

Access to electronic files on the FTP server and the data base of the BIPM Time Department.

The files and information related to BIPM Time Activities are available from the website:
<https://www.bipm.org/en/time-metrology>.

Items accessible through this webpage include :

1. Information on various time scales computed by the BIPM Time Department (TAI/UTC, UTCr, TT(BIPM),...)
2. Key comparison CCTF-K001.UTC results
3. BIPM products:
 - a. BIPM Time Department FTP server : all publications on the public FTP server
 - b. BIPM Time Department Database : information on participating laboratory equipment and interactive plots of published values.
 - c. Information on calibration of time transfer systems used to generate UTC
 - d. Application Programming Interface for diffusion of results by machine readable data

BIPM Time Department Database content :

The BIPM Time Department Database contains information on the UTC laboratory time scale, GNSS calibration and overall guidelines.



BIPM Time Department Data Base



In this web site, information can be found on equipment in UTC contributing laboratories
To obtain these information, go to tabs :

Participation guidelines

Full documentation and guidelines for UTC and UTCr participation

Participants

Laboratories info : full list of participating labs and their related information
UTC/UTCr Contributors : contributing laboratories to UTC and UTCr

Lab. equipment

GNSS : list of all GNSS equipments in UTC participating laboratories and their calibration status
TWSTFT : list of all TWSTFT equipments in UTC participating laboratories and their calibration status

Clocks

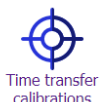
Clock stats & codes : list of all clocks contributing to UTC
Obtain BIPM clock code : Tool to generate the BIPM clock code of a clock (necessary to start reporting the clock for TAI)
by laboratory : list of clocks from a given lab

Calibrations

GNSS status : list of GNSS calibration exercises (past and future)
GNSS results : results of GNSS calibration exercises
TWSTFT status : list of TWSTFT calibration exercises

Interactive plots

UTC-UTC(k) : Interactive plot of UTC(k) wrt UTC/UTCr
UTC-GNSS times : Interactive plot GNSS times wrt UTC



BIPM Time Department [FTP server](#) content :

The files can be found in the eight subdirectories: **Circular-T, Rapid-UTC, ttbipm, data, other-products, Links results, hardware delay characterization, and annual-reports.** They are all available by ftp (62.161.69.5 or <ftp2.bipm.org>, user anonymous, e-mail address as password, cd pub/tai).

[Circular-T](#) – All issues of BIPM *Circular T*.

[Rapid-UTC](#) – From February 2012 until June 2013 results of the Pilot Experiment on Rapid UTC (UTC_r). Starting in July 2013 official results of Rapid UTC (UTC_r).

[TT\(BIPM\)](#) – The realizations of terrestrial time TT(BIPMXY).

[Data](#) – All data used for the computation of TAI, including reports of evaluation of primary and secondary frequency standards and all clock and time transfer data files used for the computation of TAI, arranged in yearly directories. See [readme](#) for details.

[Other-products](#) – Other products, including time differences and monthly values of clock weights and frequency drifts, etc.

[Links results](#) – Results of time links and time link comparisons processed with *Circular T*.

[Hardware delay characterization](#) – All characterized hardware delays of time transfer equipment, including reports.

[Annual reports](#) – Archive of the BIPM Annual Reports on Time Activities and extracts from the BIH Annual Reports.

BIPM Time Department main products :

In the following directories XY represents the last two digits of the year number (19XY or 20XY); YYYY represents the year number; WW represents the week number in the year, ZT represents the month number in the year (01-12) except until 1997 when Z represents the two-month interval of TAI computation (Z =1 for Jan.-Feb., 2 for Mar.- Apr., etc...); XX, XXX are ordinal numbers.

products	filename/link
Acronyms of laboratories	Database
Geographical map of laboratories contributing to TAI	Maps
<i>Circular T</i>	cirt.XXX
<i>Circular T HTML</i>	cirt.XXX.html (starting 2016)
<i>UTC_r</i>	UTC_r_XYWW
Fractional frequency of EAL from primary and secondary frequency standards	etXY.ZT
Weights of clocks participating in the computation of TAI	wXY.ZT
Rates relative to TAI of clocks participating in the computation of TAI	rXY.ZT
Frequency drifts of clocks participating in the computation of TAI	dXY.ZT
Statistics on distribution of weights for clocks participating to TAI	Statistics
Daily values of the differences between UTC _r and its local representation by the given laboratory	UTC_r - lab
Values of the differences between TAI and the local atomic scale of the given laboratory, including relevant notes	TAI - lab

Values of the differences between UTC and its local representation by the given laboratory including graphics and relevant notes	UTC - lab (+ plots)
Relations of UTC and TAI with GPS and GLONASS system times, and also with the predictions of UTC(<i>k</i>) disseminated by GNSS	UTC-GNSS (starting January 2011)
TT(BIPMXY) computation ending in 19XY or 20XY	TTBIPM.YYYY
Difference between the normalized frequencies of EAL and TAI	f(EAL)-f(TAI)
Difference between PSFS ensemble frequency and TAI frequency (d)	fpsfs-ftai
Difference between PSFS frequency and TAI frequency (d)	PSFS-ftai
Measurements of the duration of the TAI scale interval	utaiYYYY.pdf (starting 1995)
Mean fractional deviation of the TAI scale interval from that of TT duration of TAI scale interval	sitaiYYYY.pdf (starting 2000)

Information on time dissemination by laboratories :

Time scales data	filename/link
Time Dissemination Services	TIMESERVICES.PDF
Time Signals	TIMESIGNALS.PDF

The leap seconds table is no longer updated on the ftp site but it is available here:
https://hpiers.obspm.fr/eoppc/bul/bulc/Leap_Second.dat

[Older files](#) can be accessed directly from the ftp site (62.161.69.5 or <ftp2.bipm.org>).

Any comments or queries should be sent to: tai@bipm.org