

How to download precise orbits

Precise orbits products can be downloaded from CODE (Centre for Orbit Determination in Europe).

Checklist of date information required before downloading files

Assume the required date (*dd/mm/yyyy*) is known:

- *YYYY*, 4 digit year. From *dd/mm/YYYY*
- *DDD*, day of year (DoY). An Internet search will produce several sites that list or calculate the DoY for a particular date.

Products are available from here:

<http://ftp.aiub.unibe.ch/CODE/>

or anonymous ftp to <ftp://ftp.aiub.unibe.ch/CODE/>

Predicted, ultra rapid and rapid products are available in the root directory and final products are in yearly (*/YYYY/*) directories. Ultra rapid products are, as the name suggests, made available as quickly as possible. Predicted products are available before the day in question but are, obviously, not as high a quality as the other products. It can take up to 14 days for final products to be available. For most use cases the rapid product is just as suitable as the final product. Rapid products are usually available the next day.

The data naming scheme is “long filenames” which are very different from the older 8-character filenames. Full details are here -

https://files.igs.org/pub/resource/guidelines/Guidelines_For_Long_Product_Filenames_in_the_IGS_v2.0.pdf

The CODE orbit files, listed in descending order of accuracy, are named as follows:

<i>/YYYY/COD0OPSFIN_YYYYDDD0000_01D_05M_ORB.SP3.gz</i>	for the final product
<i>COD0OPSRAP_YYYYDDD0000_01D_05M_ORB.SP3</i>	for the rapid product
<i>COD0OPSULT_YYYYDDD0000_01D_05M_ORB.SP3</i>	for the ultra rapid product
<i>COD0OPSPRD_YYYYDDD0000_05D_05M_ORB.SP3</i>	for the predicted product

The “*YYYYDDD*” in the filenames above should be replaced by the appropriate year (*YYYY*) and day of year (*DDD*).

For the final product the “.gz” extension indicates that the file has been compressed with the GZ algorithm. The majority of file compression software applications will uncompress GZ files.