

## Bisystem database Primary-Keys and Foreign-Keys structure.

A good example of combining queries by joining of tables and columns by the join command is established with the module opvrUrenmutaties.py (requesting hour transactions) function toonMutaties() (showTransactions)

A good example of combining queries from tables and columns by the connections of primary and foreignkeys is established by the module opvrClustercalculatie.py function opbouwRp() (requestingClustercalculation function combineResultProxy)

## Structure of bisystem database with its connection tables.

	table_from regclass	conname name	pg_get_constraintdef text
1	accounts	accounts_pkey	PRIMARY KEY ("accountID")
2	afdrachten	afdrachten_pkey	PRIMARY KEY ("afdrachtID")
3	artikelen	artikelen_pkey	PRIMARY KEY ("artikelID")
4	artikelmutaties	artikelmutaties_pkey	PRIMARY KEY ("mutatieID")
5	artikelmutaties	orders_inkoop_orderinkoopID_fkey	FOREIGN KEY ("orderinkoopID") REFERENCES orders_inkoop("orderinkoopID")
6	artikelmutaties	orders_verkoop_ovbestelID_fkey	FOREIGN KEY ("ovbestelID") REFERENCES orders_verkoop("ovbestelID")
7	artikelmutaties	artikel_artikelID_fkey	FOREIGN KEY ("artikelID") REFERENCES artikelen("artikelID")
8	artikelmutaties	werken_werksnummerID_fkey	FOREIGN KEY ("werksnummerID") REFERENCES werken("werksnummerID")
9	artikelmutaties	orders_intern_werkorderID_fkey	FOREIGN KEY ("werkorderID") REFERENCES orders_intern("werkorderID")
10	balieverkoop	id_pkey	PRIMARY KEY ("ID")
11	calculaties	calcID_pkey	PRIMARY KEY ("calcID")
12	cluster_artikelen	cluster_artikelen_pkey	PRIMARY KEY ("cluster_artID")
13	cluster_artikelen	artikelen_artikelID_fkey	FOREIGN KEY ("artikelID") REFERENCES artikelen("artikelID")
14	cluster_artikelen	clusters_clusterID_fkey	FOREIGN KEY ("clusterID") REFERENCES clusters("clusterID")
15	cluster_structure_external	cluster_structure_external_pkey	PRIMARY KEY ("structID")
16	cluster_structure_internal	cluster_structure_internal_pkey	PRIMARY KEY ("structID")
17	clusters	clusters_pkey	PRIMARY KEY ("clusterID")
18	derving	dervingID_pkey	PRIMARY KEY ("dervingID")
19	dienstenmutaties	derdenmutaties_pkey	PRIMARY KEY ("mutatieID")
20	dienstenmutaties	werken_WerksnummerID_fkey	FOREIGN KEY ("werksnummerID") REFERENCES werken("werksnummerID")
21	dienstenmutaties	orders_inkoop_orderinkoopID	FOREIGN KEY ("orderinkoopID") REFERENCES orders_inkoop("orderinkoopID")
22	dienstenmutaties	leveranciers_leverancierID_fkey	FOREIGN KEY ("leverancierID") REFERENCES leveranciers("leverancierID")
23	icalculaties	icalcID_pkey	PRIMARY KEY ("icalcID")
24	icluster_artikelen	icluster_artID_pkey	PRIMARY KEY ("icluster_artID")
25	icluster_artikelen	artikelen_artikelID_fkey	FOREIGN KEY ("artikelID") REFERENCES artikelen("artikelID")
26	icluster_artikelen	iclusters_iclusterID_fkey	FOREIGN KEY ("iclusterID") REFERENCES iclusters("iclusterID")
27	iclusters	iclusterID_pkey	PRIMARY KEY ("iclusterID")
28	klanten	klanten_pkey	PRIMARY KEY ("klantID")
29	klanten	accounts_accountID_fkey	FOREIGN KEY ("accountID") REFERENCES accounts("accountID")
30	koper_accounts	kopers_accounts_pkey	PRIMARY KEY ("koperaccID")
31	koper_accounts	accounts_accountID_fkey	FOREIGN KEY ("accountID") REFERENCES accounts("accountID")
32	koper_accounts	kopers_koperID_fkey	FOREIGN KEY ("koperID") REFERENCES kopers("koperID")
33	kopers	verkoopbedrijven_pkey	PRIMARY KEY ("koperID")
34	lev_accounts	lev_accounts_pkey	PRIMARY KEY ("levaccID")
35	lev_accounts	leveranciers_leverancierID	FOREIGN KEY ("leverancierID") REFERENCES leveranciers("leverancierID")
36	lev_accounts	accounts_accountID	FOREIGN KEY ("accountID") REFERENCES accounts("accountID")
37	leveranciers	leveranciers_pkey	PRIMARY KEY ("leverancierID")
38	lonen	lonen_pkey	PRIMARY KEY ("loonID")
39	loonbetalingen	loonbetalingen_pkey	PRIMARY KEY ("betalingID")
40	loonbetalingen	werknemers.werksnemerID_fkey	FOREIGN KEY ("werksnemerID") REFERENCES werknemers("werksnemerID")
41	loonbetalingen	account.accountID_fkey	FOREIGN KEY ("accountID") REFERENCES accounts("accountID")

	table_from regclass	conname name	pg_get_constraintdef text
42	magazijnvoorraad	magazijnvoorraad_pkey	PRIMARY KEY (jaar maand)
43	materiaallijsten	matlijstID	PRIMARY KEY ("matlijstID")
44	materiaallijsten	artikelen.artikelID_fkey	FOREIGN KEY ("artikelID") REFERENCES artikelen("artikelID")
45	materieelmutaties	materieelmutaties_pkey	PRIMARY KEY ("mutatieID")
46	materieelmutaties	orderinkoopID_fkey	FOREIGN KEY ("orderinkoopID") REFERENCES orders_inkoop("orderinkoopID")
47	materieelmutaties	servicesID_fkey	FOREIGN KEY ("servicesID") REFERENCES params_services("servicesID")
48	materieelmutaties	werknummerID_fkey	FOREIGN KEY ("werknummerID") REFERENCES werken("werknummerID")
49	materieelmutaties	order_inkoop_materieelID	FOREIGN KEY ("order_inkoop_materieelID") REFERENCES orders_inkoop_materieel("order_inkoop_materieelID")
50	materieelmutaties	leverancierID_fkey	FOREIGN KEY ("leverancierID") REFERENCES leveranciers("leverancierID")
51	orders_inkoop	orders_inkoop_pkey	PRIMARY KEY ("orderinkoopID")
52	orders_inkoop	leveranciers_leverancierID_fkey	FOREIGN KEY ("leverancierID") REFERENCES leveranciers("leverancierID")
53	orders_inkoop_artikelen	orders_inkoop_artikelen_pkey	PRIMARY KEY ("ordartlevID")
54	orders_inkoop_artikelen	orders_inkoop_orderinkoopID_fkey	FOREIGN KEY ("orderinkoopID") REFERENCES orders_inkoop("orderinkoopID")
55	orders_inkoop_artikelen	artikelen_artikelID_fkey	FOREIGN KEY ("artikelID") REFERENCES artikelen("artikelID")
56	orders_inkoop_diensten	orders_inkoop_diensten_pkey	PRIMARY KEY ("orddienstlevID")
57	orders_inkoop_diensten	werken_werknummerID_fkey	FOREIGN KEY ("werknummerID") REFERENCES werken("werknummerID")
58	orders_inkoop_diensten	orders_inkoop_orderinkoopID	FOREIGN KEY ("orderinkoopID") REFERENCES orders_inkoop("orderinkoopID")
59	orders_inkoop_materieel	order_inkoop_materieel_pkey	PRIMARY KEY ("order_inkoop_materieelID")
60	orders_inkoop_materieel	orderinkoopID_fkey	FOREIGN KEY ("orderinkoopID") REFERENCES orders_inkoop("orderinkoopID")
61	orders_inkoop_materieel	werknummerID_fkey	FOREIGN KEY ("werknummerID") REFERENCES werken("werknummerID")
62	orders_inkoop_materieel	leverancierID_fkey	FOREIGN KEY ("leverancierID") REFERENCES leveranciers("leverancierID")

63	orders_inkoop_materieel	servicesID_fkey	FOREIGN KEY ("servicesID") REFERENCES params_services("servicesID")
64	orders_intern	orders_intern_pkey	PRIMARY KEY ("werkorderID")
65	orders_intern	artikelen_artikelID_fkey	FOREIGN KEY ("artikelID") REFERENCES artikelen("artikelID")
66	orders_verkoop	orders_verkoop_pkey	PRIMARY KEY ("ovbestelID")
67	orders_verkoop	klanten_klantID_fkey	FOREIGN KEY ("klantID") REFERENCES klanten("klantID")
68	orders_verkoop_artikelen	orders_verkoop_artikelen_pkey	PRIMARY KEY ("ovalID")
69	orders_verkoop_artikelen	artikelen_artikelID_fkey	FOREIGN KEY ("artikelID") REFERENCES artikelen("artikelID")
70	orders_verkoop_artikelen	orders_verkoop_ovbestelID	FOREIGN KEY ("ovbestelID") REFERENCES orders_verkoop("ovbestelID")
71	params_finance	financeID_pkey	PRIMARY KEY ("financeID")
72	params_graphs	parID_pkey	PRIMARY KEY ("parID")
73	params_hours	rateID_pkey	PRIMARY KEY ("rateID")
74	params_hours	wageID_fkey	FOREIGN KEY ("wageID") REFERENCES lonen("loonID")
75	params_periods	periodID_pkey	PRIMARY KEY ("periodID")
76	params_services	servicesID_pkey	PRIMARY KEY ("servicesID")
77	params_system	systemID_pkey	PRIMARY KEY ("systemID")
78	params_wages	deductionID_pkey	PRIMARY KEY ("deductionID")
79	plaats	Plaats_pkey	PRIMARY KEY ("plaatsID")
80	postcodes	postcodes_straatID_fkey	FOREIGN KEY ("straatID") REFERENCES straat("straatID")
81	raaplijst	lijstID_pkey	PRIMARY KEY ("lijstID")
82	resultaten	resultaten_resID_pkey	PRIMARY KEY ("resID")
83	resultaten_status	resultaten_status_pkey	PRIMARY KEY ("rID")

84	straat	Straat_pkey	PRIMARY KEY ("straatID")
85	straat	straat_plaatsID_fkey	FOREIGN KEY ("plaatsID") REFERENCES plaats("plaatsID")
86	webbestellingen	webID_pkey	PRIMARY KEY ("webID")
87	webbestellingen	artikelID_fkey	FOREIGN KEY ("artikelID") REFERENCES artikelen("artikelID")
88	webretouren	retourID_pkey	PRIMARY KEY ("retourID")
89	werken	werken_pkey	PRIMARY KEY ("werknummerID")
90	werknemers	werknemers_pkey	PRIMARY KEY ("werknemerID")
91	werknemers	accounts_accountID_fkey	FOREIGN KEY ("accountID") REFERENCES accounts("accountID")
92	werknemers	lonen_loonID_fkey	FOREIGN KEY ("loonID") REFERENCES lonen("loonID")
93	wrkwnrln	wrkwnrln_pkey	PRIMARY KEY ("wrkwnrurenID")
94	wrkwnrln	werknemers_werknemerID_fkey	FOREIGN KEY ("werknemerID") REFERENCES werknemers("werknemerID")
95	wrkwnrln	lonen_loonID_fkey	FOREIGN KEY ("loonID") REFERENCES lonen("loonID")