How to P+L Statement with PBS NAI
Creating a Profit and Loss Statement with PBS NAI

By determining a profit and loss statement from FI documents in real time, we show you how easily and effectively you can use PBS NAI in an SAP ERP system.

To replicate the example itself, you need the SAP IDES system and the PBS NAI and Sybase IQ software, which we will happily provide to you for test purposes, free of charge, and with no obligation.

In the IDES system, company code 1000 for the 2006 fiscal year is used as the data basis. The INT financial statement is used as the financial statement version.

The balances are determined in the column-based database Sybase IQ. BSEG posting items are replicated in the database for this purpose. This supports both an ad hoc replication and a periodic replication using the delta process. As the line items can be derived from the balances, you can drill down to the line items from the balances and access an FI document.

This tutorial comprises the creation of a profit and loss statement in section 1, as well as the settings that are necessary such as the data transfer in section 2.1, and maintaining the report interface in section 2.2 so that you can branch from the P&L statement to an FI document.

1. **Create the Profit and Loss Statement:**
   This is very easy:
   1.1. Call transaction /n/PBS/NAI_GUV auf.
   1.2. In the profit and loss statement, use *3000000.INT* for *INT Financial Statement Version* as the default value, and also the company code and fiscal year as specified, or overwrite the company code or fiscal year, see diagram 1.
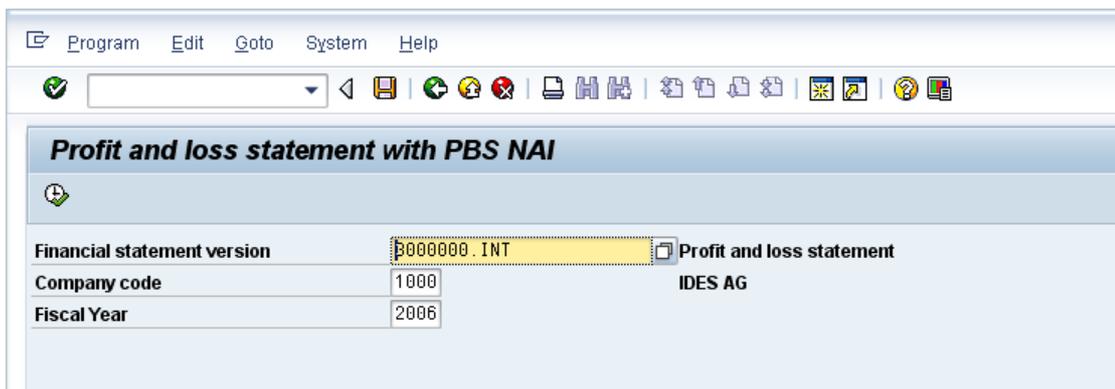

Diagram 1: Profit and loss statement with PBS NAI: Selection screen

   1.3. Execute the report .

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1.4. You receive the result of the P&L in diagram 2 for a three-level task:

Level 1	Level 2	Level 3	Σ Sum(Amount LC) Σ	Count*
Profit and loss statement	Balance sheet change		151.207,31	52
Profit and loss statement	Balance sheet change 🗁		▪ 151.207,31 ▪	52
Profit and loss statement	Cost of services and materials	Exp. for raw and expendable materials	639.753,60-	156
Profit and loss statement	Cost of services and materials	Expenses for specific services	8.853,79	4
Profit and loss statement	Cost of services and materials 🗁		▪ 630.899,81- ▪	160
Profit and loss statement	Depreciations	Depreciation on intangible assets	297.019,12	39
Profit and loss statement	Depreciations 🗁		▪ 297.019,12 ▪	39
Profit and loss statement	Other operating expenses	Other operating charges	1.095.678,73	762
Profit and loss statement	Other operating expenses 🗁		▪ 1.095.678,73 ▪	762
Profit and loss statement	Other operating income	Other operating income	0,00	2
Profit and loss statement	Other operating income 🗁		▪ 0,00 ▪	2
Profit and loss statement	Personnel expense	Social security levies and cos	451.733,43	165
Profit and loss statement	Personnel expense	Wages and salaries	2.109.383,78	366
Profit and loss statement	Personnel expense 🗁		▪ 2.561.117,21 ▪	531
Profit and loss statement	Sales revenues	Gross revenues	5.020.406,41-	116
Profit and loss statement	Sales revenues 🗁		▪ 5.020.406,41- ▪	116
Profit and loss statement 🗁			▪▪ 1.546.283,85- ▪▪	1.662
🗁			▪▪▪ 1.546.283,85- ▪▪▪	1.662

Diagram 2: Display of a P&L in short form. The task here is for three levels.

Use the function bar [🔄] [🔼] [🔽] [Drill Down] to show or hide additional levels.

1.5. Drilling down to the *Sales Revenues* line lists the line items, see diagram 3:

DocumentNo	Itm	CoCd	Year	G/L Acc	PK	AccTy	D/C Σ	Amount LC
1800000027	2	1000	2006	800200	50	S	H	2.758,62-
1800000028	2	1000	2006	800200	50	S	H	2.413,79-
1800000029	2	1000	2006	800200	50	S	H	732,76-
1800000030	2	1000	2006	800200	50	S	H	1.896,55-
1800000031	2	1000	2006	800200	50	S	H	1.448,28-
1800000032	2	1000	2006	800200	50	S	H	1.034,48-
1800000033	2	1000	2006	800200	50	S	H	646,55-
1800000034	2	1000	2006	800200	50	S	H	689,65-
1800000035	2	1000	2006	800200	50	S	H	1.120,69-
1800000036	2	1000	2006	800200	50	S	H	1.120,69-
1800000037	2	1000	2006	800200	50	S	H	1.000,00-
1800000038	2	1000	2006	800200	50	S	H	2.000,00-
1800000039	2	1000	2006	800200	50	S	H	82,00-
1800000040	2	1000	2006	800200	50	S	H	300.000,00-
1800000041	2	1000	2006	800200	50	S	H	1.000.000,00-
1800000042	2	1000	2006	800200	50	S	H	2.500.000,00-
1800000043	2	1000	2006	800200	50	S	H	862,07-
1800000044	2	1000	2006	800200	50	S	H	10.000,00-
1800000045	2	1000	2006	800200	50	S	H	200.000,00-
1800000046	2	1000	2006	800200	50	S	H	862,07-
1800000047	2	1000	2006	800200	50	S	H	1.000.000,00-
							▪	5.020.406,41-

Diagram 3: List of the line items for the sales revenues

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1.6. By choosing you can go from a line item to the original document. As explained in section 2.2, you can choose between two displays: the FI document display FB03 and the add-on variant of the FI document display /PBS/FB03, see diagram 4.

Diagram 4: Dialog for selecting the required document display

You then see the original document, see diagram 5:

Diagram 5: Display of the FI original document

PBS Nearline Analytic Infrastructure (PBS NAI)

2. Settings / Customizing:

The settings are made in the NAI area menu, see diagram 6. To do this, enter transaction /N/PBS/NAI in the SAP Easy Access menu.
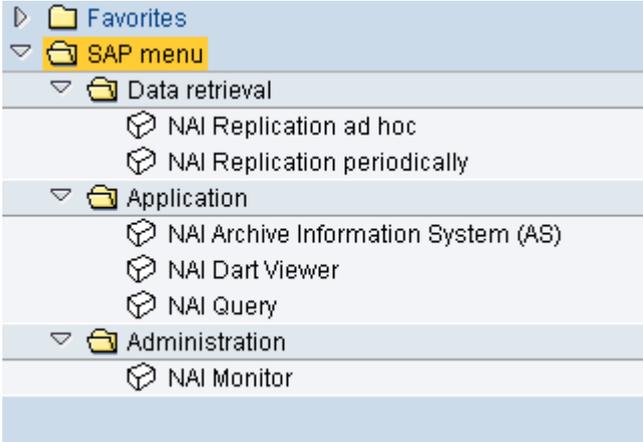

Diagram 6: Area menu for PBS NAI

2.1. Data Replication
Data can be transferred from SAP ERP to Sybase IQ in two ways:
- As a one-time ad hoc replication
- As a periodic replication which is updated for each job.

2.2. Perform an Ad Hoc Data Transfer
The ad hoc replication is very simple and is therefore used for test purposes in particular. Choose *NAI functions -> Administration -> Create table*. Choose *NAI connection ->* CBWIQ_100. In the *SAP database table* field, enter the SAP table to be replicated: *BSEG*, see diagram 7:
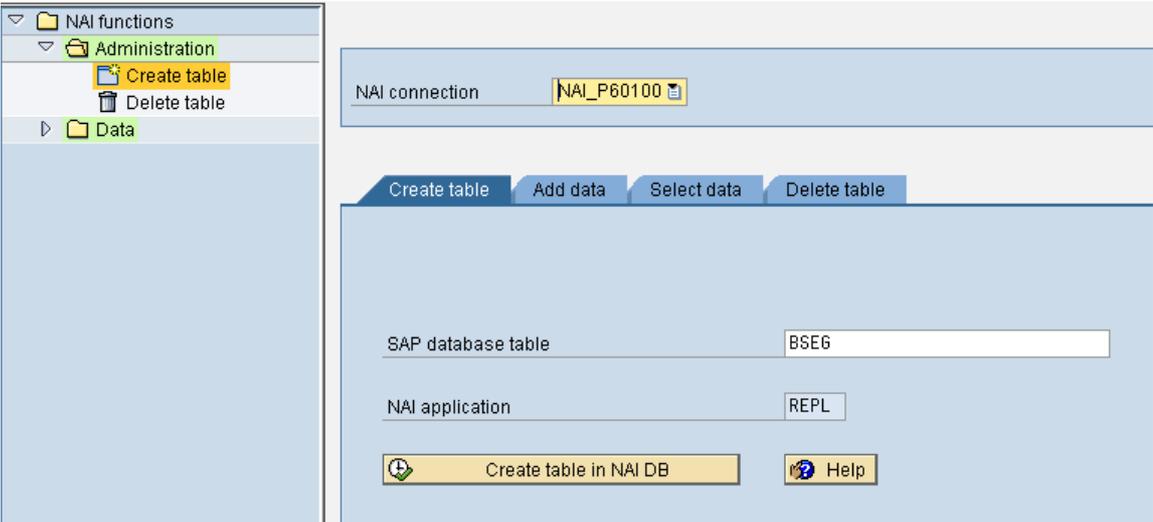

Diagram 7: Create table: Choose NAI connection and SAP table

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Choose [Create table in NAI DB]. Table *BSEG* is created in the Sybase IQ database. Choose the *Add data* tab to access the entry screen, see diagram 8:
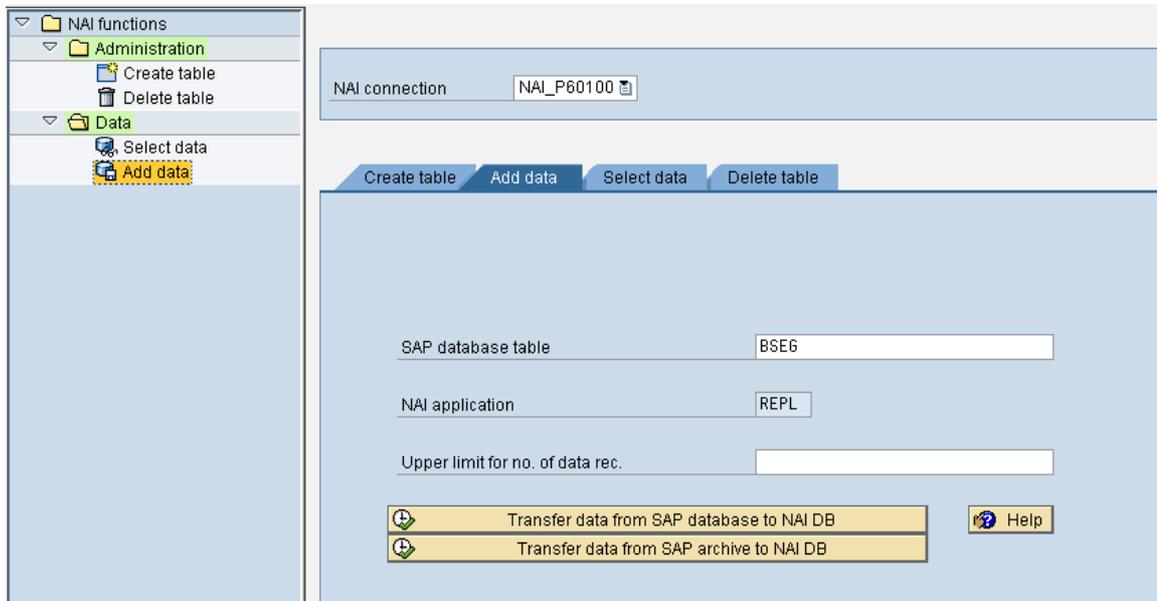

Diagram 8: Add data: Table and upper limit for data records

The SAP table that you entered previously is used. You can specify an upper limit of datasets for the data transfer. After choosing [Transfer data from SAP database to NAI DB] you see a selection screen for restricting the data to be transferred to a company code and a fiscal year, for example, see diagram 9.

Diagram 9: Selection screen for data transfer (extract): Restriction of the selection to company code 1000 and fiscal year 2006 (optional)

The data transfer starts immediately after you choose *Data selection*. However, you should only use this if you have entered an upper limit for the number of datasets.

You see a log of the data transfer. Choosing *Select data in background* creates a job for the data transfer. In the job overview (*menu System -> Own Jobs*) you can see when the data transfer took place.

2.3. Set up and start periodic data transfers

You set up a periodic data transfer if you need to update the data on a regular basis. The data is then updated in a delta process.

To do this, proceed as follows:

2.3.1. Call transaction /PBS/NAI_DJS. Choose *Periodic Data Transfer* to access the *NAI - Database Job Scheduler,* see diagram 10.

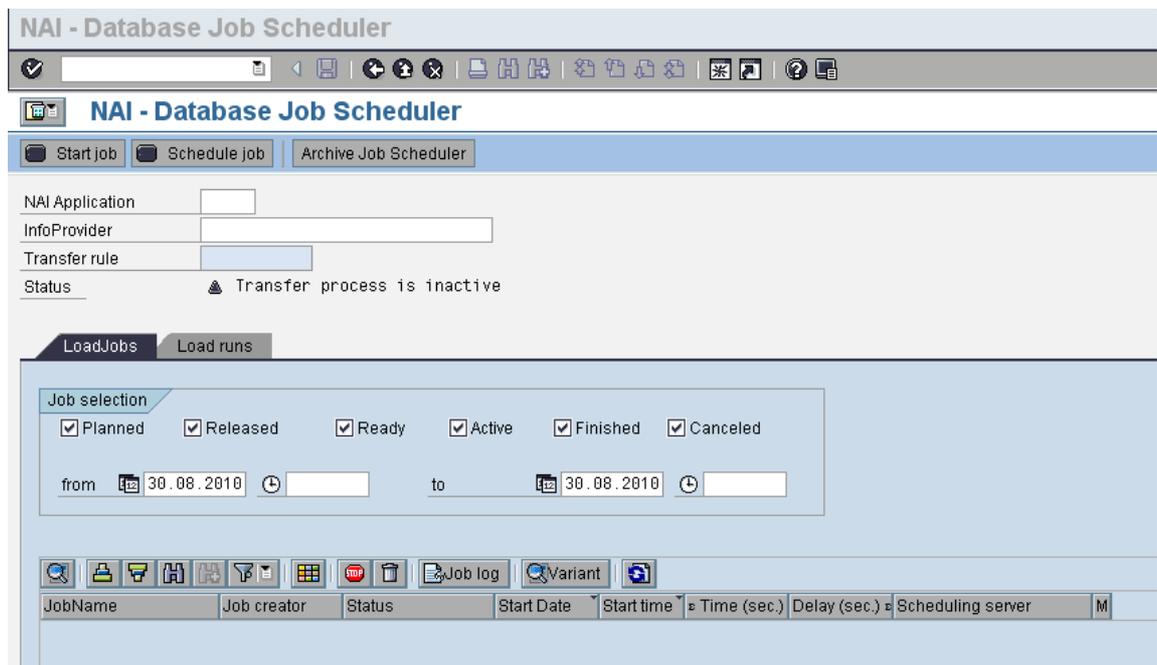
Diagram 10: Start of ad hoc replication

Specify the NAI application as REPL and the table as BSEG.

2.3.2. Maintain the transfer rules by choosing *Settings -> Transfer rules.* For an update in the delta process, use the entries from diagram 11:

InfoProvider	BSEG
Transfer rule	D1
Update mode	Delta Update
Function module	/PBS/NAI_LOAD_D_FI
Func. module (before)	
Function module (after)	/PBS/NAI_LOAD_D_FI_END
Function module (init)	
Delta table	BKPF
Foreign key field	
Description	Delta-Update BSEG

Diagram 11: Maintaining the transfer rules

2.3.3. Go back twice ⟲ to choose *Settings -> Transfer process.* For the required NAI application REPL and the InfoProvider BSEG, use the settings from diagram 12 and activate the transfer process:

NAI Application	REPL	
InfoProvider	BSEG	Accounting Document Segment
Status	■ Transfer process is active	

Database data		
Transfer rule	D1 📋	Delta-Update BSEG
Transfer method	Delta Update	
Safety time (min)	5	☑ Load current data
Parallel jobs	1 📋	

Diagram 12: Maintaining the transfer process

2.3.4. Go back once ⟲ to the *Periodic Data Transfer*. The transfer process is active, see diagram 13:

NAI Application	REPL	
InfoProvider	BSEG	Accounting Document Segment
Transfer rule	D1	Delta-Update BSEG
Status	■ Transfer process is active	

Diagram 13: Database Job Scheduler for periodic data transfer (extract)

You can schedule a periodic job by choosing 📋 Schedule job Enter the period you require and the start date, see diagram 14:

Schedule Job ☒

NAI Application	REPL	
InfoProvider	BSEG	**Accounting Document Segment**
Transfer rule	D1	**Delta-Update BSEG**

Date/time

Planned start
01.07.2010
09:34:59

No start after

Period
- ○ None
- ◉ Every min.
- ○ Hourly
- ○ Daily
- ○ Weekly
- ○ Monthly

Restrictions

Factory cal. ▢

- ◉ Execute independently of Sundays and holidays
- ○ Omit on Sundays and on public holidays
- ○ Preference for previous work. day
- ○ Shift to the following working day

Processing options
- ○ Data transfer in test mode
- ◉ Data transfer in production mode

Diagram 14: Schedule the periodic data transfer via job.

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End the job scheduling by choosing *Save* 💾 .

2.3.5. You can now trace the load runs. To update the load runs that are listed, choose 🔁 *Refresh*. You see a list, see diagram 15:

Run number	User name	Status	Start Date	Start time	Method	RequestID	Data rec.	M
51	BARTON	4	31.05.2010	09:19:42	Delta Update	100.645	3	
52	BARTON	4	31.05.2010	09:21:59	Delta Update	100.646	3	
53	HOFFMANN	4	31.05.2010	10:10:44	Delta Update	100.647	8	
54	HOFFMANN	4	31.05.2010	10:23:32	Delta Update	100.648	2	
55	HOFFMANN	4	31.05.2010	10:32:09	Delta Update	100.649	3	
56	HOFFMANN	4	31.05.2010	10:33:49	Delta Update	100.650	2	
57	HOFFMANN	4	31.05.2010	10:35:30	Delta Update	99.971	0	

Diagram 15: Overview of the load runs for a delta update with information about the number of datasets that were transferred.

2.4. Maintain the Report Interface

You have the option of using transaction FB03 and /PBS/FBO3 from the line items to access the FI original documents. To do this, you must have maintained the report interface for the NAI application REPL and table BSEG. You do this using transaction /PBS/NAI_QUERY.

2.4.1. After you start the NAI query, enter the NAI replication REPL and table BSEG, see diagram 16:
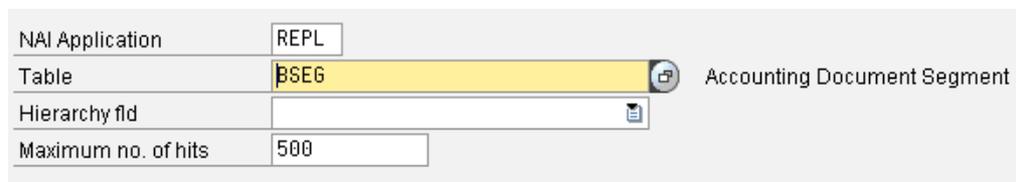
NAI Application	REPL	
Table	BSEG	Accounting Document Segment
Hierarchy fld		
Maximum no. of hits	500	

Diagram 16: Extract of the start screen for the NAI query with NAI application and table

Choose Extras -> Maintain report-report interface. You see the following popup, see diagram 17:

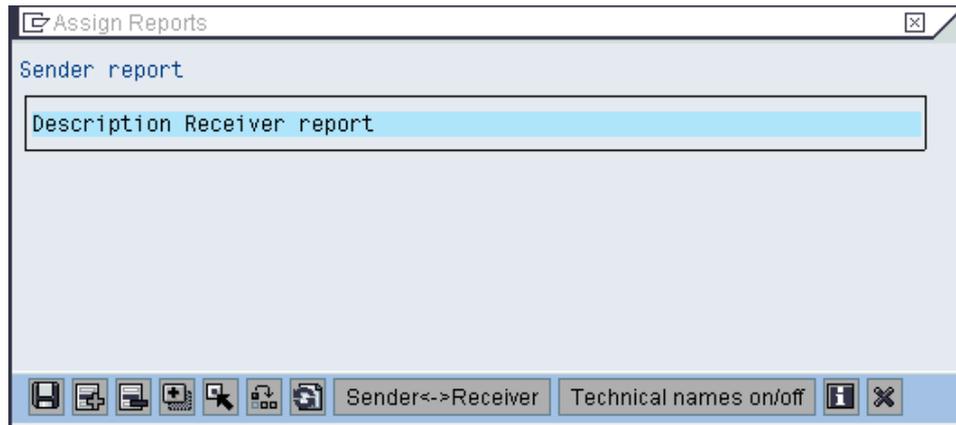# PBS Nearline Analytic Infrastructure (PBS NAI)

Diagram 17: Start dialog for assigning reports for the report interface

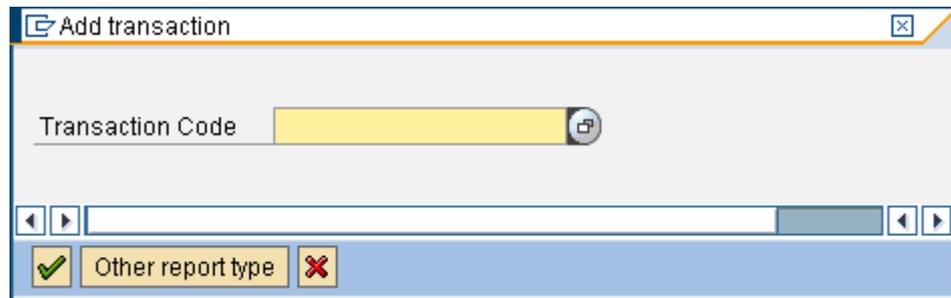Choose *Insert row* ⊞ to add the required transactions in an additional dialog, see diagram 18:

Diagram 18: Adding a transaction

or select a report type such as SAP Query or research via Other report type . Once you have entered the transaction code FB03 and – in an additional step – /PBS/FB03, you see the following result. Change the description for /PBS/FB03 to *Display Document (PBS)*, see diagram 19:
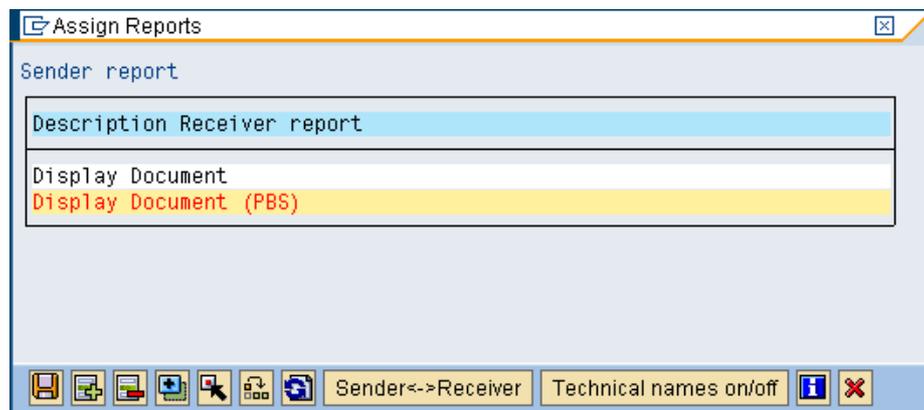

Diagram 19: Result of the maintenance of the report interface for the NAI P&L

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