

Case Study: Prva TV – Media-Specific ERP Integration with PANTHEON

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1. Client introduction
2. Requirements & Challenges from the client (and solutions)
3. Results



- **Prva TV is a Serbian television station** owned by Kopernikus Corporation. One of the largest media companies in Serbia.
- **Core business:**
 - production and broadcasting of TV content on 2 terrestrial
 - 6 cable channels
- **The main source of income** comes from the **sale of advertising space.**
- PRVA TV uses **PANTHEON from 2019.**

1. **Main issue:** Issue of **invoices** for the previous month, **before the VAT deadline**

- Sales personnel primarily focused on issuing invoices ~20 days per month
- Requirement: automate the invoicing process
- As with any new branch implementation, more time was needed to refine requirements than to develop the code
- Key challenge: understanding terminology and current workflows
- Transitioning users from work in Excel to PANTHEON

2. **Main issue:** All **revenues and expenses** recorded **by cost centers** (broadcasted program, film, or series)

3. **Main issue:** Business control and reporting

Challenge

The advertising price is calculated based on the rating of the program in which the ad is shown, as well as around 10 additional factors agreed with the client.

Solution

- The standard PANTHEON contracted price list did not fully cover the client's specific billing requirements
- Introduced a supplementary price list including all elements requested by Sales
- Implemented as a user-defined table linked to the Subject registry
- New form was created to display and manage this data

The screenshot displays the PANTHEON software interface for configuring a price list. The main window shows the following details:

- Agency:** AMAN D.O.O.
- Channel:** PRVA
- Agency:** Kupac
- Date from:** 2/1/2024 to 12/31/2024
- Programs and seasonal coefficients table:**

Vreme od	Vreme do	Faktor	Emisija	Faktor	Mesec	Faktor
02:00:00	02:59:59	1	SPORTSKI DOGADAJI	1.8	1	0.95
13:00:00	13:59:59	1.1	SERVA: SENJE NAD BALKANOM II	1.8	2	0.95
16:00:00	17:59:59	1.3			3	1.1
18:00:00	23:59:59	1.1			4	1.1
00:00:00	01:59:59	1.1			5	1.2
					6	1.2
					7	0.8
					8	0.8
					9	1.15
					10	1.15
					11	1.2
					12	1.2
- Positioning options:**
 - PRVA I POSLEDNJA POZICIJA U BLOKU: 1
 - TREĆA POZICIJA OD POČETKA I KRAJA U BLOKU: 1
 - DRUGA I PREPOSLEDNJA POZICIJA U BLOKU: 1
 - ČETVRTA POZICIJA OD POČETKA I KRAJA U BLOKU: 1

Challenge

Price lists:

- cost of advertising space should be calculated based on the program's audience rating,
- adjusted by specific factors such as time of day, season, and program popularity.

✓ Solution

The ARES for Price list is created.

- + 📄 dbo._SalePLCostDrv
- + 📄 dbo._SalePLCostDrvDefault
- + 📄 dbo._SalePLProgram
- + 📄 dbo._SalePLProgramDefault
- + 📄 dbo._SalePLSeason
- + 📄 dbo._SalePLSeasonDefault
- + 📄 dbo._SalePriceList
- + 📄 dbo._SalePriceListDefault



- ✓ **_SalePriceList** main contracted price list, linked to the Subject registry
- ✓ **_SalePriceListDefault** published price list
- ✓ **Other tables are factors by show, by season and by part of the day, linked to the price list**


```
select top 100 * from [dbo].[_Sale_LinkAriannaPa]
```

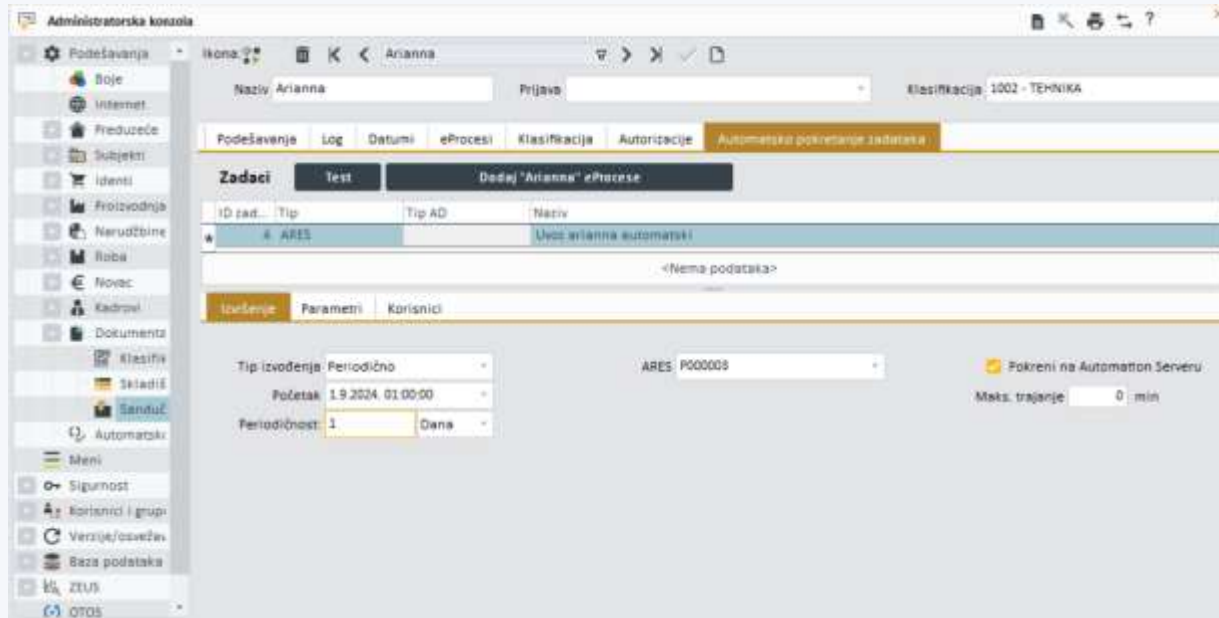
ID	acSubject	Advertiser
22	12152	YOUBOX
23	11222	VITALIS MEDICINSKI CENTAR
24	11580	PROCTER&GAMBLE
25	11488	PERUTNINA PTUJ
26	10163	IVICA DACIC - SPS, JS - DRAGAN MARKOVIC PALMA
27	10081	INTERNATIONAL HEALTH
28	12137	HEMOFARM D.D.
29	10429	H & M HENNES & MAURITZ AB
30	11885	EUROBANK
31	11076	GORENJE



- ✓ Data from Arianna is imported daily into a dedicated table `_Sale_Ariana`, which is linked to the Subjects register and the cost center table
- ✓ For import, the identification of Subjects and cost centers is performed. The join tables are `_Sale_Link_AriannaPA` and `_Sale_Link_AriannaCD`



- ✓ WF imports file to mailroom, starts ARES for import (PAAS)
- ✓ WF starts ARES for import for one day (optional)
- ✓ WF sends task to Accounting department if an error occurs



2.1 Errors and connections - Mapping unrecognized data

Oznaka	Sr.	Prioritet	Task Type	Vrsta kalend...	Naziv	Dodeljeno	Napravljeno	Rok	Dokument	Subjekt	Iz...
	5	Normalni prio		Greske Arianni	Dopunite subjekte	<WF računovodstv	22.9.2025. 13:41	22.9.2025. 13:41	25-DM50-000006	PRVA TELEVIZIJA DOO BEOGR	0,00
	5	Normalni prio		Greske Arianni	Dopunite subjekte	<WF računovodstv	22.9.2025. 13:41	22.9.2025. 13:41	25-DM50-000006	PRVA TELEVIZIJA DOO BEOGR	0,00
	5	Normalni prio		Greske Arianni	Dopunite emisije	<WF računovodstv	22.9.2025. 15:04	22.9.2025. 15:04	25-DM50-000021	PRVA TELEVIZIJA DOO BEOGR	0,00

Datum od **Generiši greške** **Update Subjekata** **Update Emisija**

Subjkti **Emisije**

Povučite ovdje kolonu za grupisanje po izabranoj koloni

ID	acCostDiv	Channel	Level 1	Programme
1		PRVA	17. CELOVECERNJI FILMOVI	FILM: TELOHRANITELJ
2		PRVA Kick	17. CELOVECERNJI FILMOVI	FILM: VISOKI COVEK

Mapping unrecognized data imported from Arianna.

 Example:

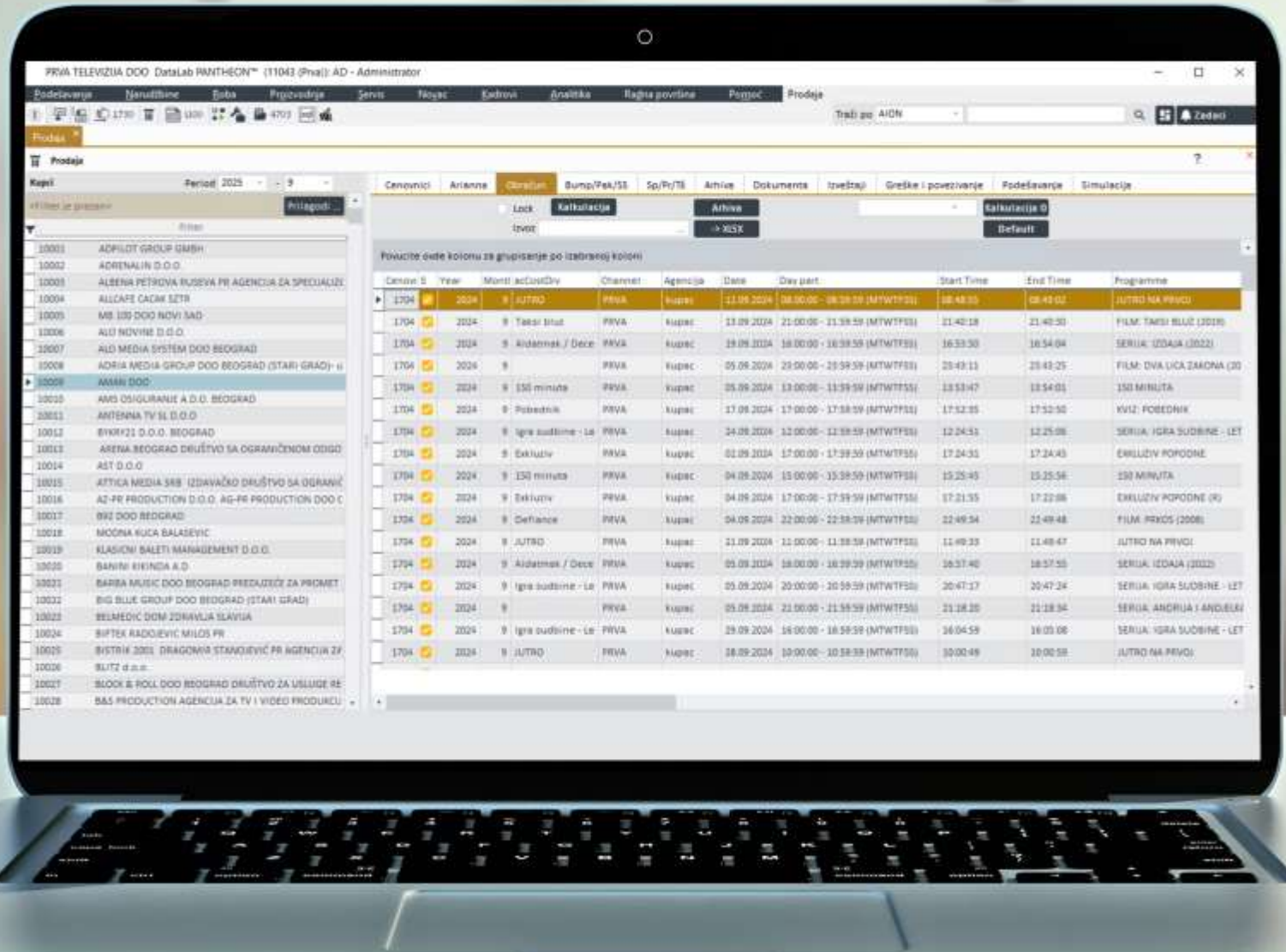
Link Cost Centre in PANTHEON with emission from Arianna.

Challenge

Quick invoice generation based on imported data and the price list.

Solution

To meet these requirements, and since the price list is in custom-made table, we had to create a billing procedure. We integrated it into the same ARES as the price list, so the Sales team has a single application for all their work. This approach provides Sales with a complete overview of all relevant customer data (price list, billing, history), and allows us to easily enable this option only for specific PANTHEON users.



Challenge

- Billing calculation by cost centers.

Solution

- Calculation (for Billing system) – applies the price list to the data imported from Arianna.

```
CREATE TABLE [dbo].[_Sale_Calculation](  
    [ID] [int] NOT NULL,  
    [acSelected] [char](1) NULL,  
    [anPriceListID] [int] NULL,  
    [acCostDrv] [varchar](16) NULL,  
    [acSubject] [varchar](30) NULL,  
    [Channel] [char](20) NULL,  
    [acAgency] [varchar](30) NULL,  
    [Year] [int] NULL,  
    [Month] [int] NULL,
```



- ✓ Stored procedure is called with params acSubject, period
- ✓ It writes the results into the `_SaleCalculation` table, linked to the Subjects and Cost centers, and records which price list was applied

2.1 Archive and creating orders

The screenshot displays the PANTHEON software interface. The top navigation bar includes options like 'Podatavajanja', 'Izjava', 'Prijave', 'Servis', 'Najac', 'Kadivi', 'Znalika', 'Rauna povrina', 'Fuzija', and 'Prodaja'. The main window is titled 'Prodaja' and shows a list of orders on the left and a detailed view of an order on the right. The detailed view shows the order's history, including dates, times, and prices.

Year	Month	Archive date	Target	Value	Subject price list	Obj.
2024	10	11/4/2024 1:48:06 PM	13-92	18264.43	AMAN DOO	Obj.

anPricelist	asCostDriv	Channel	saAgency	Date	Day part	Start Time	End Time	Level 1
1704	100 minutes	PRVA	Kupac	08.10.2024	13:00:00 - 13:58:58 (MTWTFSS)	13:54:24	13:58:56	18. ZABAVNE EMISIE
1704	Ugentni centar	PRVA	Kupac	14.10.2024	19:00:00 - 19:58:58 (MTWTFSS)	19:48:18	19:48:30	15. IGRANE SERIE I SERIALI
1704	Igra sustavne: Taj	PRVA	Kupac	14.10.2024	20:00:00 - 20:58:58 (MTWTFSS)	20:33:25	20:33:40	15. IGRANE SERIE I SERIALI
1704	JUTRO	PRVA	Kupac	06.10.2024	08:00:00 - 08:58:58 (MTWTFSS)	08:54:38	08:54:45	01. INFORMATIVNO-POLITICKI
1704	Dopisni pop.	PRVA	Kupac	19.10.2024	19:00:00 - 19:58:58 (MTWTFSS)	19:27:25	19:27:34	02. OSTALE INFORMATIVNE EA
1704	JUTRO	PRVA	Kupac	17.10.2024	09:00:00 - 09:58:58 (MTWTFSS)	09:02:36	09:02:48	01. INFORMATIVNO-POLITICKI
1704	Ugentni centar	PRVA	Kupac	14.10.2024	19:00:00 - 19:58:58 (MTWTFSS)	19:32:38	19:32:50	15. IGRANE SERIE I SERIALI
1704	Aldetnak / Deca	PRVA	Kupac	02.10.2024	16:00:00 - 16:58:58 (MTWTFSS)	16:43:13	16:43:21	15. IGRANE SERIE I SERIALI
1704	Radna akcija sa	PRVA	Kupac	02.10.2024	21:00:00 - 21:58:58 (MTWTFSS)	21:44:39	21:44:54	18. ZABAVNE EMISIE
1704	Najslabija karika	PRVA	Kupac	01.10.2024	21:00:00 - 21:58:58 (MTWTFSS)	21:44:31	21:44:43	18. ZABAVNE EMISIE
1704	Aldetnak / Deca	PRVA	Kupac	17.10.2024	16:00:00 - 16:58:58 (MTWTFSS)	16:33:39	16:33:54	15. IGRANE SERIE I SERIALI
1704	Najslabija karika	PRVA	Kupac	12.10.2024	14:00:00 - 14:58:58 (MTWTFSS)	14:47:43	14:47:50	18. ZABAVNE EMISIE
1704	120 minutes	PRVA	Kupac	10.10.2024	18:00:00 - 18:58:58 (MTWTFSS)	18:48:50	18:49:05	18. ZABAVNE EMISIE
1704	Aldetnak / Deca	PRVA	Kupac	09.10.2024	16:00:00 - 16:58:58 (MTWTFSS)	16:47:36	16:47:51	15. IGRANE SERIE I SERIALI
1704	Ugentni centar	PRVA	Kupac	01.10.2024	19:00:00 - 19:58:58 (MTWTFSS)	19:13:59	19:14:13	15. IGRANE SERIE I SERIALI
1704	JUTRO	PRVA	Kupac	20.10.2024	09:00:00 - 09:58:58 (MTWTFSS)	09:08:22	09:08:36	01. INFORMATIVNO-POLITICKI
1704	Ugentni centar	PRVA	Kupac	15.10.2024	19:00:00 - 19:58:58 (MTWTFSS)	19:53:49	19:54:00	15. IGRANE SERIE I SERIALI
1704	Radna akcija sa	PRVA	Kupac	17.10.2024	19:00:00 - 19:58:58 (MTWTFSS)	19:00:06	19:00:18	18. ZABAVNE EMISIE

Challenge

- Multiple calculations per;
 - period,
 - different price lists,
 - client approval

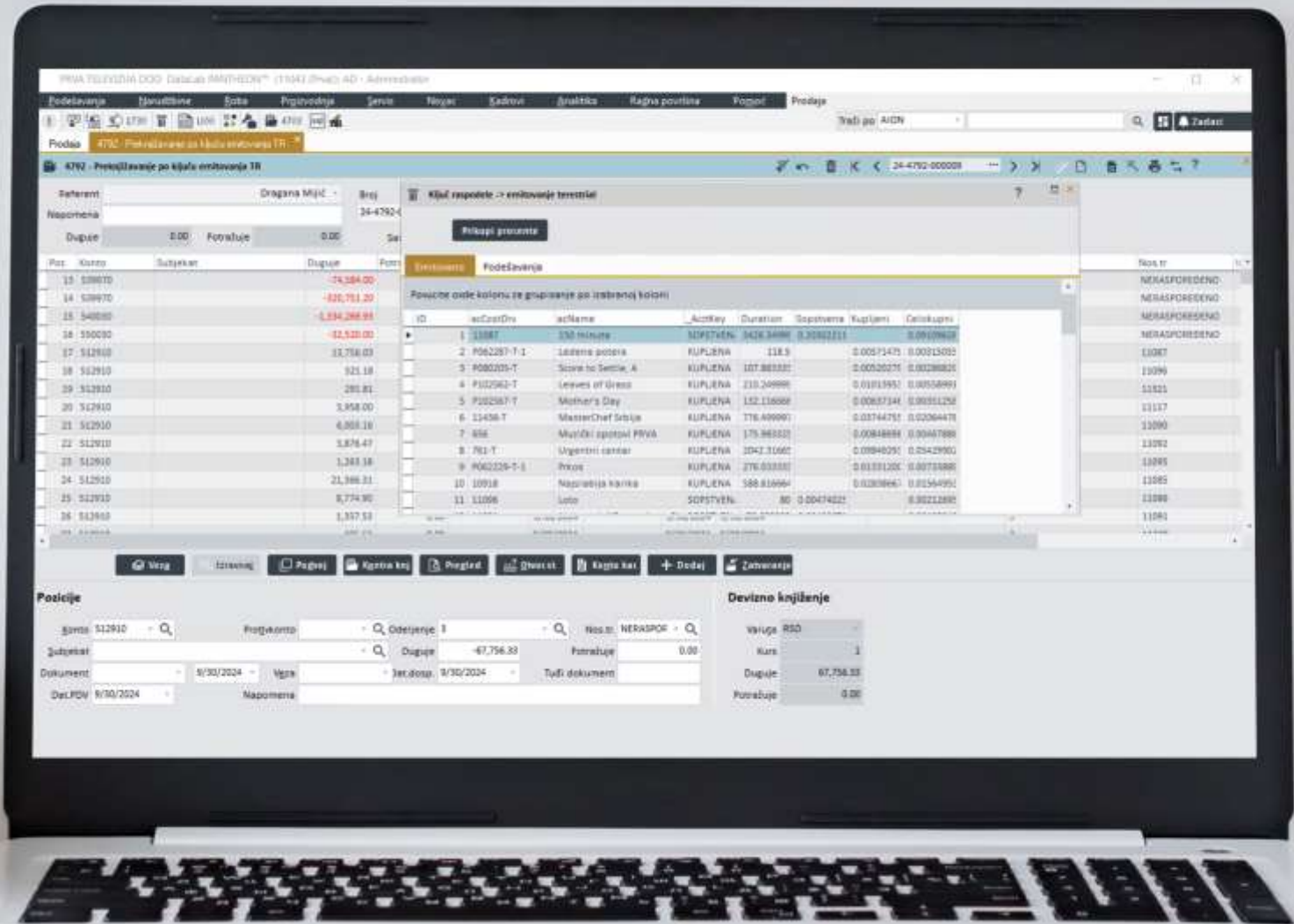
Solution

- Generated proforma Invoices from Archive – programs are cost centers.



- ✓ The Archive is stored in separate tables: `_SalesArchive` and `_SaleArchiveLines`
- ✓ `_SaleArchiveLines` contains all calculation fields, while `_SalesArchive` serves as the header, storing information about when the archive was created and the total calculated amount
- ✓ The proforma invoice is generated by calling the standard PANTHEON procedures for creating order headers and line items

```
exec pHE_OrderCreAll '010S', @cAgency,@cSubject,'', @dDate, @iUserID,'', @cKey output  
.....  
exec pHE_OrderCreItemAll @cKey, @cIdent, 1, @cNote, @iUserID, @iNo output
```



Challenge

- Cost and revenue allocation – dynamic key for allocations

Solution

Special ARES is created.

Ključ	▲ Naziv
GK0000L	Ključ troška sa emitovanja
GK0000M	Ključ prihoda sa emitovanja
GK0000N	Ključ zarada sa emitovanja



- ✓ A separate document type has been opened for re-posting
- ✓ Custom ARES-es are integrated on the wizard

Challenge

Clear overview of emission revenues.

Solution

With the presented setup, we already had all revenues and costs per emission, and the option to print the standard PANTHEON balance by cost centers (emission). To enable Sales to analyze revenues for their own needs, we created an ad-hoc analysis where they can use a pivot table to display exactly what they need.

Since we have imported Arianna data into the database, we created an analysis of all revenues in the same way, also by Arianna parameters. User can analyse data from two applications in one ad-hoc analysis.

Objekat	Zemlja	Inzest	Total	Dayem Total	Inzest	Total	Inzest Total	Grand Total
Budu		289.126,76		289.126,76				289.126,76
Mrtvo		224.894,02		224.894,02				224.894,02
Budu inoz					590.430,27		590.430,27	590.430,27
Budu od inoz		245.208,21		245.208,21				245.208,21
Budu iz inoz		1.407.584,4		1.407.584,4				1.407.584,4
Bruto inoz		263.330,13		263.330,13				263.330,13
Služba - Generali Corp		205.206,59		205.206,59				205.206,59
Služba		386.209,43		386.209,43				386.209,43
Spolovni Plan		401.809,80		401.809,80				401.809,80
Statistički Služba					5.501.746,39	242.479,27	5.826.426,36	5.826.426,36
Marketing Results		285.253,29		285.253,29	66.309,55	7.446,6	75.831,15	367.094,9
Statisti		289.125,04		289.125,04				289.125,04
Statisti - Catcher		446.188,04		446.188,04				446.188,04
Statisti		361.462,21		361.462,21				361.462,21
Subinoz		223.496,99		223.496,99				223.496,99
Statisti - inoz		170.115,21		170.115,21				170.115,21
Statisti - inoz		170.115,21		170.115,21				170.115,21
Statisti - inoz					212.846,46	14.601,62	227.290,11	227.290,11
Statisti		289.125,04		289.125,04				289.125,04
Statisti - inoz		447.218,01		447.218,01	132.586,82	14.889,88	147.467,7	594.685,7
Statisti - inoz		227.225,89		227.225,89				227.225,89
Statisti - inoz		321.902,9		321.902,9	87.289,3	33.838,1	96.127,39	400.031,29

Challenge

- Analytics RWN/COST by cost center.

Solution

- Custom Ad-Hoc analysis (for cost center).



- ✓ The basis for the sales report is the calculation itself, which contains Arianna's relevant data, linked with revenue, entity and cost centers
- ✓ The second ad-hoc analysis retrieves data directly from the balance sheet

```
ALTER view [dbo].[_SalesAdHoc1]
as
select C.acSubject, S.acName2 as Klijent, C.acCostDrv, E.acName as Emisija, Channel, [Year], [Month],
       [Level 1], Programme, Advertiser, Brand, [Spot Type],
       Position, [Duration\Activity], anValue, acTarget, acCalcType
from _Sale_Calculation C, tHE_SetSubj S, tHE_CostDrv E
where C.acSubject = S.acSubject and C.acCostDrv = E.acCostDrv
GO
```



- ✓ The solution adheres to the principle of not modifying any PANTHEON default programs or SQL code, ensuring that no SQL Stored Procedures, Functions, or Delphi Code is altered
- ✓ All additional data is stored in user-defined tables
- ✓ The maintenance of this system is minimal

Measurable improvements

- Time savings,
- higher efficiency,
- fewer errors.

Time saving

Previously invoice creation = **20 days**.

With PANTHEN now = only **4 days** (including customer compliance).



ROUND TABLE (Q&A)

15:05 – 15:30

Implementation in practice – part 2 (Q&A)

Sašo Jovanovski, Anica Zdravković, Vladimir Paunović

Thank you for your attention.

Anica Zdravković and Vladimir Paunović

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