

Platform / ETL / Data / Development

The screenshot displays a multi-paneled software interface for data development. The top-left pane, titled 'Warehouse Module Editor: SAL_DWH...', shows a hierarchical tree of 'DIMENSIONS' (SAL_CUSTOMER_STAR, SAL_ITEM_STAR, SAL_REASON_STAR, SAL_REGION_STAR, SAL_TIME_STAR) and 'FACTS' (SAL_FACT_BUDGET_FC_STAR, SAL_FACT_BUDGET_YEAR_STAR, SAL_FACT_ITEM_CS_STAR, SAL_FACT_ITEM_PR_STAR, SAL_FACT_SALES_COPR_STAR, SAL_FACT_SALES_NOTI_STAR, SAL_FACT_SALES_STAR, SAL_FACT_TREND_STAR). Below this is a 'MAPPINGS' section listing various mapping objects like SAL_CUSTOMER_STAR_MAP_01. The top-middle pane, 'Dimension Editor: SAL_ITEM_STAR [Read/Write]', shows two dimension editors: 'ITEM' and 'THERAPY'. The 'ITEM' editor lists attributes: TOTAL_ITEM, BRAND_1 (with sub-attributes DSC_L, DSC_M, DSC_S), BRAND_2, SUB_BRAND, and ITEM. The 'THERAPY' editor lists: TOTAL_ITEM, THERAPY_GRP, SALES_GRP, BRAND_1, BRAND_2, SUB_BRAND, and ITEM. The top-right pane, '*SQL* (GNU-Emacs 21.3.50.1 on MBSWL0000011)', shows a SQL query:

```
SELECT max(mo_id)
INTO my_noti_nol_max_mo_id
FROM sal_sales_noti_core
WHERE nol_net_sal IS NOT NULL
;
```

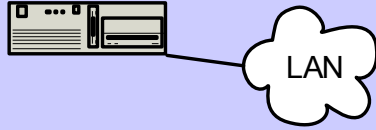
 Below the query, it shows the execution output:

```
--\-- gsk sal main body.pls 30% (201,33)
Oracle9i Enterprise Edition Release 9.2.0.4
With the Partitioning, OLAP and Oracle Data
JServer Release 9.2.0.4.0 - Production
SQL>
```

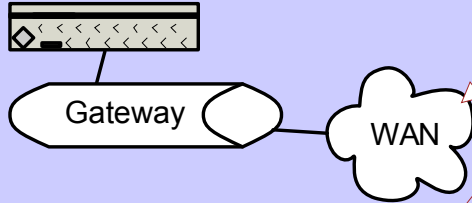
 The bottom pane, 'Mapping Editor: SAL_CUSTOMER_STAR_MAP_01 [Read/Write]', shows a mapping diagram. It features a source table 'SAL_CUSTOMER...' with columns INOUTGRP1, CUSTOMER_ID, EAN_CODE, ALLOGA_CODE_1, ALLOGA_CODE_2, ALLOGA_CODE_3, and TMP_IDE_CODE. An 'EXPR' (expression) editor is in the center, containing 'INGRP1' and 'OUTGRP1' with a sub-expression 'CUS_DSC_L'. A target table 'SAL_CUST...' is on the right with columns TOT_ID, CLA_ID, CHA_ID, SPE_ID, and CUS_ID. Arrows indicate data flow from source columns to the expression and then to target columns. A 'CONST' label is also visible.

Platform

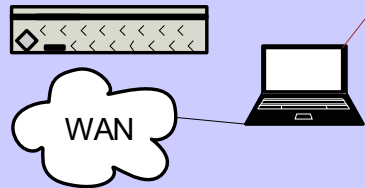
CRM



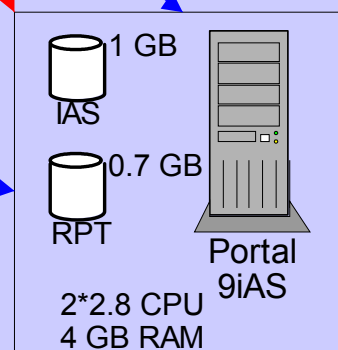
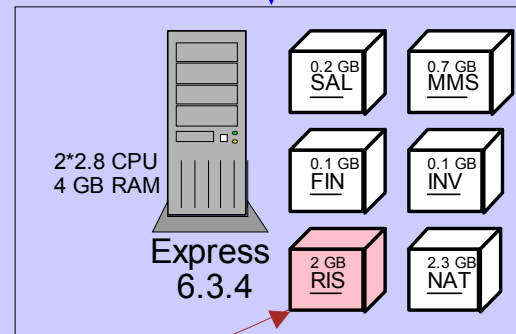
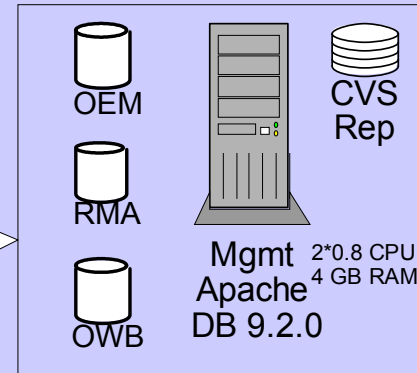
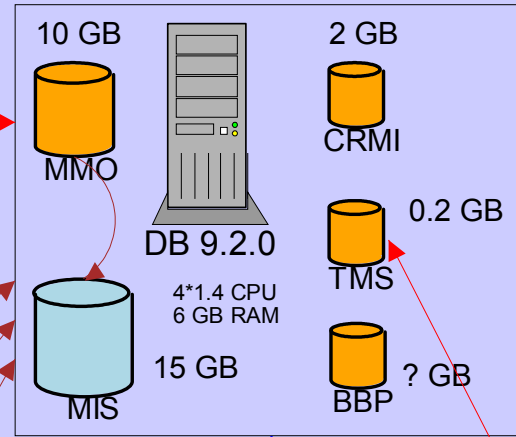
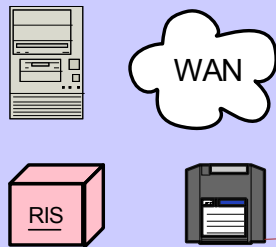
JDE DESBNET0



SEM



IHA/IMS

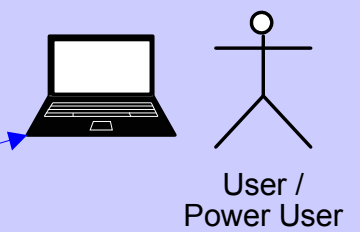
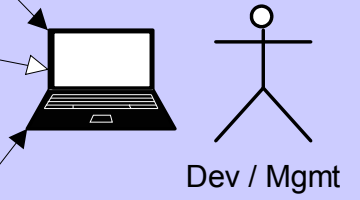


THOSX10

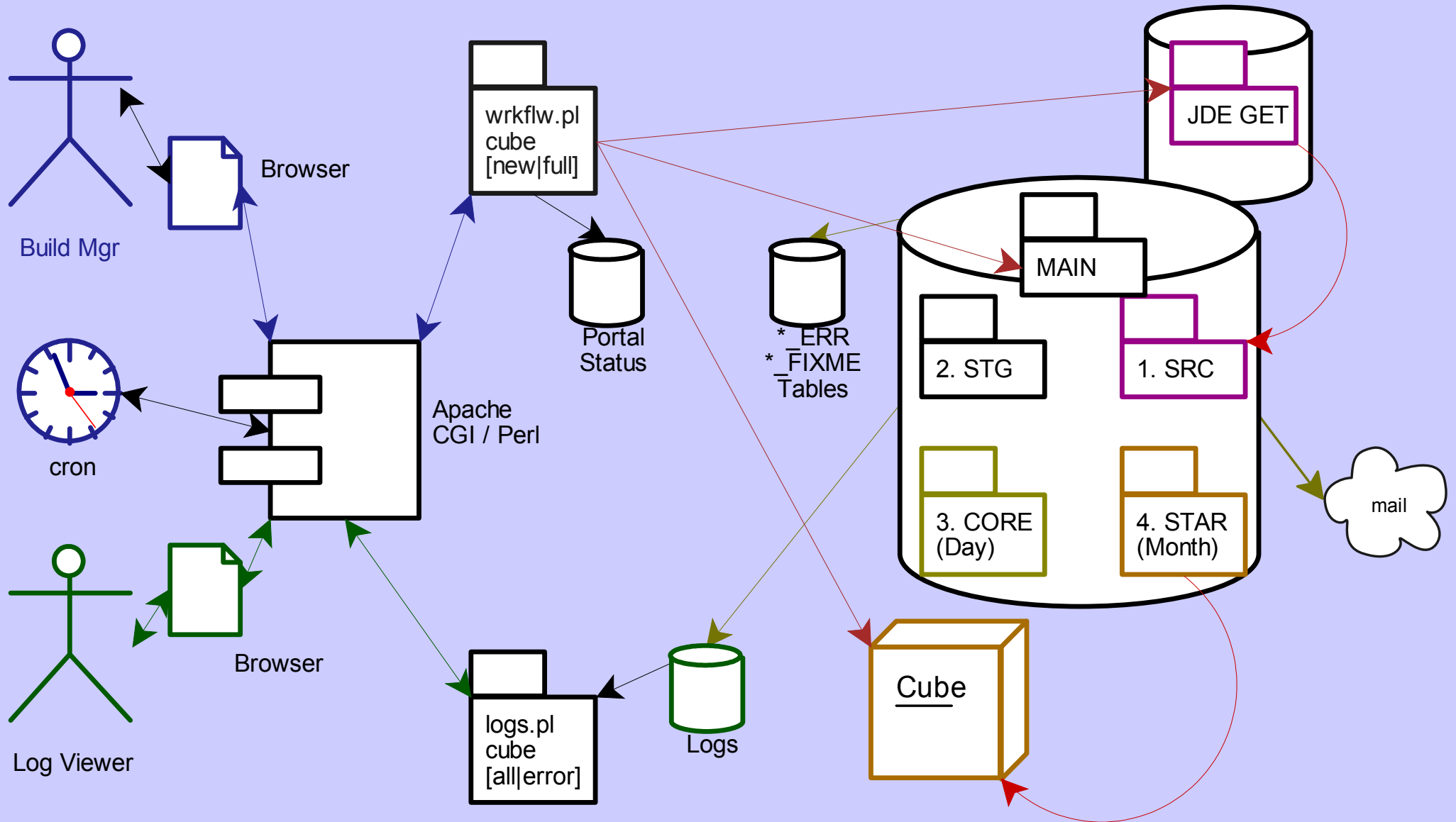
THOSX24/THOSX25

THOSX21/THOSX14

THOSX22/MBSSAIAS001



ETL Workflow



Development: Dataflow

- Get JDE (full, new) Copy from JDE to local schema (flag)
- FTP load Fetch data by ftp, import flatfiles
- SRC Copy from source (remote DB or flatfile)
- STG Clean data, error- and fixme-records
- CORE Copy to normalized schema (agg. level: **day**)
- STAR Copy to star schema (agg. level: **month**)
- Express RAM/RAA processes (clear, build, load)

Data: Cubes, Stars, Galaxies

Cube	#Fact	#Meas	#Dims	#Levels	#Hiera	Remarks
sal	8	233	5	21	9	+ many osa custom obj
mms	11	16	14	40	23	# of dims
nat	13	6	7	45	21	build from flatfiles, osa obj
inv	23	207	3	12	5	summary tables
fin	3	28	9	33	13	account dim
ris	-	463	5	-	-	- db files from IHA/IMS

(Our “cubes” are galaxies. Each fact table together with the connected dimensions defines one star schema (= SAP cube). So we effectively have 53 SAP cubes in 6 different galaxies.

Data: Oracle Databases (9.2.0)

DB	Description
MIS	Management Information System
MMO	Marketing Manager OTC Version
TMS	Territory Management System
CRMI	Customer Relationship Management Interfaces
BBP	Bebop
IAS	Oracle IAS Repositories
RPT	Oracle Reporter Repositories
OWB	Oracle Warehouse Builder Repositories
OEM	Oracle Enterprise Manager Repositories
RMA	Oracle RMAN (Backup/Recovery) Repositories

Deployment

Systems

- 2 hardware systems (production, test)
- 3 logical systems (production, test & integration, development)

Version control

- 3 (prod, test, dev) OWB repositories (export / import)
- non OWB Objects: cvs, deployment scripts

Languages

- SQL DB, schema creation, DBA work, ...
- PL/SQL Packages (*main, *src, *stg, *core, *star), mappings (OWB)
Libs (logging, mail, dyn sql, tools, ...)
- Perl CGI, master workflow, ...
- cmd Deployment

Tools: Oracle

Oracle DB	database
Oracle Gateway	access JDE data
OWB	DDL (tabs & mappings)
OEM	DB monitoring
SQL*Plus	CLI SQL interface
sqlldr	CLI import flatfiles
Oracle Portal	only basic features used
Oracle Reports	special reports (core)
Oracle Express 6.3.4	multidimensional database
RAM/RAA	express rel. access admin
OSA	sales analyser (java applet)