

Documentation Pandora ERP system.

9. Management support.

Tables:

magazijnvoorraad (stock)

```
bisystem=# \d magazijnvoorraad
Table "public.magazijnvoorraad"
  Column      |      Type      | Collation | Nullable |      Default
-----+-----+-----+-----+-----
jaar maand    | character varying(7) |           | not null | ''::character varying
incourant     | double precision |           |          | 0
totaal        | double precision |           |          | 0
courant       | double precision |           |          | 0
Indexes:
    "magazijnvoorraad_pkey" PRIMARY KEY, btree (jaar maand)
```

With executing the program, the thirist module Pandora.py is started.

In this module some maintenance tasks are checked before the logon window is showed.

The main purpose off this checks are to determine of countings should be made for:

Total stock, current stock and obsolete stock.

Obsolete stock is determined on transaction date (boekdatum) older then a year in table artikelen.

If necessary this period can be shortened for instance half year or 3 quarters of a year.

To do so apply a program change in Pandora.py.

These countings are made monthly on the begin of every month.

The next countings have to been made once when a year has started.

For this purpose, the table artikelen helds two fields jaarverbruik_1 and jaarverbruik_2.

(annual consumption)

The jaarverbruik fields of the year before last year is cleared, so it's ready for countings for the new year.

The module determines an odd or even year and the parameter 99 jaarverbruik from table params is set (0-even, 1- odd), when countings are made, so it's only executed once.

Thurdermore the table artikelen fields art_min_voorraad (minimum stock) and art_bestelgrootte are determined for all items using annual consumption, price, ordercosts (table params 101) and inventory costs (table params 6), both determined by minimum stock and by reservation.

So when an article switches from categorie the figures are present.

This items are determined by the formula of Camp.

Camp formula: $Q = \sqrt{2DF/HP}$

Q = Quantity

- D = Demand / year
- F = Fixed Costs (order costs conversion costs)
- H = Stock costs as a percentage of the price
- P = Price of the product

With the figures of the table magazijnvoorraad (warehouse-stock) a floating bar graph is executed, so the management gets insight view of financial stock figures.

With the menu Magazijn line deriving (warehouse-loss), it is possible to write of the product as loss. Furthermore the items can be written of as expenses by damage, shelf life or warehouse differences.

It is possible for the management to influence stock by changing the order- and inventory cost. (Handling, storage costs, warehouse- and interest loss).
Adjustment in params 101 and 6 in module Onderhoud line 6. Wijzigen parameters .

One can choose instead of year stock, half year stock, quarter year stock or even monthly to apply. But this requires adjustment of the program modules and tables. But is possible for fine tuning.

Resultaten

bisystem=# \d resultaten

Table "public.resultaten"				
Column	Type	Collation	Nullable	Default
resID	integer		not null	
statusweek	character(6)			''::bpchar
blonen	double precision			0
wlonen	double precision			0
bmateriaalen	double precision			0
wmateriaalen	double precision			0
bmaterieel	double precision			0
wmaterieel	double precision			0
binhuur	double precision			0
winhuur	double precision			0
bprojectkosten	double precision			0
wprojectkosten	double precision			0
btotaal	double precision			0
wtotaal	double precision			0
bdiensten	double precision			0
wdiensten	double precision			0
betaald_bedrag	double precision			0
meerminderwerk	double precision			0
boekweek	character varying(6)			''::character varying
onderhandenwerk	double precision			0
aanneemsom	double precision			0
bruto_winst	double precision			0

Indexes:

"resultaten_resID_pkey" PRIMARY KEY, btree ("resID")

Artikelen:

The field reserveringsaldo (reservation balance) is added by the approved calculation items, and deducted if the products are delivered.

The field bestelsaldo (ordering balance) is added by the supplier orders if ordered (bestelstatus - unset so ordering is not possible) and deducted if the products become stock. After delivery and approval the bestelstatus is set.

From the transactions in + or – the values of the products are counted and added in the fields of werken budget of costs. Budgets from orders and calculations and costs from transactions.

Lonen:

The working hours from the budget comes from the calculations and the hour transactions are added in the werken table from the employees. The working rates are determined by table params field tarieffactor (rate factor). This factor is determined by overhead on wages (machinecosts, indirect costs, housing, transportation and so on).

This is not further elaborated in the program. (could be extended in accounting).

With this countings a capacity planning for employees could be made.

Diensten:

The services (hire external activities, material, housing, earth works and so on) budget are added from the calculations, and the costs are added from the invoices of the sub-contractors.

By the transaction of all these items calculations are made of total costs of the work.

For staging the works are splitted in next financial stages.

A. Work in preparation (calculation, order)

B. First costs are made.

C. Costs reached 33% of budget.

D. Costs reached 50% of budget

E. Costs reached 75% of budget

F. Costs reached 90% of budget.

G. Costs reached 100% of budget and more/less work is approved.

H. Work is totally ready and paid by customer.

In our system the following payments are agreed with the customer.

C. 1st Payment of 33%

E. 2nd Payment of 33%

F. 3th Payment of 20%

G. 4th Payment of 14% + more/less work

If the work is initiated the year and weeknumber yyyyww is stored and also the staging (A).

By every next staging changement the year and weeknumber and the staging (B-H) is stored.

By making countings every week the course of these changings with their value changements are recorded in table resultaten. With the recording week and the staging change week and the changing in value countings the financial graphs are exploded.

Some prognosis values are from table params.

Thurdermore values are counted per status in values and numbers .(see resultaten-status)

resultaten_status

bisystem=# \d resultaten_status

Table "public.resultaten_status"				
Column	Type	Collation	Nullable	Default
rID	integer		not null	
status	character varying(1)			'A'::character varying
aanneemsom	double precision			0
kosten	double precision			0
boekweek	character varying(6)			'':character varying
aantal	integer			0
betaald	double precision			0
meerminderwerk	double precision			0

Indexes:

"resultaten_status_pkey" PRIMARY KEY, btree ("rID")

With this financial graphs it is possible for the management to adjust the work, by hiring more or less employees, or hiring sub-contractors and so on.

It would be possible to extend these stagings for more steps in financial control.

But this requires adjustment of the program modules and tables.

