MECANO - Operation

- General presentation
  - Objective of the application
  - Dataflow overview
  - Functional and Technical rules on Workbench + Reporting
  - Rules & Explanations
    - KPI 2.08 Available capacity (K_CAPAV2)

General presentation

Objective of the application

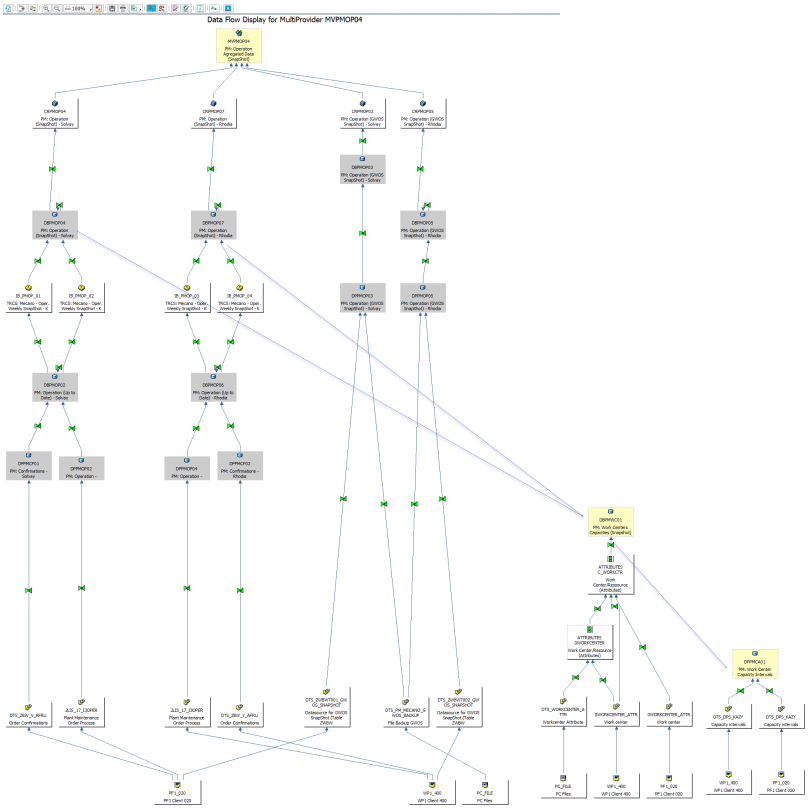
There are many KPI based on operation flow. To keep the number of hour for each operation

MVPMOP01 = PM: PM: Operation Detailed Data (Up to Date)

MVPMOP02 = PM: Operation Detailed Data (SnapShot), wich based on business layer(DSO)

MVPMOP04 = PM: Operation Agregated Data (SnapShot), which based on reporting layer (Cube)

Dataflow overview

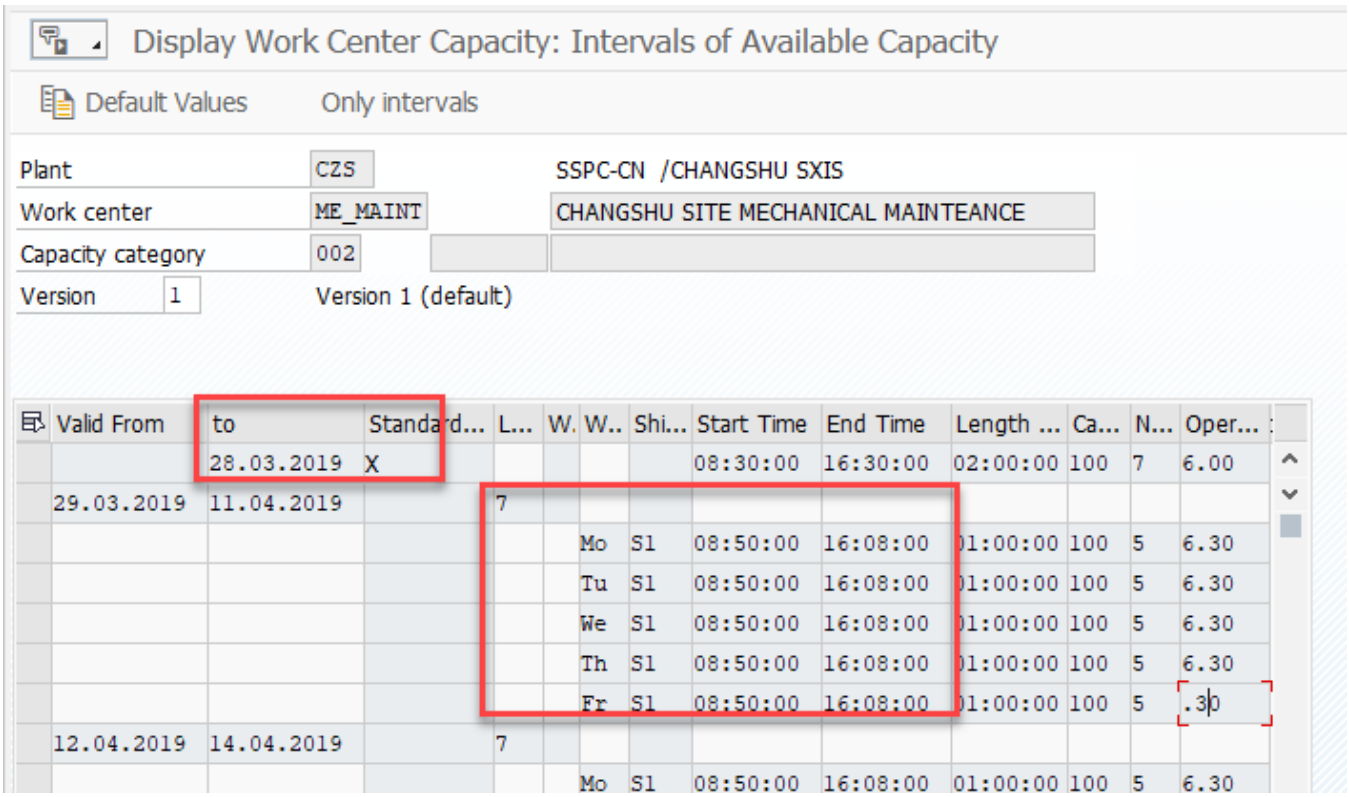


Functional and Technical rules on Workbench + Reporting

Rules & Explanations

KPI 2.08 Available capacity (K_CAPAV2)

Tcode: IR03 to see capacity of a work center. It can be standard or shift .



Display Work Center Capacity: Intervals of Available Capacity

Default Values Only intervals

Plant: CZS SSPC-CN /CHANGSHU SXIS

Work center: ME_MAINT CHANGSHU SITE MECHANICAL MAINTEANCE

Capacity category: 002

Version: 1 Version 1 (default)

Valid From	to	Standard...	L...	W.	W..	Shi...	Start Time	End Time	Length ...	Ca...	N...	Oper...
	28.03.2019	X					08:30:00	16:30:00	02:00:00	100	7	6.00
29.03.2019	11.04.2019		7									
					Mo	S1	08:50:00	16:08:00	01:00:00	100	5	6.30
					Tu	S1	08:50:00	16:08:00	01:00:00	100	5	6.30
					We	S1	08:50:00	16:08:00	01:00:00	100	5	6.30
					Th	S1	08:50:00	16:08:00	01:00:00	100	5	6.30
					Fr	S1	08:50:00	16:08:00	01:00:00	100	5	.30
12.04.2019	14.04.2019		7									
					Mo	S1	08:50:00	16:08:00	01:00:00	100	5	6.30

On BW, it look up capacity from DSO **DBPMWC01 (snapshot capacity from DPPMCA01)** during loading to business layer (DBPMOP02 DBPMOP04 and DBPMOP06 DBPMOP07)

It will determine standard or shift on this transformation TRSF: IOBJ C_WORKCTR -> ODSO DBPMWC01 at call method oref_mecano_utils->calculate_weekly_capacity

Get date to consider by snapshot week from MAX snapshot week of DBPMWC01 (PM: Work Centers Capacities (Snapshot))

1.1 Standard work center

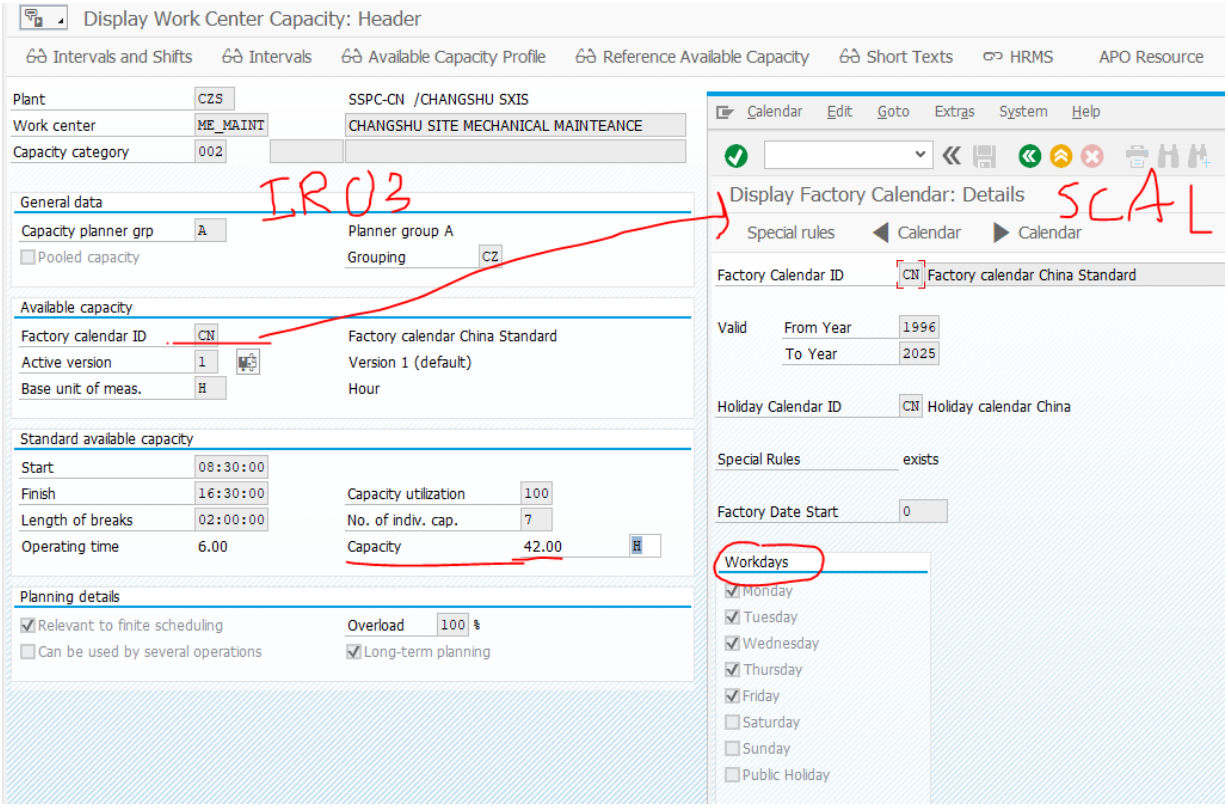
if there is no capacity in the interval and shift (standard flag is marked), we take the capacity of the work center capacity the header and take Into account the factory calendar so here factory calendar FR mean we don't work Sunday and Saturday

so in case of capacity of this work center before 29 Mar 2019, the result should have been:

IR03: Capacity Tab and click on Capacity header Capacity / day = operating time x number = 6 x 7 = 42 hours

SCAL: to see working day of factory calendar number of working day / week = 5 on CN factory ID

Capacity / week = 42h * 5d (SCAL)= 210h / week



v_standard_capacity = /bic/mc_workctr-k_capav = working day from factory cal * std capacity = 5 * 42 = 210

1.2 Shift operation When standard flag KKOPF <> X:

in case of capacity of this work center during 29 Mar 2019 - 11 Apr 2019, in the work center capacity we take the capacity of the interval and shift from **DP PMCA01**

Capacity / day = operating time x number = 6.5 x 5 (this case each day have operating time and number are the same) = 32.5 hours

Capacity / week = 32.5 x 5 = 162.5

On BW, we will get shift detail on **datasource DTS_DPS_KAZY**

V_opening_time = Finish(TC37A-ENDZT) - start(TC37A-BEGZT) - Break(TC37P-PADAUER)

= (7*3600 + 20*60) - 3600 (convert to second)

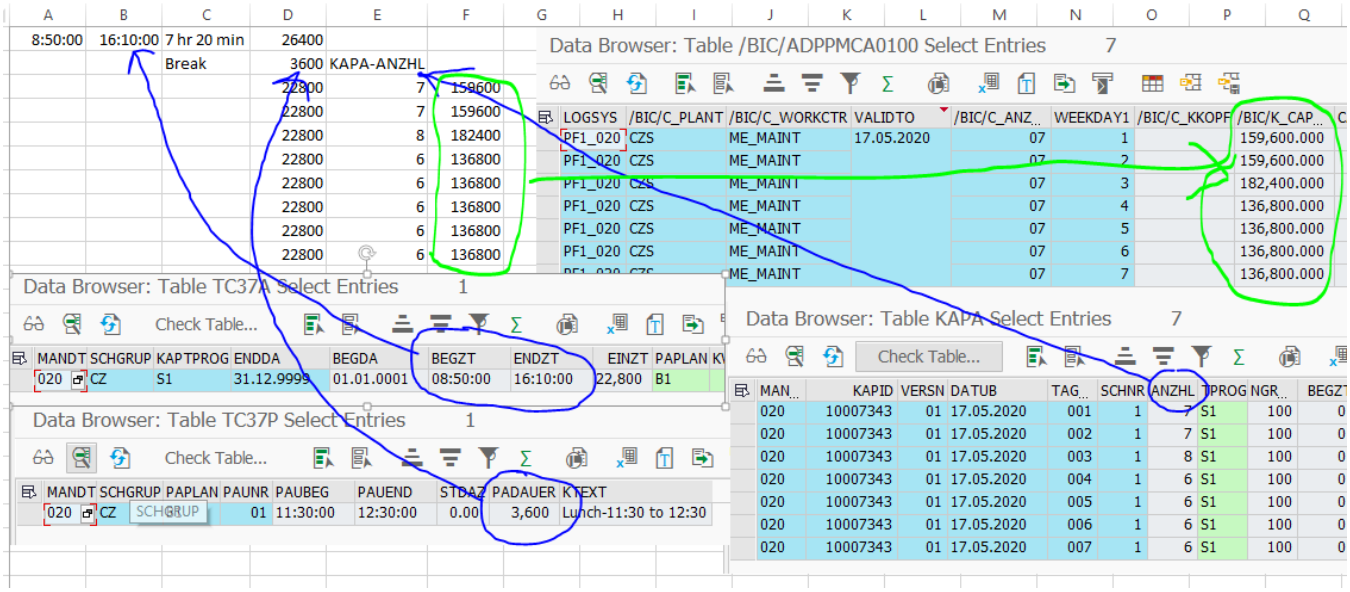
= 26400 - 3600

= 22800 = (TC37A-EINZT)

Capacity (KAPAZ) = V_opening_time * No (KAPA-ANZHL) (Cap (KAPA-NGRAD) / 100)

= 22800 * 7 (100 / 100)

= 159600



For shift information, it gets from datasource DTS_DPS_KAZY (FM Z_WBW_DTS_DPS_KAZY) to DPPMCA01, it was customize from

KAZY (Interval of Available Capacity) =

kapid Capacity ID

datub Valid-to date

anztg Length of the interval cycle

kkopf Ind.: standard available capacity is valid for this interval

TPROG Shift definition

KAPA (Shift Parameters for Available Capacity)

ngrad Capacity utilization rate (percent)

anzhl Number of individual capacities

tagnr Current weekday number within the available capacity cycle

kapaz Capacity

tprog Shift definition

CRHD (Work Center Header)

arbpl Work center

werks Plant

kapid Capacity ID

KAKO (Capacity Header Segment)

begzt Start time in seconds (internal)

endzt Finish time in seconds (internal)

mosid Grouping for Shift Definitions and Shift Sequences (30, PM = plant maintenance)

kapid Capacity ID

AZNOR Number of individual capacities

NGRAD Capacity utilization rate (percent)

PAUSE Cumulative break time in seconds (internal)

TC37A (Shift definition)

SCHGRUP Grouping for Shift Definitions and Shift Sequences = KAKO-MOSID

KAPTPROG Shift definition = KAPA-TPROG

ENDDA End Date

BEGDA Start Date

BEGZT Start time

ENDZT Finish time

EINZT Operating time in seconds (internal)

TC37P (Break schedule)

PAUBEG Start Time

PAUEND End Time

PADAUER Length of break in seconds (internal)