

15η Πανελλήνια Συνάντηση Χρηστών Γεωγραφικών Συστημάτων Πληροφοριών ArcGIS



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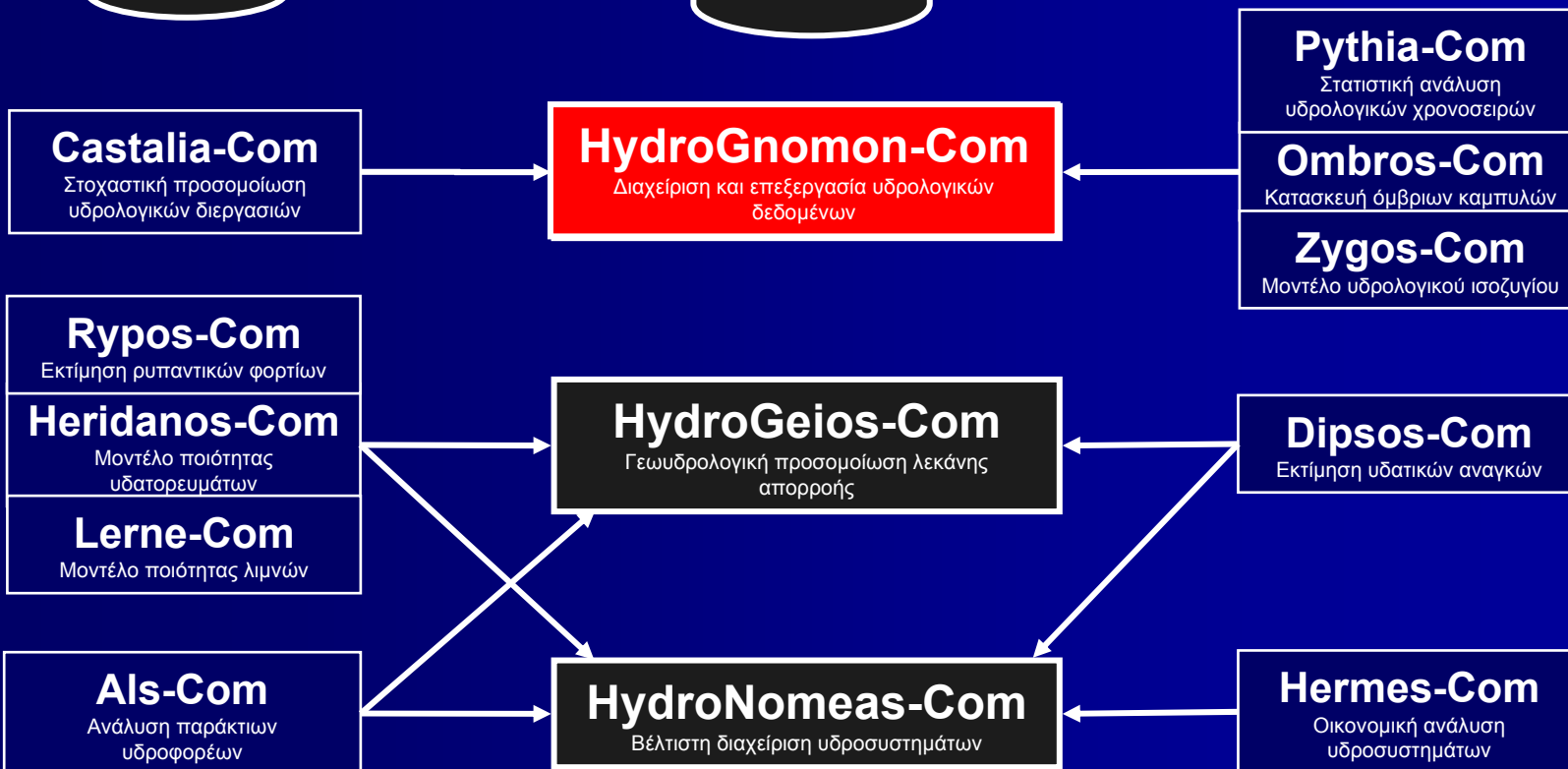
Ολοκληρωμένη Διαχείριση Υδατικών Συστημάτων σε Σύζευξη
με Εξελιγμένο Υπολογιστικό Σύστημα



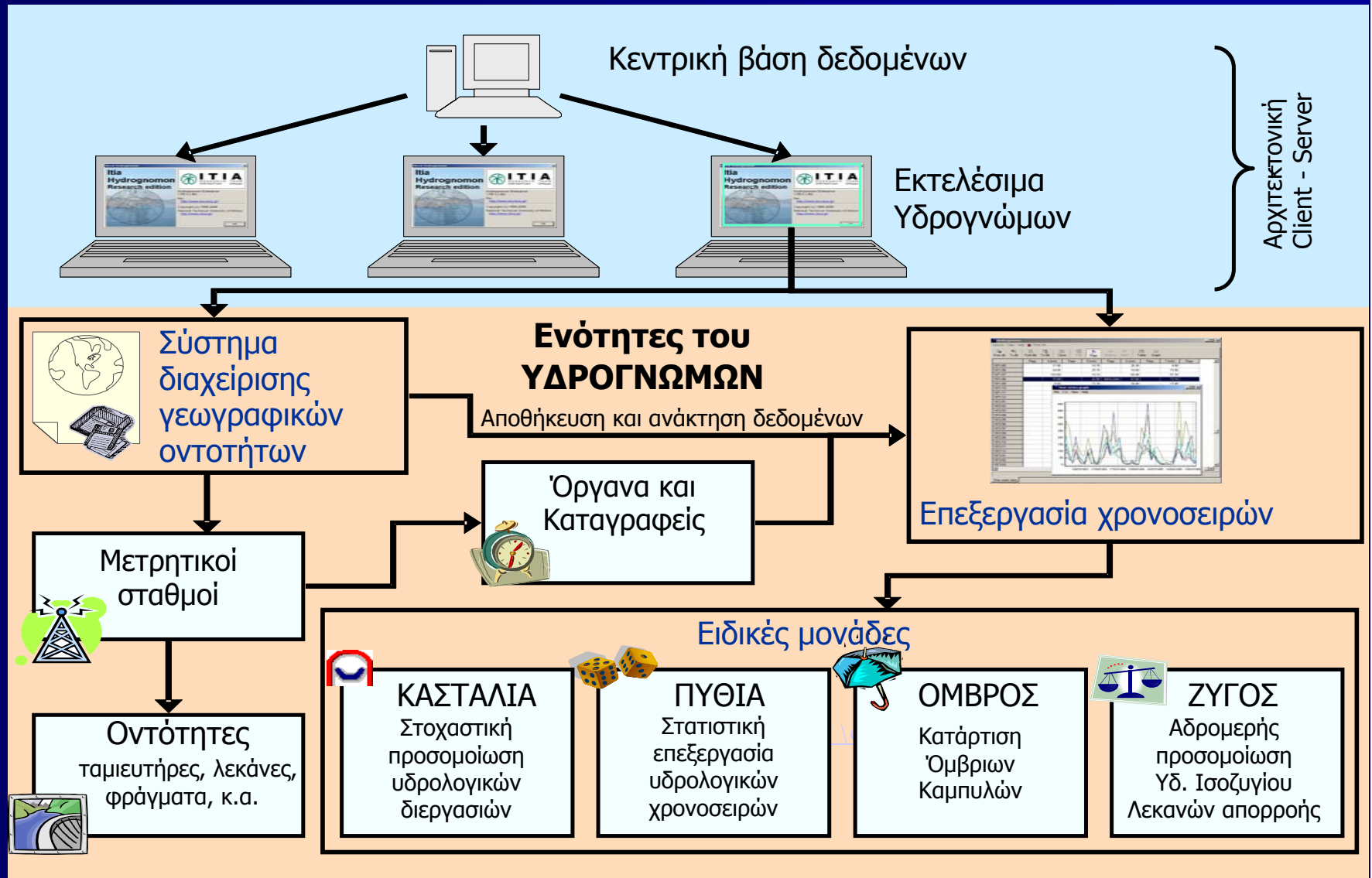
Υδρογνώμων

***Υπολογιστικό σύστημα διαχείρισης και
επεξεργασίας υδρολογικών δεδομένων***

Υπολογιστικά Συστήματα



Υδρογνώμων – Δομή λογισμικού



Γεωγραφικά αντικείμενα (οντότητες του πραγματικού κόσμου)

Hydrognomon

Edit Options Tools Tabs Help Close tab

Data entry form | Synoptic table

id: Synthetic

Name: (Greek) (English)

Prefecture: Municipality: (Greek) (English)

Location: (Greek) (English)

Co-ordinates:

phi	lambda	X (m)	Y (m)	Altitude (m)
<input type="text" value="37"/> ° <input type="text" value="58"/> ' <input type="text" value="26"/> " N	<input type="text" value="23"/> ° <input type="text" value="47"/> ' <input type="text" value="16"/> " E	<input type="text" value="481360"/>	<input type="text" value="4202939"/>	<input type="text" value="219"/>

Service: Type: Subtype:

Functioning period: Active Telemetric

Instruments...
Loggers...

Various codes

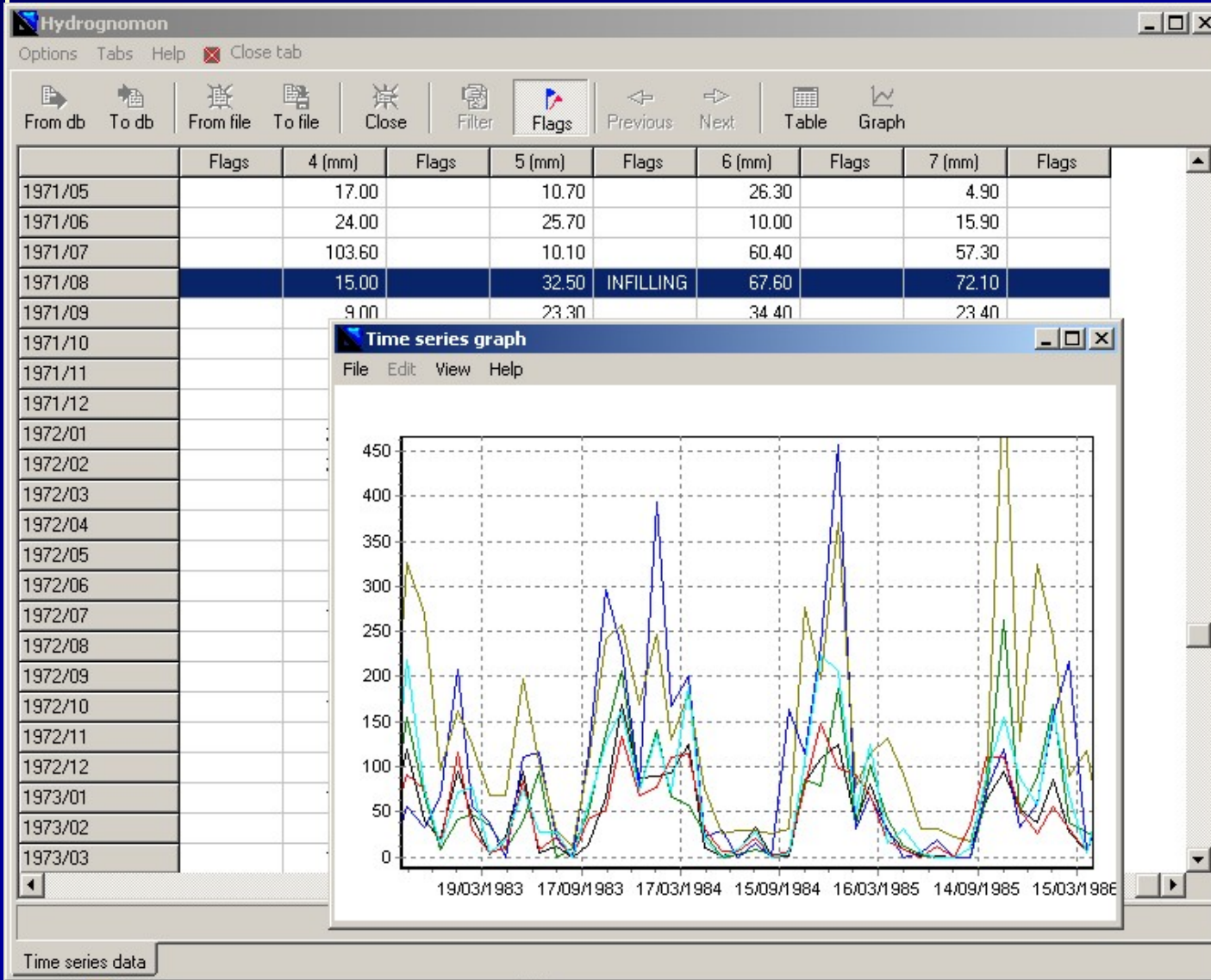
Service:	<input type="text"/>
Miet:	<input type="text"/>
Hydroscope:	<input type="text"/>
WMO:	<input type="text"/>
Other:	<input type="text"/>

Time series... Events... Remarks... Multimedia... Show on map...

Time series data Reservoirs Stations

Δεδομένα χρονοσειρών (1)

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Δεδομένα χρονοσειρών (2)

Hydrognomon

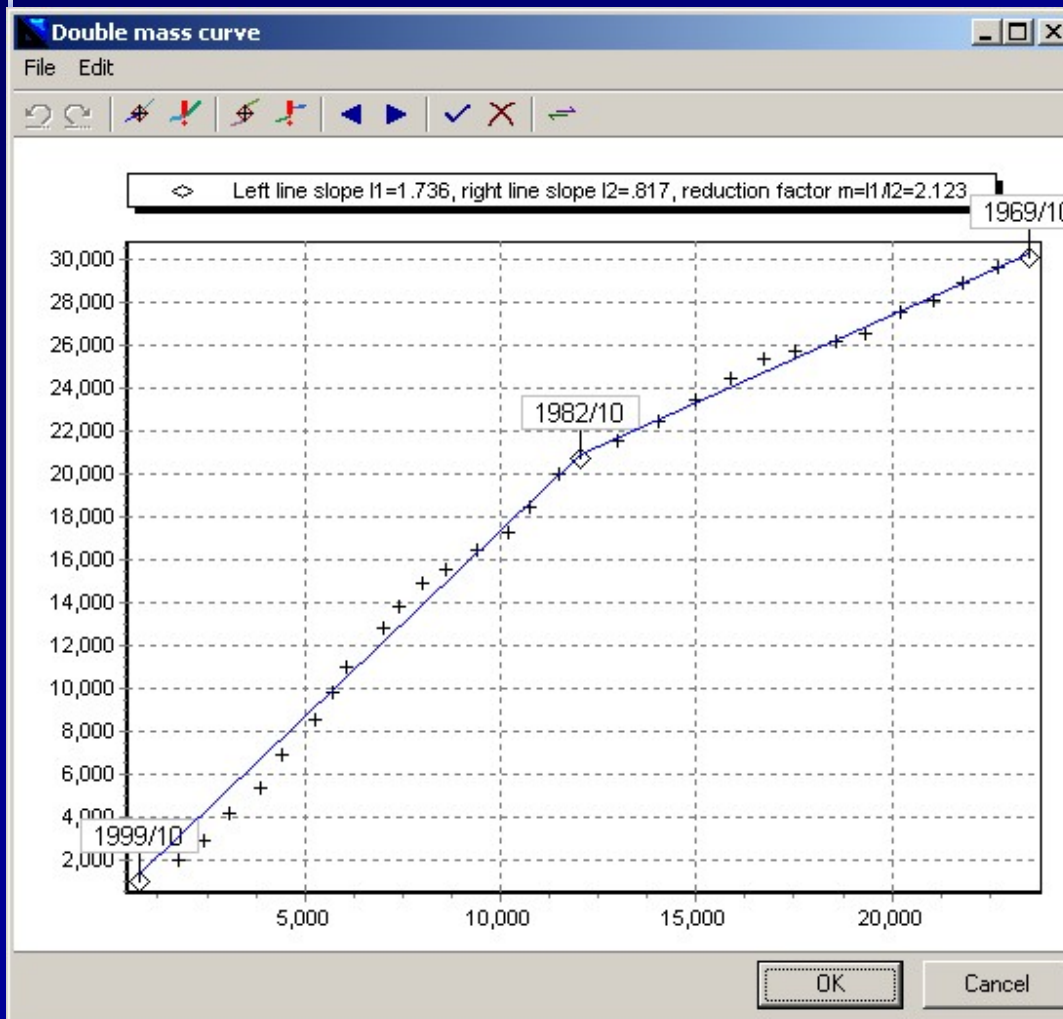
Series Edit View Tools Options Tabs Help Close tab

From db To db From file To file Close Filter Flags Previous Next Table Graph

	10	11	12	1	2	3	4	5	6	7	8	9	Mean	Stdev	Var coef	N	Miss	Max
1983-84	14.00	66.00	168.60	86.80	89.70	92.10	125.20	10.00	0.50	6.00	32.40	1.90	57.77	55.48	0.96	12	0	168.60
1984-85	0.80	81.70	108.20	125.30	37.60	80.30	29.50	8.60	1.10	1.40	0.00	10.70	40.43	46.11	1.14	12	0	125.30
1985-86	62.50	94.50	53.20	38.60	86.20	26.90	6.30	61.70	10.40	0.20	0.00	0.30	36.73	34.47	0.94	12	0	94.50
1986-87	110.90	15.30	62.80	54.60	58.40	89.70	89.90	5.30	10.80	5.80	15.90	0.00	43.28	39.25	0.91	12	0	110.90
1987-88	86.20	70.10	55.70	64.40	58.40	65.00	21.80	11.70	12.60	0.00	0.00	9.20	37.92	31.37	0.83	12	0	86.20
1988-89	50.50	157.10	130.70	5.00	25.30	69.10	11.00	25.90	3.30	12.50	0.00	5.30	41.31	52.45	1.27	12	0	157.10
1989-90	70.60	37.50	63.20	5.90	23.00	28.60	26.40	15.90	9.50	3.30	73.70	8.00	30.47	25.54	0.84	12	0	73.70
1990-91	38.40	96.00	135.50	137.40	65.90	97.80	99.70	53.50	0.10	3.70	64.80	0.40	66.10	49.01	0.74	12	0	137.40
1991-92	61.40	69.50	127.70	32.10	64.00	48.90	17.90	45.60	33.40	3.40	6.20	0.80	42.57	35.98	0.85	12	0	127.70
1992-93	46.60	30.90	7.00	44.00	66.90	23.60	16.60	111.70	0.40	0.60	0.40	0.90	29.13	34.00	1.17	12	0	111.70
1993-94	0.00	195.70	19.40	165.30	204.50	37.80	33.30	49.80	0.50	36.20	1.50	0.00	62.00	78.64	1.27	12	0	204.50
1994-95	146.30	83.60	83.90	117.50	5.80	88.20	33.40	9.40	2.30	0.00	0.00	30.70	50.09	51.43	1.03	12	0	146.30
1995-96	31.90	83.50	102.40	84.80	106.20	62.60	21.30	69.40	0.00	2.50	22.90	49.60	53.09	37.29	0.70	12	0	106.20
1996-97	44.60	23.40	50.90	130.90	46.70	102.80	57.40	8.00	5.50	2.20	7.40	0.60	40.03	41.81	1.04	12	0	130.90
1997-98	50.50	44.10	142.40	22.70	20.40	141.30	14.70	61.20	10.10	2.20	6.60	32.20	45.70	48.39	1.06	12	0	142.40
1998-99	44.80	103.40	86.60	45.50	64.10	165.30	26.90	15.70	5.90	0.00	7.50	41.80	50.62	48.39	0.96	12	0	165.30
1999-00	69.70	108.90	49.70	33.40	85.10	30.30	11.90	4.00	0.00	0.00	0.00	2.60	32.97	37.64	1.14	12	0	108.90
2000-01	45.60	109.00	41.80	93.10	37.50	27.10	43.90	13.80	5.90	12.60			43.03	33.85	0.79	10	2	109.00
Mean	72.19	88.06	106.27	94.88	79.85	70.51	40.52	33.94	21.05	6.61	12.51	29.80						
Standard deviation	59.99	52.98	58.59	53.23	46.18	43.76	33.10	29.16	25.63	9.98	25.92	35.00						
Variance coefficient	0.83	0.60	0.55	0.56	0.58	0.62	0.82	0.86	1.22	1.51	2.07	1.17						
Number of values	93	94	94	94	94	94	94	94	94	94	93	93						
Missing values	1	0	0	0	0	0	0	0	0	0	1	1						

Time series data

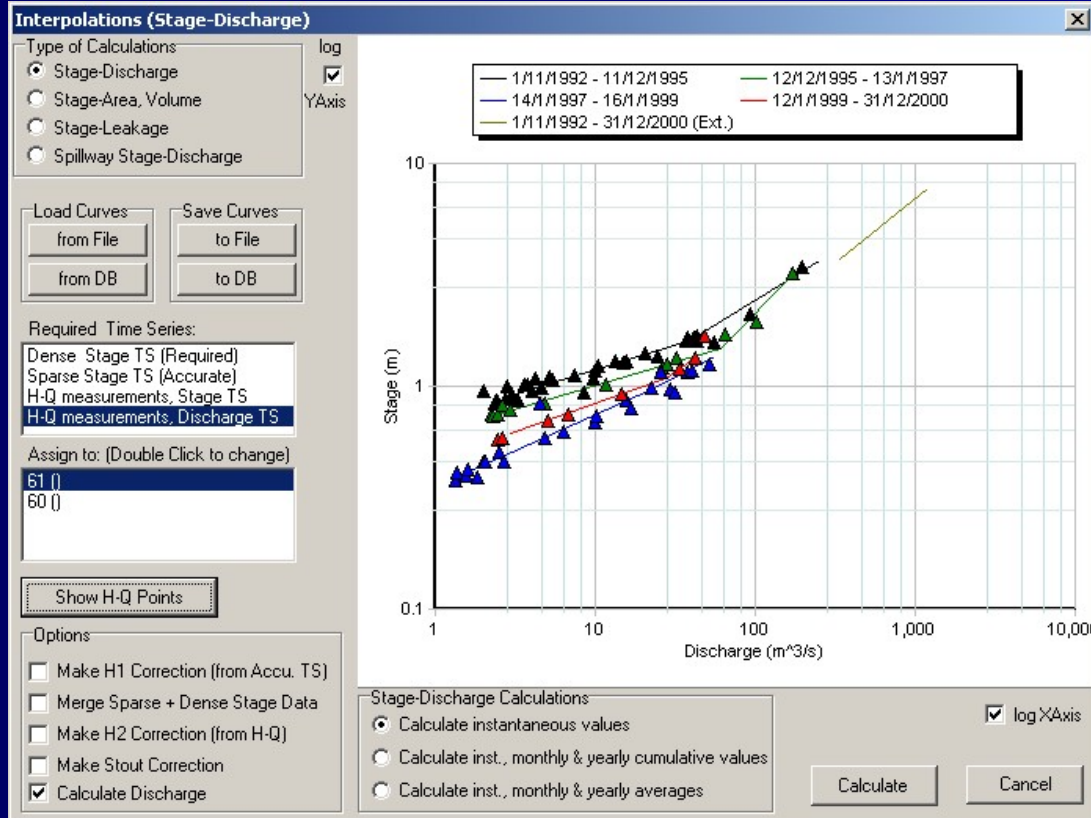
Επεξεργασία δεδομένων χρονοσειρών (1)



- Χειρισμοί χρονοσειρών
- Υδρολογικές επεξεργασίες και υπολογισμοί
- Έλεγχοι

Επεξεργασία δεδομένων χρονοσειρών (2)

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Evapotranspiration calculations

Latitude: 37° 58' 0.0" | Altitude: 0 m | Albedo: 0.25

Calculation:
 Penman
 Penman - Monteith
 Thornthwaite
 Blaney-Cridde
 Hargreaves
 Parametric

Sunshine Timeseries:
 Sunshine duration (min)
 Sunshine Percent (0-1)
 Radiation (kJ/sqm/d)

Parameters:
 Brunt formula: Ae: 0.34 | Be: 0.044
 Cloud effect: aL: 0.10 | bL: 0.90
 Prescott co-efficient: As: 0.25 | Bs: 0.50

Defaults | Determination factor:

OK | Cancel | Calc Params

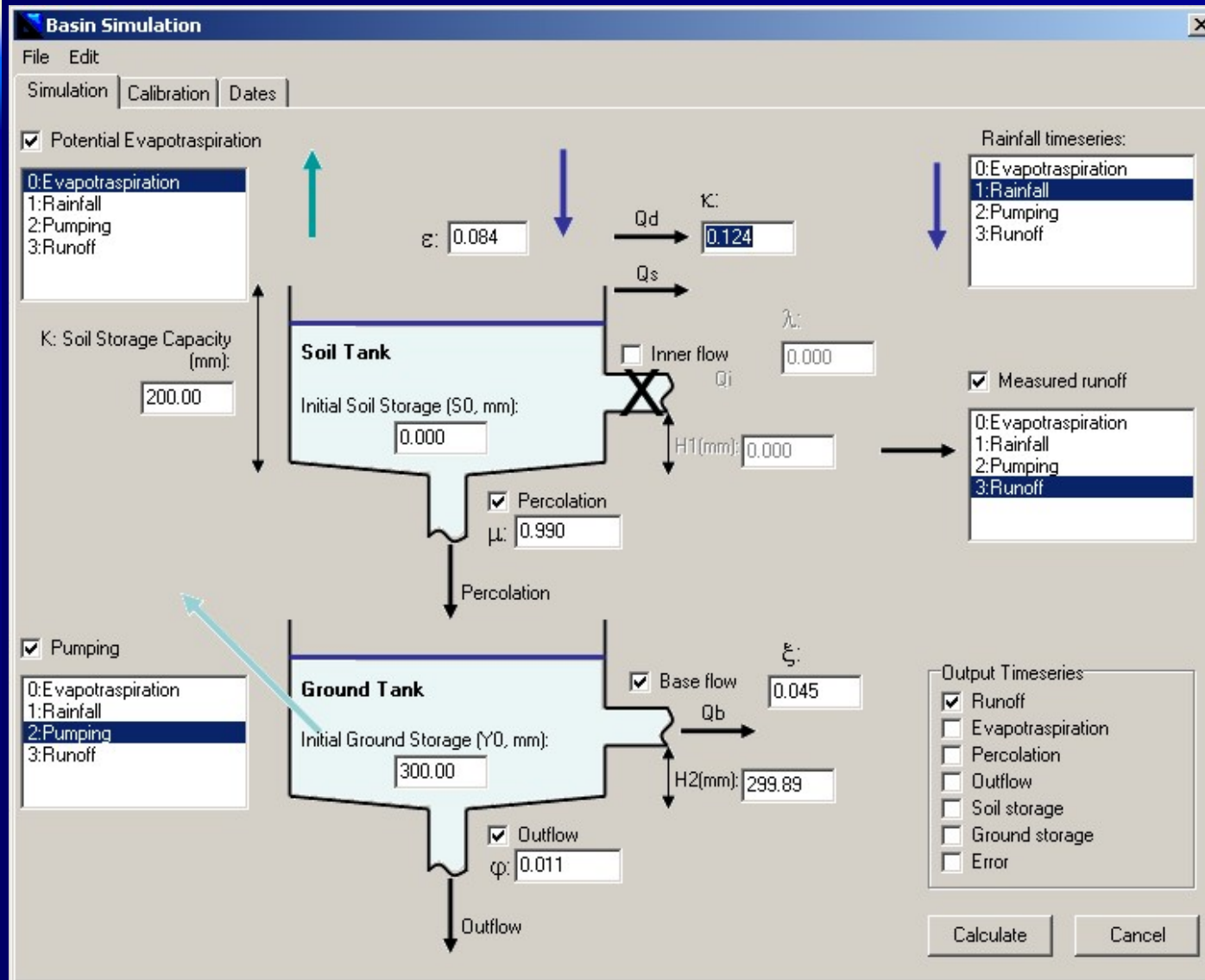
Time series regression

Order of auto-correlation:

Zero constant term
 Organic
 Seasonal
 Do filling on null records
 Random term Random seed
 Truncate negative values to zero
 Extend values to the past Extend values to the future
 Do not fill inner missing values

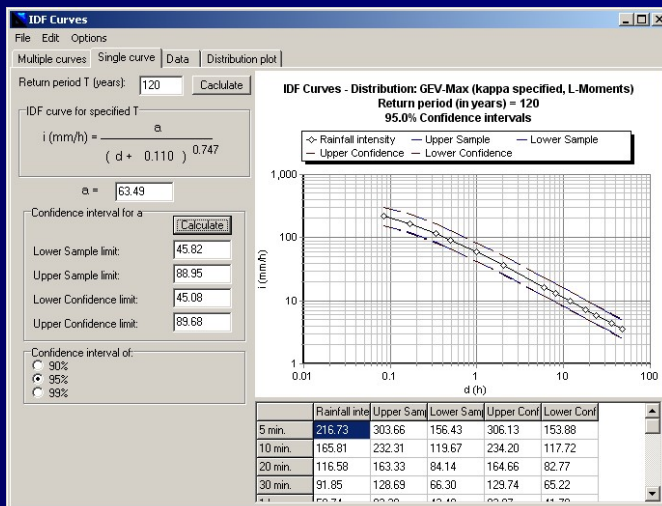
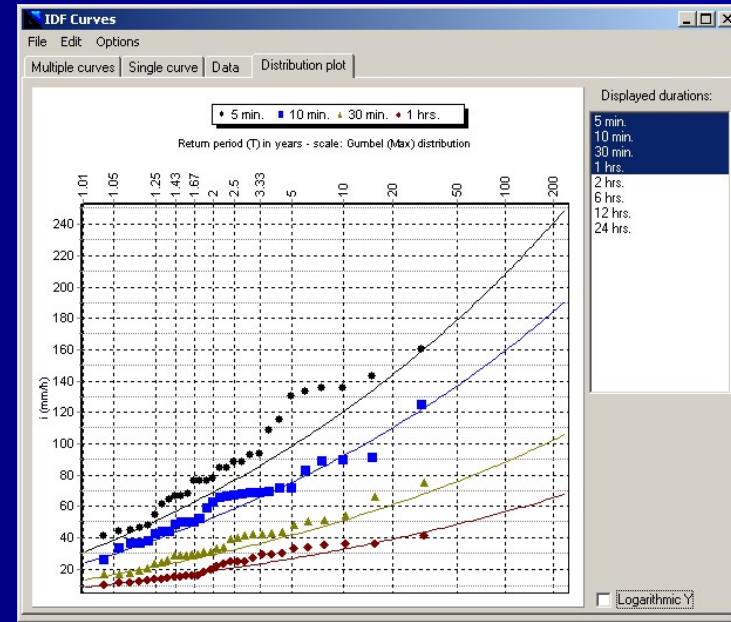
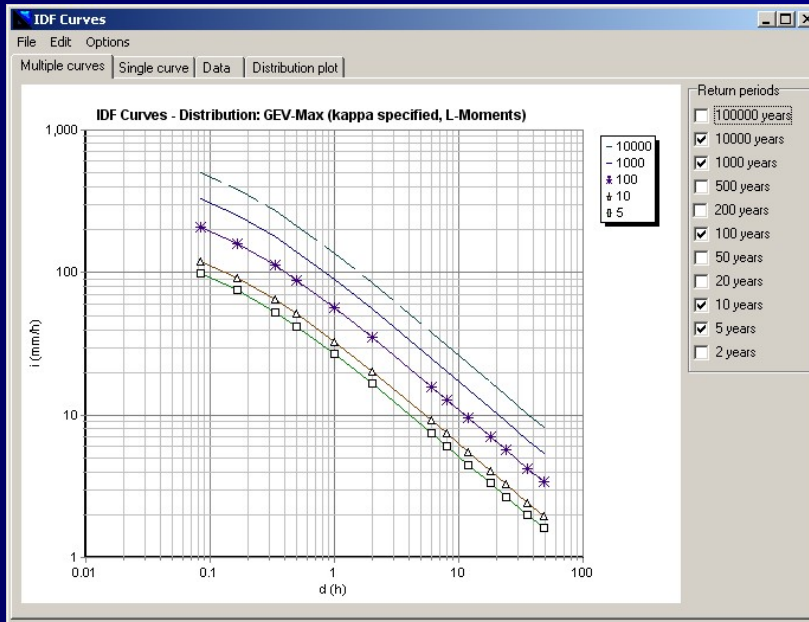
OK | Cancel

ΖΥΓΟΣ – Αδρομερής προσομοίωση Υδρ. Ισοζυγίου λεκανών απορροής



ΟΜΒΡΟΣ – Κατάρτιση όμβριων καμπυλών

ΣΥΣΤΗΜΑ



ΠΥΘΙΑ – Στατιστική ανάλυση υδρολογικών χρονοσειρών

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