



The EUREF organization generates a set of products mainly to be used in geodesy but certainly also suitable for other tasks in the geo-referencing branch.

This website holds a compilation of information about the products from EUREF projects and services.

Product classification: A terminology was setup to classify the various EUREF products. It consists of the important characteristics and of the potential quantities. It may help users to identify products they are interested in.

<b>1. Validated / Official Products</b>							
<b>No.</b>	<b>Product</b>	<b>Class</b>	<b>Sub-Class</b>	<b>Accuracy</b>	<b>Latency</b>	<b>Updates</b>	<b>Links</b>
1.01	<b>Definition of ETRS89</b>	Reference Systems and Frames	Definition	1 cm	-	-	<a href="#">ETRS89 home page</a>
1.02	<b>Definition of EVRS</b>	Reference Systems and Frames	Definition	1 cm	-	-	<a href="#">EVRS home page</a>
1.03	<b>Transformation between ETRF and ITRF</b>	Reference Systems and Frames	Transformation Parameter	1 cm	-	Simultaneous with new ITRF realisation	<a href="#">ETRS89/ITRS transformation</a>
1.04	<b>ETRS/ITRF transformation service</b>	Reference Systems and Frames	Transformation Parameter	1cm	Few seconds	On request	<a href="#">EPN coordinate transformation service</a>
1.05	<b>CRS - Transformation between national coordinate system and ETRS89</b>	Reference Systems and Frame	Transformation Parameter	1m	-	According supply by countries	<a href="#">CRS home page</a>

1.06	<b>CRS - Transformation between National Height system and EVRS</b>	Reference Systems and Frames	Transformation Parameter	1 - 10 cm	-	According supply by countries	<a href="#">CRS home page</a>
1.07	<b>EPN station coordinates Class A</b>	Station	Coordinates	1 cm	15 weeks	15 weeks	<a href="#">EPN coordinates</a>
1.08	<b>EPN station velocities Class A</b>	Station	Velocities	~1 mm/year uncertainty	15 weeks	15 weeks	<a href="#">EPN coordinates</a>
1.09	<b>EPN station coordinates Class B</b>	Station	Coordinates	> 1 cm	15 weeks	15 weeks	<a href="#">EPN coordinates</a>
1.10	<b>Weekly coordinates of EPN stations</b>	Station	Coordinates	0.5 - 1.5 cm	5 weeks	weekly	<a href="#">Weekly EPN solutions</a>
1.11	<b>Daily coordinates of EPN stations</b>	Station	Coordinates	0.5 - 1.5 cm	3 weeks	daily	<a href="#">Daily EPN solutions</a>
1.12	<b>EPN station position time series</b>	Station	Coordinates	1 cm	15 weeks	15 weeks	<a href="#">EPN position time series</a>
1.13	<b>Station coordinates of validated EUREF campaigns</b>	Station	Coordinates	1 - 5 cm	1 year	-	EUREF campaigns
1.14	<b>EVRF2007</b>	Station	Physical Height	1 - 5 cm	-	5 - 10 years	<a href="#">EVRF2007</a>
1.15	<b>EUVN-DA</b>	Station	Physical Height	1 - 10 cm	-	5 - 10 years	<a href="#">EUVN-DA</a>
1.16	<b>Hourly troposphere parameter for EPN stations</b>	Station	Troposphere	4 - 6 mm ZTD	3 weeks	weekly	<a href="#">EPN tropospheric delays</a>
1.17	<b>GNSS broadcast satellite orbit correction</b>	Satellite	Orbit	10 - 15 cm	real-time	10 sec.	<a href="#">ASI broadcaster</a> <a href="#">BKG broadcaster</a> <a href="#">ROB broadcaster</a>
1.18	<b>GNSS satellite clock correction</b>	Satellite	Clock	0.3 ns	real-time	10 sec	<a href="#">ASI broadcaster</a> <a href="#">BKG broadcaster</a> <a href="#">ROB broadcaster</a>

## 2. Observational & Meta Data

No.	Product	Class	Sub-Class	Accuracy	Latency	Updates	Links
2.01	Daily observation files of EPN stations	Observation	Data File	-	30 min	daily	<a href="#">BKG data centre</a> <a href="#">BEV data centre</a> <a href="#">ROB historical data centre</a>
2.02	Hourly observation files of EPN stations	Observation	Data File	-	5 - 15 min	hourly	<a href="#">BKG data centre</a> <a href="#">BEV data centre</a>
2.03	Real-time observations of EPN stations using NTRIP	Observation	Data Stream	-	real-time	real-time	<a href="#">EPN real-time page</a> <a href="#">ASI broadcaster</a> <a href="#">BKG broadcaster</a> <a href="#">ROB broadcaster</a>
2.04	High rate observation files of EPN stations	Observation	Data File	-	5 - 10 min	15 min	<a href="#">BKG data centre</a> <a href="#">BEV data centre</a>
2.05	Meta data and monitoring of EPN stations	Station	-	-	few minutes	according to notification by station provider	<a href="#">EPN station list</a>
2.06	Station site log submission (M3G)	Station	-	-	few seconds	on request	<a href="#">Metadata Management and distribution system for Multiple GNSS Networks</a>

### 3. Internal and Other Products / Monitoring

No.	Product	Class	Sub-Class	Accuracy	Latency	Updates	Links
3.01	Rapid daily coordinates of EPN stations	Station	Coordinates	1 - 2 cm	1 day	daily	<a href="#">BKG data centre</a>
3.02	EPN sub-network solution as contribution to the TIGA Project of IGS	Station	Coordinates	0.5 - 1.5 cm	3 weeks	weekly	
3.03	Site information of EPN stations	Station	-	-	-	daily or after configuration change	<a href="#">EPN site info</a>

### 4. EUREF Standardization and Guidelines

No.	Product	Class	Sub-Class	Accuracy	Latency	Updates	Links
4.01	Guidelines for EPN stations and Operational Centres	Station	-	-	-	if necessary	<a href="#">EPN guidelines</a>
4.02	Guidelines for EPN Data Centres & EPN Broadcasters	-	-	-	-	if necessary	<a href="#">EPN guidelines</a>
4.03	Guidelines for EPN Analysis Centres	-	-	-	-	if necessary	<a href="#">EPN guidelines</a>
4.04	Guidelines for EUREF densifications	Station	-	-	-	if necessary	<a href="#">EPN guidelines</a>