

EUROLAS Data Center (EDC)

Improvements of the EDC-Website for the ILRS Community

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Overview

- State of the Art
- New features of the EDC-Website
- Conclusion/Outlook

EUROLAS Data Center (EDC)

Home Data & Products Stations Satellites Statistics Operation Center (OC) Mailing Lists Documents Tools ILRS-Website (Mirror)

Recent News

- 2013-10-28: The status of station **Mt. Stromlo, Australia (7825)** was changed to quarantine.
- 2013-10-24: The status of station **McDonald, USA (7080)** was changed to validated.
- 2013-10-23: The status of station **Wettzell, Germany (8834)** was changed to quarantine.
- 2013-10-11: The status of station **Riga, Latvia (1884)** was changed to quarantine.
- 2013-08-21: The status of station **McDonald, USA (7080)** was changed to quarantine.
- 2013-06-17: The status of station **Haleakala, Hawaii (7119)** was changed to validated.
- 2013-04-19: The status of station **Haleakala, Hawaii (7119)** was changed to quarantine.

SLR Live Tracking

Latest Normal Points (CRD)

Incoming Date	Satellite	Station	Start Date	Ago
2013-11-04 10:10:26	Jason2	Hartebeesthoek	2013-11-04 05:47:52	22 min
2013-11-04 10:10:26	ajisai	Hartebeesthoek	2013-11-04 05:43:12	22 min
2013-11-04 10:10:26	lagos2	Hartebeesthoek	2013-11-04 05:32:25	22 min
2013-11-04 10:10:26	starlette	Hartebeesthoek	2013-11-04 05:18:46	22 min
2013-11-04 10:10:26	grace	Hartebeesthoek	2013-11-04 05:08:07	22 min
2013-11-04 09:36:25	compass5	Graz	2013-11-02 14:04:00	56 min
2013-11-04 09:36:25	crystal2	Graz	2013-11-02 23:44:32	56 min
2013-11-04 09:36:25	beaconc	Graz	2013-11-02 23:22:48	56 min
2013-11-04 09:36:25	lares	Graz	2013-11-02 23:15:12	56 min
2013-11-04 09:36:25	lagos1	Graz	2013-11-02 23:10:00	56 min

[more]

Latest Full-Rate (CRD)

Incoming Date	Satellite	Station	Start Date	Ago
2013-11-04 09:54:23	terraarx	Matera	2013-11-03 15:51:29	38 min
2013-11-04 09:54:23	starlette	Matera	2013-11-03 18:05:27	38 min
2013-11-04 09:54:23	starlette	Matera	2013-11-03 18:05:02	38 min

Screenshot of the EDC-Website

The Website

- EDC-Website was launched on 2011-11-15
- URL: <http://edc.dgfi.badw.de>
- Current features of the EDC-Website:
 - Information about submitted SLR data (normal point data, full-rate data), predictions and products
 - Data sets in CRD, CPF, CSTG and MERIT-II format are managed
 - Detailed information about all stations and satellites
 - Stations can track the EDC data flow and the current status of their submitted data
 - Information about each submitted data set can be retrieved
 - Information on how the Operation Center (OC) checks all submitted data sets

User-defined CPF-Mailer

- Recipients of the CPF-mailer will receive the latest predictions submitted to the EDC
- The user-defined CPF-mailer enables users to configure the CPF-mailer individually
- CPF predictions can be selected by
 - satellite
 - prediction provider
- The existing CPF-mailer maintained by the EDC will be migrated to the user-defined CPF-mailer
- All recipients of the former CPF-mailer will be requested in the near future to register for the new user-defined CPF-mailer

Statistics

- Monthly and yearly EDC reports are available for download since 2012/05
- Content of reports:
 - Daily/monthly/yearly number of observations/files/passages for satellites and stations
 - Daily number of predictions for satellites
 - Yearly number of predictions for prediction centers
 - Status of the stations
 - Time-delay from measurement to the data center
 - etc.
- Most statistics are also available on the EDC-Website



Daily number of observations for lageos-1 in 2013

SLR Mailing Lists

Impressum Sitemap Contact

International Laser Ranging Service DGFI

You are logged in as: schwatke
Logout My Profile

Home Data & Products Stations Satellites Statistics Operation Center (OC) Mailing Lists Documents Tools ILRS-Website (Mirror)

SLR-Mail Archive

2013 2012 2011 2010 2009 2008 2007 2006 2005 2004 2003 2002 2001 2000 1999 1998 1997 1996 1995

SLR-Mail 2013

No#	Date	Sender	Subject	
2205	2013-10-23	Chris Moore <cmoore@eos-aus.com>	[SLR-Mail] No.2205: Mt Stromlo Upgrade	[more]
2204	2013-10-21	Hiroo Kunimori <kunimori@nict.go.jp>	[SLR-Mail] No.2204: IC5052014	[more]
2203	2013-10-22	Günther Herold <herold@fs.wetzell.de>	[SLR-Mail] No.2203: WLR5 upgrade	[more]
2202	2013-10-21	Carey Noll <Carey.Noll@nasa.gov>	[SLR-Mail] No.2202: Planning for the 19th International Workshop on Laser Ranging	[more]
2201	2013-10-17	Bianco Giuseppe <giuseppe.bianco@esi.it>	[SLR-Mail] No.2201: Upcoming EUROLAS Meeting in Japan	[more]
2200	2013-10-16	Woo, Justine - IS <Justine.Woo@exeltinc.com>	[SLR-Mail] No.2200: Spisat-2 Campaign is Over	[more]
2199	2013-10-11	Kahris Salimin <kahris@lanet.lv>	[SLR-Mail] No.2199: SLR Riga 1884 maintenance and upgrade	[more]
2198	2013-10-10	Tonke VAN DAM <tonke.vandam@uni.lu>	[SLR-Mail] No.2198: REFAG2014	[more]
2197	2013-09-30	Carey Noll <Carey.Noll@nasa.gov>	[SLR-Mail] No.2197: Possible CDOIS outage due to U.S. Government furlough	[more]
2196	2013-09-20	Woo, Justine - IS <Justine.Woo@exeltinc.com>	[SLR-Mail] No.2196: Greenbelt (7105) down for scheduled maintenance	[more]
2195	2013-09-19			
2194	2013-09-09			
2193	2013-08-25			

Search in SLR-Mail Archive

Mall No.

Date

Sender

Subject

Author

Content

AND OR

Search

- SLR-Mails and SLR-Reports are now stored in a database
- Both archives are accessible via the EDC-Website and FTP

SLR Mailing Lists



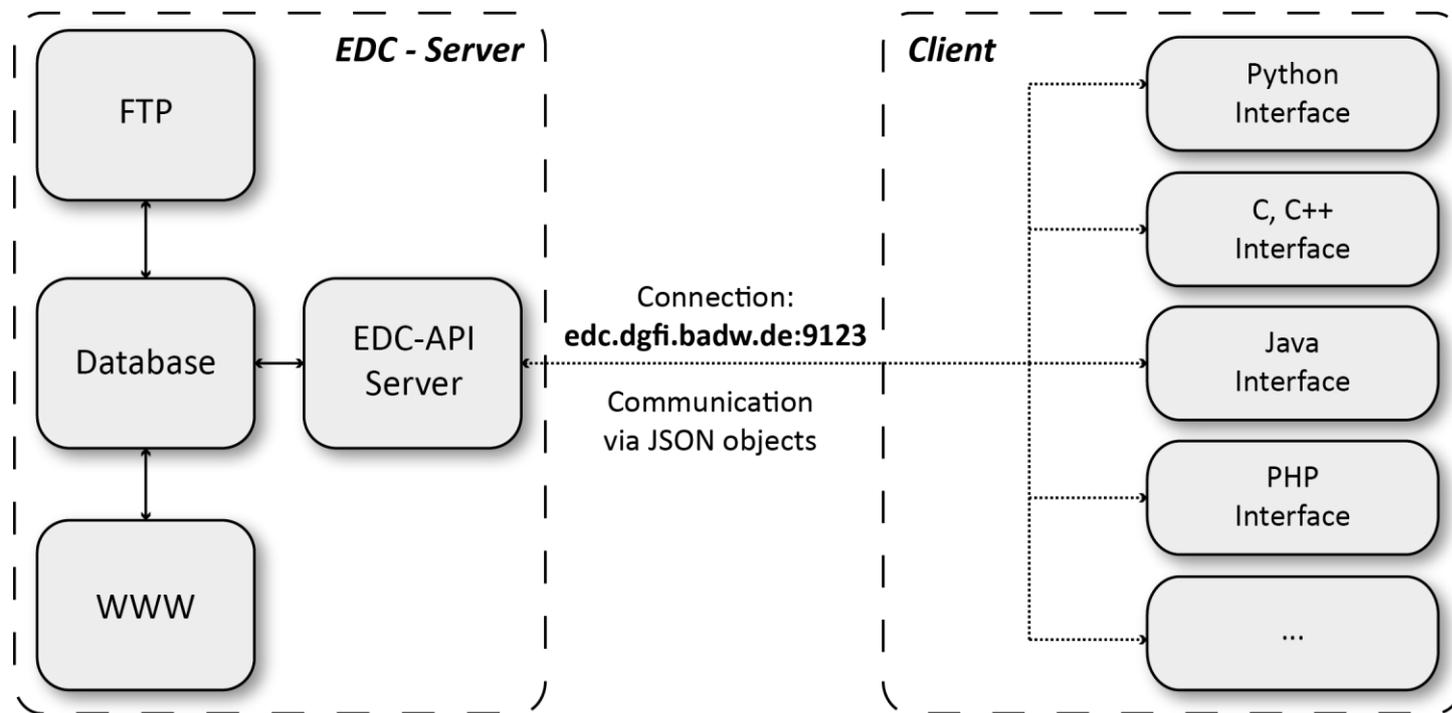
The screenshot shows the EUROLAS Data Center (EDC) website. The header includes the EDC logo, navigation links (Home, Data & Products, Stations, Satellites, Statistics, Operation Center (OC), Mailing Lists, Documents, Tools, ILRS-Website (Mirror)), and user information (You are logged in as: schwatke, Logout, My Profile). The main content area displays the SLR-Mail Archive search results for the year 2013. A search sidebar on the right allows filtering by Mail No., Date, Sender, Subject, Author, and Content. The search results table lists 9 items, all from Christian Schwatke.

No#	Date	Sender	Subject	
2192	2013-08-22	Christian Schwatke <schwatke@dgfi.badw.de>	[SLR-Mail] No.2192: Power Outage at EDC	[more]
2090	2012-05-30	Christian Schwatke <schwatke@dgfi.badw.de>	[SLR-Mail] No.2090: Stop sending CSTG data to the DCs	[more]
2027	2011-11-24	Christian Schwatke <schwatke@dgfi.badw.de>	[SLR-Mail] No.2027: Change of the FTP structure at EDC	[more]
2024	2011-10-25	Christian Schwatke <schwatke@dgfi.badw.de>	[SLR-Mail] No.2024: Two open positions at DGFI Munich	[more]
1971	2011-03-11	Christian Schwatke <schwatke@dgfi.badw.de>	[SLR-Mail] No. 1971: 7080 MDOL: Missing MLRS data	[more]
1921	2010-10-25	Christian Schwatke <schwatke@dgfi.badw.de>	[SLR-Mail] No. 1921: Power outage at EDC on October 29th, 2010	[more]
1918	2010-10-07	Christian Schwatke <schwatke@dgfi.badw.de>	[SLR-Mail] No. 1918: RE: No.1908 : Transition to new EDC server environment	[more]
1911	2010-09-21	Christian Schwatke <schwatke@dgfi.badw.de>	[SLR-Mail] No. 1911: Information to the transition of the new EDC server environment	[more]
1908	2010-09-14	Christian Schwatke <schwatke@dgfi.badw.de>	[SLR-Mail] No. 1908: Transition to new EDC server environment	[more]

- New search function for searching the archives
- Search criteria: mail no., date, sender, subject, author and content

EDC-API

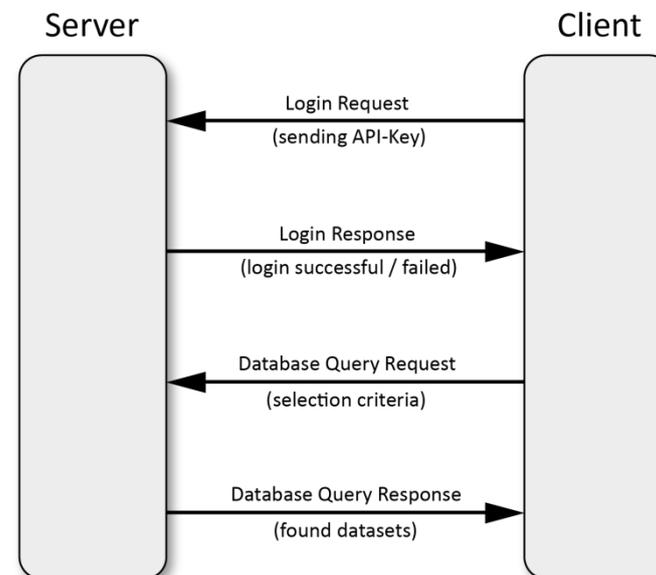
- EUROLAS Data Center - Application Programming Interface (EDC-API)
- The EDC-API allows users to access the EDC data holding by using their own programs via socket connections
- The user can send queries to the EDC data holding and receive user-defined database listings



Flow chart of the EDC-API

EDC-API

- Communication using the EDC-API occurs in two steps (authentication, database query)
- The authentication occurs by sending an API-key which is available after registration on the EDC website
- The database request contains parameters for the database selection (e.g. data type, output parameters, constraints for the selection, ...)
- The database response contains an array with all datasets returned by the database selection



Communication between Client and Server using EDC-API

EDC-API

- First application using the EDC-API is the “Station Monitor”
- The “Station Monitor” lists the latest submitted data sets of a certain station and updates itself automatically
- The program can be downloaded from the EDC-Website
- The Source code (Python) can be modified for other applications

Incoming Date	Station	Satellite	Start Data Date	End Data Date	Status
2013-11-03 04:10:52	70802419	7501001	2013-11-03 00:38:10	2013-11-03 00:39:19	valid
2013-11-03 03:11:12	70802419	1104301	2013-11-03 00:17:18	2013-11-03 00:20:07	valid
2013-11-03 03:11:12	70802419	8606101	2013-11-02 23:38:36	2013-11-02 23:46:03	valid
2013-11-03 01:10:12	70802419	1107101	2013-11-02 22:18:37	2013-11-02 22:23:36	valid
2013-11-03 00:10:51	70802419	1200601	2013-11-02 20:58:55	2013-11-02 21:02:49	valid
2013-11-03 00:10:51	70802419	7603901	2013-11-02 20:47:24	2013-11-02 20:52:15	valid
2013-11-02 21:10:11	70802419	7603901	2013-11-02 17:24:48	2013-11-02 17:29:41	valid
2013-11-01 04:10:37	70802419	0304206	2013-11-01 00:28:50	2013-11-01 00:29:49	valid
2013-11-01 03:10:22	70802419	8606101	2013-10-31 23:28:16	2013-10-31 23:31:02	valid
2013-11-01 02:10:21	70802419	1200601	2013-10-31 23:06:41	2013-10-31 23:09:20	valid
2013-11-01 00:11:17	70802419	1106002	2013-10-31 21:15:31	2013-10-31 21:25:12	valid
2013-11-01 00:11:17	70802419	1200601	2013-10-31 21:09:13	2013-10-31 21:10:23	valid
2013-10-31 23:10:36	70802419	7603901	2013-10-31 19:56:00	2013-10-31 20:01:26	valid
2013-10-31 23:10:36	70802419	9306102	2013-10-31 19:29:48	2013-10-31 19:30:08	valid
2013-10-30 16:14:32	70802419	6503201	2013-10-30 03:49:45	2013-10-30 03:56:40	valid
2013-10-30 16:14:32	70802419	8606101	2013-10-30 03:13:45	2013-10-30 03:21:36	valid
2013-10-30 16:14:32	70802419	7501001	2013-10-30 02:56:27	2013-10-30 03:01:32	valid
2013-10-30 16:14:32	70802419	6503201	2013-10-30 01:58:13	2013-10-30 02:01:45	valid
2013-10-30 16:14:32	70802419	9207002	2013-10-30 01:04:23	2013-10-30 01:36:36	valid
2013-10-30 16:14:32	70802419	9207002	2013-10-27 02:33:22	2013-10-27 03:16:50	valid

Station monitor for Mt.Stromlo

Conclusion / Outlook

Conclusion

- The new tools
 - help station operators to track their data more efficient
 - help analysts to get more information about the data holding
 - help users to find information they are looking for (SLR Mail, etc.)

Outlook

- The functionality of the EDC-API will be improved (in collaboration with stations)
 - Provide more statistics about the data holding (suggestions of interesting statistics are welcome)
 - Internal near real time data processing (decrease of the time from the data submission to the availability of the data on FTP).
 - Reorganization of the incoming FTP structure (one FTP account for each station, prediction center, etc.)
-  • Stop sending data in old format (CSTG, MERIT-II) data to DCs. ¹³