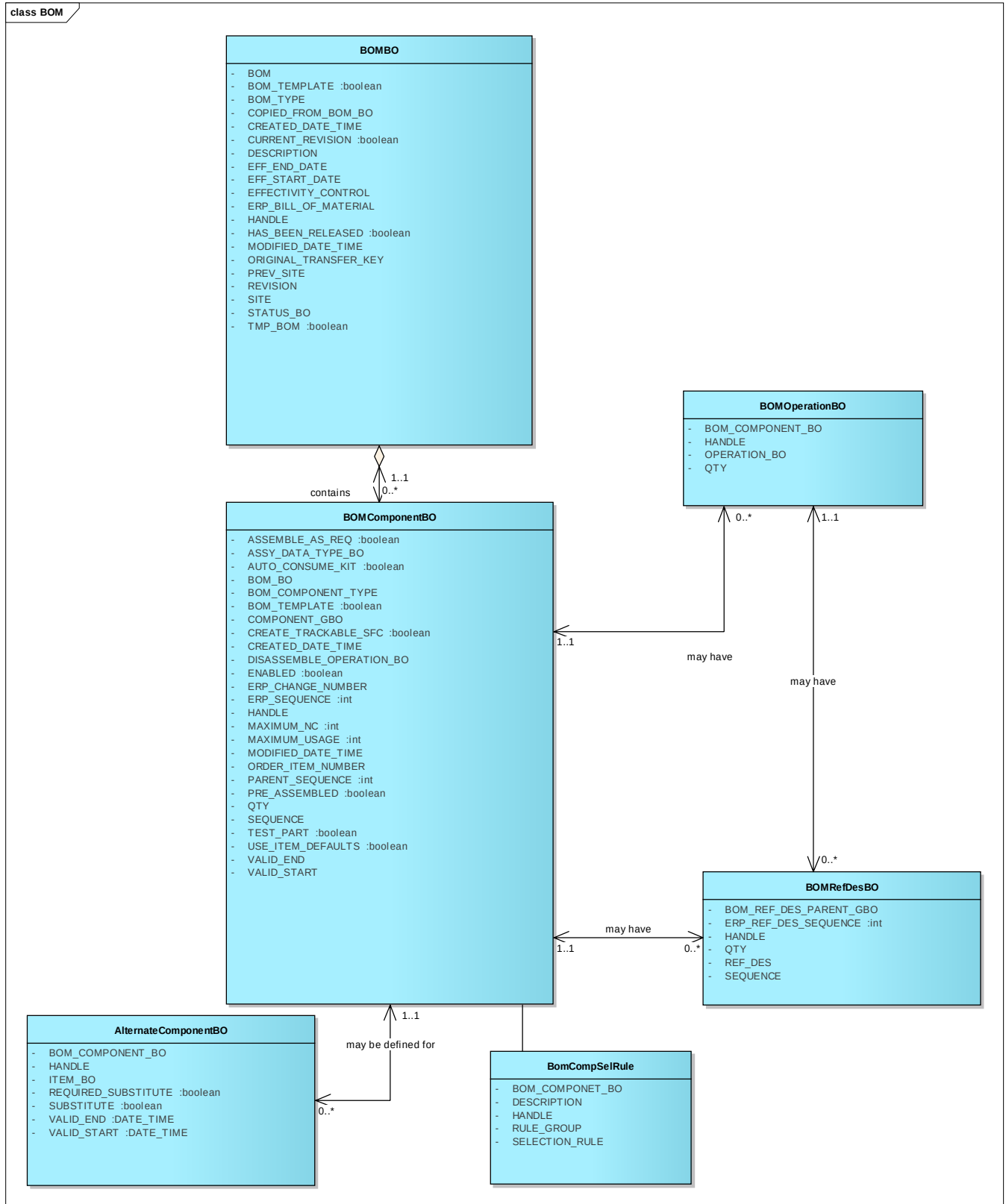
Activity



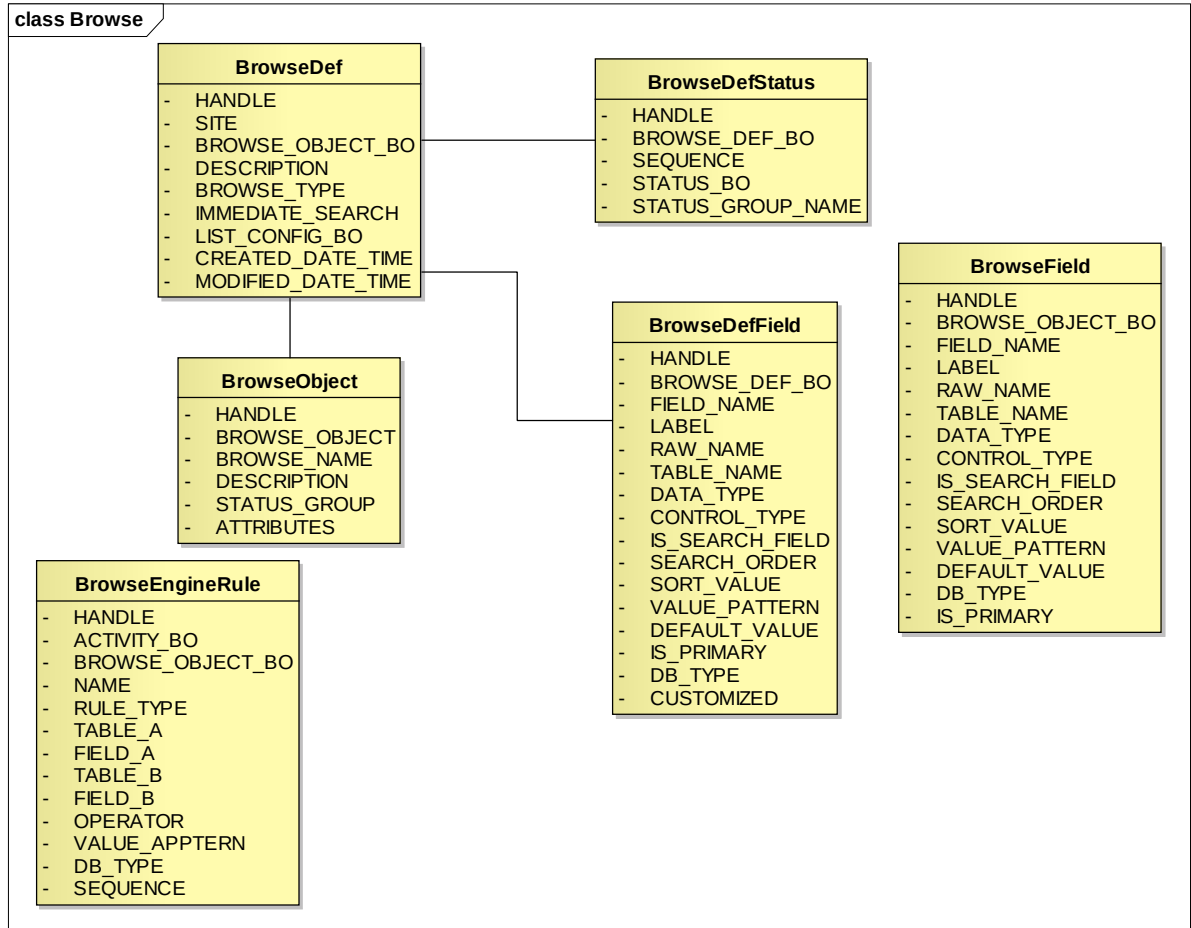
Activity Log



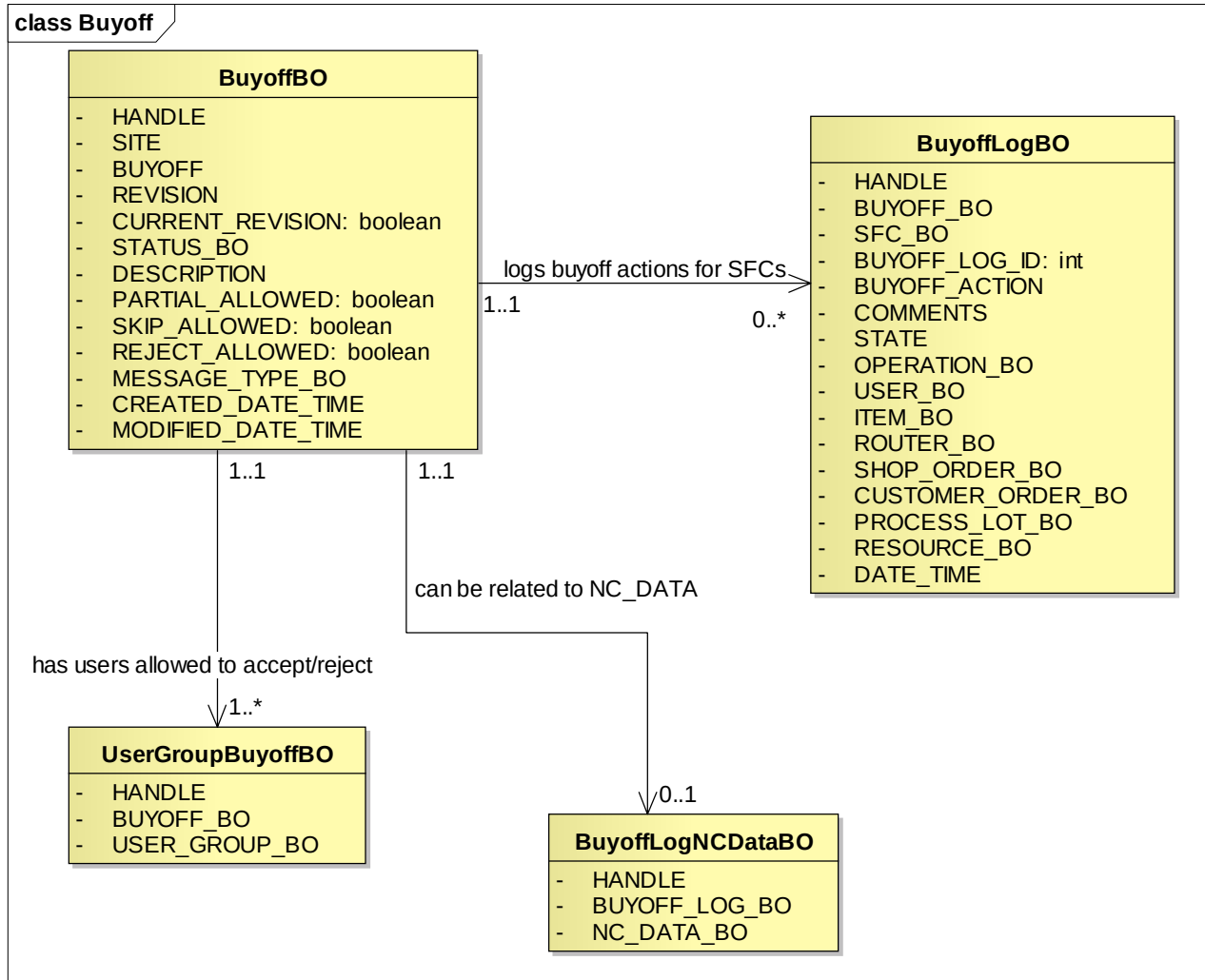
BOM



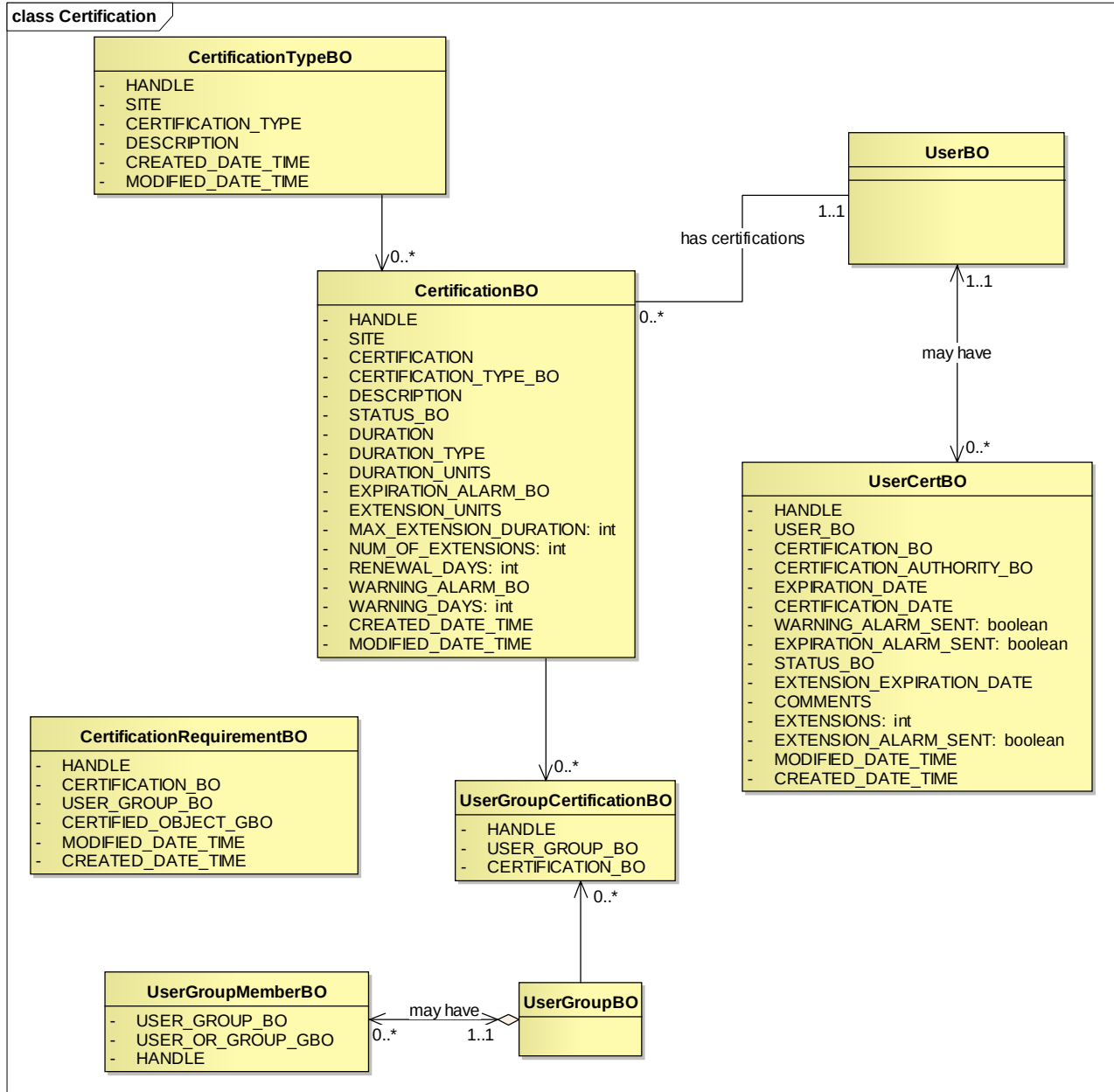
Browse



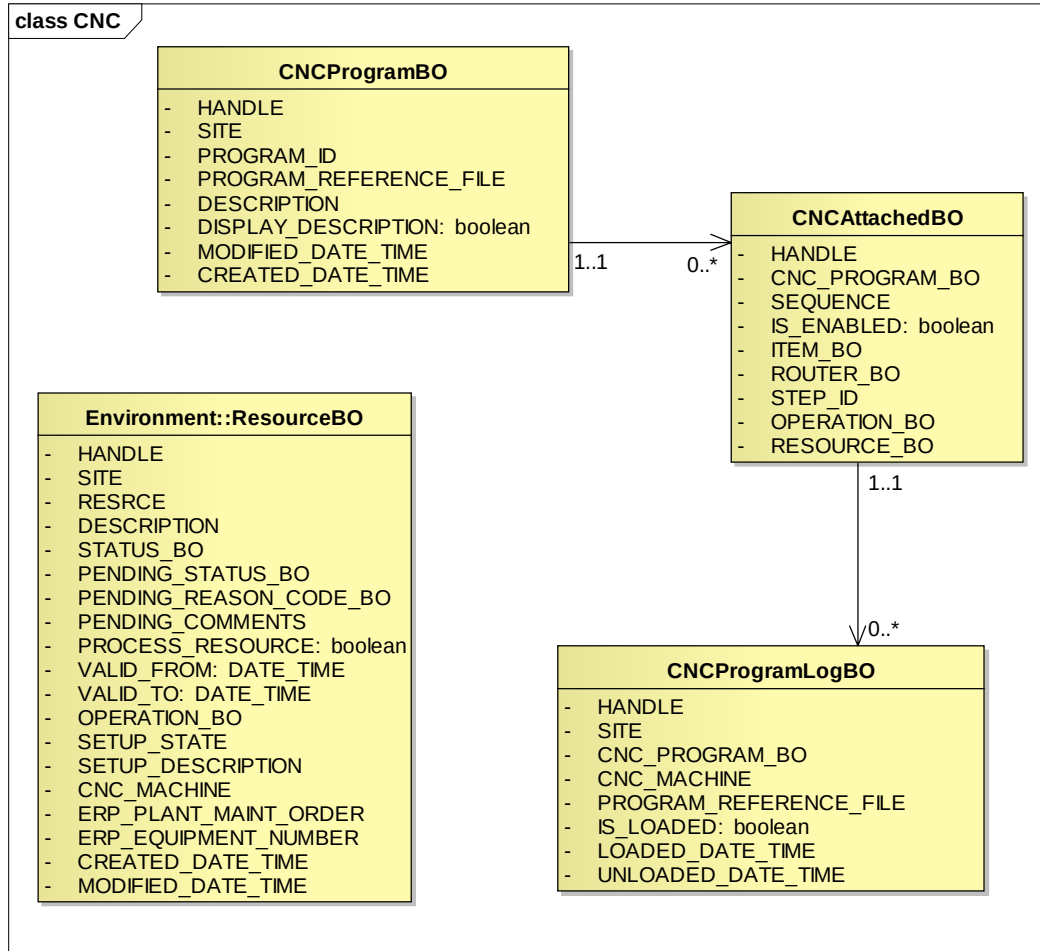
Buyoff



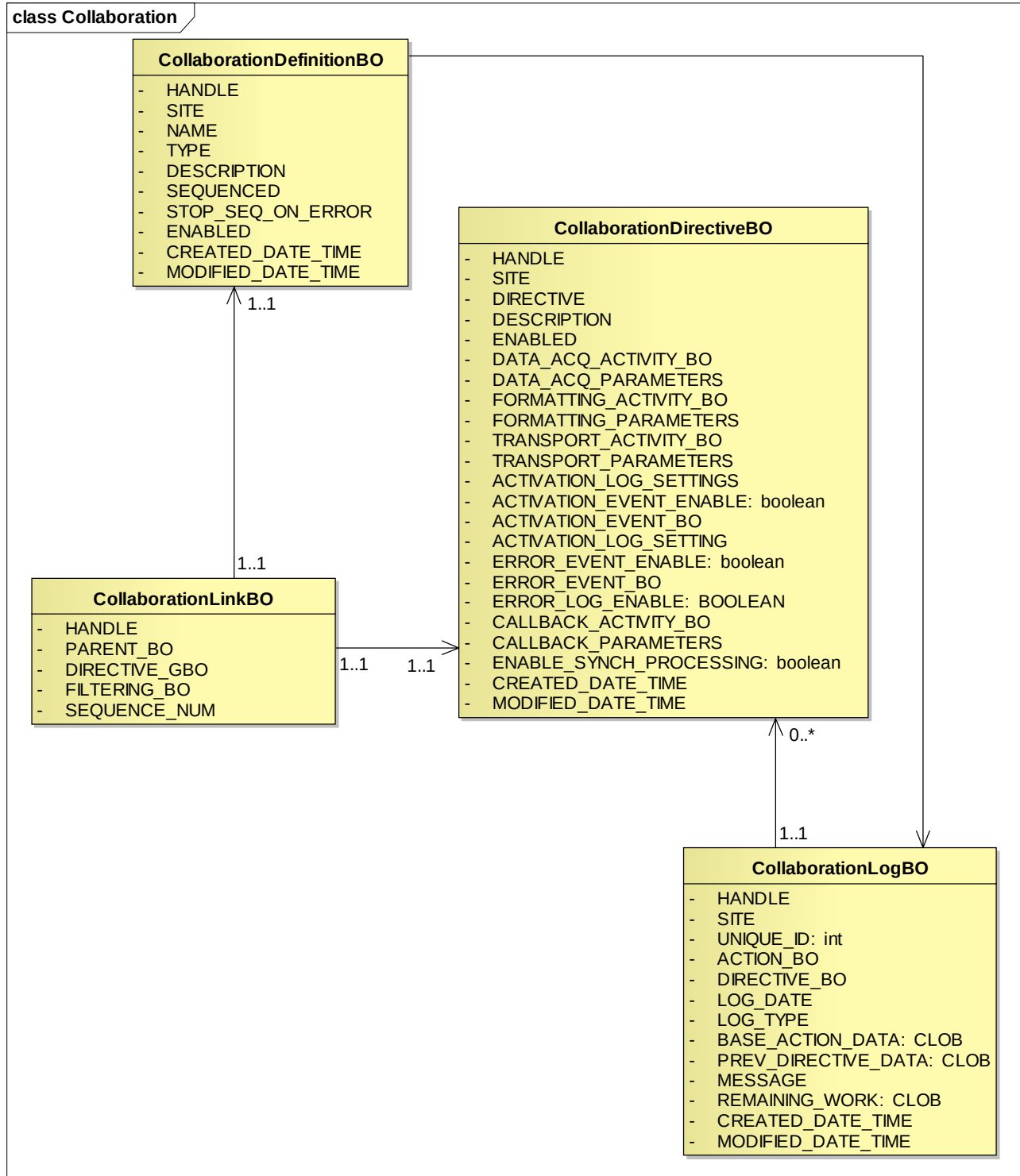
Certification



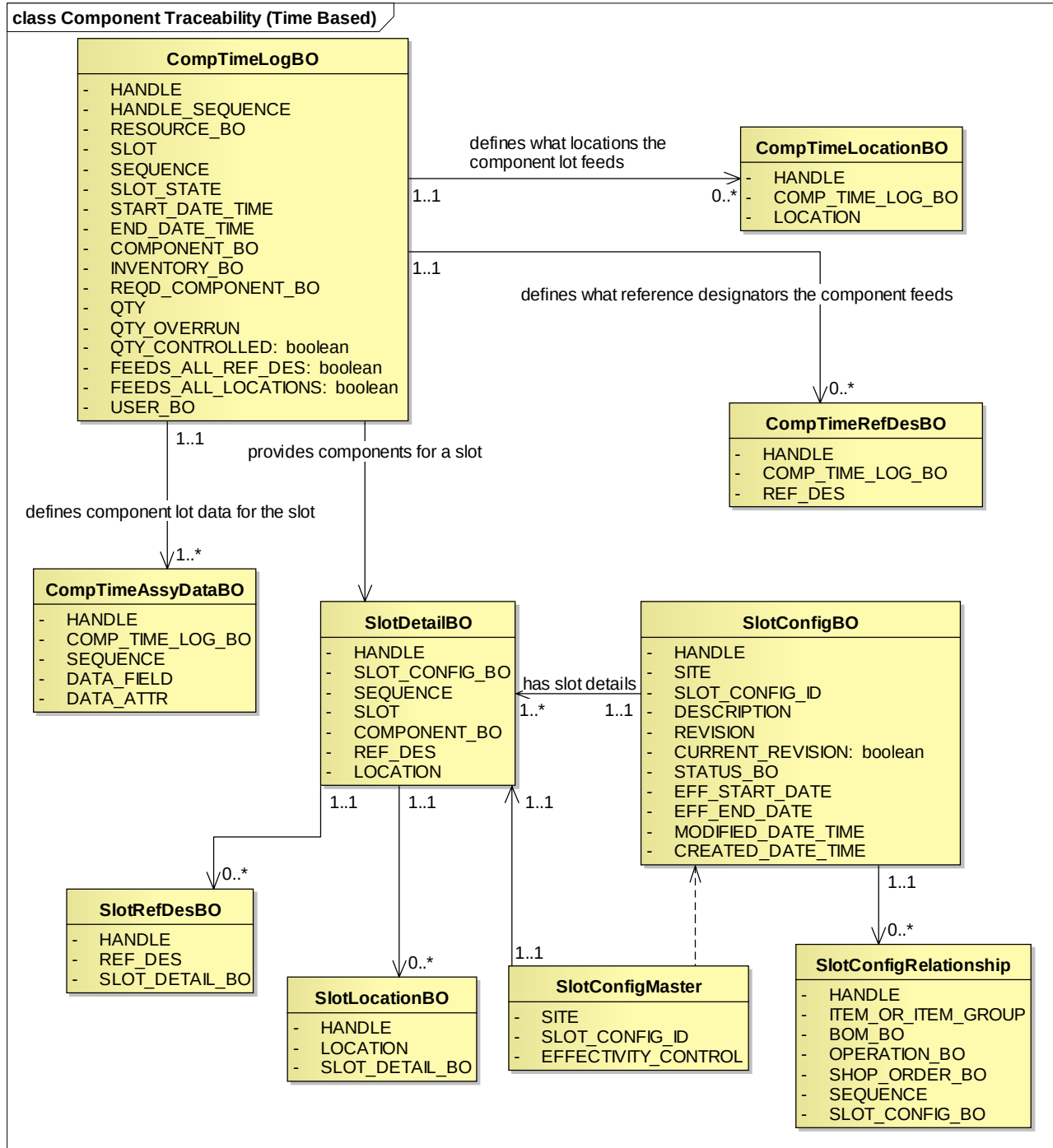
CNC



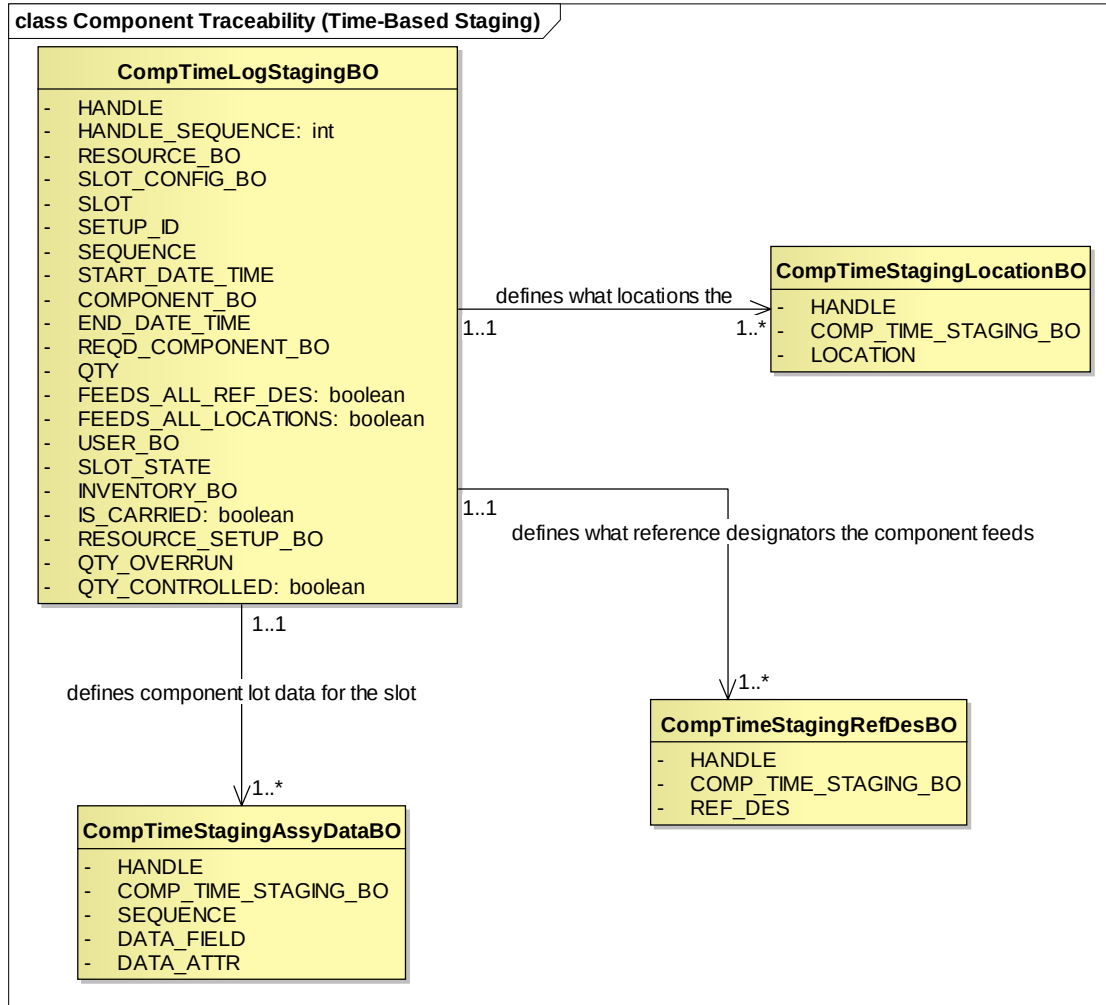
Collaboration



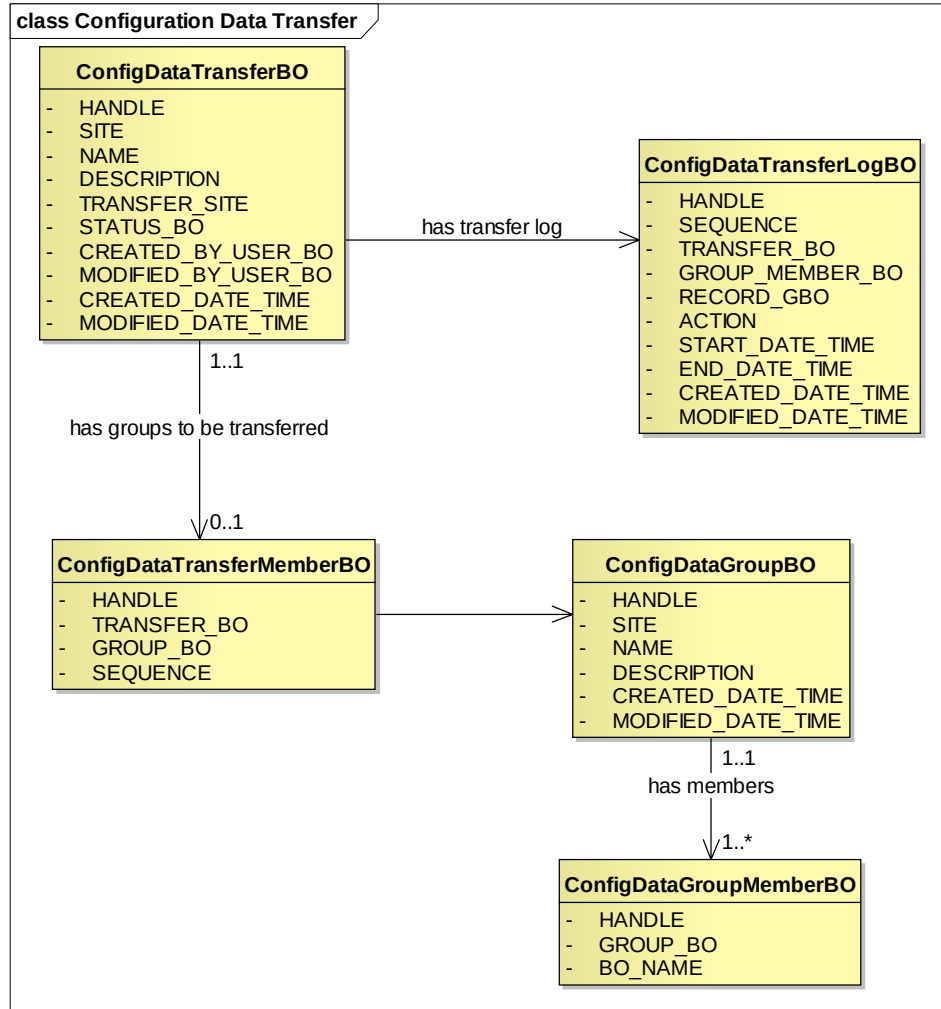
Component Traceability (Time-Based)



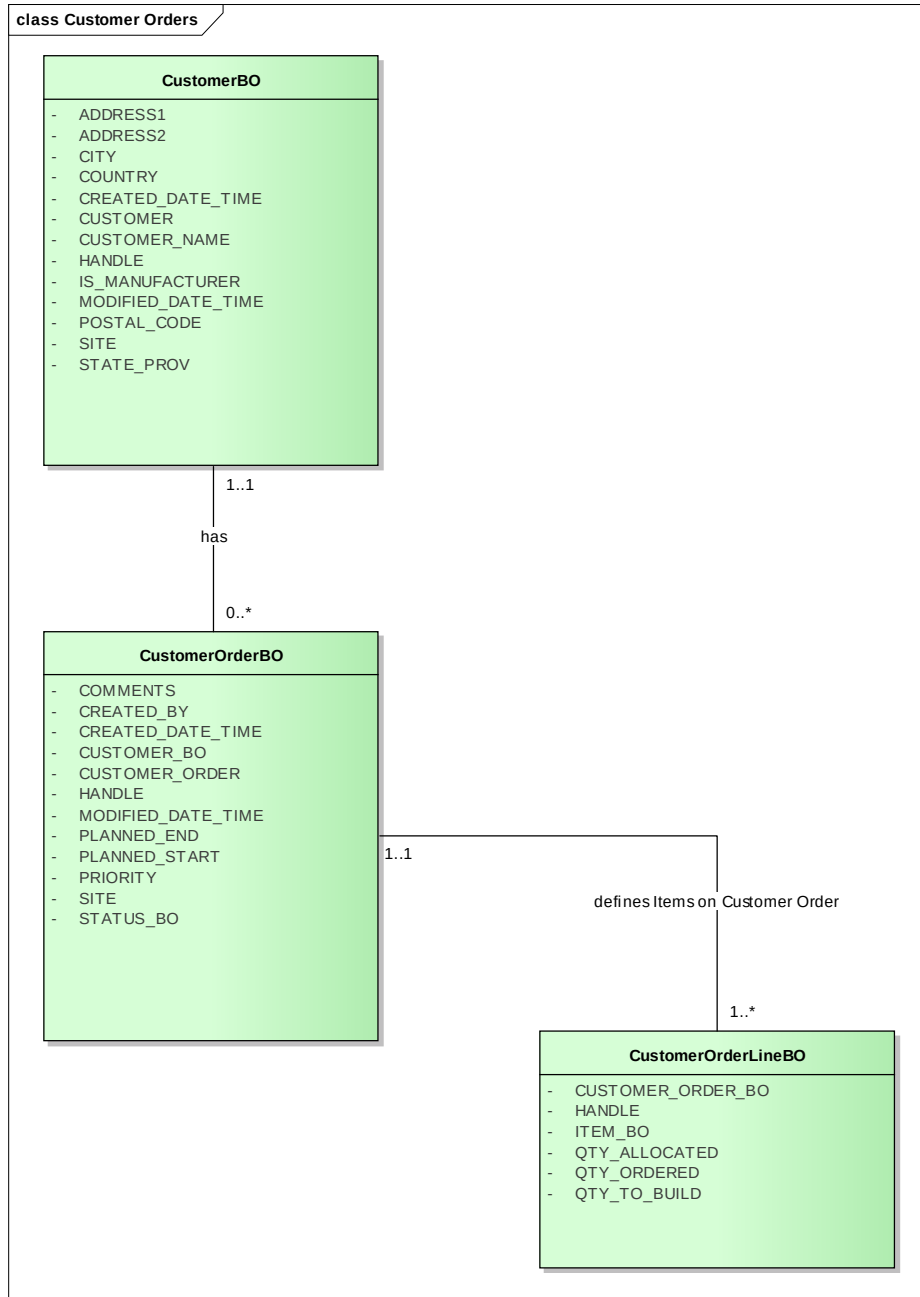
Component Traceability (Time-Based Staging)



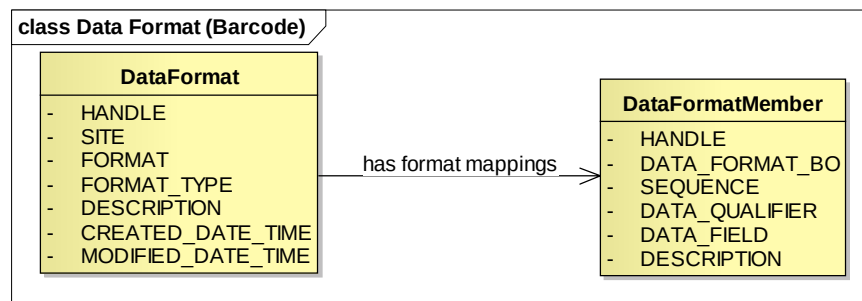
Configuration Data Transfer



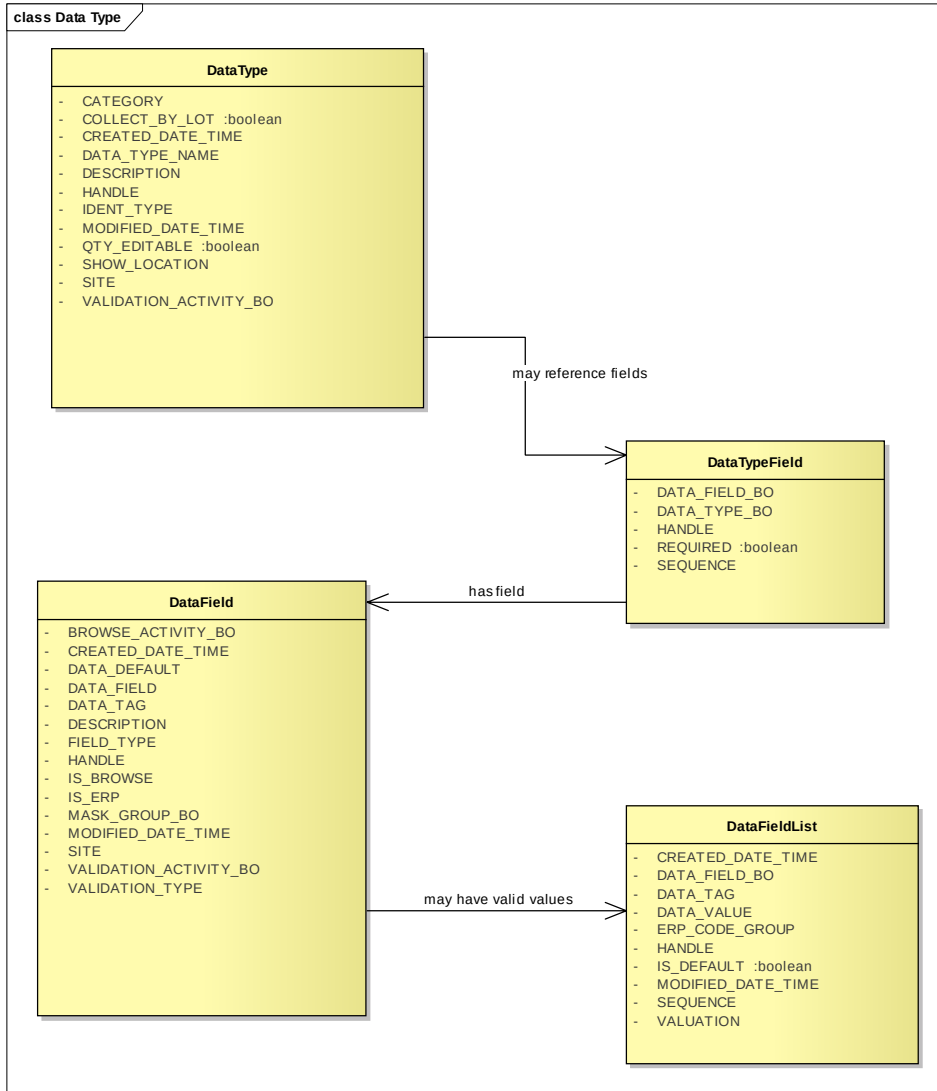
Customer Orders



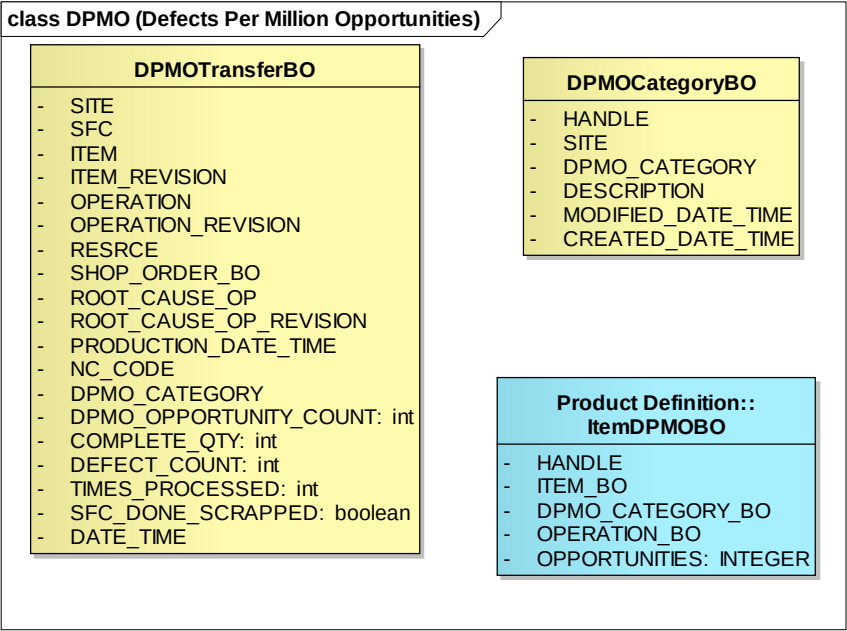
Data Format (Barcode)



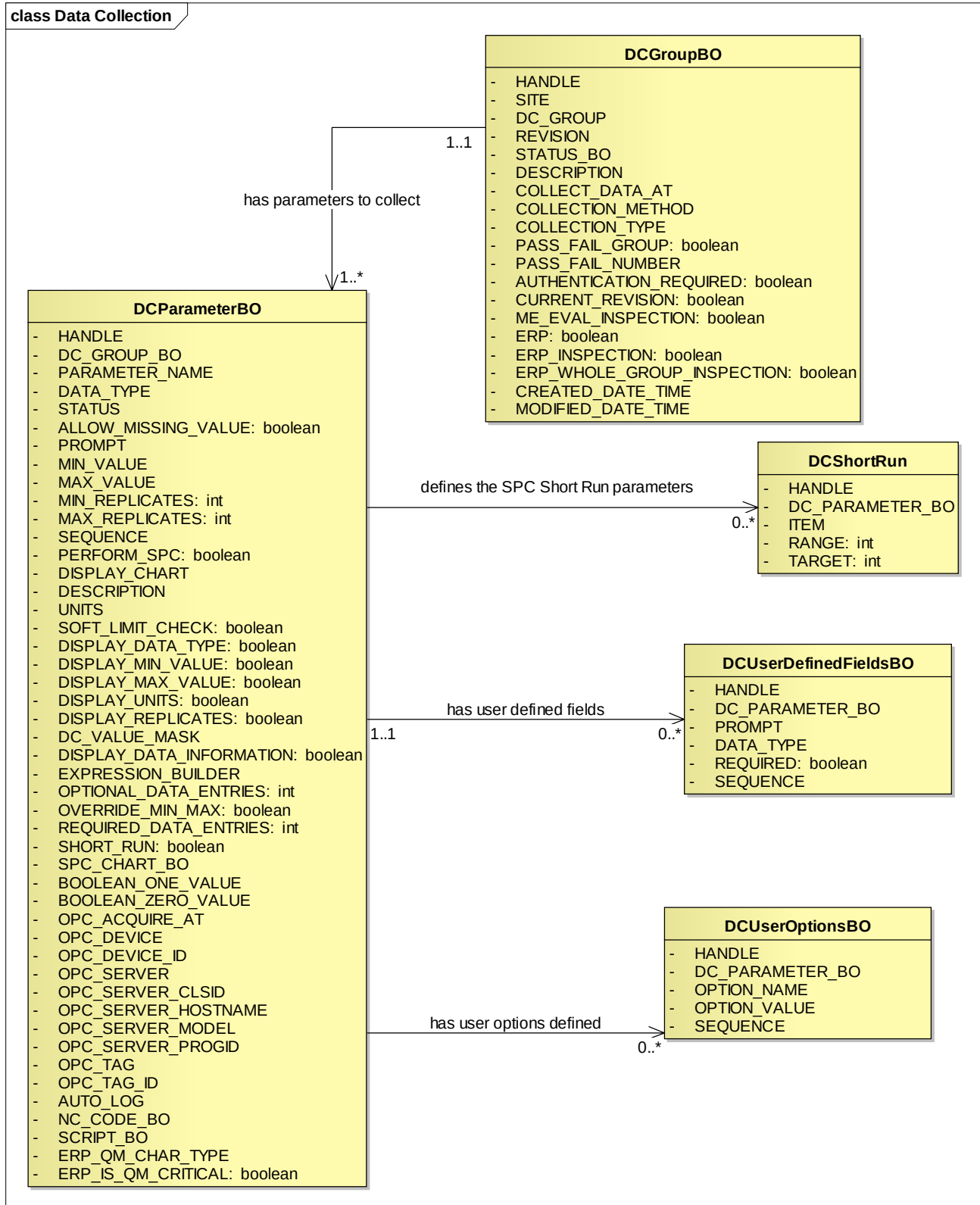
Data Type



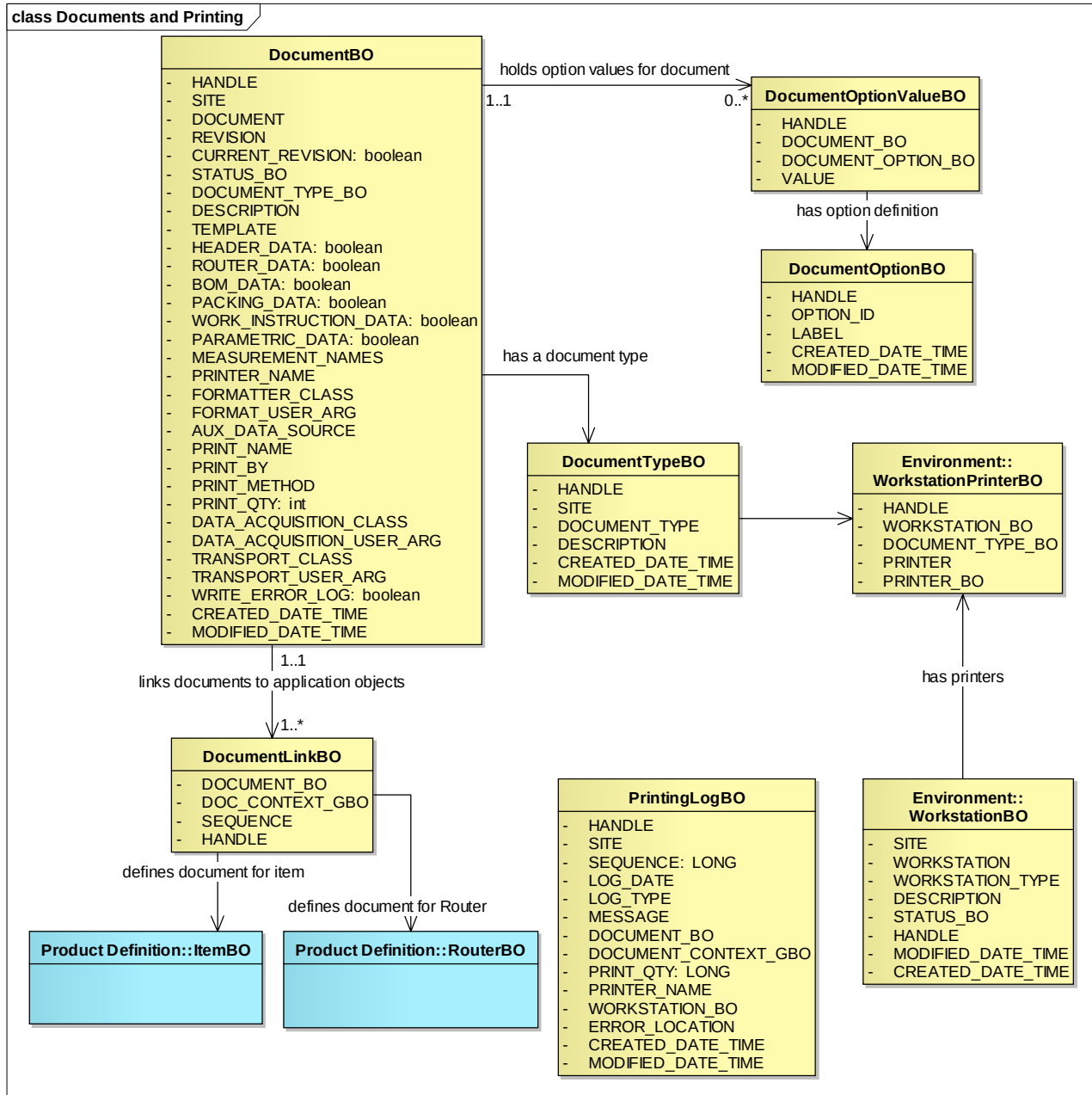
DPMO (Defect Per Million Opportunities)



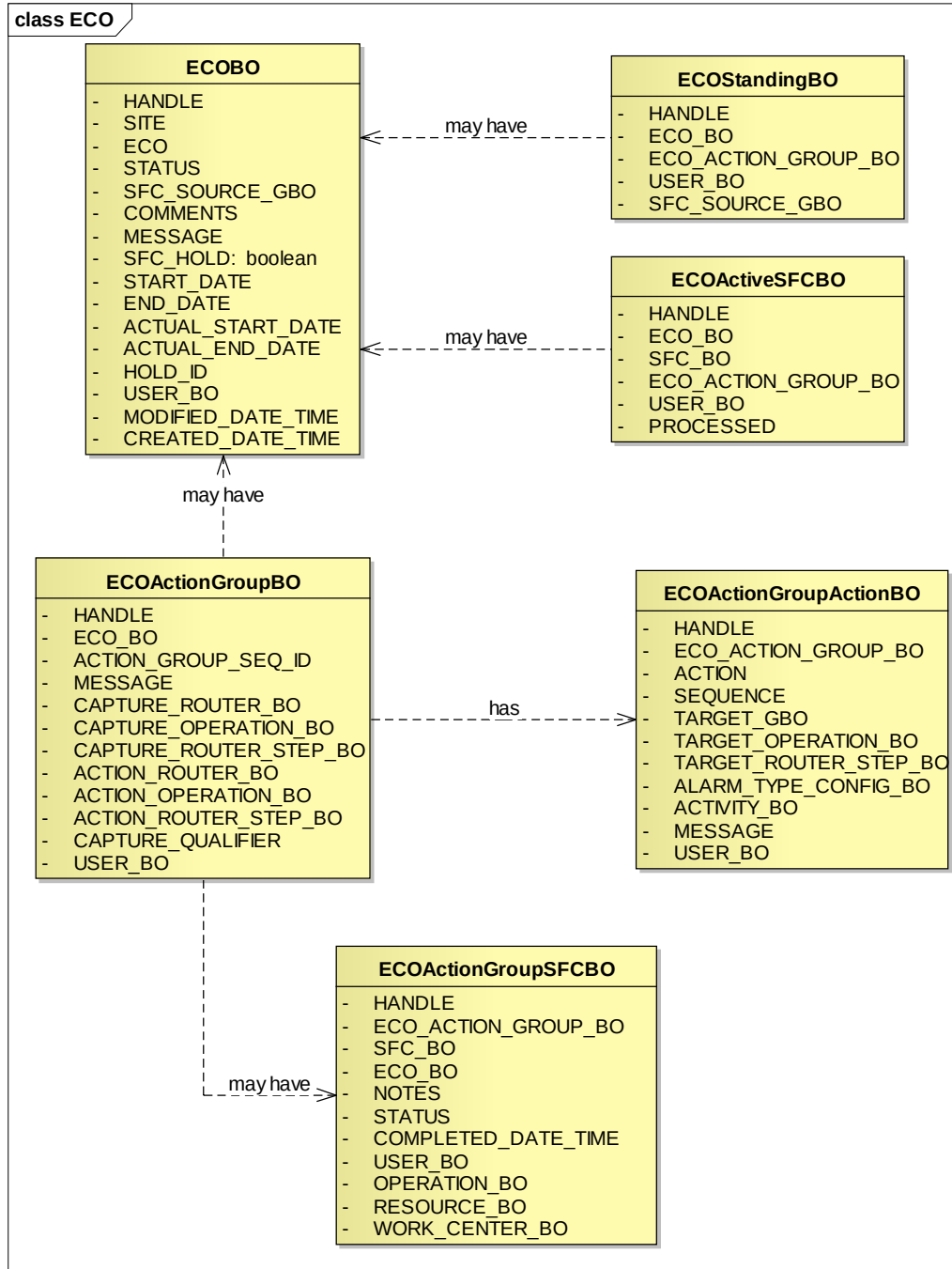
Data Collection



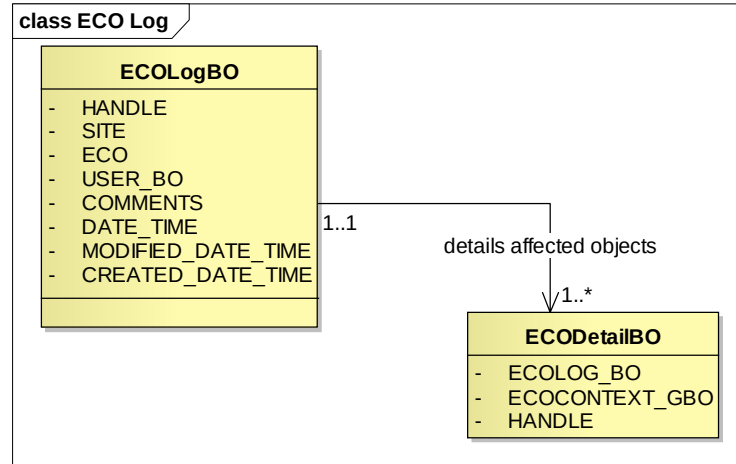
Documents and Printing



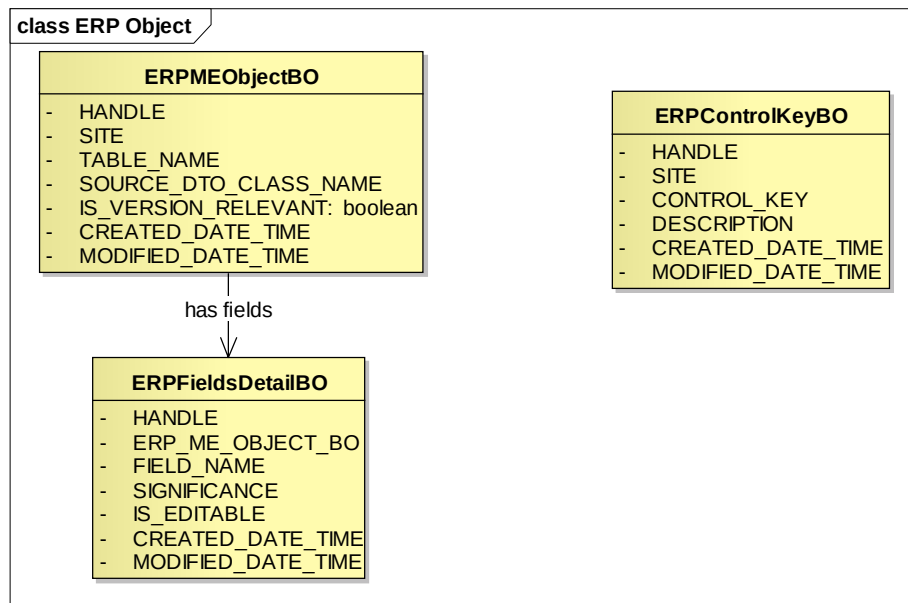
ECO



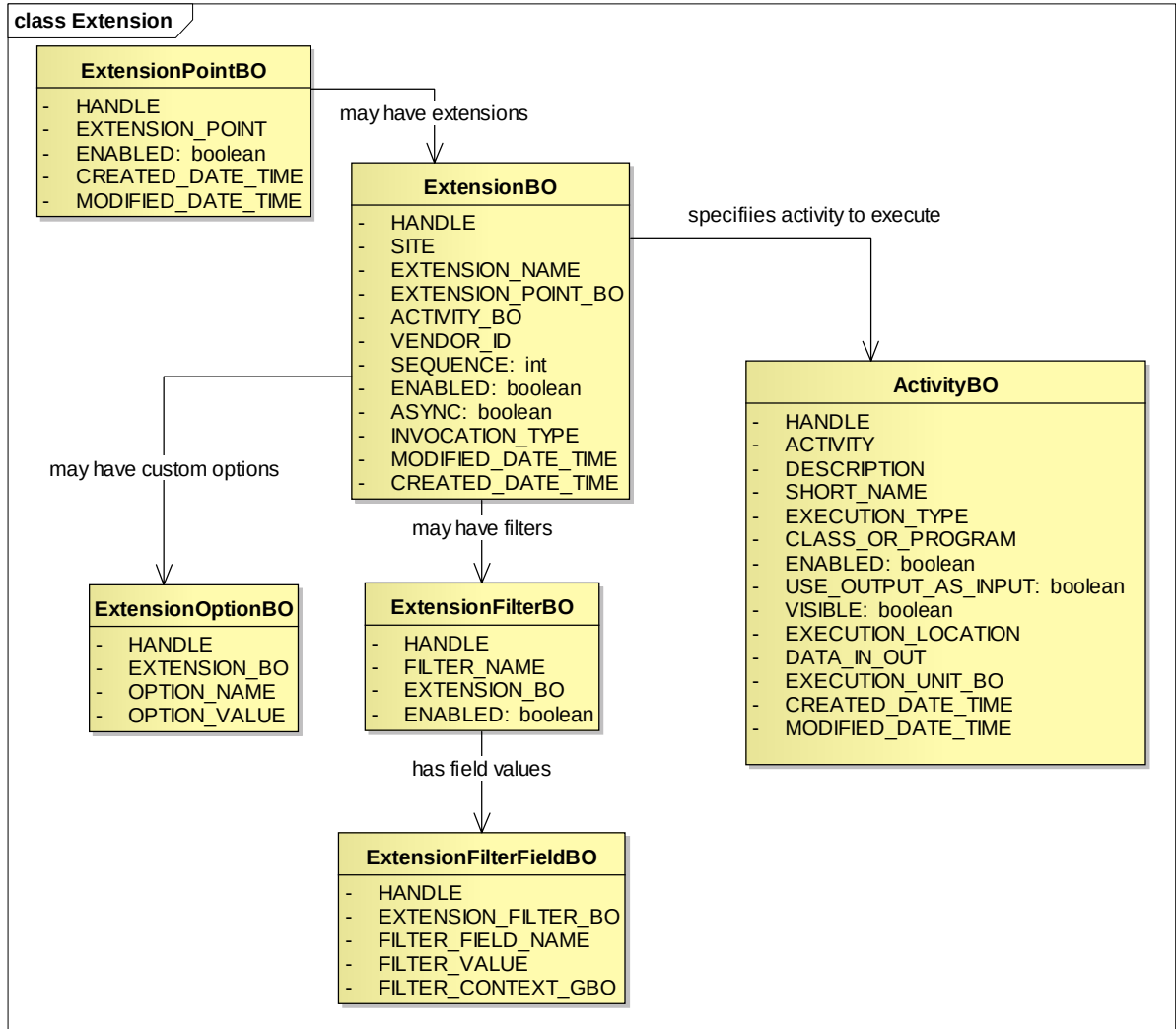
ECO Log



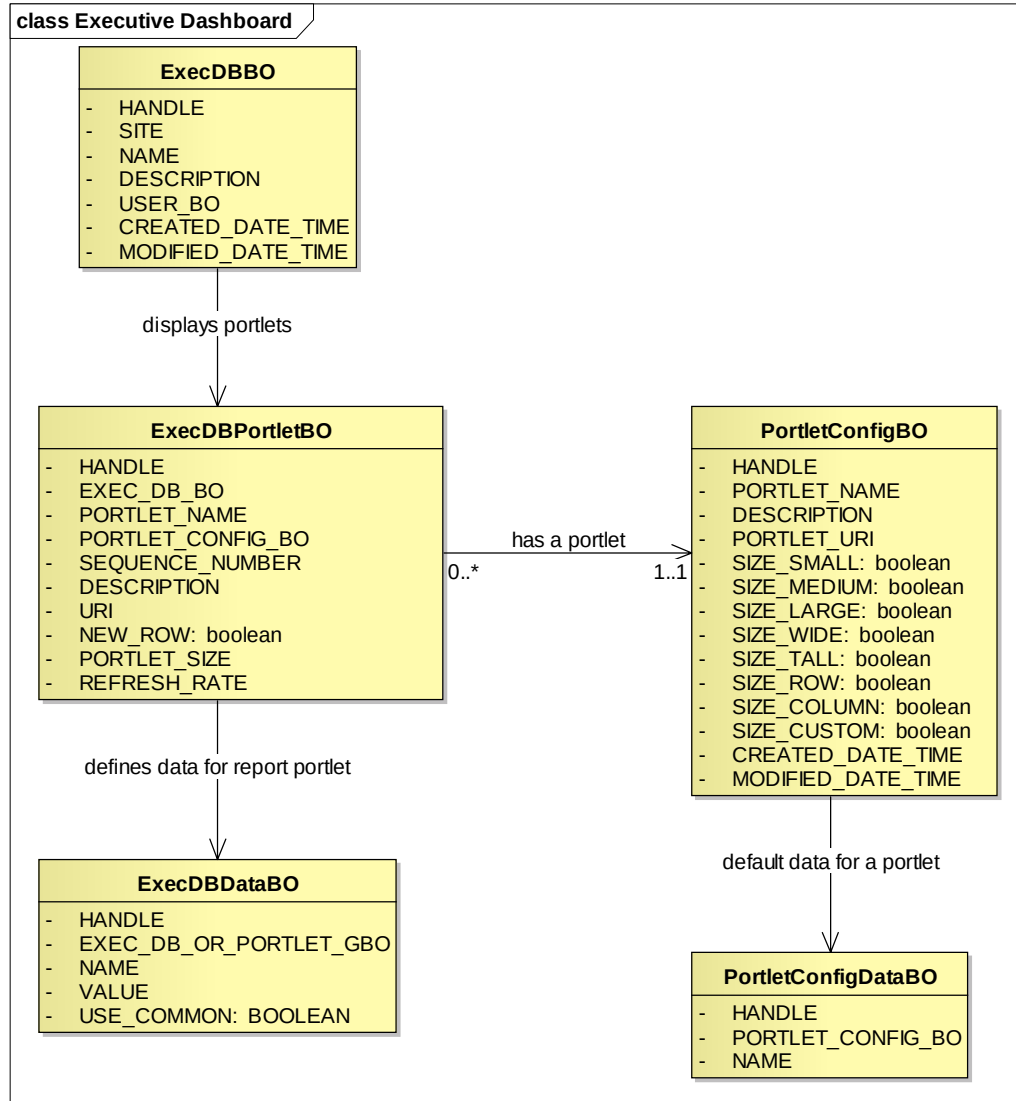
ERP ME Objects



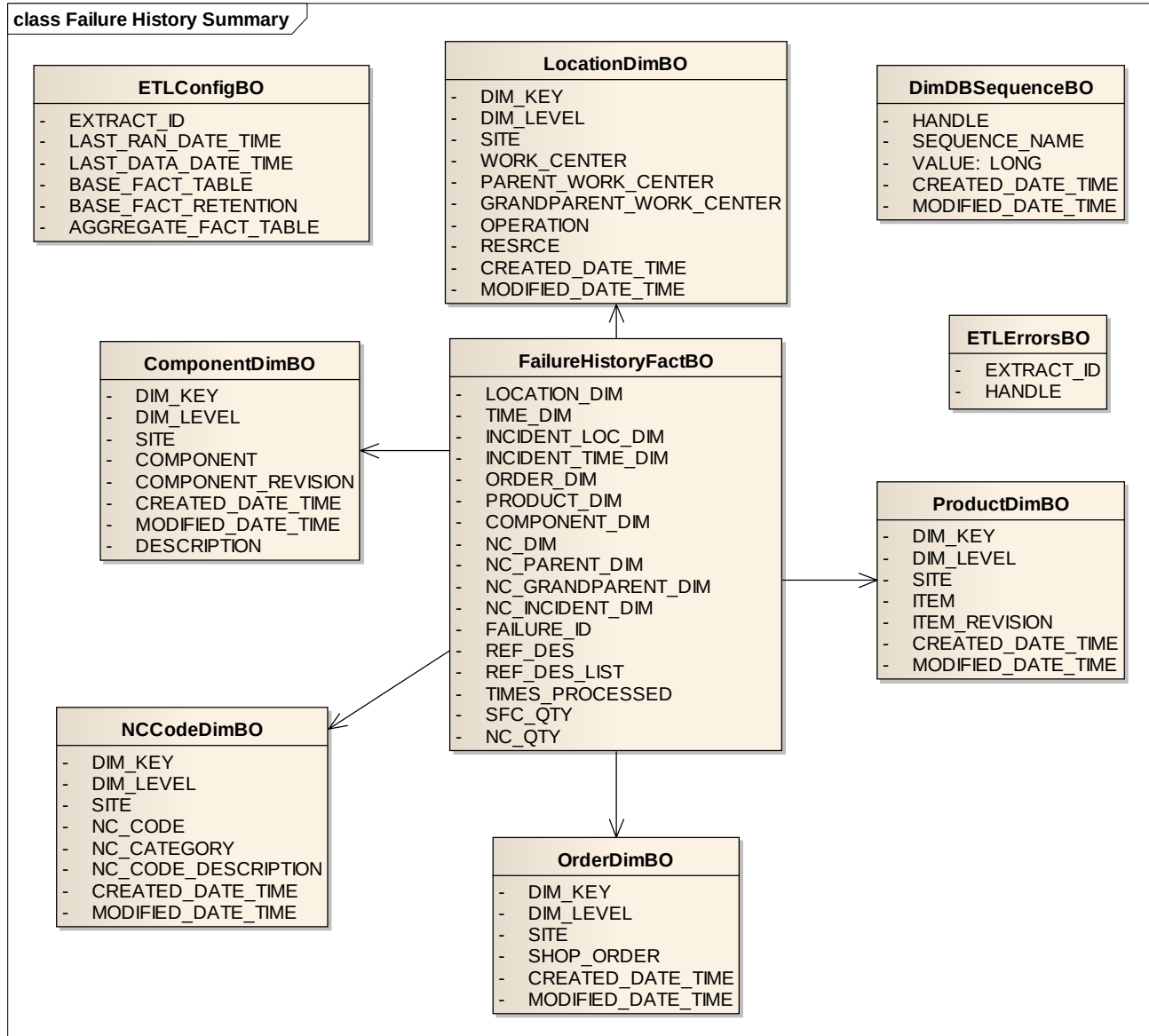
Extensions



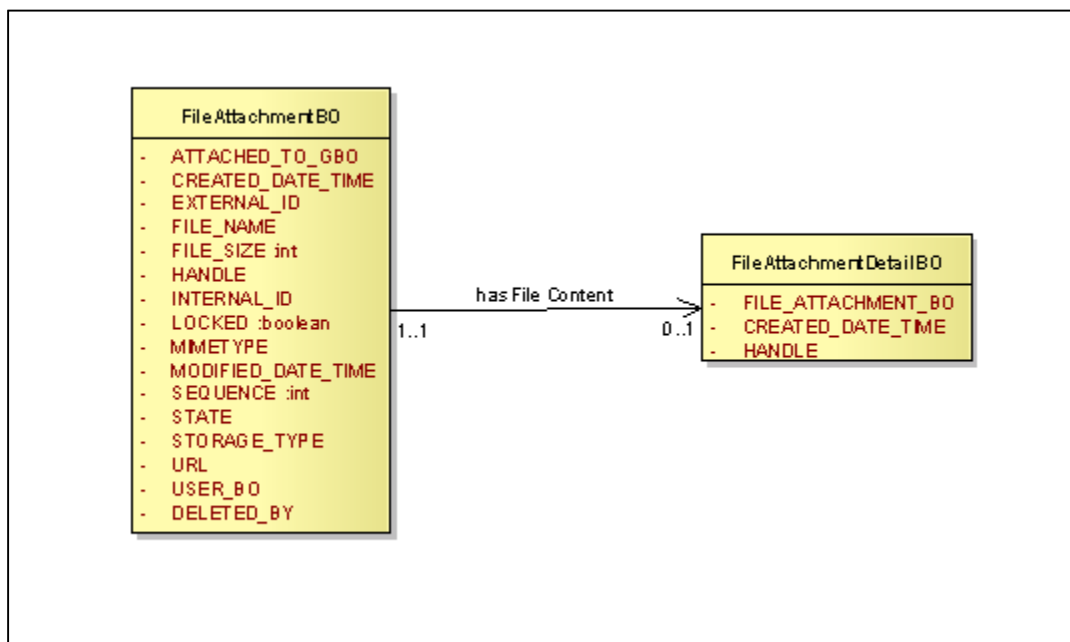
Executive Dashboard



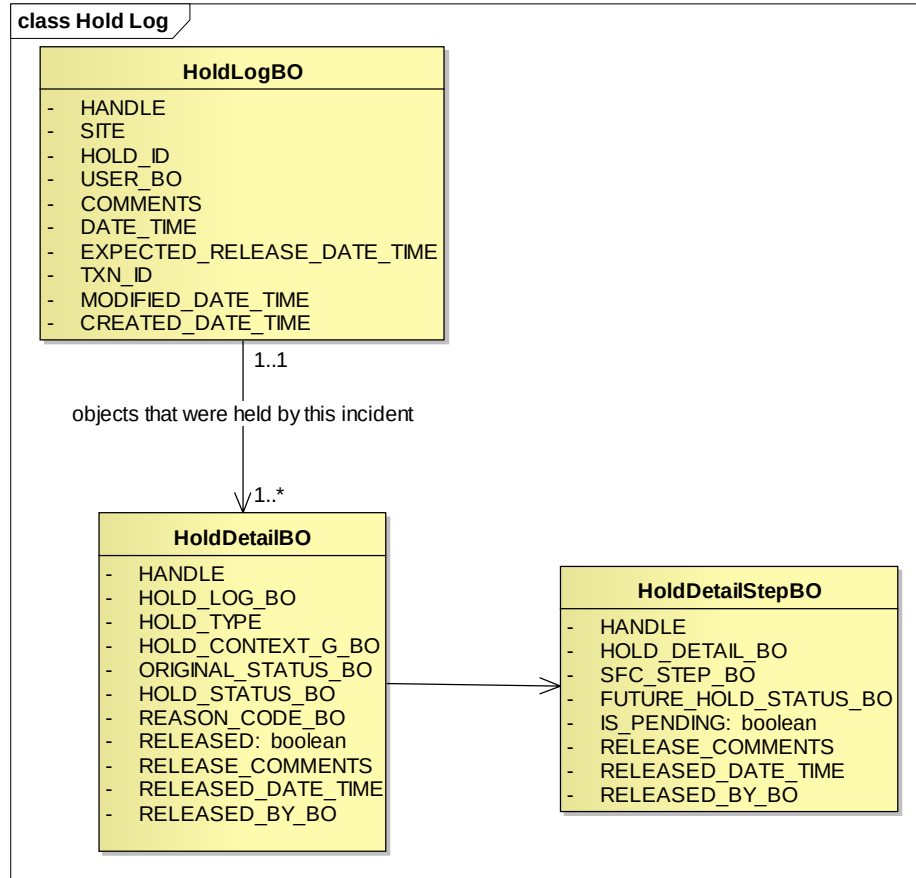
Failure History (Summary)



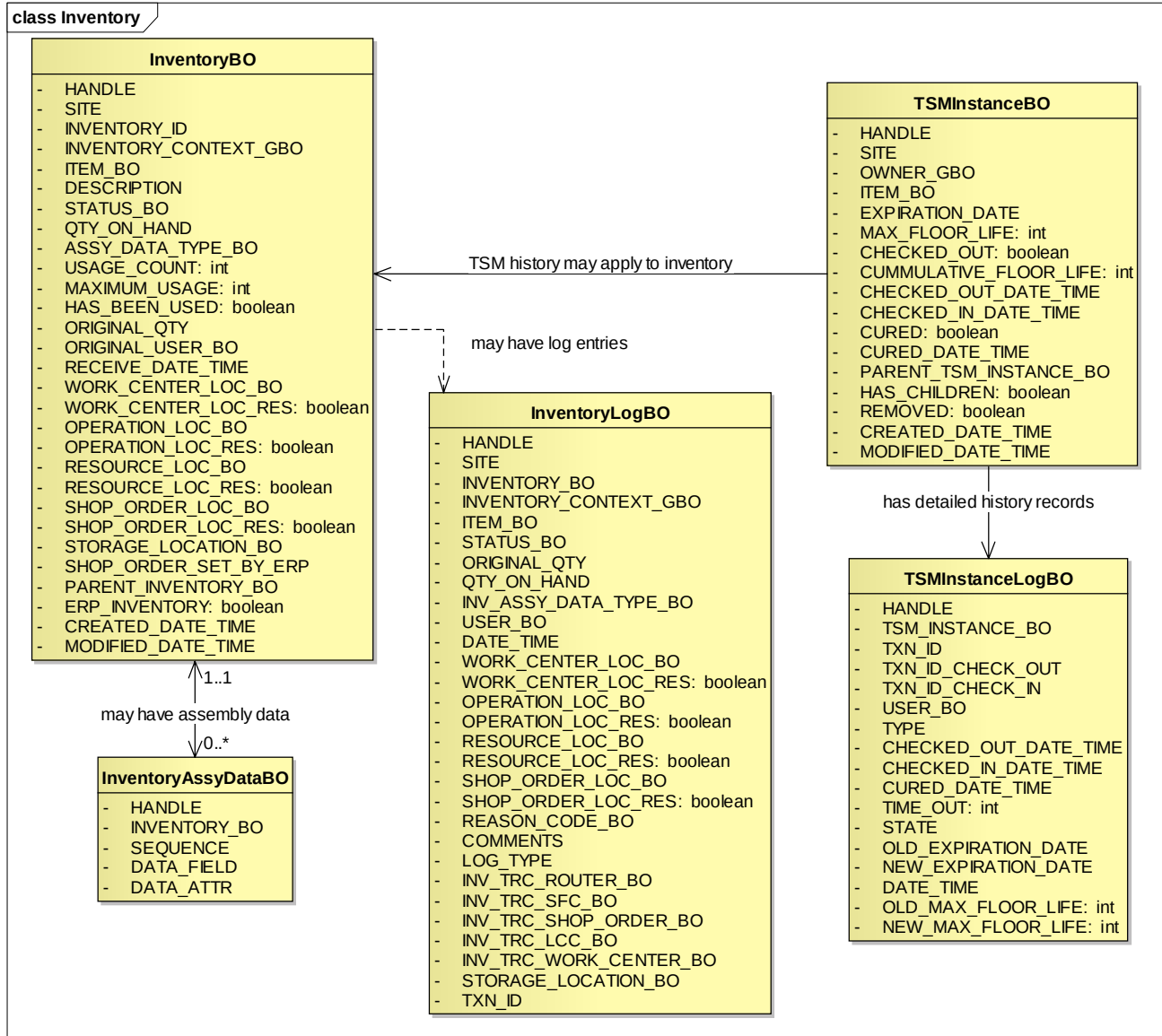
File Attachment



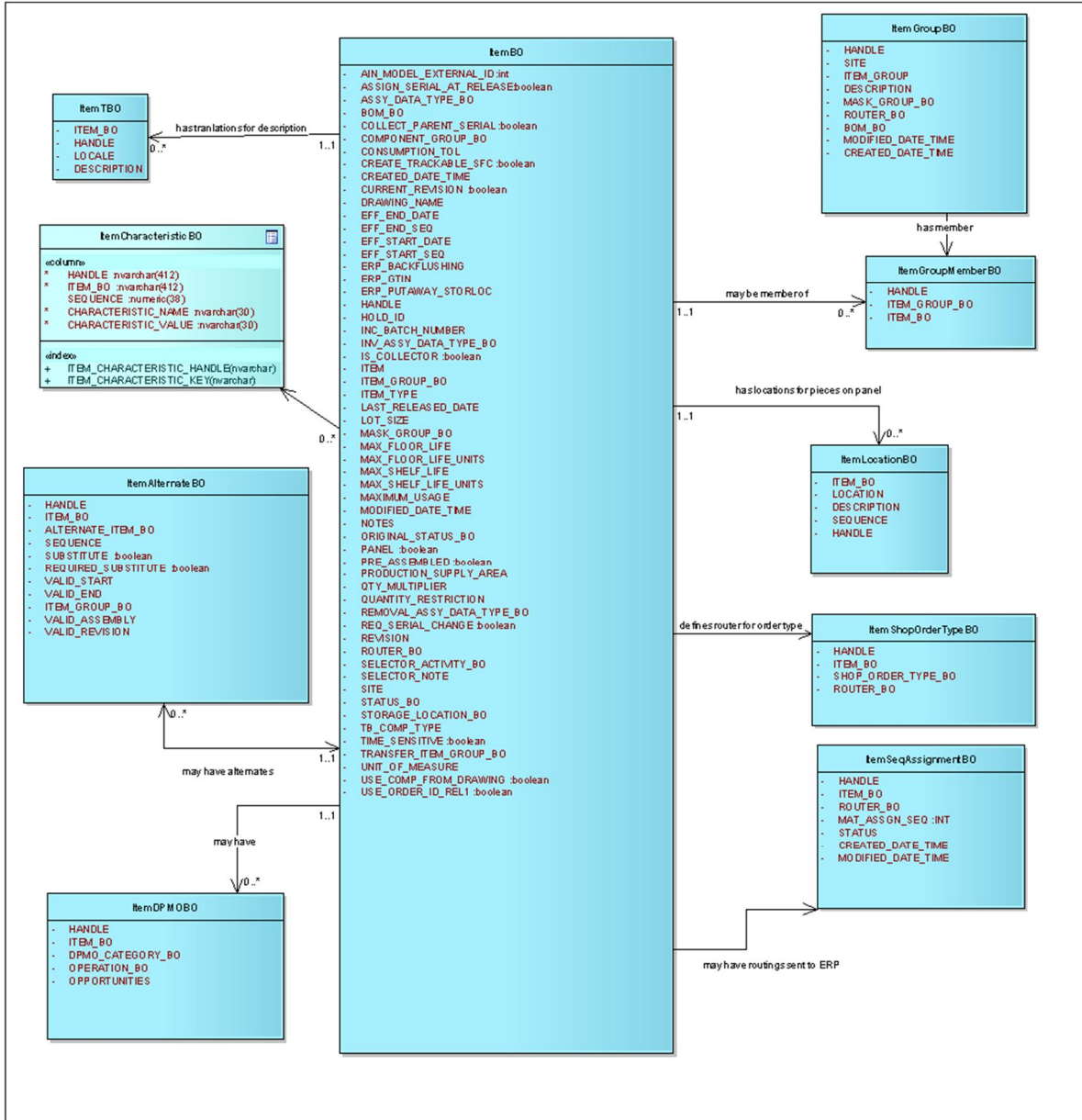
Hold Log



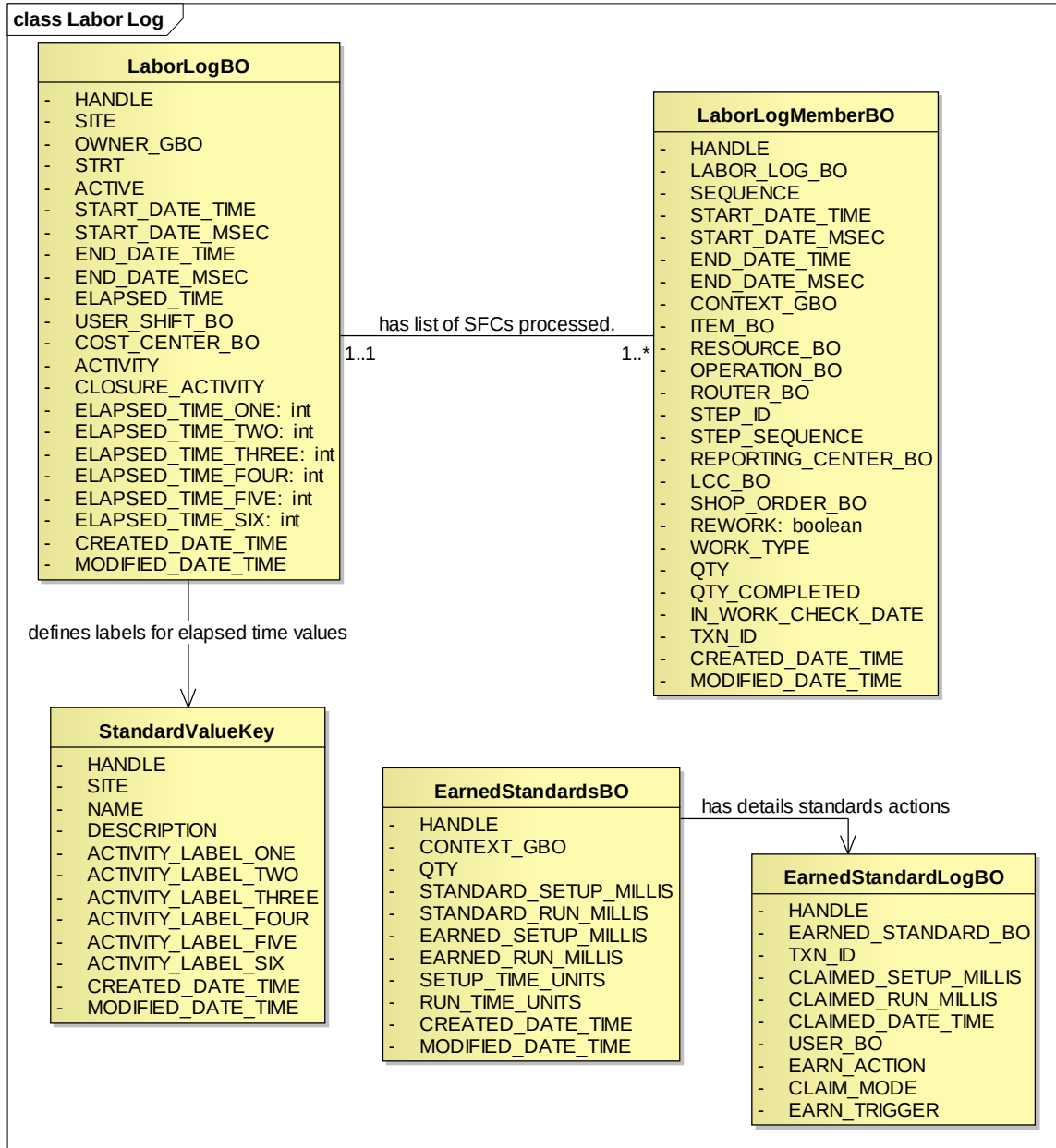
Inventory



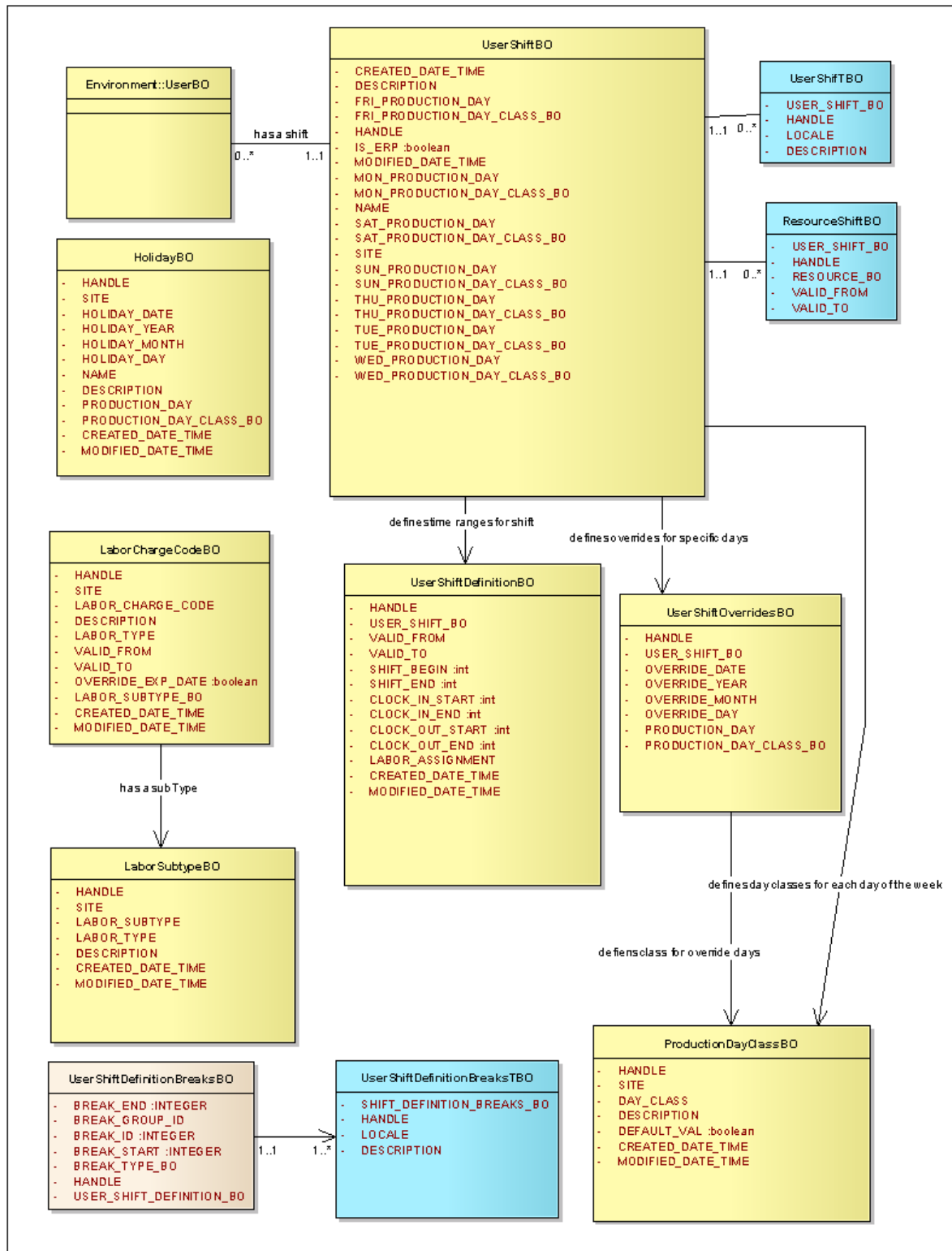
Item



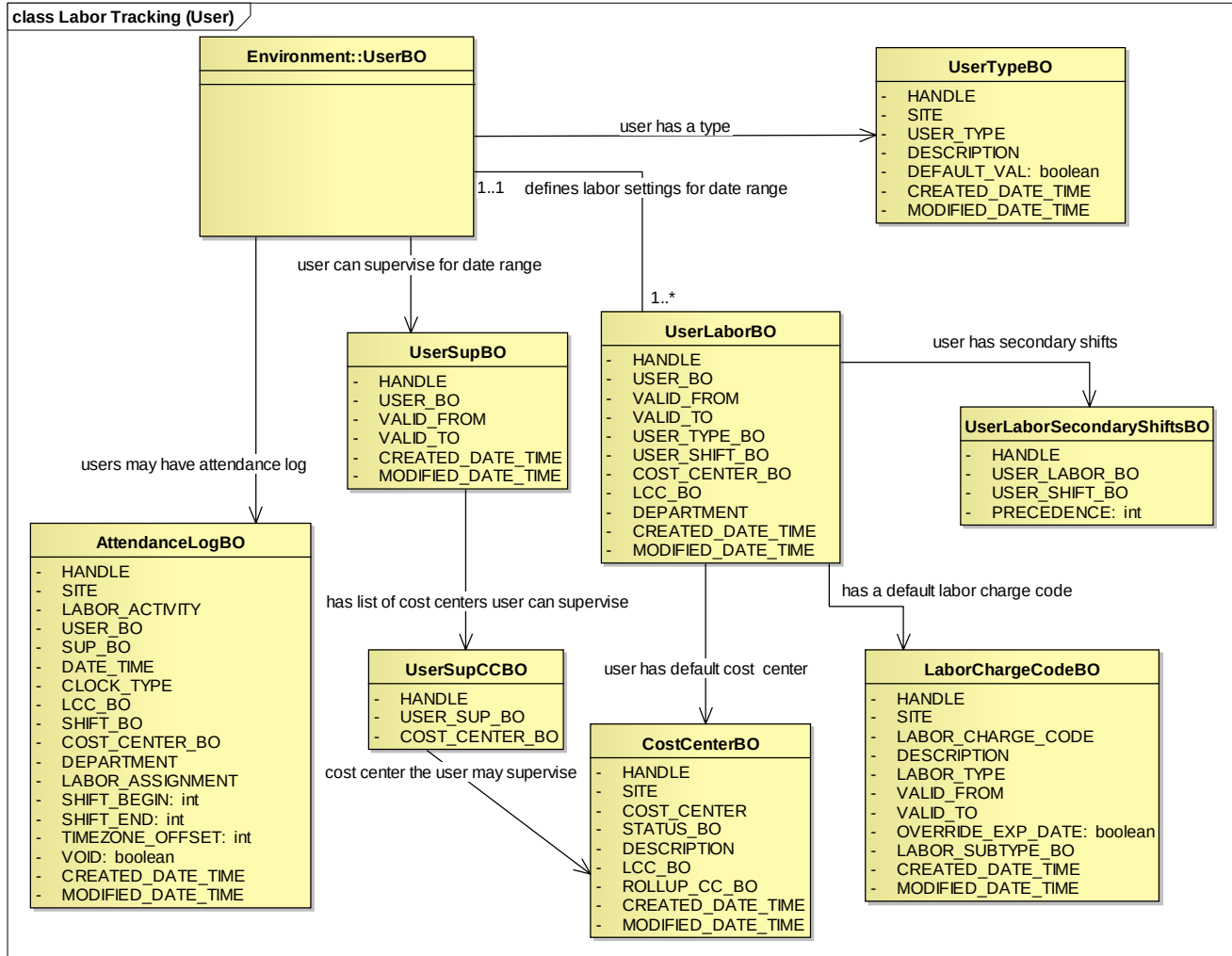
Labor Tracking – Labor Log/Earned Standards



Labor Tracking - Shift



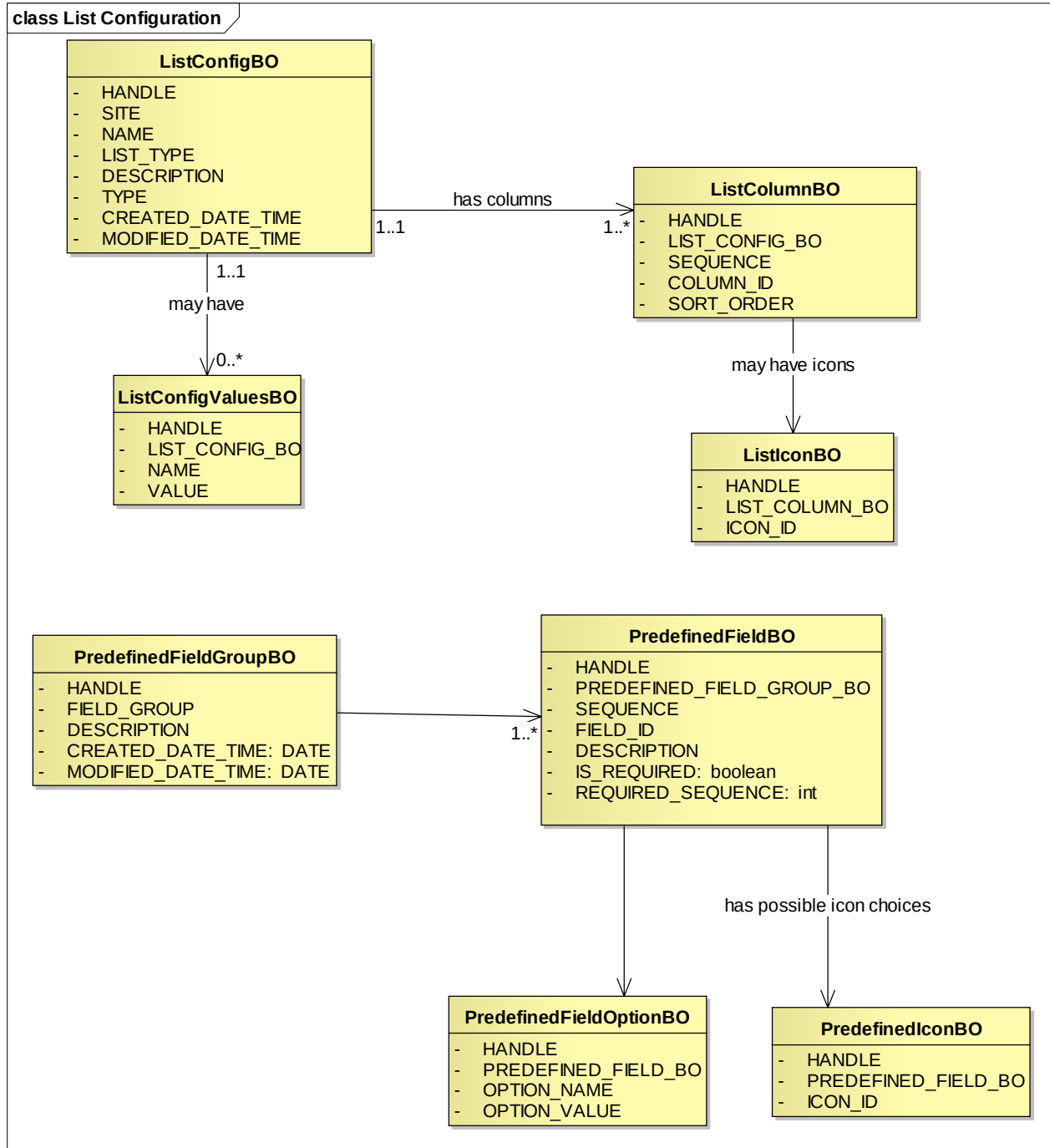
Labor Tracking - User



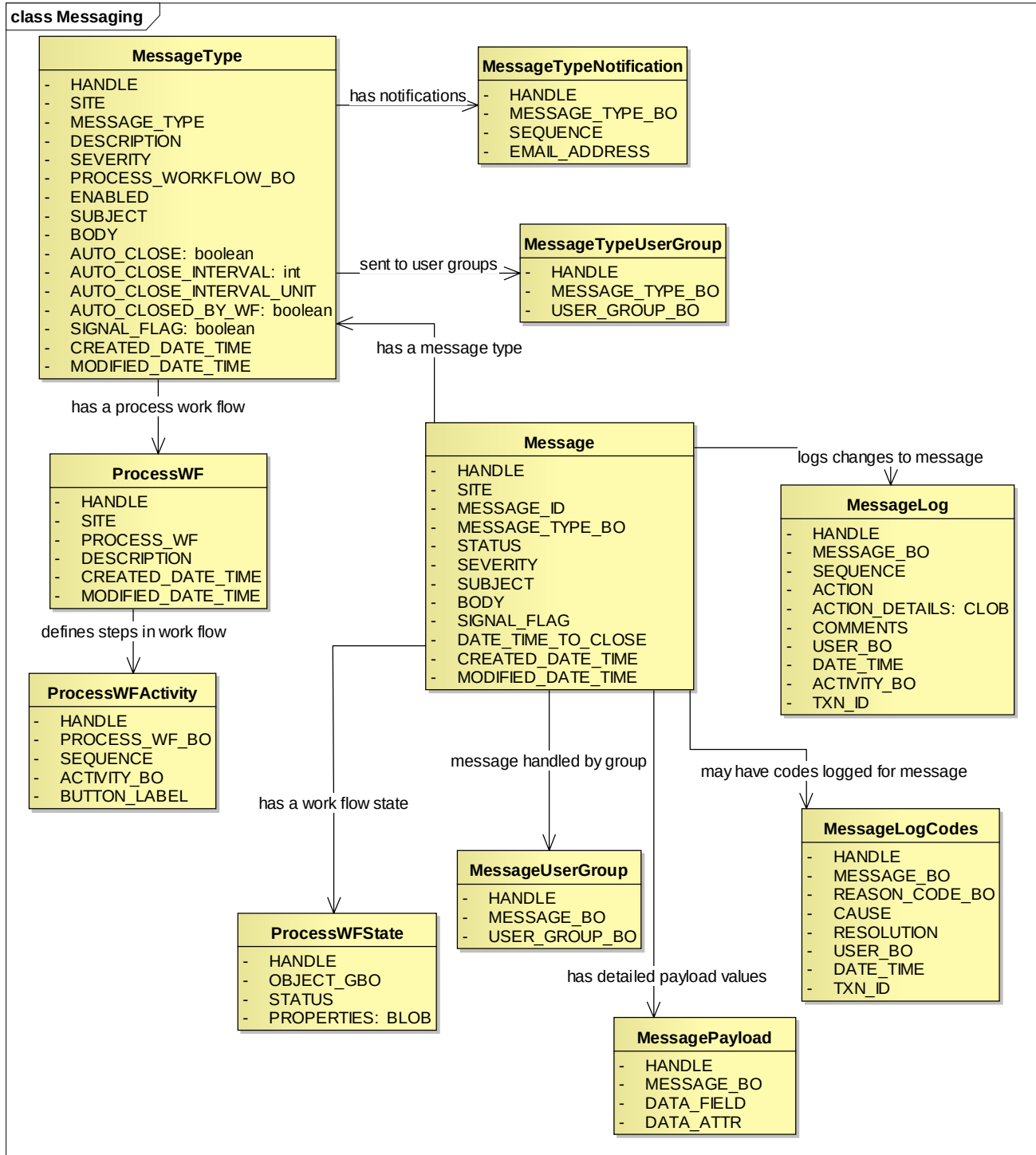
Labor Tracking (Rules)

class Labor Tracking (Rules)	
LaborRuleBO	
-	HANDLE
-	SITE
-	ALLOW_CLOCK_IN_NON_PROD: boolean
-	ACTION_CLOCK_OUT_SFC
-	ID_CLOCK_INOUT
-	CLOCK_IN_CONTROL
-	ENFORCE_CLOCK_IN_INTERVAL: boolean
-	USE_DEFAULT_SO_LCC: boolean
-	DEFAULT_SO_LCC_BO
-	CLOCK_IN_OUT_RANGE
-	APPR_REQ_FOR_EXPORT: boolean
-	AUTO_CLOCK_OUT: boolean
-	LABOR_AGE: int
-	ON_PREMISES_INTERVAL: int
-	SFC_LABOR_IDLE_TRACKING
-	SFC_LABOR_SPREAD
-	SUMMARIZE_SFC_COST_CENTERS: boolean
-	SUMMARIZE_SFC_CUSTOM_FIELDS
-	SUMMARIZE_SFC_CUSTOMER: boolean
-	SUMMARIZE_SFC_CUSTOMER_ORDER: boolean
-	SUMMARIZE_SFC_ITEM: boolean
-	SUMMARIZE_SFC_LABOR: boolean
-	SUMMARIZE_SFC_OPERATION: boolean
-	SUMMARIZE_SFC_REPORTING_CENTER: boolean
-	SUMMARIZE_SFC_RESOURCE: boolean
-	SUMMARIZE_SFC_ROUTER_STEP: boolean
-	SUMMARIZE_SFC_SFC: boolean
-	SUMMARIZE_SFC_SHOP_ORDER: boolean
-	SUMMARIZE_SFC_WORK_CENTERS: boolean
-	SUMMARIZE_USER_CUSTOM_FIELDS
-	SUMMARIZE_USER_LABOR: boolean
-	SUMMARIZE_USER_RESOURCE: boolean
-	SUMMARIZE_USER_OPERATION: boolean
-	SUMMARIZE_USER_STEP: boolean
-	CREATED_DATE_TIME
-	MODIFIED_DATE_TIME

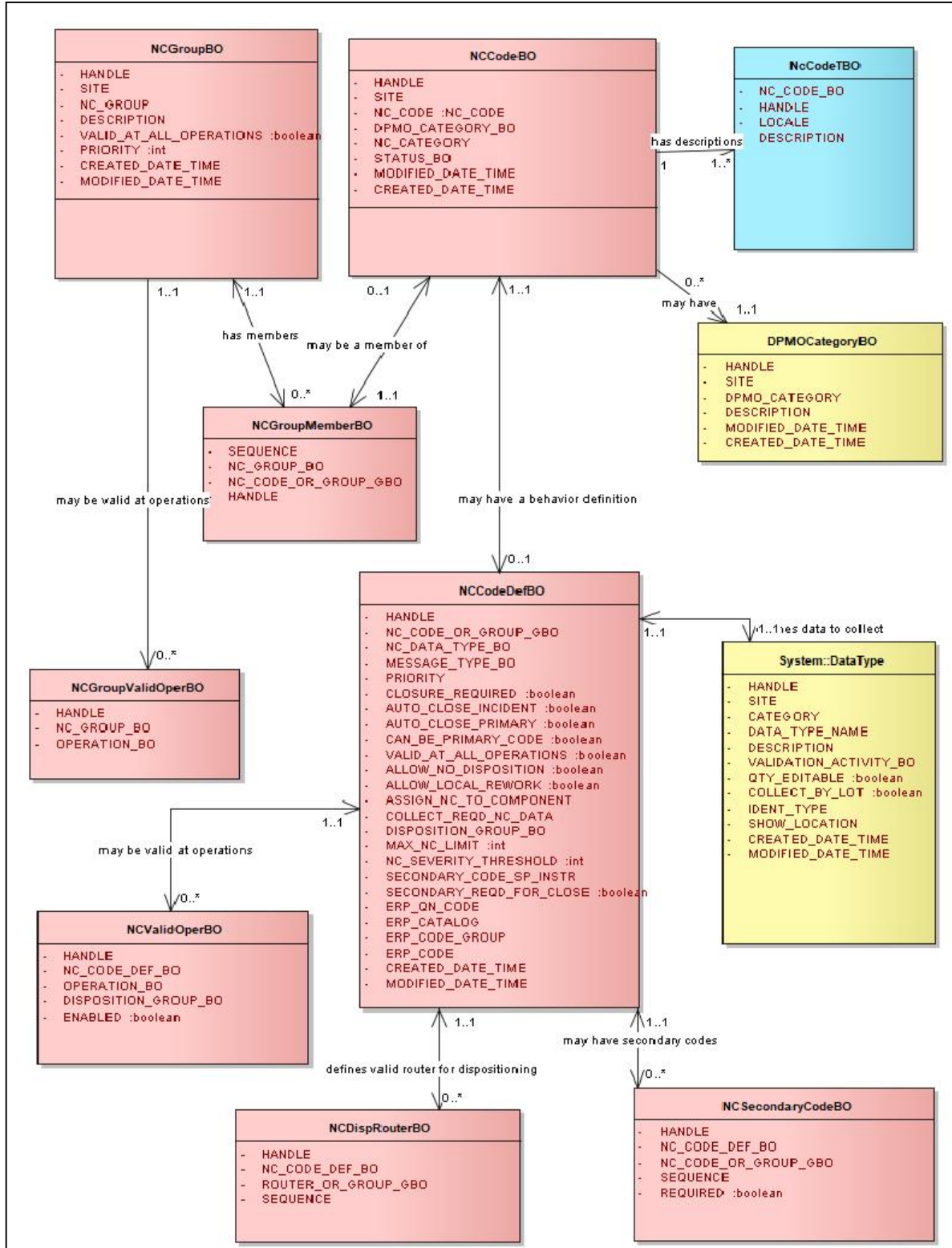
List Configuration



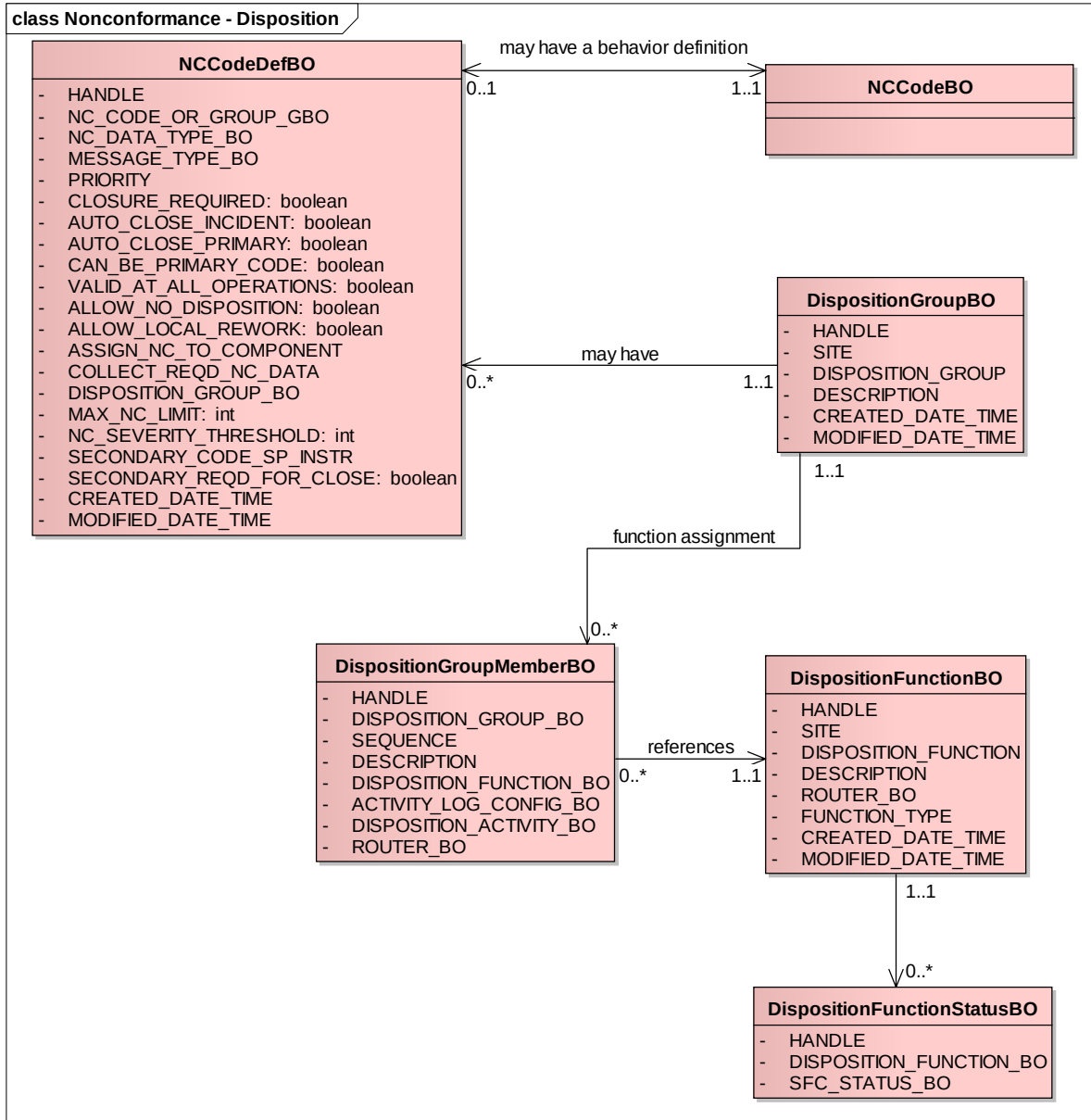
Messaging



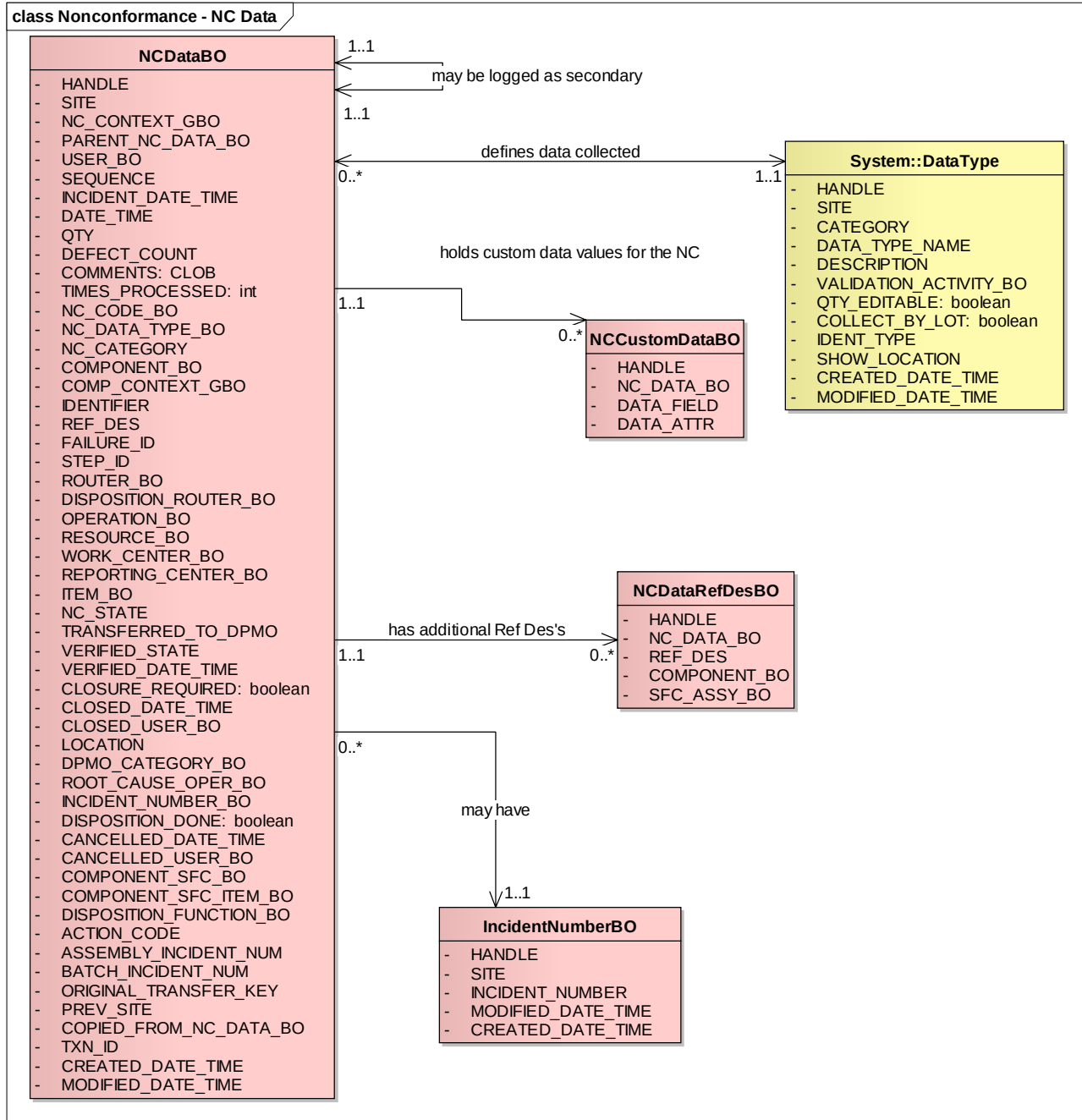
Nonconformance - Definition



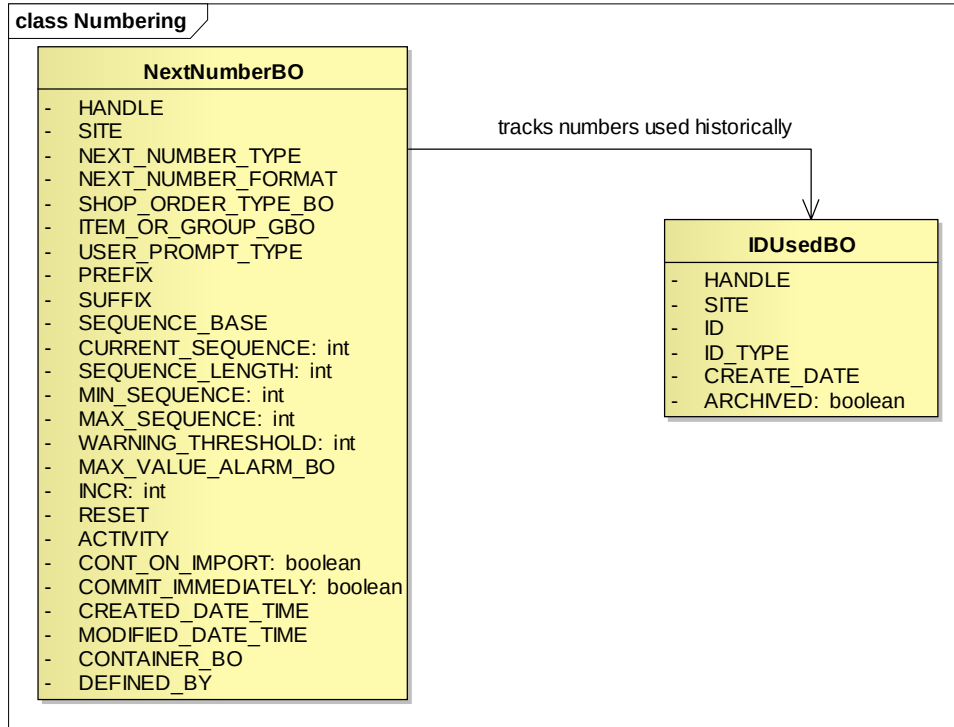
Nonconformance – Disposition



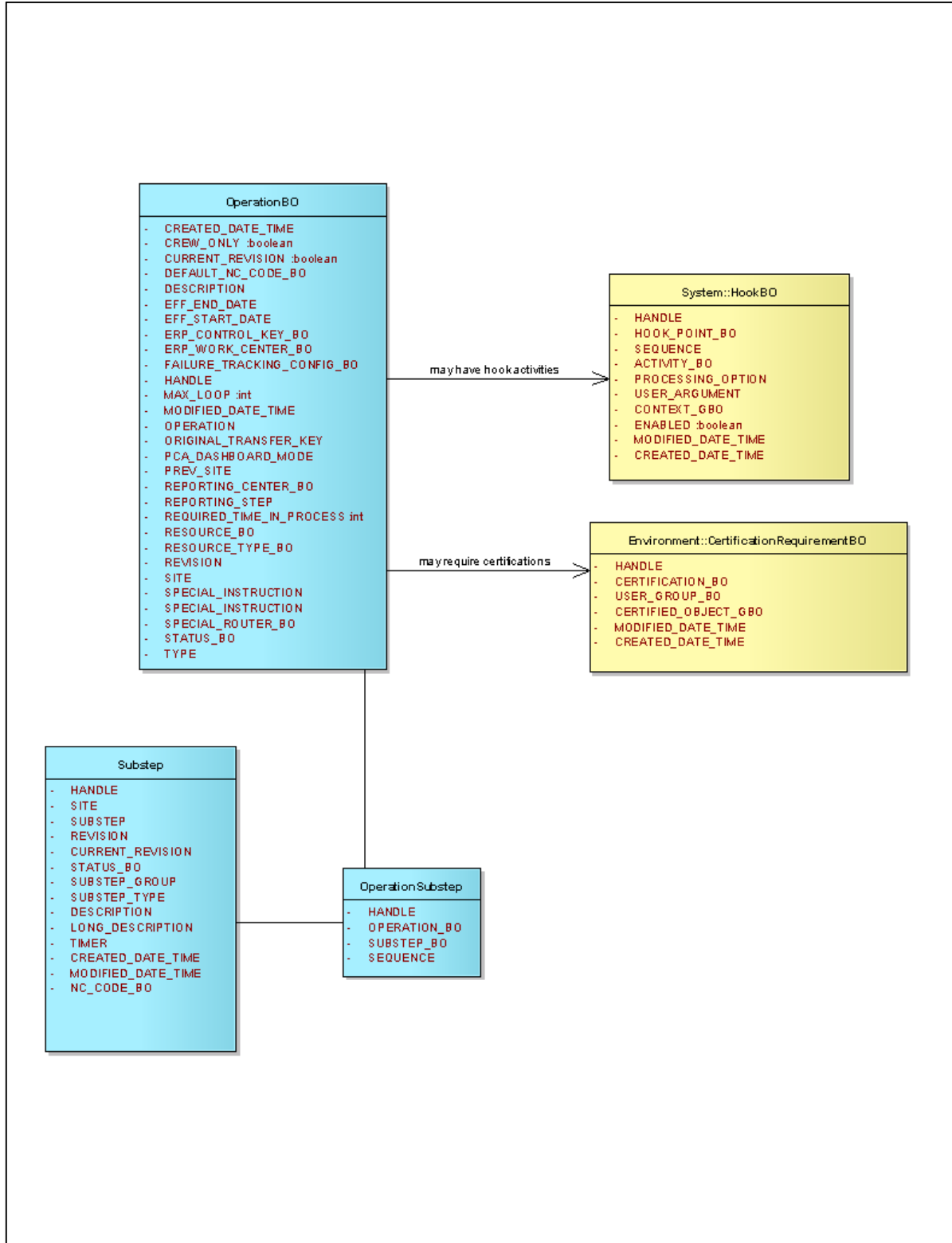
Nonconformance – NC Data



Numbering

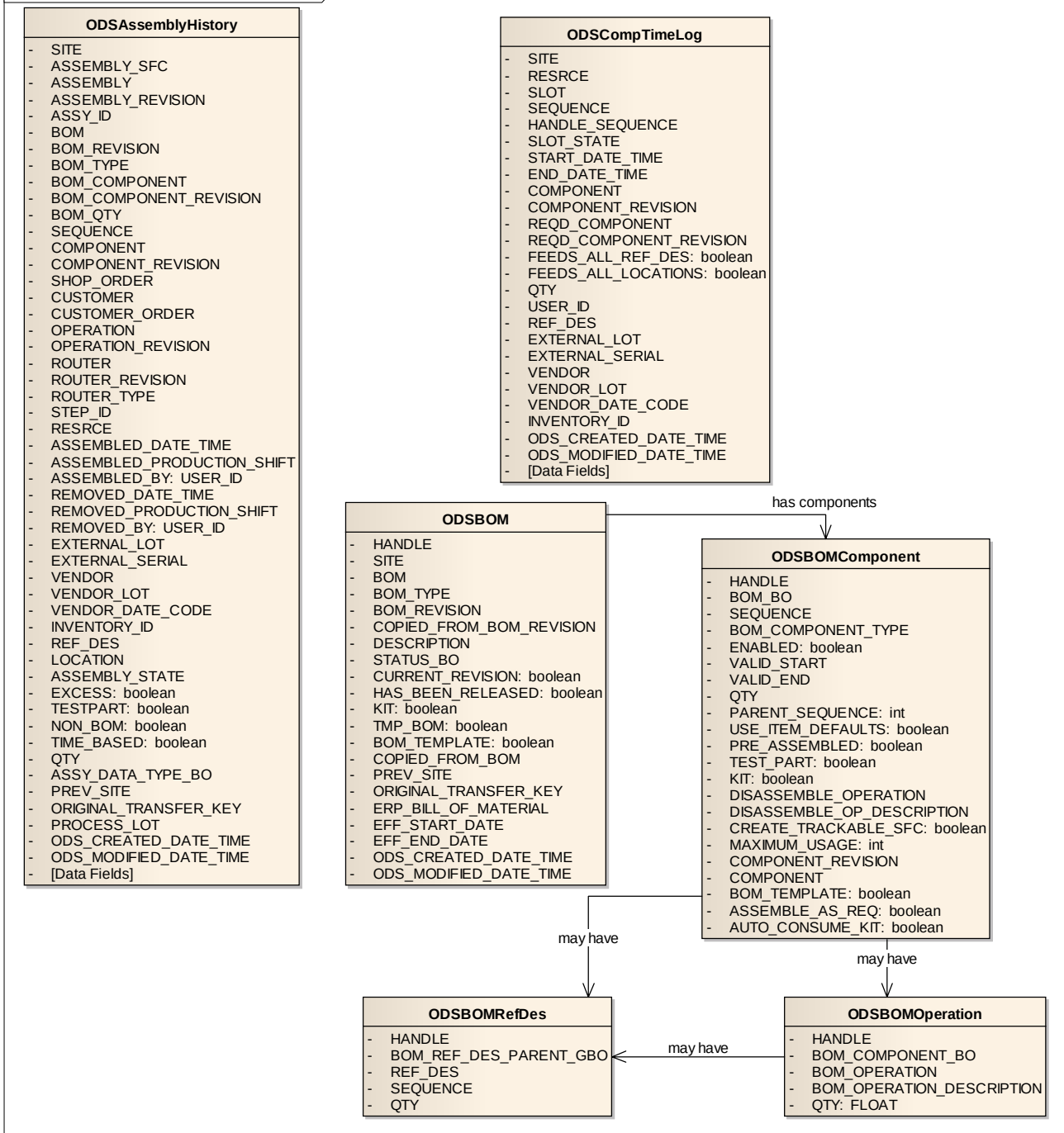


Operation

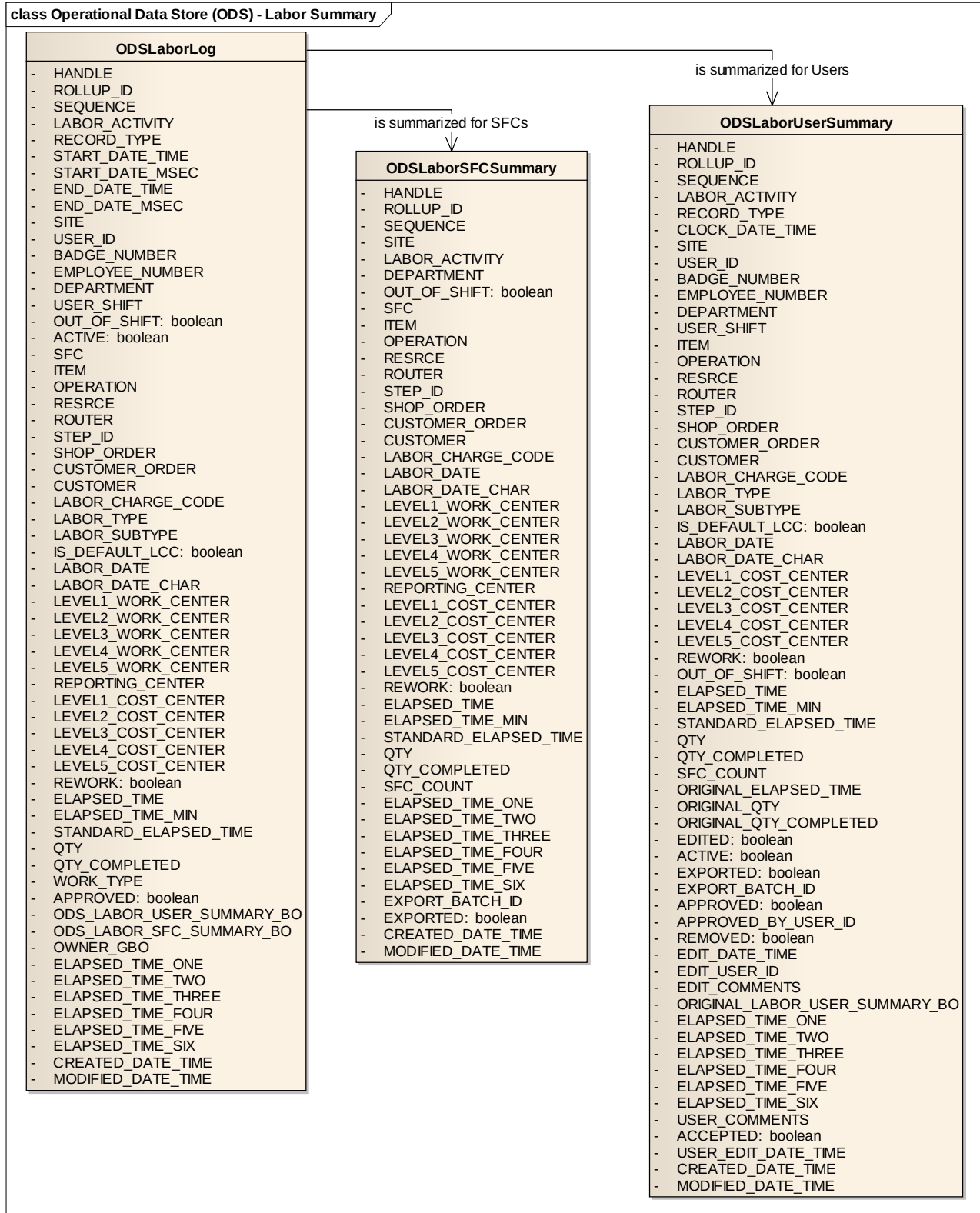


Operational Data Store (ODS) - Assembly

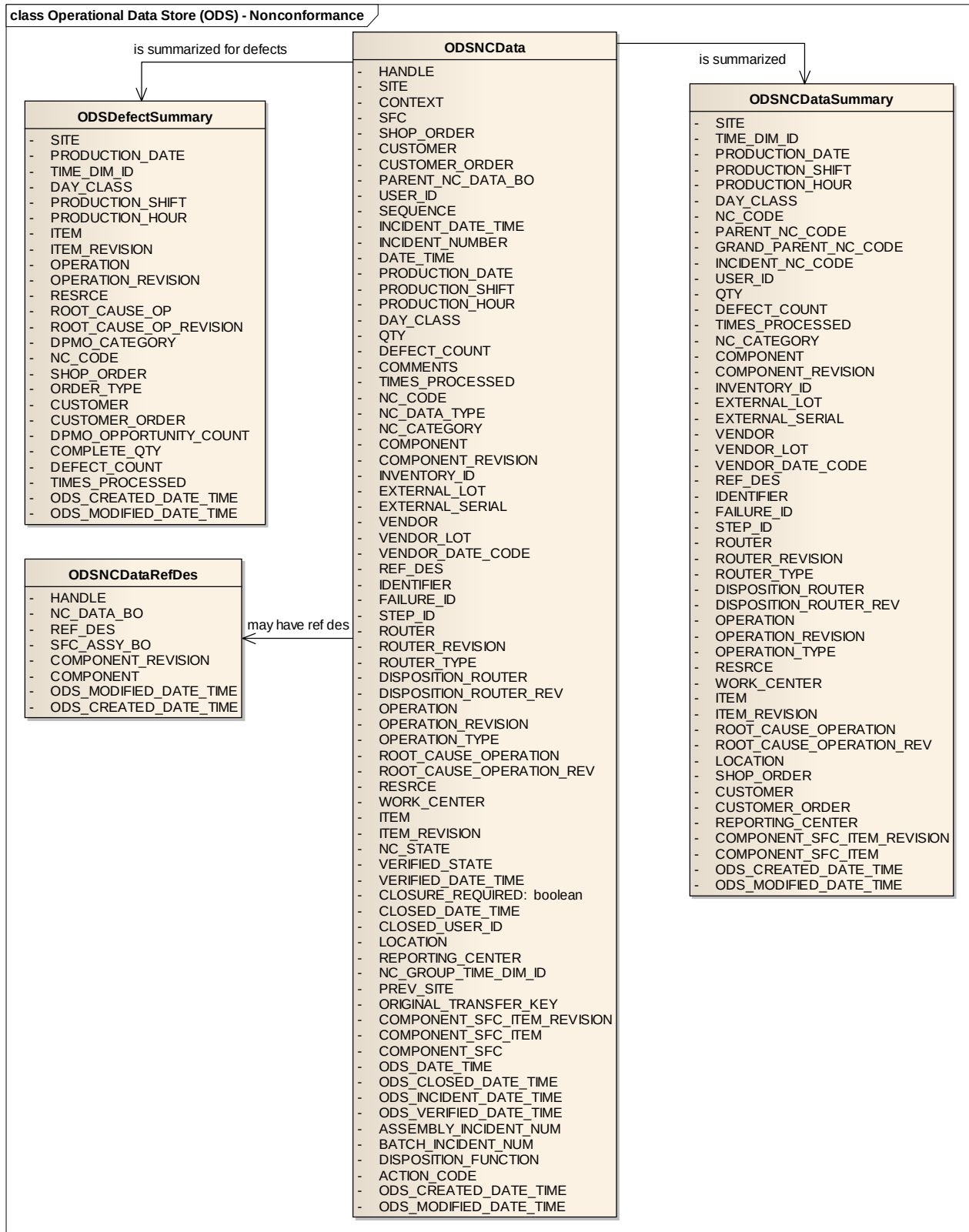
class Operation Data Store (ODS) - Assembly



Operational Data Store (ODS) – Labor Summary



Operational Data Store (ODS) - Nonconformance



Operational Data Store (ODS) –Cycle Time

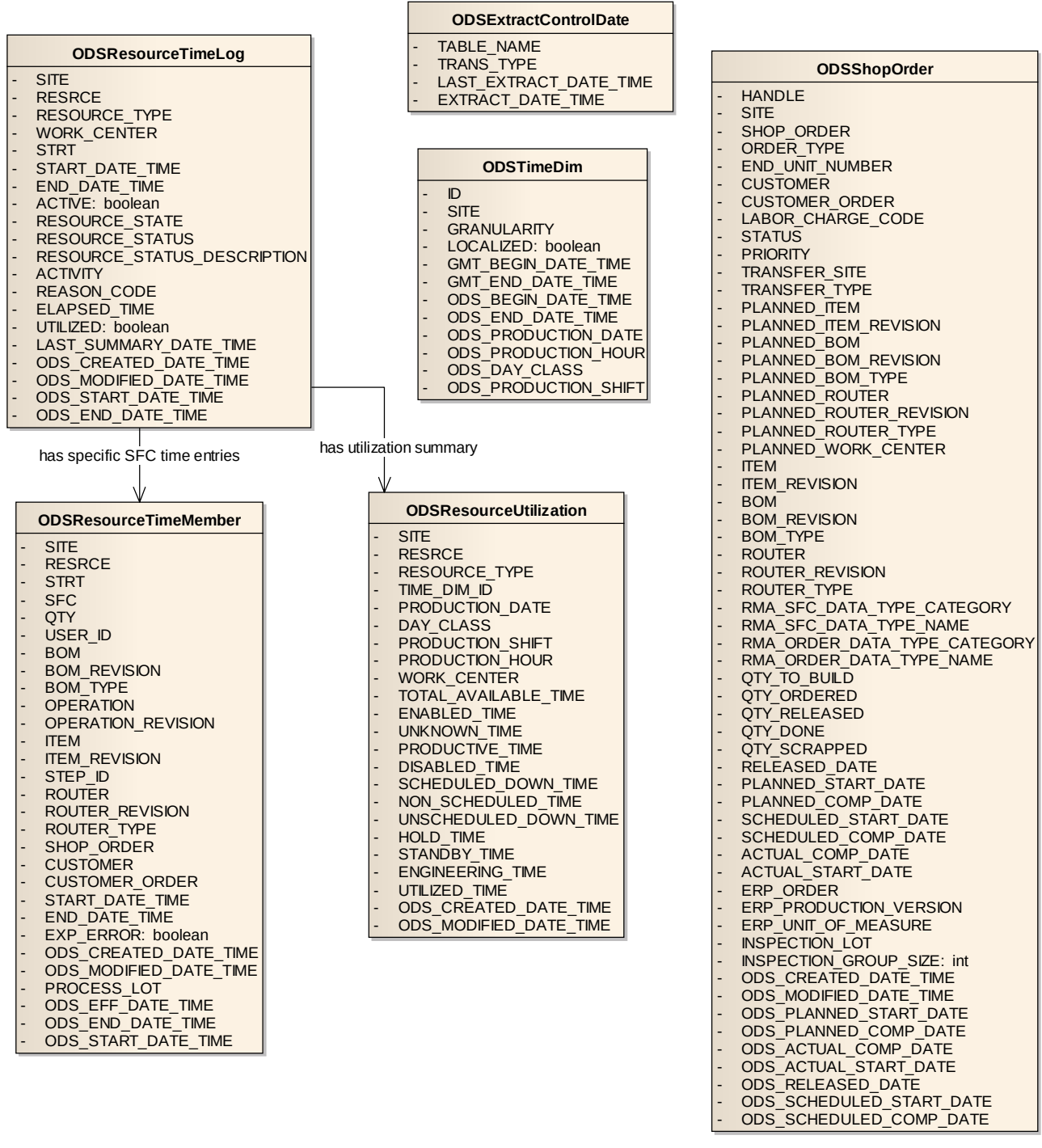
class Operational Data Store (ODS) - Cycle Times

is summarized



Operational Data Store (ODS) - Miscellaneous

class Operational Data Store (ODS) - Miscellaneous



Operational Data Store (ODS) - Performance

class Operational Data Store (ODS) - Performance

ODSOperationProduction

- SITE
- ITEM
- ITEM_REVISION
- OPERATION
- OPERATION_REVISION
- OPERATION_TYPE
- PRODUCTION_DATE
- DAY_CLASS
- PRODUCTION_SHIFT
- PRODUCTION_HOUR
- SHOP_ORDER
- ORDER_TYPE
- CUSTOMER
- CUSTOMER_ORDER
- LABOR_CHARGE_CODE
- ROUTER
- ROUTER_REVISION
- ROUTER_TYPE
- STEP_ID
- RESRCE
- RESOURCE_TYPE
- WORK_CENTER
- REPORTING_CENTER
- USER_ID
- COST_CENTER
- ROLLUP_COST_CENTER
- PASS1_QTY_STARTED
- PASS1_QTY_COMPLETED
- PASS1_QTY_DONE
- PASS1_QTY_SCRAPPED
- PASS1_QTY_NON_CONFORMED
- PASS1_QTY_FAILED
- PASS2_QTY_STARTED
- PASS2_QTY_COMPLETED
- PASS2_QTY_DONE
- PASS2_QTY_SCRAPPED
- PASS2_QTY_NON_CONFORMED
- PASS2_QTY_FAILED
- PASS2PLUS_QTY_STARTED
- PASS2PLUS_QTY_COMPLETED
- PASS2PLUS_QTY_DONE
- PASS2PLUS_QTY_SCRAPPED
- PASS2PLUS_QTY_NON_CONFORMED
- PASS2PLUS_QTY_FAILED
- TIME_DIM_ID
- PASS1_NC_DEFECT_COUNT
- PASS2_NC_DEFECT_COUNT
- PASS2PLUS_NC_DEFECT_COUNT
- ODS_CREATED_DATE_TIME
- ODS_MODIFIED_DATE_TIME

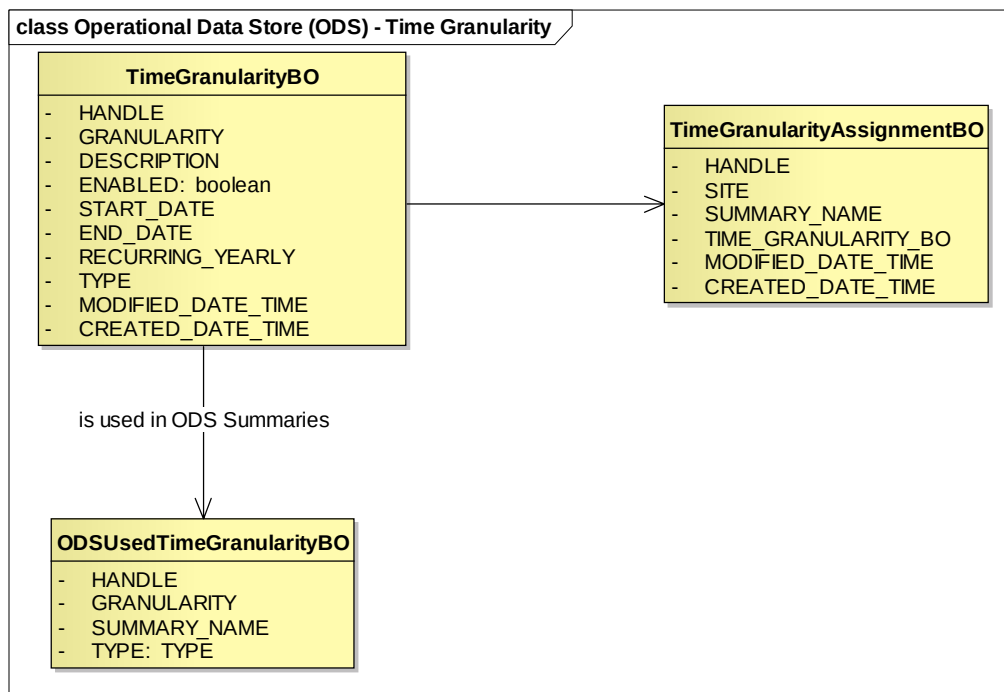
ODSProductionLog

- SITE
- ACTIVITY
- DATE_TIME
- GROUP_TIME_DIM_ID
- PRODUCTION_DATE
- DAY_CLASS
- PRODUCTION_SHIFT
- PRODUCTION_HOUR
- QTY
- SFC
- PROCESS_LOT
- SHOP_ORDER
- ORDER_TYPE
- CUSTOMER
- CUSTOMER_ORDER
- LABOR_CHARGE_CODE
- ITEM
- ITEM_REVISION
- OPERATION
- OPERATION_REVISION
- OPERATION_TYPE
- ROUTER
- ROUTER_REVISION
- ROUTER_TYPE
- STEP_ID
- RESRCE
- RESOURCE_TYPE
- PREVIOUS_RESRCE
- WORK_CENTER
- REPORTING_CENTER
- PREVIOUS_WORK_CENTER
- USER_ID
- COST_CENTER
- ROLLUP_COST_CENTER
- REWORK: boolean
- SFC_DONE: boolean
- TIMES_PROCESSED
- ACTION_DETAIL_BO
- PASS1_QTY_STARTED
- PASS1_QTY_COMPLETED
- PASS1_QTY_DONE
- PASS1_QTY_SCRAPPED
- PASS1_QTY_NON_CONFORMED
- PASS1_QTY_FAILED
- PASS1_ELAPSED_TIME
- PASS1_ELAPSED_QUEUE_TIME
- PASS2_QTY_STARTED
- PASS2_QTY_COMPLETED
- PASS2_QTY_DONE
- PASS2_QTY_SCRAPPED
- PASS2_QTY_NON_CONFORMED
- PASS2_QTY_FAILED
- PASS2_ELAPSED_TIME
- PASS2_ELAPSED_QUEUE_TIME
- PASS2PLUS_QTY_STARTED
- PASS2PLUS_QTY_COMPLETED
- PASS2PLUS_QTY_DONE
- PASS2PLUS_QTY_SCRAPPED
- PASS2PLUS_QTY_NON_CONFORMED
- PASS2PLUS_QTY_FAILED
- PASS2PLUS_ELAPSED_TIME
- PASS2PLUS_ELAPSED_QUEUE_TIME
- PASS1_NC_DEFECT_COUNT
- PASS2_NC_DEFECT_COUNT
- PASS2PLUS_NC_DEFECT_COUNT
- ODS_DATE_TIME
- ODS_CREATED_DATE_TIME
- ODS_MODIFIED_DATE_TIME

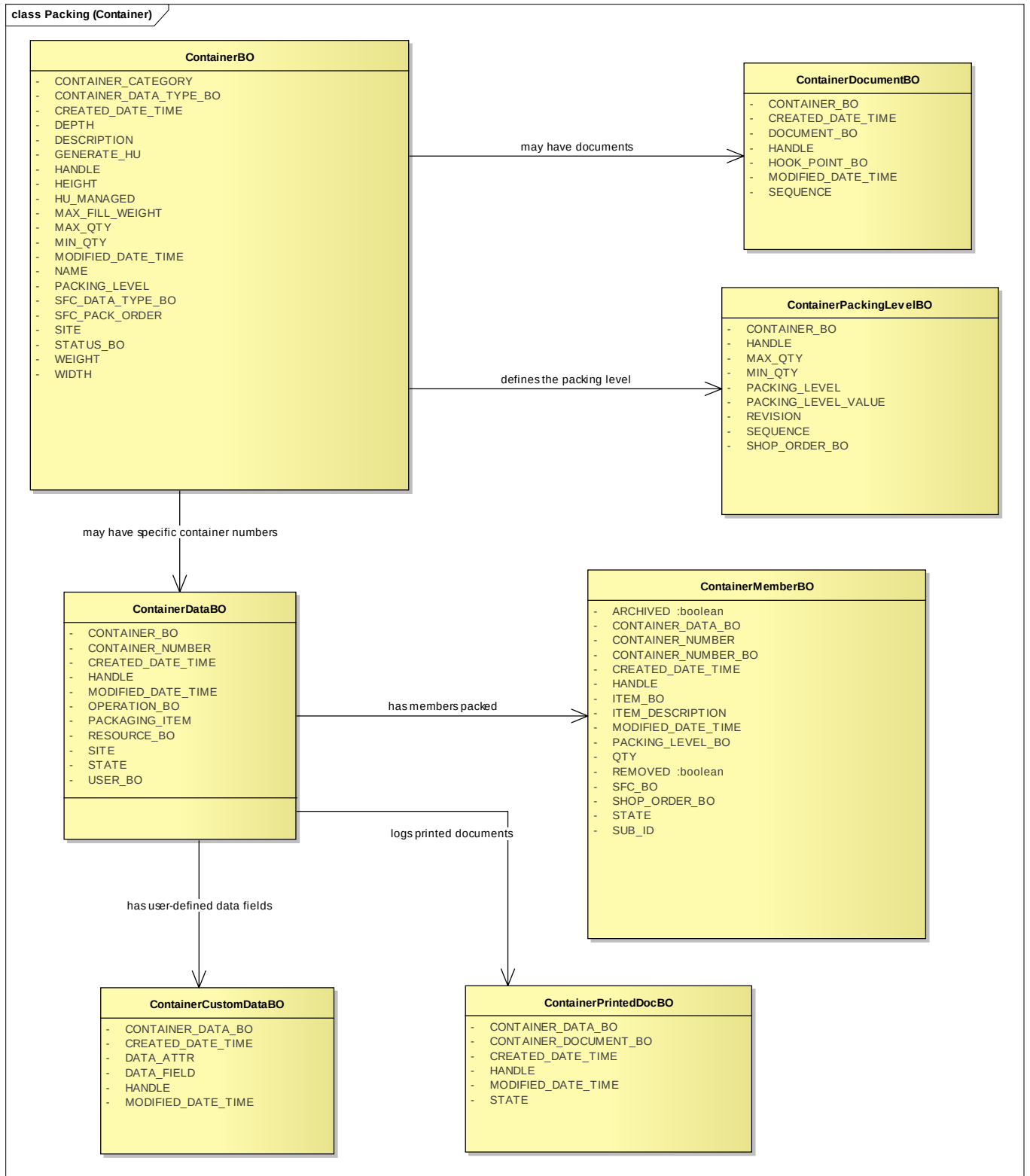
ODSWorkCenterProduction

- SITE
- WORK_CENTER
- WC_CATEGORY
- PRODUCTION_DATE
- DAY_CLASS
- PRODUCTION_SHIFT
- PRODUCTION_HOUR
- SHOP_ORDER
- ORDER_TYPE
- CUSTOMER
- CUSTOMER_ORDER
- ITEM
- ITEM_REVISION
- LEVEL1_WORK_CENTER
- LEVEL2_WORK_CENTER
- LEVEL3_WORK_CENTER
- LEVEL4_WORK_CENTER
- LEVEL5_WORK_CENTER
- PASS1_ENTER_QTY
- PASS1_EXIT_COMPLETE_QTY
- PASS1_EXIT_NC_QTY
- PASS1_EXIT_FAIL_QTY
- PASS1_EXIT_SCRAP_QTY
- PASS1_EXIT_DONE_QTY
- REWORK_ENTER_QTY
- REWORK_EXIT_COMPLETE_QTY
- REWORK_EXIT_NC_QTY
- REWORK_EXIT_FAIL_QTY
- REWORK_EXIT_SCRAP_QTY
- REWORK_EXIT_DONE_QTY
- ODS_CREATED_DATE_TIME
- ODS_MODIFIED_DATE_TIME
- TIME_DIM_ID

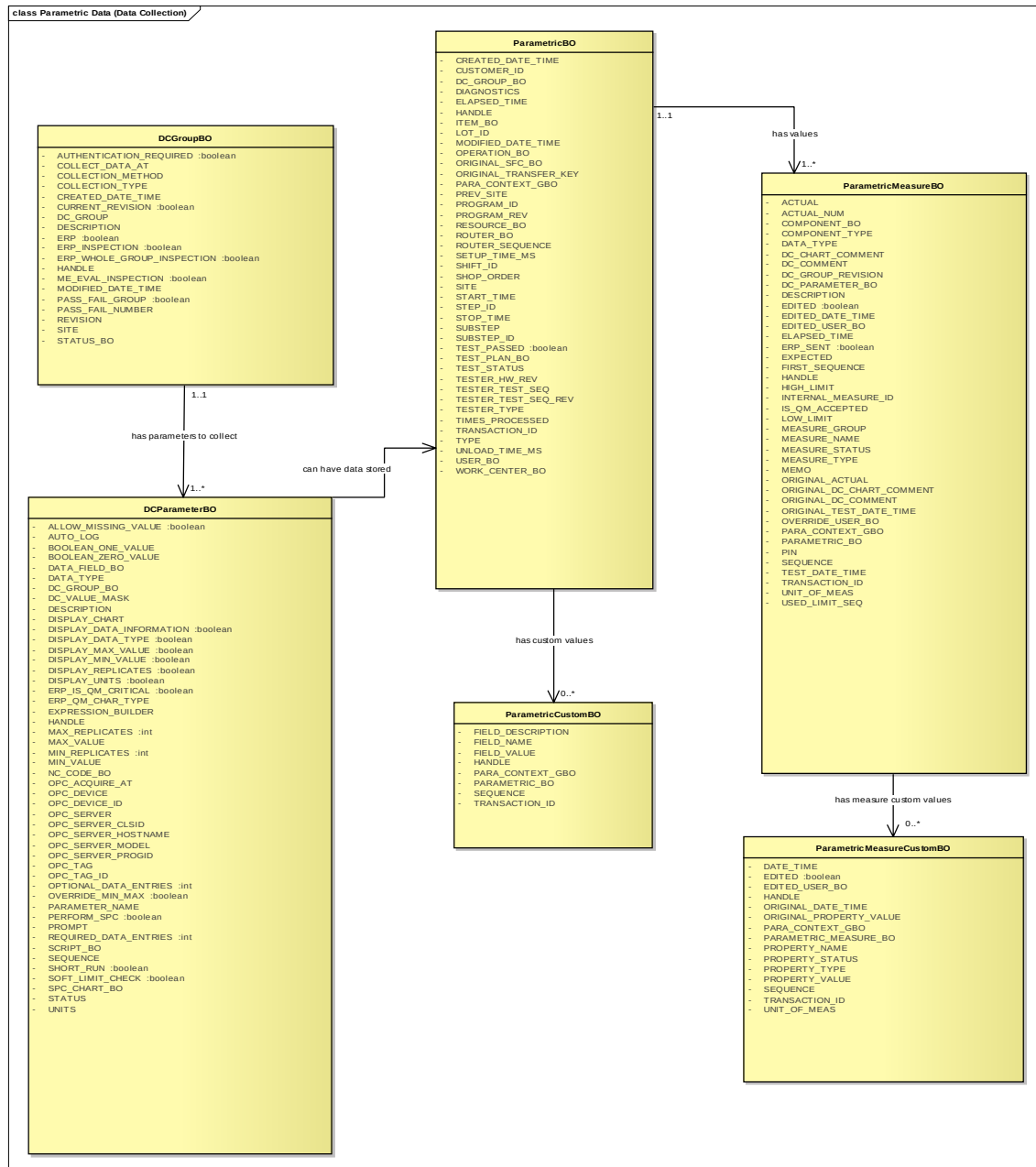
Operational Data Store (ODS) - Time Granularity



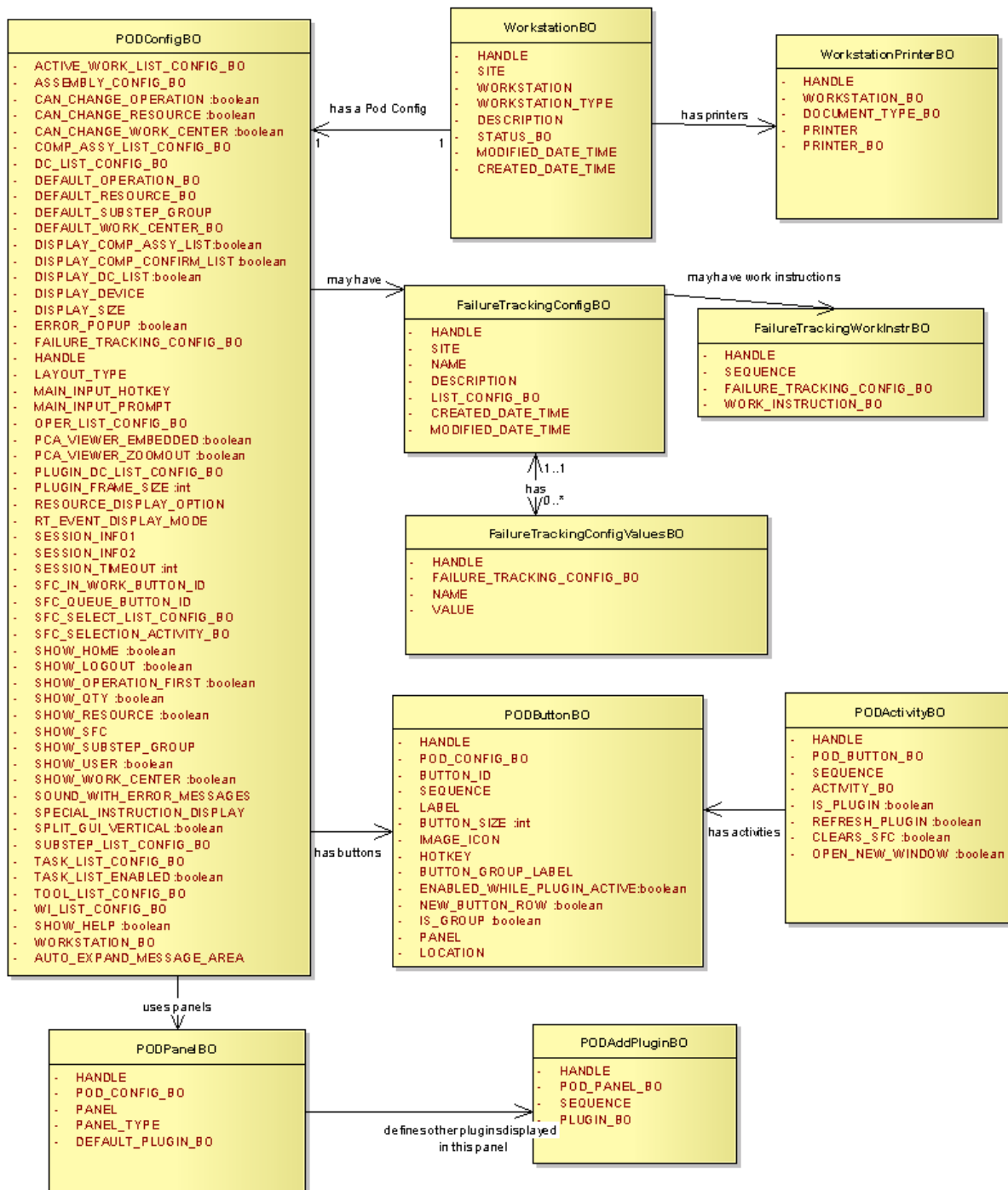
Packing (Containers)



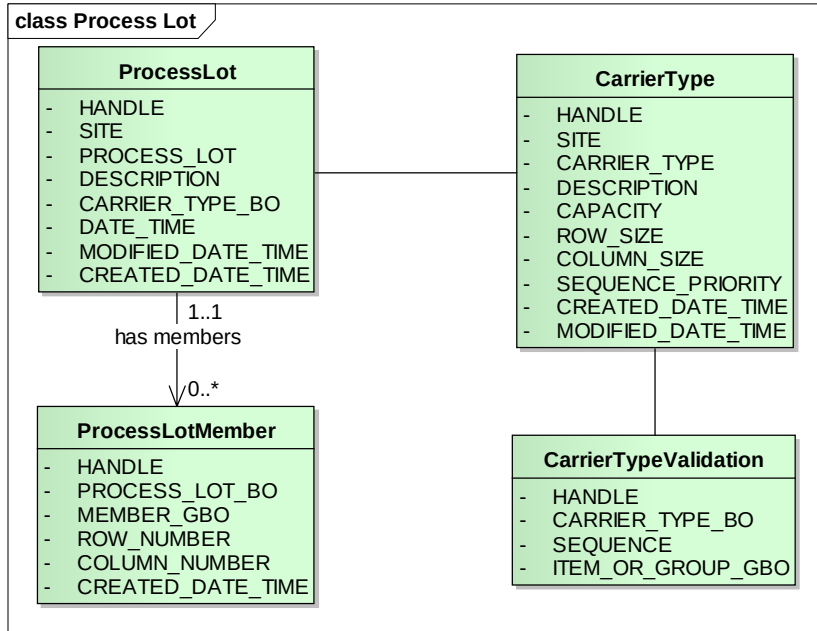
Parametric Data



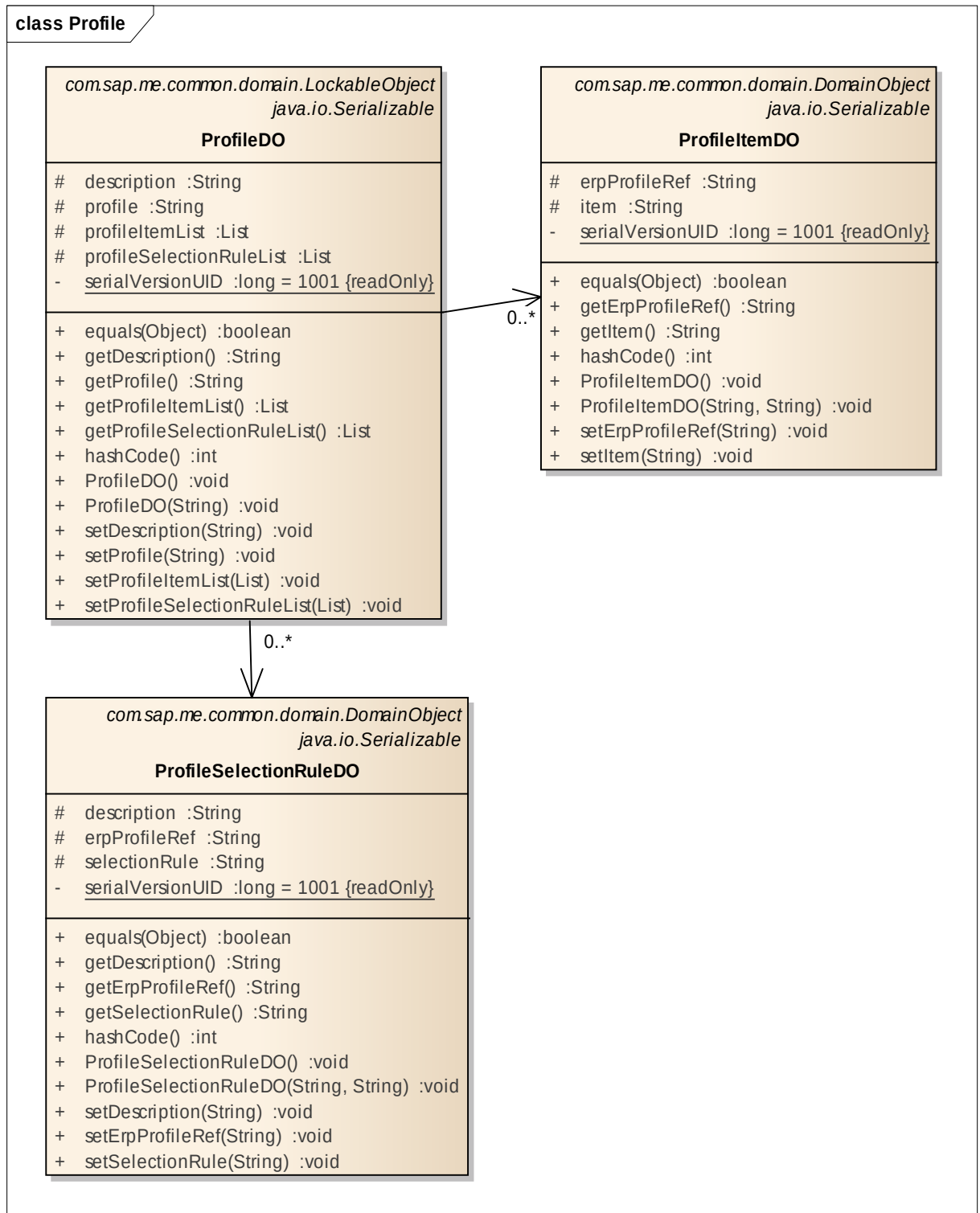
POD Configuration (Workstation)



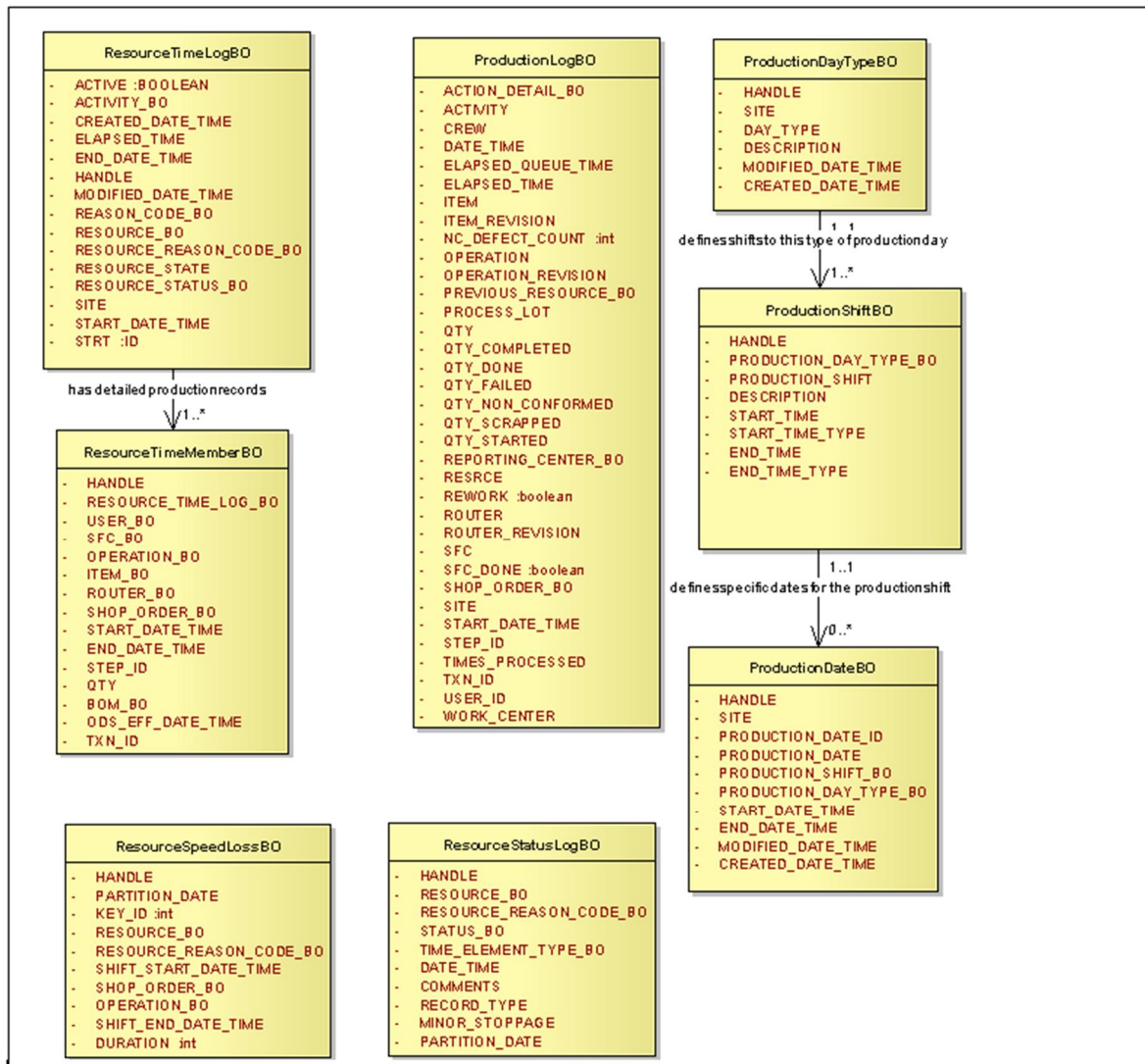
Process Lot



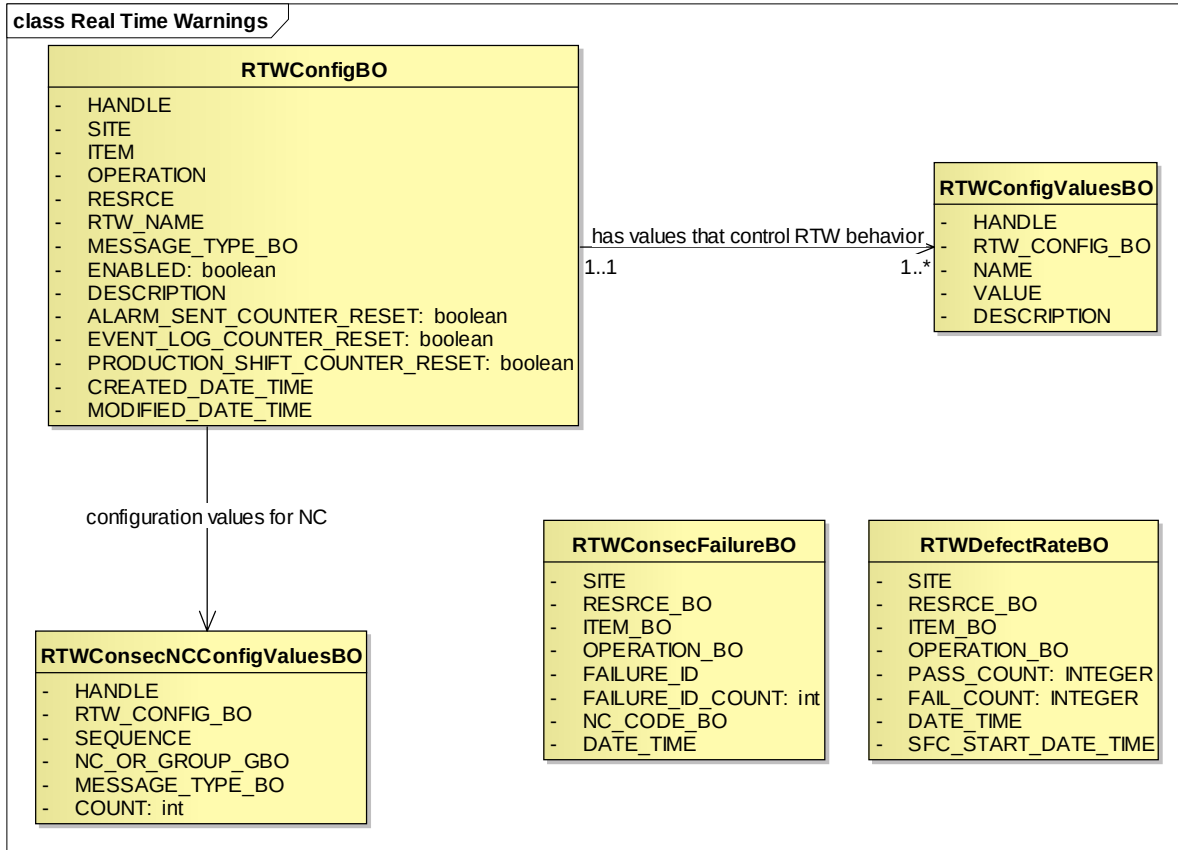
Profile



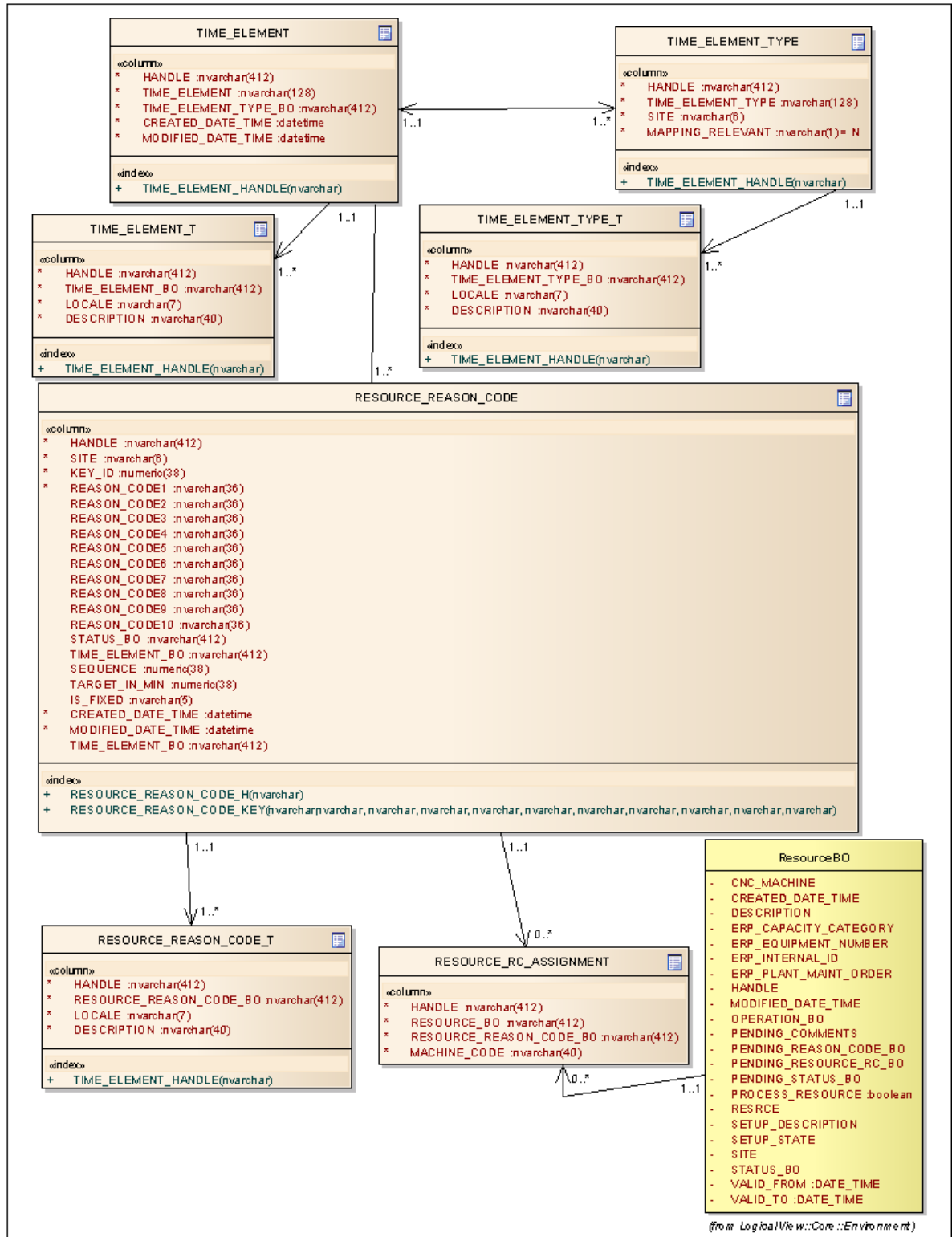
Production and Resource Log



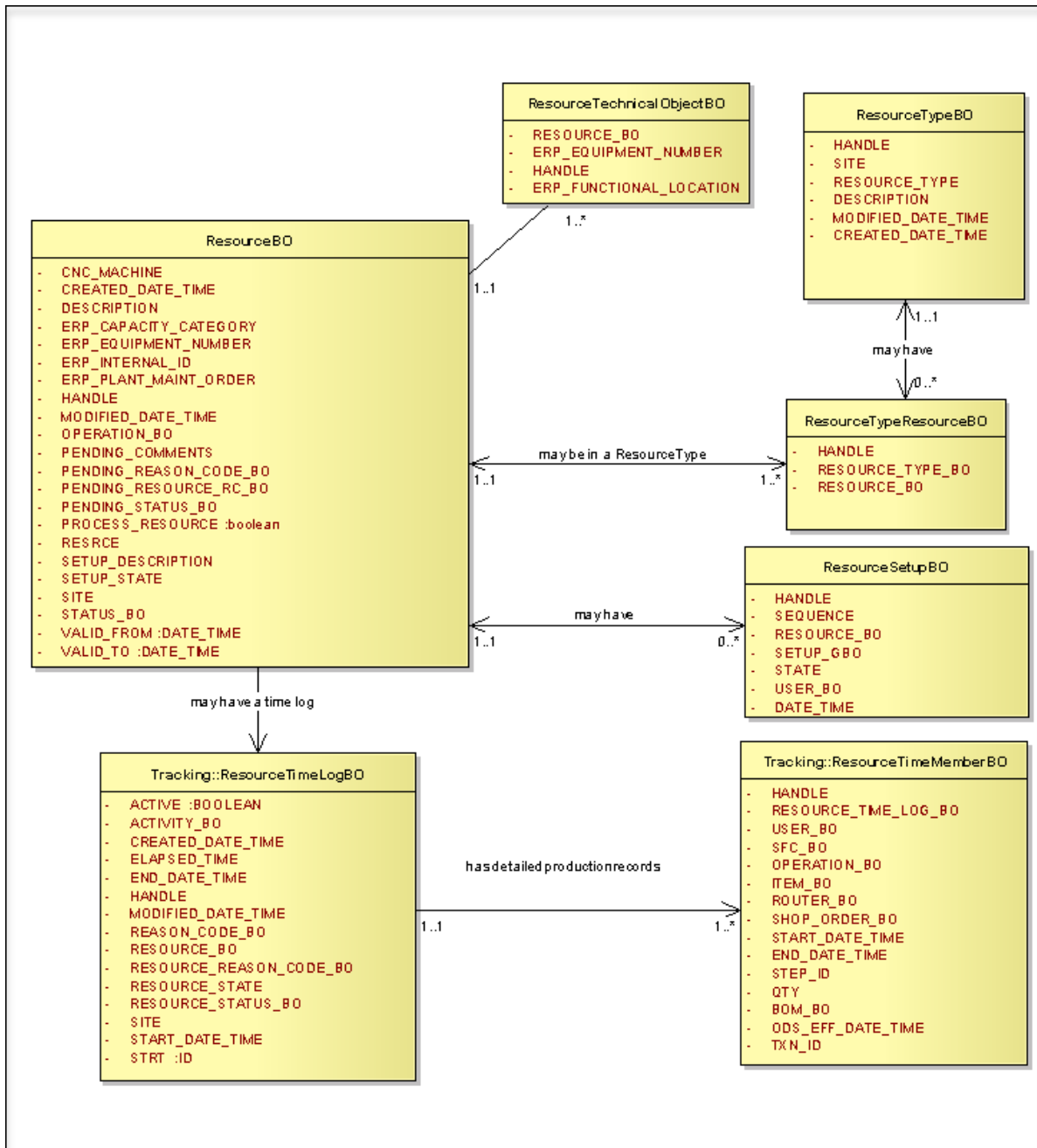
Real Time Warnings



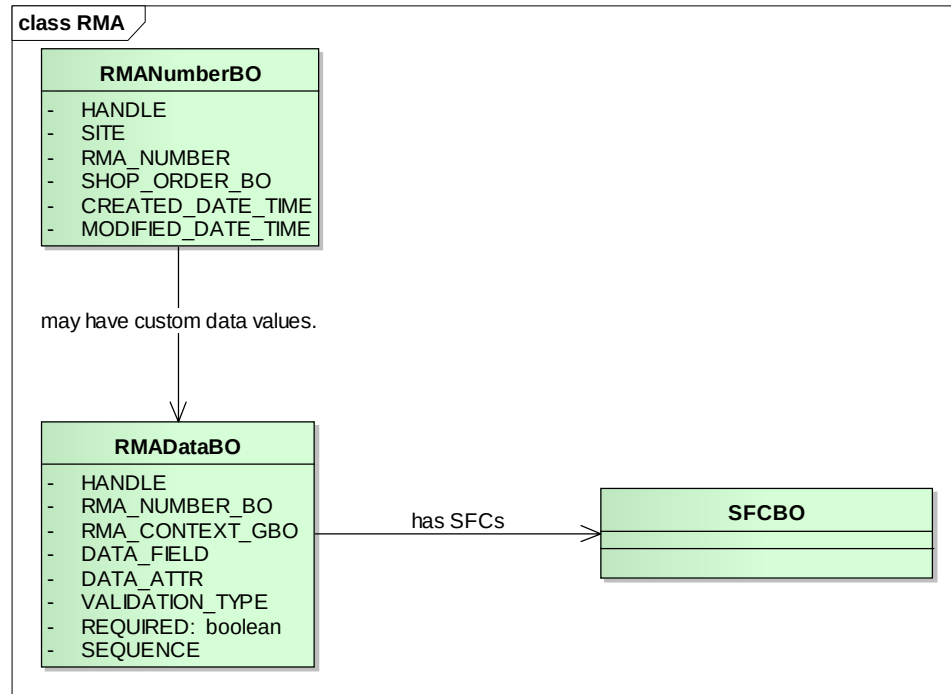
Resource Reason Code and Resource Tracking Category



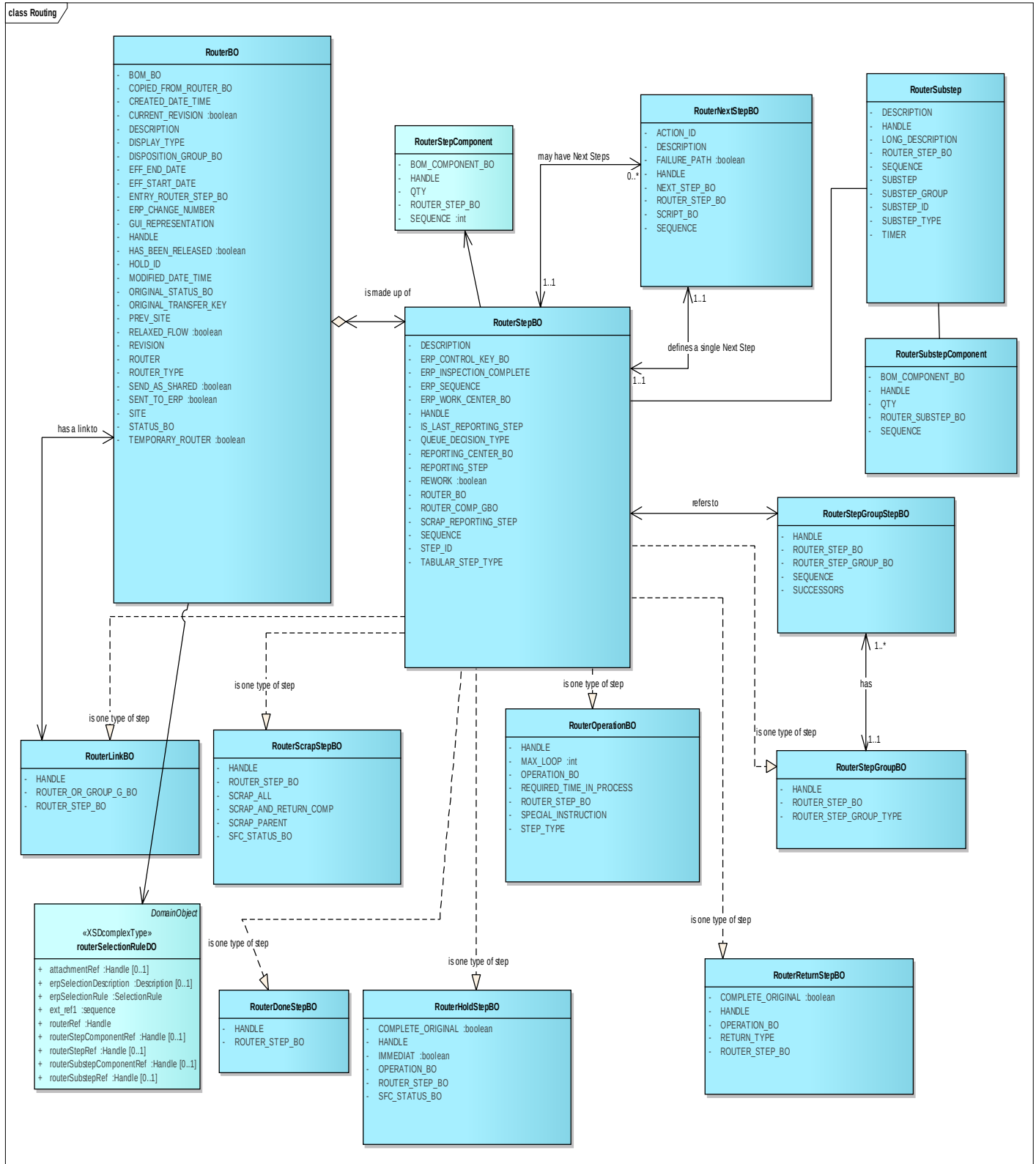
Resource and Resource Type



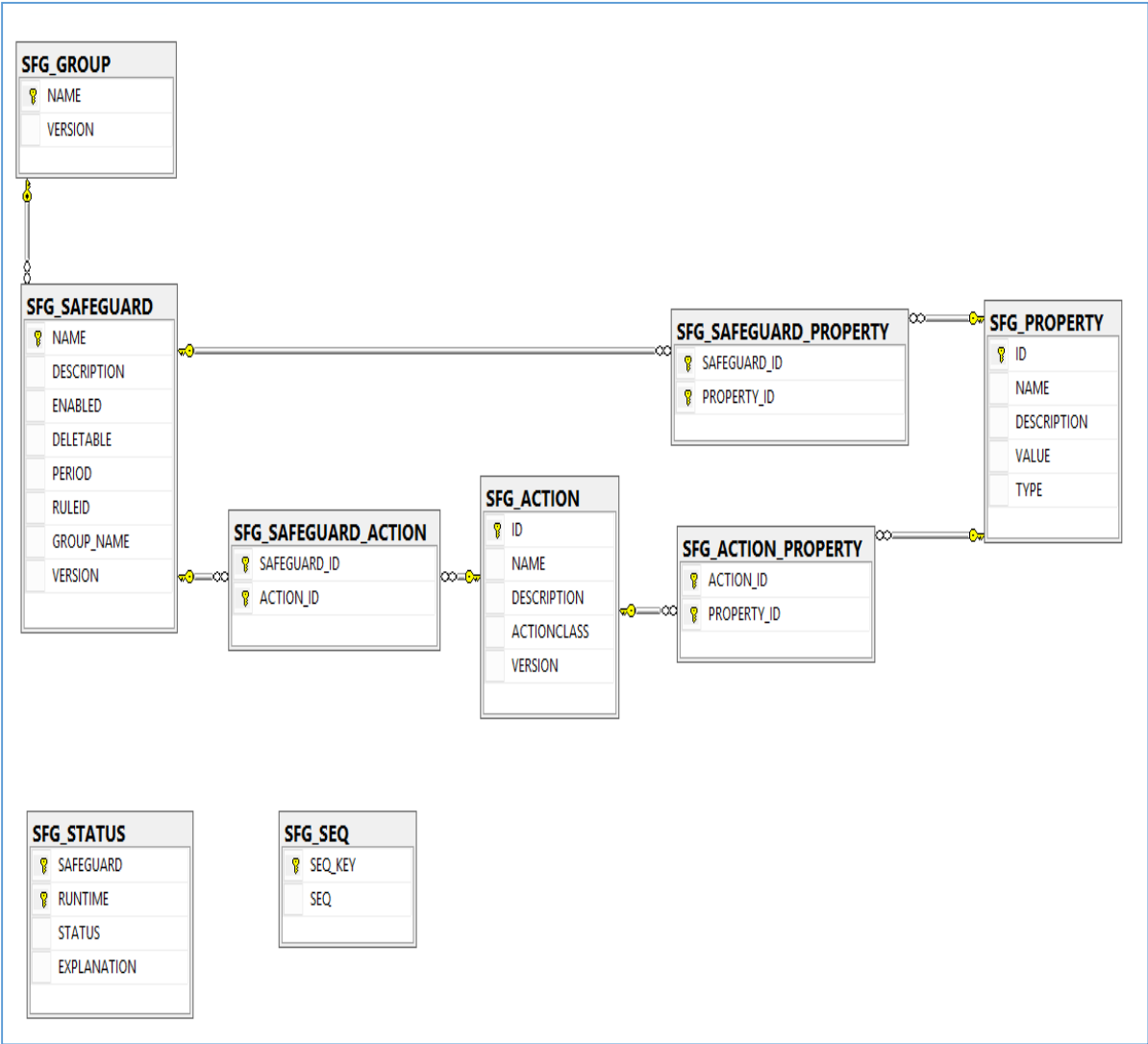
RMA



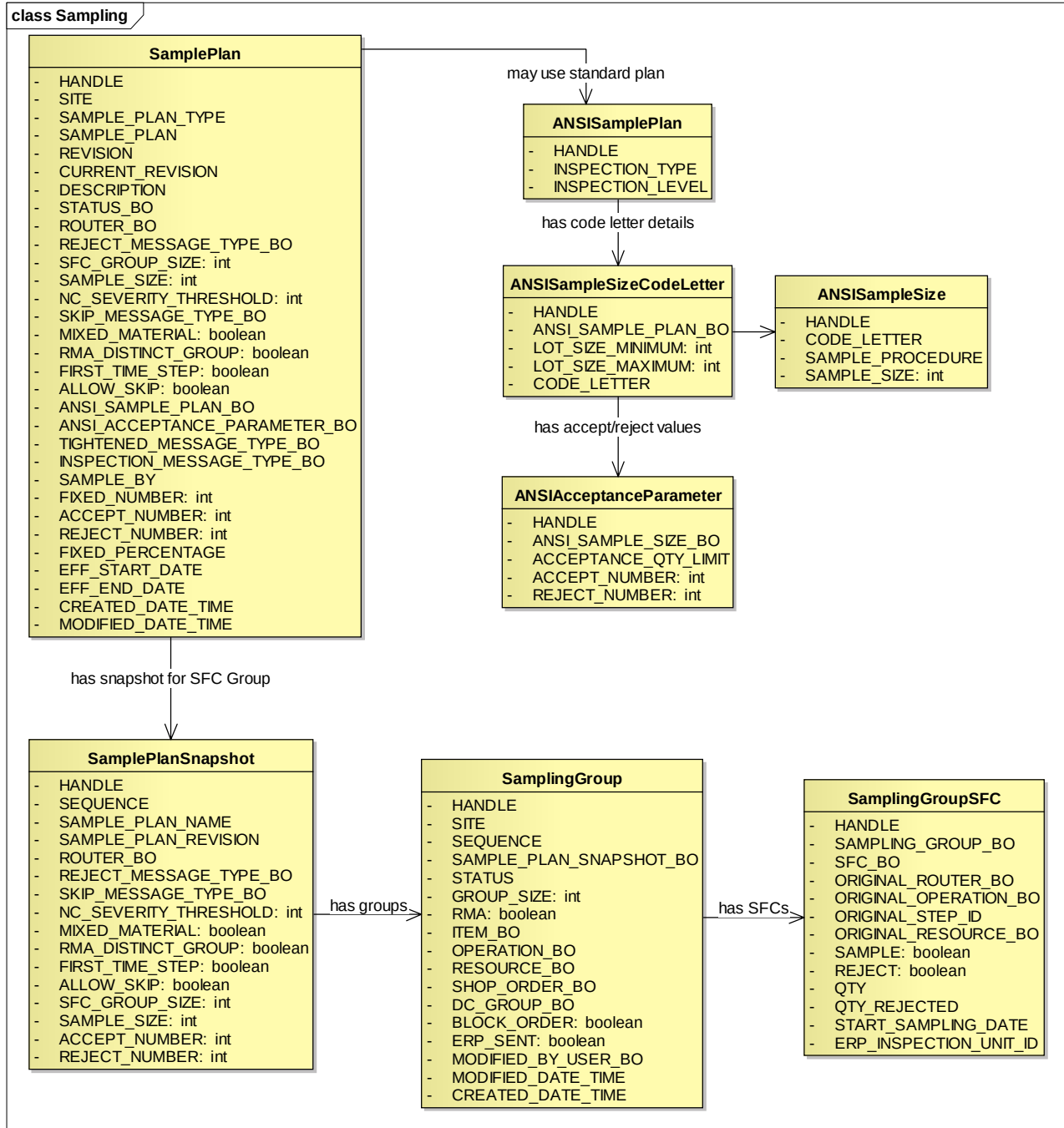
Router



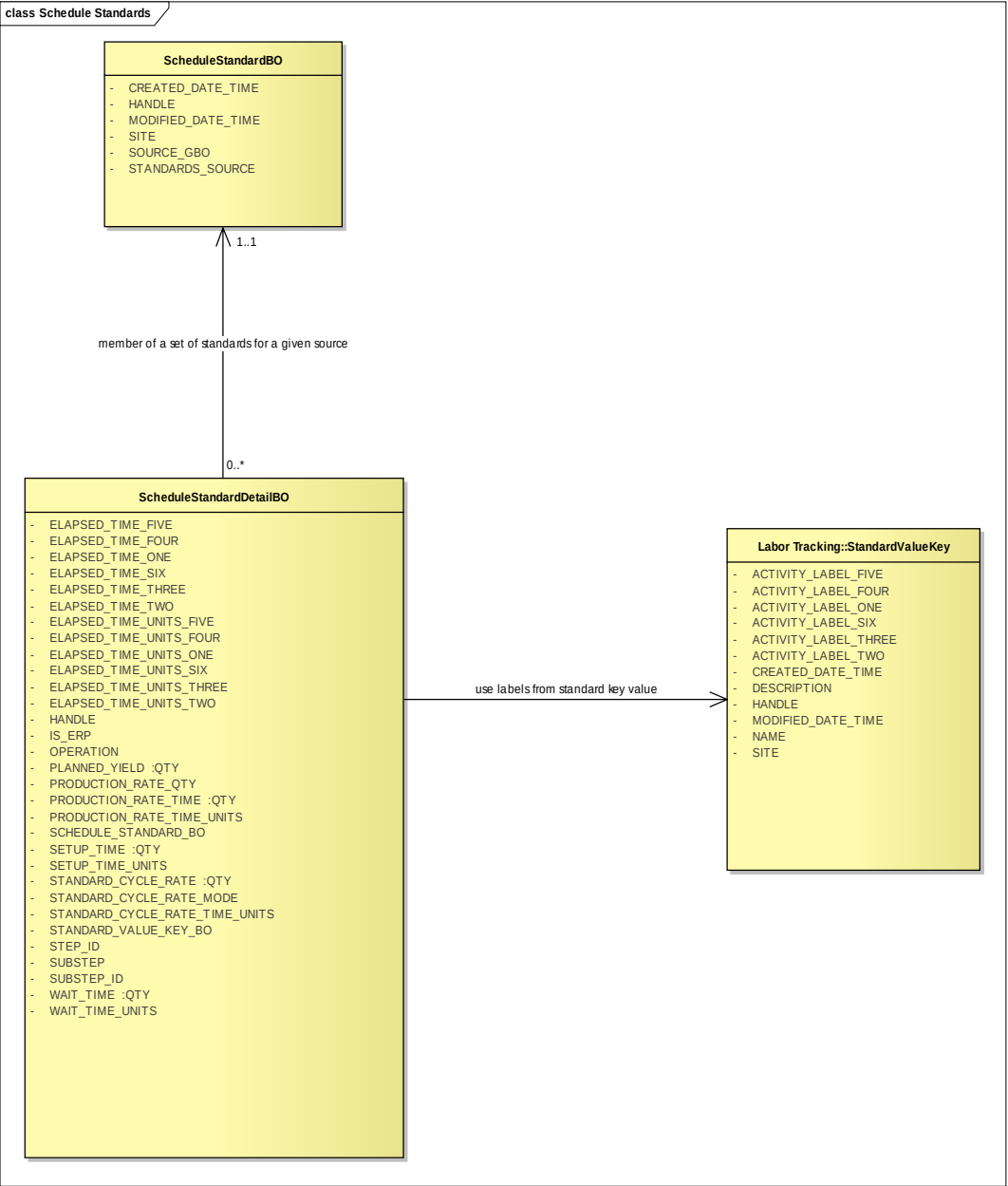
SafeGuards



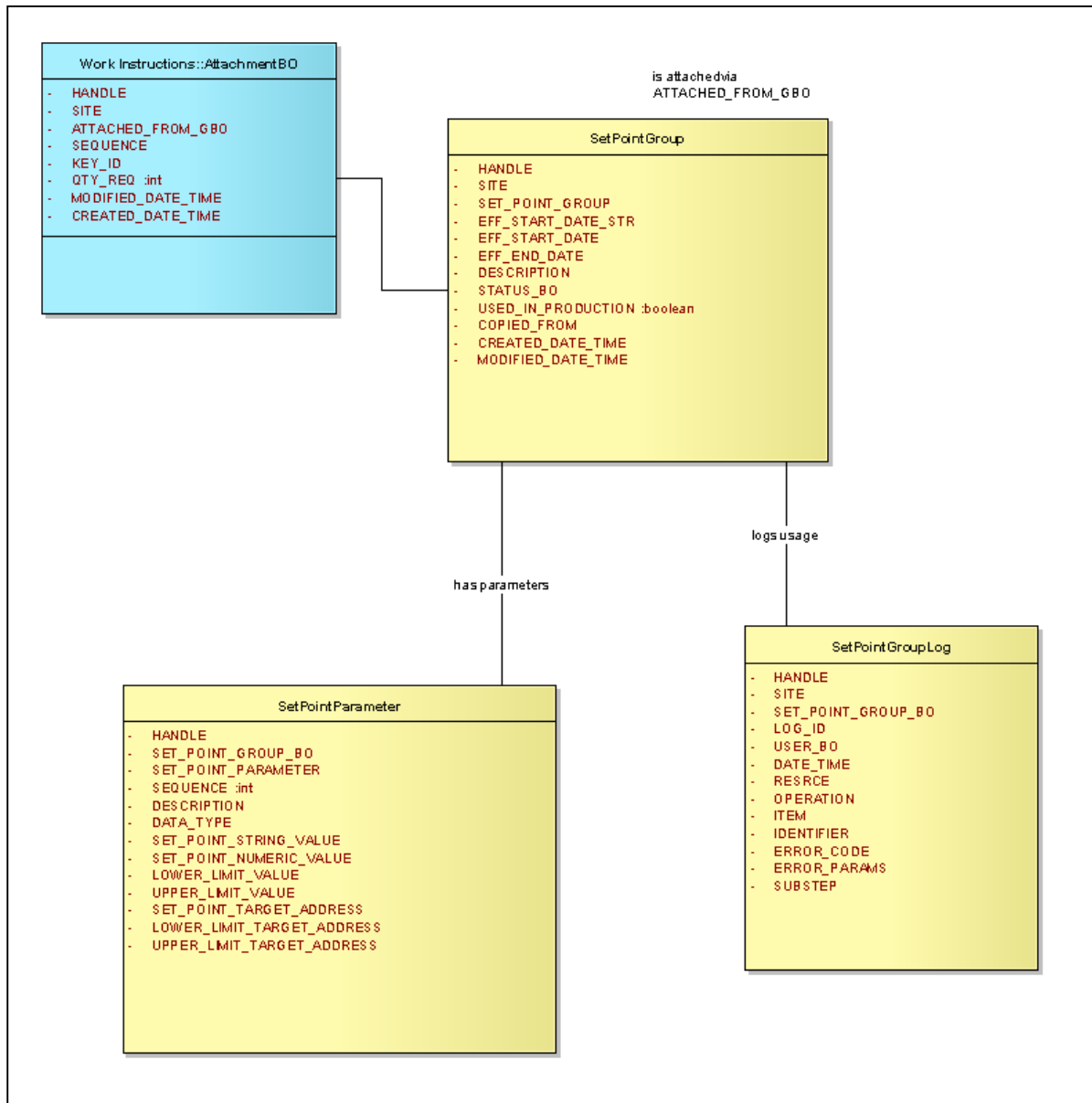
Sampling



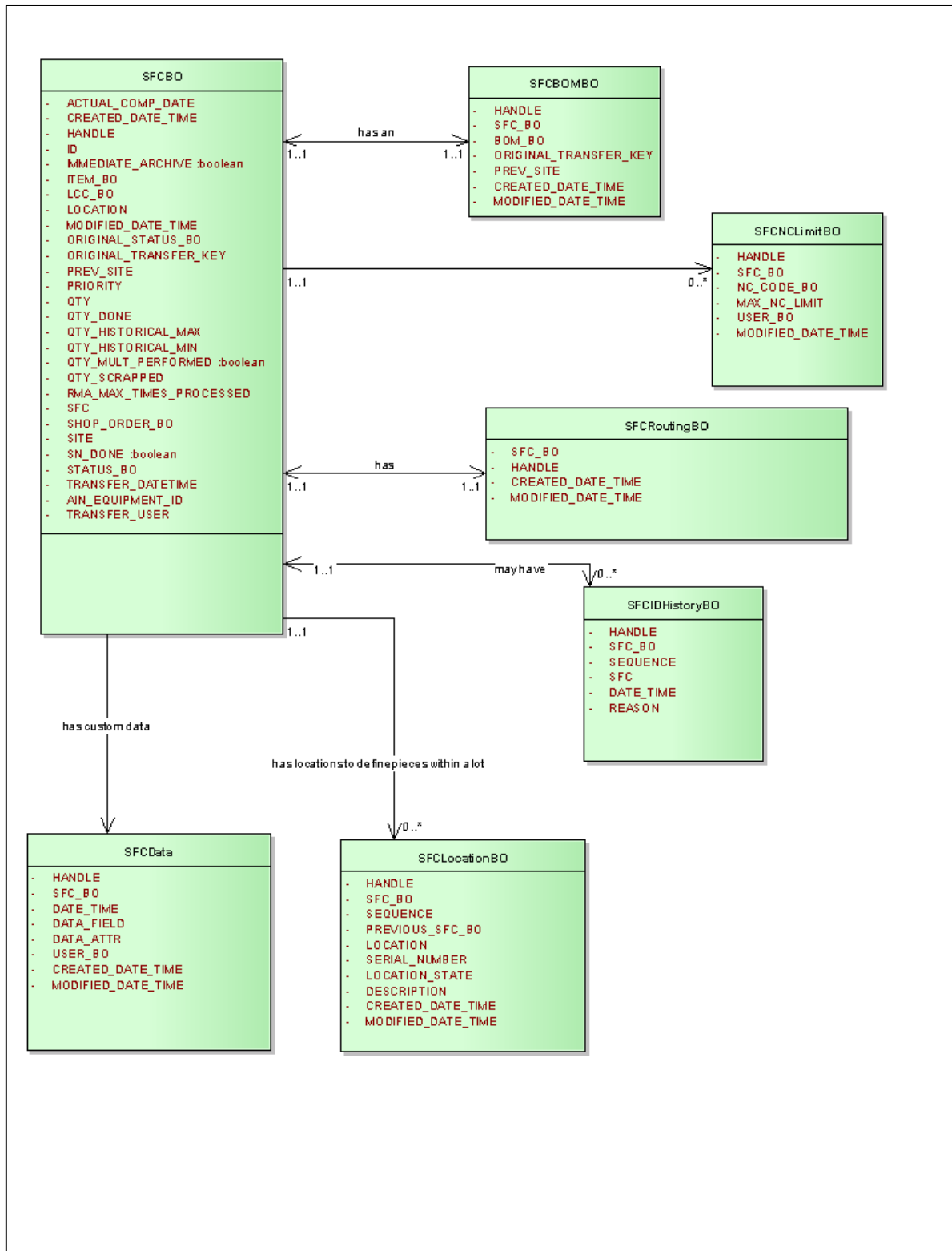
Schedule Standards



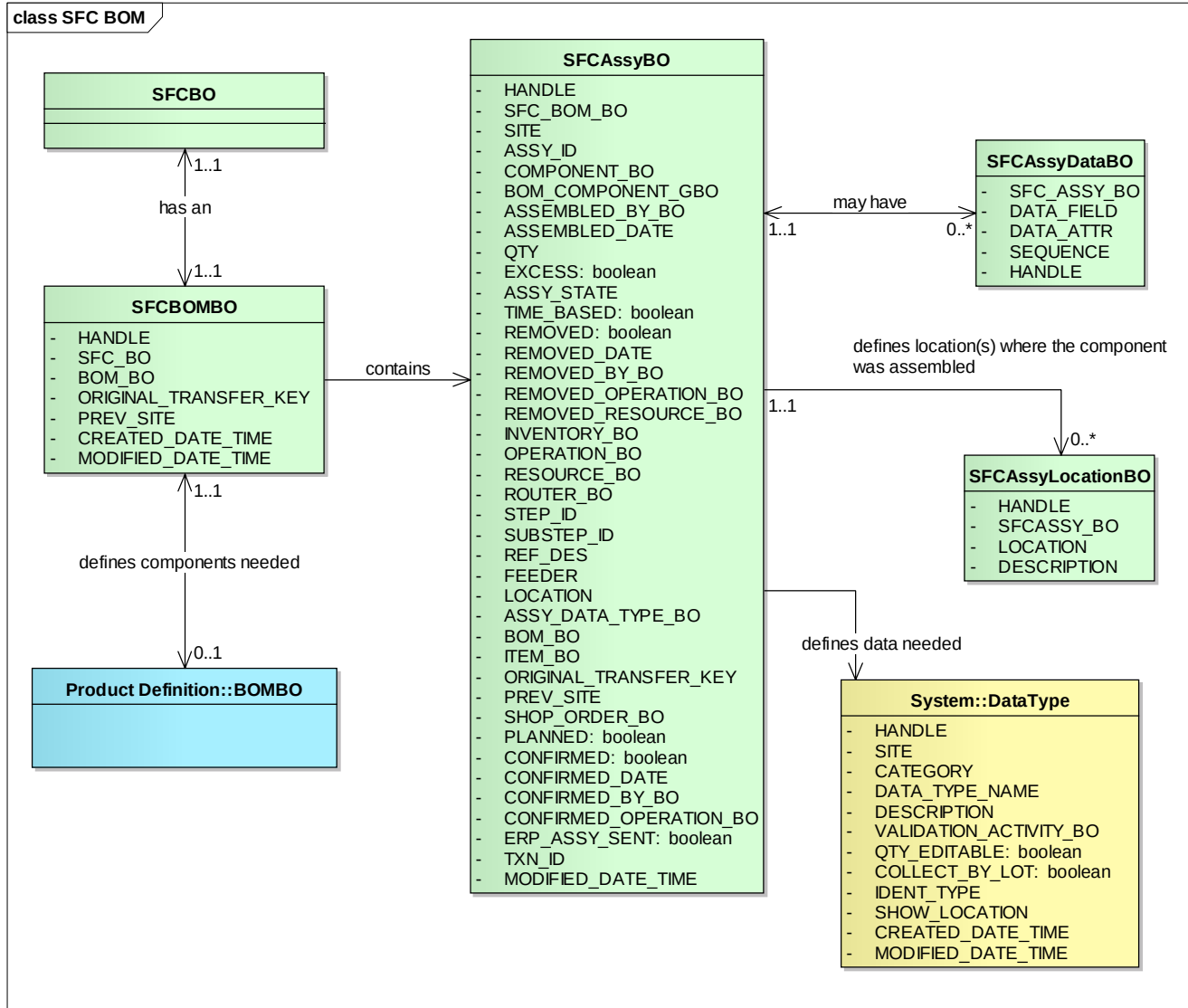
Set Points



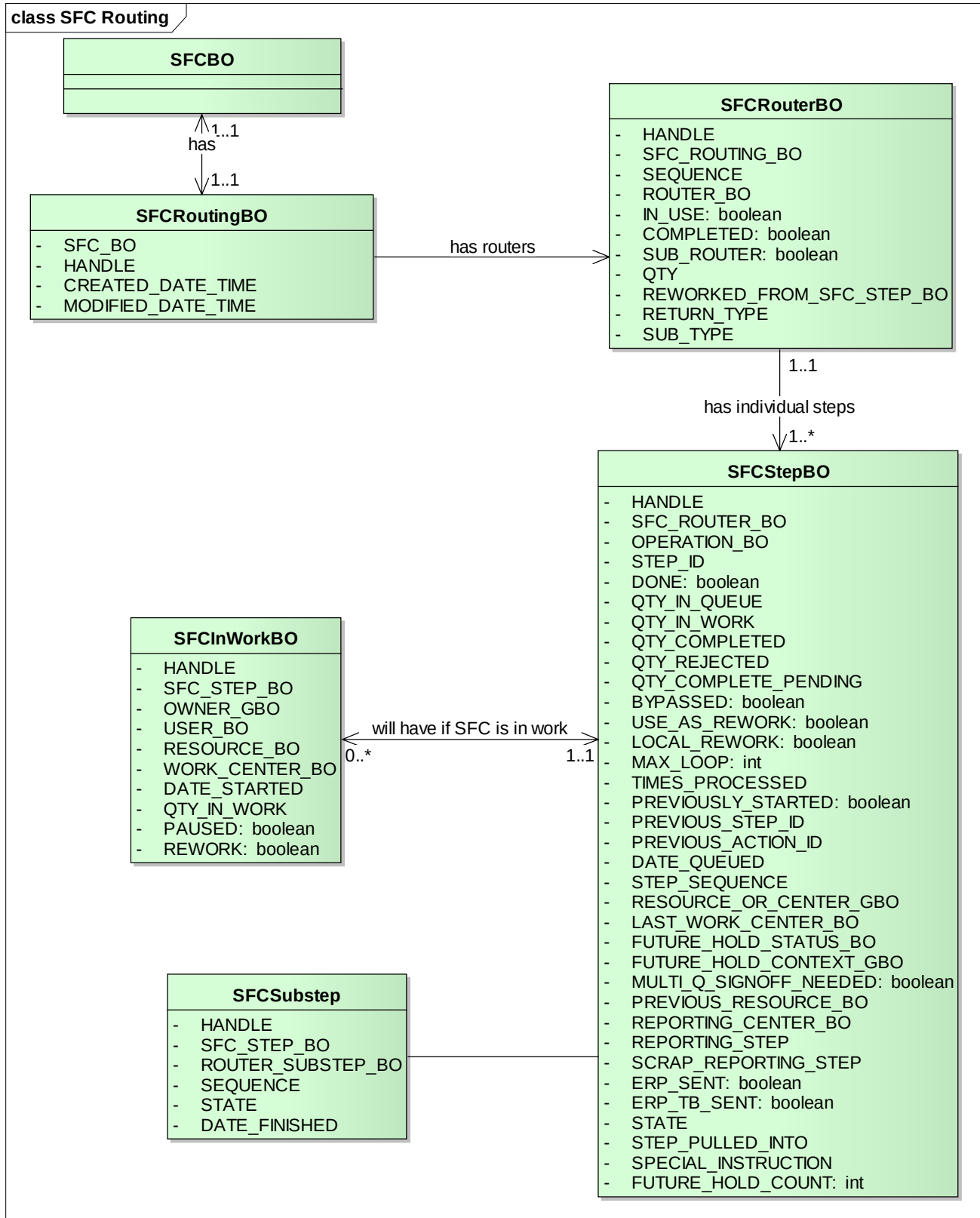
SFC



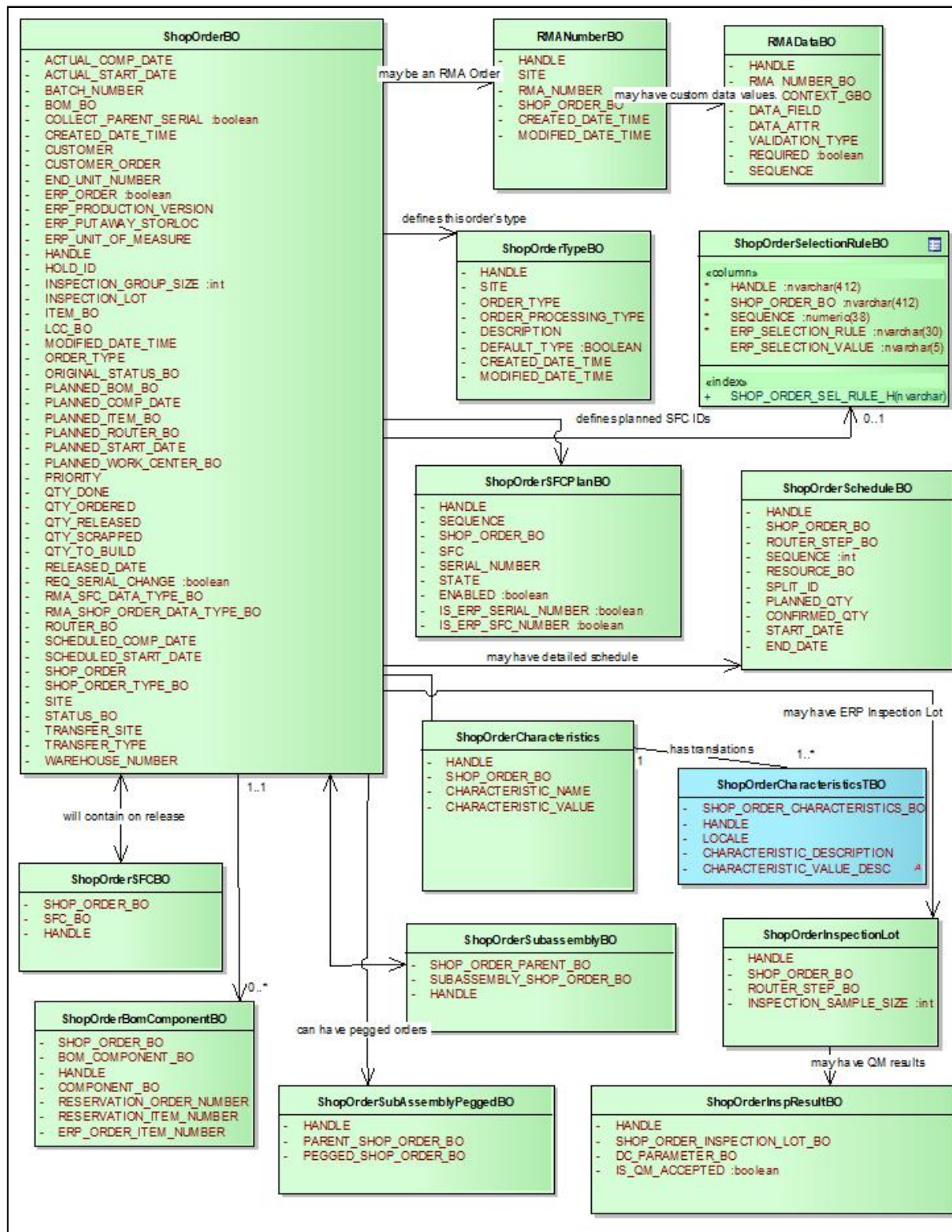
SFC BOM



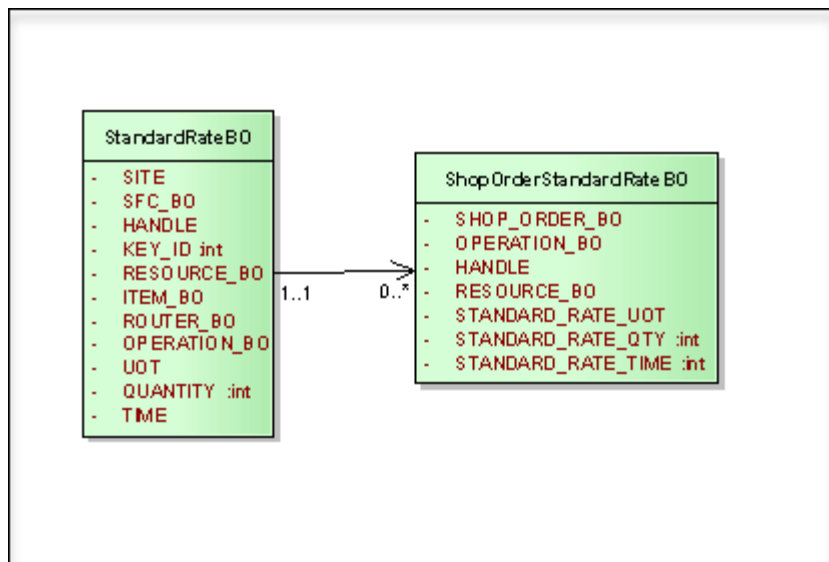
SFC Routing



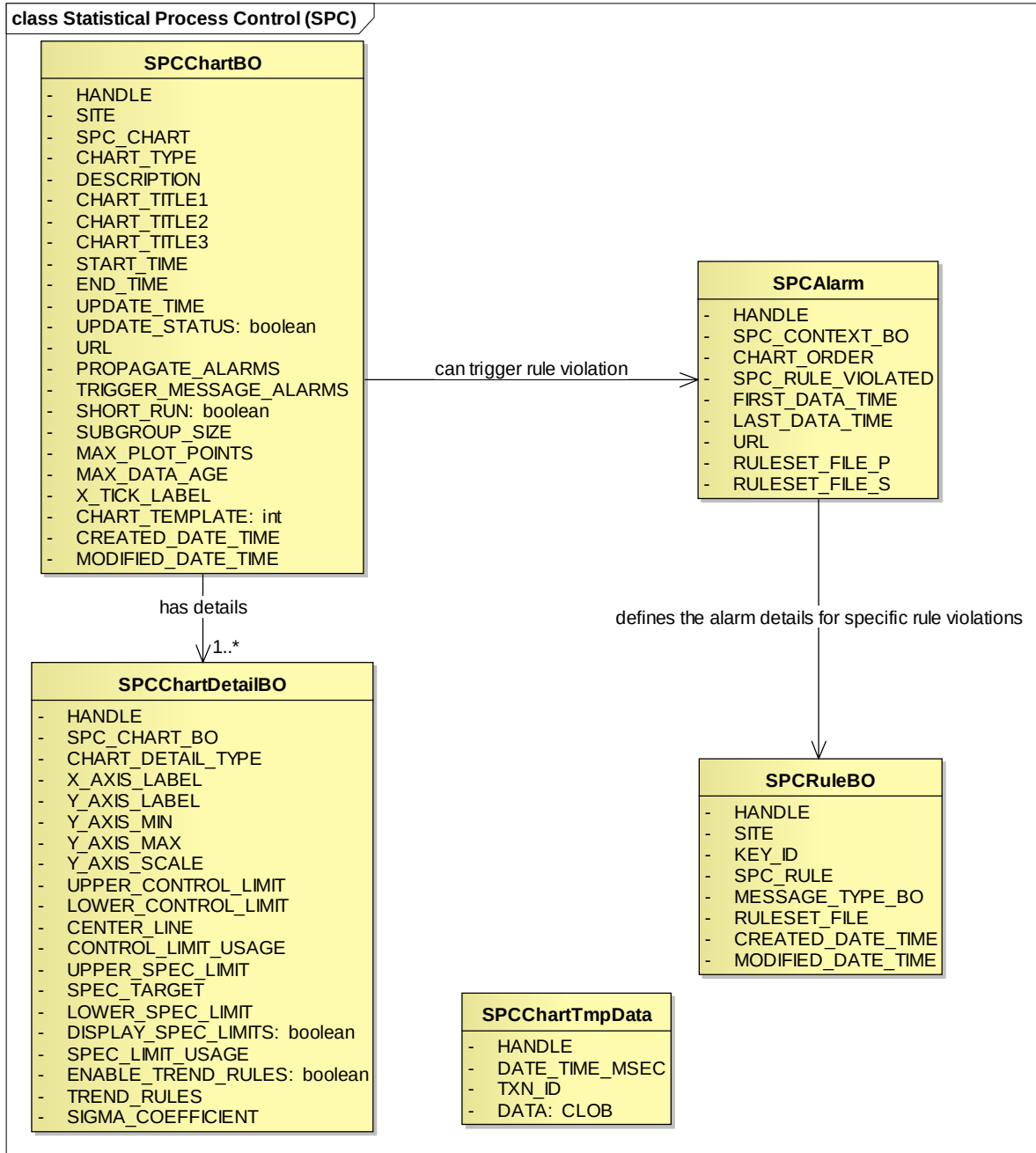
Shop Order



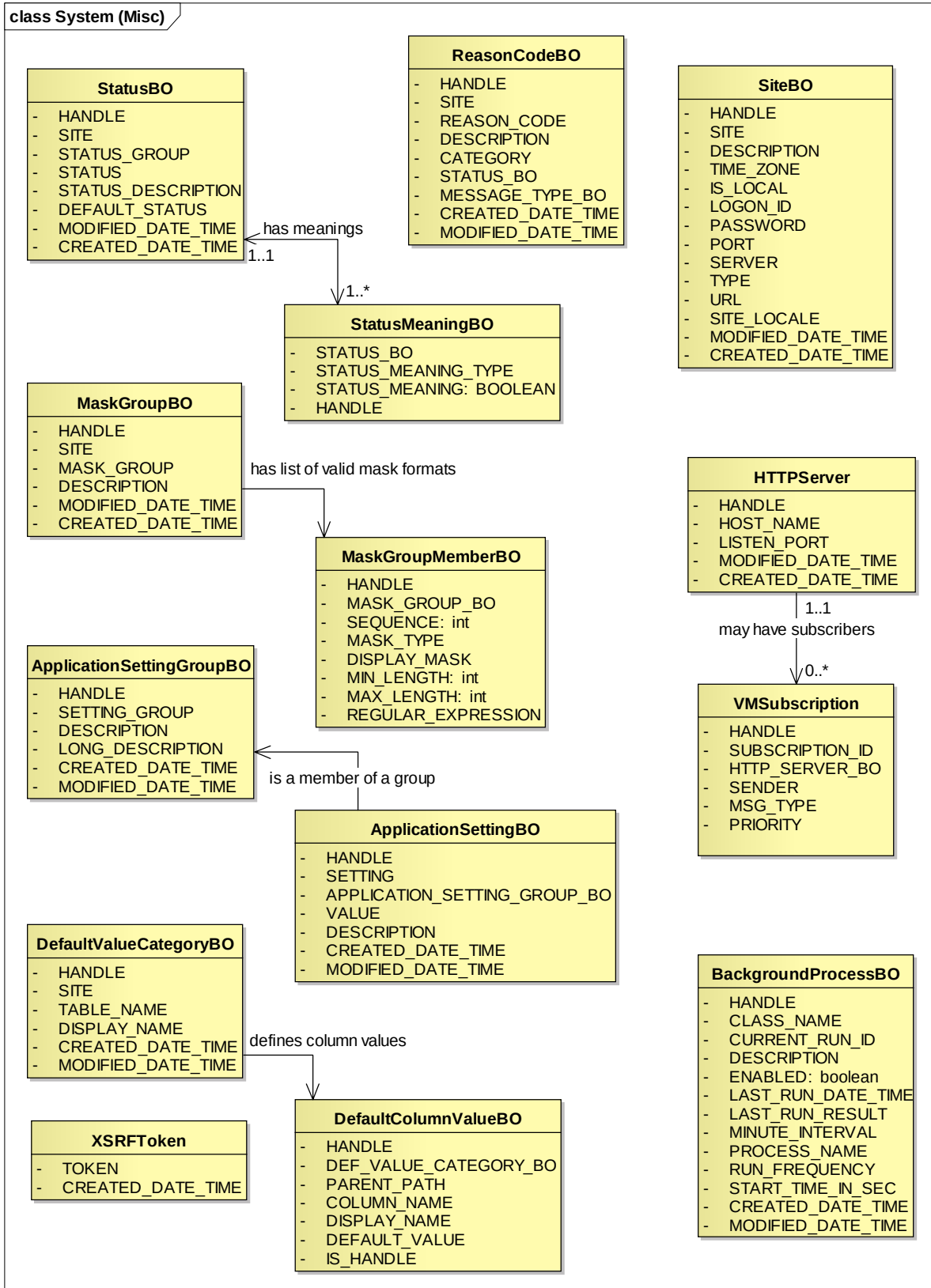
Standard Rate



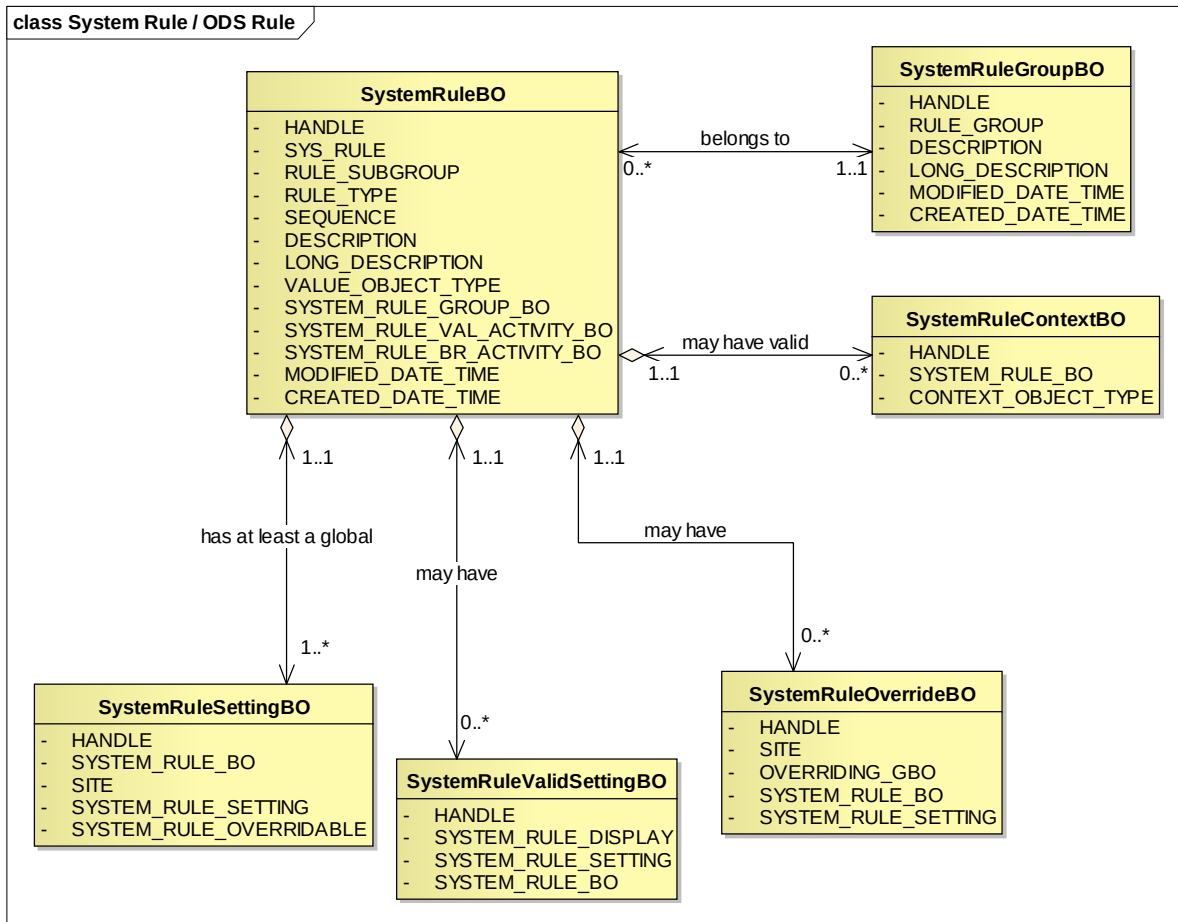
Statistical Process Control (SPC)



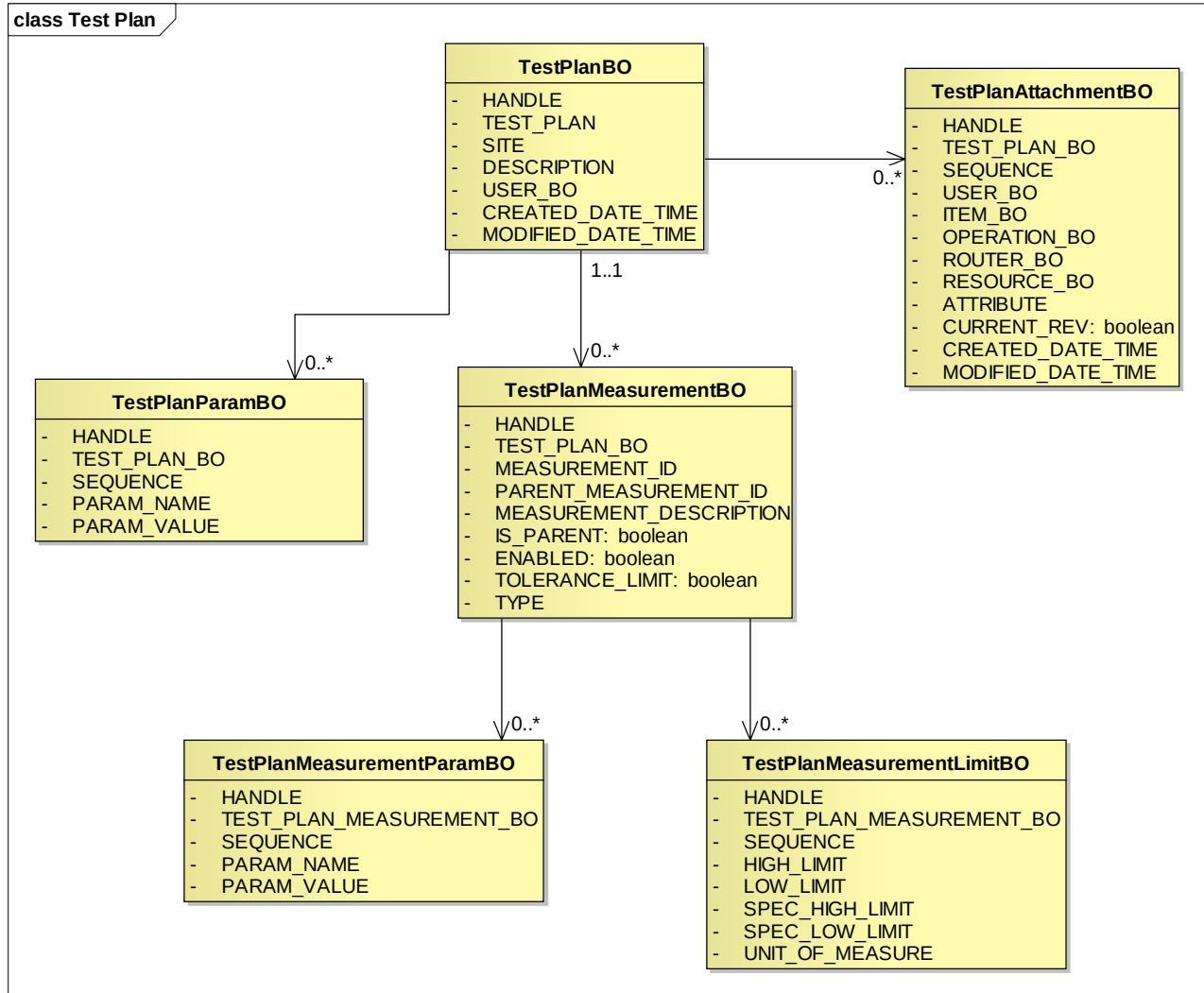
System (Misc)



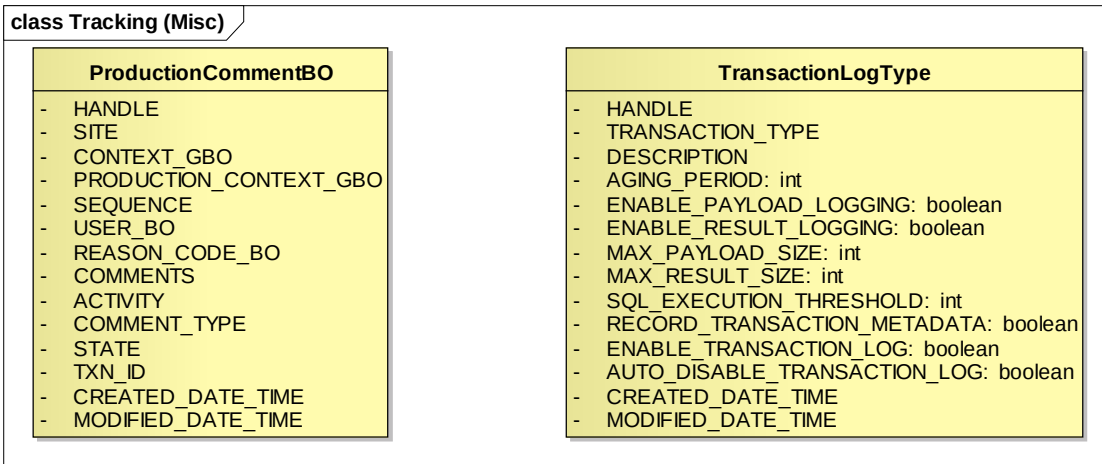
System Rule / ODS Rule



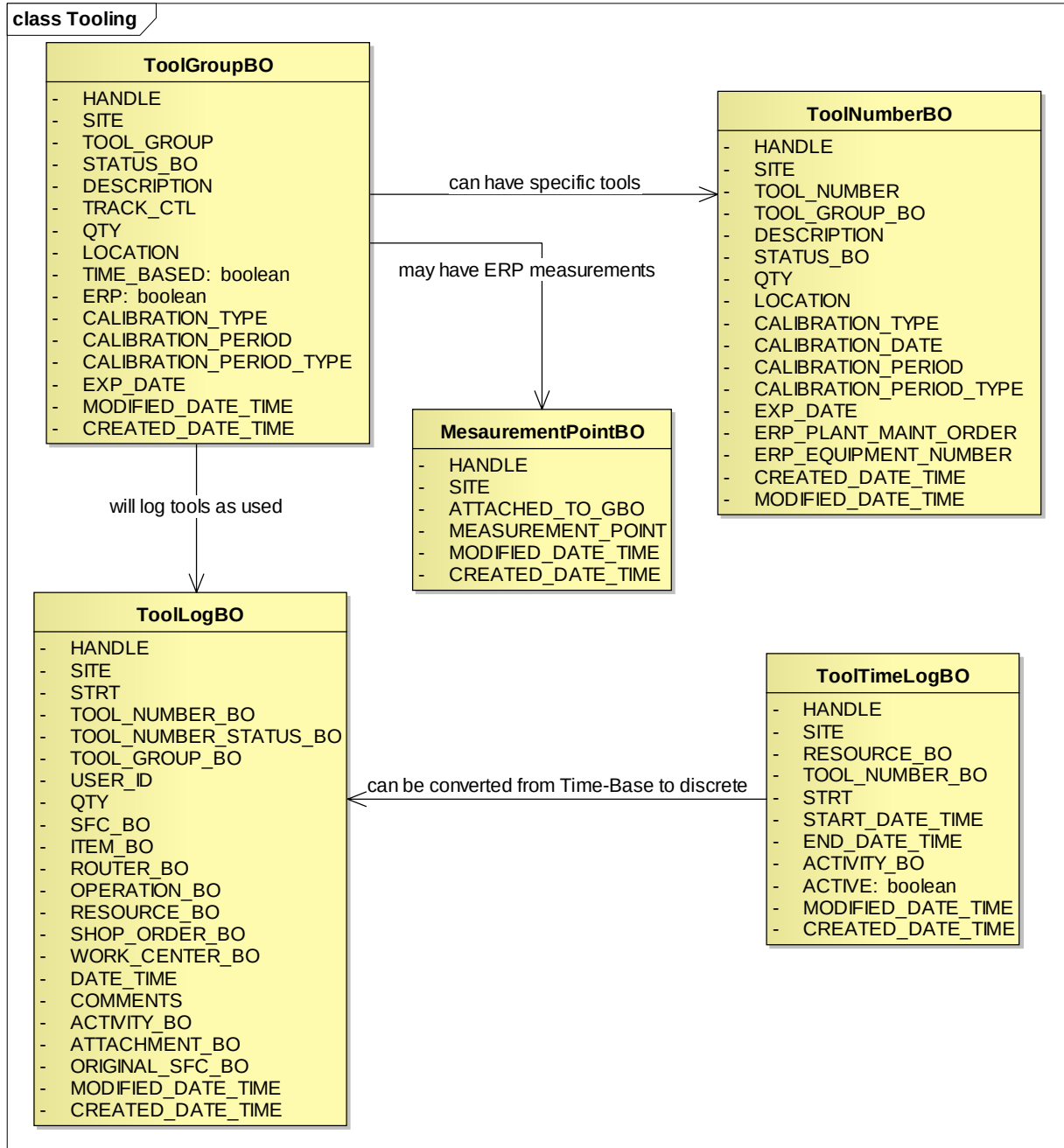
Test Plan



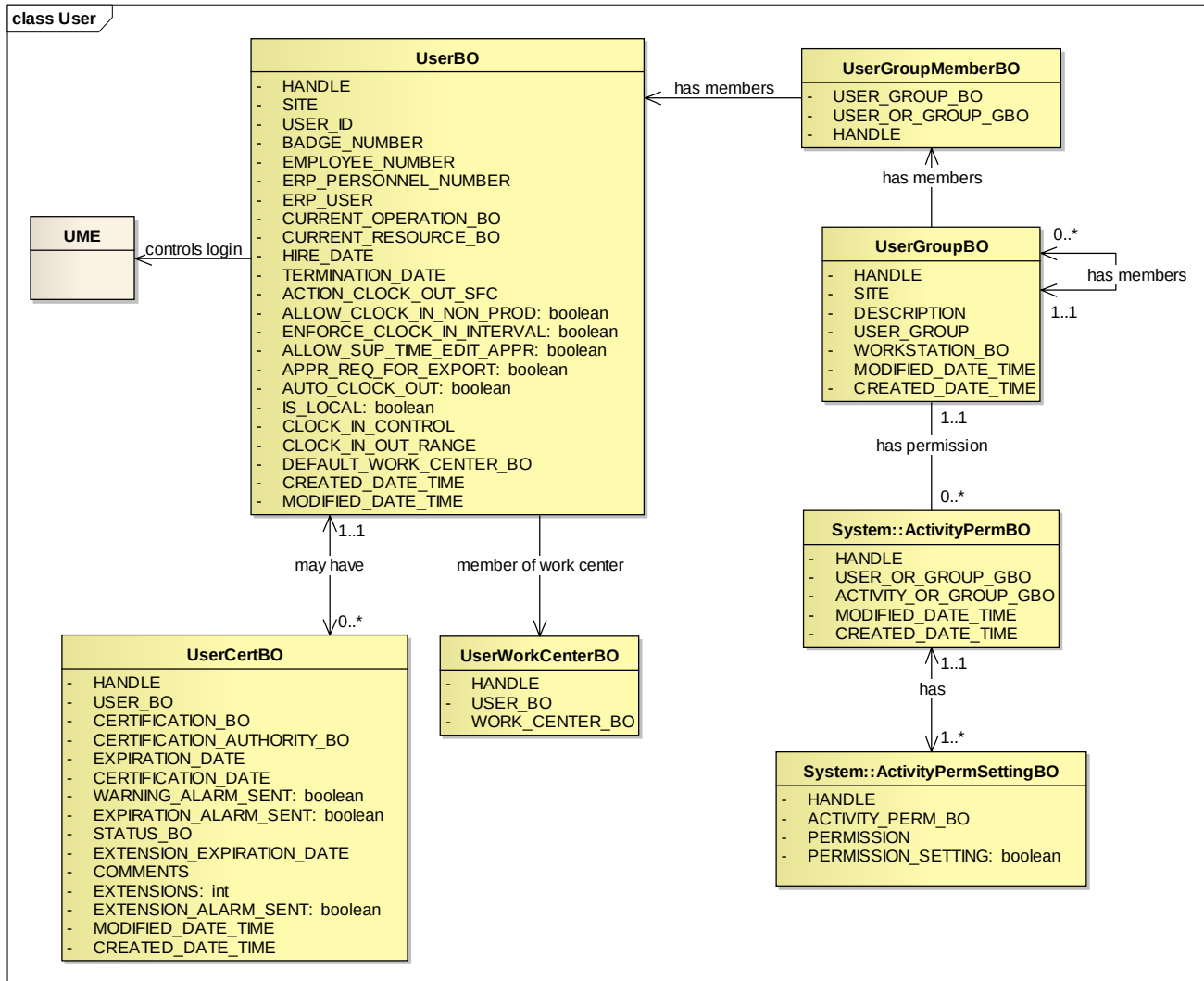
Tracking (Misc)



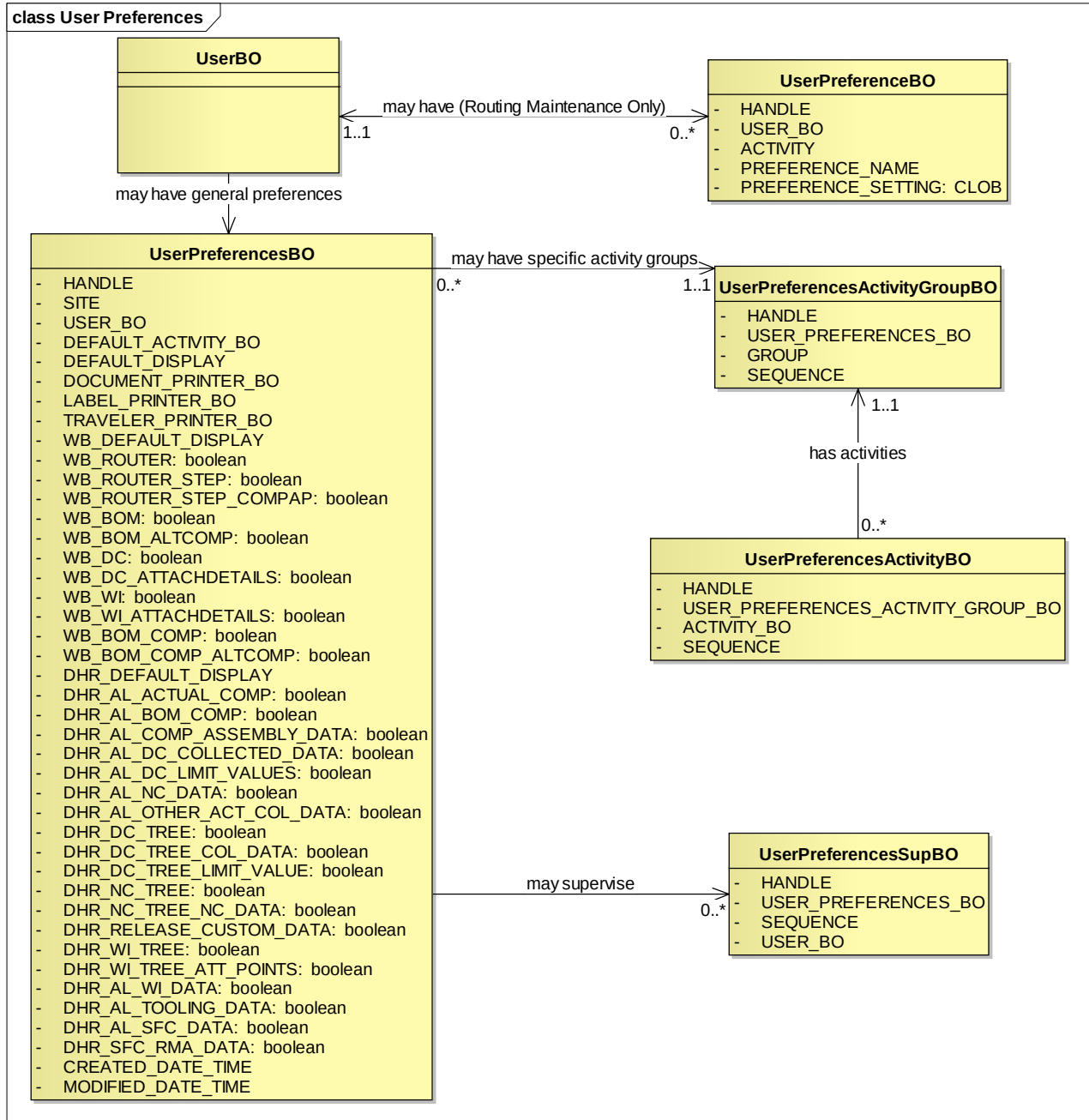
Tooling



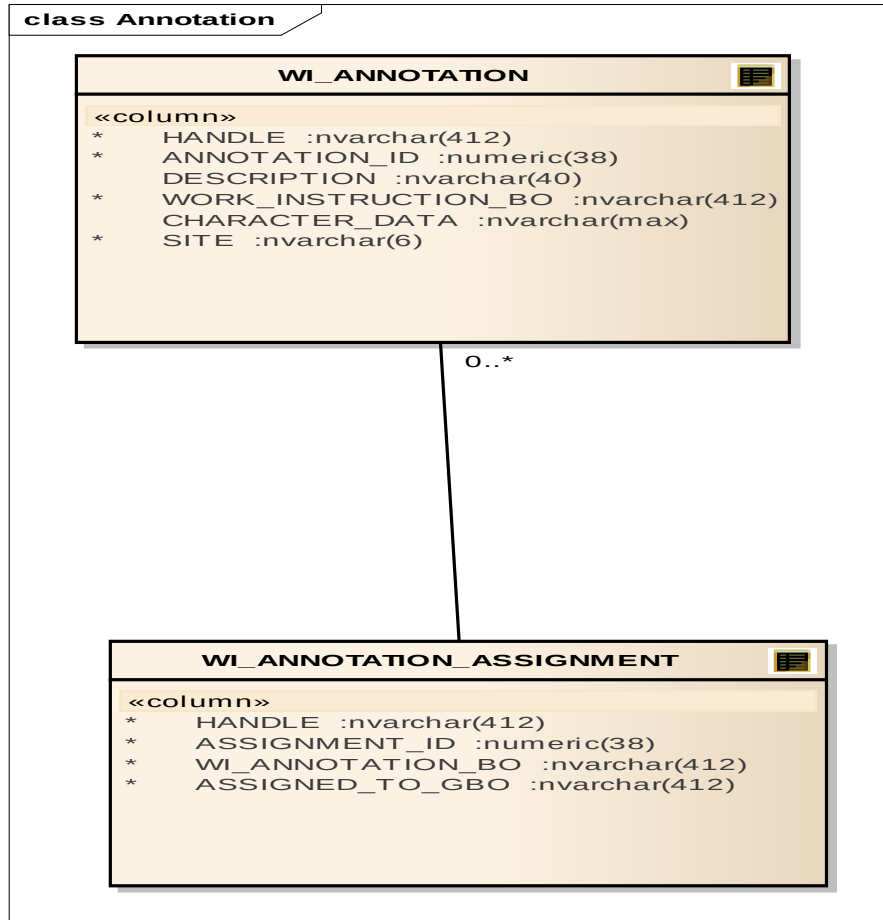
User



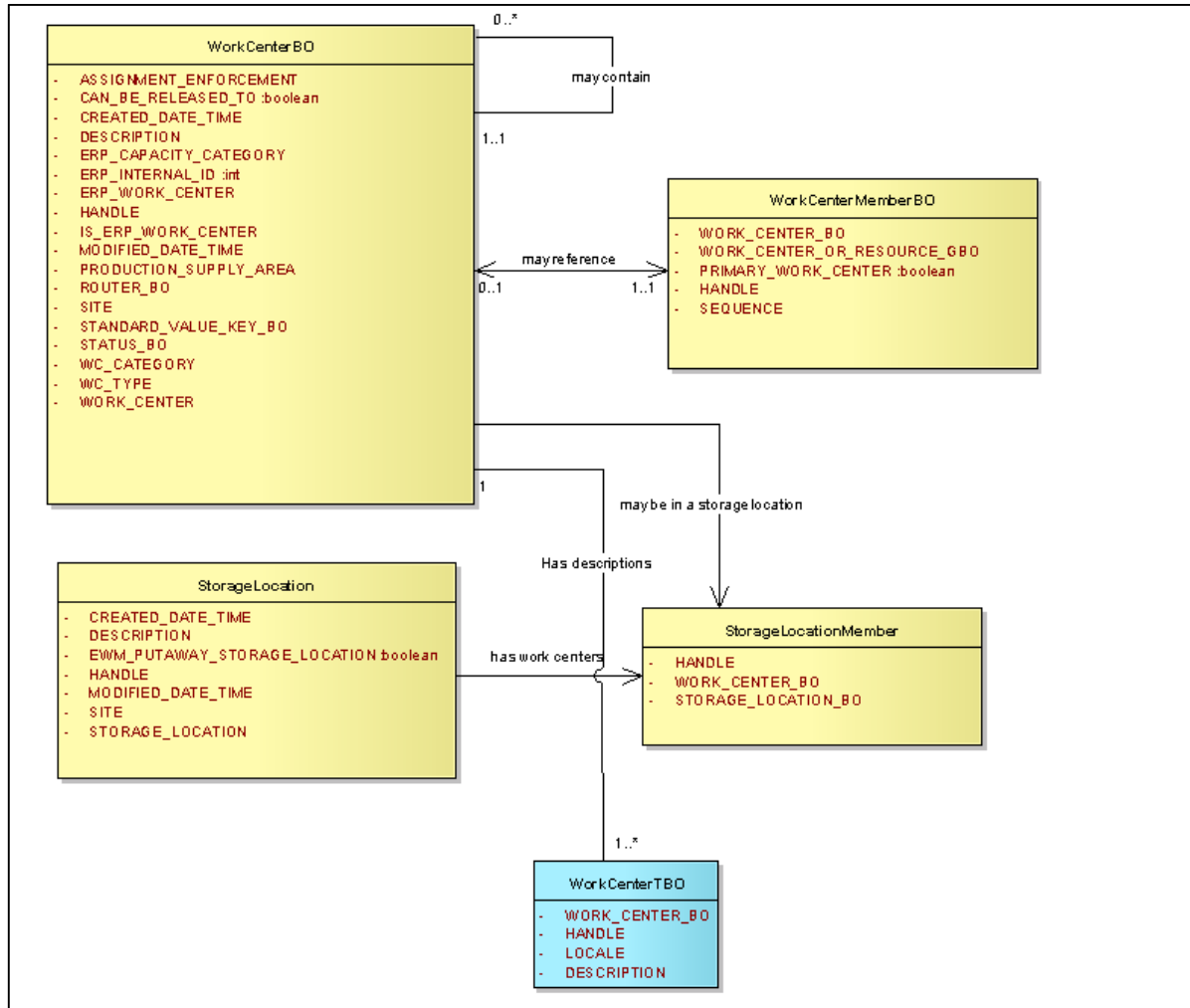
User Preferences



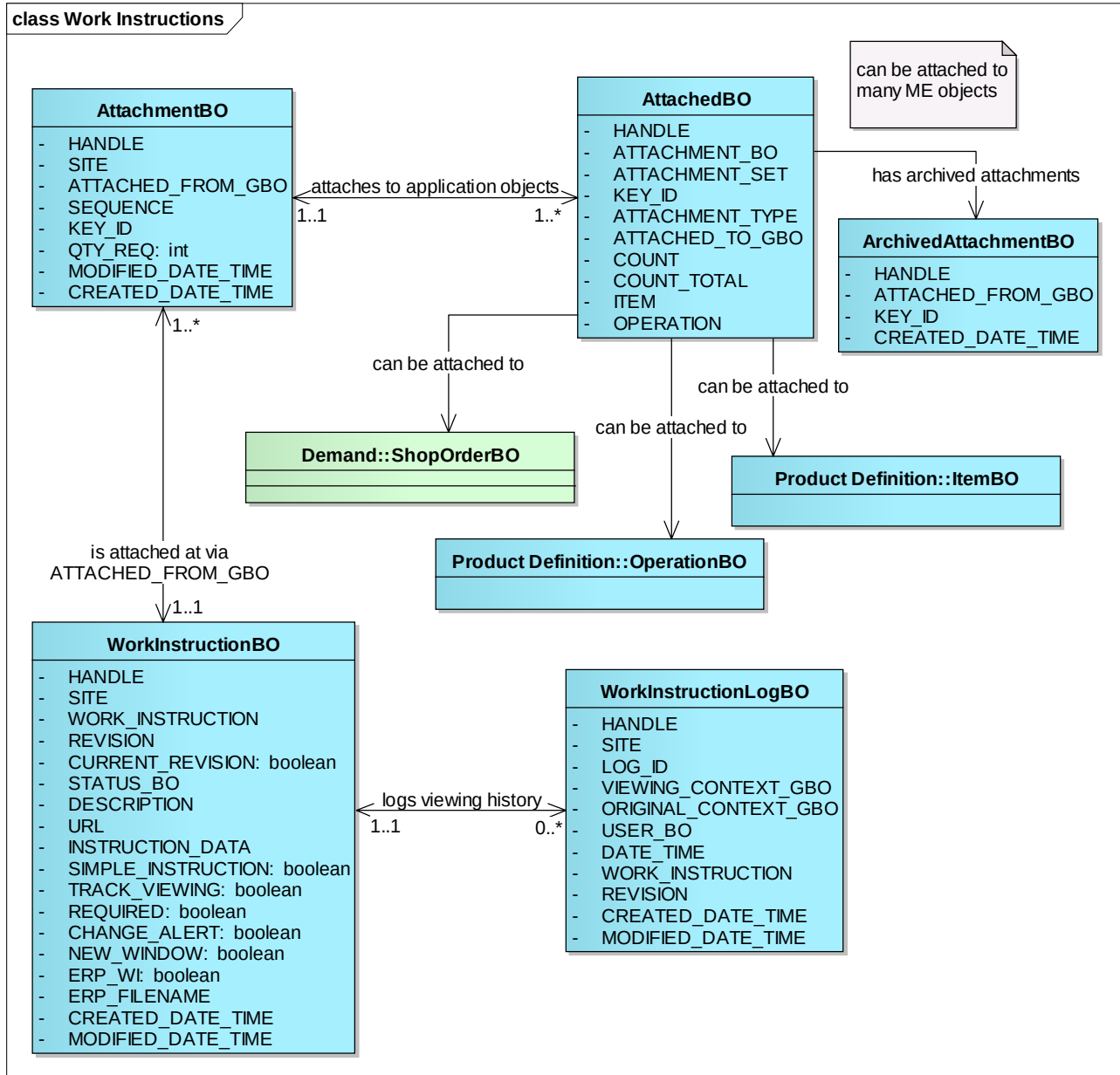
WI Annotation



Work Center



Work Instructions



Vendor/Component Hold

