



# Eksterno upravljanje Hyperion PM aplikacijama -

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# Sadržaj

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- ◆ Hyperion metadata (HFM & Planning)
- ◆ Pregled alata za uvoz metapodataka
- ◆ Uvoz metapodataka bez dodatnih alata
- ◆ Struktura tablica planninga i HFMA

# Hyperion metadata

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## ◆ Najvažniji hyperion metapodaci

- Dimensions
- Memembers
- Hierarhijske strukture
- Specifični metapodaci po dimenzijama
- Posebni podaci



## ◆ Podaci

- Iznosi na presjeku dimenzija

# Pojam kontrole aplikacije

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- ◆ Kontroliranje metapodataka
  - Obuhvaća kontrolu redoslijeda i elementa dimenzija
  - Kontrolu dodavanja brisanja podataka, elemenata dimenzija
  - Kontrolu specifičnih obilježja (properties)
- ◆ Kontrola podataka = LOAD, UPDATE...

# Alati; pregled

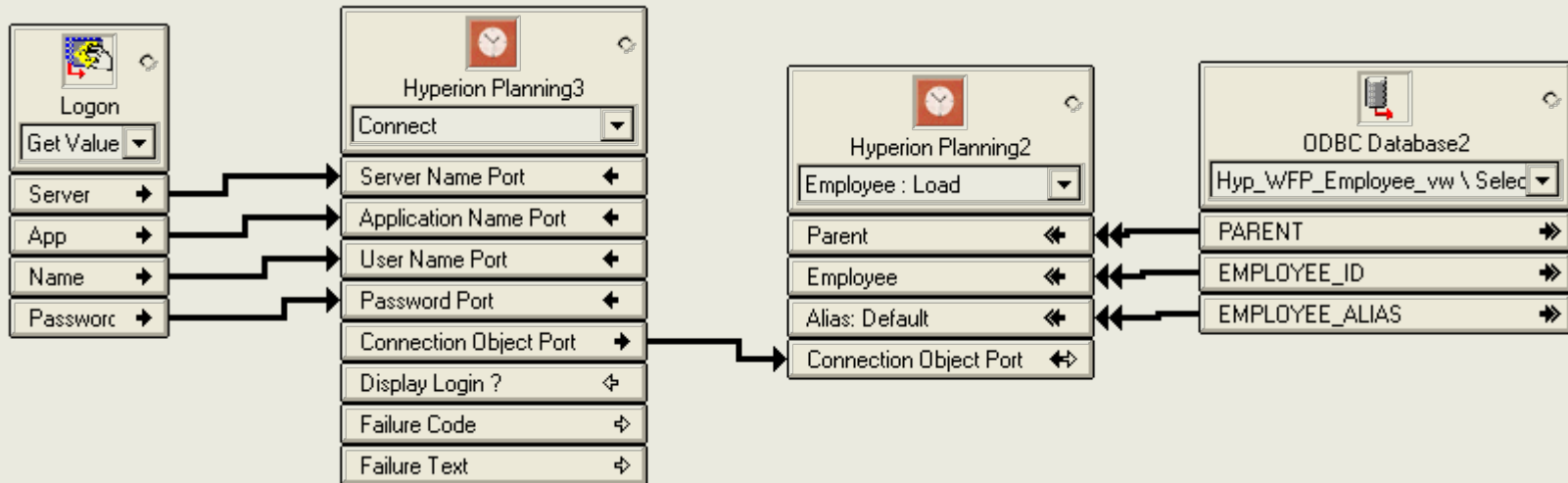
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- ◆ HAL – zastarjeli koncept, još prije Oracle-ove akvizicije započeto napuštanje
- ◆ FDM (za HFM) – korisnik involviran u pregled i kontrolu podataka koji ulaze u sustav
- ◆ DIM, ODI – tipični ETL alati
- ◆ Ručni prijenos (MaxL + rules, (Admin services)
- ◆ Integration services
- ◆ Kontrola repozitorija (PL SQL)

# HAL (Hyperion application link)

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- ◆ Variable -> login, app i sl.
- ◆ Planning Adapter (1) -> Odabir dimenzije, aplikacije (iz varijable) ...
- ◆ Planning adapter (2) -> Metoda (load)
- ◆ ODBC adapter -> Dohvat podataka

# MaxL

Proces importa pomoću  
MaxL-a:

- 1) Load rule u essbase-u
- 2) MaxL file koji izvrši rule
- 3) bat file koji izvrši maxL kod

MAXL code:

```

LOGIN 'UserName' 'Password' ON 'Server Name';
execute calculation '
  Fix
  (@idescendants("Account"),@idescendants(Ent
ity),&Current Year,Version)
  CLEARDATA Scenario;
  Endfix;'

import database
'ApplicationName'.'DatabaseName' data
connect as 'UserName' identified by
'Password' using server rules_file
'LoadRuleName' on error
write to 'e:\\Logs\\Errorfilename.err';

SET UPDATECALC OFF;
Fix (Scenario,Year,Version)
CALC DIM(Product,Entity);
Endfix;'
on ApplicationName.DatabaseName;

  LOGOUT;

  EXIT;

```

```

essmsh E:\Scripts\MaxL \DataLoad.mxl >>
E:\Logs\Dataload.log

```

# Hyperion DIM

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- ◆ DIM = Informatica koja puni Hyperion aplikacije i Essbase, OEM verzija
  
- ◆ Normalizacija essabase kocke u slučaju izlaza iz essbase-a u DWH relacioni model
  
- ◆ Elementi:
  - Informatica PowerCenter Client
  - Informatica PowerCenter Server
  - Informatica PowerCenter Repository Server



# EPM Architect i strukture podataka (HFM primjer) (1)

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- ◆ EPM vrsta aplikacije – sinkronizacija dimenzija i fact-a
- ◆ Potrebno izgraditi datasouce (wizard)
- ◆ Primjer tablica za interface:
  - HS\_YEAR\_MEMBER – Stuktura, member,
  - HS\_YEAR\_PROPERTY – HFM podaci vezani za aplikaciju
  - HS\_YEAR\_HIERARCHY – struktura
- ◆ Potrebno popuniti interface tablice i generirati job

LOADID	NAME	DESCRIPTION	DATATYPE	MEME
1901	1901			
1902	1902			

LOADID	PARENT	CHILD	DATASTORAGE
#root		1902	
#root		1901	

# EPM Architect i strukture podataka (HFM primjer) (2)

- ◆ Izgled mapiranja:
- ◆ Pokretanje i scheduling:

The screenshot shows the EPM Architect interface. On the left, there are 'Tasks' and 'Tips' sections. The main area displays a 'Source' list with 'CommaLoad', 'C\_scenario', and 'c\_year'. On the right, a 'Destination' list includes 'comma', 'C\_Account', 'C\_Channel', 'C\_Customers', 'C\_Entity', 'C\_ICP', 'C\_Period', 'C\_Product', 'C\_Scenario', 'C\_UnitsFlows', 'C\_Value', 'C\_View', and 'C\_Year'. A context menu is open over the 'Unt' unit, showing options: Edit, Duplicate, Delete, Execute Synchronization (highlighted), and Validate Synchronization.

Job Filter Options

ID	Description	Last Updated Time	Type	Created By
7	delete : stat	29. svibanj 2009 15:	ConsolidationAppDeploy	admin
8	Executing synchronization: Reports	3. lipanj 2009 15:23	DataSynchronization	admin
9	Executing synchronization: Reports	3. lipanj 2009 15:24	DataSynchronization	admin
10	Import 'Comma' in Library 'Master'	4. lipanj 2009 5:01:1	Import	admin
11	deploy : comma	4. lipanj 2009 5:14:3	ConsolidationAppDeploy	admin
12	Exporting application comma.	4. lipanj 2009 5:13:1	Export	admin
13	Executing synchronization: commasync	4. lipanj 2009 6:08:1	DataSynchronization	admin
14	Executing synchronization: commasync	4. lipanj 2009 9:18:5	DataSynchronization	admin

# EPM Architect i strukture podataka (HFM primjer) (3)

## ◆ Rezultati:

Hyperion® Workspace - admin - Mozilla Firefox  
 http://vm-bi-hypaps2:19000/workspace/index.jsp

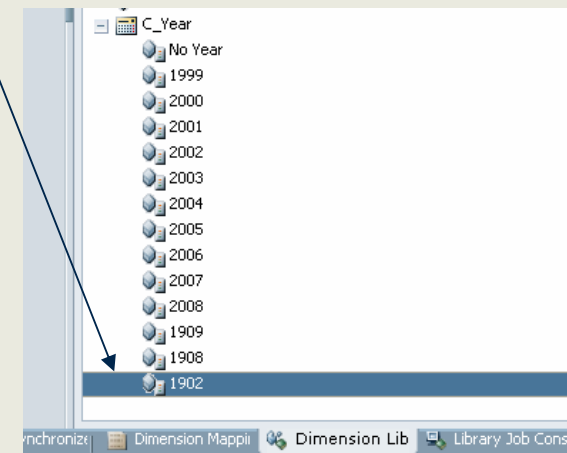
File View Favorites Tools Help

Profile Name	Status	Errors	Warnings	Dimensions Added	Members Added	Orphans Added
testProf	Created	0	13	0	1	0

Dimension

Record Level Errors / Warnings

No	Type	Action	Member	Property	Before	After
1	Warning	Process Dimens				



# Hyperion planning repository

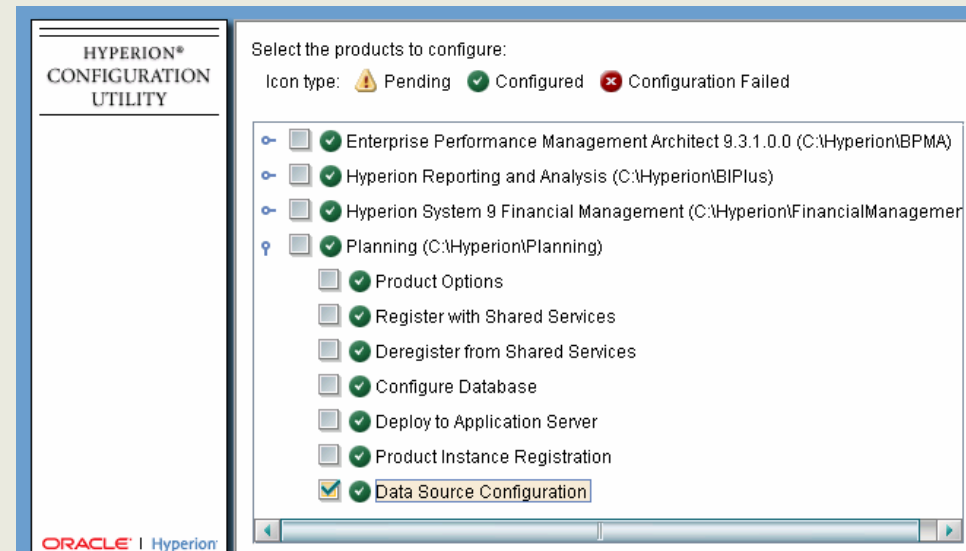
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- ◆ Repozitorij sa popisom aplikacija (vidljivih u workspace-u npr.)
  - HSPSYS\_APPLICATION – popis aplikacija
  - HSPSYS\_DATASOURCE – popis app property koji se kroz *datasource wizard* unesu
  - HSPSYS\_PROPERTIES – hyp planning ap server parametri

## ◆ Aplikacijski repozitoriji

- Nastaju kreiranjem datasourcea
- DATASOURCE = user u bazi koji sadrži skupa planning tablica
- 1 Aplikacija ←

6.10.2009 → 1 datasource



# Hyperion planning APP repozitorij

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- ◆ Sadrži cca 80 tablica
- ◆ Slaba dokumentiranost

Najvažnije tablice:

HSP\_OBJECT – popis SVIH objekata (forme, elementi dimenzija, dimenzije, tekstovi, task liste ...)

HSP\_MEMBER – sadrži elemente dimenzija, dimenzije ...

HSP\_DIMENSION = custom i predefinirane dimenzije

HSP\_ACCOUNT = Account dimension

HSP\_FORM(\_xxxxx) = sve povezano sa forms-ima

```

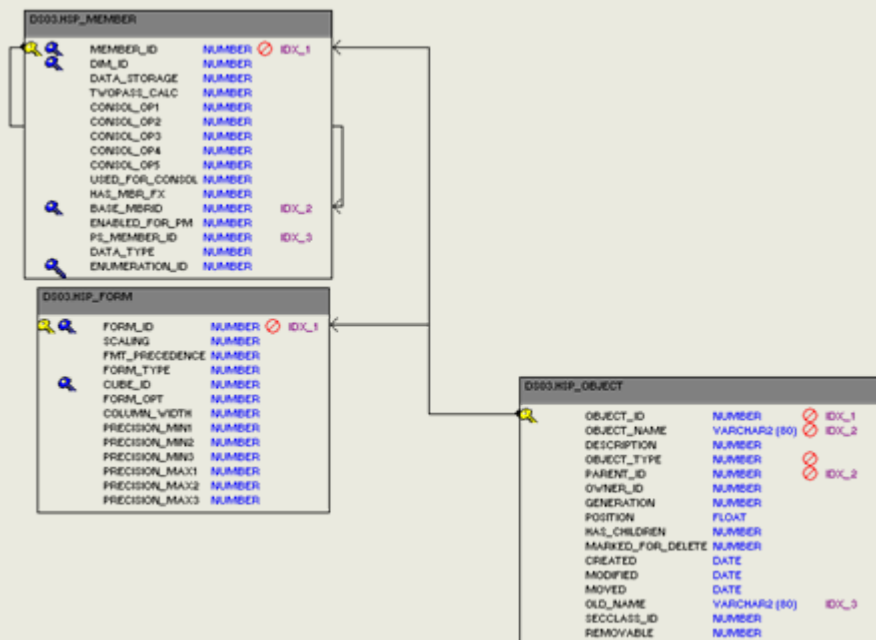
select o.OBJECT_ID, o.OBJECT_NAME,
f.CUBE_ID, f.FORM_TYPE, f.PRECISION_MAX1, f.PRECISION_MAX2,
f.PRECISION_MIN1, f.SCALING
from hsp_object o,
     hsp_form f
where o.OBJECT_ID = f.FORM_ID
    
```

OBJECT_ID	OBJECT_NAME	CUBE_ID	FORM_TYPE	PRECISION_MAX1	PRECISION_MAX2	PRECISION_MIN1	SCALING
50127	Varijable za procjenu - sva trzista	100	0	-1	-1	2	1
50128	Prodaja	100	0	0	-1	0	1
50129	Prodaja - proizvodi	100	0	0	-1	0	1
50130	Prodaja - trzista	100	0	0	-1	0	1
50115	Prodaja po regijama	100	0	0	0	0	1
50126	Varijable za procjenu - po trzistima	100	0	-1	-1	2	1
50131	Prodaja po trzistima i proizvodima	100	0	0	-1	0	1

```

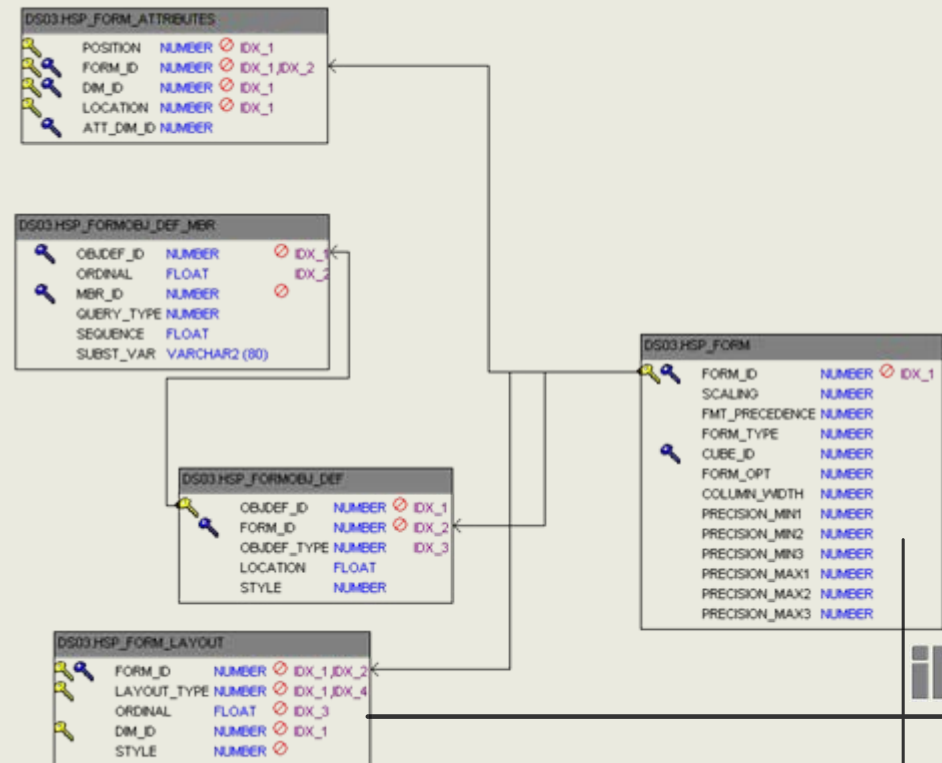
1 select o.OBJECT_ID, o.OBJECT_NAME,
2 d.DENSITY, d.DIM_TYPE, d.POSITION1
3 from hsp_object o,
4      hsp_dimension d
5 where o.OBJECT_ID = d.DIM_ID
6 order by d.POSITION1
7
    
```

OBJECT_ID	OBJECT_NAME	DENSITY	DIM_TYPE	POSITION1
30	HSP_Rates	0	0	0
32	Account	0	1	1
34	Period	0	2	2
38	Year	1	0	3
31	Scenario	1	0	4
35	Version	1	0	5
37	HSP_XCRNCY	1	0	6
33	Entity	1	3	7
50099	Product	0	0	8
50091	Market	0	0	9



# Planning Forme

- ◆ Mogućnost generiranja formi automatski
- ◆ Mogućnost automatske promjene formi
- ◆ Model formi:



# Primjer (FORMS)

```
select o.OBJECT_NAME, fl.LAYOUT_TYPE, fl.ORDINAL, fl.STYLE, o_dim.OBJECT_NAME
from HSP_FORM_LAYOUT fl,          DS03.HSP_FORM f,          DS03.HSP_OBJECT o,
      DS03.HSP_DIMENSION dim,
      DS03.HSP_OBJECT o_dim
where f.FORM_ID = fl.FORM_ID
      and o.OBJECT_ID = f.FORM_ID
      and f.FORM_ID = 50115
      and dim.DIM_ID = fl.DIM_ID
      and o_dim.OBJECT_ID = dim.dim_id
```

The screenshot shows a Microsoft Excel spreadsheet with a data grid. The grid has columns for months (Jan to Sep) and rows of numerical data. A table is overlaid on the grid, showing columns for OBJECT\_NAME, LAYOUT\_T..., ORDINAL, STYLE, and OBJECT\_NAME\_1. Arrows indicate the mapping between the SQL query and the data in the grid.

OBJECT_NAME	LAYOUT_T...	ORDINAL	STYLE	OBJECT_NAME_1
Prodaja po regijama		0	1	3 Account
Prodaja po regijama		0	2	3 Entity
Prodaja po regijama		1	1	3 Market
Prodaja po regijama		1	3	3 Version
Prodaja po regijama		1	2	3 Scenario
Prodaja po regijama		2	1	3 Product
Prodaja po regijama		3	1	3 Year
Prodaja po regijama		3	2	3 Period



# HFM

- ◆ Više aplikacija se nalazi u istom repozitoriju
- ◆ Oblik tablica (ime aplikacije)\_table\_name
- ◆ Po 4 tablice za svaku dimenziju

Tablica	Opis
COMMA_ACCOUNT_DESC	Nazivi account-a
COMMA_ACCOUNT_HEADER	Trenutno stanje (next item id...)
COMMA_ACCOUNT_ITEM	FIRSTCHILDID LASTCHILDID DEFAULTPARENTID PICTUREID SECURITYID ACCOUNTTYPE ISCALCULATED ISCONSOLIDATED ISICP PLUGACCOUNT CUSTOM1TOPMEMBER
COMMA_ACCOUNT_LAYOUT	Strukture, hijerarhije, red sieblinga
FACTs	<del>Puno kompliciraniji</del>

# HFM - APPLICATION\_ACCOUNT\_ITEM

ITEM ID	LABEL	FIRSTCHILDID	LASTCHILDID	DEFAULTPARENTID	PICTUREID	SECURITYID	ACCOUNTTYPE	ISCALCULATED	ISCONSOLIDATED	ISICP	PLUGACOUNT
0	[None]	-1	-1	-1	0	0	0	0	0	0	-1
60	TangibleAssetsNet	61	68	59	0	0	2	-1	-1	0	-1
61	TangibleAssets	62	67	60	0	0	2	-1	-1	0	-1
62	Computer	-1	-1	61	0	0	2	0	-1	0	-1
63	Building	-1	-1	61	0	0	2	0	-1	0	-1
64	Land	-1	-1	61	0	0	2	0	-1	0	-1
65	Equipment	-1	-1	61	0	0	2	0	-1	0	-1
66	Transportation	-1	-1	61	0	0	2	0	-1	0	-1
67	Fixtures	-1	-1	61	0	0	2	0	-1	0	-1
68	AccumDepr	-1	-1	60	0	0	2	0	-1	0	-1
69	Investments	-1	-1	59	0	0	2	0	-1	0	-1
70	LongTermRec	-1	-1	59	0	0	2	0	-1	0	-1
71	LongTermReclnterco	-1	-1	59	0	0	2	0	-1	-1	72
72	IntercoDiffBS	-1	-1	52	0	0	2	-1	-1	-1	-1
73	TotalLiabEquity	74	86	-1	0	0	3	-1	0	0	-1
74	TotalLiabilities	75	81	73	0	0	3	-1	-1	0	-1

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# Prednosti i nedostaci PL SQL kontrole [9.3.1.xx]

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- ◆ HFM – diskutabilno ponašanje ako se ne spuste servisi, potrebno vrijeme da se osvježe neke strukture u samoj aplikaciji
- ◆ PLAN – moguć direktan unos bez spuštanja servisa (upit prije svakog klika ?)
- ◆ Direktno pisanje u repozitorij – promjena verzije ne garantira rad i sl., nije službeni API
- ◆ Brzo, jednostavno direktno, samo PL SQL

# Pitanja

