e-GEOS

GeoDA

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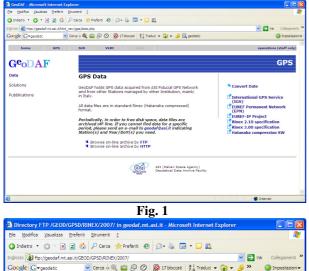
Abstract

GeoDAF has been EUREF Local Data Centre since 1999. Mainly it manages rinex files from the Italian GPS stations (not only EUREF/IGSones), but it acts as LDC for some Greek stations too. We will provide an overview of the architecture of the system, together with statistics of data received, stored and distributed. Since the facility manages also analysis products, an overview of these products will be included.

GeoDAF services are available using both HTTP and FTP protocols at the same internet address:

http://geodaf.mt.asi.it ftp://geodaf.mt.asi.it

Fig. 1, Fig. 2 and Fig. 3 show, as examples, respectively the Data distribution HTML page (new experimental layout), the Data Directory available throw FTP protocol and an HTML page (new experimental layout) containing Date Conversion Tool (YYY/MM/DD $\leftarrow \rightarrow$ YYYY/doy $\leftarrow \rightarrow$ GPS Week) written in JavaScript.







/19/2007 12:10

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Directory Directory

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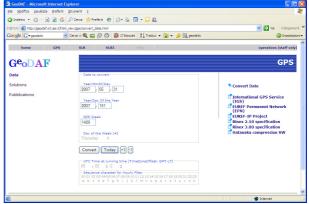
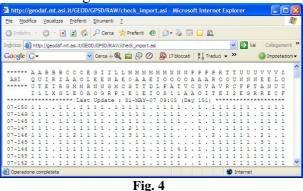


Fig. 3

GeoDAF has been EUREF Local Data Centre since 1999. Mainly it manages rinex files from the Italian GPS stations (not only EUREF/IGS ones), but it acts as LDC for some Greek stations too.

Presently 37 active Stations send daily/hourly files to GeoDAF as seen in CheckImport file showed in Fig. 4.



GeoDAF publishes Analisys Products too (see Fig. 5, Fig. 6, Fig. 7 and Fig. 8):

- GPS daily/weekly site coordinates
- GPS ZTD tropospheric estimates
- GPS/SLR/VLBI combined velocity field

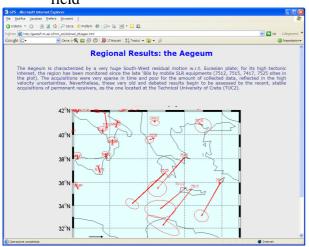




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Contact: <u>gpsgeo@asi.it</u> for questi <u>lina ferraro@asi.it</u> for qu <u>geodaf@asi.it</u> for questi	estions or comments a	bout solutions.	r to order off-line d	ata.	

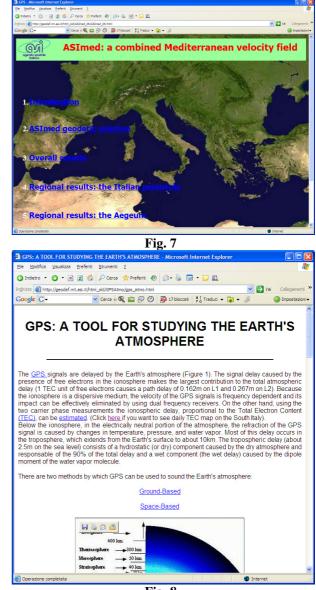


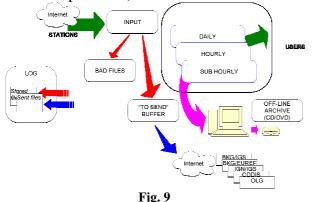
Fig. 8

GeoDAF runs on a Server PC HP E60 (Linux Red Hat Operating System) with Apache Web Server and VSFTP FTP Server.

It was designed to run services unattended. Data flow (red and blue arrows in Fig. 9), including log file updates, validity checks, etc., are managed by Bash Shell Scripts (approx 4000 lines of code).

On daily base data are automatically transferred to an off-line PC (purple arrow in Fig. 9) in order to be ready to burn CD/DVD media for off-line archive library.

Files to send to RDC/GDC remain into buffer up to the time of successfully transfers (for fail safe operations)



Tab. 1 shows files received and "published" from Jan 2007 up to end of May. File are grouped by Type (e.g. "Daily" means daily Rinex files). Not only GPS related File

Types are managed by GeoDAF, e.g.

"TIMING" contains data from Matera "Time & Frequency" systems.

PROCESSED FILES							
	From 01/01/07 to 29/05/07						
Туре	To	tal	Daily Average				
- 16-	MBytes	Files	MBytes	Files			
Daily	1804	13350	60.6	447			
Hourly	4475.3	222736	150.6	7476			
Sub-h	891	28432	29.8	955			
Glon_D	21.4	863	0.8	30			
Glon_H	44.6	23423	1.6	787			
SLR_EOP	0.1	26	0	0			
GEO_SOL	9.4	66	0.4	2			
TRO_SOL	4.9	154	0	5			
GEO_COOR	0	22	0	0			
TEC_MAP	7.7	161	0.2	6			
ROSP_MLRO	7.5	630	0.3	21			
ATMO	1515.3	182885	50.9	6152			
ATMOxTOUGH	290.6	38556	9.8	1301			
AD_MON	8.2	352	0.3	12			
METEO	183.6	10655	6.2	360			
TIMING	28.9	10185	0.9	341			
DAILY_R	8.4	77	0.3	2			
DAILY_F	6.9	56	0.3	1			
Total	9071.8	511304	305	17182			
Tab. 1							

Tab. 2 summarizes files distributed, by FTP protocol only, from Jan 2007 up to end of May, while Fig. 10 shows the countries from which FTP requests originated.

Summary by Month					
Month	Daily Avg	N	6		
wonth	Files	Sites	MBytes	Files	
mag-07	6,479	181	16,322	194,371	
apr-07	6,997	184	16,322	209,912	
mar-07	6,743	182	14,090	209,039	
feb-07	7,942	168	15,951	222,397	
gen-07	5,946	157	9,609	184,341	
Totals			72,294	1,020,060	



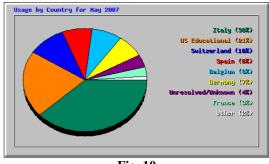


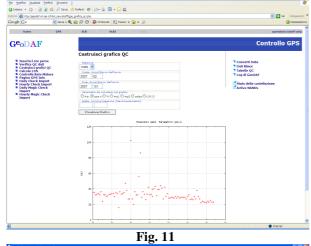
Fig. 10

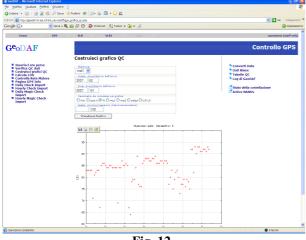
Following Figures show some of the Control Panels used during normal ASI GPS Network control and monitoring.

Fig. 11 and Fig. 12 show on-line QC graph generations for Station quality checks.

Fig. 13 shows Control Panel used to monitor GPS data Transfers from Stations.

Finally Fig. 14 shows % of observations for all ASI GPS Stations.







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Rete GPS Matera - ASI - Aggiornato a: 01-06 (152) hh 12:13:40		
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n-gg min ug m b n m t t d l t n l e g t e i l e a o p e 1 i o 1 e n t l i n		
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01-06 h09 (152 I) 1 2 4 3 2 2 1 1 x 2 2 1 7 4 5 2 *		
01-06 h08 (152 H) 1 2 4 3 2 2 1 1 x 2 1 1 8 4 5 3 ·		
01-06 h07 (152 G) 1 2 4 4 3 2 1 1 x 2 2 1 7 4 5 2 *		
01-06 h06 (152 E) 1 2 4 3 2 2 1 1 1 x 2 1 1 1 8 4 6 2 *		
01-06 h05 (152 E) 1 2 4 3 2 2 1 1 x 2 1 1 8 4 5 2 •		
01-06 h04 (152 D) 1 2 4 3 2 2 1 1 1 x 2 2 1 1 7 4 5 2 9		
01-06 h03 (152 C) 1 2 4 3 2 2 1 1 x 2 1 1 8 4 5 3 *		
01-06 h02 (152 B) 1 2 5 4 3 3 1 1 x 2 1 1 9 4 7 3 •	2 x	
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S1=05 (151) 1 1 1 1 1 1 1 x 1 1 1 1 1 1 1 1		
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