



# Reporting Data Model

Version 5.12

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*Manual*

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Document: Manual - Reporting Data Model

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## Overview

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# 1 Overview

The rule that determines which HTML template is chosen:

- If the attribute block number (FR\_MD\_OPERATION.BLOCK\_NUMBER=null) of the selected operation is **not** filled => single operation template is chosen
- If the attribute block number (FR\_MD\_OPERATION.BLOCK\_NUMBER≠null) of the selected operation is filled => operation block template is chosen

The process for creating the operation-Detail-View by cyclic HTML request:

1. Select the HTML template for single operation or operation block as HTML page
2. Parse for object variables and attributes from the HTML template (Search pattern DP\_\*[\*].\*)
3. Query the values of the object variables from database and/or runtime-access
4. Place a definition header with the variable and value at top of the resulting HTML page
5. Replace all literal keys with their plain text of the current locale
6. Deliver HTML page to requester

All objects are handled like arrays. Thus, they have been addressed like DP\_WORKPLACE[0] or DP\_OPERATION[2] in the HTML template. If more than 1 object exists (i.e. several operations in operation block), the single operations can be addressed by DP\_OPERATION[x] where x = start from 0 to N-1 when N is the operations count.

The details for the **registered containers from trace** can be accessed in the details view page by declaring them in the "variable section" at the top of the page. To get these registered containers, both operation and workplace must be configured as input parameters, like the ERP component boxes with the variable name **DP\_OPERATION\_ASSIGNEDCOMPONENTBOX** which is already used.

Eg:-

```
DP_REGISTERED_TRACE_CONTAINER[0].number
DP_REGISTERED_TRACE_CONTAINER[0].currentQuantity
DP_REGISTERED_TRACE_CONTAINER[0].materialNumber
```

The details for the **active operations** of a selected workplace can be accessed. The syntax for accessing them can be adapted from the syntax mentioned above for accessing **selected operations**. The following rules and conditions should be observed while using them.

**The syntax for accessing the direct attributes of active operations to be adapted:**

Selected operation	Active operation
DP_OPERATION[0].autoStartId	DP_ACTIVE_OPERATION[i].autoStartId
DP_OPERATION[0].externalKey\$orderNumber	DP_ACTIVE_OPERATION[i].externalKey\$orderNumber

## Overview

Other information of an operation related to other domains should be adapted:

Selected operation	Active operation
DP_OPERATION_PHASE[0].code	DP_ACTIVE_OPERATION[i].OPERATION_PHASE[0].code
DP_MATERIAL[0].number	DP_ACTIVE_OPERATION[i].MATERIAL[0].number

The other supported domains with operation information are:

- OPERATION\_PHASE
- OPERATION\_TYPE
- OPERATION\_STATUS
- MATERIAL
- PRODUCTION\_TOOL\_RESOURCE
- OPERATION\_COMPONENT

- i** It is required that all the ACTIVE\_OPERATION related functionality be written within **DP\_ACTIVE\_OPERATION.length**. Otherwise, it will not render the HTML correctly in case there is no active operation. For example:

```
for (i=0;i<DP_ACTIVE_OPERATION.length;i++)
{
    writeCell("AutoStartId" + " " + DP_ACTIVE_OPERATION[i].autoStartId);
    writeCell("This is operations phase." + " " +
    DP_ACTIVE_OPERATION[i].OPERATION_PHASE[0].code)
;
    writeCell("material desc" + " " +
    DP_ACTIVE_OPERATION[i].MATERIAL[0].description)
;
}
if(DP_ACTIVE_OPERATION.length>0)
{
    DP_ACTIVE_OPERATION.......
```

## 2 Reporting and Logic

### 2.1 Logic Components writing reporting base data

Reporting Base Data	Logic Components
FR_DS_OPERATION_ATTRIB_TL	<ul style="list-style-type: none"> <li>— "ATTRIBUTE TIMELINE" (lib/ds/report/attribute-timelines)</li> </ul>
FR_DS_OPERATION_BASE_TL	<ul style="list-style-type: none"> <li>— "OPERATION BASE TL" (lib/ds/report/operation-base-timeline)</li> </ul>
FR_DS_OPERATION_QUANTITY_LE	<ul style="list-style-type: none"> <li>— "LINKED ELEMENTS" (lib/ds/report/linked-elements)</li> <li>— "LINKED ELEMENTS LEADING OPERATION ONLY" (lib/ds/report/linked-elements-leading-op-only)</li> <li>— "CLAMPING LINKED ELEMENTS" (lib/ds/report/clamping-linked-elements)</li> </ul>
FR_DS_OPERATION_STROKE_LE	<ul style="list-style-type: none"> <li>— "LINKED ELEMENTS" (lib/ds/report/linked-elements)</li> <li>— "LINKED ELEMENTS LEADING OPERATION ONLY" (lib/ds/report/linked-elements-leading-op-only)</li> <li>— "CLAMPING LINKED ELEMENTS" (lib/ds/report/clamping-linked-elements)</li> </ul>
FR_DS_PERS_OPERATION_BASE_TL	<ul style="list-style-type: none"> <li>— "PERSON OPERATION BASE TL" (lib/ds/report/person-operation-base-timeline)</li> </ul>
FR_DS_PERS_OVERHEAD_COST_TL	<ul style="list-style-type: none"> <li>— "OVERHEAD COST COLLECTOR TL" (lib/ds/report/overhead-cost-collector-timeline)</li> </ul>
FR_DS_PERS_TIME_ATTENDANCE_TL	<ul style="list-style-type: none"> <li>— "PERSON TIME ATTENDANCE TL" (lib/ds/report/person-time-attendance-timeline)</li> </ul>
FR_DS_PERS_WORKPLACE_BASE_TL	<ul style="list-style-type: none"> <li>— "PERSON WORKPLACE BASE TL" (lib/ds/report/person-workplace-base-timeline)</li> </ul>
FR_DS_USER_COUNTER_TL	<ul style="list-style-type: none"> <li>— "OPERATION STROKE COUNTER" (lib/ds/report/persist-operation-strokes)</li> </ul>
FR_DS_WORKPLACE_ATTRIB_TL	<ul style="list-style-type: none"> <li>— "ATTRIBUTE TIMELINE" (lib/ds/report/attribute-timelines)</li> </ul>
FR_DS_WORKPLACE_BASE_TL	<ul style="list-style-type: none"> <li>— "WORKPLACE BASE TL" (lib/ds/report/workplace-base-timeline)</li> </ul>
FR_DS_WORKPLACE_QUANTITY_LE	<ul style="list-style-type: none"> <li>— "LINKED ELEMENTS" (lib/ds/report/linked-elements)</li> <li>— "LINKED ELEMENTS LEADING OPERATION ONLY" (lib/ds/report/linked-elements-leading-op-only)</li> <li>— "CLAMPING LINKED ELEMENTS" (lib/ds/report/clamping-linked-elements)</li> <li>— "PERSIST MACHINE COUNTS" (lib/ds/report/persist-machine-counts)</li> </ul>
FR_DS_WORKPLACE_STROKE_LE	<ul style="list-style-type: none"> <li>— "LINKED ELEMENTS" (lib/ds/report/linked-elements)</li> <li>— "LINKED ELEMENTS LEADING OPERATION ONLY" (lib/ds/report/linked-elements-leading-op-only)</li> </ul>

## Reporting and Logic

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Reporting Base Data	Logic Components
	<ul style="list-style-type: none"><li>— "CLAMPING LINKED ELEMENTS" (lib/ds/report/clamping-linked-elements)</li><li>— "PERSIST MACHINE COUNTS" (lib/ds/report/persist-machine-counts)</li><li>—</li></ul>

## 3 Views and Tables

### 3.1 View Systematic

#### 3.1.1 Masterdata

Naming schema (V\_MD\_\* → View Masterdata)

- V\_MD\_SHIFT
- V\_MD\_ORDER
- V\_MD\_OPERATION
- V\_MD\_WORKPLACE
- V\_MD\_TIMEBASE\_ENTRY
- V\_MD\_MALFUNCTION\_REASON\_VEC1
- V\_MD\_OPERATING\_STATE\_CLASS

#### 3.1.2 Utility

Naming schema (V\_C\_\* → View Compressed)

Workplace related	Operation related
	<b>V_C_OPERATION_TIMESTAMPS</b> Start and end times of the different phases of an operation (grouped by operation). Use for determine minimal start time, maximal end time and duration of each phase

#### 3.1.3 Present

Naming schema (V\_ST\_\* → View Status)

Workplace related	Operation related
<b>V_ST_WORKPLACE</b> Current operating state	<b>V_ST_OPERATION</b> Current operating state
	<b>V_ST_OPERATION_DETAIL</b> Current operating state and operation details

## Views and Tables

### 3.1.4 Archiving - Views and their counterpart tables

View	Table
<b>OPERATION_BASE_SUM</b> Operation operating state timeline grouped by operation, workplace, shift, and operating state Aggregates duration, number occurrences of certain status detail	<b>OPERATION_BASE_ARC_SUM</b> Operation operating state timeline grouped by operation, workplace, shift, and operating state Aggregated duration
<b>OPERATION_QUANTITY_SUM</b> Operation operating state timeline together with quantity information grouped by workplace, shift, operating state, quantity type and reason Aggregates quantities	<b>OPERATION_QUANTITY_ARC_SUM</b> Operation operating state timeline together with quantity information grouped by workplace, shift, operating state, quantity type and reason Aggregated quantities
<b>OPERATION_STROKE_SUM</b> Operation operating state timeline together with stroke information grouped by workplace, shift, operating state Aggregates strokes	<b>OPERATION_STROKE_ARC_SUM</b> Operation operating state timeline together with stroke information grouped by workplace, shift, operating state Aggregated strokes
<b>PERS_OPERATION_BASE_SUM</b> Operation operating state timeline where person is signed on grouped by operation, workplace, shift, operating state, person, and person weighting Aggregates duration, number occurrences of certain status detail	<b>PERS_OPERATION_BASE_ARC_SUM</b> Operation operating state timeline where person is signed on grouped by operation, workplace, shift, operating state, person, and person weighting Aggregated duration, number occurrences of certain status detail
<b>WORKPLACE_BASE_SUM</b> Workplace operating state timeline grouped by workplace, shift, operating state Aggregates duration, number occurrences of certain status detail	<b>WORKPLACE_BASE_ARC_SUM</b> Workplace operating state timeline grouped by workplace, shift, operating state Aggregated duration, number occurrences of certain status detail
<b>WORKPLACE_QUANTITY_SUM</b> Workplace operating state timeline together with quantity information grouped by workplace, shift, operating state, quantity type and reason Aggregates quantities	<b>WORKPLACE_QUANTITY_ARC_SUM</b> Workplace operating state timeline together with quantity information grouped by workplace, shift, operating state, quantity type and reason Aggregated quantities
<b>WORKPLACE_STROKE_SUM</b>	<b>WORKPLACE_STROKE_ARC_SUM</b>

## Views and Tables

View	Table
Workplace operating state timeline together with stroke information grouped by workplace, shift, operating state	Workplace operating state timeline together with stroke information grouped by workplace, shift, operating state
Aggregates strokes	Aggregated strokes

### 3.1.5 Historical data without archived data, sometimes aggregated - Historical Data 1

Naming schema ( $V\_TL\_* \rightarrow$  View Timeline)

Workplace related	Operation related	Person related
<b>V_TL_WORKPLACE</b>  Workplace operating states with aggregated quantities and strokes for each individual operation state and shift  Aggregates quantities (but not operating states)	<b>V_TL_OPERATION</b>  Operation operating states with aggregated quantities and strokes for each individual operation state and shift  Aggregates quantities (but not operating states)	<b>V_TL_PERS_OPERATION_BASE</b>  (V_TL_PERS_WOKRPLACE_BAS E not supported any more)
<b>V_TL_WORKPLACE_QUANTITY</b>  Workplace related quantities together with information about the operating state that was valid at the time of quantity creation	<b>V_TL_OPERATION_QUANTITY</b>  Operation related quantities together with information about the operating state that was valid at the time of quantity creation	
<b>V_TL_WORKPLACE_STROKE</b>  Workplace related strokes together with information about the operating state that was valid at the time of stroke creation	<b>V_TL_OPERATION_STROKE</b>  Operation related strokes together with information about the operating state that was valid at the time of stroke creation	
<b>V_TL_WORKPLACE_ATTRIB</b>  User defined specific workplace timeline attributes, e.g. stroke factor	<b>V_TL_OPERATION_ATTRIB</b>  User defined specific workplace timeline attributes, e.g. stroke factor	
	<b>V_TL_OPERATION_BASE_OP</b>  Operation operating states grouped by workplace, operation, operation status, operation phase, status detail (Shifts are not in the grouping set, i.e. two shift can be grouped together, if there are no operating state changes)	

## Views and Tables

Workplace related	Operation related	Person related
	<b>V_TL_OPERATION_QUANTITY_OP _LE</b> Quantities grouped by workplace, operation, operation status, operation phase, status detail, and quantity type (To get the real produced quantities of an operation)	

### 3.1.6 Historical data including archived data, aggregated - Historical Data 2

Naming schema (V\_SC\_\* → View Shift Compressed)

Workplace related grouped by shift, ...	Operation related grouped by shift, ...	Person related grouped by shift, ...
<b>V_SC_WORKPLACE_BASE</b> Operating State compression grouped by workplace, shift, workplace status, workplace phase, status detail (malfunction reason vector)  Aggregates duration, number occurrences of certain status detail	<b>V_SC_OPERATION_BASE</b> Operating State compression grouped by workplace, operation, shift, operation status, operation phase, status detail  Aggregates duration, number occurrences of certain status detail	<b>V_SC_PERS_OPERATION_BASE</b> Operating State compression grouped by workplace, operation, person, person status, shift, operation status, operation phase, status detail  Aggregates duration, weighted duration, number occurrences of certain status detail  (V_SC_PERS_WOKRPLACE_BASE not supported any more)
<b>V_SC_WORKPLACE_QUANTITY</b> Quantity compression grouped by workplace, shift, workplace status, workplace phase, status detail (malfunction reason vector), quantity type and quantity reason  Aggregates quantities	See SQL in the annex: Historical data including archived data, aggregated - Historical Data 2	<b>V_SC_PERS_OPERATION_QUANTITY</b> Quantity compression grouped by workplace, shift, operation status, operation phase, status detail (malfunction reason vector), quantity type, quantity reason and person  Aggregates quantities

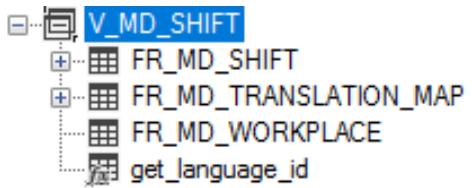
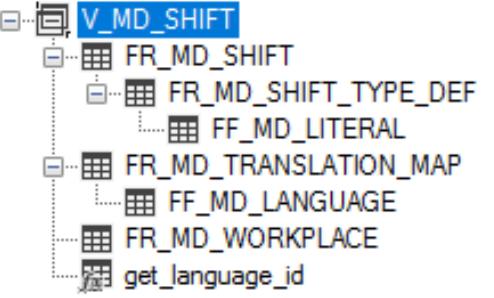
## Views and Tables

<b>V_SC_WORKPLACE_QUANTITY_SUM</b> Quantity compression grouped by workplace, shift, workplace status, workplace phase, status detail (malfunction reason vector)  Aggregates quantities (additional by type), strokes, durations and number occurrences of certain status detail	<b>V_SC_OPERATION_QUANTITY_SUM</b> Quantity compression grouped by workplace, operation, shift, operation status, operation phase, status detail (malfunction reason vector)  Aggregates quantities (additional by type), strokes, durations and number occurrences of certain status detail	
<b>V_SC_WORKPLACE_STROKE</b> Stroke compression grouped by workplace, shift, workplace status, workplace phase, status detail (malfunction reason vector)  Aggregates strokes	<b>V_SC_OPERATION_STROKE</b> Stroke compression grouped by workplace, operation, shift, operation status, operation phase, status detail (malfunction reason vector)  Aggregates strokes	
<b>V_SC_WORKPLACE_OEE</b> OEE relevant information grouped by workplace and shift		

## 3.2 Views

### 3.2.1 Masterdata

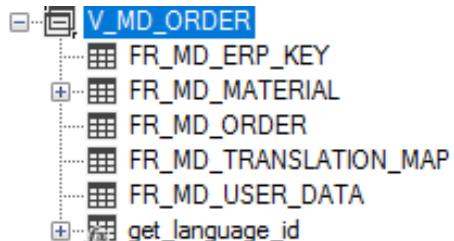
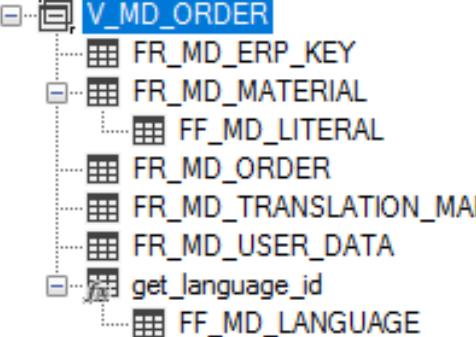
#### V\_MD\_SHIFT

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
Wraps shift data with some more information	SHIFT_ID ASSOCIATED_DAY_TS ASSOCIATED_DAY_TS_YEAR ASSOCIATED_DAY_TS_MONTH ASSOCIATED_DAY_TS_WEEK ASSOCIATED_DAY_TS_ISOYEAR ASSOCIATED_DAY_TS_ISOWEEK ASSOCIATED_DAY_TS_DATE ASSOCIATED_DAY_TS_DATETIME START_TS START_TS_YEAR START_TS_MONTH START_TS_WEEK START_TS_ISOYEAR START_TS_ISOWEEK START_TS_DATE START_TS_DATETIME END_TS END_TS_YEAR END_TS_MONTH END_TS_WEEK			211

## Views and Tables

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
	END_TS_ISOYEAR END_TS_ISOWEEK END_TS_DATE END_TS_DATETIME TYPE_CODE TYPE_SORT_ORDER NONWORKING_SHIFT_TYPE TYPE_TEXT TYPE_SHORTTEXT WORKPLACE_ID WORKPLACE_SORT_ORDER			

## V\_MD\_ORDER

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
Wraps order data with some more information	ORDER_ID ERP_STATUS ACTIVE ORDER_NUMBER ORDER_PRIORITY ORDER_SPLIT PLANNER_GROUP_IN_CHARGE DISPLAY_QUANTITY_UNIT PRODUCTION_VERSION RELEASE_DATE TARGET_END			17

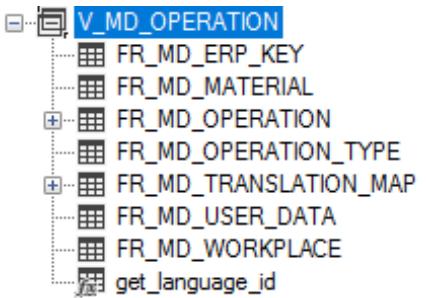
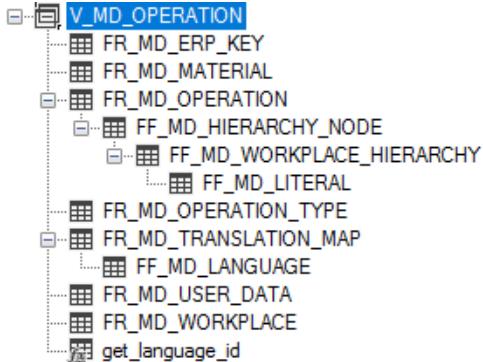
## Views and Tables

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Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
	TARGET_QUANTITY TARGET_START SCHEDULED_START_DATE SCHEDULED_END_DATE CLIENT COMPANY_CODE PLANT ERP_SYSTEM MATERIAL_NUMBER MATERIAL_TYPE MATERIAL_ID MATERIAL_TEXT UF_01 - UF_50 TEXT			

## Views and Tables

### V\_MD\_OPERATION

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
Wraps order data with some more information	OPERATION_ID ERP_STATUS ACTIVE BLOCK_NUMBER CONFIRMATION_NUMBER CONTROL_KEY COUNTER_NUMBER DEFAULT_STROKE_FACTOR DEFAULT_TRANSPORT_QUANTITY FUNCTION_TYPE OPERATION_NUMBER OPERATION_SPLIT ORDER_NUMBER ORDER_SPLIT ORDER_TYPE TYPE_COLOR TYPE_ERP_CODE TYPE_TEXT OVERDELIVERY_CHECK OVERDELIVERY_QUANTITY UNDERDELIVERY_CHECK UNDERDELIVERY_QUANTITY TARGET_END_DATE TARGET_QUANTITY TARGET_SETUP_TIME TARGET_START_DATE TIME_PER_UNIT TIME_PER_STROKE			236

## Views and Tables

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Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
	LEADING_OPERATION ERP_PLANNED_SCRAP_QUANTITY ERP_REWORK_QUANTITY ERP_SCRAP_QUANTITY ERP_YIELD_QUANTITY ALTERNATE_OPERATION_NUMBER DISPLAY_QUANTITY_UNIT PRODUCTION_VERSION OPERATION_SEQUENCE STANDARD_UNIT_1 STANDARD_UNIT_2 STANDARD_UNIT_3 STANDARD_UNIT_4 STANDARD_UNIT_5 STANDARD_UNIT_6 STANDARD_VALUE_1 STANDARD_VALUE_2 STANDARD_VALUE_3 STANDARD_VALUE_4 STANDARD_VALUE_5 STANDARD_VALUE_6 STANDARD_VALUE_1_MS STANDARD_VALUE_2_MS STANDARD_VALUE_3_MS STANDARD_VALUE_4_MS STANDARD_VALUE_5_MS STANDARD_VALUE_6_MS USER_STATUS WORKPLACE_GROUP DEFAULT_PIECE_TIME_FACTOR			

## Views and Tables

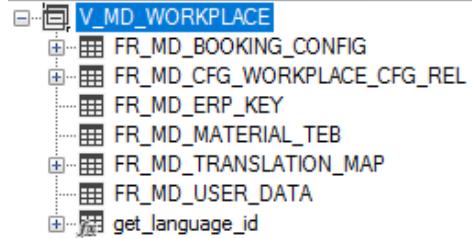
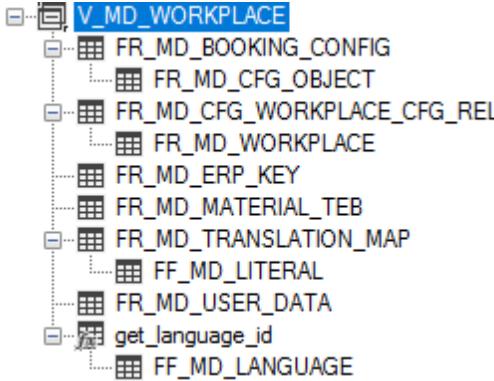
---

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
	LATEST_END_DATE SCHEDULED_START_DATE SCHEDULED_END_DATE EARLIEST_END_DATE LATEST_START_DATE EARLIEST_START_DATE TARGET_QUEUE_TIME TARGET_PROCESSING_TIME TARGET_TEARDOWN_TIME TARGET_WAIT_TIME TARGET_MOVE_TIME MIN_SEND_AHEAD_QUANTITY PLANNED_WORKPLACE_GROUP_ID PLANNED_WORKPLACE_ID MINIMUM_OVERLAP_TIME DETAILED_PLANNED TARGET_ERP_START_DATE TARGET_ERP_END_DATE TARGET_WORKGROUP_ID TARGET_WORKGROUP_ERP_ID TARGET_WORKPLACE_ERP_ID CLIENT COMPANY_CODE PLANT ERP_SYSTEM AUTO_START_ID MATERIAL_ID MATERIAL_NUMBER MATERIAL_TYPE MATERIAL_TEXT			

## Views and Tables

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
	UF_01 - UF_50 ORDER_ID TEXT OPERATION_TEXT WP_TARGET_NAME WP_TARGET_TEXT WORKGROUP_TARGET_TEXT WP_TARGET_ERP_NAME WP_TARGET_ERP_TEXT			

## V\_MD\_WORKPLACE

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
Wraps workplace data with some more information	WORKPLACE_ID ACTIVE NAME WORKPLACE_SORT_ORDER CLIENT COMPANY_CODE PLANT UF_01 - UF_50 TEXT BOOKING_TYPE_CODE CURE_PERIOD CURE_PERIOD_FACTOR ERP_CYCLE_TIME			107

## Views and Tables

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
	ERP_UPLOAD_ACTIVE SHIFT_DAY_CHANGE_OFFSET PIECE_TIME_UNIT PIECE_TIME_VALUE PIECE_VALUE			

## V\_MD\_TIMEBASE\_ENTRY

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
Wraps timbase entry data with some more information	TIMEBASE_ID PHASE_ID STATUS_ID MALFUNCTION_REASON_ID OPERATING_STATUS_ID EXPAND_CONDITION ORIGINAL_PHASE_ID ORIGINAL_STATUS_ID ORIGINAL_MFR_ID	<ul style="list-style-type: none"> <li>□ V_MD_TIMEBASE_ENTRY           <ul style="list-style-type: none"> <li>FF_MD_MALFUNCTION_LEVEL</li> <li>FF_MD_MALFUNCTION_LEVEL_REL               <ul style="list-style-type: none"> <li>FR_MD_MALFUNCTION_REASON</li> </ul> </li> <li>FR_MD_OPERATION_PHASE_DEF               <ul style="list-style-type: none"> <li>FF_MD_LITERAL</li> </ul> </li> <li>FR_MD_OPERATION_STATUS_DEF</li> <li>FR_MD_TIMEBASE_ENTRY</li> <li>FR_MD_WORKPLACE_PHASE_DEF</li> <li>FR_MD_WORKPLACE_STATUS_DEF</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>□ V_MD_TIMEBASE_ENTRY           <ul style="list-style-type: none"> <li>FF_MD_MALFUNCTION_LEVEL</li> <li>FF_MD_MALFUNCTION_LEVEL_REL               <ul style="list-style-type: none"> <li>FR_MD_MALFUNCTION_REASON</li> </ul> </li> <li>FR_MD_OPERATION_PHASE_DEF               <ul style="list-style-type: none"> <li>FF_MD_LITERAL</li> </ul> </li> <li>FR_MD_OPERATION_STATUS_DEF</li> <li>FR_MD_TIMEBASE_ENTRY</li> <li>FR_MD_WORKPLACE_PHASE_DEF</li> <li>FR_MD_WORKPLACE_STATUS_DEF</li> </ul> </li> </ul>	168

## Views and Tables

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### V\_MD\_MALFUNCTION\_REASON\_VEC

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
Gets data for status reason (malfunction reason) on all levels from the status reason vector (malfunction reason vector)	MFR_VECTOR_ID MFR1_ID MFR2_ID MFR3_ID MFR4_ID MFR5_ID MFR6_ID MFR7_ID MFR1_CODE MFR2_CODE MFR3_CODE MFR4_CODE MFR5_CODE MFR6_CODE MFR7_CODE MFR1_COLOR MFR2_COLOR MFR3_COLOR MFR4_COLOR MFR5_COLOR MFR6_COLOR MFR7_COLOR MFR1_MNEMONIC MFR2_MNEMONIC MFR3_MNEMONIC MFR4_MNEMONIC MFR5_MNEMONIC MFR6_MNEMONIC	— FR_MD_MALFUNCTION_REASON — FR_MD_MALFUNCTION_REASON_VEC — FR_MD_TRANSLATION_MAP — FF_MD_LANGUAGE — FF_MD_LITERAL — get_language_id	— FR_MD_MALFUNCTION_REASON — FR_MD_MALFUNCTION_REASON_VEC — FR_MD_TRANSLATION_MAP — FF_MD_LANGUAGE — FF_MD_LITERAL — get_language_id	28

## Views and Tables

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
	MFR7_MNEMONIC MFR1_TEXT MFR2_TEXT MFR3_TEXT MFR4_TEXT MFR5_TEXT MFR6_TEXT MFR7_TEXT MFR1_SHORTTEXT MFR2_SHORTTEXT MFR3_SHORTTEXT MFR4_SHORTTEXT MFR5_SHORTTEXT MFR6_SHORTTEXT MFR7_SHORTTEXT			

## V\_MD\_MALFUNCTION\_REASON\_VEC1

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
<b>Gets data for status reason (malfunction reason) on level 1 from the status</b>	MFR_VECTOR_ID CODE_1 COLOR_1 MNEMONIC_1 SORT_ORDER_1 MFR1_TEXT MFR1_SHORTTEXT	<ul style="list-style-type: none"> <li>□ V_MD_MALFUNCTION_REASON_VEC1           <ul style="list-style-type: none"> <li>□ V_MD_MALFUNCTION_REASON_VEC1</li> <li>□ FR_MD_MALFUNCTION_REASON</li> <li>□ FR_MD_MALFUNCTION_REASON_VEC</li> <li>□ FR_MD_TRANSLATION_MAP           <ul style="list-style-type: none"> <li>□ FF_MD_LANGUAGE</li> <li>□ FF_MD_LITERAL</li> </ul> </li> <li>□ get_language_id</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>□ V_MD_MALFUNCTION_REASON_VEC1</li> <li>□ FR_MD_MALFUNCTION_REASON</li> <li>□ FR_MD_MALFUNCTION_REASON_VEC</li> <li>□ FR_MD_TRANSLATION_MAP           <ul style="list-style-type: none"> <li>□ FF_MD_LANGUAGE</li> <li>□ FF_MD_LITERAL</li> </ul> </li> <li>□ get_language_id</li> </ul>	59

Views and Tables

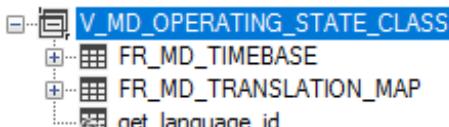
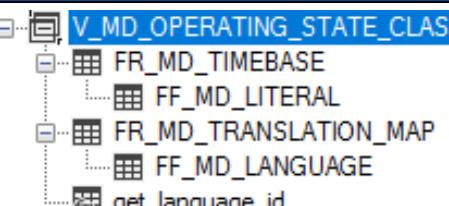
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Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
reason vector (malfunction reason vector)				

## Views and Tables

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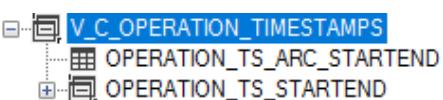
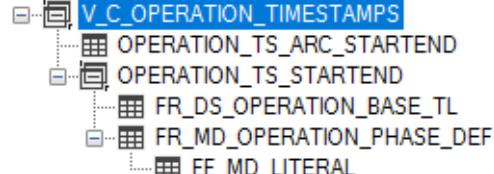
### V\_MD\_OPERATING\_STATE\_CLASS

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
Wraps operating state class data with some more information	STATE_CLASS_ID STATE_CLASS_MNEMONIC STATE_CLASS_SORT_ORDER STATE_CLASS_COLOR STATE_CLASS_TEXT STATE_CLASS_SHORTTEXT	 <pre> graph TD     A[V_MD_OPERATING_STATE_CLASS] --&gt; A     A --&gt; B[FR_MD_TIMEBASE]     A --&gt; C[FR_MD_TRANSLATION_MAP]     A --&gt; D[get_language_id]     B --&gt; E[FF_MD_LITERAL]     C --&gt; F[FF_MD_LANGUAGE]     D --&gt; G[get_language_id]   </pre>	 <pre> graph TD     A[V_MD_OPERATING_STATE_CLASS] --&gt; B[FR_MD_TIMEBASE]     A --&gt; C[FR_MD_TRANSLATION_MAP]     A --&gt; D[get_language_id]     B --&gt; E[FF_MD_LITERAL]     C --&gt; F[FF_MD_LANGUAGE]     D --&gt; G[get_language_id]   </pre>	15

## Views and Tables

### 3.2.2 Utility

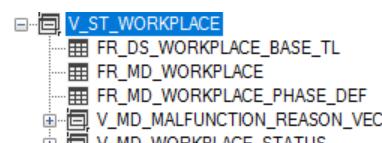
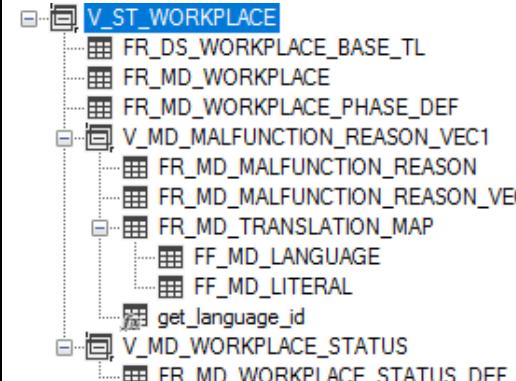
#### V\_C\_OPERATION\_TIMESTAMPS

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports	SQL
<p><b>Start and end times of the different phases of an operation (grouped by operation).</b>  <b>Use for determine minimal start time, maximal end time and duration of each phase</b></p>	OPERATION_ID SETUP_START_TS SETUP_END_TS PRODUCTION_START_TS PRODUCTION_END_TS TRAINING_START_TS TRAINING_END_TS TOTAL_START_TS TOTAL_END_TS			39	See SQL in the annex: Utility

## Views and Tables

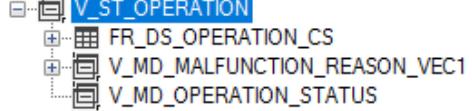
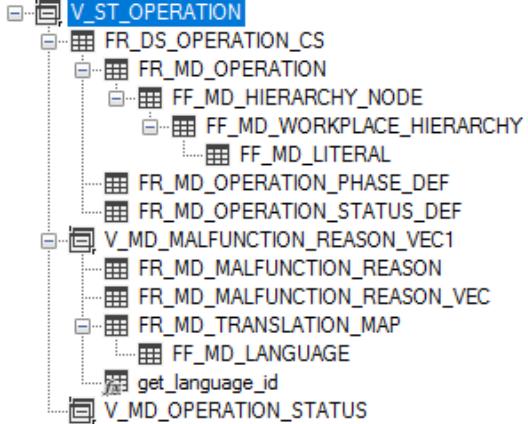
### 3.2.3 Present

#### V\_ST\_WORKPLACE

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports	SQL
Current operating state	WORKPLACE_STATUS_ID WORKPLACE_SORT_ORDER STATUS_CODE STATUS_COLOR STATUS_MNEMONIC STATUS_SORT_ORDER STATUS_TEXT STATUS_SHORTTEXT WORKPLACE_PHASE_ID PHASE_CODE PHASE_COLOR PHASE_MNEMONIC PHASE_SORT_ORDER PHASE_TEXT PHASE_SHORTTEXT WORKPLACE_ID MFR_VECTOR_ID SHIFT_ID OPERATING_STATUS_ID OPERATING_STATUS_COLOR OPERATING_STATUS_MNEMONIC OPERATING_STATUS_SORT_ORDER OPERATING_STATUS_TEXT OPERATING_STATUS_SHORTTEXT			30	See SQL in the annex: Present

#### V\_ST\_OPERATION

## Views and Tables

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
Current operating state	OPERATION_STATUS_ID STATUS_CODE STATUS_COLOR STATUS_MNEMONIC STATUS_SORT_ORDER STATUS_TEXT STATUS_SHORTTEXT OPERATION_PHASE_ID PHASE_CODE PHASE_COLOR PHASE_MNEMONIC PHASE_SORT_ORDER PHASE_TEXT PHASE_SHORTTEXT OPERATION_ID WORKPLACE_ID MFR_VECTOR_ID OPERATING_STATUS_ID OPERATING_STATUS_COLOR OPERATING_STATUS_MNEMONIC OPERATING_STATUS_SORT_ORDER OPERATING_STATUS_TEXT OPERATING_STATUS_SHORTTEXT			93

## Views and Tables

### V\_ST\_OPERATION\_DETAIL

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
Current operating state and operation details	ID ACTIVE ERP_PLANNED_SCRAP_QUANTITY ERP_REWORK_QUANTITY ERP_SCRAP_QUANTITY ERP_STATUS ERP_STATUS_IDS ERP_STATUS_LA ERP_YIELD_QUANTITY ALTERNATE_OPERATION_NUMBER BLOCK_DESCRIPTION_ID BLOCK_NUMBER CONFIRMATION_NUMBER CONTROL_KEY COUNTER_NUMBER DEFAULT_PIECE_TIME_FACTOR DEFAULT_STROKE_FACTOR DEFAULT_TRANSPORT_QUANTITY DESCRIPTION_ID DISPLAY_QUANTITY_UNIT ERP_KEY_ID FUNCTION_TYPE LEADING_OPERATION MATERIAL_ID OPERATION_NUMBER OPERATION_SPLIT OPERATIONTEXT_ID ORDER_ID	<ul style="list-style-type: none"> <li>↳ V_ST_OPERATION_DETAIL</li> <li>↳ V_ST_OPERATION</li> <li>↳ V_TLSC_OPERATION_DURATION</li> <li>↳ V_TLSC_OPERATION_QUANTITY</li> <li>↳ V_TLSC_OPERATION_START_END</li> </ul>	<ul style="list-style-type: none"> <li>↳ V_ST_OPERATION_DETAIL</li> <li>↳ FF_MD_TOOL_ASM_STATUS_DEF</li> <li>↳ get_translation_text</li> <li>↳ FF_MD_LITERAL_CONFIG</li> <li>↳ FF_MD_LITERAL_TRANSLATION</li> <li>↳ FF_MD_LITERAL_TEXT</li> <li>↳ V_MD_MALFUNCTION_REASON_VEC</li> <li>↳ V_ST_OPERATION</li> <li>↳ FR_DS_OPERATION_CS</li> <li>↳ FR_MD_OPERATION</li> <li>↳ FR_MD_OPERATION_PHASE_DEF</li> <li>↳ FR_MD_OPERATION_STATUS_DEF</li> <li>↳ V_MD_MALFUNCTION_REASON_VEC1</li> <li>↳ FR_MD_MALFUNCTION_REASON</li> <li>↳ FR_MD_MALFUNCTION_REASON_VEC</li> <li>↳ FR_MD_TRANSLATION_MAP</li> <li>↳ FF_MD_LANGUAGE</li> <li>↳ get_language_id</li> <li>↳ V_MD_OPERATION_STATUS</li> <li>↳ V_TLSC_OPERATION_DURATION</li> <li>↳ FR_DS_OPERATION_BASE_TL</li> <li>↳ OPERATION_BASE_ARC_SUM</li> <li>↳ V_TLSC_OPERATION_QUANTITY</li> <li>↳ FR_DS_OPERATION_QUANTITY_LE</li> <li>↳ FR_MD_OPERATION_QUANTITY_TYPE</li> <li>↳ OPERATION_QUANTITY_ARC_SUM</li> <li>↳ V_TLSC_OPERATION_START_END</li> <li>↳ OPERATION_TS_ARC_STARTEND</li> </ul>	9

## Views and Tables

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Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
	ORDER_NUMBER ORDER_SPLIT ORDER_TYPE OVERDELIVERY_CHECK OVERDELIVERY_QUANTITY PRODUCTION_VERSION OPERATION_SEQUENCE STANDARD_UNIT_1 STANDARD_UNIT_2 STANDARD_UNIT_3 STANDARD_UNIT_4 STANDARD_UNIT_5 STANDARD_UNIT_6 STANDARD_VALUE_1 STANDARD_VALUE_1_MS STANDARD_VALUE_2 STANDARD_VALUE_2_MS STANDARD_VALUE_3 STANDARD_VALUE_3_MS STANDARD_VALUE_4 STANDARD_VALUE_4_MS STANDARD_VALUE_5 STANDARD_VALUE_5_MS STANDARD_VALUE_6 STANDARD_VALUE_6_MS TARGET_END_DATE TARGET_QUANTITY TARGET_SETUP_TIME TARGET_START_DATE TARGET_WORKGROUP_ID			

## Views and Tables

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Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
	TARGET_WORKPLACE_ID TARGET_WORKPLACE_ERP_ID TIME_PER_STROKE TIME_PER_UNIT TOOL_ASM_STATUS UNDERDELIVERY_CHECK UNDERDELIVERY_QUANTITY USER_DATA_ID USER_STATUS WORKPLACE_GROUP PHASE STATUS PHASE_CODE OPERATING_STATE MFR1_SHORTTEXT MFR2_SHORTTEXT MFR3_SHORTTEXT MFR4_SHORTTEXT MFR5_SHORTTEXT MFR6_SHORTTEXT MFR7_SHORTTEXT PHASE_SETUP_DURATION PHASE_PROD_DURATION YIELD_QTY SCRAP_QTY REWORK_QTY OPERATION_ID TOTAL_START_TS TOTAL_END_TS AUTO_START_ID			

## Views and Tables

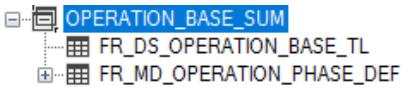
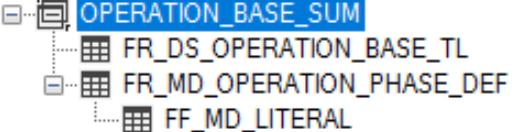
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Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
	WORKPLACE_ID OPERATING_STATUS_ID OPERATION_STATUS_ID OPERATION_PHASE_ID			

## Views and Tables

### 3.2.4 Archiving

#### OPERATION\_BASE\_SUM

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports	SQL
<b>Operation operating state timeline grouped by operation, workplace, shift, and operating state Aggregates duration</b>	ID WORKPLACE_ID SHIFT_ID OPERATION_ID OPERATION_STATUS_ID OPERATION_PHASE_ID MALFUNCTION_REASON_VECTOR_ID SUM_DURATION CNT_OCCURRENCE START_TS END_TS FROM_LAST_SHIFT CHANGE_TS			6	See SQL in the annex: Archiving

## Views and Tables

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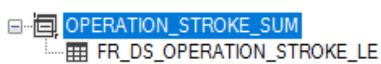
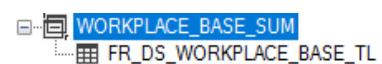
### OPERATION\_QUANTITY\_SUM

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports	SQL	
<b>Operation operating state timeline together with quantity information grouped by workplace, shift, operating state, quantity type and reason Aggregates quantities</b>	ID WORKPLACE_ID SHIFT_ID OPERATION_ID OPERATION_STATUS_ID OPERATION_PHASE_ID MALFUNCTION_REASON_VECTOR_ID QUANTITY_TYPE_ID QUANTITY_TYPE_REASON_ID START_TS SUM_AMOUNT CHANGE_TS		<ul style="list-style-type: none"> <li>□ ... □ <b>OPERATION_QUANTITY_SUM</b> <ul style="list-style-type: none"> <li>□ FR_DS_OPERATION_QUANTITY_LE</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>□ ... □ <b>OPERATION_STROKE_SUM</b> <ul style="list-style-type: none"> <li>□ FR_DS_OPERATION_STROKE_LE</li> </ul> </li> </ul>	6	See SQL in the annex: Archiving

## Views and Tables

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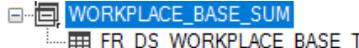
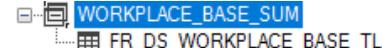
### OPERATION\_STROKE\_SUM

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports	SQL
<b>Operation operating state timeline together with stroke information grouped by workplace, shift, operating state Aggregates strokes</b>	WORKPLACE_ID SHIFT_ID OPERATION_ID OPERATION_STATUS_ID OPERATION_PHASE_ID MALFUNCTION_REASON_VECTOR_ID START_TS NUMBER_OF_STROKES CHANGE_TS			0 used by: — V_SC_OPERATIO_N_QUANTITY_SUM — V_SC_OPERATIO_N_STROKE	See SQL in the annex: Archiving

## Views and Tables

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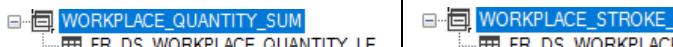
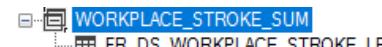
### WORKPLACE\_BASE\_SUM

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports	SQL
<p><b>Workplace operating state timeline grouped by workplace, shift, operating state</b></p> <p><b>Aggregates duration, number occurrences of certain status detail</b></p>	ID WORKPLACE_ID SHIFT_ID WORKPLACE_STATUS_ID WORKPLACE_PHASE_ID MALFUNCTION_REASON_VECTOR_ID SUM_DURATION CNT_OCCURRENCE START_TS END_TS FROM_LAST_SHIFT CHANGE_TS			6	See SQL in the annex: Archiving

## Views and Tables

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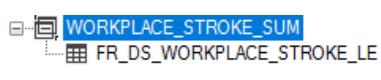
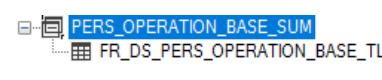
### WORKPLACE\_QUANTITY\_SUM

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports	SQL
<b>Workplace operating state timeline together with quantity information grouped by workplace, shift, operating state, quantity type and reason Aggregates quantities</b>	ID WORKPLACE_ID SHIFT_ID WORKPLACE_STATUS_ID WORKPLACE_PHASE_ID MALFUNCTION_REASON_VECTOR_ID QUANTITY_TYPE_ID QUANTITY_TYPE_REASON_ID START_TS SUM_AMOUNT CHANGE_TS			0 used by: — V_SC_WORKPLAC E_QUANTITY — V_SC_WORKPLAC E_QUANTITY_SU M	See SQL in the annex: Archiving

## Views and Tables

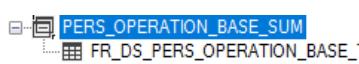
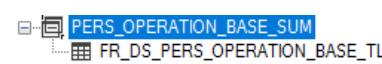
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### WORKPLACE\_STROKE\_SUM

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports	SQL
<b>Workplace operating state timeline together with stroke information grouped by workplace, shift, operating state Aggregates strokes</b>	ID WORKPLACE_ID SHIFT_ID WORKPLACE_STATUS_ID WORKPLACE_PHASE_ID MALFUNCTION_REASON_VECTOR_ID START_TS NUMBER_OF_STROKES CHANGE_TS			0 used by: — V_SC_WORKPLACE_QUANTITY_SUM — V_SC_WORKPLACE_STROKE	See SQL in the annex: Archiving

## Views and Tables

### PERS\_OPERATION\_BASE\_SUM

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports	SQL
<p><b>Operation operating state timeline where person is signed on grouped by operation, workplace, shift, operating state, person, and person weighting Aggregates duration, number occurrences of certain status detail</b></p>	ID WORKPLACE_ID SHIFT_ID OPERATION_ID OPERATION_STATUS_ID OPERATION_PHASE_ID MALFUNCTION_REASON_VECTOR_ID PERSON_ID PERSON_STATUS_ID SUM_DURATION CNT_OCCURRENCE START_TS END_TS FROM_LAST_SHIFT PERCENT_WEIGHTING CHANGE_TS			0 used by: — V_SC_PERS_OP_QUANTITY_SUM — V_SC_PERS_OPERATION_BASE	See SQL in the annex: Archiving

## Views and Tables

### 3.2.5 Historical Data 1

#### V\_TL\_WOKRPLACE

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
<p><b>Workplace operating states with aggregated quantities and strokes for each individual operation state and shift</b></p> <p><b>Aggregates quantities (but not operating states)</b></p>	BASE_INTERVAL_ID WORKPLACE_ID WORKPLACE_SORT_ORDER SHIFT_ID MFR_VECTOR_ID PHASE_ID STATUS_ID TICKET_ID START_TS END_TS QTY YIELD_QTY SCRAP_QTY REWORK_QTY NUMBER_OF_STROKES DURATION FROM_LAST_SHIFT ANNOTATION GENERIC_VALUE_1 GENERIC_VALUE_2 GENERIC_VALUE_3 GENERIC_VALUE_4 GENERIC_VALUE_5 NUMBER_ACTIVE_OPERATIONS NUMBER_ASSIGNED_PERSONS STROKE_FACTOR	<ul style="list-style-type: none"> <li>... V_TL_WORKPLACE           <ul style="list-style-type: none"> <li>FR_DS_WORKPLACE_BASE_TL</li> <li>FR_DS_WORKPLACE_QUANTITY_LE</li> <li>FR_DS_WORKPLACE_STROKE_LE</li> <li>FR_MD_OPERATION_QUANTITY_TYPE</li> <li>FR_MD_WORKPLACE</li> <li>FR_MD_WORKPLACE_PHASE_DEF</li> <li>V_MD_MALFUNCTION_REASON_VEC1           <ul style="list-style-type: none"> <li>FR_MD_MALFUNCTION_REASON</li> <li>FR_MD_MALFUNCTION_REASON_VEC</li> </ul> </li> <li>FR_MD_TRANSLATION_MAP           <ul style="list-style-type: none"> <li>FF_MD_LANGUAGE</li> <li>FF_MD_LITERAL</li> <li>get_language_id</li> </ul> </li> <li>V_MD_WORKPLACE_STATUS</li> <li>FR_MD_WORKPLACE_STATUS_DEF</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>... V_TL_WORKPLACE           <ul style="list-style-type: none"> <li>FR_DS_WORKPLACE_BASE_TL</li> <li>FR_DS_WORKPLACE_QUANTITY_LE</li> <li>FR_DS_WORKPLACE_STROKE_LE</li> <li>FR_MD_OPERATION_QUANTITY_TYPE</li> <li>FR_MD_WORKPLACE</li> <li>FR_MD_WORKPLACE_PHASE_DEF</li> <li>V_MD_MALFUNCTION_REASON_VEC1           <ul style="list-style-type: none"> <li>FR_MD_MALFUNCTION_REASON</li> <li>FR_MD_MALFUNCTION_REASON_VEC</li> </ul> </li> <li>FR_MD_TRANSLATION_MAP           <ul style="list-style-type: none"> <li>FF_MD_LANGUAGE</li> <li>FF_MD_LITERAL</li> <li>get_language_id</li> </ul> </li> <li>V_MD_WORKPLACE_STATUS</li> <li>FR_MD_WORKPLACE_STATUS_DEF</li> </ul> </li> </ul>	30

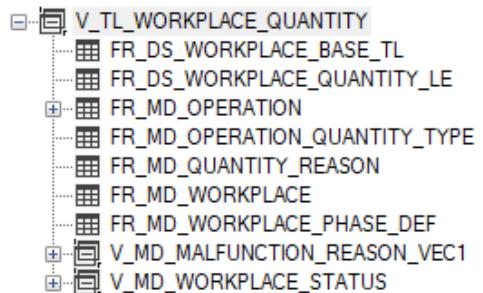
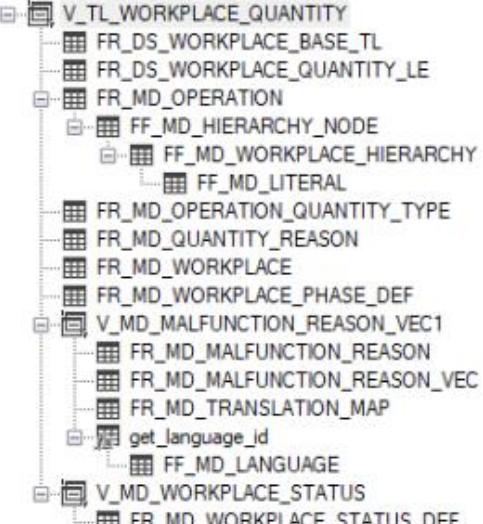
## Views and Tables

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Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
	TIME_PER_UNIT STATUS_CHANGE_IDENTIFIED LEADING_OPERATION_ID STATUS_CODE STATUS_COLOR STATUS_MNEMONIC STATUS_SORT_ORDER STATUS_TEXT STATUS_SHORTTEXT PHASE_CODE PHASE_COLOR PHASE_MNEMONIC PHASE_SORT_ORDER PHASE_TEXT PHASE_SHORTTEXT OPERATING_STATUS_ID OPERATING_STATUS_COLOR OPERATING_STATUS_MNEMONIC OPERATING_STATUS_SORT_ORDER OPERATING_STATUS_TEXT OPERATING_STATUS_SHORTTEXT			

## Views and Tables

### V\_TL\_WORKPLACE\_QUANTITY

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
Workplace related quantities together with information about the operating state that was valid at the time of quantity creation	AMOUNT START_TS END_TS DISPLAY_QUANTITY_UNIT QUANTITY_TYPE_ID QUANTITY_TYPE_REASON_ID CHANGE_TS STATUS_ID STATUS_CODE STATUS_COLOR STATUS_MNEMONIC STATUS_SORT_ORDER STATUS_TEXT STATUS_SHORTTEXT PHASE_ID PHASE_CODE PHASE_COLOR PHASE_MNEMONIC PHASE_SORT_ORDER PHASE_TEXT PHASE_SHORTTEXT QTY_TYPE_CODE QTY_TYPE_COLOR QTY_TYPE_SORT_ORDER QTY_TYPE_TEXT QTY_TYPE_SHORTTEXT QTY_REASON_COLOR QTY_REASON_MNEMONIC			3

## Views and Tables

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	QTY_REASON_SORT_ORDER QTY_REASON_TEXT QTY_REASON_SHORTTEXT WORKPLACE_ID SHIFT_ID MFR_VECTOR_ID OPERATING_STATUS_ID OPERATING_STATUS_COLOR OPERATING_STATUS_MNEMONIC OPERATING_STATUS_SORT_ORDER OPERATING_STATUS_TEXT OPERATING_STATUS_SHORTTEXT			
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## Views and Tables

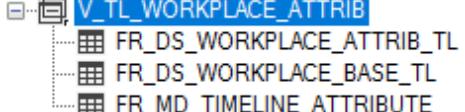
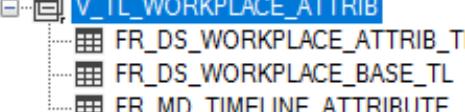
### V\_TL\_WORKPLACE\_STROKE

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
Workplace related strokes together with information about the operating state that was valid at the time of stroke creation	NUMBER_OF_STROKES START_TS END_TS CHANGE_TS STATUS_ID STATUS_CODE STATUS_COLOR STATUS_MNEMONIC STATUS_SORT_ORDER STATUS_TEXT STATUS_SHORTTEXT PHASE_ID PHASE_CODE PHASE_COLOR PHASE_MNEMONIC PHASE_SORT_ORDER PHASE_TEXT PHASE_SHORTTEXT WORKPLACE_ID SHIFT_ID MFR_VECTOR_ID OPERATING_STATUS_ID OPERATING_STATUS_COLOR OPERATING_STATUS_MNEMONIC OPERATING_STATUS_SORT_ORDER OPERATING_STATUS_TEXT OPERATING_STATUS_SHORTTEXT	<ul style="list-style-type: none"> <li>□ V_TL_WORKPLACE_STROKE <ul style="list-style-type: none"> <li>■ FR_DS_WORKPLACE_BASE_TL</li> <li>■ FR_DS_WORKPLACE_STROKE_LE</li> <li>■ FR_MD_WORKPLACE</li> <li>■ FR_MD_WORKPLACE_PHASE_DEF</li> <li>■ V_MD_MALFUNCTION_REASON_VEC1 <ul style="list-style-type: none"> <li>■ FR_MD_MALFUNCTION_REASON</li> <li>■ FR_MD_MALFUNCTION_REASON_VEC</li> </ul> </li> <li>■ FR_MD_TRANSLATION_MAP <ul style="list-style-type: none"> <li>■ FF_MD_LANGUAGE</li> <li>■ FF_MD_LITERAL</li> <li>■ get_language_id</li> </ul> </li> <li>■ V_MD_WORKPLACE_STATUS <ul style="list-style-type: none"> <li>■ FR_MD_WORKPLACE_STATUS_DEF</li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>□ V_TL_WORKPLACE_STROKE <ul style="list-style-type: none"> <li>■ FR_DS_WORKPLACE_BASE_TL</li> <li>■ FR_DS_WORKPLACE_STROKE_LE</li> <li>■ FR_MD_WORKPLACE</li> <li>■ FR_MD_WORKPLACE_PHASE_DEF</li> <li>■ V_MD_MALFUNCTION_REASON_VEC1 <ul style="list-style-type: none"> <li>■ FR_MD_MALFUNCTION_REASON</li> <li>■ FR_MD_MALFUNCTION_REASON_VEC</li> </ul> </li> <li>■ FR_MD_TRANSLATION_MAP <ul style="list-style-type: none"> <li>■ FF_MD_LANGUAGE</li> <li>■ FF_MD_LITERAL</li> <li>■ get_language_id</li> </ul> </li> <li>■ V_MD_WORKPLACE_STATUS <ul style="list-style-type: none"> <li>■ FR_MD_WORKPLACE_STATUS_DEF</li> </ul> </li> </ul> </li> </ul>	0

## Views and Tables

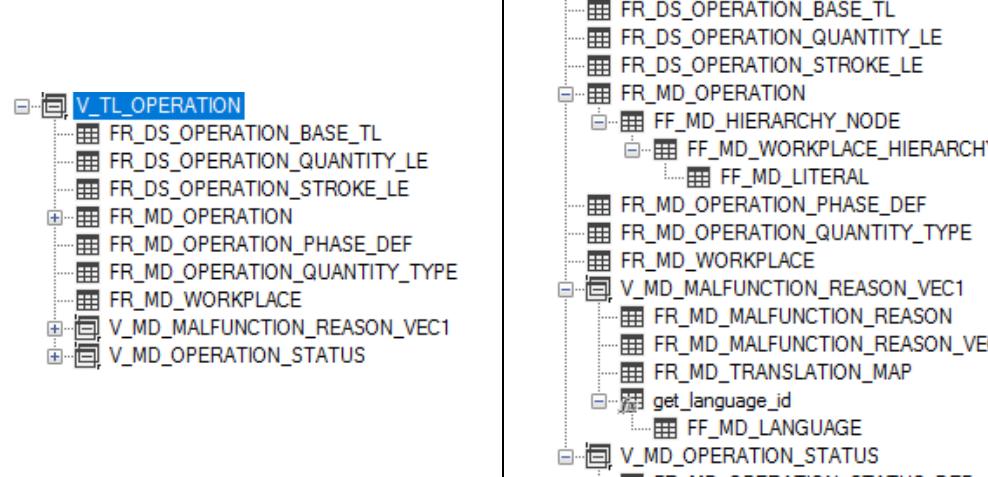
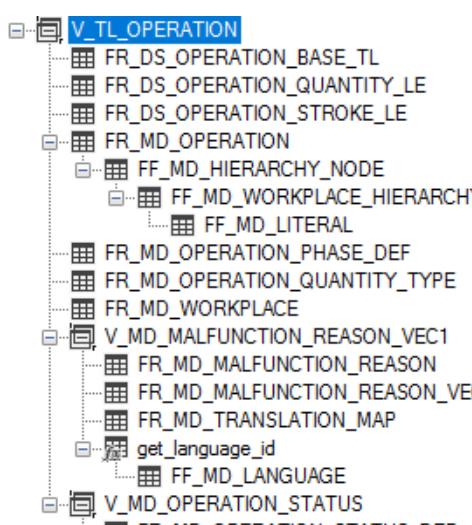
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### V\_TL\_WORKPLACE\_ATTRIB

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
User defined specific workplace timeline attributes, e.g. stroke factor	BASE_INTERVAL_ID DURATION OCCURRENCE CNT_OCCURRENCE START_TS END_TS CHANGE_TS ANNOTATION ATTRIBUTE_VALUE_1 ATTRIBUTE_VALUE_2 ATTRIBUTE_VALUE_3 ATTRIBUTE_VALUE_4 ATTRIBUTE_VALUE_5 ATTRIBUTE_VALUE_6 ATTRIBUTE_VALUE_7 ATTRIBUTE_VALUE_8 ATTRIBUTE_VALUE_9 ATTRIBUTE_VALUE_10 WORKPLACE_ID DOMAIN_TYPE MNEMONIC			0

## Views and Tables

### V\_TL\_OPERATION

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
<p><b>Operation operating states with aggregated quantities and strokes for each individual operation state and shift</b></p> <p><b>Aggregates quantities (but not operating states)</b></p>	ACTIVE_PHASE CURRENT_OPEN_INTERVAL OPEN_INTERVAL FROM_LAST_SHIFT START_TS END_TS STATUS_CHANGE_IDENTIFIED VERSION_NUMBER WORKPLACE_ID WORKPLACE_SORT_ORDER OPERATION_ID SHIFT_ID TICKET_ID MFR_VECTOR_ID DURATION STATUS_ID STATUS_CODE STATUS_COLOR STATUS_MNEMONIC STATUS_SORT_ORDER STATUS_TEXT STATUS_SHORTTEXT PHASE_ID PHASE_CODE PHASE_COLOR PHASE_MNEMONIC PHASE_SORT_ORDER PHASE_TEXT			134

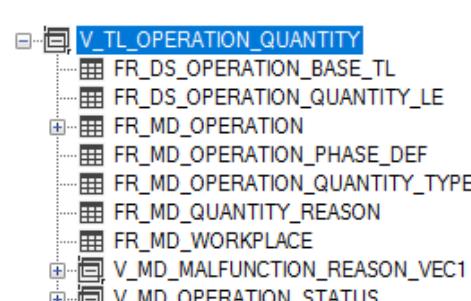
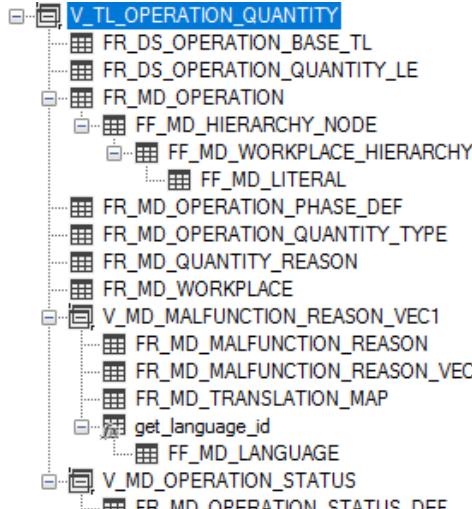
## Views and Tables

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Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
	PHASE_SHORTTEXT QTY YIELD_QTY SCRAP_QTY REWORK_QTY NUMBER_OF_STROKES OPERATING_STATUS_ID OPERATING_STATUS_COLOR OPERATING_STATUS_MNEMONIC OPERATING_STATUS_SORT_ORDER OPERATING_STATUS_TEXT OPERATING_STATUS_SHORTTEXT			

## Views and Tables

### V\_TL\_OPERATION\_QUANTITY

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
Operation related quantities together with information about the operating state that was valid at the time of quantity creation	AMOUNT START_TS END_TS DISPLAY_QUANTITY_UNIT CHANGE_TS QUANTITY_TYPE_ID QUANTITY_TYPE_REASON_ID STATUS_ID STATUS_CODE STATUS_COLOR STATUS_MNEMONIC STATUS_SORT_ORDER STATUS_TEXT STATUS_SHORTTEXT PHASE_ID PHASE_CODE PHASE_COLOR PHASE_MNEMONIC PHASE_SORT_ORDER PHASE_TEXT PHASE_SHORTTEXT QTY_TYPE_CODE QTY_TYPE_COLOR QTY_TYPE_SORT_ORDER QTY_TYPE_TEXT QTY_TYPE_SHORTTEXT QTY_REASON_COLOR QTY_REASON_MNEMONIC			18

## Views and Tables

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Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
	QTY_REASON_SORT_ORDER QTY_REASON_TEXT QTY_REASON_SHORTTEXT WORKPLACE_ID WORKPLACE_SORT_ORDER SHIFT_ID OPERATION_ID MFR_VECTOR_ID OPERATING_STATUS_ID OPERATING_STATUS_COLOR OPERATING_STATUS_MNEMONIC OPERATING_STATUS_SORT_ORDER OPERATING_STATUS_TEXT OPERATING_STATUS_SHORTTEXT			

## Views and Tables

### V\_TL\_OPERATION\_STROKE

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
<b>Operation related strokes together with information about the operating state that was valid at the time of stroke creation</b>	NUMBER_OF_STROKES START_TS END_TS CHANGE_TS STATUS_ID STATUS_CODE STATUS_COLOR STATUS_MNEMONIC STATUS_SORT_ORDER STATUS_TEXT STATUS_SHORTTEXT PHASE_ID PHASE_CODE PHASE_COLOR PHASE_MNEMONIC PHASE_SORT_ORDER PHASE_TEXT PHASE_SHORTTEXT WORKPLACE_ID SHIFT_ID OPERATION_ID MFR_VECTOR_ID OPERATING_STATUS_ID OPERATING_STATUS_COLOR OPERATING_STATUS_MNEMONIC OPERATING_STATUS_SORT_ORDER OPERATING_STATUS_TEXT OPERATING_STATUS_SHORTTEXT		<ul style="list-style-type: none"> <li>↳ V_TL_OPERATION_STROKE <ul style="list-style-type: none"> <li>█ FR_DS_OPERATION_BASE_TL</li> <li>█ FR_DS_OPERATION_STROKE_LE</li> <li>█ FR_MD_OPERATION <ul style="list-style-type: none"> <li>█ FF_MD_HIERARCHY_NODE <ul style="list-style-type: none"> <li>█ FF_MD_WORKPLACE_HIERARCHY <ul style="list-style-type: none"> <li>█ FF_MD_LITERAL</li> </ul> </li> </ul> </li> <li>█ FR_MD_OPERATION_PHASE_DEF</li> </ul> </li> <li>█ V_MD_MALFUNCTION_REASON_VEC1 <ul style="list-style-type: none"> <li>█ FR_MD_MALFUNCTION_REASON</li> <li>█ FR_MD_MALFUNCTION_REASON_VEC</li> </ul> </li> <li>█ FR_MD_TRANSLATION_MAP <ul style="list-style-type: none"> <li>█ FF_MD_LANGUAGE <ul style="list-style-type: none"> <li>█ get_language_id</li> </ul> </li> </ul> </li> <li>█ V_MD_OPERATION_STATUS <ul style="list-style-type: none"> <li>█ FR_MD_OPERATION_STATUS_DEF</li> </ul> </li> </ul> </li> </ul>	12

## Views and Tables

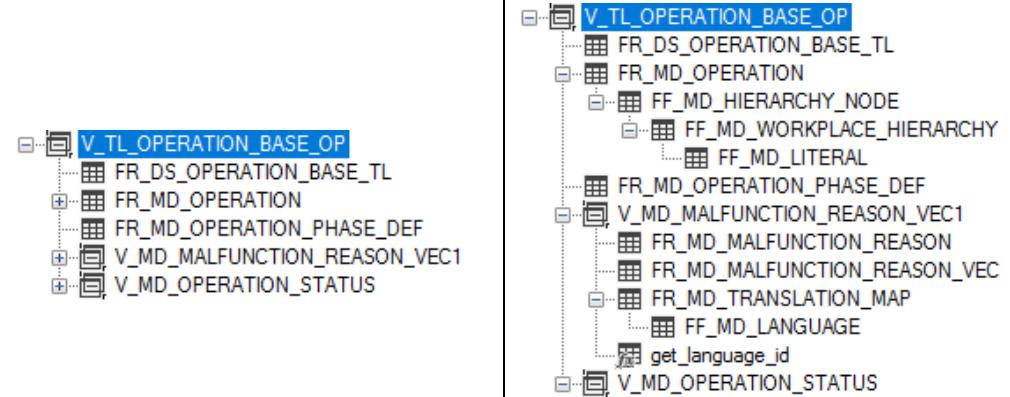
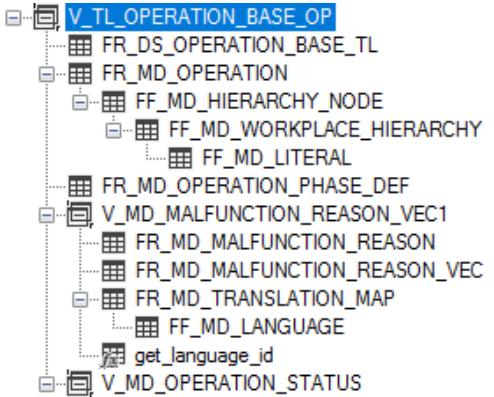
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### V\_TL\_OPERATION\_ATTRIB

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
User defined specific workplace timeline attributes, e.g. stroke factor	BASE_INTERVAL_ID DURATION OCCURRENCE CNT_OCCURRENCE START_TS END_TS CHANGE_TS ATTRIBUTE_VALUE_1 ATTRIBUTE_VALUE_2 ATTRIBUTE_VALUE_3 ATTRIBUTE_VALUE_4 ATTRIBUTE_VALUE_5 ATTRIBUTE_VALUE_6 ATTRIBUTE_VALUE_7 ATTRIBUTE_VALUE_8 ATTRIBUTE_VALUE_9 ATTRIBUTE_VALUE_10 OPERATION_ID WORKPLACE_ID DOMAIN_TYPE MNEMONIC	<ul style="list-style-type: none"> <li>□ V_TL_OPERATION_ATTRIB           <ul style="list-style-type: none"> <li>■ FR_DS_OPERATION_ATTRIB_TL</li> <li>■ FR_DS_OPERATION_BASE_TL</li> <li>■ FR_MD_TIMELINE_ATTRIBUTE</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>□ V_TL_OPERATION_ATTRIB           <ul style="list-style-type: none"> <li>■ FR_DS_OPERATION_ATTRIB_TL</li> <li>■ FR_DS_OPERATION_BASE_TL</li> <li>■ FR_MD_TIMELINE_ATTRIBUTE</li> </ul> </li> </ul>	0

## Views and Tables

### V\_TL\_OPERATION\_BASE\_OP

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
<p><b>Operation operating states grouped by workplace, operation, operation status, operation phase, status detail (Shifts are not in the grouping set, i.e. two shift can be grouped together, if there are no operating state changes)</b></p>	OCCURRENCE DURATION START_TS END_TS STATUS_ID STATUS_CODE STATUS_COLOR STATUS_MNEMONIC STATUS_SORT_ORDER STATUS_TEXT STATUS_SHORTTEXT PHASE_ID PHASE_CODE PHASE_COLOR PHASE_MNEMONIC PHASE_SORT_ORDER PHASE_TEXT PHASE_SHORTTEXT WORKPLACE_ID OPERATION_ID MFR_VECTOR_ID OPERATING_STATUS_ID OPERATING_STATUS_COLOR OPERATING_STATUS_MNEMONIC OPERATING_STATUS_SORT_ORDER OPERATING_STATUS_TEXT OPERATING_STATUS_SHORTTEXT			0

## Views and Tables

### V\_TL\_OPERATION\_QUANTITY\_OP\_LE

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
<b>Quantities grouped by workplace, operation, operation status, operation phase, status detail, and quantity type (to get the real produced quantities of an operation)</b>	WORKPLACE_ID OPERATION_ID STATUS_ID STATUS_CODE STATUS_COLOR STATUS_MNEMONIC STATUS_SORT_ORDER STATUS_TEXT STATUS_SHORTTEXT PHASE_ID PHASE_CODE PHASE_COLOR PHASE_MNEMONIC PHASE_SORT_ORDER PHASE_TEXT PHASE_SHORTTEXT QTY_TYPE_CODE QTY_TYPE_COLOR QTY_TYPE_SORT_ORDER QTY_TYPE_TEXT QTY_TYPE_SHORTTEXT QTY_REASON_COLOR QTY_REASON_MNEMONIC QTY_REASON_SORT_ORDER QTY_REASON_TEXT QTY_REASON_SHORTTEXT START_TS AMOUNT	<ul style="list-style-type: none"> <li>□ V_TL_OPERATION_QUANTITY_OP_LE</li> <li>  □ FR_DS_OPERATION_QUANTITY_LE</li> <li>  □ FR_MD_OPERATION</li> <li>    □ FF_MD_HIERARCHY_NODE</li> <li>      □ FF_MD_WORKPLACE_HIERARCHY</li> <li>        □ FF_MD_LITERAL</li> <li>    □ FR_MD_OPERATION_PHASE_DEF</li> <li>    □ FR_MD_OPERATION_QUANTITY_TYPE</li> <li>    □ FR_MD_QUANTITY_REASON</li> <li>      □ V_MD_MALFUNCTION_REASON_VEC1</li> <li>      □ FR_MD_MALFUNCTION_REASON</li> <li>      □ FR_MD_MALFUNCTION_REASON_VEC</li> <li>    □ FR_MD_TRANSLATION_MAP</li> <li>      □ FF_MD_LANGUAGE</li> <li>      □ get_language_id</li> <li>    □ V_MD_OPERATION_STATUS</li> <li>      □ FR_MD_OPERATION_STATUS_DEF</li> </ul>	<ul style="list-style-type: none"> <li>□ V_TL_OPERATION_QUANTITY_OP_LE</li> <li>  □ FR_DS_OPERATION_QUANTITY_LE</li> <li>  □ FR_MD_OPERATION</li> <li>    □ FF_MD_HIERARCHY_NODE</li> <li>      □ FF_MD_WORKPLACE_HIERARCHY</li> <li>        □ FF_MD_LITERAL</li> <li>    □ FR_MD_OPERATION_PHASE_DEF</li> <li>    □ FR_MD_OPERATION_QUANTITY_TYPE</li> <li>    □ FR_MD_QUANTITY_REASON</li> <li>      □ V_MD_MALFUNCTION_REASON_VEC1</li> <li>      □ FR_MD_MALFUNCTION_REASON</li> <li>      □ FR_MD_MALFUNCTION_REASON_VEC</li> <li>    □ FR_MD_TRANSLATION_MAP</li> <li>      □ FF_MD_LANGUAGE</li> <li>      □ get_language_id</li> <li>    □ V_MD_OPERATION_STATUS</li> <li>      □ FR_MD_OPERATION_STATUS_DEF</li> </ul>	0

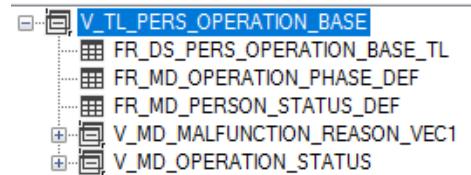
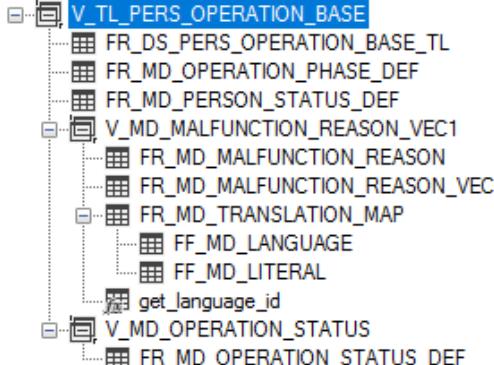
## Views and Tables

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Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
	MFR_VECTOR_ID OPERATING_STATUS_ID OPERATING_STATUS_COLOR OPERATING_STATUS_MNEMONIC OPERATING_STATUS_SORT_ORDER OPERATING_STATUS_TEXT OPERATING_STATUS_SHORTTEXT			

## Views and Tables

### V\_TL\_PERS\_OPERATION\_BASE

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
	WORKPLACE_ID SHIFT_ID OPERATION_ID MFR_VECTOR_ID PERSON_ID STATUS_CODE STATUS_COLOR STATUS_MNEMONIC STATUS_TEXT STATUS_SHORTTEXT OP_STATUS_ID OP_STATUS_CODE OP_STATUS_COLOR OP_STATUS_MNEMONIC OP_STATUS_TEXT OP_STATUS_SHORTTEXT OP_PHASE_ID OP_PHASE_CODE OP_PHASE_COLOR OP_PHASE_MNEMONIC OP_PHASE_TEXT OP_PHASE_SHORTTEXT CNT_OCCURRENCE DURATION END_TS START_TS FROM_LAST_SHIFT PERCENT_WEIGHTING	 <pre> graph TD     A[V_TL_PERS_OPERATION_BASE] --&gt; B[FR_DS_PERS_OPERATION_BASE_TL]     A --&gt; C[FR_MD_OPERATION_PHASE_DEF]     A --&gt; D[FR_MD_PERSON_STATUS_DEF]     A --&gt; E[V_MD_MALFUNCTION_REASON_VEC1]     A --&gt; F[V_MD_OPERATION_STATUS]     E --&gt; G[FR_MD_MALFUNCTION_REASON]     E --&gt; H[FR_MD_MALFUNCTION_REASON_VEC]     F --&gt; I[FR_MD_TRANSLATION_MAP]     I --&gt; J[FF_MD_LANGUAGE]     I --&gt; K[FF_MD_LITERAL]     J --&gt; L[get_language_id]     L --&gt; M[V_MD_OPERATION_STATUS]     M --&gt; N[FR_MD_OPERATION_STATUS_DEF]   </pre>	 <pre> graph TD     A[V_TL_PERS_OPERATION_BASE] --&gt; B[FR_DS_PERS_OPERATION_BASE_TL]     A --&gt; C[FR_MD_OPERATION_PHASE_DEF]     A --&gt; D[FR_MD_PERSON_STATUS_DEF]     A --&gt; E[V_MD_MALFUNCTION_REASON_VEC1]     A --&gt; F[V_MD_OPERATION_STATUS]     E --&gt; G[FR_MD_MALFUNCTION_REASON]     E --&gt; H[FR_MD_MALFUNCTION_REASON_VEC]     F --&gt; I[FR_MD_TRANSLATION_MAP]     I --&gt; J[FF_MD_LANGUAGE]     I --&gt; K[FF_MD_LITERAL]     J --&gt; L[get_language_id]     L --&gt; M[V_MD_OPERATION_STATUS]     M --&gt; N[FR_MD_OPERATION_STATUS_DEF]   </pre>	0

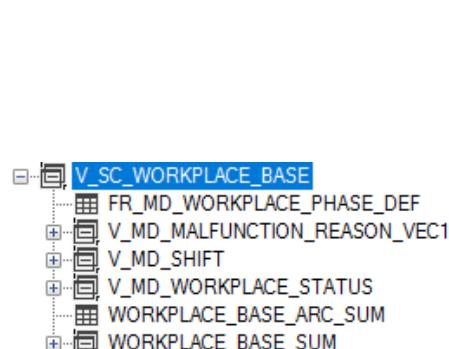
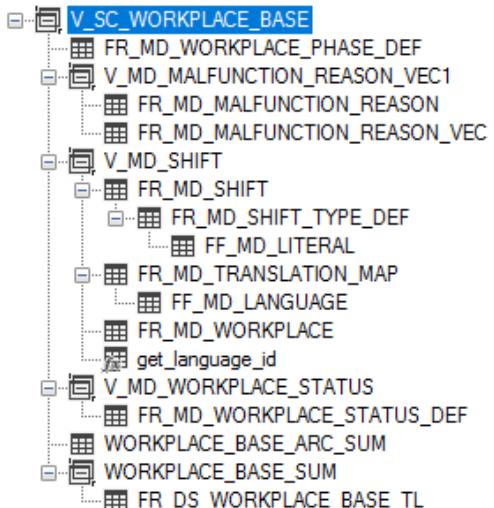
## Views and Tables

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Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
	STATUS_CHANGE_IDENTIFIED OPERATING_STATUS_ID OPERATING_STATUS_COLOR OPERATING_STATUS_MNEMONIC OPERATING_STATUS_TEXT OPERATING_STATUS_SHORTTEXT			

### 3.2.6 Historical Data 2

#### V\_SC\_WORKPLACE\_BASE

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
<b>Operating State compression grouped by workplace, shift, workplace status, workplace phase, status detail (malfunction reason vector)</b> <b>Aggregates duration, number occurrences of certain status detail</b>	WORKPLACE_ID WORKPLACE_SORT_ORDER SHIFT_ID MFR_VECTOR_ID WORKPLACE_STATUS_ID STATUS_CODE STATUS_COLOR STATUS_MNEMONIC STATUS_SORT_ORDER STATUS_TEXT STATUS_SHORTTEXT WORKPLACE_PHASE_ID PHASE_CODE PHASE_COLOR PHASE_MNEMONIC PHASE_SORT_ORDER PHASE_TEXT PHASE_SHORTTEXT SUM_DURATION CNT_OCCURRENCE START_TS START_TS_YEAR START_TS_MONTH START_TS_WEEK START_TS_ISOYEAR START_TS_ISOWEEK			5

## Views and Tables

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Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
	START_TS_DATE START_TS_DATETIME END_TS END_TS_YEAR END_TS_MONTH END_TS_WEEK END_TS_ISOYEAR END_TS_ISOWEEK END_TS_DATE END_TS_DATETIME NONWORKING_SHIFT_TYPE ASSOCIATED_DAY_TS ASSOCIATED_DAY_TS_YEAR ASSOCIATED_DAY_TS_QUARTER ASSOCIATED_DAY_TS_MONTH ASSOCIATED_DAY_TS_WEEK ASSOCIATED_DAY_TS_ISOWEEK ASSOCIATED_DAY_TS_DATE ASSOCIATED_DAY_TS_SHIFT ASSOCIATED_DAY_TS_DATETIME FROM_LAST_SHIFT OPERATING_STATUS_ID OPERATING_STATUS_COLOR OPERATING_STATUS_MNEMONIC OPERATING_STATUS_SORT_ORDER OPERATING_STATUS_TEXT OPERATING_STATUS_SHORTTEXT			

## Views and Tables

### V\_SC\_WORKPLACE\_QUANTITY

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
<b>Quantity compression grouped by workplace, shift, workplace status, workplace phase, status detail (malfunction reason vector), quantity type and quantity reason Aggregates quantities</b>	WORKPLACE_ID SHIFT_ID MFR_VECTOR_ID DISPLAY_QUANTITY_UNIT QUANTITY_TYPE_ID QUANTITY_TYPE_REASON_ID WORKPLACE_STATUS_ID STATUS_CODE STATUS_COLOR STATUS_MNEMONIC STATUS_SORT_ORDER STATUS_TEXT STATUS_SHORTTEXT WORKPLACE_PHASE_ID PHASE_CODE PHASE_COLOR PHASE_MNEMONIC PHASE_SORT_ORDER PHASE_TEXT PHASE_SHORTTEXT QTY_TYPE_CODE QTY_TYPE_COLOR QTY_TYPE_SORT_ORDER QTY_TYPE_TEXT QTY_TYPE_SHORTTEXT QTY_REASON_COLOR QTY_REASON_MNEMONIC QTY_REASON_SORT_ORDER		<ul style="list-style-type: none"> <li>↳ V_SC_WORKPLACE_QUANTITY <ul style="list-style-type: none"> <li>█ FR_DS_WORKPLACE_BASE_TL</li> <li>█ FR_MD_OPERATION <ul style="list-style-type: none"> <li>█ FF_MD_HIERARCHY_NODE <ul style="list-style-type: none"> <li>█ FF_MD_WORKPLACE_HIERARCHY</li> <li>█ FF_MD_LITERAL</li> </ul> </li> <li>█ FR_MD_OPERATION_QUANTITY_TYPE</li> <li>█ FR_MD_QUANTITY_REASON</li> <li>█ FR_MD_WORKPLACE_PHASE_DEF</li> </ul> </li> <li>█ V_MD_MALFUNCTION_REASON_VEC1 <ul style="list-style-type: none"> <li>█ FR_MD_MALFUNCTION_REASON</li> <li>█ FR_MD_MALFUNCTION_REASON_VEC</li> </ul> </li> <li>█ V_MD_SHIFT <ul style="list-style-type: none"> <li>█ FR_MD_SHIFT</li> <li>█ FR_MD_SHIFT_TYPE_DEF</li> <li>█ FR_MD_TRANSLATION_MAP</li> <li>█ FF_MD_LANGUAGE</li> <li>█ FR_MD_WORKPLACE <ul style="list-style-type: none"> <li>█ get_language_id</li> </ul> </li> </ul> </li> <li>█ V_MD_WORKPLACE_STATUS <ul style="list-style-type: none"> <li>█ FR_MD_WORKPLACE_STATUS_DEF</li> <li>█ WORKPLACE_QUANTITY_AGC_SUM</li> <li>█ WORKPLACE_QUANTITY_SUM <ul style="list-style-type: none"> <li>█ FR_DS_WORKPLACE_QUANTITY_LE</li> </ul> </li> </ul> </li> </ul> </li> </ul>	0

## Views and Tables

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Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
	QTY_REASON_TEXT QTY_REASON_SHORTTEXT START_TS START_TS_YEAR START_TS_MONTH START_TS_WEEK START_TS_ISOYEAR START_TS_ISOWEEK START_TS_DATE START_TS_DATETIME NONWORKING_SHIFT_TYPE ASSOCIATED_DAY_TS ASSOCIATED_DAY_TS_YEAR ASSOCIATED_DAY_TS_QUARTER ASSOCIATED_DAY_TS_MONTH ASSOCIATED_DAY_TS_WEEK ASSOCIATED_DAY_TS_ISOWEEK ASSOCIATED_DAY_TS_DATE ASSOCIATED_DAY_TS_SHIFT ASSOCIATED_DAY_TS_DATETIME SUM_AMOUNT OPERATING_STATUS_ID OPERATING_STATUS_COLOR OPERATING_STATUS_MNEMONIC OPERATING_STATUS_SORT_ORDER OPERATING_STATUS_TEXT OPERATING_STATUS_SHORTTEXT			

## Views and Tables

### V\_SC\_WORKPLACE\_QUANTITY\_SUM

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
<b>Quantity compression grouped by workplace, shift, workplace status, workplace phase, status detail (malfunction reason vector)</b> <b>Aggregates quantities (additional by type), strokes, durations and number occurrences of certain status detail)</b>	WORKPLACE_ID SHIFT_ID MFR_VECTOR_ID START_TS START_TS_YEAR START_TS_MONTH START_TS_WEEK START_TS_ISOYEAR START_TS_ISOWEEK START_TS_DATE START_TS_DATETIME END_TS END_TS_YEAR END_TS_MONTH END_TS_WEEK END_TS_ISOYEAR END_TS_ISOWEEK END_TS_DATE END_TS_DATETIME NONWORKING_SHIFT_TYPE ASSOCIATED_DAY_TS ASSOCIATED_DAY_TS_YEAR ASSOCIATED_DAY_TS_QUARTER ASSOCIATED_DAY_TS_MONTH ASSOCIATED_DAY_TS_WEEK ASSOCIATED_DAY_TS_ISOWEEK ASSOCIATED_DAY_TS_DATE ASSOCIATED_DAY_TS_SHIFT		<ul style="list-style-type: none"> <li>□ V_SC_WORKPLACE_QUANTITY_SUM <ul style="list-style-type: none"> <li>■ FR_MD_OPERATION_QUANTITY_TYPE</li> <li>■ FR_MD_WORKPLACE_PHASE_DEF</li> <li>□ V_MD_MALFUNCTION_REASON_VEC1 <ul style="list-style-type: none"> <li>■ FR_MD_MALFUNCTION_REASON</li> <li>■ FR_MD_MALFUNCTION_REASON_VEC</li> </ul> </li> <li>□ V_MD_SHIFT <ul style="list-style-type: none"> <li>■ FR_MD_SHIFT</li> <li>■ FR_MD_SHIFT_TYPE_DEF <ul style="list-style-type: none"> <li>■ FF_MD_LITERAL</li> </ul> </li> </ul> </li> <li>■ FR_MD_TRANSLATION_MAP <ul style="list-style-type: none"> <li>■ FF_MD_LANGUAGE</li> <li>■ FR_MD_WORKPLACE <ul style="list-style-type: none"> <li>■ get_language_id</li> </ul> </li> </ul> </li> <li>□ V_MD_WORKPLACE_STATUS <ul style="list-style-type: none"> <li>■ FR_MD_WORKPLACE_STATUS_DEF</li> <li>■ WORKPLACE_BASE_ARC_SUM</li> </ul> </li> <li>□ WORKPLACE_BASE_SUM <ul style="list-style-type: none"> <li>■ FR_DS_WORKPLACE_BASE_TL</li> </ul> </li> <li>■ WORKPLACE_QUANTITY_ARC_SUM <ul style="list-style-type: none"> <li>■ WORKPLACE_QUANTITY_SUM <ul style="list-style-type: none"> <li>■ FR_DS_WORKPLACE_QUANTITY_LE</li> </ul> </li> <li>■ WORKPLACE_STROKE_ARC_SUM <ul style="list-style-type: none"> <li>■ WORKPLACE_STROKE_SUM <ul style="list-style-type: none"> <li>■ FR_DS_WORKPLACE_STROKE_LE</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	0

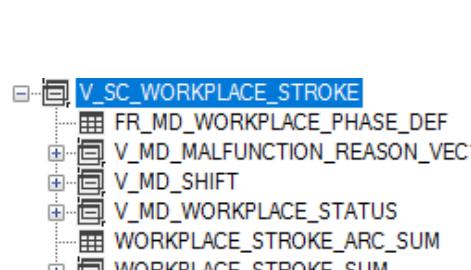
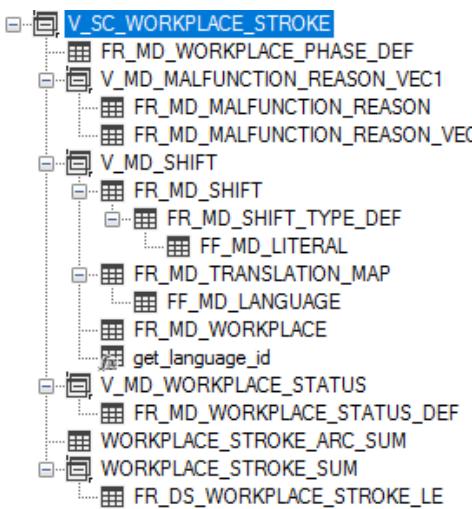
## Views and Tables

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Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
	ASSOCIATED_DAY_TS_DATETIME QTY YIELD_QTY SCRAP_QTY REWORK_QTY NUMBER_OF_STROKES SUM_DURATION CNT_OCCURRENCE FROM_LAST_SHIFT WORKPLACE_STATUS_ID STATUS_CODE STATUS_COLOR STATUS_MNEMONIC STATUS_SORT_ORDER STATUS_TEXT WORKPLACE_PHASE_ID PHASE_CODE PHASE_COLOR PHASE_MNEMONIC PHASE_SORT_ORDER PHASE_TEXT OPERATING_STATUS_ID OPERATING_STATUS_COLOR OPERATING_STATUS_MNEMONIC OPERATING_STATUS_SORT_ORDER OPERATING_STATUS_TEXT OPERATING_STATUS_SHORTTEXT			

## Views and Tables

### V\_SC\_WORKPLACE\_STROKE

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
<p><b>Stroke compression grouped by workplace, shift, workplace status, workplace phase, status detail (malfunction reason vector) Aggregates strokes</b></p>	WORKPLACE_ID WORKPLACE_SORT_ORDER SHIFT_ID MFR_VECTOR_ID WORKPLACE_STATUS_ID STATUS_CODE STATUS_COLOR STATUS_MNEMONIC STATUS_SORT_ORDER STATUS_TEXT STATUS_SHORTTEXT WORKPLACE_PHASE_ID PHASE_CODE PHASE_COLOR PHASE_MNEMONIC PHASE_SORT_ORDER PHASE_TEXT PHASE_SHORTTEXT START_TS START_TS_YEAR START_TS_MONTH START_TS_WEEK START_TS_ISOYEAR START_TS_ISOWEEK START_TS_DATE START_TS_DATETIME NONWORKING_SHIFT_TYPE ASSOCIATED_DAY_TS			6

## Views and Tables

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Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
	ASSOCIATED_DAY_TS_YEAR ASSOCIATED_DAY_TS_QUARTER ASSOCIATED_DAY_TS_MONTH ASSOCIATED_DAY_TS_WEEK ASSOCIATED_DAY_TS_ISOWEEK ASSOCIATED_DAY_TS_DATE ASSOCIATED_DAY_TS_SHIFT ASSOCIATED_DAY_TS_DATETIME NUMBER_OF_STROKES OPERATING_STATUS_ID OPERATING_STATUS_COLOR OPERATING_STATUS_MNEMONIC OPERATING_STATUS_SORT_ORDER OPERATING_STATUS_TEXT OPERATING_STATUS_SHORTTEXT			

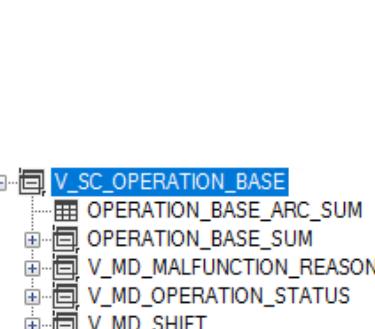
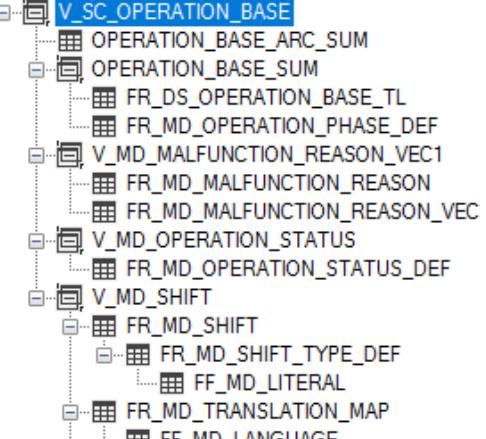
## Views and Tables

### V\_SC\_WORKPLACE\_OEE

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
OEE relevant information grouped by workplace and shift	<p>WORKPLACE_ID SHIFT_ID NONWORKING_SHIFT_TYPE ASSOCIATED_DAY_TS ASSOCIATED_DAY_TS_YEAR ASSOCIATED_DAY_TS_QUARTER ASSOCIATED_DAY_TS_MONTH ASSOCIATED_DAY_TS_WEEK ASSOCIATED_DAY_TS_ISOWEEK ASSOCIATED_DAY_TS_DATE ASSOCIATED_DAY_TS_SHIFT ASSOCIATED_DAY_TS_DATETIME QUANTITY GOOD_PARTS CALC_OPERATING_TIME_OP OPERATION_TIME PLANNED_PRODUCTION_TIME</p>	<ul style="list-style-type: none"> <li>↳ V_SC_WORKPLACE_OEE           <ul style="list-style-type: none"> <li>FR_MD_MALFUNCTION_REASON_VEC</li> <li>FR_MD_OPERATION               <ul style="list-style-type: none"> <li>FF_MD_HIERARCHY_NODE                   <ul style="list-style-type: none"> <li>FF_MD_WORKPLACE_HIERARCHY                       <ul style="list-style-type: none"> <li>FF_MD_LITERAL</li> </ul> </li> </ul> </li> <li>FR_MD_OPERATION_QUANTITY_TYPE</li> <li>FR_MD_TIMEBASE</li> <li>OPERATION_QUANTITY_ARC_SUM</li> <li>OPERATION_QUANTITY_SUM                   <ul style="list-style-type: none"> <li>FR_DS_OPERATION_QUANTITY_LE</li> </ul> </li> </ul> </li> <li>V_MD_SHIFT               <ul style="list-style-type: none"> <li>FR_MD_SHIFT                   <ul style="list-style-type: none"> <li>FR_MD_SHIFT_TYPE_DEF</li> </ul> </li> <li>FR_MD_TRANSLATION_MAP                   <ul style="list-style-type: none"> <li>FF_MD_LANGUAGE</li> </ul> </li> <li>FR_MD_WORKPLACE</li> <li>get_language_id</li> </ul> </li> <li>V_MD_TIMEBASE_ENTRY               <ul style="list-style-type: none"> <li>FF_MD_MALFUNCTION_LEVEL                   <ul style="list-style-type: none"> <li>FF_MD_MALFUNCTION_LEVEL_REL                       <ul style="list-style-type: none"> <li>FR_MD_MALFUNCTION_REASON</li> </ul> </li> <li>FR_MD_OPERATION_PHASE_DEF</li> <li>FR_MD_OPERATION_STATUS_DEF</li> <li>FR_MD_TIMEBASE_ENTRY</li> <li>FR_MD_WORKPLACE_PHASE_DEF</li> <li>FR_MD_WORKPLACE_STATUS_DEF</li> </ul> </li> <li>WORKPLACE_BASE_ARC_SUM</li> <li>WORKPLACE_BASE_SUM                   <ul style="list-style-type: none"> <li>FR_DS_WORKPLACE_BASE_TL</li> </ul> </li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>↳ V_SC_WORKPLACE_OEE           <ul style="list-style-type: none"> <li>FR_MD_MALFUNCTION_REASON_VEC</li> <li>FR_MD_OPERATION               <ul style="list-style-type: none"> <li>FF_MD_HIERARCHY_NODE                   <ul style="list-style-type: none"> <li>FF_MD_WORKPLACE_HIERARCHY                       <ul style="list-style-type: none"> <li>FF_MD_LITERAL</li> </ul> </li> </ul> </li> <li>FR_MD_OPERATION_QUANTITY_TYPE</li> <li>FR_MD_TIMEBASE</li> <li>OPERATION_QUANTITY_ARC_SUM</li> <li>OPERATION_QUANTITY_SUM                   <ul style="list-style-type: none"> <li>FR_DS_OPERATION_QUANTITY_LE</li> </ul> </li> </ul> </li> <li>V_MD_SHIFT               <ul style="list-style-type: none"> <li>FR_MD_SHIFT                   <ul style="list-style-type: none"> <li>FR_MD_SHIFT_TYPE_DEF</li> </ul> </li> <li>FR_MD_TRANSLATION_MAP                   <ul style="list-style-type: none"> <li>FF_MD_LANGUAGE</li> </ul> </li> <li>FR_MD_WORKPLACE</li> <li>get_language_id</li> </ul> </li> <li>V_MD_TIMEBASE_ENTRY               <ul style="list-style-type: none"> <li>FF_MD_MALFUNCTION_LEVEL                   <ul style="list-style-type: none"> <li>FF_MD_MALFUNCTION_LEVEL_REL                       <ul style="list-style-type: none"> <li>FR_MD_MALFUNCTION_REASON</li> </ul> </li> <li>FR_MD_OPERATION_PHASE_DEF</li> <li>FR_MD_OPERATION_STATUS_DEF</li> <li>FR_MD_TIMEBASE_ENTRY</li> <li>FR_MD_WORKPLACE_PHASE_DEF</li> <li>FR_MD_WORKPLACE_STATUS_DEF</li> </ul> </li> <li>WORKPLACE_BASE_ARC_SUM</li> <li>WORKPLACE_BASE_SUM                   <ul style="list-style-type: none"> <li>FR_DS_WORKPLACE_BASE_TL</li> </ul> </li> </ul> </li> </ul> </li> </ul>	2

## Views and Tables

## V\_SC\_OPERATION\_BASE

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
<p><b>Operating State compression grouped by workplace, operation, shift, operation status, operation phase, status detail</b></p> <p><b>Aggregates duration, number occurrences of certain status detail</b></p>	WORKPLACE_ID WORKPLACE_SORT_ORDER SHIFT_ID OPERATION_ID MFR_VECTOR_ID OPERATION_STATUS_ID STATUS_CODE STATUS_COLOR STATUS_MNEMONIC STATUS_SORT_ORDER STATUS_TEXT STATUS_SHORTTEXT OPERATION_PHASE_ID PHASE_CODE PHASE_COLOR PHASE_MNEMONIC PHASE_SORT_ORDER PHASE_TEXT PHASE_SHORTTEXT SUM_DURATION CNT_OCCURRENCE START_TS START_TS_YEAR START_TS_MONTH START_TS_WEEK START_TS_ISOYEAR START_TS_ISOWEEK START_TS_DATE			2

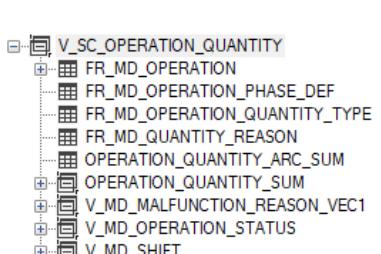
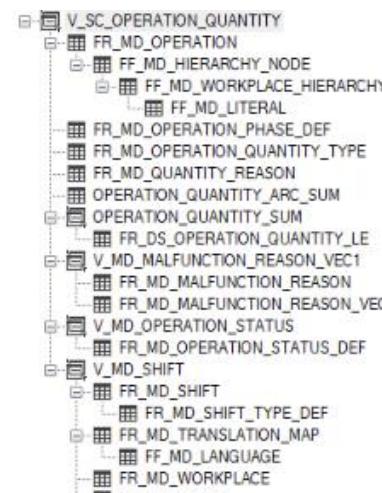
## Views and Tables

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Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
	START_TS_DATETIME END_TS END_TS_YEAR END_TS_MONTH END_TS_WEEK END_TS_ISOYEAR END_TS_ISOWEEK END_TS_DATE END_TS_DATETIME NONWORKING_SHIFT_TYPE ASSOCIATED_DAY_TS ASSOCIATED_DAY_TS_YEAR ASSOCIATED_DAY_TS_QUARTER ASSOCIATED_DAY_TS_MONTH ASSOCIATED_DAY_TS_WEEK ASSOCIATED_DAY_TS_ISOWEEK ASSOCIATED_DAY_TS_DATE ASSOCIATED_DAY_TS_SHIFT ASSOCIATED_DAY_TS_DATETIME FROM_LAST_SHIFT OPERATING_STATUS_ID OPERATING_STATUS_COLOR OPERATING_STATUS_MNEMONIC OPERATING_STATUS_SORT_ORDER OPERATING_STATUS_TEXT [OPERATING_STATUS_SHORTTEXT]			

## Views and Tables

### V\_SC\_OPERATION\_QUANTITY

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports	SQL
<b>Quantity compression grouped by workplace, shift, operation status, operation phase, status detail (malfuncio n reason vector), quantity type and quantity reason Aggregates quantities</b>	WORKPLACE_ID WORKPLACE_SORT_ORDER SHIFT_ID OPERATION_ID DISPLAY_QUANTITY_UNIT QUANTITY_TYPE_ID QUANTITY_TYPE_REASON_ID MFR_VECTOR_ID OPERATION_STATUS_ID STATUS_CODE STATUS_COLOR STATUS_MNEMONIC STATUS_SORT_ORDER STATUS_TEXT STATUS_SHORTTEXT OPERATION_PHASE_ID PHASE_CODE PHASE_COLOR PHASE_MNEMONIC PHASE_SORT_ORDER PHASE_TEXT PHASE_SHORTTEXT QTY_TYPE_CODE QTY_TYPE_COLOR QTY_TYPE_SORT_ORDER QTY_TYPE_TEXT QTY_TYPE_SHORTTEXT QTY_REASON_COLOR QTY_REASON_MNEMONIC			3	See SQL in the annex under: Historical Data 2

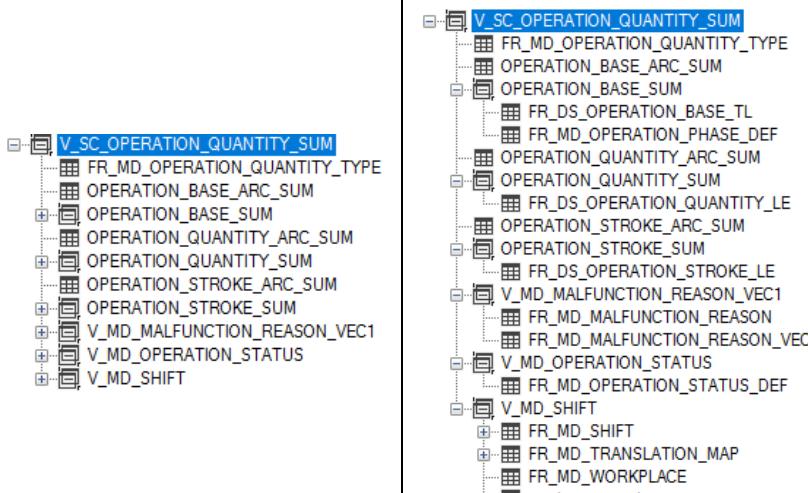
## Views and Tables

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Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports	SQL
	QTY_REASON_SORT_ORDER QTY_REASON_TEXT QTY_REASON_SHORTTEXT START_TS START_TS_YEAR START_TS_MONTH START_TS_WEEK START_TS_ISOYEAR START_TS_ISOWEEK START_TS_DATE START_TS_DATETIME NONWORKING_SHIFT_TYPE ASSOCIATED_DAY_TS ASSOCIATED_DAY_TS_YEAR ASSOCIATED_DAY_TS_QUARTER ASSOCIATED_DAY_TS_MONTH ASSOCIATED_DAY_TS_WEEK ASSOCIATED_DAY_TS_ISOWEEK ASSOCIATED_DAY_TS_DATE ASSOCIATED_DAY_TS_SHIFT ASSOCIATED_DAY_TS_DATETIME SUM_AMOUNT OPERATING_STATUS_ID OPERATING_STATUS_COLOR OPERATING_STATUS_MNEMONIC OPERATING_STATUS_SORT_ORDER OPERATING_STATUS_TEXT OPERATING_STATUS_SHORTTEXT				

## Views and Tables

### V\_SC\_OPERATION\_QUANTITY\_SUM

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports	SQL
<b>Quantity compression grouped by workplace, operation, shift, operation status, operation phase, status detail (malfunction reason vector) Aggregates quantities (additional by type), strokes, durations and number occurrence of certain</b>	WORKPLACE_ID OPERATION_ID SHIFT_ID MFR_VECTOR_ID START_TS START_TS_YEAR START_TS_MONTH START_TS_WEEK START_TS_ISOYEAR START_TS_ISOWEEK START_TS_DATE START_TS_DATETIME END_TS END_TS_YEAR END_TS_MONTH END_TS_WEEK END_TS_ISOYEAR END_TS_ISOWEEK END_TS_DATE END_TS_DATETIME NONWORKING_SHIFT_TYPE ASSOCIATED_DAY_TS ASSOCIATED_DAY_TS_YEAR ASSOCIATED_DAY_TS_QUARTER ASSOCIATED_DAY_TS_MONTH ASSOCIATED_DAY_TS_WEEK ASSOCIATED_DAY_TS_ISOWEEK ASSOCIATED_DAY_TS_DATE ASSOCIATED_DAY_TS_SHIFT			3	See SQL in the annex under: Historical Data 2

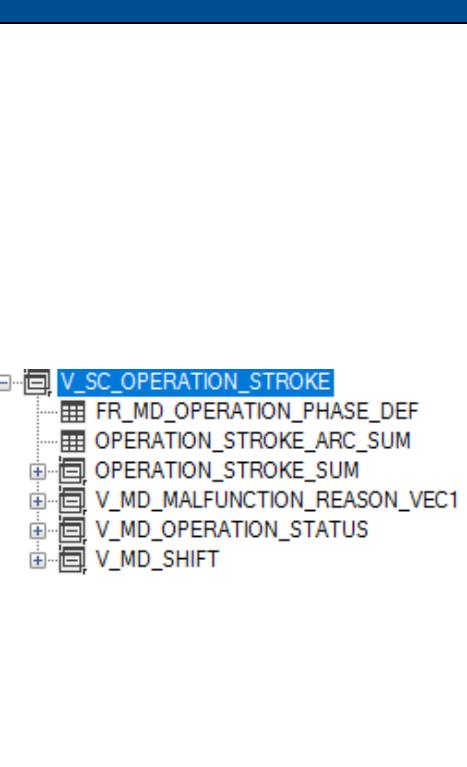
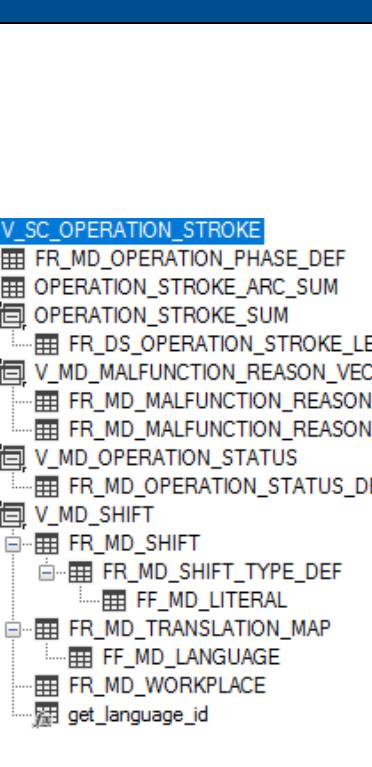
## Views and Tables

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Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports	SQL
<b>status detail</b>	ASSOCIATED_DAY_TS_DATETIME QTY YIELD_QTY SCRAP_QTY REWORK_QTY NUMBER_OF_STROKES SUM_DURATION CNT_OCCURRENCE FROM_LAST_SHIFT OPERATION_STATUS_ID STATUS_CODE STATUS_COLOR STATUS_MNEMONIC STATUS_SORT_ORDER STATUS_TEXT OPERATION_PHASE_ID PHASE_CODE PHASE_COLOR PHASE_MNEMONIC PHASE_SORT_ORDER PHASE_TEXT OPERATING_STATUS_ID OPERATING_STATUS_COLOR OPERATING_STATUS_MNEMONIC OPERATING_STATUS_SORT_ORDER OPERATING_STATUS_TEXT OPERATING_STATUS_SHORTTEXT				

## Views and Tables

## V SC OPERATION STROKE

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
<p><b>Stroke compression grouped by workplace, operation, shift, operation status, operation phase, status detail (malfunction reason vector) Aggregates strokes</b></p>	WORKPLACE_ID SHIFT_ID OPERATION_ID MFR_VECTOR_ID OPERATION_STATUS_ID STATUS_CODE STATUS_COLOR STATUS_MNEMONIC STATUS_SORT_ORDER STATUS_TEXT STATUS_SHORTTEXT OPERATION_PHASE_ID PHASE_CODE PHASE_COLOR PHASE_MNEMONIC PHASE_SORT_ORDER PHASE_TEXT PHASE_SHORTTEXT START_TS START_TS_YEAR START_TS_MONTH START_TS_WEEK START_TS_ISOYEAR START_TS_ISOWEEK START_TS_DATE START_TS_DATETIME NONWORKING_SHIFT_TYPE ASSOCIATED_DAY_TS			0 (maybe used by BMW)

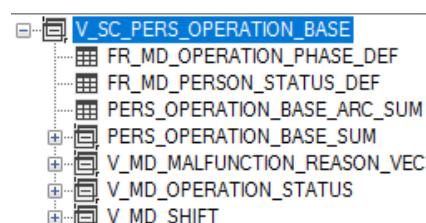
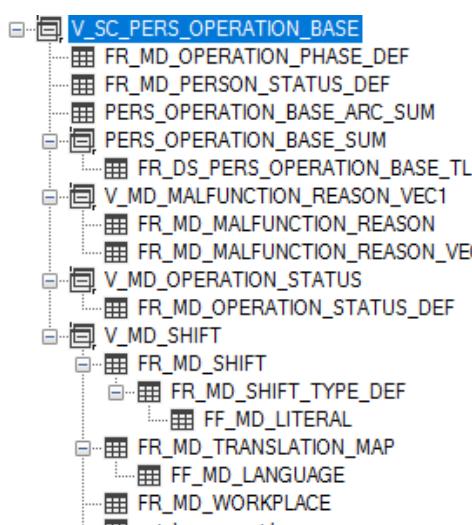
## Views and Tables

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Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
	ASSOCIATED_DAY_TS_YEAR ASSOCIATED_DAY_TS_QUARTER ASSOCIATED_DAY_TS_MONTH ASSOCIATED_DAY_TS_WEEK ASSOCIATED_DAY_TS_ISOWEEK ASSOCIATED_DAY_TS_DATE ASSOCIATED_DAY_TS_SHIFT ASSOCIATED_DAY_TS_DATETIME NUMBER_OF_STROKES OPERATING_STATUS_ID OPERATING_STATUS_COLOR OPERATING_STATUS_MNEMONIC OPERATING_STATUS_SORT_ORDER OPERATING_STATUS_TEXT OPERATING_STATUS_SHORTTEXT			

## Views and Tables

### V\_SC\_PERS\_OPERATION\_BASE

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
<b>Operating State compression grouped by workplace, operation, person, person status, shift, operation status, operation phase, status detail Aggregates duration, weighted duration, number occurrences of certain status detail</b>	WORKPLACE_ID SHIFT_ID OPERATION_ID MFR_VECTOR_ID PERSON_ID STATUS_CODE STATUS_COLOR STATUS_MNEMONIC STATUS_SORT_ORDER STATUS_TEXT STATUS_SHORTTEXT OPERATION_STATUS_ID OP_STATUS_CODE OP_STATUS_COLOR OP_STATUS_MNEMONIC OP_STATUS_SORT_ORDER OP_STATUS_TEXT OP_STATUS_SHORTTEXT OPERATION_PHASE_ID OP_PHASE_CODE OP_PHASE_COLOR OP_PHASE_MNEMONIC OP_PHASE_SORT_ORDER OP_PHASE_TEXT OP_PHASE_SHORTTEXT SUM_DURATION SUM_WEIGHTING_DURATION CNT_OCCURRENCE			2

## Views and Tables

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Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
	START_TS START_TS_YEAR START_TS_MONTH START_TS_WEEK START_TS_ISOYEAR START_TS_ISOWEEK START_TS_DATE START_TS_DATETIME END_TS END_TS_YEAR END_TS_MONTH END_TS_WEEK END_TS_ISOYEAR END_TS_ISOWEEK END_TS_DATE END_TS_DATETIME NONWORKING_SHIFT_TYPE ASSOCIATED_DAY_TS ASSOCIATED_DAY_TS_YEAR ASSOCIATED_DAY_TS_QUARTER ASSOCIATED_DAY_TS_MONTH ASSOCIATED_DAY_TS_WEEK ASSOCIATED_DAY_TS_ISOWEEK ASSOCIATED_DAY_TS_DATE ASSOCIATED_DAY_TS_SHIFT ASSOCIATED_DAY_TS_DATETIME FROM_LAST_SHIFT OPERATING_STATUS_ID OPERATING_STATUS_COLOR OPERATING_STATUS_MNEMONIC			

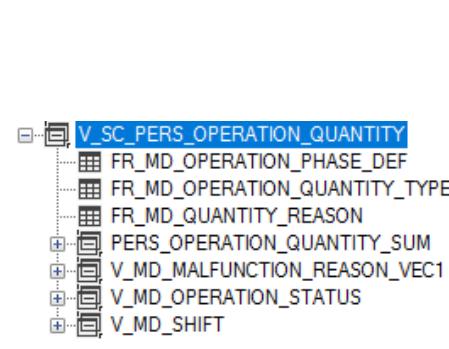
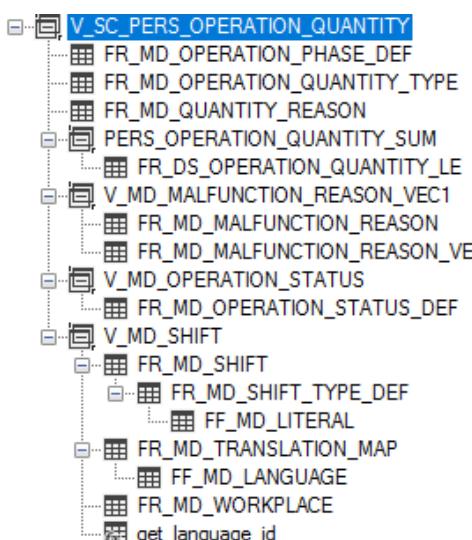
## Views and Tables

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Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
	OPERATING_STATUS_SORT_ORDER OPERATING_STATUS_TEXT OPERATING_STATUS_SHORTTEXT			

## Views and Tables

### V\_SC\_PERS\_OPERATION\_QUANTITY

Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
<b>Quantity compression grouped by workplace, shift, operation status, operation phase, status detail (malfunction reason vector), quantity type, quantity reason and person Aggregates quantities</b>	WORKPLACE_ID WORKPLACE_SORT_ORDER SHIFT_ID OPERATION_ID QUANTITY_TYPE_ID QUANTITY_TYPE_REASON_ID MFR_VECTOR_ID PERSON_ID OPERATION_STATUS_ID OP_STATUS_CODE OP_STATUS_COLOR OP_STATUS_MNEMONIC OP_STATUS_SORT_ORDER OP_STATUS_TEXT OP_STATUS_SHORTTEXT OPERATION_PHASE_ID OP_PHASE_CODE OP_PHASE_COLOR OP_PHASE_MNEMONIC OP_PHASE_SORT_ORDER OP_PHASE_TEXT OP_PHASE_SHORTTEXT QTY_TYPE_CODE QTY_TYPE_COLOR QTY_TYPE_SORT_ORDER QTY_TYPE_TEXT QTY_TYPE_SHORTTEXT QTY_REASON_COLOR			0

## Views and Tables

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Meaning	Columns	Dependencies	Dependencies (incl. transitive)	Number of usages in standard reports
	QTY_REASON_MNEMONIC QTY_REASON_SORT_ORDER QTY_REASON_TEXT QTY_REASON_SHORTTEXT START_TS START_TS_YEAR START_TS_MONTH START_TS_WEEK START_TS_ISOYEAR START_TS_ISOWEEK START_TS_DATE START_TS_DATETIME NONWORKING_SHIFT_TYPE ASSOCIATED_DAY_TS ASSOCIATED_DAY_TS_YEAR ASSOCIATED_DAY_TS_QUARTER ASSOCIATED_DAY_TS_MONTH ASSOCIATED_DAY_TS_WEEK ASSOCIATED_DAY_TS_ISOWEEK ASSOCIATED_DAY_TS_DATE ASSOCIATED_DAY_TS_SHIFT ASSOCIATED_DAY_TS_DATETIME SUM_AMOUNT OPERATING_STATUS_ID OPERATING_STATUS_COLOR OPERATING_STATUS_MNEMONIC OPERATING_STATUS_SORT_ORDER OPERATING_STATUS_TEXT OPERATING_STATUS_SHORTTEXT			

## 3.3 Tables

### 3.3.1 Masterdata

**FR\_MD\_OPERATION\_PHASE\_DEF**

Meaning	Columns
<b>Header data of operation phase</b>	ID ACTIVE CODE COLOR DEFAULT_STATUS MNEMONIC ACTIVE_PHASE description_ID shortDescription_ID UUID SORT_ORDER

**FR\_MD\_OPERATION\_STATUS\_DEF**

Meaning	Columns
<b>Header data of operation status</b>	ID ACTIVE CODE COLOR DEFAULT_STATUS MNEMONIC description_ID shortDescription_ID UUID SORT_ORDER

**FR\_MD\_WORKPLACE\_PHASE\_DEF**

Meaning	Columns
<b>Header data of workplace phase</b>	ID ACTIVE CODE COLOR DEFAULT_STATUS MNEMONIC description_ID shortDescription_ID UUID SORT_ORDER

## Views and Tables

### FR\_MD\_WORKPLACE\_STATUS\_DEF

Meaning	Columns
<b>Header data of workplace status</b>	ID ACTIVE CODE COLOR DEFAULT_STATUS MNEMONIC ANNOTATABLE RECODEABLE SPLITTABLE description_ID shortDescription_ID UUID SORT_ORDER

### FR\_MD\_PERSON\_STATUS\_DEF

Meaning	Columns
<b>Header data of person status</b>	ID ACTIVE CODE COLOR DEFAULT_STATUS MNEMONIC description_ID shortDescription_ID UUID SORT_ORDER

### FR\_MD\_MACHINE\_STATUS\_DEF

Meaning	Columns
<b>Header data of machine status</b>	ID ACTIVE CODE COLOR DEFAULT_STATUS MNEMONIC description_ID shortDescription_ID UUID SORT_ORDER

## Views and Tables

### FR\_MD\_MALFUNCTION\_REASON

Meaning	Columns
Status Detail (malfunction reason)	ID ACTIVE ANNOTATABLE code color DEFAULT_REASON DESCRIPTION_ID MNEMONIC RECODEABLE SHORTDESCRIPTION_ID SPLITTABLE SORT_ORDER CUSTOMER_CODE UUID OPERATING_STATE_CATEGORY

### FR\_MD\_MALFUNCTION\_REASON\_VEC

Meaning	Columns
Vector of status details (defined in status details hierarchy tree, a vector defines a path through this tree with the ids of the status detail at each level)	ID REASON_ID_1 REASON_ID_2 REASON_ID_3 REASON_ID_4 REASON_ID_5 REASON_ID_6 REASON_ID_7 UUID

### FF\_MD\_PIECE\_TIME

Meaning	Columns
Contains "real" piece times (manually entered), in contrast to the piece times coming from ERP system. Also different piece times can be valid for different time ranges (→ history of piece times)	ID MATERIAL_ID TARGET_PIECE_TIME TARGET_PIECE_TIME_FACTOR TARGET_PIECE_TIME_UNIT VALID_FROM_TS VALID_TO_TS WORKPLACE_ID CHANGE_TS CREATE_TS CREATOR EDITOR

## Views and Tables

### FR\_MD\_TIMEBASE

Meaning	Columns
<b>Head data of a time base</b>	ID MNEMONIC description_ID shortDescription_ID SORT_ORDER COLOR OPERATING_STATE_GROUP UUID

### FR\_MD\_TIMEBASE\_ENTRY

Meaning	Columns
<b>Time base entry</b>	ID MALFUNCTION_REASON_ID PHASE_ID STATUS_ID TIMEBASE_ID UUID

### FR\_MD\_ERP\_KEY

Meaning	Columns
<b>ERP Key</b>	ID ACTIVE CLIENT COMPANY_CODE PLANT SYSTEM_ID UUID

### FR\_MD\_PERSON\_ERP\_KEY

Meaning	Columns
<b>Person ERP Key</b>	ID ACTIVE CLIENT COMPANY_CODE PERSONNEL_AREA SYSTEM_ID UUID

## Views and Tables

### FR\_MD\_OVERHEAD\_COST\_ERP\_KEY

Meaning	Columns
<b>Overhead cost ERP Key</b>	ID ACTIVE CLIENT COMPANY_CODE CONTROLLING_AREA SYSTEM_ID UUID

### FR\_MD\_ORDER

Meaning	Columns
<b>Order</b>	ID ACTIVE ERP_STATUS ERP_STATUS_IDS ERP_STATUS_LA DISPLAY_QUANTITY_UNIT ERP_KEY_ID ORDER_NUMBER ORDER_PRIORITY ORDER_SPLIT PLANNER_GROUP_IN_CHARGE PRODUCTION_VERSION RELEASE_DATE TARGET_END TARGET_QUANTITY TARGET_START USER_DATA_ID description_ID MATERIAL_ID UUID SCHEDULED_START_DATE SCHEDULED_END_DATE

## Views and Tables

### FR\_MD\_OPERATION

Meaning	Columns
Operation	ID ACTIVE ERP_PLANNED_SCRAP_QUANTITY ERP_REWORK_QUANTITY ERP_SCRAP_QUANTITY ERP_STATUS ERP_STATUS_IDS ERP_STATUS_LA ERP_YIELD_QUANTITY ALTERNATE_OPERATION_NUMBER BLOCK_DESCRIPTION_ID BLOCK_NUMBER CONFIRMATION_NUMBER CONTROL_KEY COUNTER_NUMBER DEFAULT_PIECE_TIME_FACTOR DEFAULT_STROKE_FACTOR DESCRIPTION_ID DISPLAY_QUANTITY_UNIT ERP_KEY_ID FUNCTION_TYPE LEADING_OPERATION MATERIAL_ID OPERATION_NUMBER OPERATION_SPLIT OPERATIONTEXT_ID ORDER_ID ORDER_NUMBER ORDER_SPLIT ORDER_TYPE OVERDELIVERY_CHECK OVERDELIVERY_QUANTITY PRODUCTION_VERSION OPERATION_SEQUENCE STANDARD_UNIT_1 STANDARD_UNIT_2 STANDARD_UNIT_3 STANDARD_UNIT_4 STANDARD_UNIT_5 STANDARD_UNIT_6 STANDARD_VALUE_1 STANDARD_VALUE_1_MS STANDARD_VALUE_2 STANDARD_VALUE_2_MS STANDARD_VALUE_3 STANDARD_VALUE_3_MS STANDARD_VALUE_4 STANDARD_VALUE_4_MS STANDARD_VALUE_5 STANDARD_VALUE_5_MS STANDARD_VALUE_6 STANDARD_VALUE_6_MS

## Views and Tables

	TARGET_END_DATE TARGET_QUANTITY TARGET_SETUP_TIME TARGET_START_DATE TARGET_WORKGROUP_ID TARGET_WORKPLACE_ID TIME_PER_STROKE TIME_PER_UNIT UNDERDELIVERY_CHECK UNDERDELIVERY_QUANTITY USER_DATA_ID USER_STATUS WORKPLACE_GROUP AUTO_START_ID DEFAULT_TRANSPORT_QUANTITY UUID TOOL_ASM_STATUS_ID QUALITY_CHECK_CYCLE STANDARD_PACK_SIZE DEF_COMP_CONSUMPTION_FACTOR LATEST_END_DATE SCHEDULED_START_DATE SCHEDULED_END_DATE EARLIEST_END_DATE LATEST_START_DATE EARLIEST_START_DATE TARGET_QUEUE_TIME TARGET_PROCESSING_TIME TARGET_TEARDOWN_TIME TARGET_WAIT_TIME TARGET_MOVE_TIME MIN_SEND_AHEAD_QUANTITY PLANNED_WORKPLACE_GROUP_ID PLANNED_WORKPLACE_ID MINIMUM_OVERLAP_TIME TARGET_WORKPLACE_ERP_ID DETAILED_PLANNED TARGET_WORKGROUP_ERP_ID TARGET_ERP_START_DATE TARGET_ERP_END_DATE QUALITY_CHECK_STATUS LOT_CONTROLLED BLOCK_GROUP_NUMBER BLOCK_GROUP_DESCRIPTION_ID BLOCK_SEQUENCE BLOCK_ALIGNMENT BLOCK_OPERATION-SEQUENCE BLOCK_PLANNED
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## Views and Tables

### FR\_MD\_OPERATION\_TYPE

Meaning	Columns
<b>Operation Type</b>	ID ACTIVE COLOR ERP_CODE HARBOUR_RELEVANT description_ID UUID

### FR\_MD\_OPERATION\_COMPONENT

Meaning	Columns
<b>Operation component</b>	ID ACTIVE BASE_UNIT_OF_MEASURE BATCH_NUMBER COMPONENT_NUMBER CONFIRMATION_NUMBER DESCRIPTION_ID MATERIAL_GROUP MATERIAL_TYPE OPERATION_ID POSITION_NUMBER REQUIREMENT_QUANTITY REQUIREMENTS_DATE RESERVATION_NUMBER STORAGE_BIN STORAGE_LOCATION USER_DATA_ID TRACE_NEEDED UUID LOT_CONTROLLED

### FR\_MD\_MATERIAL

Meaning	Columns
<b>Material</b>	ID ACTIVE CHANGE_TS CREATE_TS EDITOR MATERIAL_NUMBER MATERIAL_TYPE USER_DATA_ID description_ID UUID

## Views and Tables

### FR\_MD\_WORKPLACE

Meaning	Columns
<b>Workplace</b>	ID ACTIVE SAP_UPLOAD_ENABLED BOOKING_ACTIVATED DESCRIPTION_ID ERP_KEY_ID name ONCE_BOOKING_ACTIVATED USER_DATA_ID TIMEZONE UUID SORT_ORDER DELETE_UNUSED_SHIFTS SPLIT_STROKE_FACTOR MACHINE_ID WORKPLACE_TYPE_CODE

### FR\_MD\_MACHINE

Meaning	Columns
<b>Machine</b>	ACTIVE ERP_KEY_ID name NC_MACHINE_TYPE_ID description_ID EQUIPMENT_NUMBER UUID

### FR\_MD\_SHIFT

Meaning	Columns
<b>Shift</b>	ID ASSOCIATED_DAY_TS END_TS SHIFT_TYPE_ID START_TS WORKPLACE_ID UUID

## Views and Tables

### FR\_MD\_SHIFT\_BREAK

Meaning	Columns
<b>Shift Break</b>	ID END_TS START_TS SHIFT_ID

### FR\_MD\_PERSON

Meaning	Columns
<b>Person</b>	ID ACTIVE MES_ONLY COST_CENTER FIRST_NAME IDENTIFICATION_NUMBER LAST_NAME PERSONNEL_ERP_KEY_ID PERSONNEL_NUMBER UUID COST_CENTER_PROTECTION_UNTIL

### FR\_MD\_OVERHEAD\_COST\_COLL

Meaning	Columns
<b>Gemeinkosten (Historie)</b>	ID ACTIVE DTYPE OVERHEAD_COST_ERP_KEY_ID IDENTIFIER OVERHEAD_COST_COLL_TYPE DESCRIPTION_ID RESPONSIBLE_PERSON COLOR EXEC CU CHANGEABLE REC CU CHANGEABLE ERP_REPORTING_ENABLED UUID ORDER_TYPE PLANT ABBREVIATION_ID VALID_FROM_UTC VALID_TO_UTC ERP_BOOKING_MODE CREATED_TIMESTAMP_UTC USER_STATUS

### 3.3.2 Reporting – Base Tables

FR\_DS\_WORKPLACE\_BASE\_TL

Meaning	Columns
<b>Workplace operating state timeline together with a set of 5 standard attributes and 5 generic attributes</b>	ID CHANGE_TS_ORDER_INDEX CHANGE_TS CREATOR_ID CURRENT_ELEMENT VERSION_NUMBER CURRENT_OPEN_INTERVAL DURATION END_TS OPEN_INTERVAL START_TS ANNOTATION FROM_LAST_SHIFT GENERIC_VALUE_1 GENERIC_VALUE_2 GENERIC_VALUE_3 GENERIC_VALUE_4 GENERIC_VALUE_5 LEADING_OPERATION_ID MALFUNCTION_REASON_VECTOR_ID NUMBER_ACTIVE_OPERATIONS NUMBER_ASSIGNED_PERSONS SHIFT_ID STATUS_CHANGE_IDENTIFIED STROKE_FACTOR TICKET_ID TIME_PER_UNIT WORKPLACE_ID WORKPLACE_PHASE_ID WORKPLACE_STATUS_ID MODIFIED_TS

FR\_DS\_WORKPLACE\_QUANTITY\_LE

Meaning	Columns
<b>Booked quantity combined with operating state and shift information (at the time of the quantity).</b>  <b>START_TS refers to the start of the corresponding operating state interval (FR_DS_WORKPLACE_BASE_TL)</b>	ID CHANGE_TS_ORDER_INDEX CHANGE_TS CREATOR_ID AMOUNT MALFUNCTION_REASON_VECTOR_ID QUANTITY_TYPE_ID QUANTITY_TYPE_REASON_ID SHIFT_ID START_TS TICKET_ID WORKPLACE_ID WORKPLACE_PHASE_ID

## Views and Tables

Meaning	Columns
	WORKPLACE_STATUS_ID MODIFIED_TS

### FR\_DS\_WORKPLACE\_STROKE\_LE

Meaning	Columns
<p><b>Strokes combined with operating state and shift information (at the time of the quantity).</b></p> <p><b>START_TS refers to the start of the corresponding operating state interval (FR_DS_WORKPLACE_BASE_TL)</b></p>	ID CHANGE_TS_ORDER_INDEX CHANGE_TS CREATOR_ID MALFUNCTION_REASON_VECTOR_ID NUMBER_OF_STROKES SHIFT_ID START_TS WORKPLACE_ID WORKPLACE_PHASE_ID WORKPLACE_STATUS_ID MODIFIED_TS

### FR\_DS\_WORKPLACE\_CS

Meaning	Columns	Since
<b>Current operating state of workplace</b>	ID WORKPLACE_ID TYPE MALFUNCTION_REASON_VECTOR_ID WORKPLACE_STATUS_ID WORKPLACE_PHASE_ID CHANGE_TS CURRENT_SHIFT_ID NONWORKING_SHIFT_TYPE	5.11.20 5.11.20

### FR\_DS\_WP\_MACHINE\_QUANTITY\_LOG

Meaning	Columns
<b>Machine quantities (no corrected → just a log)</b>	ID CHANGE_TS_ORDER_INDEX CHANGE_TS CREATOR_ID AMOUNT BASE_START_TS WORKPLACE_ID MODIFIED_TS

## Views and Tables

### FR\_DS\_OPERATION\_BASE\_TL

Meaning	Columns
<b>Operation operating state timeline</b>	ID CHANGE_TS_ORDER_INDEX CHANGE_TS CREATOR_ID CURRENT_ELEMENT VERSION_NUMBER CURRENT_OPEN_INTERVAL DURATION END_TS OPEN_INTERVAL START_TS ACTIVE_PHASE FROM_LAST_SHIFT MALFUNCTION_REASON_VECTOR_ID OPERATION_ID OPERATION_PHASE_ID OPERATION_STATUS_ID SHIFT_ID STATUS_CHANGE_IDENTIFIED TICKET_ID WORKPLACE_ID MODIFIED_TS

### FR\_DS\_OPERATION\_QUANTITY\_LE

Meaning	Columns
<b>Booked quantity combined with operating state and shift information (at the time of the quantity).</b>  <b>START_TS refers to the start of the corresponding operating state interval</b> <b>(FR_DS_OPERATION_BASE_TL)</b>	ID CHANGE_TS_ORDER_INDEX CHANGE_TS CREATOR_ID AMOUNT MALFUNCTION_REASON_VECTOR_ID OPERATION_ID OPERATION_PHASE_ID OPERATION_STATUS_ID QUANTITY_TYPE_ID QUANTITY_TYPE_REASON_ID SHIFT_ID START_TS TICKET_ID WORKPLACE_ID PERSON_ID MODIFIED_TS

## Views and Tables

### FR\_DS\_OPERATION\_STROKE\_LE

Meaning	Columns
<p><b>Strokes combined with operating state and shift information (at the time of the quantity).</b></p> <p><b>START_TS refers to the start of the corresponding operating state interval (FR_DS_OPERATION_BASE_TL)</b></p>	ID CHANGE_TS_ORDER_INDEX CHANGE_TS CREATOR_ID MALFUNCTION_REASON_VECTOR_ID NUMBER_OF_STROKES OPERATION_ID OPERATION_PHASE_ID OPERATION_STATUS_ID SHIFT_ID START_TS WORKPLACE_ID MODIFIED_TS

### FR\_DS\_OPERATION\_CS

Meaning	Columns
<b>Operation related current data</b>	ID CHANGE_TS MALFUNCTION_REASON_VECTOR_ID OPERATION_ID OPERATION_PHASE_ID OPERATION_STATUS_ID TEMP_MACHINE_QUANTITY_COUNT WORKPLACE_ID STARTED_TS COMPLETED_TS UNBOOKED_QTY_COUNT_SHIFT

### FR\_DS\_PERS\_OPERATION\_BASE\_TL

Meaning	Columns
<b>Person timeline together with operation related operating state timeline</b>	ID CHANGE_TS_ORDER_INDEX CHANGE_TS CREATOR_ID CURRENT_ELEMENT VERSION_NUMBER CURRENT_OPEN_INTERVAL DURATION END_TS OPEN_INTERVAL START_TS ANNOTATION FROM_LAST_SHIFT MALFUNCTION_REASON_VECTOR_ID OPERATION_ID OPERATION_PHASE_ID OPERATION_STATUS_ID PERCENT_WEIGHTING

## Views and Tables

Meaning	Columns
	PERSON_ID PERSON_STATUS_ID SHIFT_ID STATUS_CHANGE_IDENTIFIED WORKPLACE_ID MODIFIED_TS

### FR\_DS\_WORKPLACE\_ATTRIB\_TL

Meaning	Columns
Generic workplace related timeline START_TS refers to the start of the corresponding operating state interval (FR_DS_WORKPLACE_BASE_TL)	ID CHANGE_TS_ORDER_INDEX CHANGE_TS CREATOR_ID CURRENT_ELEMENT VERSION_NUMBER CURRENT_OPEN_INTERVAL DURATION END_TS OPEN_INTERVAL START_TS ATTRIBUTE_VALUE_1 ATTRIBUTE_VALUE_10 ATTRIBUTE_VALUE_2 ATTRIBUTE_VALUE_3 ATTRIBUTE_VALUE_4 ATTRIBUTE_VALUE_5 ATTRIBUTE_VALUE_6 ATTRIBUTE_VALUE_7 ATTRIBUTE_VALUE_8 ATTRIBUTE_VALUE_9 BASE_INTERVAL_ID TYPE_ID WORKPLACE_ID MODIFIED_TS

### FR\_DS\_OPERATION\_ATTRIB\_TL

Meaning	Columns
Generic workplace related timeline START_TS refers to the start of the corresponding operating state interval (FR_DS_OPERATION_BASE_TL)	ID CHANGE_TS_ORDER_INDEX CHANGE_TS CREATOR_ID CURRENT_ELEMENT VERSION_NUMBER CURRENT_OPEN_INTERVAL DURATION END_TS OPEN_INTERVAL START_TS ATTRIBUTE_VALUE_1 ATTRIBUTE_VALUE_10

## Views and Tables

Meaning	Columns
	ATTRIBUTE_VALUE_2 ATTRIBUTE_VALUE_3 ATTRIBUTE_VALUE_4 ATTRIBUTE_VALUE_5 ATTRIBUTE_VALUE_6 ATTRIBUTE_VALUE_7 ATTRIBUTE_VALUE_8 ATTRIBUTE_VALUE_9 BASE_INTERVAL_ID OPERATION_ID TYPE_ID WORKPLACE_ID MODIFIED_TS

### FR\_DS\_PERSON\_LOG\_ON

Meaning	Columns
<b>What person is currently assigned to which objects</b>	ID CHANGE_TS PERSON_ID LOG_ON_TYPE LOG_ON_TARGET_ID

### FR\_DS\_PERS\_OVERHEAD\_COST\_TL

Meaning	Columns
<b>Timeline of person assigned to overhead costs</b>	ID CHANGE_TS_ORDER_INDEX CHANGE_TS CREATOR_ID CURRENT_ELEMENT VERSION_NUMBER CURRENT_OPEN_INTERVAL DURATION END_TS OPEN_INTERVAL START_TS STATUS_CHANGE_IDENTIFIED PERSON_ID OVERHEAD_COST_ID CHARGED_COST EXECUTION_COST FORCED_LOG_OFF COST_COLLECTOR_TYPE DISTRIBUTION MODIFIED_TS

## Views and Tables

### FR\_DS\_PERS\_TIME\_ATTENDANCE\_TL

Meaning	Columns
Timeline of person assigned to time attendance	ID CHANGE_TS_ORDER_INDEX CHANGE_TS CREATOR_ID CURRENT_ELEMENT VERSION_NUMBER CURRENT_OPEN_INTERVAL DURATION END_TS OPEN_INTERVAL START_TS PERSON_TA_STATUS_ID PERSON_ID STATUS_CHANGE_IDENTIFIED FORCED_LOG_OFF OPERATION_ID WORKPLACE_ID MODIFIED_TS

### FR\_DS\_USER\_CHARACTERISTIC\_TL

Meaning	Columns
Generic table for double valued time series	ID CHANGE_TS_ORDER_INDEX CHANGE_TS CREATOR_ID DOMAIN_ID TYPE_ID USER_BULK_DATA_ID CHARACTERISTIC MODIFIED_TS

### FR\_DS\_USER\_COUNTER\_TL

Meaning	Columns
Generic table for integer valued time series	ID CHANGE_TS_ORDER_INDEX CHANGE_TS CREATOR_ID DOMAIN_ID TYPE_ID USER_BULK_DATA_ID COUNTER_VALUE MODIFIED_TS

### 3.3.3 Reporting – Archived Tables

#### OPERATION\_BASE\_ARC\_SUM

Meaning	Columns
<b>Operation operating state timeline grouped by operation, workplace, shift, and operating state</b> <b>Aggregated duration</b>	ID WORKPLACE_ID SHIFT_ID OPERATION_ID OPERATION_STATUS_ID OPERATION_PHASE_ID MALFUNCTION_REASON_VECTOR_ID SUM_DURATION CNT_OCCURRENCE START_TS END_TS FROM_LAST_SHIFT CHANGE_TS

#### OPERATION\_QUANTITY\_ARC\_SUM

Meaning	Columns
<b>Operation operating state timeline together with quantity information grouped by workplace, shift, operating state, quantity type and reason</b> <b>Aggregated quantities</b>	ID CHANGE_TS MALFUNCTION_REASON_VECTOR_ID OPERATION_ID OPERATION_PHASE_ID OPERATION_STATUS_ID QUANTITY_TYPE_ID QUANTITY_TYPE_REASON_ID SHIFT_ID START_TS SUM_AMOUNT WORKPLACE_ID

#### OPERATION\_STROKE\_ARC\_SUM

Meaning	Columns
<b>Operation operating state timeline together with stroke information grouped by workplace, shift, operating state</b> <b>Aggregated strokes</b>	ID WORKPLACE_ID SHIFT_ID OPERATION_ID OPERATION_STATUS_ID OPERATION_PHASE_ID MALFUNCTION_REASON_VECTOR_ID NUMBER_OF_STROKES START_TS CHANGE_TS

## Views and Tables

### WORKPLACE\_BASE\_ARC\_SUM

Meaning	Columns
<p><b>Workplace operating state timeline grouped by workplace, shift, operating state</b></p> <p><b>Aggregated duration, number occurrences of certain status detail</b></p>	ID CHANGE_TS CNT_OCCURRENCE SUM_DURATION END_TS FROM_LAST_SHIFT MALFUNCTION_REASON_VECTOR_ID SHIFT_ID START_TS WORKPLACE_ID WORKPLACE_PHASE_ID WORKPLACE_STATUS_ID

### WORKPLACE\_QUANTITY\_ARC\_SUM

Meaning	Columns
<p><b>Workplace operating state timeline together with quantity information grouped by workplace, shift, operating state, quantity type and reason</b></p> <p><b>Aggregated quantities</b></p>	ID CHANGE_TS MALFUNCTION_REASON_VECTOR_ID QUANTITY_TYPE_ID QUANTITY_TYPE_REASON_ID SHIFT_ID START_TS SUM_AMOUNT WORKPLACE_ID WORKPLACE_PHASE_ID WORKPLACE_STATUS_ID

### WORKPLACE\_STROKE\_ARC\_SUM

Meaning	Columns
<p><b>Workplace operating state timeline together with stroke information grouped by workplace, shift, operating state</b></p> <p><b>Aggregated strokes</b></p>	ID CHANGE_TS MALFUNCTION_REASON_VECTOR_ID NUMBER_OF_STROKES SHIFT_ID START_TS WORKPLACE_ID WORKPLACE_PHASE_ID WORKPLACE_STATUS_ID

## Views and Tables

### PERS\_OPERATION\_BASE\_ARC\_SUM

Meaning	Columns
<p><b>Operation operating state timeline where person is signed on grouped by operation, workplace, shift, operating state, person, and person weighting</b></p> <p><b>Aggregated duration, number occurrences of certain status detail</b></p>	ID WORKPLACE_ID SHIFT_ID OPERATION_ID OPERATION_STATUS_ID OPERATION_PHASE_ID MALFUNCTION_REASON_VECTOR_ID PERSON_ID PERSON_STATUS_ID SUM_DURATION CNT_OCCURRENCE START_TS END_TS FROM_LAST_SHIFT PERCENT_WEIGHTING CHANGE_TS

### FF\_MD\_PERSON\_COST\_UNIT\_HISTORY

Meaning	Columns
<p><b>Time frame defining when a person was assigned to a specific cost unit</b></p>	ID PERSON_ID COST_UNIT VALID_FROM_TS VALID_TO_TS CREATE_TS CHANGE_TS CREATOR EDITOR

## 4 Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
Online Logs Online-Protocols	<ul style="list-style-type: none"> <li>— Workplace → Quantity Status Diagram (Workplace)</li> <li>— Arbeitsplatz → Mengen-Zustandsdiagramm (Arbeitsplatz)</li> </ul>	Quantity Status Diagram (Workplace)	See Data source Columns in Annex: Quantity Status Diagram (Workplace)	FR_DS_WORKPLACE_QUANTITY_LE FR_DS_WORKPLACE_BASE_TL FR_MD_OPERATION_QUANTITY_TYPE FR_DS_OPERATION_CS V_MD_MALFUNCTION_REASON_VEC1 V_MD_WORKPLACE_STATUS FR_MD_OPERATION V_C_OPERATION_TIMESTAMPS FR_MD_MATERIAL_TEB FF_MD_PIECE_TIME	<ul style="list-style-type: none"> <li>— FR_DS_WORKPLACE_QUANTITY_LE <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ START_TS</li> <li>○ CHANGE_TS</li> <li>○ AMOUNT</li> <li>○ WORKPLACE_PHASE_ID</li> <li>○ WORKPLACE_STATUS_ID</li> <li>○ MALFUNCTION_REASON_VECTOR_ID</li> <li>○</li> </ul> </li> <li>— FR_DS_WORKPLACE_BASE_TL <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ TIME_PER_UNIT</li> <li>○ LEADING_OPERATION_ID</li> <li>○ CURRENT_ELEMENT</li> <li>○ WORKPLACE_PHASE_ID</li> <li>○ WORKPLACE_STATUS_ID</li> <li>○ MALFUNCTION_REASON_VECTOR_ID</li> <li>○ START_TS</li> <li>END_TS</li> </ul> </li> <li>— FR_MD_OPERATION_QUANTITY_TYPE <ul style="list-style-type: none"> <li>○ ID</li> <li>○ CODE</li> </ul> </li> <li>— FR_DS_OPERATION_CS <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ CHANGE_TS</li> <li>○ UNBOOKED_QTY_COUNT_SHIFT</li> <li>○ OPERATION_PHASE_ID</li>   <li>— V_MD_MALFUNCTION_REASON_VEC1           <ul style="list-style-type: none"> <li>○ MFR_VECTOR_ID</li> </ul> </li>   <li>— V_MD_WORKPLACE_STATUS           <ul style="list-style-type: none"> <li>○ STATUS_ID</li> <li>○ STATUS_CODE</li> </ul> </li>   <li>— FR_MD_OPERATION           <ul style="list-style-type: none"> <li>○ ID</li> <li>○ MATERIAL_ID</li> <li>○ DISPLAY_QUANTITY_UNIT</li> <li>○ V_C_OPERATION_TIMESTAMPS</li> <li>○ OPERATION_ID</li> <li>○ TOTAL_START_TS</li> </ul> </li>   <li>— FR_MD_MATERIAL_TEB           <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ MATERIAL_ID</li> </ul> </li>   <li>— FF_MD_PIECE_TIME           <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ MATERIAL_ID</li> <li>○ VALID_FROM_TS</li> <li>○ VALID_TO_TS</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>— Workplace → Quantity Status Diagram (Workplace) (Online)</li> <li>— Arbeitsplatz → Mengen-Zustandsdiagramm (Arbeitsplatz) (Online)</li> </ul>	Quantity Status Diagram (Workplace) (Online)	See Datasource Columns in Annex:Qu	FR_DS_WP_MACHINE_QUANTITY_LOG FR_DS_WORKPLACE_BASE_TL V_MD_MALFUNCTION_REASON_VEC1 V_MD_WORKPLACE_STATUS FR_MD_OPERATION V_C_OPERATION_TIMESTAMPS	<ul style="list-style-type: none"> <li>— FR_DS_WP_MACHINE_QUANTITY_LOG           <ul style="list-style-type: none"> <li>○ BASE_START_TS</li> <li>○ CHANGE_TS</li> <li>○ AMOUNT</li> </ul> </li>   <li>— FR_DS_WORKPLACE_BASE_TL           <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> </ul> </li> </ul>

**Reports and their data**


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Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
			Quantity Status Diagram (Workplace) (Online)	FR_MD_MATERIAL_TEB FF_MD_PIECE_TIME	<ul style="list-style-type: none"> <li>○ TIME_PER_UNIT</li> <li>○ LEADING_OPERATION_ID</li> <li>○ CURRENT_ELEMENT</li> <li>○ WORKPLACE_PHASE_ID</li> <li>○ WORKPLACE_STATUS_ID</li> <li>○ MALFUNCTION_REASON_VECTOR_ID</li> <li>○ START_TS</li> <li>○ END_TS</li> <li>— V_MD_MALFUNCTION_REASON_VEC1 <ul style="list-style-type: none"> <li>○ MFR_VECTOR_ID</li> </ul> </li> <li>— V_MD_WORKPLACE_STATUS <ul style="list-style-type: none"> <li>○ STATUS_ID</li> <li>○ STATUS_CODE</li> </ul> </li> <li>— FR_MD_OPERATION <ul style="list-style-type: none"> <li>○ ID</li> <li>○ MATERIAL_ID</li> <li>○ DISPLAY_QUANTITY_UNIT</li> </ul> </li> <li>— V_C_OPERATION_TIMESTAMPS <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ TOTAL_START_TS</li> </ul> </li> <li>— FR_MD_MATERIAL_TEB <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ MATERIAL_ID</li> <li>○ FF_MD_PIECE_TIME</li> <li>○ WORKPLACE_ID</li> <li>○ MATERIAL_ID</li> <li>○ VALID_FROM_TS</li> <li>○ VALID_TO_TS</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Datasource Columns	Used Tables/Views	Used Columns
	<ul style="list-style-type: none"> <li>— Workplace → Stroke Status Diagram (Workplace) (Strokes calculated from quantities)</li> <li>— Hübe-Zustandsdiagramm (Arbeitsplatz) (Hübe aus Mengen berechnet)</li> </ul>	Stroke Status Diagram (Workplace) (Strokes calculated from quantities)	See Datasource Columns in Annex:Stroke Status Diagram (Workplace) (Strokes calculated from quantities )	FR_DS_OPERATION_QUANTITY_LE FR_DS_WORKPLACE_BASE_TL FR_MD_OPERATION FR_DS_OPERATION_CS FR_MD_OPERATION_PHASE_DEF V_MD_MALFUNCTION_REASON_VEC1 V_MD_WORKPLACE_STATUS FR_MD_MATERIAL_TE	<ul style="list-style-type: none"> <li>— FR_DS_OPERATION_QUANTITY_LE <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ WORKPLACE_ID</li> <li>○ START_TS</li> <li>○ CHANGE_TS</li> <li>○ AMOUNT</li> <li>○ STROKE_FACTOR</li> </ul> </li> <li>— FR_DS_WORKPLACE_BASE_TL <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ CURRENT_ELEMENT</li> <li>○ START_TS</li> <li>○ WORKPLACE_PHASE_ID</li> <li>○ WORKPLACE_STATUS_ID</li> <li>○ MALFUNCTION_REASON_VECTOR_ID</li> <li>○ TIME_PER_UNIT</li> </ul> </li> <li>— FR_MD_OPERATION <ul style="list-style-type: none"> <li>○ ID</li> <li>○ LEADING_OPERATION</li> <li>○ MATERIAL_ID</li> </ul> </li> <li>— FR_DS_OPERATION_CS <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ START_TS</li> <li>○ TEMP_MACHINE_QUANTITY_COUNT</li> </ul> </li> <li>— FR_MD_OPERATION_PHASE_DEF <ul style="list-style-type: none"> <li>○ ID</li> <li>○ ACTIVE_PHASE</li> </ul> </li> <li>— V_MD_MALFUNCTION_REASON_VEC1</li> </ul>

## Reports and their data

Reporting Area	Report Name (English/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ MFR_VECTOR_ID</li> <li>— V_MD_WORKPLACE_STATUS           <ul style="list-style-type: none"> <li>○ STATUS_ID</li> <li>○ STATUS_CODE</li> </ul> </li> <li>— FR_MD_MATERIAL_TEB           <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ MATERIAL_ID</li> <li>○ TARGET_PIECE_VALUE</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>— Workplace → Operating State Timeline (Workplace)</li> <li>— Arbeitsplatz → Betriebszustandszeitstrahl (Arbeitsplatz)</li> </ul>	Operating State Timeline (Workplace)	See Datasource Columns in Annex:Operating State Timeline (Workplace)	V_TL_WORKPLACE FR_MD_WORKPLACE	<ul style="list-style-type: none"> <li>— V_TL_WORKPLACE           <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ WORKPLACE_SORT_ORDER</li> <li>○ START_TS</li> <li>○ END_TS</li> <li>○ OPERATING_STATUS_COLOR</li> <li>○ OPERATING_STATUS_MNEMONIC</li> <li>○ OPERATING_STATUS_TEXT</li> <li>○ OPERATING_STATUS_SHORTTEXT</li> <li>○ OPERATING_STATUS_SORT_ORDER</li> </ul> </li> <li>— FR_MD_WORKPLACE           <ul style="list-style-type: none"> <li>○ ID</li> <li>○ SORT_ORDER</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>— Workplace → Operating State Log (Workplace)</li> <li>— Arbeitsplatz → Betriebszustandsprotokoll (Arbeitsplatz)</li> </ul>	Subreport: Operating State Log Sum (Workplace) <ul style="list-style-type: none"> <li>— Operating State Log Sum (Workplace)</li> </ul>	See Datasource Columns in Annex:Operating State Log Sum	<p><b>Operating State Log Sum</b></p> V_TL_WORKPLACE <p><b>Operating State Log Details</b></p> V_TL_WORKPLACE V_MD_MALFUNCTION_REASON_VEC FO_TA_TICKET	<p><b>Operating State Log Sum</b></p> <ul style="list-style-type: none"> <li>— V_TL_WORKPLACE           <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ DURATION</li> <li>○ START_TS</li> <li>○ END_TS</li> <li>○ WORKPLACE_SORT_ORDER</li> </ul> </li> </ul>

## Reports and their data

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Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
		Subreport: Operating State Log Details (Workplace) <ul style="list-style-type: none"> <li>— Operating State Log Details (Workplace)</li> </ul>	(Workplace) and Operating State Log Details		<ul style="list-style-type: none"> <li>○ OPERATING_STATUS_COLOR</li> <li>○ OPERATING_STATUS_MNEMONIC</li> <li>○ OPERATING_STATUS_TEXT</li> <li>○ OPERATING_STATUS_SHORTTEXT</li> <li>○ OPERATING_STATUS_SORT_ORDER</li> </ul> <p><b>Operating State Log Details</b></p> <ul style="list-style-type: none"> <li>— V_TL_WORKPLACE               <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ WORKPLACE_SORT_ORDER</li> <li>○ DURATION</li> <li>○ START_TS</li> <li>○ END_TS</li> <li>○ OPERATING_STATUS_COLOR</li> <li>○ OPERATING_STATUS_MNEMONIC</li> <li>○ OPERATING_STATUS_TEXT</li> <li>○ OPERATING_STATUS_SHORTTEXT</li> <li>○ OPERATING_STATUS_SORT_ORDER</li> <li>○ QTY</li> <li>○ TICKET_ID</li> <li>○ MFR_VECTOR_ID</li> </ul> </li> <li>— V_MD_MALFUNCTION_REASON_VEC               <ul style="list-style-type: none"> <li>○ MFR_VECTOR_ID</li> <li>○ MFR2_MNEMONIC</li> <li>○ MFR2_TEXT</li> <li>○ MFR2_SORT_ORDER</li> <li>○ MFR3_MNEMONIC</li> <li>○ MFR3_TEXT</li> <li>○ MFR3_SORT_ORDER</li> <li>○ MFR4_MNEMONIC</li> </ul> </li> </ul>

**Reports and their data**


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Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ MFR4_TEXT</li> <li>○ MFR4_SORT_ORDER</li> <li>○ MFR5_MNEMONIC</li> <li>○ MFR5_TEXT</li> <li>○ MFR5_SORT_ORDER</li> <li>○ MFR6_MNEMONIC</li> <li>○ MFR6_TEXT</li> <li>○ MFR6_SORT_ORDER</li> <li>○ MFR7_MNEMONIC</li> <li>○ MFR7_TEXT</li> <li>○ MFR7_SORT_ORDER</li> <li>— FO_TA_TICKET           <ul style="list-style-type: none"> <li>○ ID</li> <li>○ TITLE</li> <li>○ TICKET_DESC</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>— Operation → Quantity Status Diagram (Operation)</li> <li>— Vorgang → Mengen-Zustandsdiagramm (Vorgang)</li> </ul>	Quantity Status Diagram (Operation)	See Datasource Columns in Annex:Quantity Status Diagram (Operation)	FR_DS_OPERATION_QUANTITY_LE FR_MD_OPERATION_QUANTITY_TYPE FR_DS_OPERATION_BASE_TL FR_DS_OPERATION_CS FR_MD_OPERATION_PHASE_DEF V_MD_MALFUNCTION_REASON_VEC1 V_MD_OPERATION_STATUS FR_MD_OPERATION FR_MD_MATERIAL_TE V_C_OPERATION_TIMESTAMPS FF_MD_PIECE_TIME	<ul style="list-style-type: none"> <li>— FR_DS_OPERATION_QUANTITY_LE           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ WORKPLACE_ID</li> <li>○ START_TS</li> <li>○ CHANGE_TS</li> <li>○ AMOUNT</li> <li>○ OPERATION_PHASE_ID</li> <li>○ OPERATION_STATUS_ID</li> <li>○ MALFUNCTION_REASON_VECTOR_ID</li> <li>○ QUANTITY_TYPE_ID</li> </ul> </li> <li>— FR_MD_OPERATION_QUANTITY_TYPE           <ul style="list-style-type: none"> <li>○ ID</li> <li>○ CODE</li> </ul> </li> <li>— FR_DS_OPERATION_BASE_TL</li> </ul>

**Reports and their data**


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Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ WORKPLACE_ID</li> <li>○ START_TS</li> <li>○ CURRENT_ELEMENT</li> <li>○ START_TS</li> <li>○ OPERATION_PHASE_ID</li> <li>○ OPERATION_STATUS_ID</li> <li>○ MALFUNCTION_REASON_VECTOR_ID</li> <li>— FR_DS_OPERATION_CS           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ WORKPLACE_ID</li> <li>○ CHANGE_TS</li> <li>○ UNBOOKED_QTY_COUNT_SHIFT</li> </ul> </li> <li>— FR_MD_OPERATION_PHASE_DEF           <ul style="list-style-type: none"> <li>○ ID</li> <li>○ ACTIVE_PHASE</li> </ul> </li> <li>— V_MD_MALFUNCTION_REASON_VEC1           <ul style="list-style-type: none"> <li>○ MFR_VECTOR_ID</li> </ul> </li> <li>— V_MD_OPERATION_STATUS           <ul style="list-style-type: none"> <li>○ STATUS_ID</li> <li>○ STATUS_CODE</li> </ul> </li> <li>— FR_MD_OPERATION           <ul style="list-style-type: none"> <li>○ ID</li> <li>○ MATERIAL_ID</li> <li>○ TIME_PER_UNIT</li> <li>○ DISPLAY_QUANTITY_UNIT</li> <li>○ FR_MD_MATERIAL_TEB</li> <li>○ MATERIAL_ID</li> <li>○ TARGET_PIECE_VALUE</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Datasource Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>- V_C_OPERATION_TIMESTAMPS           <ul style="list-style-type: none"> <li>o OPERATION_ID</li> <li>o TOTAL_START_TS</li> </ul> </li> <li>- FF_MD_PIECE_TIME           <ul style="list-style-type: none"> <li>o MATERIAL_ID</li> <li>o WORKPLACE_ID</li> <li>o VALID_FROM_TS</li> <li>o VALID_TO_TS</li> <li>o TARGET_PIECE_TIME</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>- Operation → Quantity Status Diagram (Operation) (Online)</li> <li>- Vorgang → Mengen-Zustandsdiagramm (Vorgang) (Online)</li> </ul>	Quantity Status Diagram (Operation) (Online)	See Datasource Columns in Annex:Quantity Status Diagram (Operation) (Online)	FR_DS_OP_MACHINE_QUANTITY_LOG FR_DS_OPERATION_BASE_TL FR_DS_OPERATION_CS V_MD_MALFUNCTION_REASON_VEC1 V_MD_OPERATION_STATUS FR_MD_OPERATION FR_MD_MATERIAL_TE V_C_OPERATION_TIMESTAMPS FF_MD_PIECE_TIME	<ul style="list-style-type: none"> <li>- FR_DS_OP_MACHINE_QUANTITY_LOG           <ul style="list-style-type: none"> <li>o OPERATION_ID</li> <li>o WORKPLACE_ID</li> <li>o CHANGE_TS</li> <li>o BASE_START_TS</li> <li>o AMOUNT</li> </ul> </li> <li>- FR_DS_OPERATION_BASE_TL           <ul style="list-style-type: none"> <li>o OPERATION_ID</li> <li>o WORKPLACE_ID</li> <li>o OPERATION_PHASE_ID</li> <li>o OPERATION_STATUS_ID</li> <li>o MALFUNCTION_REASON_VECTOR_ID</li> <li>o CURRENT_ELEMENT</li> </ul> </li> <li>- FR_DS_OPERATION_CS           <ul style="list-style-type: none"> <li>o OPERATION_ID</li> <li>o STARTED_TS</li> </ul> </li> <li>- V_MD_MALFUNCTION_REASON_VEC1           <ul style="list-style-type: none"> <li>o MFR_VECTOR_ID</li> </ul> </li> <li>- V_MD_OPERATION_STATUS</li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ STATUS_ID</li> <li>○ STATUS_CODE</li> <li>— FR_MD_OPERATION           <ul style="list-style-type: none"> <li>○ ID</li> <li>○ MATERIAL_ID</li> <li>○ TIME_PER_UNIT</li> <li>○ DISPLAY_QUANTITY_UNIT</li> <li>○ FR_MD_MATERIAL_TEB</li> <li>○ MATERIAL_ID</li> <li>○ TARGET_PIECE_VALUE</li> </ul> </li> <li>— V_C_OPERATION_TIMESTAMPS           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ TOTAL_START_TS</li> </ul> </li> <li>— FF_MD_PIECE_TIME           <ul style="list-style-type: none"> <li>○ MATERIAL_ID</li> <li>○ WORKPLACE_ID</li> <li>○ VALID_FROM_TS</li> <li>○ VALID_TO_TS</li> <li>○ TARGET_PIECE_TIME</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>— Operation → Operating State Timeline (Operation)</li> <li>— Vorgang → Betriebszustandszeitstrahl (Vorgang)</li> </ul>	Operations Overview (Gantt Chart, with Operation Filter)	See Datasource Columns in Annex:Operations Overview (Gantt Chart, with	V_TL_OPERATION V_MD_OPERATION V_MD_WORKPLACE FR_MD_OPERATION V_ST_OPERATION V_ST_OPERATION_DETAIL	<ul style="list-style-type: none"> <li>— V_TL_OPERATION           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ WORKPLACE_ID</li> <li>○ PHASE_CODE</li> <li>○ PHASE_TEXT</li> <li>○ PHASE_COLOR</li> <li>○ OPERATING_STATUS_ID</li> <li>○ OPERATING_STATUS_TEXT</li> <li>○ OPERATING_STATUS_COLOR</li> <li>○ START_TS</li> <li>○ END_TS</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
<ul style="list-style-type: none"> <li>— Operation → Operating State Log (Operation)</li> <li>— Vorgang → Betriebszustandsprotokoll (Vorgang)</li> </ul>			Operation Filter)		<ul style="list-style-type: none"> <li>○ OPEN_INTERVAL</li> <li>— V_MD_OPERATION           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ ORDER_NUMBER</li> <li>○ ORDER_SPLIT</li> <li>○ OPERATION_NUMBER</li> <li>○ OPERATION_SPLIT</li> <li>○ MATERIAL_NUMBER</li> </ul> </li> <li>— V_MD_WORKPLACE           <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ WORKPLACE_SORT_ORDER</li> <li>○ NAME</li> </ul> </li> <li>— FR_MD_OPERATION           <ul style="list-style-type: none"> <li>○ ID</li> </ul> </li> <li>— V_ST_OPERATION           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ PHASE_CODE</li> <li>○ OPERATING_STATUS_COLOR</li> </ul> </li> <li>— V_ST_OPERATION_DETAIL           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ YIELD_QTY</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>— Operating State Log Sum (Operation)</li> </ul>	Subreport: Operating State Log Sum (Operation) <ul style="list-style-type: none"> <li>— Operating State Log Sum (Operation)</li> </ul>	See Data source Columns in Annex:Operating State Log	<b>Operating State Log Sum (Operation)</b> V_TL_OPERATION FR_MD_OPERATION	<b>Operating State Log Sum (Operation)</b> <ul style="list-style-type: none"> <li>— V_TL_OPERATION           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ OPERATING_STATUS_COLOR</li> <li>○ OPERATING_STATUS_MNEMONIC</li> <li>○ OPERATING_STATUS_TEXT</li> <li>○ OPERATING_STATUS_SHORTTEXT</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Datasource Columns	Used Tables/Views	Used Columns
		<p>Subreport: Operating State Log Details (Operation)</p> <ul style="list-style-type: none"> <li>— Operations Overview (Gantt Chart, with Operation Filter)</li> </ul>	<p>Sum (Operation) and Operations Overview (Gantt Chart, with Operation Filter)</p>	<p><b>Operations Overview (Gantt Chart, with Operation Filter)</b></p> <p>V_TL_OPERATION V_MD_OPERATION V_MD_WORKPLACE FR_MD_OPERATION V_ST_OPERATION V_ST_OPERATION_DETAIL</p>	<ul style="list-style-type: none"> <li>○ OPERATING_STATUS_SORT_ORDER</li> <li>○ START_TS</li> <li>○ END_TS</li> <li>○ DURATION</li> </ul> <ul style="list-style-type: none"> <li>— FR_MD_OPERATION           <ul style="list-style-type: none"> <li>○ ID</li> <li>○ MATERIAL_ID</li> </ul> </li> </ul> <p><b>Operations Overview (Gantt Chart, with Operation Filter)</b></p> <ul style="list-style-type: none"> <li>— V_TL_OPERATION           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ WORKPLACE_ID</li> <li>○ START_TS</li> <li>○ END_TS</li> <li>○ OPERATING_STATUS_ID</li> <li>○ OPERATING_STATUS_TEXT</li> <li>○ OPERATING_STATUS_COLOR</li> <li>○ PHASE_CODE</li> <li>○ PHASE_TEXT</li> <li>○ PHASE_COLOR</li> </ul> </li> </ul> <ul style="list-style-type: none"> <li>— V_MD_OPERATION           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ ORDER_NUMBER</li> <li>○ ORDER_SPLIT</li> <li>○ OPERATION_NUMBER</li> <li>○ OPERATION_SPLIT</li> <li>○ MATERIAL_NUMBER</li> <li>○ MATERIAL_TEXT</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>- V_MD_WORKPLACE           <ul style="list-style-type: none"> <li>o WORKPLACE_ID</li> <li>o WORKPLACE_ID</li> <li>o NAME</li> <li>o WORKPLACE_SORT_ORDER</li> </ul> </li> <li>- FR_MD_OPERATION           <ul style="list-style-type: none"> <li>o ID</li> </ul> </li> <li>- V_ST_OPERATION           <ul style="list-style-type: none"> <li>o OPERATION_ID</li> <li>o PHASE_CODE</li> <li>o OPERATING_STATUS_COLOR</li> </ul> </li> <li>- V_ST_OPERATION_DETAIL           <ul style="list-style-type: none"> <li>o OPERATION_ID</li> <li>o YIELD_QTY</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>- Order → Operating State Timeline (Order)</li> <li>- Auftrag → Betriebszustandszeitstrahl (Auftrag)</li> </ul>	Order Overview (Gantt Chart)	See Datasource Columns in Annex:Order Overview (Gantt Chart)	V_TL_OPERATION FR_MD_OPERATION V_MD_OPERATION_PHASE V_C_OPERATION_TIMESTAMPS FF_MD_PIECE_TIME V_ST_OPERATION V_ST_OPERATION_DETAIL V_MD_OPERATION V_MD_WORKPLACE	<ul style="list-style-type: none"> <li>- V_TL_OPERATION           <ul style="list-style-type: none"> <li>o OPERATION_ID</li> <li>o WORKPLACE_ID</li> <li>o START_TS</li> <li>o END_TS</li> <li>o OPEN_INTERVAL</li> <li>o OPERATING_STATUS_ID</li> <li>o OPERATING_STATUS_TEXT</li> <li>o OPERATING_STATUS_COLOR</li> <li>o OPERATING_STATUS_SORT_ORDER</li> <li>o PHASE_CODE</li> <li>o PHASE_TEXT</li> <li>o PHASE_COLOR</li> <li>o PHASE_SORT_ORDER</li> </ul> </li> <li>- FR_MD_OPERATION</li> </ul>

## Reports and their data

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Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ ID</li> <li>○ MATERIAL_ID</li> <li>○ TIME_PER_UNIT</li> <li>○ TARGET_WORKPLACE_ID</li> <li>○ TARGET_START_DATE</li> <li>○ TARGET_SETUP_TIME</li> <li>— V_MD_OPERATION_PHASE           <ul style="list-style-type: none"> <li>○ PHASE_CODE</li> <li>○ PHASE_ACTIVE</li> </ul> </li> <li>— V_C_OPERATION_TIMESTAMPS           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ TOTAL_START_TS</li> </ul> </li> <li>— FF_MD_PIECE_TIME           <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ MATERIAL_ID</li> <li>○ VALID_FROM_TS</li> <li>○ VALID_TO_TS</li> <li>○ TARGET_PIECE_TIME</li> </ul> </li> <li>— V_ST_OPERATION           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ PHASE_CODE</li> <li>○ OPERATING_STATUS_COLOR</li> </ul> </li> <li>— V_ST_OPERATION_DETAIL           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ YIELD_QTY</li> </ul> </li> <li>— V_MD_OPERATION           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ ORDER_ID</li> <li>○ ORDER_NUMBER</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Datasource Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ ORDER_SPLIT</li> <li>○ OPERATION_NUMBER</li> <li>○ OPERATION_SPLIT</li> <li>○ MATERIAL_NUMBER</li> <li>○ MATERIAL_TEXT</li> <li>○ TARGET_QUANTITY</li> <li>- V_MD_WORKPLACE           <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ NAME</li> <li>○ WORKPLACE_SORT_ORDER</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>- Order → Operating State Log (Order)</li> <li>- Auftrag → Betriebszustandsprotokoll (Auftrag)</li> </ul>	<ul style="list-style-type: none"> <li>Subreport: Operating State Log Sum (Order)           <ul style="list-style-type: none"> <li>- Operating State Log Sum (Order)</li> </ul> </li> <li>Subreport: Operating State Log Details (Order)           <ul style="list-style-type: none"> <li>- Order Overview (Gantt Chart)</li> </ul> </li> </ul>	<p>See Datasource Columns in Annex:Operating State Log Sum (Order) and Order Overview (Gantt Chart)</p>	<p><b>Operating State Log Sum (Order)</b></p> <p>V_TL_OPERATION FR_MD_OPERATION FR_MD_ORDER</p> <p><b>Order Overview (Gantt Chart)</b></p> <p>V_TL_OPERATION FR_MD_OPERATION V_MD_OPERATION_PHASE V_C_OPERATION_TIMESTAMPS FF_MD_PIECE_TIME V_MD_OPERATION V_MD_WORKPLACE V_ST_OPERATION V_ST_OPERATION_DETAIL</p>	<p><b>Operating State Log Sum (Order)</b></p> <ul style="list-style-type: none"> <li>- V_TL_OPERATION           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ OPERATING_STATUS_COLOR</li> <li>○ OPERATING_STATUS_MNEMONIC</li> <li>○ OPERATING_STATUS_TEXT</li> <li>○ OPERATING_STATUS_SHORTTEXT</li> <li>○ OPERATING_STATUS_SORT_ORDER</li> <li>○ START_TS</li> <li>○ END_TS</li> </ul> </li> <li>- FR_MD_OPERATION           <ul style="list-style-type: none"> <li>○ ID</li> <li>○ ORDER_ID</li> <li>○ FR_MD_ORDER</li> <li>○ ID</li> <li>○ MATERIAL_ID</li> </ul> </li> </ul>

**Reports and their data**


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Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<p><b>Order Overview (Gantt Chart)</b></p> <ul style="list-style-type: none"> <li>- V_TL_OPERATION <ul style="list-style-type: none"> <li>o OPERATION_ID</li> <li>o WORKPLACE_ID</li> <li>o START_TS</li> <li>o END_TS</li> <li>o OPEN_INTERVAL</li> <li>o OPERATING_STATUS_ID</li> <li>o OPERATING_STATUS_TEXT</li> <li>o OPERATING_STATUS_COLOR</li> <li>o OPERATING_STATUS_SORT_ORDER</li> <li>o PHASE_CODE</li> <li>o PHASE_TEXT</li> <li>o PHASE_COLOR</li> <li>o PHASE_SORT_ORDER</li> </ul> </li> <li>- FR_MD_OPERATION <ul style="list-style-type: none"> <li>o ID</li> <li>o ORDER_ID</li> <li>o MATERIAL_ID</li> <li>o TARGET_WORKPLACE_ID</li> <li>o TIME_PER_UNIT</li> <li>o TARGET_START_DATE</li> <li>o TARGET_SETUP_TIME</li> </ul> </li> <li>- V_MD_OPERATION_PHASE <ul style="list-style-type: none"> <li>o PHASE_CODE</li> <li>o PHASE_ACTIVE</li> </ul> </li> <li>- V_C_OPERATION_TIMESTAMPS <ul style="list-style-type: none"> <li>o OPERATION_ID</li> </ul> </li> </ul>

## Reports and their data

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Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ TOTAL_START_TS</li> <li>○ FF_MD_PIECE_TIME</li> <li>○ WORKPLACE_ID</li> <li>○ MATERIAL_ID</li> <li>○ VALID_FROM_TS</li> <li>○ VALID_TO_TS</li> <li>○ TARGET_PIECE_TIME</li> <li>— V_MD_OPERATION           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ ORDER_ID</li> <li>○ ORDER_NUMBER</li> <li>○ ORDER_SPLIT</li> <li>○ OPERATION_NUMBER</li> <li>○ OPERATION_SPLIT</li> <li>○ MATERIAL_NUMBER</li> <li>○ MATERIAL_TEXT</li> <li>○ TARGET_QUANTITY</li> </ul> </li> <li>— V_MD_WORKPLACE           <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ NAME</li> <li>○ WORKPLACE_SORT_ORDER</li> </ul> </li> <li>— V_ST_OPERATION           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ PHASE_CODE</li> <li>○ OPERATING_STATUS_COLOR</li> </ul> </li> <li>— V_ST_OPERATION_DETAIL           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ YIELD_QTY</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Datasource Columns	Used Tables/Views	Used Columns
	<ul style="list-style-type: none"> <li>— Summaries → Quantity Log</li> <li>— Berichte → Mengenprotokoll</li> </ul>	<p>Subreport: Sum of Quantities of the Operation</p> <ul style="list-style-type: none"> <li>— Sum of Quantities of the Operation</li> </ul> <p>Subreport: Quantity Log of the Operation during the Period</p> <ul style="list-style-type: none"> <li>— Quantity Log of an Operation during a Period of Time</li> </ul>	<p>See Datasource Columns in Annex:Sum of Quantities of the Operation and Order Overview (Gantt Chart)</p>	<p><b>Sum of Quantities of the Operation</b></p> <p>V_TL_OPERATION V_TL_OPERATION_QUANTITY V_MD_OPERATION V_C_OPERATION_TIMESTAMPS FF_MD_PIECE_TIME</p> <p><b>Quantity Log of an Operation during a Period of Time</b></p> <p>V_TL_OPERATION_QUANTITY V_MD_OPERATION</p>	<p><b>Sum of Quantities of the Operation</b></p> <ul style="list-style-type: none"> <li>— V_TL_OPERATION           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ WORKPLACE_ID</li> <li>○ START_TS</li> <li>○ END_TS</li> <li>○ PHASE_CODE</li> </ul> </li> <li>— V_TL_OPERATION_QUANTITY           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ WORKPLACE_ID</li> <li>○ QTY_TYPE_CODE</li> <li>○ AMOUNT</li> </ul> </li> <li>— V_MD_OPERATION           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ MATERIAL_ID</li> <li>○ TIME_PER_UNIT</li> <li>○ TARGET_QUANTITY</li> <li>○ DISPLAY_QUANTITY_UNIT</li> </ul> </li> <li>— V_C_OPERATION_TIMESTAMPS           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ TOTAL_START_TS</li> </ul> </li> <li>— FF_MD_PIECE_TIME           <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ MATERIAL_ID</li> <li>○ VALID_FROM_TS</li> <li>○ VALID_TO_TS</li> <li>○ TARGET_PIECE_TIME</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<p><b>Quantity Log of an Operation during a Period of Time</b></p> <ul style="list-style-type: none"> <li>— V_TL_OPERATION_QUANTITY <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ WORKPLACE_SORT_ORDER</li> <li>○ OPERATION_ID</li> <li>○ CHANGE_TS</li> <li>○ AMOUNT</li> <li>○ QTY_TYPE_TEXT,</li> <li>○ QTY_TYPE_SORT_ORDER,</li> <li>○ QTY_REASON_TEXT</li> <li>○ QTY_REASON_SORT_ORDER</li> <li>○ QTY_TYPE_COLOR</li> <li>○ QTY_REASON_COLOR</li> <li>○ V_MD_OPERATION</li> <li>○ DISPLAY_QUANTITY_UNIT</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>— Summaries → Shift Book</li> <li>— Berichte → Schichtbuch</li> </ul>	Subreport: Shift Totals of Quantities <ul style="list-style-type: none"> <li>— Shift Totals of Quantities</li> </ul> Subreport: Shift Totals of Operating States <ul style="list-style-type: none"> <li>— Shift Totals of Operating States</li> </ul>	See Datasource Columns in Annex:Shift Totals of Quantities, Shift Totals of Operating States, Shift Totals of Operating States	<p><b>Shift Totals of Quantities</b></p> V_TL_WORKPLACE_QUANTITY FR_MD_OPERATION_QUANTITY_TYPE <p><b>Shift Totals of Operating Status</b></p> V_TL_WORKPLACE <p><b>Shift Book Summary of Operations</b></p> FR_DS_OPERATION_BASE_TL	<p><b>Shift Totals of Quantities</b></p> <ul style="list-style-type: none"> <li>— V_TL_WORKPLACE_QUANTITY <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ SHIFT_ID</li> <li>○ AMOUNT</li> <li>○ START_TS</li> <li>○ DISPLAY_QUANTITY_UNIT</li> <li>○ FR_MD_OPERATION_QUANTITY_TYPE</li> <li>○ CODE</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
		Subreport: Shift Book Summary of Operations - Shift Book Summary of Operations Subreport: Operating State Log of the Operation with Subtotals - Shift Book Subtotals of Operations	Status, Shift Book Summary of Operation Subtotals of Operations	FR_MD_MALFUNCTION_REASON_VEC FR_MD_OPERATION FR_MD_OPERATION_STATUS_DEF FR_MD_OPERATION_PHASE_DEF FR_MD_WORKPLACE V_MD_TIMEBASE_ENTRY FR_MD_TIMEBASE V_MD_OPERATION_PHASE V_TL_OPERATION_QUANTITY FR_DS_OPERATION_STROKE_LE V_MD_OPERATION V_C_OPERATION_TIMESTAMPS FF_MD_PIECE_TIME	<ul style="list-style-type: none"> <li>○ COLOR</li> <li>○ ACTIVE</li> </ul> <p><b>Shift Totals of Operating Status</b></p> <ul style="list-style-type: none"> <li>- V_TL_WORKPLACE               <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ WORKPLACE_SORT_ORDER</li> <li>○ SHIFT_ID</li> <li>○ START_TS</li> <li>○ END_TS</li> <li>○ DURATION</li> <li>○ OPERATING_STATUS_COLOR</li> <li>○ OPERATING_STATUS_MNEMONIC</li> <li>○ OPERATING_STATUS_SHORTTEXT</li> <li>○ OPERATING_STATUS_TEXT</li> <li>○ OPERATING_STATUS_SORT_ORDER</li> </ul> </li> </ul> <p><b>Shift Book Subtotals of Operations</b></p> <ul style="list-style-type: none"> <li>- V_TL_OPERATION</li> <li>- V_MD_MALFUNCTION_REASON_VEC</li> <li>- FO_TA_TICKET</li> </ul> <p><b>Shift Book Summary of Operations</b></p> <ul style="list-style-type: none"> <li>- FR_DS_OPERATION_BASE_TL               <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ OPERATION_ID</li> <li>○ OPERATION_STATUS_ID</li> <li>○ OPERATION_PHASE_ID</li> <li>○ MALFUNCTION_REASON_VECTOR_ID</li> <li>○ START_TS</li> <li>○ END_TS</li> <li>○ DURATION</li> <li>○ SHIFT_ID</li> </ul> </li> </ul>

## Reports and their data

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Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ ACTIVE_PHASE</li> <li>— FR_MD_MALFUNCTION_REASON_VEC           <ul style="list-style-type: none"> <li>○ ID</li> <li>○ REASON_ID_1</li> </ul> </li> <li>— FR_MD_OPERATION           <ul style="list-style-type: none"> <li>○ ID</li> <li>○ FR_MD_OPERATION_STATUS_DEF</li> <li>○ ID</li> <li>○ CODE</li> </ul> </li> <li>— FR_MD_OPERATION_PHASE_DEF           <ul style="list-style-type: none"> <li>○ ID</li> <li>○ CODE</li> </ul> </li> <li>— FR_MD_WORKPLACE           <ul style="list-style-type: none"> <li>○ ID</li> </ul> </li> <li>— V_MD_TIMEBASE_ENTRY           <ul style="list-style-type: none"> <li>○ OPERATING_STATUS_ID</li> <li>○ PHASE_ID</li> </ul> </li> <li>— FR_MD_TIMEBASE           <ul style="list-style-type: none"> <li>○ MNEMONIC</li> </ul> </li> <li>— V_MD_OPERATION_PHASE           <ul style="list-style-type: none"> <li>○ PHASE_ID</li> <li>○ PHASE_CODE</li> </ul> </li> <li>— V_TL_OPERATION_QUANTITY           <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ OPERATION_ID</li> <li>○ SHIFT_ID</li> <li>○ AMOUNT</li> <li>○ QTY_TYPE_CODE</li> </ul> </li> </ul>

## Reports and their data

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Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>- FR_DS_OPERATION_STROKE_LE           <ul style="list-style-type: none"> <li>o WORKPLACE_ID</li> <li>o OPERATION_ID</li> <li>o SHIFT_ID</li> <li>o NUMBER_OF_STROKES</li> </ul> </li> <li>- V_MD_OPERATION           <ul style="list-style-type: none"> <li>o OPERATION_ID</li> <li>o MATERIAL_ID</li> <li>o ORDER_ID</li> <li>o TARGET_QUANTITY</li> <li>o TIME_PER_UNIT</li> <li>o DEFAULT_STROKE_FACTOR</li> <li>o DISPLAY_QUANTITY_UNIT</li> </ul> </li> <li>- V_C_OPERATION_TIMESTAMPS           <ul style="list-style-type: none"> <li>o OPERATION_ID</li> <li>o TOTAL_START_TS</li> </ul> </li> <li>- FF_MD_PIECE_TIME           <ul style="list-style-type: none"> <li>o WORKPLACE_ID</li> <li>o MATERIAL_ID</li> <li>o VALID_FROM_TS</li> <li>o VALID_TO_TS</li> <li>o TARGET_PIECE_TIME</li> </ul> </li> </ul> <p><b>Shiftbook Subtotals of Operation</b></p> <ul style="list-style-type: none"> <li>- V_TL_OPERATION           <ul style="list-style-type: none"> <li>o OPERATION_ID</li> <li>o WORKPLACE_ID</li> <li>o WORKPLACE_SORT_ORDER</li> <li>o SHIFT_ID</li> </ul> </li> </ul>

**Reports and their data**


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Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ STATUS_CHANGE_IDENTIFIED</li> <li>○ FROM_LAST_SHIFT</li> <li>○ START_TS</li> <li>○ END_TS</li> <li>○ DURATION</li> <li>○ OPERATING_STATUS_COLOR</li> <li>○ OPERATING_STATUS_MNEMONIC</li> <li>○ OPERATING_STATUS_TEXT</li> <li>○ OPERATING_STATUS_SHORTTEXT</li> <li>○ OPERATING_STATUS_SORT_ORDER</li> <li>○ PHASE_CODE</li> <li>○ MFR_VECTOR_ID</li> <li>○ TICKET_ID</li> <li>○ QTY</li> <li>○ YIELD_QTY</li> <li>○ SCRAP_QTY</li> <li>○ REWORK_QTY</li> <li>○ NUMBER_OF_STROKES</li>   <li>— V_MD_MALFUNCTION_REASON_VEC           <ul style="list-style-type: none"> <li>○ MFR_VECTOR_ID</li> <li>○ MFR2_MNEMONIC</li> <li>○ MFR2_TEXT</li> <li>○ MFR2_SORT_ORDER</li> <li>○ MFR3_MNEMONIC</li> <li>○ MFR3_TEXT</li> <li>○ MFR3_SORT_ORDER</li> <li>○ MFR4_MNEMONIC</li> <li>○ MFR4_TEXT</li> <li>○ MFR4_SORT_ORDER</li> <li>○ MFR5_MNEMONIC</li> <li>○ MFR5_TEXT</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ MFR5_SORT_ORDER</li> <li>○ MFR6_MNEMONIC</li> <li>○ MFR6_TEXT</li> <li>○ MFR6_SORT_ORDER</li> <li>○ MFR7_MNEMONIC</li> <li>○ MFR7_TEXT</li> <li>○ MFR7_SORT_ORDER</li>   <li>— FO_TA_TICKET           <ul style="list-style-type: none"> <li>○ ID</li> <li>○ TITLE</li> <li>○ TICKET_DESC</li> </ul> </li>   <li>— FR_MD_OPERATION           <ul style="list-style-type: none"> <li>○ DISPLAY_QUANTITY_UNIT</li> </ul> </li> </ul>
Overall Labor Efficiency / Mitarbeiter produktivität (OLE)	<ul style="list-style-type: none"> <li>— Personnel → OLE-Report (Personnel)</li> <li>— Personal → OLE-Report (Personal)</li> </ul>	Subreports: OLE Report (Personnel) [Column Chart]/[Table]	See Datasource Columns in Annex: OLE Report (Personnel) [Column Chart]/[Table]	FR_DS_PERS_OPERATION_BASE_TL FR_DS_PERS_OVERHEAD_COST_TL PERSON_HIERARCHY_REL FR_MD_PERSON V_MD_TIMEBASE_ENTRY FR_MD_TIMEBASE MALFUNCTION_REASON_VECTOR_ID FF_MD_PERSON_COST_UNIT_HISTORY	<ul style="list-style-type: none"> <li>— FR_DS_PERS_OPERATION_BASE_TL           <ul style="list-style-type: none"> <li>○ PERSON_ID</li> <li>○ START_TS</li> <li>○ END_TS</li> <li>○ DURATION</li> <li>○ PERCENT_WEIGHTING</li> <li>○ CURRENT_ELEMENT</li> <li>○ OPEN_INTERVAL</li> <li>○ OPERATION_STATUS_ID</li> <li>○ OPERATION_PHASE_ID</li> <li>○ MALFUNCTION_REASON_VECTOR_ID</li> </ul> </li>   <li>— FR_DS_PERS_OVERHEAD_COST_TL           <ul style="list-style-type: none"> <li>○ PERSON_ID</li> <li>○ START_TS</li> <li>○ END_TS</li> <li>○ DURATION</li> <li>○ CURRENT_ELEMENT</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ OPEN_INTERVAL</li> <li>- PERSON_HIERARCHY_REL           <ul style="list-style-type: none"> <li>○ PERSON_ID</li> <li>○ HIERARCHY_NODE_ID</li> </ul> </li> <li>- FR_MD_PERSON           <ul style="list-style-type: none"> <li>○ ID</li> <li>○ FIRST_NAME</li> </ul> </li> <li>- V_MD_TIMEBASE_ENTRY           <ul style="list-style-type: none"> <li>○ TIMEBASE_IDPHASE_ID</li> <li>○ STATUS_ID</li> <li>○ MALFUNCTION_REASON_ID</li> </ul> </li> <li>- FR_MD_TIMEBASE           <ul style="list-style-type: none"> <li>○ MNEMONIC</li> </ul> </li> <li>- MALFUNCTION_REASON_VECTOR_ID           <ul style="list-style-type: none"> <li>○ REASON_ID_1</li> </ul> </li> <li>- FF_MD_PERSON_COST_UNIT_HISTORY           <ul style="list-style-type: none"> <li>○ PERSON_ID</li> <li>○ VALID_FROM_TS</li> <li>○ VALID_TO_TS</li> </ul> </li> </ul>
Overall Equipment Effectiveness (OEE) / Overall Equipment Effectiveness (OEE)	<ul style="list-style-type: none"> <li>- OEE (Overall view)</li> <li>- OEE (Gesamtbeleuchtung)</li> </ul>	Subreports: OEE (Overall View) [Column Chart]/Subreport: OEE (Overall View) [Table] <ul style="list-style-type: none"> <li>- Key Performance Indicators (KPI) for Workplaces</li> </ul>	See Datasource Columns in Annex: OEE (Overall View) [Column Chart]/Su	V_MD_TIMEBASE_ENTRY FR_MD_TIMEBASE V_SC_WORKPLACE_BASE V_MD_SHIFT V_SC_OPERATION_QUANTITY_SUM V_MD_OPERATION FF_MD_PIECE_TIME V_C_OPERATION_TIMESTAMPS	<ul style="list-style-type: none"> <li>- FR_MD_TIMEBASE           <ul style="list-style-type: none"> <li>○ ID</li> <li>○ MNEMONIC</li> </ul> </li> <li>- V_MD_TIMEBASE_ENTRY           <ul style="list-style-type: none"> <li>○ PHASE_ID</li> <li>○ TIMEBASE_ID</li> <li>○ ORIGINAL_STATUS_ID</li> <li>○ OPERATING_STATUS_ID</li> </ul> </li> <li>- V_SC_WORKPLACE_BASE</li> </ul>

**Reports and their data**


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Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
			breport: OEE (Overall View) [Table]		<ul style="list-style-type: none"> <li>○ STATUS_CODE</li> <li>○ SHIFT_ID</li> <li>○ PHASE_CODE</li> <li>○ OPERATING_STATUS_ID</li> <li>○ WORKPLACE_ID</li>   <li>— V_MD_SHIFT           <ul style="list-style-type: none"> <li>○ SHIFT_ID</li> <li>○ NONWORKING_SHIFT_TYPE</li> <li>○ ASSOCIATED_DAY_TS</li> </ul> </li>   <li>— V_SC_OPERATION_QUANTITY_SUM           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ SHIFT_ID</li> <li>○ WORKPLACE_ID</li> <li>○ QTY</li> <li>○ YIELD_QTY</li> <li>○ TARGET_SETUP_TIME</li> <li>○ STATUS_CODE</li> <li>○ PHASE_CODE</li> <li>○ SUM_DURATION</li> </ul> </li>   <li>— V_MD_OPERATION           <ul style="list-style-type: none"> <li>○ TIME_PER_UNIT</li> <li>○ OPERATION_ID</li> <li>○ MATERIAL_ID</li> </ul> </li>   <li>— FF_MD_PIECE_TIME           <ul style="list-style-type: none"> <li>○ TARGET_PIECE_TIME</li> <li>○ MATERIAL_ID</li> <li>○ WORKPLACE_ID</li> <li>○ VALID_FROM_TS</li> <li>○ VALID_TO_TS</li> </ul> </li>   <li>— V_C_OPERATION_TIMESTAMPS</li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Datasource Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ TOTAL_START_TS</li> </ul>
	<ul style="list-style-type: none"> <li>— Workplace → OEE Report (Workplace)</li> <li>— Arbeitsplatz → OEE-Report (Arbeitsplatz)</li> </ul>	Subreports: OEE Report (Workplace) [Column Chart]/[Table] <ul style="list-style-type: none"> <li>— OEE Report (Workplace)</li> </ul>	See Datasource Columns in Annex: OEE Report (Workplace)	WORKPLACE WORKPLACE_HIERARCHY_REL WORKPLACE_BASE_SUM/ WORKPLACE_BASE_ARC_SUM V_MD_TIMEBASE_ENTRY FR_MD_MALFUNCTION_REASON_VEC V_SC_OPERATION_QUANTITY_SUM V_C_OPERATION_TIMESTAMPS V_MD_SHIFT	<ul style="list-style-type: none"> <li>— WORKPLACE <ul style="list-style-type: none"> <li>○ ID</li> <li>○ SORT_ORDER</li> </ul> </li> <li>— WORKPLACE_HIERARCHY_REL <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ HIERARCHY_NODE_ID</li> </ul> </li> <li>— WORKPLACE_BASE_SUM/ <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> </ul> </li> <li>— WORKPLACE_BASE_ARC_SUM <ul style="list-style-type: none"> <li>○ SHIFT_ID</li> <li>○ WORKPLACE_STATUS_ID</li> <li>○ WORKPLACE_PHASE_ID</li> <li>○ MALFUNCTION_REASON_VECTOR_ID</li> <li>○ SUM_DURATION</li> </ul> </li> <li>— V_MD_TIMEBASE_ENTRY <ul style="list-style-type: none"> <li>○ ID</li> <li>○ MNEMONIC</li> <li>○ PHASE_ID</li> <li>○ OPERATING_STATUS_ID</li> <li>○ MALFUNCTION_REASON_VECTOR_ID</li> </ul> </li> <li>— FR_MD_MALFUNCTION_REASON_VEC <ul style="list-style-type: none"> <li>○ ID</li> <li>○ REASON_ID_1</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>- V_SC_OPERATION_QUANTITY_SUM           <ul style="list-style-type: none"> <li>o WORKPLACE_ID</li> <li>o SHIFT_ID</li> <li>o QTY</li> <li>o YIELD_QTY</li> <li>o OPERATION_ID</li> <li>o ASSOCIATED_DAY_TS</li> </ul> </li> <li>- FF_MD_PIECE_TIME           <ul style="list-style-type: none"> <li>o TARGET_PIECE_TIME</li> <li>o MATERIAL_ID</li> <li>o WORKPLACE_ID</li> <li>o VALID_FROM_TS</li> <li>o VALID_TO_TS</li> </ul> </li> <li>- V_C_OPERATION_TIMESTAMPS           <ul style="list-style-type: none"> <li>o TOTAL_START_TS</li> </ul> </li> <li>- V_MD_SHIFT           <ul style="list-style-type: none"> <li>o SHIFT_ID</li> <li>o NONWORKING_SHIFT_TYPE</li> <li>o ASSOCIATED_DAY_TS</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>- Workplace → OEE Development (Workplace)</li> <li>- Arbeitsplatz → OEE-Verlauf (Arbeitsplatz)</li> </ul>	Subreports: OEE Development (Workplace) [Column Chart]/[Table] <ul style="list-style-type: none"> <li>- OEE Development (Workplace)</li> </ul>		WORKPLACE_BASE_SUM/ WORKPLACE_BASE_ARC_SUM V_MD_TIMEBASE_ENTRY FR_MD_TIMEBASE FR_MD_MALFUNCTION_REASON_VEC V_SC_OPERATION_QUANTITY_SUM FR_MD_OPERATION V_C_OPERATION_TIMESTAMPS FF_MD_PIECE_TIME V_MD_SHIFT	<ul style="list-style-type: none"> <li>- WORKPLACE_BASE_SUM /  WORKPLACE_BASE_ARC_SUM <ul style="list-style-type: none"> <li>o WORKPLACE_ID</li> <li>o SHIFT_ID</li> <li>o WORKPLACE_STATUS_ID</li> <li>o WORKPLACE_PHASE_ID</li> <li>o MALFUNCTION_REASON_VECTOR_ID</li> <li>o SUM_DURATION</li> </ul> </li> <li>- V_MD_TIMEBASE_ENTRY <ul style="list-style-type: none"> <li>o TIMEBASE_ID</li> </ul> </li> </ul>

## Reports and their data

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Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>- FR_MD_TIMEBASE           <ul style="list-style-type: none"> <li>o ID</li> <li>o MNEMONIC</li> <li>o PHASE_ID</li> <li>o STATUS_ID</li> <li>o MALFUNCTION_REASON_ID</li> </ul> </li> <li>- FR_MD_MALFUNCTION_REASON_VEC           <ul style="list-style-type: none"> <li>o ID</li> <li>o REASON_ID_1</li> </ul> </li> <li>- V_SC_OPERATION_QUANTITY_SUM           <ul style="list-style-type: none"> <li>o WORKPLACE_ID</li> <li>o SHIFT_ID</li> <li>o QTY</li> <li>o YIELD_QTY</li> <li>o OPERATION_ID</li> <li>o ASSOCIATED_DAY_TS</li> </ul> </li> <li>- FR_MD_OPERATION           <ul style="list-style-type: none"> <li>o ID</li> <li>o TIME_PER_UNIT</li> <li>o MATERIAL_ID</li> </ul> </li> <li>- V_C_OPERATION_TIMESTAMPS           <ul style="list-style-type: none"> <li>o OPERATION_ID</li> <li>o TOTAL_START_TS</li> </ul> </li> <li>- FF_MD_PIECE_TIME           <ul style="list-style-type: none"> <li>o WORKPLACE_ID</li> <li>o MATERIAL_ID</li> <li>o VALID_FROM_TS</li> <li>o VALID_TO_TS</li> </ul> </li> <li>- V_MD_SHIFT</li> </ul>

**Reports and their data**


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Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ SHIFT_ID</li> <li>○ NONWORKING_SHIFT_TYPE</li> <li>○ ASSOCIATED_DAY_TS</li> </ul>
	<ul style="list-style-type: none"> <li>— Operation→ OEE Report (Operation)</li> <li>— Vorgang→ OEE-Report (Vorgang)</li> </ul>	Subreports: OEE Report (Operation) [Column Chart]/[Table] <ul style="list-style-type: none"> <li>— OEE Report (Operation)</li> </ul>		OPERATION_BASE_SUM/ OPERATION_BASE_ARC_SUM V_MD_TIMEBASE_ENTRY FR_MD_MALFUNCTION_REASON_VEC FR_MD_TIMEBASE V_SC_OPERATION_QUANTITY_SUM FR_MD_OPERATION V_MD_SHIFT V_MD_OPERATION	<ul style="list-style-type: none"> <li>— OPERATION_BASE_SUM/</li> <li>— OPERATION_BASE_ARC_SUM <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ SHIFT_ID</li> <li>○ OPERATION_STATUS_ID</li> <li>○ OPERATION_PHASE_ID</li> <li>○ MALFUNCTION_REASON_VECTOR_ID</li> <li>○ SUM_DURATION</li> </ul> </li> <li>— V_MD_TIMEBASE_ENTRY <ul style="list-style-type: none"> <li>○ TIMEBASE_ID</li> </ul> </li> <li>— FR_MD_MALFUNCTION_REASON_VEC <ul style="list-style-type: none"> <li>○ ID</li> <li>○ REASON_ID_1</li> </ul> </li> <li>— FR_MD_TIMEBASE <ul style="list-style-type: none"> <li>○ ID</li> <li>○ MNEMONIC</li> </ul> </li> <li>— V_SC_OPERATION_QUANTITY_SUM <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ SHIFT_ID</li> <li>○ QTY</li> <li>○ YIELD_QTY</li> <li>○ ASSOCIATED_DAY_TS</li> </ul> </li> <li>— FR_MD_OPERATION</li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ ID</li> <li>○ TIME_PER_UNIT</li> <li>— V_MD_SHIFT           <ul style="list-style-type: none"> <li>○ SHIFT_ID</li> <li>○ NONWORKING_SHIFT_TYPE</li> <li>○ ASSOCIATED_DAY_TS</li> </ul> </li> <li>— V_MD_OPERATION           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ MATERIAL_ID</li> <li>○ ORDER_NUMBER</li> <li>○ OPERATION_NUMBER</li> </ul> </li> </ul>
Availability Analysis / Verfügbarkeitsanalyse	<ul style="list-style-type: none"> <li>— Availability (Overall View)</li> <li>— Verfügbarkeit (Gesamtbeurteilung)</li> </ul>	Subreports: Availability (Overall View) [Column Chart]/[Table] — Key Performance Indicators (KPI) for Workplaces		same as in Overall Equipment Effectiveness (OEE) → OEE (Overall view)	same as in — Overall Equipment Effectiveness (OEE) → OEE (Overall view)
	<ul style="list-style-type: none"> <li>— Workplace→ Operating State Class Report (Workplace)</li> <li>— Arbeitsplatz→ Zustandsklassenreport (Arbeitsplatz)</li> </ul>	Subreports: Operating State Class Report (Workplace) [Column Chart]/[Table] — Operating State Class Report (Workplace)		WORKPLACE_HIERARCHY_REL <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ HIERARCHY_NODE_ID</li> </ul> V_SC_WORKPLACE_BASE <ul style="list-style-type: none"> <li>○ WORKPLACE_SORT_ORDER</li> <li>○ SUM_DURATION</li> <li>○ STATUS_CODE</li> <li>○ OPERATING_STATUS_ID</li> <li>○ MFR_VECTOR_ID</li> <li>○ NONWORKING_SHIFT_TYPE</li> <li>○ ASSOCIATED_DAY_TS</li> </ul>	

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>- V_MD_OPERATING_STATE_CLASS           <ul style="list-style-type: none"> <li>o STATE_CLASS_ID</li> <li>o STATE_CLASS_SORT_ORDER</li> <li>o STATE_CLASS_COLOR</li> <li>o STATE_CLASS_MNEMONIC</li> <li>o STATE_CLASS_TEXT</li> </ul> </li> <li>- V_MD_MALFUNCTION_REASON_VEC1           <ul style="list-style-type: none"> <li>o CODE_1</li> <li>o MFR_VECTOR_ID</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>- Workplace → Operating State Class Development (Workplace)</li> <li>- Arbeitsplatz → Zustandsklassenverlauf (Arbeitsplatz)</li> </ul>	<p>Subreports:</p> <p>Operating State Class Development (Workplace) [Column Chart]/[Table]</p> <ul style="list-style-type: none"> <li>- Operating State Class Development (Workplace)</li> </ul>		V_MD_OPERATING_STATE_CLASS V_SC_WORKPLACE_BASE V_MD_TIMEBASE_ENTRY V_MD_MALFUNCTION_REASON_VEC1	<ul style="list-style-type: none"> <li>- V_MD_OPERATING_STATE_CLASS           <ul style="list-style-type: none"> <li>o STATE_CLASS_ID</li> <li>o STATE_CLASS_SORT_ORDER</li> <li>o STATE_CLASS_COLOR</li> <li>o STATE_CLASS_MNEMONIC</li> <li>o STATE_CLASS_TEXT</li> </ul> </li> <li>- V_SC_WORKPLACE_BASE           <ul style="list-style-type: none"> <li>o WORKPLACE_ID</li> <li>o SUM_DURATION</li> <li>o STATUS_CODE</li> <li>o OPERATING_STATUS_ID</li> <li>o MFR_VECTOR_ID</li> <li>o NONWORKING_SHIFT_TYPE</li> <li>o ASSOCIATED_DAY_TS</li> <li>o ASSOCIATED_DAY_TS_WEEK</li> <li>o ASSOCIATED_DAY_TS_ISOWEEK</li> <li>o ASSOCIATED_DAY_TS_MONTH</li> <li>o ASSOCIATED_DAY_TS_QUARTER</li> <li>o ASSOCIATED_DAY_TS_YEAR</li> </ul> </li> <li>- V_MD_TIMEBASE_ENTRY</li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ TIMEBASE_ID</li> <li>○ OPERATING_STATUS_ID</li> <li>- V_MD_MALFUNCTION_REASON_VEC1           <ul style="list-style-type: none"> <li>○ CODE_1</li> <li>○ MFR_VECTOR_ID</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>- Workplace → Operating State Report (Workplace)</li> <li>- Arbeitsplatz → Betriebszustandsreport (Arbeitsplatz)</li> </ul>	<p>Subreports:</p> <p>Operating State Report (Workplace) [Column Chart]/[Table]</p> <ul style="list-style-type: none"> <li>- Operating State Report (Workplace)</li> </ul>		<p>WORKPLACE_HIERARCHY_REL            V_SC_WORKPLACE_BASE            FR_MD_WORKPLACE_PHASE_DEF            FR_MD_WORKPLACE_STATUS_DEF</p>	<ul style="list-style-type: none"> <li>- WORKPLACE_HIERARCHY_REL           <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ HIERARCHY_NODE_ID</li> </ul> </li> <li>- V_SC_WORKPLACE_BASE           <ul style="list-style-type: none"> <li>○ WORKPLACE_SORT_ORDER</li> <li>○ OPERATING_STATUS_ID</li> <li>○ OPERATING_STATUS_COLOR</li> <li>○ OPERATING_STATUS_MNEMONIC</li> <li>○ OPERATING_STATUS_TEXT</li> <li>○ OPERATING_STATUS_SORT_ORDER</li> <li>○ PHASE_CODE</li> <li>○ STATUS_CODE</li> <li>○ WORKPLACE_ID</li> <li>○ SHIFT_ID</li> </ul> </li> <li>- FR_MD_WORKPLACE_PHASE_DEF           <ul style="list-style-type: none"> <li>○ ID</li> <li>○ CODE</li> </ul> </li> <li>- FR_MD_WORKPLACE_STATUS_DEF           <ul style="list-style-type: none"> <li>○ ID</li> <li>○ CODE</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
	<ul style="list-style-type: none"> <li>— Workplace → Operating State Development (Workplace)</li> <li>— Arbeitsplatz → Betriebszustandsverlauf (Arbeitsplatz)</li> </ul>	<p>Subreports:</p> <p>Operating State Development (Workplace) [Column Chart]/[Table]</p> <ul style="list-style-type: none"> <li>— Operating State Development (Workplace)</li> </ul>	<p>See Datasource Columns in Annex:</p> <p>Operating State Development (Workplace)</p>	V_SC_WORKPLACE_BASE FR_MD_WORKPLACE_PHASE_DEF FR_MD_WORKPLACE_STATUS_DEF FR_MD_SHIFT V_MD_MALFUNCTION_REASON_VEC	<ul style="list-style-type: none"> <li>— V_SC_WORKPLACE_BASE <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ PHASE_CODE</li> <li>○ STATUS_CODE</li> <li>○ MFR_VECTOR_ID</li> <li>○ OPERATING_STATUS_ID</li> <li>○ OPERATING_STATUS_COLOR</li> <li>○ OPERATING_STATUS_MNEMONIC</li> <li>○ OPERATING_STATUS_TEXT</li> <li>○ OPERATING_STATUS_SORT_ORDER</li> <li>○ SUM_DURATION</li> <li>○ SHIFT_ID</li> <li>○ NONWORKING_SHIFT_TYPE</li> <li>○ ASSOCIATED_DAY_TS</li> <li>○ ASSOCIATED_DAY_TS_DATE</li> <li>○ ASSOCIATED_DAY_TS_SHIFT</li> <li>○ ASSOCIATED_DAY_TS_DATE</li> <li>○ ASSOCIATED_DAY_TS_WEEK</li> <li>○ ASSOCIATED_DAY_TS_ISOWEEK</li> <li>○ ASSOCIATED_DAY_TS_MONTH</li> <li>○ ASSOCIATED_DAY_TS_QUARTER</li> <li>○ ASSOCIATED_DAY_TS_YEAR</li> </ul> </li> <li>— FR_MD_WORKPLACE_PHASE_DEF <ul style="list-style-type: none"> <li>○ ID</li> <li>○ CODE</li> </ul> </li> <li>— FR_MD_WORKPLACE_STATUS_DEF <ul style="list-style-type: none"> <li>○ ID</li> <li>○ CODE</li> </ul> </li> <li>— FR_MD_SHIFT <ul style="list-style-type: none"> <li>○ ID</li> </ul> </li> </ul>

**Reports and their data**


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Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ START_TS</li> <li>— V_MD_MALFUNCTION_REASON_VEC           <ul style="list-style-type: none"> <li>○ MFR_VECTOR_ID</li> <li>○ MFR2_ID</li> <li>○ MFR3_ID</li> <li>○ MFR4_ID</li> <li>○ MFR5_ID</li> <li>○ MFR6_ID</li> <li>○ MFR7_ID</li> <li>○ MFR2_COLOR</li> <li>○ MFR3_COLOR</li> <li>○ MFR4_COLOR</li> <li>○ MFR5_COLOR</li> <li>○ MFR6_COLOR</li> <li>○ MFR7_COLOR</li> <li>○ MFR2_MNEMONIC</li> <li>○ MFR3_MNEMONIC</li> <li>○ MFR4_MNEMONIC</li> <li>○ MFR5_MNEMONIC</li> <li>○ MFR6_MNEMONIC</li> <li>○ MFR7_MNEMONIC</li> <li>○ MFR2_TEXT</li> <li>○ MFR3_TEXT</li> <li>○ MFR4_TEXT</li> <li>○ MFR5_TEXT</li> <li>○ MFR6_TEXT</li> <li>○ MFR7_TEXT</li> <li>○ MFR2_SORT_ORDER</li> <li>○ MFR3_SORT_ORDER</li> <li>○ MFR4_SORT_ORDER</li> <li>○ MFR5_SORT_ORDER</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ MFR6_SORT_ORDER</li> <li>○ MFR7_SORT_ORDER</li> </ul>
	<ul style="list-style-type: none"> <li>— Workplace → Hitlist Operating States (Workplaces)</li> <li>— Arbeitsplatz → Hitliste Betriebszustände (Arbeitsplatz)</li> </ul>	Subreports: Hitlist Operating States (Workplace) [Bar Chart Σ Duration]/[Table] <ul style="list-style-type: none"> <li>— Hitlist Operating States (Workplace)</li> </ul>	See Datasource Columns in Annex: Hitlist Operating States (Workplace)	V_SC_WORKPLACE_BASE WORKPLACE_HIERARCHY_REL V_MD_SHIFT V_ST_WORKPLACE	<ul style="list-style-type: none"> <li>— V_SC_WORKPLACE_BASE <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ WORKPLACE_SORT_ORDER</li> <li>○ OPERATING_STATUS_ID</li> <li>○ OPERATING_STATUS_COLOR</li> <li>○ OPERATING_STATUS_MNEMONIC</li> <li>○ OPERATING_STATUS_TEXT</li> <li>○ OPERATING_STATUS_SORT_ORDER</li> <li>○ CNT_OCCURRENCE</li> <li>○ START_TS</li> <li>○ FROM_LAST_SHIFT</li> <li>○ SUM_DURATION</li> <li>○ ASSOCIATED_DAY_TS</li> <li>○ NONWORKING_SHIFT_TYPE</li> </ul> </li> <li>— WORKPLACE_HIERARCHY_REL <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ HIERARCHY_NODE_ID</li> </ul> </li> <li>— V_MD_SHIFT <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ SHIFT_ID</li> <li>○ START_TS</li> <li>○ END_TS</li> </ul> </li> <li>— V_ST_WORKPLACE <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ OPERATING_STATUS_ID</li> <li>○ OPERATING_STATUS_COLOR</li> <li>○ OPERATING_STATUS_MNEMONIC</li> <li>○ OPERATING_STATUS_TEXT</li> <li>○ OPERATING_STATUS_SORT_ORDER</li> </ul>
	<ul style="list-style-type: none"> <li>— Material → Operating State Development (Material)</li> <li>— Material → Betriebszustandsverlauf (Material)</li> </ul>	Subreports: Operating State Development (Material) [Column Chart]/[Table] <ul style="list-style-type: none"> <li>— Operating State Development (Material)</li> </ul>	See Datasource Columns in Annex: Operating State Develop ment (Material)	V_SC_OPERATION_BASE FR_MD_OPERATION FR_MD_OPERATION_PHASE_DEF FR_MD_OPERATION_STATUS_DEF V_MD_MALFUNCTION_REASON_VEC	<ul style="list-style-type: none"> <li>— V_SC_OPERATION_BASE <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ PHASE_CODE</li> <li>○ STATUS_CODE</li> <li>○ MFR_VECTOR_ID</li> <li>○ NONWORKING_SHIFT_TYPE</li> <li>○ OPERATING_STATUS_ID</li> <li>○ OPERATING_STATUS_COLOR</li> <li>○ OPERATING_STATUS_MNEMONIC</li> <li>○ OPERATING_STATUS_TEXT</li> <li>○ OPERATING_STATUS_SORT_ORDER</li> <li>○ SUM_DURATION</li> <li>○ ASSOCIATED_DAY_TS</li> <li>○ ASSOCIATED_DAY_TS_DATE</li> <li>○ ASSOCIATED_DAY_TS_WEEK</li> <li>○ ASSOCIATED_DAY_TS_ISOWEEK</li> <li>○ ASSOCIATED_DAY_TS_MONTH</li> <li>○ ASSOCIATED_DAY_TS_QUARTER</li> <li>○ ASSOCIATED_DAY_TS_YEAR</li> </ul> </li> <li>— FR_MD_OPERATION <ul style="list-style-type: none"> <li>○ ID</li> <li>○ MATERIAL_ID</li> </ul> </li> <li>— FR_MD_OPERATION_PHASE_DEF <ul style="list-style-type: none"> <li>○ ID</li> </ul> </li> </ul>

**Reports and their data**


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Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>o CODE</li> <li>— FR_MD_OPERATION_STATUS_DEF           <ul style="list-style-type: none"> <li>o ID</li> <li>o CODE</li> </ul> </li> <li>— V_MD_MALFUNCTION_REASON_VEC           <ul style="list-style-type: none"> <li>o MFR_VECTOR_ID</li> <li>o MFR2_ID</li> <li>o MFR3_ID</li> <li>o MFR4_ID</li> <li>o MFR5_ID</li> <li>o MFR6_ID</li> <li>o MFR7_ID</li> <li>o MFR2_COLOR</li> <li>o MFR3_COLOR</li> <li>o MFR4_COLOR</li> <li>o MFR5_COLOR</li> <li>o MFR6_COLOR</li> <li>o MFR7_COLOR</li> <li>o MFR2_MNEMONIC</li> <li>o MFR3_MNEMONIC</li> <li>o MFR4_MNEMONIC</li> <li>o MFR5_MNEMONIC</li> <li>o MFR6_MNEMONIC</li> <li>o MFR7_MNEMONIC</li> <li>o MFR2_TEXT</li> <li>o MFR3_TEXT</li> <li>o MFR4_TEXT</li> <li>o MFR5_TEXT</li> <li>o MFR6_TEXT</li> <li>o MFR7_TEXT</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Datasource Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ MFR2_SORT_ORDER</li> <li>○ MFR3_SORT_ORDER</li> <li>○ MFR4_SORT_ORDER</li> <li>○ MFR5_SORT_ORDER</li> <li>○ MFR6_SORT_ORDER</li> <li>○ MFR7_SORT_ORDER</li> </ul>
	<ul style="list-style-type: none"> <li>— Material→ Hitlist Operating States (Material)</li> <li>— Material→ Hitliste Betriebszustände (Material)</li> </ul>	Subreports: Hitlist Operating States (Material) [Bar Chart Σ Duration]/[Table] <ul style="list-style-type: none"> <li>— Hitlist Operating States (Material)</li> </ul>	See Datasource Columns in Annex: Hitlist Operating States (Material)	V_SC_OPERATION_BASE V_MD_SHIFT V_MD_OPERATION V_ST_OPERATION	<ul style="list-style-type: none"> <li>— V_SC_OPERATION_BASE <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ MATERIAL_ID</li> <li>○ OPERATING_STATUS_ID</li> <li>○ OPERATING_STATUS_SORT_ORDER</li> <li>○ OPERATING_STATUS_COLOR</li> <li>○ OPERATING_STATUS_MNEMONIC</li> <li>○ OPERATING_STATUS_TEXT</li> <li>○ PHASE_CODE</li> <li>○ CNT_OCCURRENCE</li> <li>○ START_TS</li> <li>○ CNT_OCCURRENCE</li> <li>○ SUM_DURATION</li> <li>○ NONWORKING_SHIFT_TYPE</li> <li>○ ASSOCIATED_DAY_TS</li> </ul> </li> <li>— V_MD_SHIFT <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ START_TS</li> <li>○ END_TS</li> </ul> </li> <li>— V_MD_OPERATION <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ MATERIAL_ID</li> </ul> </li> <li>— V_ST_OPERATION <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ OPERATING_STATUS_ID</li> <li>○ OPERATING_STATUS_SORT_ORDER</li> <li>○ OPERATING_STATUS_COLOR</li> <li>○ OPERATING_STATUS_MNEMONIC</li> <li>○ OPERATING_STATUS_TEXT</li> <li>○ PHASE_CODE</li> </ul>
	<ul style="list-style-type: none"> <li>— Order → Hitlist Operating States (Order)</li> <li>— Auftrag → Hitliste Betriebszustände (Auftrag)</li> </ul>	Subreports: Hitlist Operating States (Order) [Bar Chart Σ Duration]/[Table] <ul style="list-style-type: none"> <li>— Hitlist Operating States (Order)</li> </ul>	See Datasource Columns in Annex: Hitlist Operating States (Order)	V_SC_OPERATION_BASE V_MD_OPERATION FR_MD_ORDER V_MD_ORDER	<ul style="list-style-type: none"> <li>— V_SC_OPERATION_BASE           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ OPERATING_STATUS_ID</li> <li>○ OPERATING_STATUS_SORT_ORDER</li> <li>○ OPERATING_STATUS_COLOR</li> <li>○ OPERATING_STATUS_MNEMONIC</li> <li>○ OPERATING_STATUS_TEXT</li> <li>○ CNT_OCCURRENCE</li> <li>○ SUM_DURATION</li> <li>○ NONWORKING_SHIFT_TYPE</li> <li>○ ASSOCIATED_DAY_TS</li> </ul> </li> <li>— V_MD_OPERATION           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ ORDER_ID</li> </ul> </li> <li>— FR_MD_ORDER           <ul style="list-style-type: none"> <li>○ ID</li> <li>○ MATERIAL_ID</li> </ul> </li> <li>— V_MD_ORDER           <ul style="list-style-type: none"> <li>○ ORDER_ID</li> <li>○ ORDER_NUMBER</li> <li>○ ORDER_SPLIT</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Datasource Columns	Used Tables/Views	Used Columns
	<ul style="list-style-type: none"> <li>— Operation→ Hitlist Operating States (Operation)</li> <li>— Vorgang→ Hitliste Betriebszustände (Vorgang)</li> </ul>	Subreports: Hitlist Operating States (Operation) [Bar Chart Σ Duration]/[Table] <ul style="list-style-type: none"> <li>— Hitlist Operating States (Operation)</li> </ul>	See Datasource Columns in Annex: Hitlist Operating States (Operation)	V_SC_OPERATION_BASE V_MD_OPERATION V_MD_SHIFT V_ST_OPERATION	<ul style="list-style-type: none"> <li>— V_SC_OPERATION_BASE <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ OPERATION_ID</li> <li>○ OPERATING_STATUS_ID</li> <li>○ OPERATING_STATUS_COLOR</li> <li>○ OPERATING_STATUS_MNEMONIC</li> <li>○ OPERATING_STATUS_TEXT</li> <li>○ OPERATING_STATUS_SORT_ORDER</li> <li>○ CNT_OCCURRENCE</li> <li>○ SUM_DURATION</li> <li>○ END_TS</li> <li>○ NONWORKING_SHIFT_TYPE</li> </ul> </li> <li>— V_MD_OPERATION <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ ORDER_NUMBER</li> <li>○ ORDER_SPLIT</li> <li>○ OPERATION_NUMBER</li> <li>○ OPERATION_SPLIT</li> <li>○ MATERIAL_ID</li> </ul> </li> <li>— V_MD_SHIFT <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ NONWORKING_SHIFT_TYPE</li> <li>○ START_TS</li> <li>○ END_TS</li> </ul> </li> <li>— V_ST_OPERATION <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ OPERATING_STATUS_ID</li> <li>○ OPERATING_STATUS_COLOR</li> <li>○ OPERATING_STATUS_MNEMONIC</li> <li>○ OPERATING_STATUS_TEXT</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Datasource Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ OPERATING_STATUS_SORT_ORDER</li> <li>○ PHASE_CODE</li> </ul>
Performance Rate Analysis / Leistungsgrandanalyse	<ul style="list-style-type: none"> <li>— Workplace → Hit Report (Workplace)</li> <li>— Arbeitsplatz → Hubreport (Arbeitsplatz)</li> </ul>	Subreports: Hit Report (Workplace) [Column Chart Σ Hits]/[Table] <ul style="list-style-type: none"> <li>— Hit Report (Workplace)</li> </ul>	See Datasource Columns in Annex: Hit Report (Workplace)	V_SC_WORKPLACE_STROKE WORKPLACE_HIERARCHY_REL	<ul style="list-style-type: none"> <li>— V_SC_WORKPLACE_STROKE               <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ WORKPLACE_SORT_ORDER</li> <li>○ NUMBER_OF_STROKES</li> <li>○ NONWORKING_SHIFT_TYPE</li> <li>○ ASSOCIATED_DAY_TS</li> <li>○ SHIFT_ID</li> </ul> </li> <li>— WORKPLACE_HIERARCHY_REL               <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ HIERARCHY_NODE_ID</li> <li>○ WORKPLACE_NODE_ID</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>— Workplace → Hit Development (Workplace)</li> <li>— Arbeitsplatz → Hubverlauf (Arbeitsplatz)</li> </ul>	Subreports: Hit Development (Workplace) [Column Chart Σ Hits]/[Table] <ul style="list-style-type: none"> <li>— Hit Development (Workplace)</li> </ul>	See Datasource Columns in Annex: Hit Development (Workplace)	V_SC_WORKPLACE_STROKE FR_MD_SHIFT	<ul style="list-style-type: none"> <li>— V_SC_WORKPLACE_STROKE               <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ NUMBER_OF_STROKES</li> <li>○ SHIFT_ID</li> <li>○ ASSOCIATED_DAY_TS_DATE</li> <li>○ ASSOCIATED_DAY_TS_WEEK</li> <li>○ ASSOCIATED_DAY_TS_ISOEEK</li> <li>○ ASSOCIATED_DAY_TS_MONTH</li> <li>○ ASSOCIATED_DAY_TS_QUARTER</li> <li>○ ASSOCIATED_DAY_TS_YEAR</li> </ul> </li> <li>— FR_MD_SHIFT               <ul style="list-style-type: none"> <li>○ ID</li> <li>○ START_TS</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
Quality Analysis / Qualitätsanalyse	<ul style="list-style-type: none"> <li>— Workplace → Quality Report (Workplace)</li> <li>— Arbeitsplatz → Qualitätsreport (Arbeitsplatz)</li> </ul>	Subreport: Quality Report (Workplace) [Column Chart]/[Table] <ul style="list-style-type: none"> <li>— Quality Report (Workplace)</li> </ul>	See Datasource Columns in Annex: Quality Report (Workplace)	V_SC_OPERATION_QUANTITY WORKPLACE_HIERARCHY_REL FR_MD_OPERATION V_SC_OPERATION_QUANTITY_SUM	<ul style="list-style-type: none"> <li>— V_SC_OPERATION_QUANTITY <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ OPERATION_ID</li> <li>○ WORKPLACE_SORT_ORDER</li> <li>○ QUANTITY_TYPE_REASON_ID</li> <li>○ QTY_REASON_COLOR</li> <li>○ QTY_REASON_SORT_ORDER</li> <li>○ QUANTITY_TYPE_ID</li> <li>○ QTY_TYPE_SORT_ORDER</li> <li>○ QTY_TYPE_COLOR</li> <li>○ QTY_TYPE_CODE</li> <li>○ SUM_AMOUNT</li> <li>○ SHIFT_ID</li> <li>○ ASSOCIATED_DAY_TS</li> </ul> </li> <li>— WORKPLACE_HIERARCHY_REL <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ HIERARCHY_NODE_ID</li> <li>○ WORKPLACE_NODE_ID</li> </ul> </li> <li>— FR_MD_OPERATION <ul style="list-style-type: none"> <li>○ ID</li> <li>○ MATERIAL_ID</li> <li>○ DISPLAY_QUANTITY_UNIT</li> </ul> </li> <li>— V_SC_OPERATION_QUANTITY_SUM <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ OPERATION_ID</li> <li>○ QTY</li> <li>○ SHIFT_ID</li> <li>○ ASSOCIATED_DAY_TS</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
	<ul style="list-style-type: none"> <li>— Workplace → Quality Development (Workplace)</li> <li>— Arbeitsplatz → Qualitätsverlauf (Arbeitsplatz)</li> </ul>	Subreports: Quality Development (Workplace) [Column Chart]/[Table] <ul style="list-style-type: none"> <li>— Quality Development (Workplace)</li> </ul>	See Data source Columns in Annex: Quality Development (Workplace)	V_SC_OPERATION_QUANTITY FR_MD_OPERATION FR_MD_SHIFT	<ul style="list-style-type: none"> <li>— V_SC_OPERATION_QUANTITY               <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ OPERATION_ID</li> <li>○ QUANTITY_TYPE_REASON_ID</li> <li>○ QTY_REASON_COLOR</li> <li>○ QTY_TYPE_CODE</li> <li>○ QTY_TYPE_COLOR</li> <li>○ QUANTITY_TYPE_ID</li> <li>○ QTY_TYPE_SORT_ORDER</li> <li>○ QTY_REASON_SORT_ORDER</li> <li>○ SUM_AMOUNT</li> <li>○ ASSOCIATED_DAY_TS</li> <li>○ SHIFT_ID</li> <li>○ ASSOCIATED_DAY_TS_DATE</li> <li>○ ASSOCIATED_DAY_TS_SHIFT</li> <li>○ ASSOCIATED_DAY_TS_DATE</li> <li>○ ASSOCIATED_DAY_TS_WEEK</li> <li>○ ASSOCIATED_DAY_TS_ISO_WEEK</li> <li>○ ASSOCIATED_DAY_TS_MONTH</li> <li>○ ASSOCIATED_DAY_TS_QUARTER</li> <li>○ ASSOCIATED_DAY_TS_YEAR</li> <li>○ FR_MD_OPERATION</li> <li>○ ID</li> <li>○ MATERIAL_ID</li> <li>○ DISPLAY_QUANTITY_UNIT</li> <li>○ FR_MD_SHIFT</li> <li>○ ID</li> <li>○ START_TS</li> </ul> </li> </ul>
	— Material → Quality Report (Material)	Subreports: Quality Report (Material) [Bar Chart]/[Table]	See Data source	V_SC_OPERATION_QUANTITY V_MD_OPERATION V_SC_OPERATION_QUANTITY_SUM	<ul style="list-style-type: none"> <li>— V_SC_OPERATION_QUANTITY               <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
	<ul style="list-style-type: none"> <li>- Material → Qualitätsreport (Material )</li> </ul>	<ul style="list-style-type: none"> <li>- Quality Report (Material)</li> </ul>	Columns in Annex: Quality Report (Material)		<ul style="list-style-type: none"> <li>o OPERATION_ID</li> <li>o QUANTITY_TYPE_REASON_ID</li> <li>o QTY_TYPE_SORT_ORDER</li> <li>o QTY_TYPE_COLOR</li> <li>o QTY_TYPE_CODE</li> <li>o QUANTITY_TYPE_ID</li> <li>o QTY_REASON_SORT_ORDER</li> <li>o QTY_REASON_COLOR</li> <li>o SHIFT_ID</li> <li>o ASSOCIATED_DAY_TS</li> <li>o SUM_AMOUNT</li> </ul> <ul style="list-style-type: none"> <li>- V_MD_OPERATION           <ul style="list-style-type: none"> <li>o OPERATION_ID</li> <li>o MATERIAL_ID</li> <li>o MATERIAL_NUMBER</li> <li>o DISPLAY_QUANTITY_UNIT</li> </ul> </li> <li>- V_SC_OPERATION_QUANTITY_SUM           <ul style="list-style-type: none"> <li>o OPERATION_ID</li> <li>o QTY</li> <li>o SHIFT_ID</li> <li>o ASSOCIATED_DAY_TS</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>- Material → Quality Development (Material)</li> <li>- Material → Qualitätsverlauf (Material )</li> </ul>	<ul style="list-style-type: none"> <li>Subreports:Quality Development (Material) [Column Chart]/[Table]</li> <li>- Quality Development (Material)</li> </ul>	See Datasource Columns in Annex: Quality Development (Material)	V_SC_OPERATION_QUANTITY FR_MD_OPERATION	<ul style="list-style-type: none"> <li>- V_SC_OPERATION_QUANTITY           <ul style="list-style-type: none"> <li>o WORKPLACE_ID</li> <li>o OPERATION_ID</li> <li>o QUANTITY_TYPE_REASON_ID</li> <li>o QTY_REASON_COLOR</li> <li>o QTY_REASON_SORT_ORDER</li> <li>o QUANTITY_TYPE_ID</li> <li>o QTY_TYPE_CODE</li> <li>o QTY_TYPE_SORT_ORDER</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ QTY_TYPE_CODE</li> <li>○ SUM_AMOUNT</li> <li>○ ASSOCIATED_DAY_TS</li> <li>○ ASSOCIATED_DAY_TS_DATE</li> <li>○ ASSOCIATED_DAY_TS_WEEK</li> <li>○ ASSOCIATED_DAY_TS_ISO_WEEK</li> <li>○ ASSOCIATED_DAY_TS_MONTH</li> <li>○ ASSOCIATED_DAY_TS_QUARTER</li> <li>○ ASSOCIATED_DAY_TS_YEAR</li> <li>— FR_MD_OPERATION <ul style="list-style-type: none"> <li>○ ID</li> <li>○ MATERIAL_ID</li> <li>○ DISPLAY_QUANTITY_UNIT</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>— Material → Quality Report (Operation)</li> <li>— Material → Qualitätsreport (Vorgang)</li> </ul>	Subreports: Quality Report (Operation) [Column Chart]/[Table] <ul style="list-style-type: none"> <li>— Quality Report (Operation)</li> </ul>	See Datasource Columns in Annex: Quality Report (Operation)	V_SC_OPERATION_QUANTITY V_MD_OPERATION V_SC_OPERATION_QUANTITY_SUM	<ul style="list-style-type: none"> <li>— V_SC_OPERATION_QUANTITY <ul style="list-style-type: none"> <li>○ WORKPLACE_ID</li> <li>○ OPERATION_ID</li> <li>○ QUANTITY_TYPE_REASON_ID</li> <li>○ QTY_REASON_SORT_ORDER</li> <li>○ QTY_REASON_COLOR</li> <li>○ QUANTITY_TYPE_ID</li> <li>○ QTY_TYPE_SORT_ORDER</li> <li>○ QTY_TYPE_CODE</li> <li>○ QTY_TYPE_COLOR</li> <li>○ SUM_AMOUNT</li> </ul> </li> <li>— V_MD_OPERATION <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ ORDER_ID</li> <li>○ ORDER_NUMBER</li> <li>○ ORDER_SPLIT</li> <li>○ OPERATION_NUMBER</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (English/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
	<ul style="list-style-type: none"> <li>— Personnel → Quality Report (Personnel)</li> <li>— Personal → Qualitätsreport (Personal)</li> </ul>	Subreports: Quality Report (Personnel) [Column Chart]/[Table] <ul style="list-style-type: none"> <li>— Quality Report (Personnel)</li> </ul>	See Datasource Columns in Annex: Quality Report (Personnel)	V_SC_PERS_OPERATION_QUANTITY V_SC_PERS_OP_QUANTITY_SUM	<ul style="list-style-type: none"> <li>○ OPERATION_SPLIT</li> <li>○ DISPLAY_QUANTITY_UNIT</li> <li>— V_SC_OPERATION_QUANTITY_SUM <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ QTY</li> </ul> </li> <li>— V_SC_PERS_OPERATION_QUANTITY <ul style="list-style-type: none"> <li>○ PERSON_ID</li> <li>○ WORKPLACE_ID</li> <li>○ QUANTITY_TYPE_REASON_ID</li> <li>○ QTY_REASON_SORT_ORDER</li> <li>○ QTY_REASON_COLOR</li> <li>○ QUANTITY_TYPE_ID</li> <li>○ QTY_TYPE_CODE</li> <li>○ QTY_TYPE_COLOR</li> <li>○ QTY_TYPE_SORT_ORDER</li> <li>○ SUM_AMOUNT</li> </ul> </li> <li>— V_SC_PERS_OP_QUANTITY_SUM <ul style="list-style-type: none"> <li>○ PERSON_ID</li> <li>○ QTY</li> <li>○ ASSOCIATED_DAY_TS</li> </ul> </li> </ul>
Personnel/Personal	<ul style="list-style-type: none"> <li>— Personnel → Personnel Details (Overview) → Personnel Report (Online)</li> <li>— Personal → Personalübersicht → Personalreport (Online)</li> </ul>	Subreports: <ul style="list-style-type: none"> <li>— Personnel Report (Online) [Column Chart]/[Table]/(sums)</li> <li>— Personnel Report Quantities (Online)</li> </ul>		FR_MD_MALFUNCTION_REASON_VEC FR_MD_TIMEBASE V_MD_TIMEBASE_ENTRY FR_DS_PERS_TIME_ATTENDANCE_TL FR_DS_PERS_OPERATION_BASE_TL FR_DS_PERS_OVERHEAD_COST_TL PERSON_HIERARCHY_REL FR_MD_PERSON FF_MD_PERSON_COST_UNIT_HISTORY V_MD_OPERATION	<ul style="list-style-type: none"> <li>— FR_MD_MALFUNCTION_REASON_VEC <ul style="list-style-type: none"> <li>○ ID</li> <li>○ REASON_ID_1</li> </ul> </li> <li>— FR_MD_TIMEBASE <ul style="list-style-type: none"> <li>○ ID</li> <li>○ MNEMONIC</li> </ul> </li> <li>— V_MD_TIMEBASE_ENTRY <ul style="list-style-type: none"> <li>○ TIMEBASE_ID</li> <li>○ PHASE_ID</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Datasource Columns	Used Tables/Views	Used Columns
		<ul style="list-style-type: none"> <li>- Personnel Report (Details)(Online)[Column Chart]/[Table]</li> </ul>		V_C_OPERATION_TIMESTAMP FF_MD_PIECE_TIME FR_DS_OPERATION_QUANTITY_LE	<ul style="list-style-type: none"> <li>o OPERATING_STATUS_ID</li> <li>o STAATS_ID</li> <li>o MALFUNCTINO_REASON_ID</li> <li>- FR_DS_PERS_TIME_ATTENDANCE_TL <ul style="list-style-type: none"> <li>o PERSON_ID</li> <li>o START_TS</li> <li>o END_TS</li> <li>o DURATION</li> <li>o CURRENT_ELEMENT</li> <li>o OPEN_INTERVAL</li> </ul> </li> <li>- FR_DS_PERS_OPERATION_BASE_TL <ul style="list-style-type: none"> <li>o PERSON_ID</li> <li>o START_TS</li> <li>o END_TS</li> <li>o DURATION</li> <li>o PERCENT_WEIGHTING</li> <li>o CURRENT_ELEMENT</li> <li>o OPEN_INTERVAL</li> <li>o OPERATION_STATUS_ID</li> <li>o OPERATION_PHASE_ID</li> <li>o MALFUNCTION_REASON_VECTOR_ID</li> </ul> </li> <li>- FR_DS_PERS_OVERHEAD_COST_TL <ul style="list-style-type: none"> <li>o PERSON_ID</li> <li>o START_TS</li> <li>o END_TS</li> <li>o DURATION</li> <li>o CURRENT_ELEMENT</li> <li>o OPEN_INTERVAL</li> </ul> </li> <li>- PERSON_HIERARCHY_REL <ul style="list-style-type: none"> <li>o PERSON_ID</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ HIERARCHY_NODE_ID</li> <li>- FR_MD_PERSON <ul style="list-style-type: none"> <li>○ ID</li> <li>○ FIRST_NAME</li> </ul> </li> <li>- FF_MD_PERSON_COST_UNIT_HISTORY <ul style="list-style-type: none"> <li>○ PERSON_ID</li> <li>○ VALID_FROM_TS</li> <li>○ VALID_TO_TS</li> </ul> </li> <li>- V_MD_OPERATION <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ MATERIAL_ID</li> <li>○ TARGET_START_DATE</li> <li>○ TARGET_SETUP_TIME</li> <li>○ TIME_PER_UNIT</li> <li>○ TARGET_QUANTITY</li> </ul> </li> <li>- V_C_OPERATION_TIMESTAMP <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ TOTAL_START_TS</li> </ul> </li> <li>- FF_MD_PIECE_TIME <ul style="list-style-type: none"> <li>○ MATERIAL_ID</li> <li>○ WORKPLACE_ID</li> <li>○ VALID_FROM_TS</li> <li>○ VALID_TO_TS</li> <li>○ TARGET_PIECE_TIME</li> </ul> </li> <li>- FR_DS_OPERATION_QUANTITY_LE <ul style="list-style-type: none"> <li>○ PERSON_ID</li> <li>○ OPERATION_ID</li> <li>○ START_TS</li> <li>○ AMOUNT</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ QUANTITY_TYPE_ID</li> <li>- FR_MD_OPERATION_QUANTITY_TYPE           <ul style="list-style-type: none"> <li>○ ID</li> <li>○ CODE</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>- Personnel → Personnel Details (Overview) → Personnel Report</li> <li>- Personal → Personalübersicht → Personalreport</li> </ul>	<p>Subreports:</p> <ul style="list-style-type: none"> <li>- Personnel Report [Column Chart]/[Table]/(Sums)</li> <li>- Personnel Report Quantities</li> <li>- Personnel Report (Details)[Column Chart]/[Table]</li> </ul>		FR_MD_MALFUNCTION_REASON_VEC FR_MD_TIMEBASE V_MD_TIMEBASE_ENTRY FR_DS_PERS_TIME_ATTENDANCE_TL FR_DS_PERS_OPERATION_BASE_TL FR_DS_PERS_OVERHEAD_COST_TL PERSON_HIERARCHY_REL FR_MD_PERSON FF_MD_PERSON_COST_UNIT_HISTORY V_MD_OPERATION V_C_OPERATION_TIMESTAMP FF_MD_PIECE_TIME V_SC_PERS_OP_QUANTITY_SUM	<ul style="list-style-type: none"> <li>- FR_MD_MALFUNCTION_REASON_VEC           <ul style="list-style-type: none"> <li>○ ID</li> <li>○ REASON_ID_1</li> </ul> </li> <li>- FR_MD_TIMEBASE           <ul style="list-style-type: none"> <li>○ ID</li> <li>○ MNEMONIC</li> </ul> </li> <li>- V_MD_TIMEBASE_ENTRY           <ul style="list-style-type: none"> <li>○ TIMEBASE_ID</li> <li>○ PHASE_ID</li> <li>○ OPERATING_STATUS_ID</li> <li>○ STAUTS_ID</li> <li>○ MALFUNCTINO_REASON_ID</li> </ul> </li> <li>- FR_DS_PERS_TIME_ATTENDANCE_TL           <ul style="list-style-type: none"> <li>○ PERSON_ID</li> <li>○ START_TS</li> <li>○ END_TS</li> <li>○ DURATION</li> <li>○ CURRENT_ELEMENT</li> <li>○ OPEN_INTERVAL</li> </ul> </li> <li>- FR_DS_PERS_OPERATION_BASE_TL           <ul style="list-style-type: none"> <li>○ PERSON_ID</li> <li>○ START_TS</li> <li>○ END_TS</li> <li>○ DURATION</li> <li>○ PERCENT_WEIGHTING</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ CURRENT_ELEMENT</li> <li>○ OPEN_INTERVAL</li> <li>○ OPERATION_STATUS_ID</li> <li>○ OPERATION_PHASE_ID</li> <li>○ MALFUNCTION_REASON_VECTOR_ID</li> <li>— FR_DS_PERS_OVERHEAD_COST_TL           <ul style="list-style-type: none"> <li>○ PERSON_ID</li> <li>○ START_TS</li> <li>○ END_TS</li> <li>○ DURATION</li> <li>○ CURRENT_ELEMENT</li> <li>○ OPEN_INTERVAL</li> </ul> </li> <li>— PERSON_HIERARCHY_REL           <ul style="list-style-type: none"> <li>○ PERSON_ID</li> <li>○ HIERARCHY_NODE_ID</li> </ul> </li> <li>— FR_MD_PERSON           <ul style="list-style-type: none"> <li>○ ID</li> <li>○ FIRST_NAME</li> </ul> </li> <li>— FF_MD_PERSON_COST_UNIT_HISTORY           <ul style="list-style-type: none"> <li>○ PERSON_ID</li> <li>○ VALID_FROM_TS</li> <li>○ VALID_TO_TS</li> </ul> </li> <li>— V_MD_OPERATION           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ MATERIAL_ID</li> <li>○ TARGET_START_DATE</li> <li>○ TARGET_SETUP_TIME</li> <li>○ TIME_PER_UNIT</li> <li>○ TARGET_QUANTITY</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>- V_C_OPERATION_TIMESTAMP           <ul style="list-style-type: none"> <li>o OPERATION_ID</li> <li>o TOTAL_START_TS</li> </ul> </li> <li>- FF_MD_PIECE_TIME           <ul style="list-style-type: none"> <li>o MATERIAL_ID</li> <li>o WORKPLACE_ID</li> <li>o VALID_FROM_TS</li> <li>o VALID_TO_TS</li> <li>o TARGET_PIECE_TIME</li> </ul> </li> <li>- V_SC_PERS_OP_QUANTITY_SUM           <ul style="list-style-type: none"> <li>o PERSON_ID</li> <li>o OPERATION_ID</li> <li>o START_TS</li> <li>o END_TS</li> <li>o QTY</li> <li>o YIELD_QTY</li> <li>o SCRAP_QTY</li> <li>o REWORK_QTY</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>- Personnel → Personnel Details (Overview) → Personnel Development (Online)</li> <li>- Personal → Personalübersicht → Personalverlauf (Online)</li> </ul>	Subreports: <ul style="list-style-type: none"> <li>- Personnel Development (Online) [Column Chart]/[Table]/(Sums)</li> <li>- Personnel Development Quantities (Online)</li> </ul>		FR_MD_MALFUNCTION_REASON_VEC FR_MD_TIMEBASE V_MD_TIMEBASE_ENTRY FR_DS_PERS_TIME_ATTENDANCE_TL FR_DS_PERS_OPERATION_BASE_TL FR_DS_PERS_OVERHEAD_COST_TL PERSON_HIERARCHY_REL FR_MD_PERSON FF_MD_PERSON_COST_UNIT_HISTORY V_MD_OPERATION V_C_OPERATION_TIMESTAMP FF_MD_PIECE_TIME	<ul style="list-style-type: none"> <li>- FR_MD_MALFUNCTION_REASON_VEC           <ul style="list-style-type: none"> <li>o ID</li> <li>o REASON_ID_1</li> </ul> </li> <li>- FR_MD_TIMEBASE           <ul style="list-style-type: none"> <li>o ID</li> <li>o MNEMONIC</li> </ul> </li> <li>- V_MD_TIMEBASE_ENTRY           <ul style="list-style-type: none"> <li>o TIMEBASE_ID</li> <li>o PHASE_ID</li> <li>o OPERATING_STATUS_ID</li> <li>o STAUTS_ID</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
		<ul style="list-style-type: none"> <li>- Personnel Development (Details)(Online)[Column Chart]/[Table]</li> </ul>		FR_DS_OPERATION_QUANTITY_LE	<ul style="list-style-type: none"> <li>o MALFUNCTION_REASON_ID</li> <li>- FR_DS_PERS_TIME_ATTENDANCE_TL <ul style="list-style-type: none"> <li>o PERSON_ID</li> <li>o START_TS</li> <li>o END_TS</li> <li>o DURATION</li> <li>o CURRENT_ELEMENT</li> <li>o OPEN_INTERVAL</li> </ul> </li> <li>- FR_DS_PERS_OPERATION_BASE_TL <ul style="list-style-type: none"> <li>o PERSON_ID</li> <li>o START_TS</li> <li>o END_TS</li> <li>o DURATION</li> <li>o PERCENT_WEIGHTING</li> <li>o CURRENT_ELEMENT</li> <li>o OPEN_INTERVAL</li> <li>o OPERATION_STATUS_ID</li> <li>o OPERATION_PHASE_ID</li> <li>o MALFUNCTION_REASON_VECTOR_ID</li> </ul> </li> <li>- FR_DS_PERS_OVERHEAD_COST_TL <ul style="list-style-type: none"> <li>o PERSON_ID</li> <li>o START_TS</li> <li>o END_TS</li> <li>o DURATION</li> <li>o CURRENT_ELEMENT</li> <li>o OPEN_INTERVAL</li> </ul> </li> <li>- PERSON_HIERARCHY_REL <ul style="list-style-type: none"> <li>o PERSON_ID</li> <li>o HIERARCHY_NODE_ID</li> </ul> </li> <li>- FR_MD_PERSON</li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ ID</li> <li>○ FIRST_NAME</li> <li>— FF_MD_PERSON_COST_UNIT_HISTORY           <ul style="list-style-type: none"> <li>○ PERSON_ID</li> <li>○ VALID_FROM_TS</li> <li>○ VALID_TO_TS</li> </ul> </li> <li>— V_MD_OPERATION           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ MATERIAL_ID</li> <li>○ TARGET_START_DATE</li> <li>○ TARGET_SETUP_TIME</li> <li>○ TIME_PER_UNIT</li> <li>○ TARGET_QUANTITY</li> </ul> </li> <li>— V_C_OPERATION_TIMESTAMP           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ TOTAL_START_TS</li> </ul> </li> <li>— FF_MD_PIECE_TIME           <ul style="list-style-type: none"> <li>○ MATERIAL_ID</li> <li>○ WORKPLACE_ID</li> <li>○ VALID_FROM_TS</li> <li>○ VALID_TO_TS</li> <li>○ TARGET_PIECE_TIME</li> </ul> </li> <li>— FR_DS_OPERATION_QUANTITY_LE           <ul style="list-style-type: none"> <li>○ PERSON_ID</li> <li>○ OPERATION_ID</li> <li>○ START_TS</li> <li>○ AMOUNT</li> <li>○ QUANTITY_TYPE_ID</li> </ul> </li> <li>— FR_MD_OPERATION_QUANTITY_TYPE</li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ ID</li> <li>○ CODE</li> </ul>
	<ul style="list-style-type: none"> <li>— Personnel → Personnel Details (Overview) → Personnel Development</li> <li>— Personal → Personnel Details (Overview) → Personalverlauf</li> </ul>	<p>Subreports:</p> <ul style="list-style-type: none"> <li>— Personnel Development [Column Chart]/[Table]/(Summs)</li> <li>— Personnel Development Quantities</li> <li>— Personnel Development (Details)[Column Chart]/[Table]</li> </ul>		FR_MD_MALFUNCTION_REASON_VEC FR_MD_TIMEBASE V_MD_TIMEBASE_ENTRY FR_DS_PERS_TIME_ATTENDANCE_TL FR_DS_PERS_OPERATION_BASE_TL FR_DS_PERS_OVERHEAD_COST_TL PERSON_HIERARCHY_REL FR_MD_PERSON FF_MD_PERSON_COST_UNIT_HISTORY V_MD_OPERATION V_C_OPERATION_TIMESTAMP FF_MD_PIECE_TIME V_SC_PERS_OP_QUANTITY_SUM	<ul style="list-style-type: none"> <li>— FR_MD_MALFUNCTION_REASON_VEC <ul style="list-style-type: none"> <li>○ ID</li> <li>○ REASON_ID_1</li> </ul> </li> <li>— FR_MD_TIMEBASE <ul style="list-style-type: none"> <li>○ ID</li> <li>○ MNEMONIC</li> </ul> </li> <li>— V_MD_TIMEBASE_ENTRY <ul style="list-style-type: none"> <li>○ TIMEBASE_ID</li> <li>○ PHASE_ID</li> <li>○ OPERATING_STATUS_ID</li> <li>○ STAUTS_ID</li> <li>○ MALFUNCTINO_REASON_ID</li> </ul> </li> <li>— FR_DS_PERS_TIME_ATTENDANCE_TL <ul style="list-style-type: none"> <li>○ PERSON_ID</li> <li>○ START_TS</li> <li>○ END_TS</li> <li>○ DURATION</li> <li>○ CURRENT_ELEMENT</li> <li>○ OPEN_INTERVAL</li> </ul> </li> <li>— FR_DS_PERS_OPERATION_BASE_TL <ul style="list-style-type: none"> <li>○ PERSON_ID</li> <li>○ START_TS</li> <li>○ END_TS</li> <li>○ DURATION</li> <li>○ PERCENT_WEIGHTING</li> <li>○ CURRENT_ELEMENT</li> <li>○ OPEN_INTERVAL</li> </ul> </li> </ul>

## Reports and their data

Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ OPERATION_STATUS_ID</li> <li>○ OPERATION_PHASE_ID</li> <li>○ MALFUNCTION_REASON_VECTOR_ID</li> <li>— FR_DS_PERS_OVERHEAD_COST_TL           <ul style="list-style-type: none"> <li>○ PERSON_ID</li> <li>○ START_TS</li> <li>○ END_TS</li> <li>○ DURATION</li> <li>○ CURRENT_ELEMENT</li> <li>○ OPEN_INTERVAL</li> </ul> </li> <li>— PERSON_HIERARCHY_REL           <ul style="list-style-type: none"> <li>○ PERSON_ID</li> <li>○ HIERARCHY_NODE_ID</li> </ul> </li> <li>— FR_MD_PERSON           <ul style="list-style-type: none"> <li>○ ID</li> <li>○ FIRST_NAME</li> </ul> </li> <li>— FF_MD_PERSON_COST_UNIT_HISTORY           <ul style="list-style-type: none"> <li>○ PERSON_ID</li> <li>○ VALID_FROM_TS</li> <li>○ VALID_TO_TS</li> </ul> </li> <li>— V_MD_OPERATION           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> <li>○ MATERIAL_ID</li> <li>○ TARGET_START_DATE</li> <li>○ TARGET_SETUP_TIME</li> <li>○ TIME_PER_UNIT</li> <li>○ TARGET_QUANTITY</li> </ul> </li> <li>— V_C_OPERATION_TIMESTAMP           <ul style="list-style-type: none"> <li>○ OPERATION_ID</li> </ul> </li> </ul>

## Reports and their data

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Reporting Area	Report Name (Englisch/German)	Datasource(s) Name	Data source Columns	Used Tables/Views	Used Columns
					<ul style="list-style-type: none"> <li>○ TOTAL_START_TS</li> <li>— FF_MD_PIECE_TIME           <ul style="list-style-type: none"> <li>○ MATERIAL_ID</li> <li>○ WORKPLACE_ID</li> <li>○ VALID_FROM_TS</li> <li>○ VALID_TO_TS</li> <li>○ TARGET_PIECE_TIME</li> </ul> </li> <li>— V_SC_PERS_OP_QUANTITY_SUM           <ul style="list-style-type: none"> <li>○ PERSON_ID</li> <li>○ OPERATION_ID</li> <li>○ START_TS</li> <li>○ END_TS</li> <li>○ QTY</li> <li>○ YIELD_QTY</li> <li>○ SCRAP_QTY</li> <li>○ REWORK_QTY</li> </ul> </li> </ul>

## 5 Annex

### 5.1 SQL Examples

#### 5.1.1 Historical data including archived data, aggregated - Historical Data 2

##### V\_SC\_WORKPLACE\_QUANTITY

```

SELECT
    S.WORKPLACE_ID,
    WP.SORT_ORDER AS WORKPLACE_SORT_ORDER,
    S.SHIFT_ID,
    S.OPERATION_ID,
    OP.DISPLAY_QUANTITY_UNIT AS DISPLAY_QUANTITY_UNIT,
    S.QUANTITY_TYPE_ID AS QUANTITY_TYPE_ID,
    S.QUANTITY_TYPE_REASON_ID AS QUANTITY_TYPE_REASON_ID,
    S.MALFUNCTION_REASON_VECTOR_ID AS MFR_VECTOR_ID,
    OPSTD.ID AS OPERATION_STATUS_ID,
    OPSTD.CODE AS STATUS_CODE,
    OPSTD.COLOR AS STATUS_COLOR,
    OPSTD.MNEMONIC AS STATUS_MNEMONIC,
    OPSTD.SORT_ORDER AS STATUS_SORT_ORDER,
    (SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = OPSTD.DESCRIPTION_ID AND
    X.LANGUAGE_ID = dbo.get_language_id()) AS STATUS_TEXT,
    (SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = OPSTD.SHORTDESCRIPTION_ID AND
    X.LANGUAGE_ID = dbo.get_language_id()) AS STATUS_SHORTTEXT,
    OPPHD.ID AS OPERATION_PHASE_ID,
    OPPHD.CODE AS PHASE_CODE,
    OPPHD.COLOR AS PHASE_COLOR,
    OPPHD.MNEMONIC AS PHASE_MNEMONIC,
    OPPHD.SORT_ORDER AS PHASE_SORT_ORDER,
    (SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = OPPHD.DESCRIPTION_ID AND
    X.LANGUAGE_ID = dbo.get_language_id()) AS PHASE_TEXT,
    (SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = OPPHD.SHORTDESCRIPTION_ID AND
    X.LANGUAGE_ID = dbo.get_language_id()) AS PHASE_SHORTTEXT,
    OPQT.CODE AS QTY_TYPE_CODE,
    OPQT.COLOR AS QTY_TYPE_COLOR,
    OPQT.SORT_ORDER AS QTY_TYPE_SORT_ORDER,
```

## Annex

```

(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = OPQT.DESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id() AS QTY_TYPE_TEXT,

(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = OPQT.SHORTDESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id() AS QTY_TYPE_SHORTTEXT,

QR.COLOR AS QTY_REASON_COLOR,
QR.MNEMONIC AS QTY_REASON_MNEMONIC,
QR.SORT_ORDER AS QTY_REASON_SORT_ORDER,
(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = QR.DESCRIPTION_ID AND X.LANGUAGE_ID
= dbo.get_language_id() AS QTY_REASON_TEXT,
(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = QR.SHORTDESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id() AS QTY_REASON_SHORTTEXT,
S.START_TS,
convert(varchar(4), datepart(year, S.START_TS)) as START_TS_YEAR,
right(convert(varchar(4),datepart(year,S.START_TS)) + '/' +
right('0'+convert(varchar,datepart(month,S.START_TS)),2),7) as START_TS_MONTH,
(CASE
WHEN DATEPART(WEEK, S.START_TS) = 53 AND (DAY(S.START_TS) - DATEPART(WEEKDAY, S.START_TS) + 7 > 31)
THEN right(convert(varchar(4),datepart(year, S.START_TS) + 1) + '/01', 7)
ELSE right(convert(varchar(4),datepart(year, S.START_TS)) + '/' + right('0' + convert(varchar,
datepart(week, S.START_TS)), 2), 7) END
) as START_TS_WEEK,
convert(varchar(4), datepart(year, S.START_TS)) as START_TS_ISOYEAR,
(CASE
WHEN DATEPART(ISO_WEEK, S.START_TS) > 50 AND MONTH(S.START_TS) = 1
THEN right(convert(varchar(4),datepart(year,S.START_TS)-1) + '/' +
right('0' + convert(varchar,datepart(iso_week,S.START_TS)),2),7)
WHEN DATEPART(ISO_WEEK, S.START_TS) = 1 AND MONTH(S.START_TS) = 12
THEN right(convert(varchar(4),datepart(year,S.START_TS)+1) + '/' +
right('0' + convert(varchar,datepart(iso_week,S.START_TS)),2),7)
ELSE right(convert(varchar(4),datepart(year,S.START_TS)) + '/' +
right('0' + convert(varchar,datepart(iso_week,S.START_TS)),2),7) END
) as START_TS_ISOWEEK,
replace(convert(date, S.START_TS), '-', '/') as START_TS_DATE,
replace(convert(varchar(19), S.START_TS), '-', '/') as START_TS_DATETIME,
V_SH.NONWORKING_SHIFT_TYPE,
V_SH.ASSOCIATED_DAY_TS AS ASSOCIATED_DAY_TS,
convert(varchar(4), datepart(year, V_SH.ASSOCIATED_DAY_TS)) as ASSOCIATED_DAY_TS_YEAR,
right(convert(varchar(4),datepart(year,V_SH.ASSOCIATED_DAY_TS)) + '/' + right('0' +
convert(varchar,datepart(quarter,V_SH.ASSOCIATED_DAY_TS)),2),7) as ASSOCIATED_DAY_TS_QUARTER,
right(convert(varchar(4),datepart(year,V_SH.ASSOCIATED_DAY_TS)) + '/' + right('0' +
convert(varchar,datepart(month,V_SH.ASSOCIATED_DAY_TS)),2),7) as ASSOCIATED_DAY_TS_MONTH,

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## Annex

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```

(CASE
WHEN DATEPART(WEEK, V_SH.ASSOCIATED_DAY_TS) = 53 AND (DAY(V_SH.ASSOCIATED_DAY_TS) - DATEPART(WEEKDAY, V_SH.ASSOCIATED_DAY_TS) + 7 > 31)
THEN right(convert(varchar(4),datepart(year, V_SH.ASSOCIATED_DAY_TS) + 1) + '/01', 7)
ELSE right(convert(varchar(4),datepart(year, V_SH.ASSOCIATED_DAY_TS)) + '/' + right('0' +
convert(varchar, datepart(week, V_SH.ASSOCIATED_DAY_TS)), 2), 7) END
) as ASSOCIATED_DAY_TS_WEEK,
(CASE
WHEN DATEPART(ISO_WEEK, V_SH.ASSOCIATED_DAY_TS) > 50 AND MONTH(V_SH.ASSOCIATED_DAY_TS) = 1
THEN right(convert(varchar(4),datepart(year,V_SH.ASSOCIATED_DAY_TS)-1) + '/' +
right('0' + convert(varchar,datepart(iso_week,V_SH.ASSOCIATED_DAY_TS)),2),7)
WHEN DATEPART(ISO_WEEK, V_SH.ASSOCIATED_DAY_TS) = 1 AND MONTH(V_SH.ASSOCIATED_DAY_TS) = 12
THEN right(convert(varchar(4),datepart(year,V_SH.ASSOCIATED_DAY_TS)+1) + '/' +
right('0' + convert(varchar,datepart(iso_week,V_SH.ASSOCIATED_DAY_TS)),2),7)
ELSE right(convert(varchar(4),datepart(year,V_SH.ASSOCIATED_DAY_TS)) + '/' +
right('0' + convert(varchar,datepart(iso_week,V_SH.ASSOCIATED_DAY_TS)),2),7) END
) as ASSOCIATED_DAY_TS_ISOWEEK,
replace(convert(date, V_SH.ASSOCIATED_DAY_TS), '-', '/') as ASSOCIATED_DAY_TS_DATE,
replace(convert(date, V_SH.ASSOCIATED_DAY_TS), '-', '/') + '-' + V_SH.TYPE_SHORTTEXT as
ASSOCIATED_DAY_TS_SHIFT,
replace(convert(varchar(19), V_SH.ASSOCIATED_DAY_TS), '-', '/') as ASSOCIATED_DAY_TS_DATETIME,
S.SUM_AMOUNT,
(CASE WHEN (S.MALFUNCTION_REASON_VECTOR_ID=0) THEN (S.OPERATION_STATUS_ID)
ELSE (SELECT REASON_ID_1 FROM dbo.FR_MD_MALFUNCTION_REASON_VEC WHERE S.MALFUNCTION_REASON_VECTOR_ID=ID)
END) AS OPERATING_STATUS_ID,
(CASE WHEN (S.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_COLOR FROM dbo.V_MD_OPERATION_STATUS
WHERE S.OPERATION_STATUS_ID=STATUS_ID)
ELSE (SELECT COLOR_1 FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
S.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_COLOR,
(CASE WHEN (S.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_MNEMONIC FROM
dbo.V_MD_OPERATION_STATUS WHERE S.OPERATION_STATUS_ID=STATUS_ID)
ELSE (SELECT MNEMONIC_1 FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
S.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_MNEMONIC,
(CASE WHEN (S.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_SORT_ORDER FROM
dbo.V_MD_OPERATION_STATUS WHERE S.OPERATION_STATUS_ID=STATUS_ID)
ELSE (SELECT SORT_ORDER_1 FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
S.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_SORT_ORDER,
(CASE WHEN (S.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_TEXT FROM dbo.V_MD_OPERATION_STATUS
WHERE S.OPERATION_STATUS_ID=STATUS_ID)
ELSE (SELECT MFR1_TEXT FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
S.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_TEXT,
(CASE WHEN (S.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_SHORTTEXT FROM
dbo.V_MD_OPERATION_STATUS WHERE S.OPERATION_STATUS_ID=STATUS_ID)

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## Annex

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ELSE (SELECT MFR1_SHORTTEXT FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
S.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_SHORTTEXT

FROM (
SELECT
WORKPLACE_ID,SHIFT_ID,OPERATION_ID,OPERATION_STATUS_ID,OPERATION_PHASE_ID,MALFUNCTION_REASON_VECTOR_ID,
QUANTITY_TYPE_ID,QUANTITY_TYPE_REASON_ID,MIN(START_TS) AS START_TS,SUM(SUM_AMOUNT) AS SUM_AMOUNT

FROM (
SELECT
WORKPLACE_ID,SHIFT_ID,OPERATION_ID,OPERATION_STATUS_ID,OPERATION_PHASE_ID,MALFUNCTION_REASON_VECTOR_ID,
QUANTITY_TYPE_ID,QUANTITY_TYPE_REASON_ID,START_TS,SUM_AMOUNT

FROM dbo.OPERATION_QUANTITY_SUM

UNION

SELECT
WORKPLACE_ID,SHIFT_ID,OPERATION_ID,OPERATION_STATUS_ID,OPERATION_PHASE_ID,MALFUNCTION_REASON_VECTOR_ID,
QUANTITY_TYPE_ID,QUANTITY_TYPE_REASON_ID,START_TS,SUM_AMOUNT

FROM dbo.OPERATION_QUANTITY_ARC_SUM

) U

GROUP BY WORKPLACE_ID, SHIFT_ID, OPERATION_ID, OPERATION_STATUS_ID, OPERATION_PHASE_ID,
MALFUNCTION_REASON_VECTOR_ID, QUANTITY_TYPE_ID, QUANTITY_TYPE_REASON_ID

) S

JOIN dbo.FR_MD_OPERATION_STATUS_DEF OPSTD ON OPSTD.ID = S.OPERATION_STATUS_ID
JOIN dbo.FR_MD_OPERATION_PHASE_DEF OPPHD ON OPPHD.ID = S.OPERATION_PHASE_ID
LEFT JOIN dbo.FR_MD_OPERATION_QUANTITY_TYPE OPQT ON OPQT.ID = S.QUANTITY_TYPE_ID
LEFT JOIN dbo.FR_MD_QUANTITY_REASON QR ON QR.ID = S.QUANTITY_TYPE_REASON_ID
JOIN dbo.FR_MD_WORKPLACE WP ON WP.ID = S.WORKPLACE_ID
JOIN dbo.V_MD_SHIFT V_SH ON S.SHIFT_ID = V_SH.SHIFT_ID
LEFT JOIN dbo.FR_MD_OPERATION OP ON OP.ID = S.OPERATION_ID

SELECT
S.WORKPLACE_ID,
WP.SORT_ORDER AS WORKPLACE_SORT_ORDER,
S.SHIFT_ID,
S.OPERATION_ID,
OP.DISPLAY_QUANTITY_UNIT AS DISPLAY_QUANTITY_UNIT,
S.QUANTITY_TYPE_ID AS QUANTITY_TYPE_ID,
S.QUANTITY_TYPE_REASON_ID AS QUANTITY_TYPE_REASON_ID,
S.MALFUNCTION_REASON_VECTOR_ID AS MFR_VECTOR_ID,
OPSTD.ID AS OPERATION_STATUS_ID,
OPSTD.CODE AS STATUS_CODE,
OPSTD.COLOR AS STATUS_COLOR,
OPSTD.MNEMONIC AS STATUS_MNEMONIC,
OPSTD.SORT_ORDER AS STATUS_SORT_ORDER,

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(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = OPSTD.DESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id() AS STATUS_TEXT,
(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = OPSTD.SHORTDESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id() AS STATUS_SHORTTEXT,
OPPHD.ID AS OPERATION_PHASE_ID,
OPPHD.CODE AS PHASE_CODE,
OPPHD.COLOR AS PHASE_COLOR,
OPPHD.MNEMONIC AS PHASE_MNEMONIC,
OPPHD.SORT_ORDER AS PHASE_SORT_ORDER,
(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = OPPHD.DESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id() AS PHASE_TEXT,
(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = OPPHD.SHORTDESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id() AS PHASE_SHORTTEXT,
OPQT.CODE AS QTY_TYPE_CODE,
OPQT.COLOR AS QTY_TYPE_COLOR,
OPQT.SORT_ORDER AS QTY_TYPE_SORT_ORDER,
(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = OPQT.DESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id() AS QTY_TYPE_TEXT,
(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = OPQT.SHORTDESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id() AS QTY_TYPE_SHORTTEXT,
QR.COLOR AS QTY_REASON_COLOR,
QR.MNEMONIC AS QTY_REASON_MNEMONIC,
QR.SORT_ORDER AS QTY_REASON_SORT_ORDER,
(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = QR.DESCRIPTION_ID AND X.LANGUAGE_ID
= dbo.get_language_id() AS QTY_REASON_TEXT,
(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = QR.SHORTDESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id() AS QTY_REASON_SHORTTEXT,
S.START_TS,
convert(varchar(4), datepart(year, S.START_TS)) as START_TS_YEAR,
right(convert(varchar(4),datepart(year,S.START_TS)) + '/' +
right('0'+convert(varchar,datepart(month,S.START_TS)),2),7) as START_TS_MONTH,
(CASE
WHEN DATEPART(WEEK, S.START_TS) = 53 AND (DAY(S.START_TS) - DATEPART(WEEKDAY, S.START_TS) + 7 > 31)
THEN right(convert(varchar(4),datepart(year, S.START_TS) + 1) + '/01', 7)
ELSE right(convert(varchar(4),datepart(year, S.START_TS)) + '/' + right('0' + convert(varchar,
datepart(week, S.START_TS)), 2), 7) END
) as START_TS_WEEK,
convert(varchar(4), datepart(year, S.START_TS)) as START_TS_ISOYEAR,
(CASE
WHEN DATEPART(ISO_WEEK, S.START_TS) > 50 AND MONTH(S.START_TS) = 1
THEN right(convert(varchar(4),datepart(year,S.START_TS)-1) + '/' +

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right('0' + convert(varchar,datepart(iso_week,S.START_TS)),2),7)
WHEN DATEPART(ISO_WEEK, S.START_TS) = 1 AND MONTH(S.START_TS) = 12
THEN right(convert(varchar(4),datepart(year,S.START_TS)+1) + '/' +
right('0' + convert(varchar,datepart(iso_week,S.START_TS)),2),7)
ELSE right(convert(varchar(4),datepart(year,S.START_TS)) + '/' +
right('0' + convert(varchar,datepart(iso_week,S.START_TS)),2),7) END
) as START_TS_ISOWEEK,
replace(convert(date, S.START_TS), '-', '/') as START_TS_DATE,
replace(convert(varchar(19), S.START_TS), '-', '/') as START_TS_DATETIME,
V_SH.NONWORKING_SHIFT_TYPE,
V_SH.ASSOCIATED_DAY_TS AS ASSOCIATED_DAY_TS,
convert(varchar(4), datepart(year, V_SH.ASSOCIATED_DAY_TS)) as ASSOCIATED_DAY_TS_YEAR,
right(convert(varchar(4),datepart(year,V_SH.ASSOCIATED_DAY_TS)) + '/' + right('0' +
convert(varchar,datepart(quarter,V_SH.ASSOCIATED_DAY_TS)),2),7) as ASSOCIATED_DAY_TS_QUARTER,
right(convert(varchar(4),datepart(year,V_SH.ASSOCIATED_DAY_TS)) + '/' + right('0' +
convert(varchar,datepart(month,V_SH.ASSOCIATED_DAY_TS)),2),7) as ASSOCIATED_DAY_TS_MONTH,
(CASE
WHEN DATEPART(WEEK, V_SH.ASSOCIATED_DAY_TS) = 53 AND (DAY(V_SH.ASSOCIATED_DAY_TS) - DATEPART(WEEKDAY,
V_SH.ASSOCIATED_DAY_TS) + 7 > 31)
THEN right(convert(varchar(4),datepart(year, V_SH.ASSOCIATED_DAY_TS) + 1) + '/01', 7)
ELSE right(convert(varchar(4),datepart(year, V_SH.ASSOCIATED_DAY_TS)) + '/' + right('0' +
convert(varchar, datepart(week, V_SH.ASSOCIATED_DAY_TS)), 2), 7) END
) as ASSOCIATED_DAY_TS_WEEK,
(CASE
WHEN DATEPART(ISO_WEEK, V_SH.ASSOCIATED_DAY_TS) > 50 AND MONTH(V_SH.ASSOCIATED_DAY_TS) = 1
THEN right(convert(varchar(4),datepart(year,V_SH.ASSOCIATED_DAY_TS)-1) + '/' +
right('0' + convert(varchar,datepart(iso_week,V_SH.ASSOCIATED_DAY_TS)),2),7)
WHEN DATEPART(ISO_WEEK, V_SH.ASSOCIATED_DAY_TS) = 1 AND MONTH(V_SH.ASSOCIATED_DAY_TS) = 12
THEN right(convert(varchar(4),datepart(year,V_SH.ASSOCIATED_DAY_TS)+1) + '/' +
right('0' + convert(varchar,datepart(iso_week,V_SH.ASSOCIATED_DAY_TS)),2),7)
ELSE right(convert(varchar(4),datepart(year,V_SH.ASSOCIATED_DAY_TS)) + '/' +
right('0' + convert(varchar,datepart(iso_week,V_SH.ASSOCIATED_DAY_TS)),2),7) END
) as ASSOCIATED_DAY_TS_ISOWEEK,
replace(convert(date, V_SH.ASSOCIATED_DAY_TS), '-', '/') as ASSOCIATED_DAY_TS_DATE,
replace(convert(date, V_SH.ASSOCIATED_DAY_TS), '-', '/') + '-' + V_SH.TYPE_SHORTTEXT as
ASSOCIATED_DAY_TS_SHIFT,
replace(convert(varchar(19), V_SH.ASSOCIATED_DAY_TS), '-', '/') as ASSOCIATED_DAY_TS_DATETIME,
S.SUM_AMOUNT,
(CASE WHEN (S.MALFUNCTION_REASON_VECTOR_ID=0) THEN (S.OPERATION_STATUS_ID)

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ELSE (SELECT REASON_ID_1 FROM dbo.FR_MD_MALFUNCTION_REASON_VEC WHERE S.MALFUNCTION_REASON_VECTOR_ID=ID)
END) AS OPERATING_STATUS_ID,

(CASE WHEN (S.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_COLOR FROM dbo.V_MD_OPERATION_STATUS
WHERE S.OPERATION_STATUS_ID=STATUS_ID)

ELSE (SELECT COLOR_1 FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
S.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_COLOR,

(CASE WHEN (S.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_MNEMONIC FROM
dbo.V_MD_OPERATION_STATUS WHERE S.OPERATION_STATUS_ID=STATUS_ID)

ELSE (SELECT MNEMONIC_1 FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
S.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_MNEMONIC,

(CASE WHEN (S.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_SORT_ORDER FROM
dbo.V_MD_OPERATION_STATUS WHERE S.OPERATION_STATUS_ID=STATUS_ID)

ELSE (SELECT SORT_ORDER_1 FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
S.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_SORT_ORDER,

(CASE WHEN (S.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_TEXT FROM dbo.V_MD_OPERATION_STATUS
WHERE S.OPERATION_STATUS_ID=STATUS_ID)

ELSE (SELECT MFR1_TEXT FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
S.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_TEXT,

(CASE WHEN (S.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_SHORTTEXT FROM
dbo.V_MD_OPERATION_STATUS WHERE S.OPERATION_STATUS_ID=STATUS_ID)

ELSE (SELECT MFR1_SHORTTEXT FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
S.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_SHORTTEXT

FROM (
SELECT
WORKPLACE_ID,SHIFT_ID,OPERATION_ID,OPERATION_STATUS_ID,OPERATION_PHASE_ID,MALFUNCTION_REASON_VECTOR_ID,
QUANTITY_TYPE_ID,QUANTITY_TYPE_REASON_ID,MIN(START_TS) AS START_TS,SUM(SUM_AMOUNT) AS SUM_AMOUNT
FROM (
SELECT
WORKPLACE_ID,SHIFT_ID,OPERATION_ID,OPERATION_STATUS_ID,OPERATION_PHASE_ID,MALFUNCTION_REASON_VECTOR_ID,
QUANTITY_TYPE_ID,QUANTITY_TYPE_REASON_ID,START_TS,SUM_AMOUNT
FROM dbo.OPERATION_QUANTITY_SUM
UNION
SELECT
WORKPLACE_ID,SHIFT_ID,OPERATION_ID,OPERATION_STATUS_ID,OPERATION_PHASE_ID,MALFUNCTION_REASON_VECTOR_ID,
QUANTITY_TYPE_ID,QUANTITY_TYPE_REASON_ID,START_TS,SUM_AMOUNT
FROM dbo.OPERATION_QUANTITY_ARC_SUM
) U
GROUP BY WORKPLACE_ID, SHIFT_ID, OPERATION_ID, OPERATION_STATUS_ID, OPERATION_PHASE_ID,
MALFUNCTION_REASON_VECTOR_ID, QUANTITY_TYPE_ID, QUANTITY_TYPE_REASON_ID
) S
JOIN dbo.FR_MD_OPERATION_STATUS_DEF OPSTD ON OPSTD.ID = S.OPERATION_STATUS_ID
JOIN dbo.FR_MD_OPERATION_PHASE_DEF OPPHD ON OPPHD.ID = S.OPERATION_PHASE_ID
LEFT JOIN dbo.FR_MD_OPERATION_QUANTITY_TYPE OPQT ON OPQT.ID = S.QUANTITY_TYPE_ID
LEFT JOIN dbo.FR_MD_QUANTITY_REASON QR ON QR.ID = S.QUANTITY_TYPE_REASON_ID
JOIN dbo.FR_MD_WORKPLACE WP ON WP.ID = S.WORKPLACE_ID
JOIN dbo.V_MD_SHIFT V_SH ON S.SHIFT_ID = V_SH.SHIFT_ID

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LEFT JOIN dbo.FR_MD_OPERATION OP ON OP.ID = S.OPERATION_ID

SELECT
S.WORKPLACE_ID,
WP.SORT_ORDER AS WORKPLACE_SORT_ORDER,
S.SHIFT_ID,
S.OPERATION_ID,
OP.DISPLAY_QUANTITY_UNIT AS DISPLAY_QUANTITY_UNIT,
S.QUANTITY_TYPE_ID AS QUANTITY_TYPE_ID,
S.QUANTITY_TYPE_REASON_ID AS QUANTITY_TYPE_REASON_ID,
S.MALFUNCTION_REASON_VECTOR_ID AS MFR_VECTOR_ID,
OPSTD.ID AS OPERATION_STATUS_ID,
OPSTD.CODE AS STATUS_CODE,
OPSTD.COLOR AS STATUS_COLOR,
OPSTD.MNEMONIC AS STATUS_MNEMONIC,
OPSTD.SORT_ORDER AS STATUS_SORT_ORDER,
(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = OPSTD.DESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id()) AS STATUS_TEXT,
(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = OPSTD.SHORTDESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id()) AS STATUS_SHORTTEXT,
OPPHD.ID AS OPERATION_PHASE_ID,
OPPHD.CODE AS PHASE_CODE,
OPPHD.COLOR AS PHASE_COLOR,
OPPHD.MNEMONIC AS PHASE_MNEMONIC,
OPPHD.SORT_ORDER AS PHASE_SORT_ORDER,
(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = OPPHD.DESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id()) AS PHASE_TEXT,
(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = OPPHD.SHORTDESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id()) AS PHASE_SHORTTEXT,
OPQT.CODE AS QTY_TYPE_CODE,
OPQT.COLOR AS QTY_TYPE_COLOR,
OPQT.SORT_ORDER AS QTY_TYPE_SORT_ORDER,
(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = OPQT.DESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id()) AS QTY_TYPE_TEXT,
(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = OPQT.SHORTDESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id()) AS QTY_TYPE_SHORTTEXT,
QR.COLOR AS QTY_REASON_COLOR,
QR.MNEMONIC AS QTY_REASON_MNEMONIC,
QR.SORT_ORDER AS QTY_REASON_SORT_ORDER,
(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = QR.DESCRIPTION_ID AND X.LANGUAGE_ID
= dbo.get_language_id()) AS QTY_REASON_TEXT,

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(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = QR.SHORTDESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id() AS QTY_REASON_SHORTTEXT,
S.START_TS,
convert(varchar(4), datepart(year, S.START_TS)) as START_TS_YEAR,
right(convert(varchar(4),datepart(year,S.START_TS)) + '/' +
right('0'+convert(varchar,datepart(month,S.START_TS)),2),7) as START_TS_MONTH,
(CASE
WHEN DATEPART(WEEK, S.START_TS) = 53 AND (DAY(S.START_TS) - DATEPART(WEEKDAY, S.START_TS) + 7 > 31)
THEN right(convert(varchar(4),datepart(year, S.START_TS) + 1) + '/01', 7)
ELSE right(convert(varchar(4),datepart(year, S.START_TS)) + '/' + right('0' + convert(varchar,
datepart(week, S.START_TS)), 2), 7) END
) as START_TS_WEEK,
convert(varchar(4), datepart(year, S.START_TS)) as START_TS_ISOYEAR,
(CASE
WHEN DATEPART(ISO_WEEK, S.START_TS) > 50 AND MONTH(S.START_TS) = 1
THEN right(convert(varchar(4),datepart(year,S.START_TS)-1) + '/' +
right('0' + convert(varchar,datepart(iso_week,S.START_TS)),2),7)
WHEN DATEPART(ISO_WEEK, S.START_TS) = 1 AND MONTH(S.START_TS) = 12
THEN right(convert(varchar(4),datepart(year,S.START_TS)+1) + '/' +
right('0' + convert(varchar,datepart(iso_week,S.START_TS)),2),7)
ELSE right(convert(varchar(4),datepart(year,S.START_TS)) + '/' +
right('0' + convert(varchar,datepart(iso_week,S.START_TS)),2),7) END
) as START_TS_ISOWEEK,
replace(convert(date, S.START_TS), '-', '/') as START_TS_DATE,
replace(convert(varchar(19), S.START_TS), '-', '/') as START_TS_DATETIME,
V_SH.NONWORKING_SHIFT_TYPE,
V_SH.ASSOCIATED_DAY_TS AS ASSOCIATED_DAY_TS,
convert(varchar(4), datepart(year, V_SH.ASSOCIATED_DAY_TS)) as ASSOCIATED_DAY_TS_YEAR,
right(convert(varchar(4),datepart(year,V_SH.ASSOCIATED_DAY_TS)) + '/' + right('0' +
convert(varchar,datepart(quarter,V_SH.ASSOCIATED_DAY_TS)),2),7) as ASSOCIATED_DAY_TS_QUARTER,
right(convert(varchar(4),datepart(year,V_SH.ASSOCIATED_DAY_TS)) + '/' + right('0' +
convert(varchar,datepart(month,V_SH.ASSOCIATED_DAY_TS)),2),7) as ASSOCIATED_DAY_TS_MONTH,
(CASE
WHEN DATEPART(WEEK, V_SH.ASSOCIATED_DAY_TS) = 53 AND (DAY(V_SH.ASSOCIATED_DAY_TS) - DATEPART(WEEKDAY,
V_SH.ASSOCIATED_DAY_TS) + 7 > 31)
THEN right(convert(varchar(4),datepart(year, V_SH.ASSOCIATED_DAY_TS) + 1) + '/01', 7)
ELSE right(convert(varchar(4),datepart(year, V_SH.ASSOCIATED_DAY_TS)) + '/' + right('0' +
convert(varchar, datepart(week, V_SH.ASSOCIATED_DAY_TS)), 2), 7) END
) as ASSOCIATED_DAY_TS_WEEK,
(CASE
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WHEN DATEPART(ISO_WEEK, V_SH.ASSOCIATED_DAY_TS) > 50 AND MONTH(V_SH.ASSOCIATED_DAY_TS) = 1
THEN right(convert(varchar(4),datepart(year,V_SH.ASSOCIATED_DAY_TS)-1) + '/' +
right('0' + convert(varchar,datepart(iso_week,V_SH.ASSOCIATED_DAY_TS)),2),7)

WHEN DATEPART(ISO_WEEK, V_SH.ASSOCIATED_DAY_TS) = 1 AND MONTH(V_SH.ASSOCIATED_DAY_TS) = 12
THEN right(convert(varchar(4),datepart(year,V_SH.ASSOCIATED_DAY_TS)+1) + '/' +
right('0' + convert(varchar,datepart(iso_week,V_SH.ASSOCIATED_DAY_TS)),2),7)

ELSE right(convert(varchar(4),datepart(year,V_SH.ASSOCIATED_DAY_TS)) + '/' +
right('0' + convert(varchar,datepart(iso_week,V_SH.ASSOCIATED_DAY_TS)),2),7) END

) as ASSOCIATED_DAY_TS_ISOWEEK,
replace(convert(date, V_SH.ASSOCIATED_DAY_TS), '-', '/') as ASSOCIATED_DAY_TS_DATE,
replace(convert(date, V_SH.ASSOCIATED_DAY_TS), '-', '/') + '-' + V_SH.TYPE_SHORTTEXT as
ASSOCIATED_DAY_TS_SHIFT,
replace(convert(varchar(19), V_SH.ASSOCIATED_DAY_TS), '-', '/') as ASSOCIATED_DAY_TS_DATETIME,
S.SUM_AMOUNT,
(CASE WHEN (S.MALFUNCTION_REASON_VECTOR_ID=0) THEN (S.OPERATION_STATUS_ID)
ELSE (SELECT REASON_ID_1 FROM dbo.FR_MD_MALFUNCTION_REASON_VEC WHERE S.MALFUNCTION_REASON_VECTOR_ID=ID)
END) AS OPERATING_STATUS_ID,
(CASE WHEN (S.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_COLOR FROM dbo.V_MD_OPERATION_STATUS
WHERE S.OPERATION_STATUS_ID=STATUS_ID)
ELSE (SELECT COLOR_1 FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
S.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_COLOR,
(CASE WHEN (S.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_MNEMONIC FROM
dbo.V_MD_OPERATION_STATUS WHERE S.OPERATION_STATUS_ID=STATUS_ID)
ELSE (SELECT MNEMONIC_1 FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
S.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_MNEMONIC,
(CASE WHEN (S.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_SORT_ORDER FROM
dbo.V_MD_OPERATION_STATUS WHERE S.OPERATION_STATUS_ID=STATUS_ID)
ELSE (SELECT SORT_ORDER_1 FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
S.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_SORT_ORDER,
(CASE WHEN (S.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_TEXT FROM dbo.V_MD_OPERATION_STATUS
WHERE S.OPERATION_STATUS_ID=STATUS_ID)
ELSE (SELECT MFR1_TEXT FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
S.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_TEXT,
(CASE WHEN (S.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_SHORTTEXT FROM
dbo.V_MD_OPERATION_STATUS WHERE S.OPERATION_STATUS_ID=STATUS_ID)
ELSE (SELECT MFR1_SHORTTEXT FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
S.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_SHORTTEXT
FROM (
SELECT
WORKPLACE_ID,SHIFT_ID,OPERATION_ID,OPERATION_STATUS_ID,OPERATION_PHASE_ID,MALFUNCTION_REASON_VECTOR_ID,
QUANTITY_TYPE_ID,QUANTITY_TYPE_REASON_ID,MIN(START_TS) AS START_TS,SUM(SUM_AMOUNT) AS SUM_AMOUNT
FROM (
SELECT
WORKPLACE_ID,SHIFT_ID,OPERATION_ID,OPERATION_STATUS_ID,OPERATION_PHASE_ID,MALFUNCTION_REASON_VECTOR_ID,
QUANTITY_TYPE_ID,QUANTITY_TYPE_REASON_ID,START_TS,SUM_AMOUNT

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FROM dbo.OPERATION_QUANTITY_SUM
UNION
SELECT
WORKPLACE_ID,SHIFT_ID,OPERATION_ID,OPERATION_STATUS_ID,OPERATION_PHASE_ID,MALFUNCTION_REASON_VECTOR_ID,
QUANTITY_TYPE_ID,QUANTITY_TYPE_REASON_ID,START_TS,SUM_AMOUNT
FROM dbo.OPERATION_QUANTITY_ARC_SUM
) U
GROUP BY WORKPLACE_ID, SHIFT_ID, OPERATION_ID, OPERATION_STATUS_ID, OPERATION_PHASE_ID,
MALFUNCTION_REASON_VECTOR_ID, QUANTITY_TYPE_ID, QUANTITY_TYPE_REASON_ID
) S
JOIN dbo.FR_MD_OPERATION_STATUS_DEF OPSTD ON OPSTD.ID = S.OPERATION_STATUS_ID
JOIN dbo.FR_MD_OPERATION_PHASE_DEF OPPHD ON OPPHD.ID = S.OPERATION_PHASE_ID
LEFT JOIN dbo.FR_MD_OPERATION_QUANTITY_TYPE OPQT ON OPQT.ID = S.QUANTITY_TYPE_ID
LEFT JOIN dbo.FR_MD_QUANTITY_REASON QR ON QR.ID = S.QUANTITY_TYPE_REASON_ID
JOIN dbo.FR_MD_WORKPLACE WP ON WP.ID = S.WORKPLACE_ID
JOIN dbo.V_MD_SHIFT V_SH ON S.SHIFT_ID = V_SH.SHIFT_ID
LEFT JOIN dbo.FR_MD_OPERATION OP ON OP.ID = S.OPERATION_ID
```

## 5.1.2 Utility

### V\_C\_OPERATION\_TIMESTAMPS

```

SELECT
OPERATION_ID,
SETUP_START_TS,
SETUP_END_TS,
PRODUCTION_START_TS,
PRODUCTION_END_TS,
TRAINING_START_TS,
TRAINING_END_TS,
TOTAL_START_TS,
TOTAL_END_TS

FROM OPERATION_TS_STARTEND

UNION

SELECT
OPERATION_ID,
SETUP_START_TS,
SETUP_END_TS,
PRODUCTION_START_TS,
PRODUCTION_END_TS,
TRAINING_START_TS,
TRAINING_END_TS,
TOTAL_START_TS,
TOTAL_END_TS

FROM OPERATION_TS_ARC_STARTEND

```

## 5.1.3 Present

### V\_ST\_WORKPLACE

```

SELECT DISTINCT
WPSTD.ID AS WORKPLACE_STATUS_ID,
WP.SORT_ORDER AS WORKPLACE_SORT_ORDER,
WPSTD.CODE AS STATUS_CODE,
WPSTD.COLOR AS STATUS_COLOR,
WPSTD.MNEMONIC AS STATUS_MNEMONIC,
WPSTD.SORT_ORDER AS STATUS_SORT_ORDER,
(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = WPSTD.DESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id()) AS STATUS_TEXT,
(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = WPSTD.SHORTDESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id()) AS STATUS_SHORTTEXT,
WPPHD.ID AS WORKPLACE_PHASE_ID,
WPPHD.CODE AS PHASE_CODE,
WPPHD.COLOR AS PHASE_COLOR,
WPPHD.MNEMONIC AS PHASE_MNEMONIC,
WPPHD.SORT_ORDER AS PHASE_SORT_ORDER,
(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = WPPHD.DESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id()) AS PHASE_TEXT,
(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = WPPHD.SHORTDESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id()) AS PHASE_SHORTTEXT,
WPBTL.WORKPLACE_ID AS WORKPLACE_ID,
WPBTL.MALFUNCTION_REASON_VECTOR_ID AS MFR_VECTOR_ID,
WPBTL.SHIFT_ID AS SHIFT_ID,
(CASE WHEN (WPBTL.MALFUNCTION_REASON_VECTOR_ID=0) THEN (WPBTL.WORKPLACE_STATUS_ID)
ELSE (SELECT REASON_ID_1 FROM dbo.FR_MD_MALFUNCTION_REASON_VEC WHERE
WPBTL.MALFUNCTION_REASON_VECTOR_ID=ID) END) AS OPERATING_STATUS_ID,
(CASE WHEN (WPBTL.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_COLOR FROM
dbo.V_MD_WORKPLACE_STATUS WHERE WPBTL.WORKPLACE_STATUS_ID=STATUS_ID)
ELSE (SELECT COLOR_1 FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
WPBTL.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_COLOR,
(CASE WHEN (WPBTL.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_MNEMONIC FROM
dbo.V_MD_WORKPLACE_STATUS WHERE WPBTL.WORKPLACE_STATUS_ID=STATUS_ID)
ELSE (SELECT MNEMONIC_1 FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
WPBTL.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_MNEMONIC,

```

```

(CASE WHEN (WPBTL.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_SORT_ORDER FROM
dbo.V_MD_WORKPLACE_STATUS WHERE WPBTL.WORKPLACE_STATUS_ID=STATUS_ID)
ELSE (SELECT SORT_ORDER_1 FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
WPBTL.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_SORT_ORDER,
(CASE WHEN (WPBTL.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_TEXT FROM
dbo.V_MD_WORKPLACE_STATUS WHERE WPBTL.WORKPLACE_STATUS_ID=STATUS_ID)
ELSE (SELECT MFR1_TEXT FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
WPBTL.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_TEXT,
(CASE WHEN (WPBTL.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_SHORTTEXT FROM
dbo.V_MD_WORKPLACE_STATUS WHERE WPBTL.WORKPLACE_STATUS_ID=STATUS_ID)
ELSE (SELECT MFR1_SHORTTEXT FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
WPBTL.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_SHORTTEXT
FROM dbo.FR_DS_WORKPLACE_BASE_TL WPBTL
LEFT JOIN dbo.FR_MD_WORKPLACE_STATUS_DEF WPSTD ON WPSTD.ID = WPBTL.WORKPLACE_STATUS_ID
LEFT JOIN dbo.FR_MD_WORKPLACE_PHASE_DEF WPPHD ON WPPHD.ID = WPBTL.WORKPLACE_PHASE_ID
LEFT JOIN dbo.FR_MD_WORKPLACE WP ON WP.ID = WPBTL.WORKPLACE_ID
WHERE WPBTL.CURRENT_OPEN_INTERVAL = 1

```

## 5.1.4 Archiving

### OPERATION\_BASE\_SUM

```

SELECT
    MIN(OB.ID) AS ID,
    WORKPLACE_ID,
    SHIFT_ID,
    OPERATION_ID,
    OPERATION_STATUS_ID,
    OPERATION_PHASE_ID,
    MALFUNCTION_REASON_VECTOR_ID,
    SUM(DURATION) AS SUM_DURATION,
    SUM(ISNULL(STATUS_CHANGE_IDENTIFIED, 0)) AS CNT_OCCURRENCE,
    MIN(START_TS) AS START_TS,
    MAX(END_TS) AS END_TS,
    MAX(FROM_LAST_SHIFT) AS FROM_LAST_SHIFT,
    MAX(CHANGE_TS) AS CHANGE_TS

FROM dbo.FR_DS_OPERATION_BASE_TL OB, dbo.FR_MD_OPERATION_PHASE_DEF OP
WHERE CURRENT_ELEMENT = 1 AND OPERATION_PHASE_ID = OP.ID AND CODE NOT IN (1,2,7)

GROUP BY WORKPLACE_ID, SHIFT_ID, OPERATION_ID, OPERATION_STATUS_ID, OPERATION_PHASE_ID,
MALFUNCTION_REASON_VECTOR_ID

```

### OPERATION\_QUANTITY\_SUM

```

SELECT
    MIN(ID) AS ID,
    WORKPLACE_ID,
    SHIFT_ID,
    OPERATION_ID,
    OPERATION_STATUS_ID,
    OPERATION_PHASE_ID,
    MALFUNCTION_REASON_VECTOR_ID,
    QUANTITY_TYPE_ID,
    QUANTITY_TYPE_REASON_ID,
    MIN(START_TS) AS START_TS,
    SUM(AMOUNT) AS SUM_AMOUNT,
    MAX(CHANGE_TS) AS CHANGE_TS

FROM dbo.FR_DS_OPERATION_QUANTITY_LE

GROUP BY WORKPLACE_ID, SHIFT_ID, OPERATION_ID, OPERATION_STATUS_ID, OPERATION_PHASE_ID,
MALFUNCTION_REASON_VECTOR_ID, QUANTITY_TYPE_ID, QUANTITY_TYPE_REASON_ID

```

## Annex

---

### **OPERATION\_STROKE\_SUM**

```

SELECT
    MIN(ID) AS ID,
    WORKPLACE_ID,
    SHIFT_ID,
    OPERATION_ID,
    OPERATION_STATUS_ID,
    OPERATION_PHASE_ID,
    MALFUNCTION_REASON_VECTOR_ID,
    MIN(START_TS) AS START_TS,
    SUM(NUMBER_OF_STROKES) AS NUMBER_OF_STROKES,
    MAX(CHANGE_TS) AS CHANGE_TS

FROM dbo.FR_DS_OPERATION_STROKE_LE

GROUP BY WORKPLACE_ID, SHIFT_ID, OPERATION_ID, OPERATION_STATUS_ID, OPERATION_PHASE_ID,
MALFUNCTION_REASON_VECTOR_ID

```

### **WORKPLACE\_BASE\_SUM**

```

SELECT
    MIN(ID) AS ID,
    WORKPLACE_ID,
    SHIFT_ID,
    WORKPLACE_STATUS_ID,
    WORKPLACE_PHASE_ID,
    MALFUNCTION_REASON_VECTOR_ID,
    SUM(DURATION) AS SUM_DURATION,
    SUM(ISNULL(STATUS_CHANGE_IDENTIFIED, 0)) AS CNT_OCCURRENCE,
    MIN(START_TS) AS START_TS,
    MAX(END_TS) AS END_TS,
    MAX(FROM_LAST_SHIFT) AS FROM_LAST_SHIFT,
    MAX(CHANGE_TS) AS CHANGE_TS

FROM dbo.FR_DS_WORKPLACE_BASE_TL
WHERE CURRENT_ELEMENT = 1

GROUP BY WORKPLACE_ID, SHIFT_ID, WORKPLACE_STATUS_ID, WORKPLACE_PHASE_ID, MALFUNCTION_REASON_VECTOR_ID

```

### **WORKPLACE\_QUANTITY\_SUM**

```

SELECT
    MIN(ID) AS ID,
    WORKPLACE_ID,
    SHIFT_ID,
    WORKPLACE_STATUS_ID,
    WORKPLACE_PHASE_ID,
    MALFUNCTION_REASON_VECTOR_ID,
    QUANTITY_TYPE_ID,
    QUANTITY_TYPE_REASON_ID,
    MIN(START_TS) AS START_TS,
    SUM(AMOUNT) AS SUM_AMOUNT,
    MAX(CHANGE_TS) AS CHANGE_TS

FROM dbo.FR_DS_WORKPLACE_QUANTITY_LE

GROUP BY WORKPLACE_ID, SHIFT_ID, WORKPLACE_STATUS_ID, WORKPLACE_PHASE_ID, MALFUNCTION_REASON_VECTOR_ID,
QUANTITY_TYPE_ID, QUANTITY_TYPE_REASON_ID

```

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### **WORKPLACE\_STROKE\_SUM**

```

SELECT
    MIN(ID) AS ID,
    WORKPLACE_ID,
    SHIFT_ID,
    WORKPLACE_STATUS_ID,
    WORKPLACE_PHASE_ID,
    MALFUNCTION_REASON_VECTOR_ID,
    MIN(START_TS) AS START_TS,
    SUM(NUMBER_OF_STROKES) AS NUMBER_OF_STROKES,
    MAX(CHANGE_TS) AS CHANGE_TS

FROM dbo.FR_DS_WORKPLACE_STROKE_LE

GROUP BY WORKPLACE_ID, SHIFT_ID, WORKPLACE_STATUS_ID, WORKPLACE_PHASE_ID, MALFUNCTION_REASON_VECTOR_ID

```

### **PERS\_OPERATION\_BASE\_SUM**

```

SELECT
    MIN(ID) AS ID,
    WORKPLACE_ID,
    SHIFT_ID,
    OPERATION_ID,
    OPERATION_STATUS_ID,
    OPERATION_PHASE_ID,
    MALFUNCTION_REASON_VECTOR_ID,
    PERSON_ID,
    PERSON_STATUS_ID,
    SUM(DURATION) AS SUM_DURATION,
    SUM(ISNULL(STATUS_CHANGE_IDENTIFIED, 0)) AS CNT_OCCURRENCE,
    MIN(START_TS) AS START_TS, MAX(END_TS) AS END_TS,
    MAX(FROM_LAST_SHIFT) AS FROM_LAST_SHIFT,
    PERCENT_WEIGHTING,
    MAX(CHANGE_TS) AS CHANGE_TS

FROM dbo.FR_DS_PERS_OPERATION_BASE_TL
WHERE CURRENT_ELEMENT = 1

GROUP BY WORKPLACE_ID, SHIFT_ID, OPERATION_ID, OPERATION_STATUS_ID, OPERATION_PHASE_ID,
    MALFUNCTION_REASON_VECTOR_ID, PERSON_ID, PERSON_STATUS_ID, PERCENT_WEIGHTING

```

### **5.1.5 Historical Data 2**

#### **V\_SC\_OPERATION\_QUANTITY**

```

SELECT
    S.WORKPLACE_ID,
    WP.SORT_ORDER AS WORKPLACE_SORT_ORDER,
    S.SHIFT_ID,
    S.OPERATION_ID,
    OP.DISPLAY_QUANTITY_UNIT AS DISPLAY_QUANTITY_UNIT,
    S.QUANTITY_TYPE_ID AS QUANTITY_TYPE_ID,
    S.QUANTITY_TYPE_REASON_ID AS QUANTITY_TYPE_REASON_ID,
    S.MALFUNCTION_REASON_VECTOR_ID AS MFR_VECTOR_ID,
    OPSTD.ID AS OPERATION_STATUS_ID,
    OPSTD.CODE AS STATUS_CODE,
    OPSTD.COLOR AS STATUS_COLOR,
    OPSTD.MNEMONIC AS STATUS_MNEMONIC,
    OPSTD.SORT_ORDER AS STATUS_SORT_ORDER,
    (SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = OPSTD.DESCRIPTION_ID AND
    X.LANGUAGE_ID = dbo.get_language_id()) AS STATUS_TEXT,
    (SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = OPSTD.SHORTDESCRIPTION_ID AND
    X.LANGUAGE_ID = dbo.get_language_id()) AS STATUS_SHORTTEXT,
    OPPHD.ID AS OPERATION_PHASE_ID,
    OPPHD.CODE AS PHASE_CODE,
    OPPHD.COLOR AS PHASE_COLOR,
    OPPHD.MNEMONIC AS PHASE_MNEMONIC,
    OPPHD.SORT_ORDER AS PHASE_SORT_ORDER,
    (SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = OPPHD.DESCRIPTION_ID AND
    X.LANGUAGE_ID = dbo.get_language_id()) AS PHASE_TEXT,

```

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```

        (SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = OPPHD.SHORTDESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id() AS PHASE_SHORTTEXT,
OPQT.CODE AS QTY_TYPE_CODE,
OPQT.COLOR AS QTY_TYPE_COLOR,
OPQT.SORT_ORDER AS QTY_TYPE_SORT_ORDER,
(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = OPQT.DESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id() AS QTY_TYPE_TEXT,
(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = OPQT.SHORTDESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id() AS QTY_TYPE_SHORTTEXT,
QR.COLOR AS QTY_REASON_COLOR,
QR.MNEMONIC AS QTY_REASON_MNEMONIC,
QR.SORT_ORDER AS QTY_REASON_SORT_ORDER,
(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = QR.DESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id() AS QTY_REASON_TEXT,
(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = QR.SHORTDESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id() AS QTY_REASON_SHORTTEXT,
S.START_TS,
convert(varchar(4), datepart(year, S.START_TS)) as START_TS_YEAR,
right(convert(varchar(4),datepart(year,S.START_TS)) + '/' +
right('0'+convert(varchar,datepart(month,S.START_TS)),2),7) as START_TS_MONTH,
(CASE
WHEN DATEPART(WEEK, S.START_TS) = 53 AND (DAY(S.START_TS) - DATEPART(WEEKDAY, S.START_TS) + 7 >
31)
THEN right(convert(varchar(4),datepart(year, S.START_TS) + 1) + '/01', 7)
ELSE right(convert(varchar(4),datepart(year, S.START_TS)) + '/' + right('0' + convert(varchar,
datepart(week, S.START_TS)), 2), 7) END
) as START_TS_WEEK,
convert(varchar(4), datepart(year, S.START_TS)) as START_TS_ISOYEAR,
(CASE
WHEN DATEPART(ISO_WEEK, S.START_TS) > 50 AND MONTH(S.START_TS) = 1
THEN right(convert(varchar(4),datepart(year,S.START_TS)-1) + '/' +
right('0' + convert(varchar,datepart(iso_week,S.START_TS)),2),7)
WHEN DATEPART(ISO_WEEK, S.START_TS) = 1 AND MONTH(S.START_TS) = 12
THEN right(convert(varchar(4),datepart(year,S.START_TS)+1) + '/' +
right('0' + convert(varchar,datepart(iso_week,S.START_TS)),2),7)
ELSE right(convert(varchar(4),datepart(year,S.START_TS)) + '/' +
right('0' + convert(varchar,datepart(iso_week,S.START_TS)),2),7) END
) as START_TS_ISOYEAR,
replace(convert(date, S.START_TS), '-', '/') as START_TS_DATE,
replace(convert(varchar(19), S.START_TS), '-', '/') as START_TS_DATETIME,
V_SH.NONWORKING_SHIFT_TYPE,
V_SH.ASSOCIATED_DAY_TS AS ASSOCIATED_DAY_TS,
convert(varchar(4), datepart(year, V_SH.ASSOCIATED_DAY_TS)) as ASSOCIATED_DAY_TS_YEAR,
right(convert(varchar(4),datepart(year,V_SH.ASSOCIATED_DAY_TS)) + '/' + right('0' +
convert(varchar,datepart(quarter,V_SH.ASSOCIATED_DAY_TS)),2),7) as ASSOCIATED_DAY_TS_QUARTER,
right(convert(varchar(4),datepart(year,V_SH.ASSOCIATED_DAY_TS)) + '/' + right('0' +
convert(varchar,datepart(month,V_SH.ASSOCIATED_DAY_TS)),2),7) as ASSOCIATED_DAY_TS_MONTH,
(CASE
WHEN DATEPART(WEEK, V_SH.ASSOCIATED_DAY_TS) = 53 AND (DAY(V_SH.ASSOCIATED_DAY_TS) -
DATEPART(WEEKDAY, V_SH.ASSOCIATED_DAY_TS) + 7 > 31)
THEN right(convert(varchar(4),datepart(year, V_SH.ASSOCIATED_DAY_TS) + 1) + '/01', 7)
ELSE right(convert(varchar(4),datepart(year, V_SH.ASSOCIATED_DAY_TS)) + '/' + right('0' +
convert(varchar, datepart(week, V_SH.ASSOCIATED_DAY_TS)), 2), 7) END
) as ASSOCIATED_DAY_TS_WEEK,
(CASE
WHEN DATEPART(ISO_WEEK, V_SH.ASSOCIATED_DAY_TS) > 50 AND MONTH(V_SH.ASSOCIATED_DAY_TS) = 1
THEN right(convert(varchar(4),datepart(year,V_SH.ASSOCIATED_DAY_TS)-1) + '/' +
right('0' + convert(varchar,datepart(iso_week,V_SH.ASSOCIATED_DAY_TS)),2),7)
WHEN DATEPART(ISO_WEEK, V_SH.ASSOCIATED_DAY_TS) = 1 AND MONTH(V_SH.ASSOCIATED_DAY_TS) = 12
THEN right(convert(varchar(4),datepart(year,V_SH.ASSOCIATED_DAY_TS)+1) + '/' +
right('0' + convert(varchar,datepart(iso_week,V_SH.ASSOCIATED_DAY_TS)),2),7)
ELSE right(convert(varchar(4),datepart(year,V_SH.ASSOCIATED_DAY_TS)) + '/' +
right('0' + convert(varchar,datepart(iso_week,V_SH.ASSOCIATED_DAY_TS)),2),7) END
) as ASSOCIATED_DAY_TS_ISOYEAR,
replace(convert(date, V_SH.ASSOCIATED_DAY_TS), '-', '/') as ASSOCIATED_DAY_TS_DATE,
replace(convert(date, V_SH.ASSOCIATED_DAY_TS), '-', '/') + '-' + V_SH.TYPE_SHORTTEXT as
ASSOCIATED_DAY_TS_SHIFT,
replace(convert(varchar(19), V_SH.ASSOCIATED_DAY_TS), '-', '/') as ASSOCIATED_DAY_TS_DATETIME,
S.SUM_AMOUNT,
(CASE WHEN (S.MALFUNCTION_REASON_VECTOR_ID=0) THEN (S.OPERATION_STATUS_ID)
ELSE (SELECT REASON_ID_1 FROM dbo.FR_MD_MALFUNCTION_REASON_VEC WHERE
S.MALFUNCTION_REASON_VECTOR_ID=ID) END) AS OPERATING_STATUS_ID,

```

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```

        (CASE WHEN (S.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_COLOR FROM
        dbo.V_MD_OPERATION_STATUS WHERE S.OPERATION_STATUS_ID=STATUS_ID)
        ELSE (SELECT COLOR_1 FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
        S.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_COLOR,
        (CASE WHEN (S.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_MNEMONIC FROM
        dbo.V_MD_OPERATION_STATUS WHERE S.OPERATION_STATUS_ID=STATUS_ID)
        ELSE (SELECT MNEMONIC_1 FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
        S.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_MNEMONIC,
        (CASE WHEN (S.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_SORT_ORDER FROM
        dbo.V_MD_OPERATION_STATUS WHERE S.OPERATION_STATUS_ID=STATUS_ID)
        ELSE (SELECT SORT_ORDER_1 FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
        S.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_SORT_ORDER,
        (CASE WHEN (S.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_TEXT FROM
        dbo.V_MD_OPERATION_STATUS WHERE S.OPERATION_STATUS_ID=STATUS_ID)
        ELSE (SELECT MFR1_TEXT FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
        S.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_TEXT,
        (CASE WHEN (S.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_SHORTTEXT FROM
        dbo.V_MD_OPERATION_STATUS WHERE S.OPERATION_STATUS_ID=STATUS_ID)
        ELSE (SELECT MFR1_SHORTTEXT FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
        S.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_SHORTTEXT
        FROM (
        SELECT
        WORKPLACE_ID,SHIFT_ID,OPERATION_ID,OPERATION_STATUS_ID,OPERATION_PHASE_ID,MALFUNCTION_REASON_VECTOR_ID,
        QUANTITY_TYPE_ID,QUANTITY_TYPE_REASON_ID,MIN(START_TS) AS START_TS,SUM(SUM_AMOUNT) AS SUM_AMOUNT
        FROM (
        SELECT
        WORKPLACE_ID,SHIFT_ID,OPERATION_ID,OPERATION_STATUS_ID,OPERATION_PHASE_ID,MALFUNCTION_REASON_VECTOR_ID,
        QUANTITY_TYPE_ID,QUANTITY_TYPE_REASON_ID,START_TS,SUM_AMOUNT
        FROM dbo.OPERATION_QUANTITY_SUM
        UNION
        SELECT
        WORKPLACE_ID,SHIFT_ID,OPERATION_ID,OPERATION_STATUS_ID,OPERATION_PHASE_ID,MALFUNCTION_REASON_VECTOR_ID,
        QUANTITY_TYPE_ID,QUANTITY_TYPE_REASON_ID,START_TS,SUM_AMOUNT
        FROM dbo.OPERATION_QUANTITY_ARC_SUM
        ) U
        GROUP BY WORKPLACE_ID, SHIFT_ID, OPERATION_ID, OPERATION_STATUS_ID, OPERATION_PHASE_ID,
        MALFUNCTION_REASON_VECTOR_ID, QUANTITY_TYPE_ID, QUANTITY_TYPE_REASON_ID
        ) S
        JOIN dbo.FR_MD_OPERATION_STATUS_DEF OPSTD ON OPSTD.ID = S.OPERATION_STATUS_ID
        JOIN dbo.FR_MD_OPERATION_PHASE_DEF OPPHD ON OPPHD.ID = S.OPERATION_PHASE_ID
        LEFT JOIN dbo.FR_MD_OPERATION_QUANTITY_TYPE OPQT ON OPQT.ID = S.QUANTITY_TYPE_ID
        LEFT JOIN dbo.FR_MD_QUANTITY_REASON QR ON QR.ID = S.QUANTITY_TYPE_REASON_ID
        JOIN dbo.FR_MD_WORKPLACE WP ON WP.ID = S.WORKPLACE_ID
        JOIN dbo.V_MD_SHIFT V_SH ON S.SHIFT_ID = V_SH.SHIFT_ID
        LEFT JOIN dbo.FR_MD_OPERATION OP ON OP.ID = S.OPERATION_ID
    
```

### V\_SC\_OPERATION\_QUANTITY\_SUM

```

SELECT
    V_OPB.WORKPLACE_ID,
    V_OPB.OPERATION_ID,
    V_OPB.SHIFT_ID,
    V_OPB.MALFUNCTION_REASON_VECTOR_ID AS MFR_VECTOR_ID,
    V_OPB.START_TS,
    convert(varchar(4), datepart(year, V_OPB.START_TS)) as START_TS_YEAR,
    right(convert(varchar(4),datepart(year,V_OPB.START_TS)) + '/' +
right('0'+convert(varchar,datepart(month,V_OPB.START_TS)),2),7) as START_TS_MONTH,
    (CASE
        WHEN DATEPART(WEEK, V_OPB.START_TS) = 53 AND (DAY(V_OPB.START_TS) - DATEPART(WEEKDAY,
V_OPB.START_TS) + 7 > 31)
            THEN right(convert(varchar(4),datepart(year, V_OPB.START_TS) + 1) + '/01', 7)
        ELSE right(convert(varchar(4),datepart(year, V_OPB.START_TS)) + '/' + right('0' +
convert(varchar, datepart(week, V_OPB.START_TS)), 2), 7) END
    ) as START_TS_WEEK,
    convert(varchar(4), datepart(year, V_OPB.START_TS)) as START_TS_ISOYEAR,
    (CASE
        WHEN DATEPART(ISO_WEEK, V_OPB.START_TS) > 50 AND MONTH(V_OPB.START_TS) = 1
            THEN right(convert(varchar(4),datepart(year,V_OPB.START_TS)-1) + '/' +
right('0' + convert(varchar,datepart(iso_week,V_OPB.START_TS)),2),7)
        WHEN DATEPART(ISO_WEEK, V_OPB.START_TS) = 1 AND MONTH(V_OPB.START_TS) = 12
            THEN right(convert(varchar(4),datepart(year,V_OPB.START_TS)+1) + '/' +
right('0' + convert(varchar,datepart(iso_week,V_OPB.START_TS)),2),7)
    
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        ELSE right(convert(varchar(4),datepart(year,V_OPB.START_TS)) + '/' +
            right('0' + convert(varchar,datepart(iso_week,V_OPB.START_TS)),2),7) END
    ) as START_TS_ISO_WEEK,
    replace(convert(date, V_OPB.START_TS), '-', '/') as START_TS_DATE,
    replace(convert(varchar(19), V_OPB.START_TS), '-', '/') as START_TS_DATETIME,
    V_OPB.END_TS,
    convert(varchar(4), datepart(year, V_OPB.END_TS)) as END_TS_YEAR,
    right(convert(varchar(4),datepart(year,V_OPB.END_TS)) + '/' +
    right('0'+convert(varchar,datepart(month,V_OPB.END_TS)),2),7) as END_TS_MONTH,
    (CASE
        WHEN DATEPART(WEEK, V_OPB.END_TS) = 53 AND (DAY(V_OPB.END_TS) - DATEPART(WEEKDAY, V_OPB.END_TS)
+ 7 > 31)
            THEN right(convert(varchar(4),datepart(year, V_OPB.END_TS) + 1) + '/01', 7)
        ELSE right(convert(varchar(4),datepart(year, V_OPB.END_TS)) + '/' + right('0' +
        convert(varchar, datepart(week, V_OPB.END_TS)), 2), 7) END
    ) as END_TS_WEEK,
    convert(varchar(4), datepart(year, V_OPB.END_TS)) as END_TS_ISOYEAR,
    (CASE
        WHEN DATEPART(ISO_WEEK, V_OPB.END_TS) > 50 AND MONTH(V_OPB.END_TS) = 1
            THEN right(convert(varchar(4),datepart(year,V_OPB.END_TS)-1) + '/' +
            right('0' + convert(varchar,datepart(iso_week,V_OPB.END_TS)),2),7)
        WHEN DATEPART(ISO_WEEK, V_OPB.END_TS) = 1 AND MONTH(V_OPB.END_TS) = 12
            THEN right(convert(varchar(4),datepart(year,V_OPB.END_TS)+1) + '/' +
            right('0' + convert(varchar,datepart(iso_week,V_OPB.END_TS)),2),7)
        ELSE right(convert(varchar(4),datepart(year,V_OPB.END_TS)) + '/' +
            right('0' + convert(varchar,datepart(iso_week,V_OPB.END_TS)),2),7) END
    ) as END_TS_ISOWEEK,
    replace(convert(date, V_OPB.END_TS), '-', '/') as END_TS_DATE,
    replace(convert(varchar(19), V_OPB.END_TS), '-', '/') as END_TS_DATETIME,
    V_SH.NONWORKING_SHIFT_TYPE,
    V_SH.ASSOCIATED_DAY_TS AS ASSOCIATED_DAY_TS,
    convert(varchar(4), datepart(year, V_SH.ASSOCIATED_DAY_TS)) as ASSOCIATED_DAY_TS_YEAR,
    right(convert(varchar(4),datepart(year,V_SH.ASSOCIATED_DAY_TS)) + '/' + right('0' +
    convert(varchar,datepart(quarter,V_SH.ASSOCIATED_DAY_TS)),2),7) as ASSOCIATED_DAY_TS_QUARTER,
    right(convert(varchar(4),datepart(year,V_SH.ASSOCIATED_DAY_TS)) + '/' + right('0' +
    convert(varchar,datepart(month,V_SH.ASSOCIATED_DAY_TS)),2),7) as ASSOCIATED_DAY_TS_MONTH,
    (CASE
        WHEN DATEPART(WEEK, V_SH.ASSOCIATED_DAY_TS) = 53 AND (DAY(V_SH.ASSOCIATED_DAY_TS) -
DATEPART(WEEKDAY, V_SH.ASSOCIATED_DAY_TS) + 7 > 31)
            THEN right(convert(varchar(4),datepart(year, V_SH.ASSOCIATED_DAY_TS) + 1) + '/01', 7)
        ELSE right(convert(varchar(4),datepart(year, V_SH.ASSOCIATED_DAY_TS)) + '/' + right('0' +
        convert(varchar, datepart(week, V_SH.ASSOCIATED_DAY_TS)), 2), 7) END
    ) as ASSOCIATED_DAY_TS_WEEK,
    (CASE
        WHEN DATEPART(ISO_WEEK, V_SH.ASSOCIATED_DAY_TS) > 50 AND MONTH(V_SH.ASSOCIATED_DAY_TS) = 1
            THEN right(convert(varchar(4),datepart(year,V_SH.ASSOCIATED_DAY_TS)-1) + '/' +
            right('0' + convert(varchar,datepart(iso_week,V_SH.ASSOCIATED_DAY_TS)),2),7)
        WHEN DATEPART(ISO_WEEK, V_SH.ASSOCIATED_DAY_TS) = 1 AND MONTH(V_SH.ASSOCIATED_DAY_TS) = 12
            THEN right(convert(varchar(4),datepart(year,V_SH.ASSOCIATED_DAY_TS)+1) + '/' +
            right('0' + convert(varchar,datepart(iso_week,V_SH.ASSOCIATED_DAY_TS)),2),7)
        ELSE right(convert(varchar(4),datepart(year,V_SH.ASSOCIATED_DAY_TS)) + '/' +
            right('0' + convert(varchar,datepart(iso_week,V_SH.ASSOCIATED_DAY_TS)),2),7) END
    ) as ASSOCIATED_DAY_TS_ISOWEEK,
    replace(convert(date, V_SH.ASSOCIATED_DAY_TS), '-', '/') as ASSOCIATED_DAY_TS_DATE,
    replace(convert(date, V_SH.ASSOCIATED_DAY_TS), '-', '/') + '-' + V_SH.TYPE_SHORTTEXT as
ASSOCIATED_DAY_TS_SHIFT,
    replace(convert(varchar(19), V_SH.ASSOCIATED_DAY_TS), '-', '/') as ASSOCIATED_DAY_TS_DATETIME,
    V_OPQ.QTY,
    V_OPQ.YIELD_QTY,
    V_OPQ.SCRAP_QTY,
    V_OPQ.REWORK_QTY,
    V_OPS.NUMBER_OF_STROKES,
    V_OPB.SUM_DURATION,
    V_OPB.CNT_OCCURRENCE,
    V_OPB.FROM_LAST_SHIFT,
    OPSTD.ID AS OPERATION_STATUS_ID,
    OPSTD.CODE AS STATUS_CODE,
    OPSTD.COLOR AS STATUS_COLOR,
    OPSTD.MNEMONIC AS STATUS_MNEMONIC,
    OPSTD.SORT_ORDER AS STATUS_SORT_ORDER,
    (SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = OPSTD.DESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id()) AS STATUS_TEXT,
    OPPHD.ID AS OPERATION_PHASE_ID,

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OPPHD.CODE AS PHASE_CODE,
OPPHD.COLOR AS PHASE_COLOR,
OPPHD.MNEMONIC AS PHASE_MNEMONIC,
OPPHD.SORT_ORDER AS PHASE_SORT_ORDER,
(SELECT TEXT FROM dbo.FR_MD_TRANSLATION_MAP X WHERE X.LITERAL_ID = OPPHD.DESCRIPTION_ID AND
X.LANGUAGE_ID = dbo.get_language_id() AS PHASE_TEXT,
(CASE WHEN (V_OPB.MALFUNCTION_REASON_VECTOR_ID=0) THEN (V_OPB.OPERATION_STATUS_ID)
ELSE (SELECT REASON_ID_1 FROM dbo.FR_MD_MALFUNCTION_REASON_VEC WHERE
V_OPB.MALFUNCTION_REASON_VECTOR_ID=ID) AS OPERATING_STATUS_ID,
(CASE WHEN (V_OPB.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_COLOR FROM
dbo.V_MD_OPERATION_STATUS WHERE V_OPB.OPERATION_STATUS_ID=STATUS_ID)
ELSE (SELECT COLOR_1 FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
V_OPB.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_COLOR,
(CASE WHEN (V_OPB.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_MNEMONIC FROM
dbo.V_MD_OPERATION_STATUS WHERE V_OPB.OPERATION_STATUS_ID=STATUS_ID)
ELSE (SELECT MNEMONIC_1 FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
V_OPB.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_MNEMONIC,
(CASE WHEN (V_OPB.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_SORT_ORDER FROM
dbo.V_MD_OPERATION_STATUS WHERE V_OPB.OPERATION_STATUS_ID=STATUS_ID)
ELSE (SELECT SORT_ORDER_1 FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
V_OPB.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_SORT_ORDER,
(CASE WHEN (V_OPB.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_TEXT FROM
dbo.V_MD_OPERATION_STATUS WHERE V_OPB.OPERATION_STATUS_ID=STATUS_ID)
ELSE (SELECT MFR1_TEXT FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
V_OPB.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_TEXT,
(CASE WHEN (V_OPB.MALFUNCTION_REASON_VECTOR_ID=0) THEN (SELECT STATUS_SHORTTEXT FROM
dbo.V_MD_OPERATION_STATUS WHERE V_OPB.OPERATION_STATUS_ID=STATUS_ID)
ELSE (SELECT MFR1_SHORTTEXT FROM dbo.V_MD_MALFUNCTION_REASON_VEC1 WHERE
V_OPB.MALFUNCTION_REASON_VECTOR_ID=MFR_VECTOR_ID) END) AS OPERATING_STATUS_SHORTTEXT
FROM
(
    SELECT WORKPLACE_ID, OPERATION_ID, SHIFT_ID, OPERATION_STATUS_ID, OPERATION_PHASE_ID,
MALFUNCTION_REASON_VECTOR_ID,
    SUM(SUM_DURATION) AS SUM_DURATION, SUM(CNT_OCCURRENCE) AS CNT_OCCURRENCE, MIN(START_TS) as
START_TS, MAX(END_TS) as END_TS, MAX(FROM_LAST_SHIFT) AS FROM_LAST_SHIFT
    FROM (
        SELECT
WORKPLACE_ID,SHIFT_ID,OPERATION_ID,OPERATION_STATUS_ID,OPERATION_PHASE_ID,MALFUNCTION_REASON_VECTOR_ID,
SUM_DURATION,CNT_OCCURRENCE,START_TS,END_TS,FROM_LAST_SHIFT
        FROM dbo.OPERATION_BASE_SUM
        UNION ALL
        SELECT
WORKPLACE_ID,SHIFT_ID,OPERATION_ID,OPERATION_STATUS_ID,OPERATION_PHASE_ID,MALFUNCTION_REASON_VECTOR_ID,
SUM_DURATION,CNT_OCCURRENCE,START_TS,END_TS,FROM_LAST_SHIFT
        FROM dbo.OPERATION_BASE_ARC_SUM
    ) BASE
    GROUP BY WORKPLACE_ID, OPERATION_ID, SHIFT_ID, OPERATION_STATUS_ID, OPERATION_PHASE_ID,
MALFUNCTION_REASON_VECTOR_ID
) V_OPB
LEFT OUTER JOIN
(
    SELECT Q.OPERATION_ID, Q.SHIFT_ID, Q.OPERATION_STATUS_ID, Q.OPERATION_PHASE_ID,
Q.MALFUNCTION_REASON_VECTOR_ID,
    SUM(Q.SUM_AMOUNT) AS QTY,
    SUM(CASE WHEN QT.CODE = 1 THEN Q.SUM_AMOUNT ELSE 0 END) AS YIELD_QTY,
    SUM(CASE WHEN QT.CODE = 2 THEN Q.SUM_AMOUNT ELSE 0 END) AS SCRAP_QTY,
    SUM(CASE WHEN QT.CODE = 3 THEN Q.SUM_AMOUNT ELSE 0 END) AS REWORK_QTY
    FROM (
        SELECT
SHIFT_ID,OPERATION_ID,OPERATION_STATUS_ID,OPERATION_PHASE_ID,MALFUNCTION_REASON_VECTOR_ID,QUANTITY_TYPE
_ID,QUANTITY_TYPE_REASON_ID,START_TS,SUM_AMOUNT
        FROM dbo.OPERATION_QUANTITY_SUM
        UNION ALL
        SELECT
SHIFT_ID,OPERATION_ID,OPERATION_STATUS_ID,OPERATION_PHASE_ID,MALFUNCTION_REASON_VECTOR_ID,QUANTITY_TYPE
_ID,QUANTITY_TYPE_REASON_ID,START_TS,SUM_AMOUNT
        FROM dbo.OPERATION_QUANTITY_ARC_SUM
    ) Q
    LEFT JOIN dbo.FR_MD_OPERATION_QUANTITY_TYPE QT ON QT.ID = Q.QUANTITY_TYPE_ID
    GROUP BY OPERATION_ID, SHIFT_ID, OPERATION_STATUS_ID, OPERATION_PHASE_ID,
MALFUNCTION_REASON_VECTOR_ID
) V_OPQ
ON

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V_OPB.SHIFT_ID = V_OPQ.SHIFT_ID AND
V_OPB.OPERATION_ID = V_OPQ.OPERATION_ID AND
V_OPB.OPERATION_PHASE_ID = V_OPQ.OPERATION_PHASE_ID AND
V_OPB.OPERATION_STATUS_ID = V_OPQ.OPERATION_STATUS_ID AND
V_OPB.MALFUNCTION_REASON_VECTOR_ID = V_OPQ.MALFUNCTION_REASON_VECTOR_ID
LEFT OUTER JOIN
(
    SELECT OPERATION_ID, SHIFT_ID, OPERATION_STATUS_ID, OPERATION_PHASE_ID,
    MALFUNCTION_REASON_VECTOR_ID,
    SUM(NUMBER_OF_STROKES) AS NUMBER_OF_STROKES
    FROM (
        SELECT SHIFT_ID, OPERATION_ID, OPERATION_STATUS_ID, OPERATION_PHASE_ID,
        MALFUNCTION_REASON_VECTOR_ID, NUMBER_OF_STROKES, START_TS
        FROM dbo.OPERATION_STROKE_SUM
        UNION ALL
        SELECT SHIFT_ID, OPERATION_ID, OPERATION_STATUS_ID, OPERATION_PHASE_ID,
        MALFUNCTION_REASON_VECTOR_ID, NUMBER_OF_STROKES, START_TS
        FROM dbo.OPERATION_STROKE_ARC_SUM
    ) U
    GROUP BY OPERATION_ID, SHIFT_ID, OPERATION_STATUS_ID, OPERATION_PHASE_ID,
    MALFUNCTION_REASON_VECTOR_ID
) V_OPS
ON
    V_OPB.SHIFT_ID = V_OPS.SHIFT_ID AND
    V_OPB.OPERATION_ID = V_OPS.OPERATION_ID AND
    V_OPB.OPERATION_PHASE_ID = V_OPS.OPERATION_PHASE_ID AND
    V_OPB.OPERATION_STATUS_ID = V_OPS.OPERATION_STATUS_ID AND
    V_OPB.MALFUNCTION_REASON_VECTOR_ID = V_OPS.MALFUNCTION_REASON_VECTOR_ID
LEFT JOIN dbo.FR_MD_WORKPLACE WP ON WP.ID = V_OPB.WORKPLACE_ID
LEFT JOIN dbo.FR_MD_OPERATION_STATUS_DEF OPSTD ON OPSTD.ID = V_OPB.OPERATION_STATUS_ID
LEFT JOIN dbo.FR_MD_OPERATION_PHASE_DEF OPPHD ON OPPHD.ID = V_OPB.OPERATION_PHASE_ID
LEFT JOIN dbo.V_MD_SHIFT V_SH ON V_SH.SHIFT_ID = V_OPB.SHIFT_ID

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## 5.2 Datasource Columns

### 5.2.1 Quantity Status Diagram (Workplace)

Column Identifier (SQL)	Column Title (Report)
START_TS	START_TS
Amount	Quantity
TIME_PER_UNIT_OP	Target Time per Unit
TIME_PER_UNIT_TEB	Target Time per Unit (MaterialTEB)
TARGET_TIMEBASE_FLAG	Time Base Flag Target
OPERATING_STATUS_COLOR	Color
OPERATING_STATUS_MNEMONIC	Code
OPERATING_STATUS_TEXT	Operating State
YIELD_TIMEBASE_FLAG	Time Base Flag Actual
QUANTITY_UNIT	Unit

### 5.2.2 Quantity Status Diagram (Workplace) (Online)

Column Identifier (SQL)	Column Title (Report)
START_TS	Start Time
Amount	Quantity
TIME_PER_UNIT_OP	Target Time per Unit
TIME_PER_UNIT_TEB	Target Time per Unit (MaterialTEB)
TARGET_TIMEBASE_FLAG	Time Base Flag Target
OPERATING_STATUS_COLOR	Color
OPERATING_STATUS_MNEMONIC	Code
OPERATING_STATUS_TEXT	Operating State
YIELD_TIMEBASE_FLAG	Time Base Flag Actual
QUANTITY_UNIT	Unit

### 5.2.3 Stroke Status Diagram (Workplace) (Strokes calculated from quantities)

Column Identifier (SQL)	Column Title (Report)
START_TS	Start Time
Strokes	Hits
TIME_PER_UNIT_OP	Target Time per Unit
TIME_PER_UNIT_TEB	Target Time per Unit (MaterialTEB)
TARGET_TIMEBASE_FLAG	Time Base Flag Target
OPERATING_STATUS_COLOR	Color
OPERATING_STATUS_MNEMONIC	Code
OPERATING_STATUS_TEXT	Operating State
YIELD_TIMEBASE_FLAG	Time Base Flag Actual

### 5.2.4 Operating State Timeline (Workplace)

Column Identifier (SQL)	Column Title (Report)
START_TS	Start Time
WORKPLACE_ID	Workplace
OPERATING_STATUS_COLOR	Color
OPERATING_STATUS_MNEMONIC	Code
OPERATING_STATUS_TEXT	Operating State
OPERATING_STATUS_SHORTTEXT	OS Short Description
OPERATING_STATUS_SORT_ORDER	Operating State Sort Order

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### 5.2.5 Operating State Log Sum (Workplace)

Column Identifier (SQL)	Column Title (Report)
WORKPLACE_ID	Workplace
DURATION	Duration
OPERATING_STATUS_COLOR	Color
OPERATING_STATUS_MNEMONIC	Code
OPERATING_STATUS_TEXT	Operating State
OPERATING_STATUS_SHORTTEXT	OS Short Description
OPERATING_STATUS_SORT_ORDER	Operating State Sort Order
COUNT	Frequency
WORKPLACE_SORT_ORDER	Workplace Sort Order

### 5.2.6 Operating State Log Details

Column Identifier (SQL)	Column Title (Report)
WORKPLACE_ID	Workplace
START_TS	Start Time
END_TS	End Time
DURATION	Duration
OPERATING_STATUS_COLOR	Color
OPERATING_STATUS_MNEMONIC	Code
OPERATING_STATUS_TEXT	Operating State
OPERATING_STATUS_SHORTTEXT	OS Short Description
MFR2_MNEMONIC	Code (1)
MFR2_TEXT	Details (1)
MFR3_MNEMONIC	Code (2)
MFR3_TEXT	Details (2)
MFR4_MNEMONIC	Code (3)

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Column Identifier (SQL)	Column Title (Report)
MFR4_TEXT	Details (3)
MFR5_MNEMONIC	Code (4)
MFR5_TEXT	Details (4)
MFR6_MNEMONIC	Code (5)
MFR6_TEXT	Details (5)
MFR7_MNEMONIC	Code (6)
MFR7_TEXT	Details (6)
QTY	MDC Quantity
TICKET_TITLE	Remark Title
TICKET_DESC	Remark
WORKPLACE_SORT_ORDER	Workplace Sort Order
OPERATING_STATUS_SORT_ORDER	Operating State Sort Order
MFR2_SORT_ORDER	Operating State Detail Sort Order (1)
MFR3_SORT_ORDER	Operating State Detail Sort Order (2)
MFR4_SORT_ORDER	Operating State Detail Sort Order (3)
MFR5_SORT_ORDER	Operating State Detail Sort Order (4)
MFR6_SORT_ORDER	Operating State Detail Sort Order (5)
MFR7_SORT_ORDER	Operating State Detail Sort Order (6)

### 5.2.7 Quantity Status Diagram (Operation)

Column Identifier (SQL)	Column Title (Report)
WORKPLACE_ID	Workplace
AMOUNT	Quantity
TIME_PER_UNIT_OP	Target Time per Unit
TIME_PER_UNIT_TEB	Target Time per Unit (MaterialTEB)
OPERATING_STATUS_COLOR	Color

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Column Identifier (SQL)	Column Title (Report)
<b>OPERATING_STATUS_MNEMONIC</b>	Code
<b>OPERATING_STATUS_TEXT</b>	Operating State
<b>TARGET_TIMEBASE_FLAG</b>	Time Base Flag Target
<b>YIELD_TIMEBASE_FLAG</b>	Time Base Flag Actual
<b>QUANTITY_UNIT</b>	Unit

### 5.2.8 Quantity Status Diagram (Operation) (Online)

Column Identifier (SQL)	Column Title (Report)
<b>START_TS</b>	Start Time
<b>AMOUNT</b>	Quantity
<b>TIME_PER_UNIT_OP</b>	Target Time per Unit
<b>TIME_PER_UNIT_TEB</b>	Target Time per Unit (MaterialTEB)
<b>OPERATING_STATUS_COLOR</b>	Color
<b>OPERATING_STATUS_MNEMONIC</b>	Code
<b>OPERATING_STATUS_TEXT</b>	Operating State
<b>TARGET_TIMEBASE_FLAG</b>	Time Base Flag Target
<b>YIELD_TIMEBASE_FLAG</b>	Time Base Flag Actual
<b>QUANTITY_UNIT</b>	Unit

### 5.2.9 Operations Overview (Gantt Chart, with Operation Filter)

Column Identifier (SQL)	Column Title (Report)
<b>WP ORDER OPERATION</b>	Workplace / Order / Operation
<b>WP_ORDER_OPERATION_D</b>	Workplace / Order / Operation (Value description)
<b>WORKPLACED</b>	Workplace (Value description)
<b>ORDER_OPERATION</b>	Order / Operation

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Column Identifier (SQL)	Column Title (Report)
<b>ORDER OPERATION_D</b>	Order / Operation (Value Description)
<b>ORDER_NUMBER</b>	Order
<b>ORDER_NUMBER_D</b>	Order (Value Description)
<b>OPERATION_NUMBER</b>	Operation
<b>OPERATION_NUMBER_D</b>	Operation (Value Description)
<b>MATERIAL_NUMBER</b>	Material Number
<b>MATERIAL_NUMBER_D</b>	Material Number (Value Description)
<b>MATERIAL_TEXT</b>	Material Description
<b>MATERIAL_TEXT_D</b>	Material Description (Text Description)
<b>START_TS</b>	Start Time
<b>END TS</b>	End Time
<b>PHASE_TEXT</b>	Phase
<b>PHASE_TEXT_D</b>	Phase (Value Description)
<b>PHASE COLOR</b>	Operation Phase Color
<b>STATUS_TEXT</b>	Operation Status
<b>ORDER_OPERATION_STATUS</b>	Order / Operation / Status
<b>STATUS_COLOR</b>	Operation Status Color
<b>STATUS_COLOR_CURRENT</b>	Status Color (currently)
<b>DURATION</b>	Duration
<b>QUANTITY</b>	Quantity
<b>WP_ORD_OPR_MAT_STATUS</b>	Workplace / Order / Operation / Material / Status
<b>WORKPLACE_SORT_ORDER</b>	Workplace Sort Order

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### 5.2.10 Operating State Log Sum (Operation)

Column Identifier (SQL)	Column Title (Report)
OPERATION_ID	Operation
MATERIAL_ID	Material
OPERATING_STATUS_COLOR	Color
OPERATING_STATUS_MNEMONIC	Code
OPERATING_STATUS_TEXT	Operating State
OPERATING_STATUS_SHORTTEXT	Short Description
FREQUENCY_COUNT	Frequency
OPERATING_STATUS_SORT_ORDER	Operating State Sort Order
DURATION	Duration

### 5.2.11 Operations Overview (Gantt Chart, with Operation Filter)

Column Identifier (SQL)	Column Title (Report)
WP_ORDER_OPERATION	Workplace / Order / Operation
WP_ORDER_OPERATION_D	Workplace / Order / Operation (Value description)
WORKPLACE_ID	Workplace
WORKPLACED	Workplace (Value description)
ORDER_OPERATION	Order / Operation
ORDER_OPERATION_D	Order / Operation (Value Description)
ORDER_NUMBER	Order
ORDER_NUMBER_D	Order (Value Description)
OPERATION_NUMBER	Operation
OPERATION_NUMBER_D	Operation (Value Description)
MATERIAL_NUMBER	Material Number
MATERIAL_NUMBER_D	Material Number (Value Description)
MATERIAL_TEXT	Material Description

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Column Identifier (SQL)	Column Title (Report)
MATERIAL_TEXT_D	Material Description (Text Description)
START_TS	Start Time
END_TS	End Time
PHASE_TEXT	Phase
PHASE_TEXT_D	Phase (Value Description)
PHASE_COLOR	Operation Phase Color
STATUS_TEXT	Operation Status
ORDER_OPERATION_STATUS	Order / Operation / Status
STATUS_COLOR	Operation Status Color
STATUS_COLOR_CURRENT	Status Color (currently)
DURATION	Duration
QUANTITY	Quantity
WP_ORD_OPR_MAT_STATUS	Workplace / Order / Operation / Material / Status
WORKPLACE_SORT_ORDER	Workplace Sort Order

### 5.2.12 Order Overview (Gantt Chart)

Column Identifier (SQL)	Column Title (Report)
WP_ORDER_OPERATION	Workplace / Order / Operation
WP_ORDER_OPERATION_D	Workplace / Order / Operation (Value description)
WORKPLACE_ID	Workplace
WORKPLACED	Workplace (Value description)
ORDER_OPERATION	Order / Operation
ORDER_OPERATION_D	Order / Operation (Value Description)
ORDER_NUMBER	Order
ORDER_NUMBER_D	Order (Value Description)
OPERATION_NUMBER	Operation

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Column Identifier (SQL)	Column Title (Report)
<b>OPERATION_NUMBER_D</b>	Operation (Value Description)
<b>MATERIAL_NUMBER</b>	Material Number
<b>MATERIAL_NUMBER_D</b>	Material Number (Value Description)
<b>MATERIAL_TEXT</b>	Material Description
<b>MATERIAL_TEXT_D</b>	Material Description (Text Description)
<b>START_TS</b>	Start Time
<b>END_TS</b>	End Time
<b>PHASE_TEXT</b>	Phase
<b>PHASE_TEXT_D</b>	Phase (Value Description)
<b>PHASE_COLOR</b>	Operation Phase Color
<b>STATUS_TEXT</b>	Operation Status
<b>STATUS_COLOR</b>	Operation Status Color
<b>STATUS_COLOR_CURRENT</b>	Status Color (currently)
<b>DURATION</b>	Duration
<b>QUANTITY</b>	Quantity
<b>WORKPLACE_SORT_ORDER</b>	Workplace Sort Order
<b>WP_ORDER_OPERATION_STATUS</b>	Workplace / Order / Operation / Status
<b>PHASE_SORT_ORDER</b>	Phase Sort Order
<b>STATUS_SORT_ORDER</b>	Operating State Sort Order

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### 5.2.13 Operating State Log Sum (Order)

Column Identifier (SQL)	Column Title (Report)
ORDER_ID	Order
ORDER_PRODUCT_ID	Product
OPERATING STATUS_MNEMONIC	Code
OPERATING STATUS TEXT	Operating State
OPERATING_STATUS_SHORTTEXT	Short Description
OPERATING_STATUS_COLOR	Color
FREQUENCY_COUNT	Frequency
DURATION	Duration
OPERATING STATUS_SORT_ORDER	Operating State Sort Order

### 5.2.14 Order Overview (Gantt Chart)

Column Identifier (SQL)	Column Title (Report)
WP_ORDER_OPERATION	Workplace / Order / Operation
WP_ORDER_OPERATION_D	Workplace / Order / Operation (Value description)
WORKPLACE_ID	Workplace
WORKPLACE_ID	Workplace Description
ORDER_OPERATION	Order / Operation
ORDER_OPERATION_D	Order / Operation (Value Description)
ORDER_NUMBER	Order
ORDER_NUMBER_D	Order (Value Description)
OPERATION_NUMBER	Operation
OPERATION_NUMBER_D	Operation (Value Description)
MATERIAL_NUMBER	Material Number
MATERIAL_NUMBER_D	Material Number (Value Description)
MATERIAL_TEXT	Material Description

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Column Identifier (SQL)	Column Title (Report)
MATERIAL_TEXT_D	Material Description (Text Description)
START_TS	Start Time
END_TS	End Time
PHASE_TEXT	Phase
PHASE_TEXT_D	Phase (Value Description)
PHASE_COLOR	Operation Phase Color
STATUS_TEXT	Operation Status
STATUS_COLOR	Operation Status Color
STATUS_COLOR_CURRENT	Status Color (currently)
WP_ORDER_OPERATION_STATUS	Workplace / Order / Operation / Status
DURATION	Duration
QUANTITY	Quantity
WORKPLACE_SORT_ORDER	Workplace Sort Order
PHASE_SORT_ORDER	Phase Sort Order
STATUS_SORT_ORDER	Operating State Sort Order

### 5.2.15 Sum of Quantities of the Operation

Column Identifier (SQL)	Column Title (Report)
END_TS	End Time
MATERIAL_ID	Material
MATERIAL_ID	Material Description
OPERATION_ID	Operation
QUANTITY_UNIT	Unit
REWORK_QTY	REWORK_QTY
SCRAP_QTY	Scrap Qty
START_TS	Start Time

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Column Identifier (SQL)	Column Title (Report)
TARGET_QUANTITY	Target Qty.
TIME_PER_UNIT	Target Time per Unit
WORKPLACE_ID	Workplace
YIELD_QTY	Yield Qty.

### 5.2.16 Quantity Log of an Operation during a Period of Time

Column Identifier (SQL)	Column Title (Report)
AMOUNT	Quantity
CHANGE_TS	Booking Time
OPERATION_ID	Operation
QTY_REASON_COLOR	Quality Details Color
QTY_REASON_SORT_ORDER	Quality Detail Sort Order
QTY_REASON_TEXT	Quality Details
QTY_TYPE_SORT_ORDER	Quality Type Sort Order
QTY_TYPE_TEXT	Quality Type
QUANTITY_UNIT	Unit
WORKPLACE_ID	Workplace
WORKPLACE_SORT_ORDER	Workplace Sort Order

### 5.2.17 Shift Totals of Quantities

Column Identifier (SQL)	Column Title (Report)
WORKPLACE_ID	Workplace
QTY	Total Quantity
YIELD_QTY	Yield Qty.
SCRAP_QTY	Scrap Qty.
REWORK_QTY	Rework Qty.

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Column Identifier (SQL)	Column Title (Report)
SHIFT_ID	Shift
YIELD_PERCENT	Yield [%]
SCRAP_PERCENT	Scrap [%]
REWORK_PERCENT	Rework [%]
YIELD_QTY_COLOR	Color Yield
SCRAP_QTY_COLOR	Color Scrap
REWORK_QTY_COLOR	Color Rework
QUANTITY_UNIT	Unit

### 5.2.18 Shift Totals of Operating Status

Column Identifier (SQL)	Column Title (Report)
WORKPLACE_ID	Workplace
SHIFT_ID	Shift
OP_STATUS_COLOR	Status Color
OP_STATUS_MNEMONIC	Code
OP_STATUS_TEXT	Operating State
OP_STATUS_SHORTTEXT	OS Short Description
OCCURRENCES	Frequency
DURATION	Duration
DURATION_PERCENT	Duration [%]
WORKPLACE_SORT_ORDER	Workplace Sort Order
OP_STATUS_SORT_ORDER	Operating State Sort Order

## 5.2.19 Shift Book Summary of Operations

Column Identifier (SQL)	Column Title (Report)
SHIFT_ID	Shift
WORKPLACE_ID	Workplace
OPERATION_ID	Operation
ORDER_ID	Order
MATERIAL_ID	Material
TARGET_QUANTITY	Target Qty.
YIELD_QTY_SHIFT	Yield Qty. [Shift]
SCRAP_QTY_SHIFT	Scrap Qty. [Shift]
REWORK_QTY_SHIFT	Rework Qty. [Shift]
YIELD_QTY_OP	Yield Qty. [Operation]
SCRAP_QTY_OP	Scrap Qty. [Operation]
REWORK_QTY_OP	Rework Qty. [Operation]
STROKES_SHIFT	Hits [Shift]
STROKES_OP	Hits [Operation]
TIME_PER_UNIT_SEC	Target Time per Unit [Sec./Unit]
TIME_PER_UNIT	Target Time per Unit
TARGET_STROKES_PER_HOUR	Target Hit Rate [hits/h]
STROKE_FACTOR	Hit Factor
REAL_TIME_PER_UNIT_SEC	Time per Unit [Sec./Unit]
REAL_TIME_PER_UNIT	Time per Unit
REAL_TIME_PER_STROKE_SEC	Setup Rate
REAL_TIME_PER_STROKE	Time per Hit
TOTAL_DURATION	Execution Time
PROD_DURATION	Production

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Column Identifier (SQL)	Column Title (Report)
SETUP_DURATION	Setup
INTERRUPT_DURATION	Downtime
BREAK_DURATION	Breaks
OEE_DURATION	Planned Production Time
START_TS	Start Time
END_TS	End Time
HPH	HPH [hits/h]
PPH	PPH [pcs./h]
QUANTITY_UNIT	Unit

### 5.2.20 Shift Book Subtotals of Operations

Column Identifier (SQL)	Column Title (Report)
WORKPLACE_ID	Workplace
SHIFT_ID	Shift
OPERATION_ID	Operation
START_TS	Start Time
END_TS	End Time
DURATION	Duration
YIELD_QTY_SHIFT	Yield Qty. [Shift]
YIELD_QTY_OP	Yield Qty. [Operation]
SCRAP_QTY_SHIFT	Scrap Qty. [Shift]
SCRAP_QTY_OP	Scrap Qty. [Operation]
REWORK_QTY_SHIFT	Rework Qty. [Shift]
REWORK_QTY_OP	Rework Qty. [Operation]
TOTAL_QTY_SHIFT	Total Quantity [Shift]
TOTAL_QTY_OP	Total Quantity [Operation]

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Column Identifier (SQL)	Column Title (Report)
<b>STROKES_SHIFT</b>	Hits [Shift]
<b>STROKES_OP</b>	Hits [Operation]
<b>OPERATING_STATUS_TEXT</b>	Operating State
<b>OPERATING_STATUS_MNEMONIC</b>	Code
<b>OPERATING_STATUS_SHORTTEXT</b>	OS Short Description
<b>OPERATING_STATUS_COLOR</b>	Color
<b>MFR2_MNEMONIC</b>	Code (1)
<b>MFR2_TEXT</b>	Details (1)
<b>MFR3_MNEMONIC</b>	Code (2)
<b>MFR3_TEXT</b>	Details (2)
<b>MFR4_MNEMONIC</b>	Code (3)
<b>MFR4_TEXT</b>	Details (3)
<b>MFR5_MNEMONIC</b>	Code (4)
<b>MFR5_TEXT</b>	Details (4)
<b>MFR6_MNEMONIC</b>	Code (5)
<b>MFR6_TEXT</b>	Details (5)
<b>MFR7_MNEMONIC</b>	Code (6)
<b>MFR7_TEXT</b>	Details (6)
<b>TICKET_TITLE</b>	Remark Title
<b>TICKET_DESC</b>	Remark
<b>WORKPLACE_SORT_ORDER</b>	Workplace Sort Order
<b>OPERATING_STATUS_SORT_ORDER</b>	Operating State Sort Order
<b>MFR2_SORT_ORDER</b>	Operating State Detail Sort Order (1)
<b>MFR3_SORT_ORDER</b>	Operating State Detail Sort Order (2)
<b>MFR4_SORT_ORDER</b>	Operating State Detail Sort Order (3)

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Column Identifier (SQL)	Column Title (Report)
<b>MFR5_SORT_ORDER</b>	Operating State Detail Sort Order (4)
<b>MFR6_SORT_ORDER</b>	Operating State Detail Sort Order (5)
<b>MFR7_SORT_ORDER</b>	Operating State Detail Sort Order (6)
<b>QUANTITY_UNIT</b>	Unit

**5.2.21 OLE Report (Personnel) [Column Chart]/[Table]**

Column Identifier (SQL)	Column Title (Report)
<b>PERSON_NODE_ID</b>	Personnel Area/Group
<b>OLE</b>	OLE
<b>PRODUCTION_ORDER_TIME</b>	Production Order Time
<b>OVERHEAD_COST_TIME</b>	Overhead Cost Time
<b>OVERALL_PRODUCTION_TIME</b>	Overall Production Time
<b>ATTENDANCE_TIME</b>	Attendance Time
<b>UNPRODUCTIVE_TIME</b>	Unproductive Time

**5.2.22 OEE (Overall View) [Column Chart]/Subreport: OEE (Overall View) [Table]**

Column Identifier (SQL)	Column Title (Report)
<b>TOTAL</b>	Gesamtbetrachtung
<b>AVAILABILITY</b>	Verfügbarkeit
<b>PERFORMANCE</b>	Leistungsgrad
<b>QUALITY</b>	Qualität
<b>OEE</b>	OEE
<b>ALLOCATION_EFFICIENCY</b>	Belegungsgrad
<b>TECH_AVAILABILITY</b>	Prozessverfügbarkeit
<b>SETUP_DEVIATION_ABS</b>	Soll/Ist-Abweichung (Rüstzeit)
<b>SETUP_DEVIATION_REL</b>	Soll/Ist-Vergleich (Rüstzeit)

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Column Identifier (SQL)	Column Title (Report)
SETUP_RATE	Rüstgrad
SETUP_REDUCTION_RATE	Rüstzeitminimierung
TIME_PER_UNIT_DEVIATION_ABS	Soll/Ist-Abweichung (Zeit pro Einheit)
TIME_PER_UNIT_DEVIATION_REL	Soll/Ist-Vergleich (Zeit pro Einheit)
ACTUAL_PROD_DURATION	Produktionszeit
PROCESSING_TIME	Bearbeitungszeit
BUSY_TIME	Belegungszeit
PLANNED_BUSY_DURATION	Geplante Betriebszeit
SETUP_DURATION	Rüsten
STATUS_PROD_DURATION	Produktion

### 5.2.23 OEE Report (Workplace)

Column Identifier (SQL)	Column Title (Report)
WORKPLACE_ID	Arbeitsplatz
AVAILABILITY	Verfügbarkeit
PERFORMANCE	Leistungsgrad
QUALITY	Qualität
OEE	OEE
WORKPLACE_SORT_ORDER	Arbeitsplatz-Sortierreihenfolge

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### 5.2.24 Operating State Development (Workplace)

Column Identifier (SQL)	Column Title (Report)
OP_STATUS_ID	Operating State
OP_STATUS_COLOR	Color
OP_STATUS_MNEMONIC	Code
OP_STATUS_SORT_ORDER	Operating State Sort Order
OPERATION_STATUS_DURATION	Duration
DATE_LABEL	Time Range
DATE_TS	Timestamp
DATE_RENDERING	Time Unit
OP_STATUS_PERCENT_PERIOD	Duration [% of total]
OP_STATUS_PERCENT_TIMEBASE	Duration [%]
DUMMY_SORT_ORDER	Dummy Sort Order
DATE_SORT_ORDER	Time range sort order

### 5.2.25 Hitlist Operating States (Workplace)

Column Identifier (SQL)	Column Title (Report)
WORKPLACE_ID	Workplace
WORKPLACE_SORT_ORDER	Workplace Sort Order
CNT_OCCURRENCE	Frequency
SUM_DURATION	Duration
OPERATING_STATUS_COLOF	Color
OPERATING_STATUS_ID	Operating State
OPERATING_STATUS_MNEMONIC	Code
OPERATING_STATUS_TEXT	Operating State
OPERATING_STATUS_SORT_ORDEF	Operating State Sort Order
CNT_OCCURRENCE_PERCENTAGE	Frequency [%]

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Column Identifier (SQL)	Column Title (Report)
SUM_DURATION_PERCENTAGE	Duration [%]
SUM_DURATION_ABS_PER	Duration [% absolute]
AVG_DURATION	Duration [Ø]
Column Identifier (SQL)	Column Title (Report)

### 5.2.26 Operating State Development (Material)

Column Identifier (SQL)	Column Title (Report)
OP_STATUS_ID	Operating State
OP_STATUS_COLOR	Color
OP_STATUS_MNEMONIC	Code
OP_STATUS_SORT_ORDER	Operating State Sort Order
OPERATION_STATUS_DURATION	Duration
DATE_LABEL	Time Range
DATE_TS	Timestamp
DATE_RENDERING	Time Unit
OP_STATUS_PERCENT_TIMEBASE	Duration [%]
DATE_SORT_ORDER	Time range sort order

### 5.2.27 Hitlist Operating States (Material)

Column Identifier (SQL)	Column Title (Report)
MATERIAL_ID	Material
MATERIAL_ID	Material Number
MATERIAL_ID	Material Description
OPERATING_STATUS_ID	Operating State
OPERATING_STATUS_MNEMONIC	Code
OPERATING_STATUS_TEXT	Operating State

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Column Identifier (SQL)	Column Title (Report)
<b>OPERATING_STATUS_COLOR</b>	Color
<b>DOPERATING_STATUS_SORT_ORDER</b>	Operating State Sort Order
<b>CNT_OCCURRENCE</b>	Frequency
<b>CNT_OCCURRENCE_PERCENTAGE</b>	Frequency [%]
<b>SUM_DURATION</b>	Duration
<b>SUM_DURATION_PERCENTAGE</b>	Duration [%]
<b>SUM_DURATION_ABS_PERC</b>	Duration [% absolute]
<b>AVG_DURATION</b>	Duration [0]

### 5.2.28 Hitlist Operating States (Order)

Column Identifier (SQL)	Column Title (Report)
<b>ORDER_ID</b>	Order
<b>MATERIAL_ID</b>	Product
<b>OPERATING_STATUS_ID</b>	Operating State
<b>OPERATING_STATUS_MNEMONIC</b>	Code
<b>OPERATING_STATUS_TEXT</b>	Operating State
<b>OPERATING_STATUS_COLOR</b>	Color
<b>OPERATING_STATUS_SORT_ORDER</b>	Operating State Sort Order
<b>CNT_OCCURRENCE</b>	Frequency
<b>CNT_OCCURRENCE_PERCENTAGE</b>	Frequency [%]
<b>SUM_DURATION</b>	Duration
<b>SUM_DURATION_PERCENTAGE</b>	Duration [%]
<b>SUM_DURATION_ABS_PER</b>	Duration [% absolute]
<b>AVG_DURATION</b>	Duration [ $\emptyset$ ]

## 5.2.29 Hitlist Operating States (Operation)

Column Identifier (SQL)	Column Title (Report)
ORDER_ID	Order
MATERIAL_ID	Product
OPERATING_STATUS_ID	Operating State
OPERATING_STATUS_MNEMONIC	Code
OPERATING_STATUS_TEXT	Operating State
OPERATING_STATUS_COLOR	Color
OPERATING_STATUS_SORT_ORDER	Operating State Sort Order
CNT_OCCURRENCE	Frequency
CNT_OCCURRENCE_PERCENTAGE	Frequency [%]
SUM_DURATION	Duration
SUM_DURATION_PERCENTAGE	Duration [%]
SUM_DURATION_ABS_PER	Duration [% absolute]
AVG_DURATION	Duration [Ø]

## 5.2.30 Hit Report (Workplace)

Column Identifier (SQL)	Column Title (Report)
WORKPLACE_ID	Workplace
NUMBER_OF_STROKES	Number of Hits
WORKPLACE_SORT_ORDER	Workplace Sort Order

### 5.2.31 Hit Development (Workplace)

Column Identifier (SQL)	Column Title (Report)
DATE_LABEL	Time Range
NUMBER_OF_STROKES	Number of Hits
DATE_TS	Timestamp
DATE_RENDERING	Time Unit
DATE_SORT_ORDER	Time range sort order

### 5.2.32 Quality Report (Workplace)

Column Identifier (SQL)	Column Title (Report)
WORKPLACE_ID	Workplace
QTY_TYPE_COLOR	Quality Type Color
QUANTITY_TYPE_ID	Quality Type
SUM_AMOUNT	Quantity
QTY_REASON_COLOR	Quality Details Color
QUANTITY_TYPE_REASON_ID	Quality Details

### 5.2.33 Quality Development (Workplace)

Column Identifier (SQL)	Column Title (Report)
QTY_TYPE_COLOR	Quality Type Color
QUANTITY_TYPE_ID	Quality Type
SUM_AMOUNT	Quantity
DATE_LABEL	Time Range
DATE_RENDERING	Time Unit
DATE_TS	Timestamp
QTY_REASON_COLOR	Quality Details Color
QUANTITY_TYPE_REASON_ID	Quality Details

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Column Identifier (SQL)	Column Title (Report)
QTY_PERCENT	Quantity [%]
QTY_TYPE_PERCENT	Quantity [% of quality type]
QTY_REASON_SORT_ORDER	Quality Detail Sort Order
QTY_TYPE_SORT_ORDER	Quality Type Sort Order
DATE_SORT_ORDER	Time range sort order
QUANTITY_UNIT	Unit

### 5.2.34 Quality Report (Material)

Column Identifier (SQL)	Column Title (Report)
MATERIAL_NUMBER	Material
QTY_TYPE_COLOR	Quality Type Color
QUANTITY_TYPE_ID	Quality Type
SUM_AMOUNT	Quantity
QTY_REASON_COLOR	Quality Details Color
QUANTITY_TYPE_REASON_ID	Quality Details
QTY_PERCENT	Quantity [%]
QTY_TYPE_PERCENT	Quantity [% of quality type]
QTY_TYPE_SORT_ORDER	Quality Type Sort Order
QTY_REASON_SORT_ORDER	Quality Detail Sort Order
QUANTITY_UNIT	Unit

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### 5.2.35 Quality Development (Material)

Column Identifier (SQL)	Column Title (Report)
QUANTITY_TYPE_ID	Quality Type
SUM_AMOUNT	Quantity
QTY_REASON_COLOR	Quality Details Color
QUANTITY_TYPE_REASON_ID	Quality Details
DATE_LABEL	Time Range
DATE_RENDERING	Time Unit
DATE_TS	Timestamp
QTY_PERCENT	Quantity [%]
QTY_TYPE_PERCENT	Quantity [% of quality type]
QTY_REASON_SORT_ORDER	Quality Detail Sort Order
QTY_TYPE_SORT_ORDER	Quality Type Sort Order
DATE_SORT_ORDER	Time range sort order
QUANTITY_UNIT	Unit
QTY_TYPE_COLOR	Quality Type Color

### 5.2.36 Quality Report (Operation)

Column Identifier (SQL)	Column Title (Report)
ORDER_ID	Order
OPERATION_ID	Operation
OPERATION_ID	Order / Operation
WORKPLACE_ID	Workplace
QTY_TYPE_COLOR	Quality Type Color
QUANTITY_TYPE_ID	Quality Type
SUM_AMOUNT	Quantity
QTY_REASON_COLOR	Quality Details Color

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Column Identifier (SQL)	Column Title (Report)
QUANTITY_TYPE_REASON_ID	Quality Details
QTY_PERCENT	Quantity [%]
QTY_TYPE_PERCENT	Quantity [% of quality type]
QTY_REASON_SORT_ORDER	Quality Detail Sort Order
QTY_TYPE_SORT_ORDER	Quality Type Sort Order
QUANTITY_UNIT	Unit

### 5.2.37 Quality Report (Personnel)

Column Identifier (SQL)	Column Title (Report)
PERSON_ID	Person
WORKPLACE_ID	Workplace
QTY_TYPE_COLOR	Quality Type Color
QUANTITY_TYPE_ID	Quality Type
SUM_AMOUNT	Quantity
QTY_REASON_COLOR	Quality Details Color
QUANTITY_TYPE_REASON_ID	Quality Details
QTY_PERCENT	Quantity [%]
QTY_TYPE_PERCENT	Quantity [% of quality type]
QTY_REASON_SORT_ORDER	Quality Detail Sort Order
QTY_TYPE_SORT_ORDER	Quality Type Sort Order