
NBS monthly report - 2024 July

MET Norway - NBS team

Oct 17, 2024

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The NBS project

The European Space Agency (ESA) is in charge for the distribution of data from the Sentinel satellite constellation. In order to maintain a reliable and sustainable data hub, the creation and operation of multiples data hubs is necessary. With the purpose of keeping and maintaining a reliable and online source of data from the ESA Sentinel constellation for an Area Of Interest (AOI) covering Norway, the Norwegian Space Agency (NOSA) funded the National Bakke Segment (NBS) project. The map below is indicating the AOI in red.



Therefore, MET Norway was contracted for the operation of the NBS data. The NBS is implemented as a part of the operational infrastructure at MET Norway. As so it follows the normal procedures for planning, implementation and testing, and operations. User access to the NBS is configured according to NOSA requirements. This includes the use of ESA's DHuS software for synchronization between ESA and user accessibility.

The present report is part of MET Norway duties to inform about its performance as operator of the NBS. Monthly reports will be created monthly to regularly communicate the status of MET Norway's NBS.

The Sentinel products

The NBS project includes the management of the data received from Sentinel-1 (S1), Sentinel-2, Sentinel-3 (S3) and Sentinel-5p (S5p) satellites for the specified AOI. Each of the Sentinels has different operational modes for achieving images with different characteristics. Those images can have different processing levels. The products included in the DHR are Level-1 images for all the Sentinels except for Sentinel-2. For which Level-1 (S2L1C) and Level-2 (S2L2A) are both included in the NBS.

BackEnds and FrontEnds

As operator of NBS, the source of Sentinel data is ESA; and ESA spreads the Sentinel data through the Copernicus Data Space Ecosystem (CDSE - dataspace.copernicus.eu). CDSE is ESA's FrontEnd (FE) for Sentinel data accessibility. MET Norway uses the DHS software for synchronization and creation of other FrontEnds. During the synchronization

process a BackEnd (BE) is created. MET Norway is also running two FEs, colhub.met.no and colhub-archive.met.no. The colhub FE includes or will include all the products mentioned for Sentinel global products plus S3 marine products from Copernicus, S1 products from the Kongsberg Satellite Services (KSAT), and S2 Digital Elevation Model (DEM). The colhub-archive FE includes data from S1, S2L1C, S2L2A, S2DEM, S3, S5p products for the AOI. An important distinction between both FEs is that colhub-archive will always maintain available online all the products for the AOI.

In order to maintain an accountability on products synchronized from ESA's CDSE and available for users at the different FEs, it is necessary to understand the architecture of MET Norway's DHR.

ACRONYMS

Here follows a formatted list of acronyms.

BE BackEnd

DEM Digital Elevation Model

DHuS Data Hub Software

ESA European Space Agency

FE FrontEnd

KSAT Kongsberg Satellite Services

MET Norway Meteorological Institute of Norway

CDSE Copernicus Data Space Ecosystem

S1 Sentinel-1

S2 Sentinel-2

S2L1C Sentinel-2 Level-1 C

S2L2A Sentinel-2 Level-2 A

S3 Sentinel-3

S5p Sentinel-5p

QUICK SUMMARY

The table below shows a short overview of the NBS performance operation during the last 30 days. The number of products are compared against CDSE. All columns represents the number of products in each portal except the last 3 columns. Those 3 columns represents the data flow from MET Norway to users through the portals where Volumes are measured in Tb.

Portals	S1	S2L1C	S2L2A	S3	S5p	Nb of users	Nb of products	Volume
colhub.met.no	8502	40924	41219	38091	16508	17	28370	13.897
colhub-archive.met.no	8369	40626	40922	36471	16449	6	4836	2.973
dataspace.copernicus.eu	9438	39797	39797	44846	0			

Finally, the total amount of disk space dedicated to the NBS project, including either products in SAFE and NetCDF formats, represents 5753 Tb.

Due to tracking the data ingested and produced for the NBS project in the last year it is possible to forecast the upcoming need for disk space. As long as data flows follows the same pattern than last year, in 6 months the total disk space will grow until 6092 Tb; while in 12 months it is forecast to become 6849 Tb.

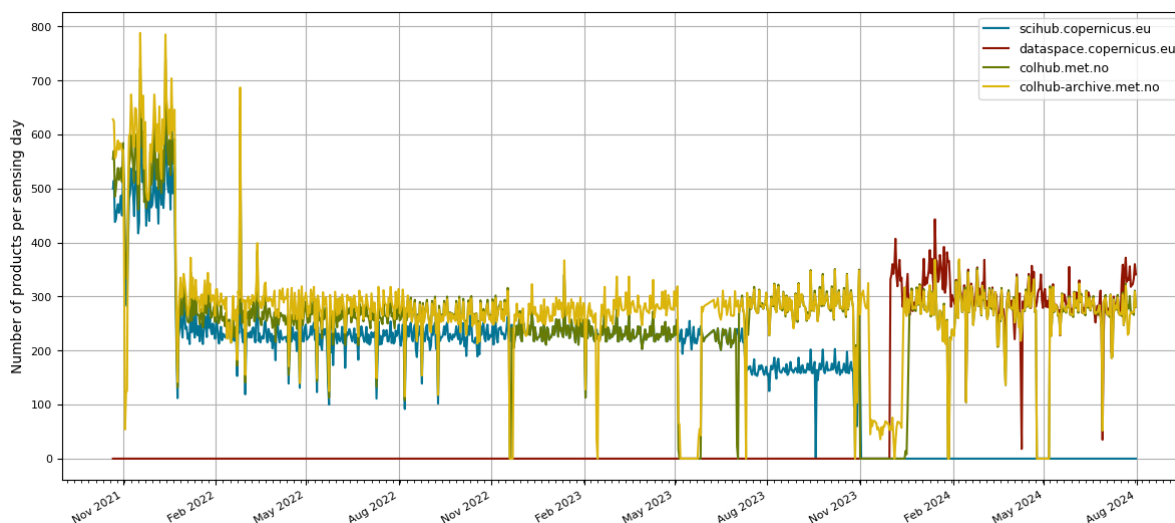
SENTINEL-1 PRODUCTS

This section shows the performance of MET Norway for Sentinel-1 products. Both, an overall status and last month status are shown below.

Note that scihub is no longer in operation but is included for historical comparisons.

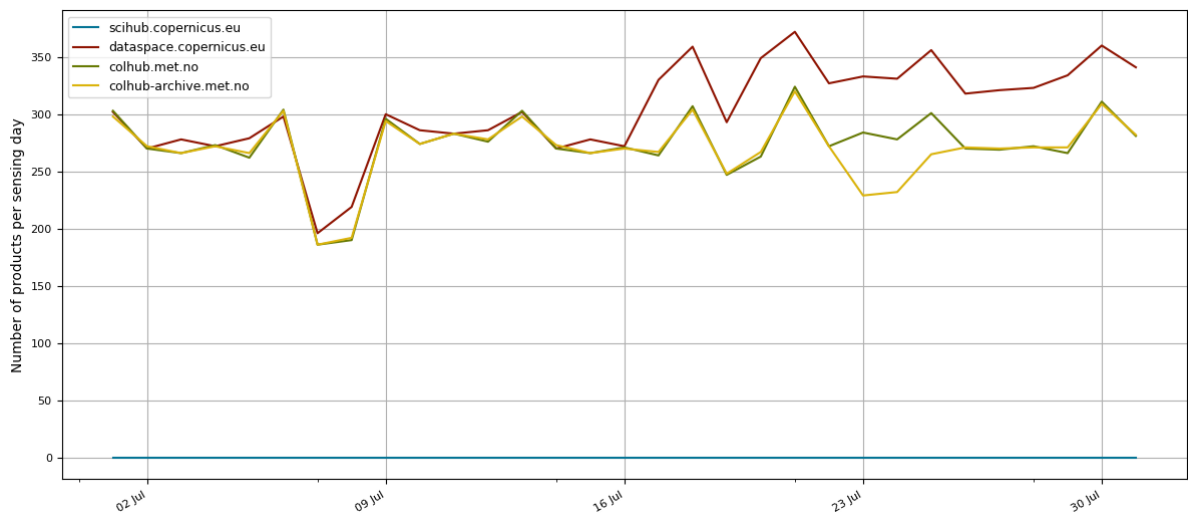
3.1 Products on portals

The following section contains an update on the Sentinel-1 products included in the different FEs and BEs.



The figure above represents the overall number of products present in the different BackEnds and FrontEnds per day for Sentinel-1.

While the figure below shows a zoom on the last month.



A table is also included for more detailed information.

	colhub.met.no	dataspace.copernicus.eu	colhub-archive.met.no
sensing_date			
2024-07-01	303.0	302.0	298.0
2024-07-02	270.0	270.0	272.0
2024-07-03	266.0	278.0	266.0
2024-07-04	273.0	272.0	272.0
2024-07-05	262.0	279.0	266.0
2024-07-06	304.0	298.0	303.0
2024-07-07	186.0	196.0	186.0
2024-07-08	190.0	219.0	192.0
2024-07-09	296.0	300.0	294.0
2024-07-10	274.0	286.0	274.0
2024-07-11	283.0	283.0	283.0
2024-07-12	276.0	286.0	278.0
2024-07-13	303.0	302.0	298.0
2024-07-14	270.0	270.0	273.0
2024-07-15	266.0	278.0	266.0
2024-07-16	271.0	272.0	270.0
2024-07-17	264.0	330.0	267.0
2024-07-18	307.0	359.0	304.0
2024-07-19	247.0	293.0	248.0
2024-07-20	263.0	349.0	267.0
2024-07-21	324.0	372.0	320.0
2024-07-22	272.0	327.0	272.0
2024-07-23	284.0	333.0	229.0
2024-07-24	278.0	331.0	232.0
2024-07-25	301.0	356.0	265.0
2024-07-26	270.0	318.0	271.0
2024-07-27	269.0	321.0	270.0
2024-07-28	272.0	323.0	271.0
2024-07-29	266.0	334.0	271.0
2024-07-30	311.0	360.0	309.0
2024-07-31	281.0	341.0	282.0

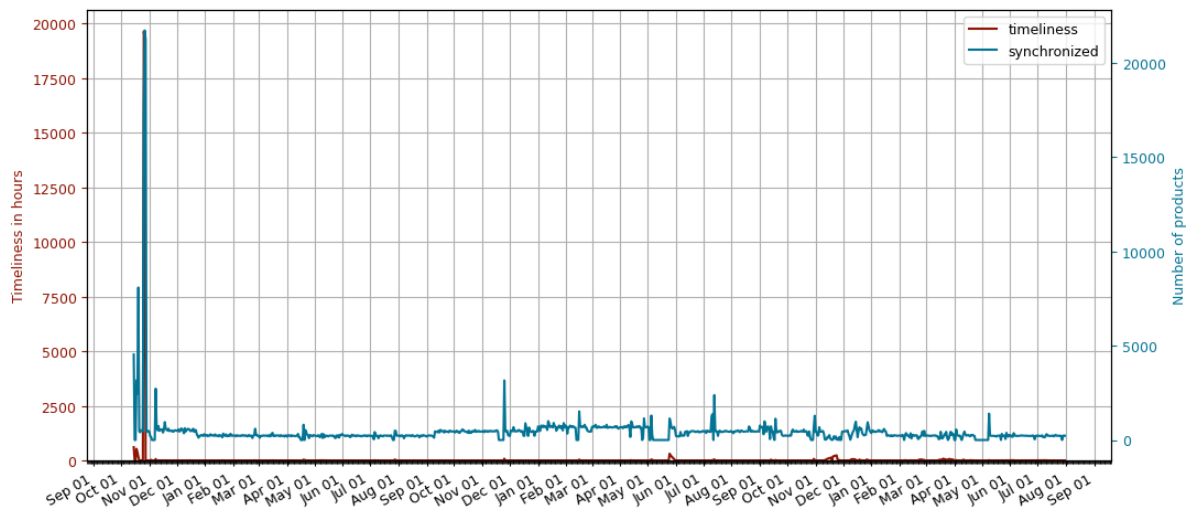
3.2 Missing products

The overall total number of Sentinel-1 products is 5433944. The number of overall Sentinel-1 missing products consists of 2457381 images. This represents that a 500% of the total was included in MET Norway DHR, while a -400% was not included.

The total number of Sentinel-1 products in July is 1096054. The number of Sentinel-1 missing products during July consists of 953217 images. This represents that a 0% of the total was included in MET Norway DHR, while a 100% was not included.

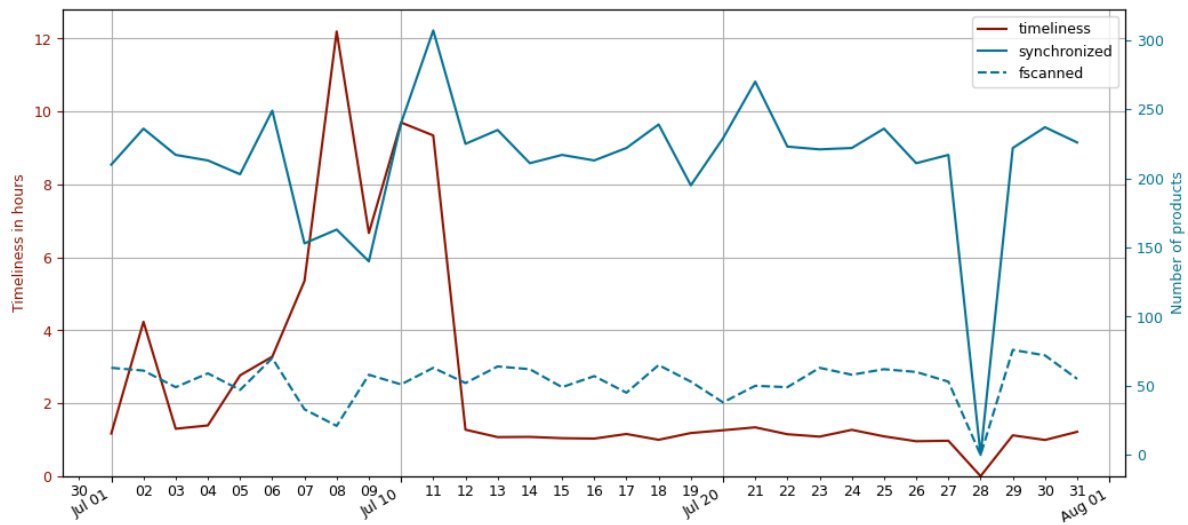
3.3 Data ingestion

In this section the time difference between sensing time and ingestion time at MET Norway is assessed. The ingestion time is the time at which a Sentinel product was downloaded to MET Norway BE and so, it is automatically available in at least one of the MET Norway FEs.



The figure above shows an overall status of the Sentinel-1 synchronization between ESA datahub and MET Norway BE. The number of products synchronized and deleted are represented by the dark and light blue lines respectively. The red line represents the timeliness.

Following previous sections, the graph below shows a zoom in the last month for the synchronization between ESA datahub and MET Norway BE.



A more detailed information is given in the table below where the last month is assessed for products synchronized from ESA.

day	size	number	timeliness
2024-07-01	510.920343	210	1.169281
2024-07-02	594.302595	236	4.233536
2024-07-03	482.808090	217	1.300325
2024-07-04	544.839277	213	1.390762
2024-07-05	470.561127	203	2.763810
2024-07-06	608.149567	249	3.276922
2024-07-07	352.885969	153	5.351882
2024-07-08	387.004046	163	12.195025
2024-07-09	342.550666	140	6.668906
2024-07-10	569.886160	240	9.699170
2024-07-11	751.129426	307	9.343273
2024-07-12	542.386017	225	1.274477
2024-07-13	584.672618	235	1.070798
2024-07-14	520.213937	211	1.076993
2024-07-15	482.983194	217	1.041210
2024-07-16	544.817423	213	1.030100
2024-07-17	516.716855	222	1.156226
2024-07-18	579.873915	239	0.997091
2024-07-19	477.010857	195	1.182851
2024-07-20	589.112654	229	1.258807
2024-07-21	717.034450	270	1.338424
2024-07-22	474.592647	223	1.149370
2024-07-23	546.921816	221	1.083689
2024-07-24	541.021575	222	1.270184
2024-07-25	587.465698	236	1.091229
2024-07-26	520.113963	211	0.957570
2024-07-27	482.105070	217	0.971170
2024-07-28	0.000000	0	0.000000
2024-07-29	516.929484	222	1.120219
2024-07-30	579.161613	237	0.992030
2024-07-31	565.972888	226	1.216472

It is also given extra information in the table below where the data are assessed for products synchronized from KSAT.

	size	number	timeliness
day			
2024-07-01	61.674723	63	0.748754
2024-07-02	74.663372	61	0.687588
2024-07-03	47.981751	49	0.586646
2024-07-04	66.348442	59	0.713529
2024-07-05	47.123828	47	0.694620
2024-07-06	67.815843	70	0.677592
2024-07-07	47.121044	33	0.682181
2024-07-08	30.590162	21	1.002695
2024-07-09	70.575044	58	0.799586
2024-07-10	45.538404	51	0.622924
2024-07-11	68.050529	63	0.651781
2024-07-12	49.965601	52	0.737185
2024-07-13	56.935380	64	0.672626
2024-07-14	71.784200	62	0.751042
2024-07-15	50.804867	49	0.618706
2024-07-16	68.481790	57	0.766565
2024-07-17	50.069315	45	0.660184
2024-07-18	64.994497	65	0.644598
2024-07-19	72.973545	53	0.689723
2024-07-20	45.062966	38	0.779995
2024-07-21	78.321884	50	0.812245
2024-07-22	49.424107	49	0.603251
2024-07-23	70.151854	63	0.668397
2024-07-24	73.095227	58	0.794806
2024-07-25	65.379655	62	0.646612
2024-07-26	72.054788	60	0.669056
2024-07-27	54.156230	53	0.749019
2024-07-28	0.000000	0	0.000000
2024-07-29	86.171698	76	2.119325
2024-07-30	73.817490	72	0.640189
2024-07-31	71.662313	55	0.786856

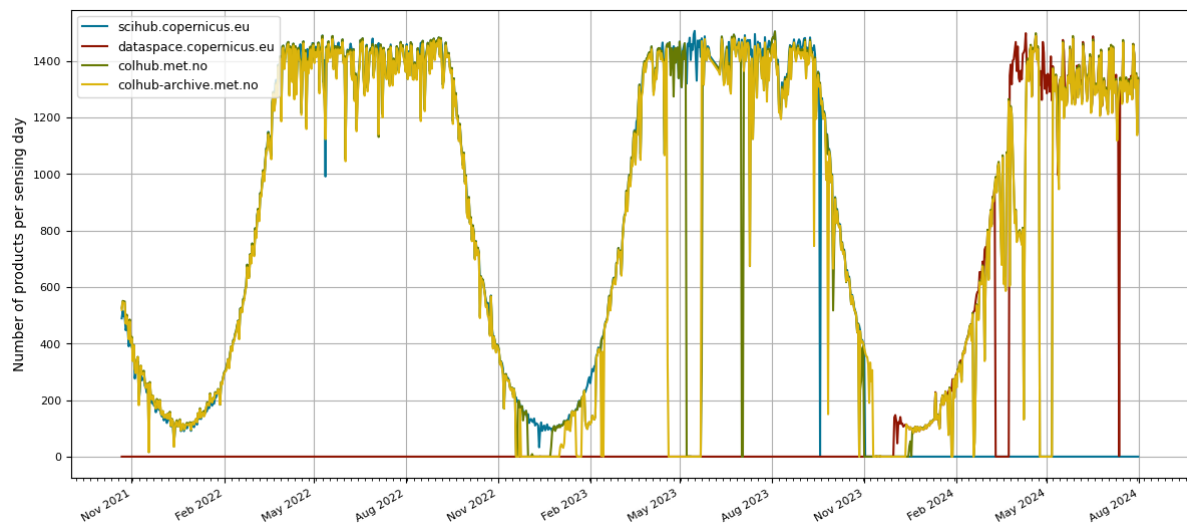
SENTINEL-2 LEVEL-1C PRODUCTS

This section shows the performance of MET Norway for Sentinel-2 Level-1C products. Both, an overall status and last month status are shown below.

Note that scihub is no longer in operation but is included for historical comparisons.

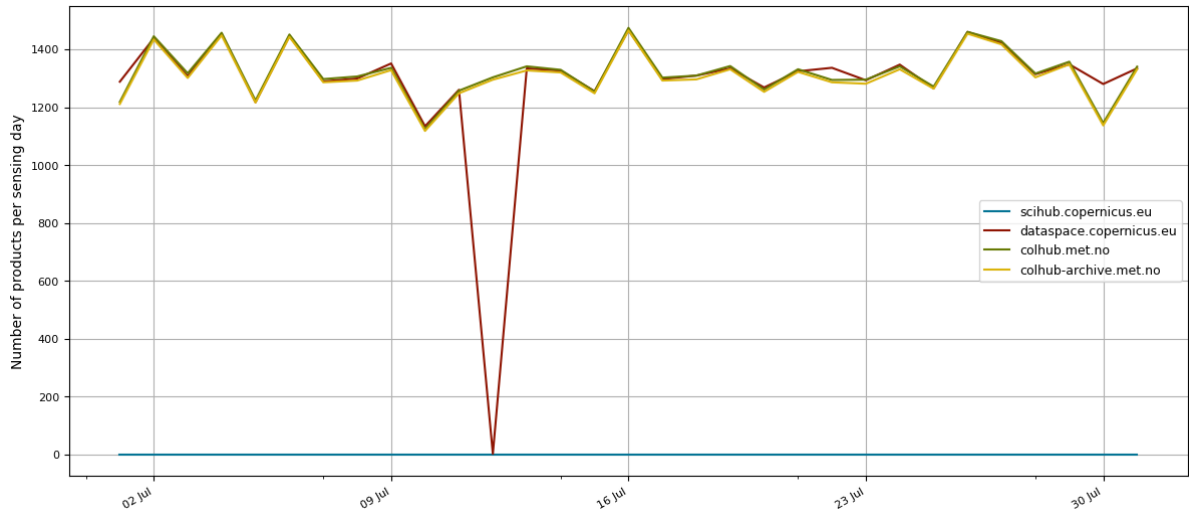
4.1 Products on portals

The following section contains an update on the Sentinel-2 Level-1C products included in the different FEs and BEs.



The figure above represents the overall number of products present in the different BackEnds and FrontEnds per day for Sentinel-2 Level-1C.

While the figure below shows a zoom on the last month.



A table is also included for more detailed information.

	colhub.met.no	dataspace.copernicus.eu	colhub-archive.met.no
sensing_date			
2024-07-01	1218.0	1288.0	1211.0
2024-07-02	1445.0	1438.0	1434.0
2024-07-03	1317.0	1307.0	1301.0
2024-07-04	1457.0	1454.0	1448.0
2024-07-05	1223.0	1217.0	1216.0
2024-07-06	1451.0	1446.0	1443.0
2024-07-07	1297.0	1289.0	1286.0
2024-07-08	1306.0	1299.0	1292.0
2024-07-09	1336.0	1351.0	1328.0
2024-07-10	1124.0	1134.0	1118.0
2024-07-11	1257.0	1260.0	1248.0
2024-07-12	1303.0	2.0	1295.0
2024-07-13	1341.0	1334.0	1327.0
2024-07-14	1329.0	1326.0	1320.0
2024-07-15	1254.0	1255.0	1248.0
2024-07-16	1474.0	1466.0	1465.0
2024-07-17	1302.0	1297.0	1292.0
2024-07-18	1309.0	1309.0	1296.0
2024-07-19	1342.0	1334.0	1331.0
2024-07-20	1261.0	1268.0	1253.0
2024-07-21	1331.0	1324.0	1322.0
2024-07-22	1294.0	1336.0	1286.0
2024-07-23	1295.0	1293.0	1281.0
2024-07-24	1341.0	1347.0	1331.0
2024-07-25	1271.0	1265.0	1264.0
2024-07-26	1460.0	1460.0	1454.0
2024-07-27	1428.0	1422.0	1417.0
2024-07-28	1316.0	1314.0	1303.0
2024-07-29	1357.0	1348.0	1348.0
2024-07-30	1145.0	1280.0	1137.0
2024-07-31	1340.0	1334.0	1331.0

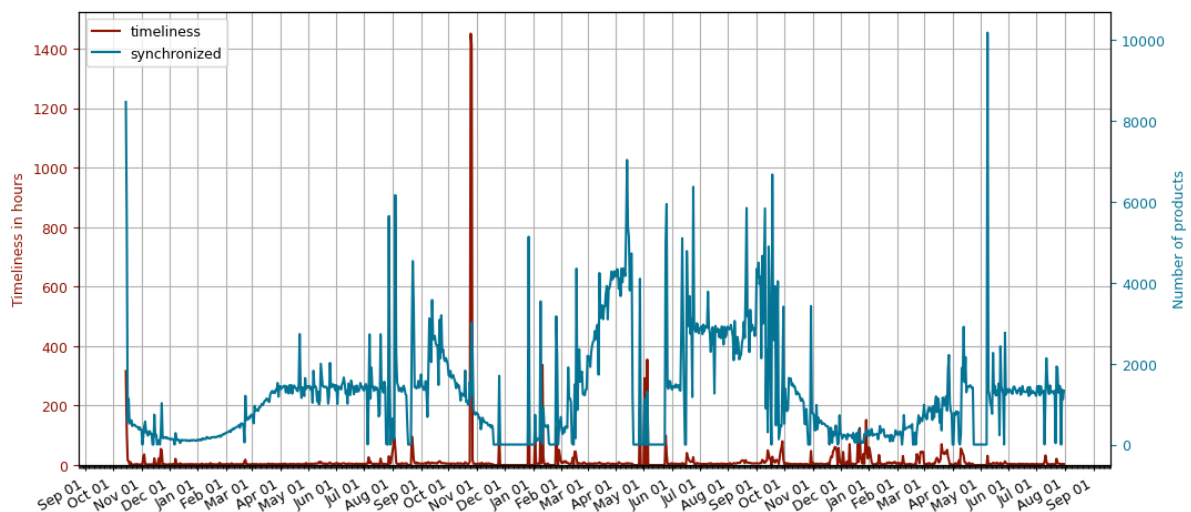
4.2 Missing products

The overall total number of Sentinel-2 Level-1C products is 5433944. The number of overall Sentinel-2 Level-1C missing products consists of 2457381 images. This represents that a 500% of the total was included in MET Norway DHR, while a -400% was not included.

The total number of Sentinel-2 Level-1C products in July is 1096054. The number of Sentinel-2 Level-1C missing products during July consists of 953217 images. This represents that a 0% of the total was included in MET Norway DHR, while a 100% was not included.

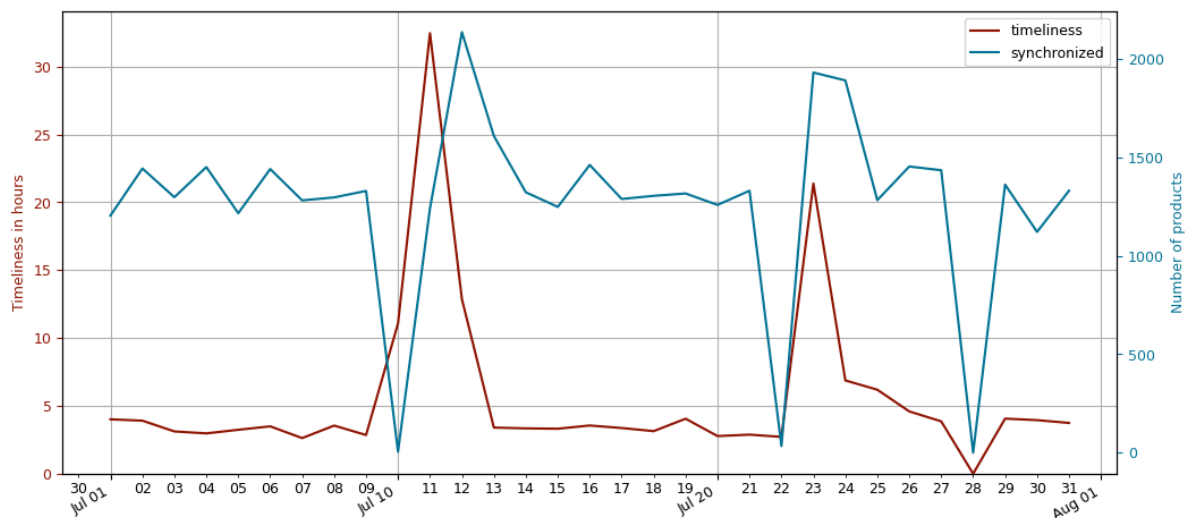
4.3 Data ingestion

In this section the time difference between sensing time and ingestion time at MET Norway is assessed. The ingestion time is the time at which a Sentinel product was downloaded to MET Norway BE and so, it is automatically available in at least one of the MET Norway FEs.



The figure above shows an overall status of the Sentinel-2 Level-1C synchronization between ESA datahub and MET Norway BE. The number of products synchronized and deleted are represented by the dark and light blue lines respectively. The red line represents the timeliness.

Following previous sections, the graph below shows a zoom in the last month for the synchronization between ESA datahub and MET Norway BE.



A more detailed information is given in the table below where the last month is assessed for products synchronized from ESA.

day	size	number	timeliness
2024-07-01	526.676154	1204	4.009632
2024-07-02	641.013470	1443	3.908708
2024-07-03	562.606289	1297	3.117324
2024-07-04	616.499428	1450	2.973066
2024-07-05	543.046766	1216	3.237457
2024-07-06	659.391891	1440	3.491873
2024-07-07	586.841896	1281	2.626540
2024-07-08	582.521322	1296	3.548012
2024-07-09	567.305062	1329	2.851285
2024-07-10	1.640589	5	11.077598
2024-07-11	545.513025	1241	32.467519
2024-07-12	941.530367	2135	12.858691
2024-07-13	684.298794	1608	3.400565
2024-07-14	580.223916	1322	3.342129
2024-07-15	551.889809	1248	3.315891
2024-07-16	670.233650	1461	3.553069
2024-07-17	585.401587	1288	3.368595
2024-07-18	576.580197	1304	3.136921
2024-07-19	588.806865	1316	4.054085
2024-07-20	557.734285	1258	2.772987
2024-07-21	596.041326	1330	2.879789
2024-07-22	15.280187	34	2.714853
2024-07-23	821.992666	1930	21.385723
2024-07-24	821.460185	1890	6.875892
2024-07-25	551.574303	1282	6.191929
2024-07-26	639.077512	1453	4.592143
2024-07-27	628.433621	1434	3.858165
2024-07-28	0.000000	0	0.000000
2024-07-29	570.233967	1361	4.059841
2024-07-30	476.101321	1121	3.949911
2024-07-31	572.879402	1330	3.741497

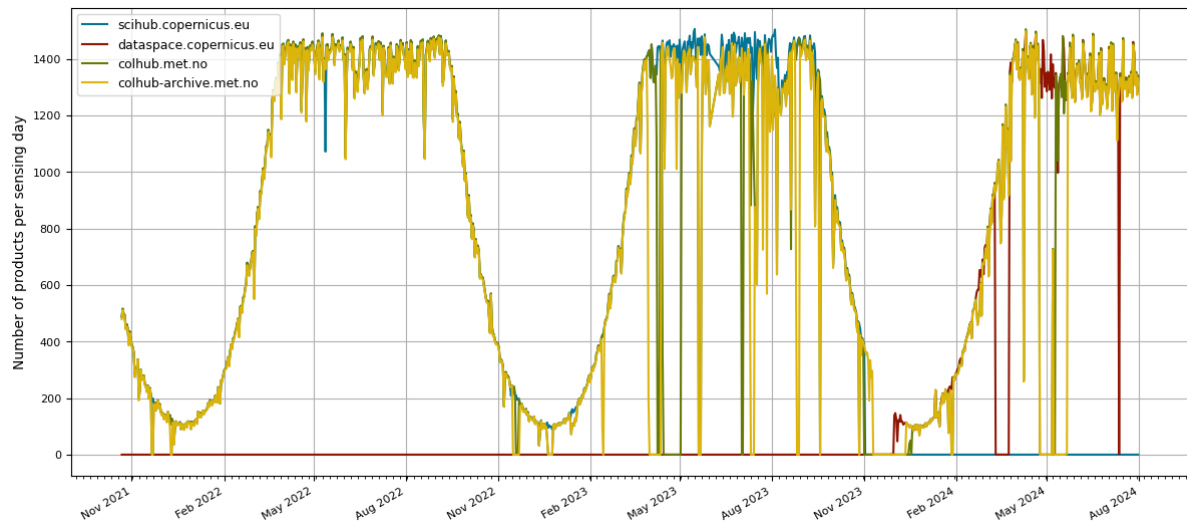
SENTINEL-2 LEVEL-2A PRODUCTS

This section shows the performance of MET Norway for Sentinel-2 Level-2A products. Both, an overall status and last month status are shown below.

Note that scihub is no longer in operation but is included for historical comparisons.

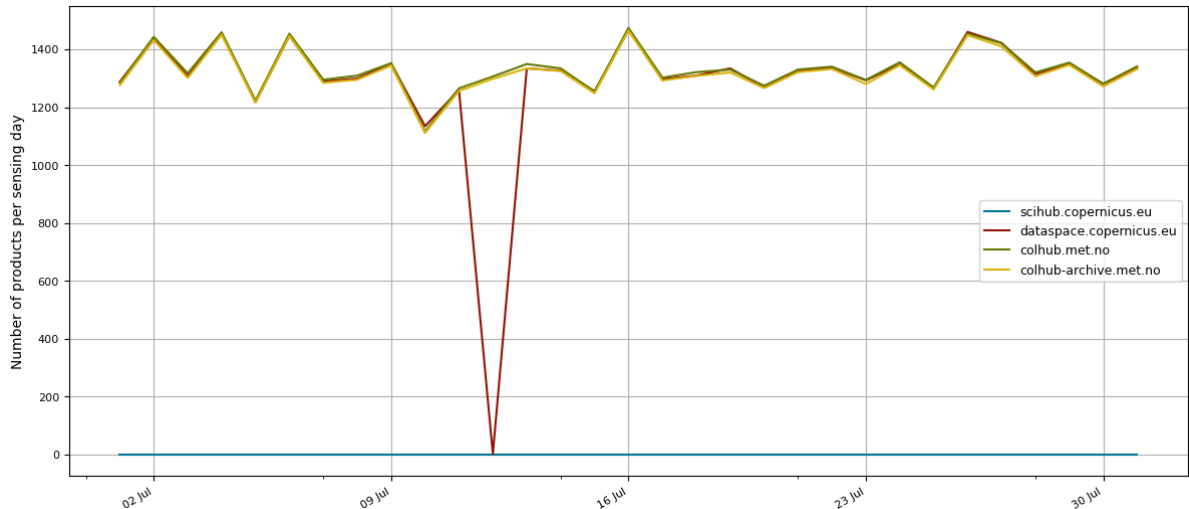
5.1 Products on portals

The following section contains an update on the Sentinel-2 Level-2A products included in the different FEs and BEs.



The figure above represents the overall number of products present in the different BackEnds and FrontEnds per day for Sentinel-2 Level-2A.

While the figure below shows a zoom on the last month.



A table is also included for more detailed information.

	colhub.met.no	dataspace.copernicus.eu	colhub-archive.met.no
sensing_date			
2024-07-01	1284.0	1288.0	1276.0
2024-07-02	1443.0	1438.0	1432.0
2024-07-03	1317.0	1307.0	1301.0
2024-07-04	1459.0	1454.0	1450.0
2024-07-05	1223.0	1217.0	1216.0
2024-07-06	1454.0	1446.0	1446.0
2024-07-07	1295.0	1289.0	1284.0
2024-07-08	1309.0	1299.0	1295.0
2024-07-09	1352.0	1351.0	1344.0
2024-07-10	1116.0	1134.0	1111.0
2024-07-11	1265.0	1260.0	1256.0
2024-07-12	1306.0	2.0	1298.0
2024-07-13	1349.0	1334.0	1334.0
2024-07-14	1334.0	1326.0	1325.0
2024-07-15	1254.0	1255.0	1248.0
2024-07-16	1474.0	1466.0	1465.0
2024-07-17	1302.0	1297.0	1292.0
2024-07-18	1321.0	1309.0	1308.0
2024-07-19	1330.0	1334.0	1320.0
2024-07-20	1274.0	1268.0	1266.0
2024-07-21	1330.0	1324.0	1321.0
2024-07-22	1340.0	1336.0	1332.0
2024-07-23	1294.0	1293.0	1280.0
2024-07-24	1355.0	1347.0	1345.0
2024-07-25	1268.0	1265.0	1261.0
2024-07-26	1454.0	1460.0	1449.0
2024-07-27	1421.0	1422.0	1410.0
2024-07-28	1320.0	1314.0	1307.0
2024-07-29	1354.0	1348.0	1346.0
2024-07-30	1281.0	1280.0	1272.0
2024-07-31	1341.0	1334.0	1332.0

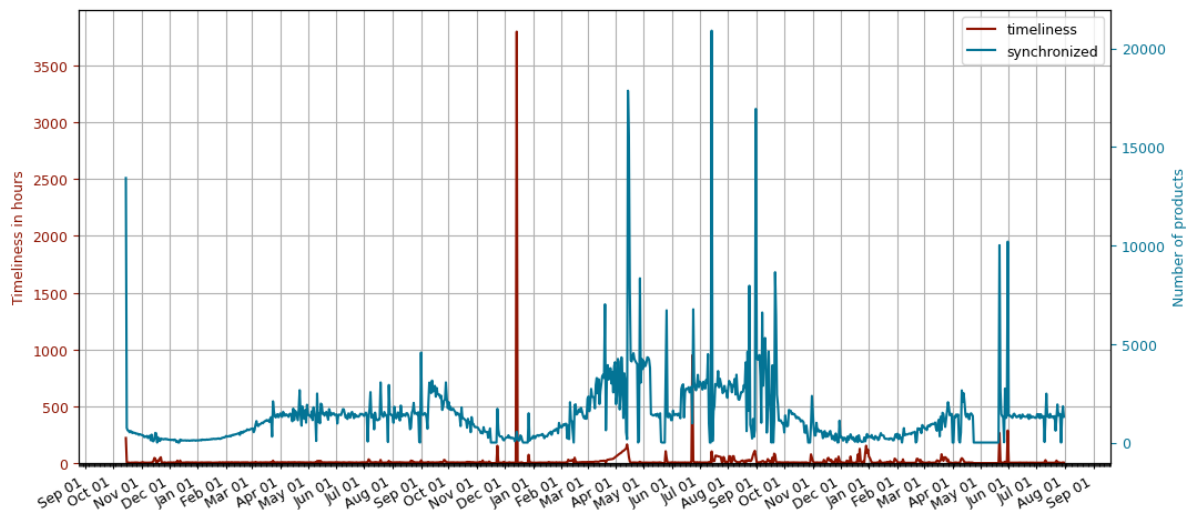
5.2 Missing products

The overall total number of Sentinel-2 Level-2A products is 5433944. The number of overall Sentinel-2 Level-2A missing products consists of 2457381 images. This represents that a 500% of the total was included in MET Norway DHR, while a -400% was not included.

The total number of Sentinel-2 level-2A products in July is 1096054. The number of Sentinel-2 level-2A missing products during July consists of 953217 images. This represents that a 0% of the total was included in MET Norway DHR, while a 100% was not included.

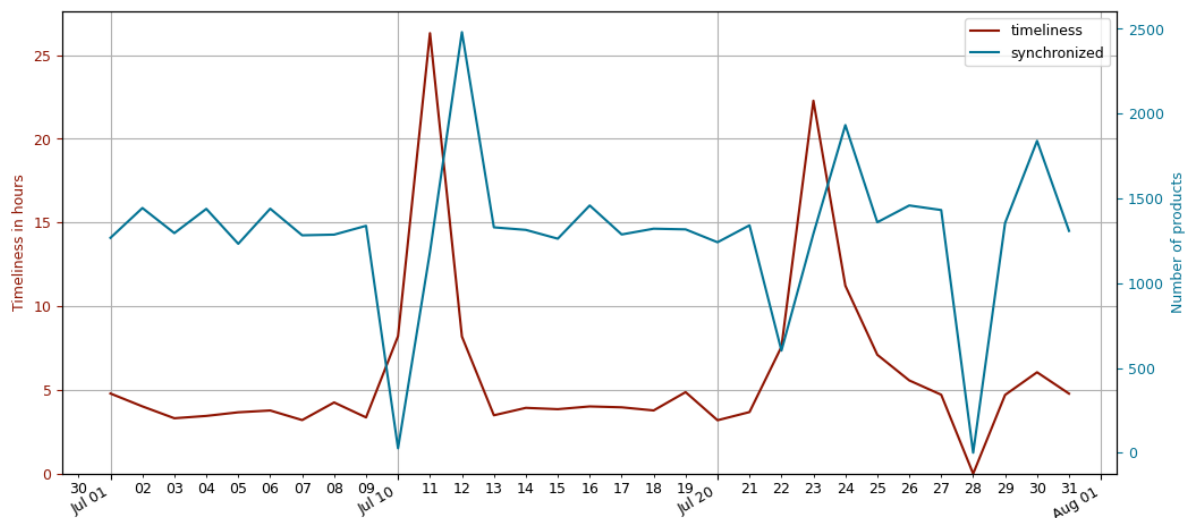
5.3 Data ingestion

In this section the time difference between sensing time and ingestion time at MET Norway is assessed. The ingestion time is the time at which a Sentinel product was downloaded to MET Norway BE and so, it is automatically available in at least one of the MET Norway FEs.



The figure above shows an overall status of the Sentinel-2 Level-2A synchronization between ESA datahub and MET Norway BE. The number of products synchronized and deleted are represented by the dark and light blue lines respectively. The red line represents the timeliness.

Following previous sections, the graph below shows a zoom in the last month for the synchronization between ESA datahub and MET Norway BE.



A more detailed information is given in the table below where the last month is assessed for products synchronized from ESA.

day	size	number	timeliness
2024-07-01	710.228580	1267	4.790144
2024-07-02	814.159364	1443	4.020936
2024-07-03	711.056319	1295	3.312825
2024-07-04	770.072146	1438	3.451648
2024-07-05	697.813464	1232	3.668156
2024-07-06	845.256019	1439	3.775781
2024-07-07	758.332724	1282	3.203650
2024-07-08	740.503325	1286	4.255402
2024-07-09	740.407210	1338	3.362187
2024-07-10	14.012522	26	8.214414
2024-07-11	669.977147	1184	26.310067
2024-07-12	1369.703861	2480	8.191784
2024-07-13	727.200288	1329	3.489791
2024-07-14	735.215970	1314	3.933116
2024-07-15	711.385159	1262	3.854269
2024-07-16	855.508814	1458	4.018350
2024-07-17	747.768880	1287	3.965278
2024-07-18	755.370740	1321	3.779259
2024-07-19	757.593651	1317	4.872428
2024-07-20	713.598995	1241	3.193412
2024-07-21	774.690955	1341	3.681519
2024-07-22	334.947619	602	7.578550
2024-07-23	706.309128	1291	22.275368
2024-07-24	1076.812948	1932	11.228881
2024-07-25	752.193024	1359	7.105795
2024-07-26	831.123320	1458	5.572593
2024-07-27	813.766101	1431	4.718231
2024-07-28	0.000000	0	0.000000
2024-07-29	720.278173	1355	4.706783
2024-07-30	1005.128101	1839	6.059449
2024-07-31	732.104506	1308	4.783145

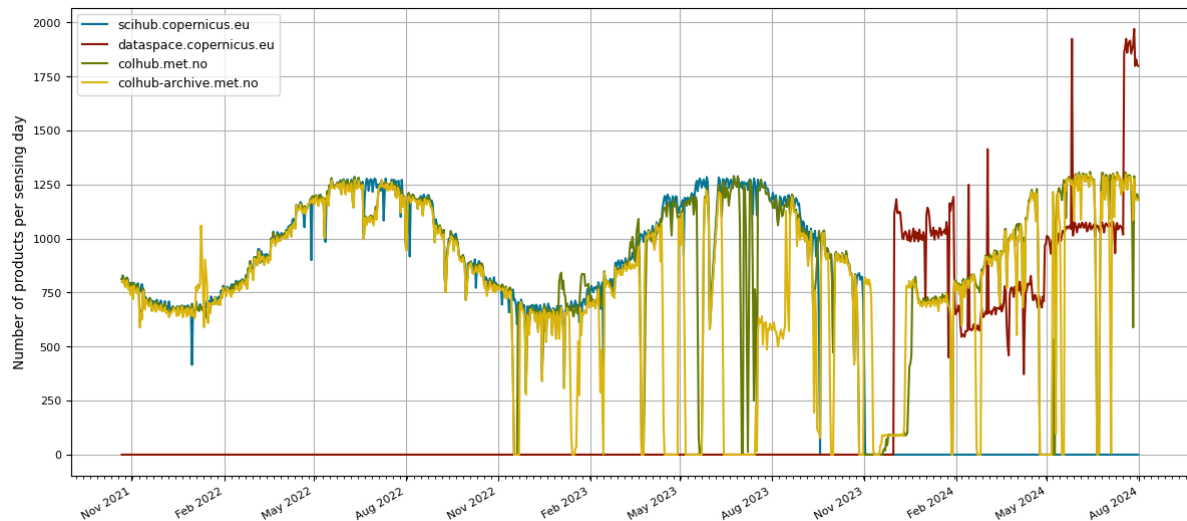
SENTINEL-3 PRODUCTS

This section shows the performance of MET Norway for Sentinel-3 products. Both, an overall status and last month status are shown below.

Note that scihub is no longer in operation but is included for historical comparisons.

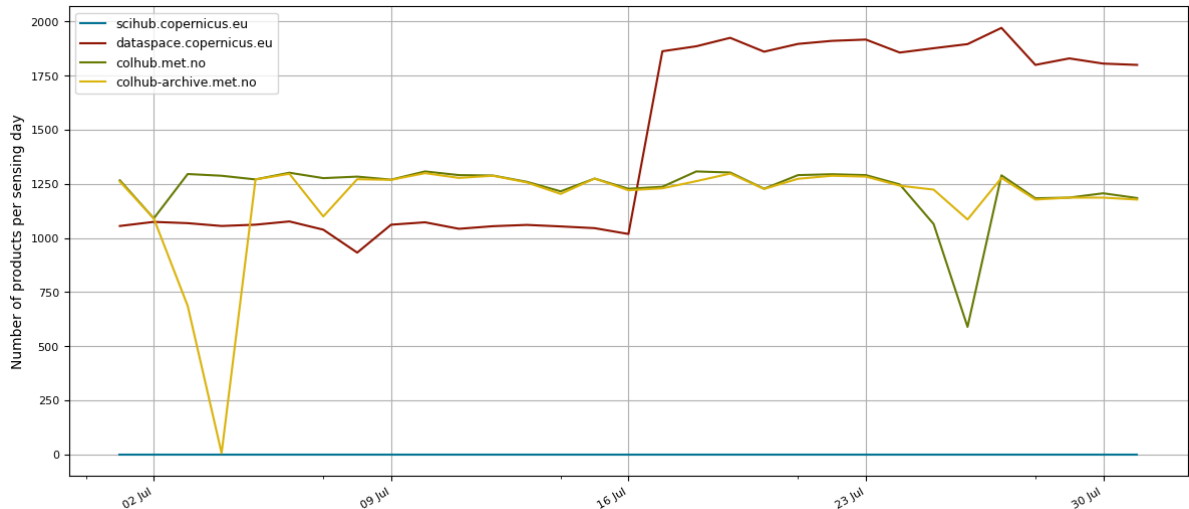
6.1 Products on portals

The following section contains an update on the Sentinel-3 products included in the different FEs and BEs.



The figure above represents the overall number of products present in the different BackEnds and FrontEnds per day for Sentinel-3.

While the figure below shows a zoom on the last month.



A table is also included for more detailed information.

	colhub.met.no	dataspace.copernicus.eu	colhub-archive.met.no
sensing_date			
2024-07-01	1266.0	1055.0	1260.0
2024-07-02	1090.0	1074.0	1090.0
2024-07-03	1295.0	1068.0	686.0
2024-07-04	1287.0	1055.0	6.0
2024-07-05	1270.0	1061.0	1270.0
2024-07-06	1301.0	1076.0	1296.0
2024-07-07	1276.0	1038.0	1099.0
2024-07-08	1283.0	932.0	1271.0
2024-07-09	1269.0	1061.0	1268.0
2024-07-10	1307.0	1072.0	1299.0
2024-07-11	1290.0	1042.0	1277.0
2024-07-12	1288.0	1054.0	1287.0
2024-07-13	1259.0	1060.0	1256.0
2024-07-14	1215.0	1053.0	1203.0
2024-07-15	1274.0	1045.0	1274.0
2024-07-16	1227.0	1018.0	1220.0
2024-07-17	1236.0	1862.0	1229.0
2024-07-18	1307.0	1885.0	1262.0
2024-07-19	1302.0	1924.0	1297.0
2024-07-20	1227.0	1860.0	1226.0
2024-07-21	1290.0	1896.0	1273.0
2024-07-22	1294.0	1910.0	1287.0
2024-07-23	1290.0	1916.0	1283.0
2024-07-24	1247.0	1856.0	1241.0
2024-07-25	1064.0	1876.0	1223.0
2024-07-26	589.0	1895.0	1085.0
2024-07-27	1289.0	1970.0	1277.0
2024-07-28	1183.0	1799.0	1177.0
2024-07-29	1186.0	1829.0	1186.0
2024-07-30	1206.0	1805.0	1186.0
2024-07-31	1184.0	1799.0	1177.0

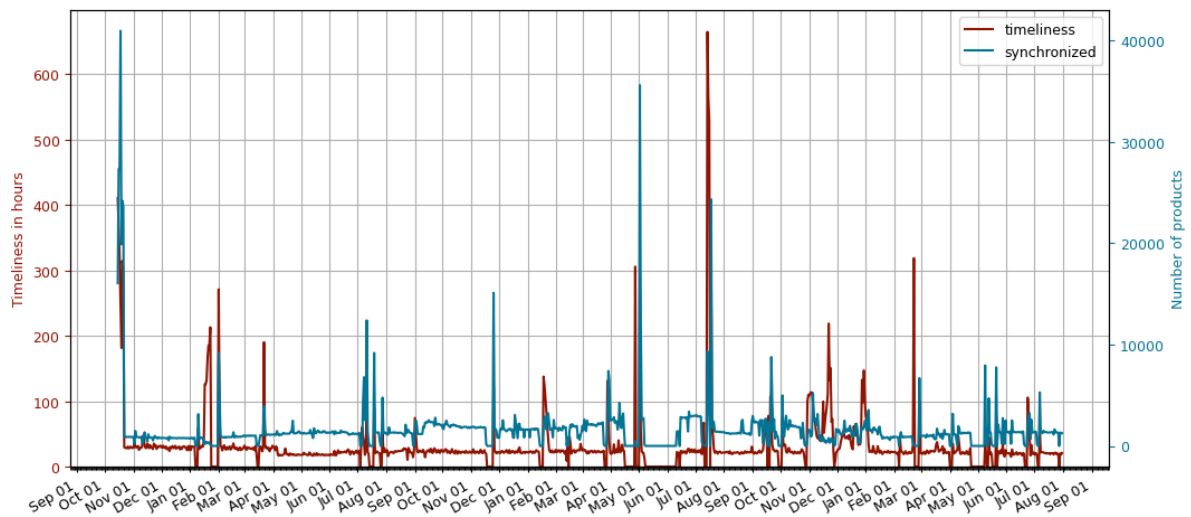
6.2 Missing products

The overall total number of Sentinel-3 products is 5433944. The number of overall Sentinel-3 missing products consists of 2457381 images. This represents that a 500% of the total was included in MET Norway DHR, while a -400% was not included.

The total number of Sentinel-3 products in July is 1096054. The number of Sentinel-3 missing products during July consists of 953217 images. This represents that a 0% of the total was included in MET Norway DHR, while a 100% was not included.

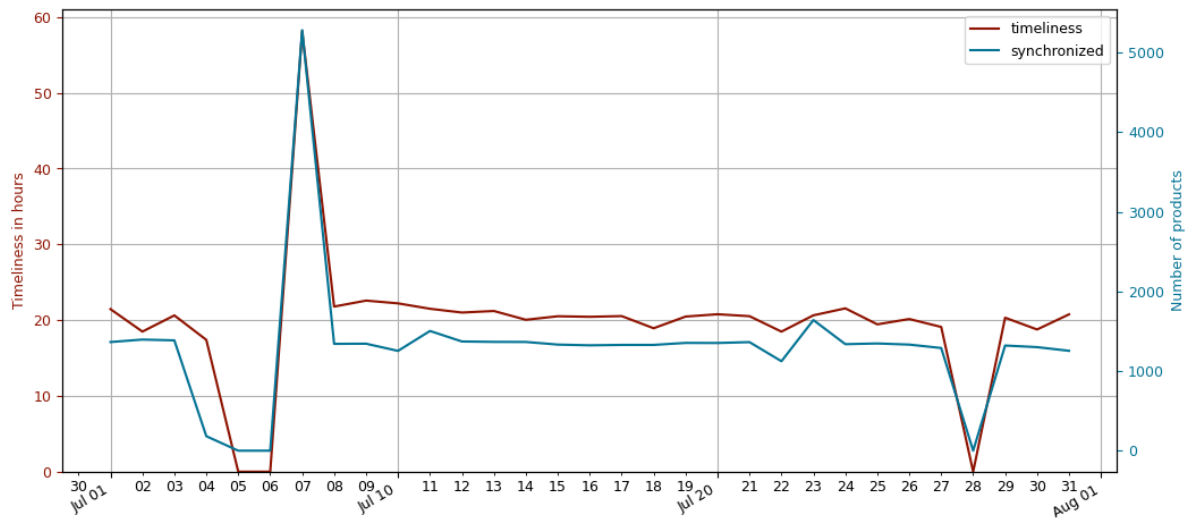
6.3 Data ingestion

In this section the time difference between sensing time and ingestion time at MET Norway is assessed. The ingestion time is the time at which a Sentinel product was downloaded to MET Norway BE and so, it is automatically available in at least one of the MET Norway FEs.



The figure above shows an overall status of the Sentinel-3 synchronization between ESA datahub and MET Norway BE. The number of products synchronized and deleted are represented by the dark and light blue lines respectively. The red line represents the timeliness.

Following previous sections, the graph below shows a zoom in the last month for the synchronization between ESA datahub and MET Norway BE.



A more detailed information is given in the table below where the last month is assessed for products synchronized from ESA.

	size	number	timeliness
day			
2024-07-01	475.038670	1364	21.457091
2024-07-02	470.756485	1395	18.493284
2024-07-03	473.972314	1385	20.627926
2024-07-04	57.818691	182	17.401408
2024-07-05	0.000000	0	0.000000
2024-07-06	0.000000	0	0.000000
2024-07-07	1801.810226	5279	58.138320
2024-07-08	457.788785	1341	21.794651
2024-07-09	466.829984	1343	22.582201
2024-07-10	421.787586	1253	22.217281
2024-07-11	510.190115	1503	21.504327
2024-07-12	459.109410	1371	21.006504
2024-07-13	464.311787	1366	21.210338
2024-07-14	454.345284	1365	20.053499
2024-07-15	453.245862	1332	20.516276
2024-07-16	449.159731	1323	20.444348
2024-07-17	461.139092	1328	20.538284
2024-07-18	447.362685	1328	18.934045
2024-07-19	457.594309	1353	20.474949
2024-07-20	453.969704	1352	20.781178
2024-07-21	467.558948	1363	20.526586
2024-07-22	356.259102	1123	18.489647
2024-07-23	558.840058	1640	20.641109
2024-07-24	450.908135	1337	21.557553
2024-07-25	455.635347	1346	19.447374
2024-07-26	432.457595	1332	20.152811
2024-07-27	413.266869	1289	19.103660
2024-07-28	0.000000	0	0.000000
2024-07-29	447.442362	1320	20.324612
2024-07-30	434.732581	1300	18.770361
2024-07-31	418.146335	1254	20.765396

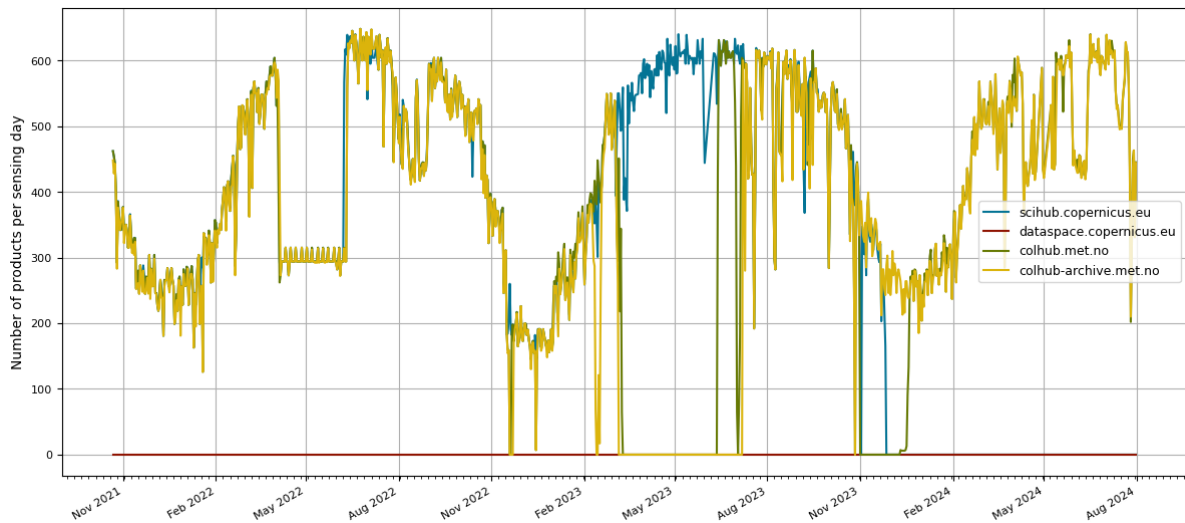
SENTINEL-5P PRODUCTS

This section shows the performance of MET Norway for Sentinel-5p products. Both, an overall status and last month status are shown below.

Note that scihub is no longer in operation but is included for historical comparisons.

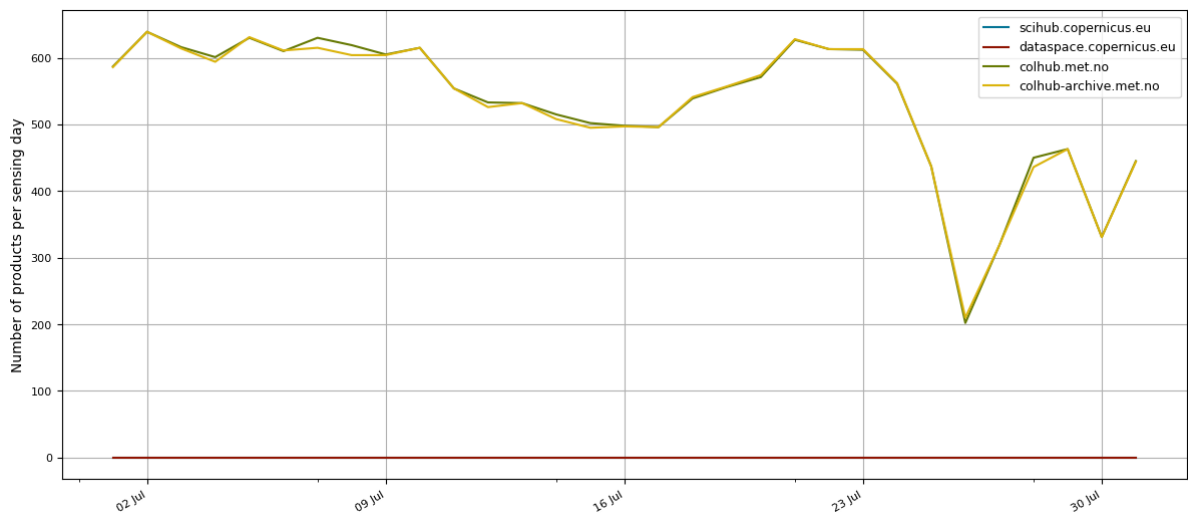
7.1 Products on portals

The following section contains an update on the Sentinel-5p products included in the different FEs and BEs.



The figure above represents the overall number of products present in the different BackEnds and FrontEnds per day for Sentinel-5p.

While the figure below shows a zoom on the last month.



A table is also included for more detailed information.

	colhub.met.no	dataspace.copernicus.eu	colhub-archive.met.no
sensing_date			
2024-07-01	587.0	0.0	586.0
2024-07-02	639.0	0.0	639.0
2024-07-03	616.0	0.0	614.0
2024-07-04	601.0	0.0	594.0
2024-07-05	630.0	0.0	631.0
2024-07-06	610.0	0.0	611.0
2024-07-07	630.0	0.0	615.0
2024-07-08	619.0	0.0	604.0
2024-07-09	605.0	0.0	604.0
2024-07-10	615.0	0.0	615.0
2024-07-11	554.0	0.0	554.0
2024-07-12	533.0	0.0	526.0
2024-07-13	532.0	0.0	532.0
2024-07-14	515.0	0.0	508.0
2024-07-15	502.0	0.0	495.0
2024-07-16	498.0	0.0	497.0
2024-07-17	496.0	0.0	496.0
2024-07-18	539.0	0.0	541.0
2024-07-19	556.0	0.0	557.0
2024-07-20	571.0	0.0	574.0
2024-07-21	627.0	0.0	628.0
2024-07-22	613.0	0.0	613.0
2024-07-23	612.0	0.0	613.0
2024-07-24	561.0	0.0	562.0
2024-07-25	437.0	0.0	437.0
2024-07-26	202.0	0.0	210.0
2024-07-27	319.0	0.0	319.0
2024-07-28	450.0	0.0	436.0
2024-07-29	463.0	0.0	463.0
2024-07-30	331.0	0.0	331.0
2024-07-31	445.0	0.0	444.0

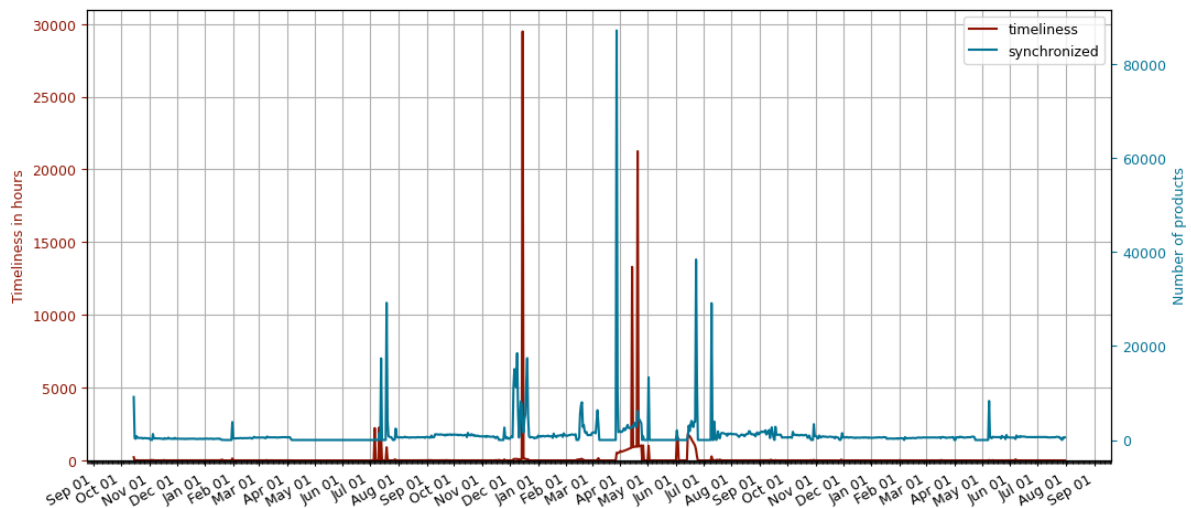
7.2 Missing products

The overall total number of Sentinel-5p products is 5433944. The number of overall Sentinel-5p missing products consists of 2457381 images. This represents that a 500% of the total was included in MET Norway DHR, while a -400% was not included.

The total number of Sentinel-5p products in July is 1096054. The number of Sentinel-5p missing products during July consists of 953217 images. This represents that a 0% of the total was included in MET Norway DHR, while a 100% was not included.

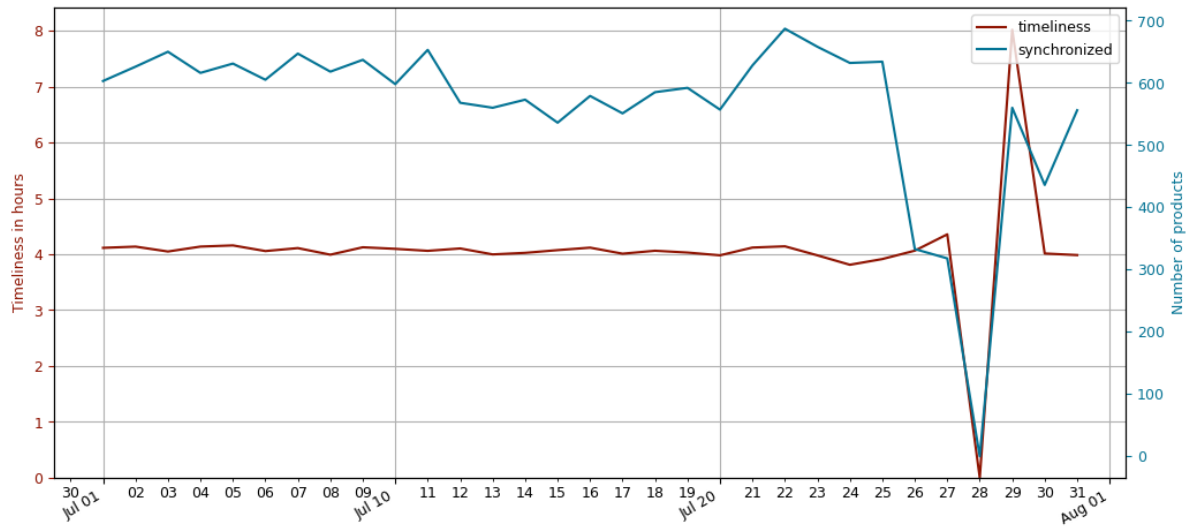
7.3 Data ingestion

In this section the time difference between sensing time and ingestion time at MET Norway is assessed. The ingestion time is the time at which a Sentinel product was downloaded to MET Norway BE and so, it is automatically available in at least one of the MET Norway FEs.



The figure above shows an overall status of the Sentinel-5p synchronization between ESA datahub and MET Norway BE. The number of products synchronized and deleted are represented by the dark and light blue lines respectively. The red line represents the timeliness.

Following previous sections, the graph below shows a zoom in the last month for the synchronization between ESA datahub and MET Norway BE.



A more detailed information is given in the table below where the last month are assessed for products synchronized from ESA.

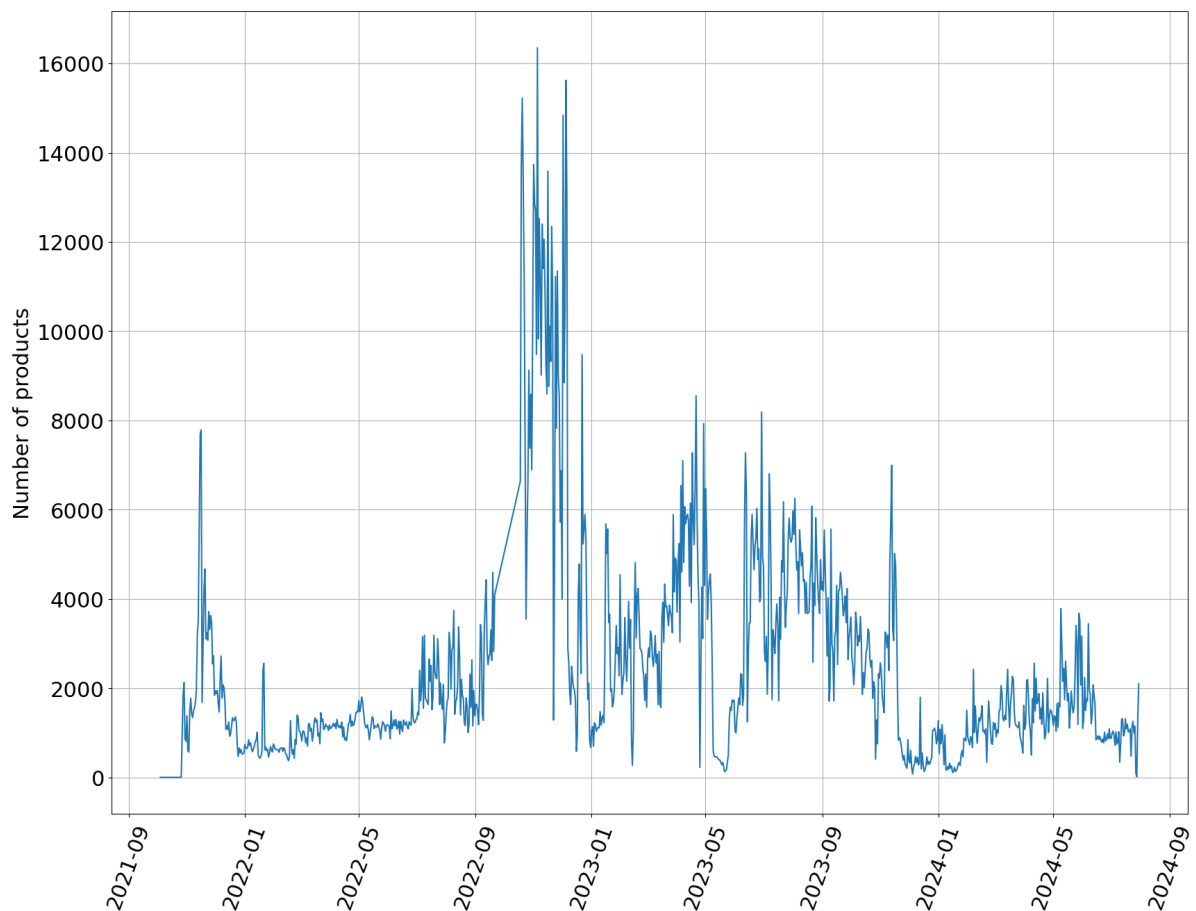
day	size	number	timeliness
2024-07-01	386.113496	603	4.115615
2024-07-02	386.856591	626	4.137568
2024-07-03	384.212752	650	4.049927
2024-07-04	386.380134	616	4.138067
2024-07-05	392.286044	631	4.159248
2024-07-06	388.625613	605	4.057918
2024-07-07	391.236937	647	4.111016
2024-07-08	385.303539	618	3.993176
2024-07-09	387.252974	637	4.125804
2024-07-10	389.980602	598	4.097882
2024-07-11	403.412687	653	4.061904
2024-07-12	372.551951	568	4.104515
2024-07-13	372.773230	560	3.998416
2024-07-14	367.230494	573	4.026005
2024-07-15	361.967247	536	4.074769
2024-07-16	393.616592	579	4.118974
2024-07-17	370.226260	551	4.011016
2024-07-18	377.110950	585	4.063569
2024-07-19	367.165542	592	4.031305
2024-07-20	372.993690	557	3.981831
2024-07-21	386.772908	628	4.120581
2024-07-22	420.889073	687	4.142906
2024-07-23	402.031349	658	3.981235
2024-07-24	385.653274	632	3.812695
2024-07-25	387.844640	634	3.915000
2024-07-26	226.137933	333	4.065181
2024-07-27	230.828861	318	4.357577
2024-07-28	0.000000	0	0.000000
2024-07-29	418.603330	560	8.021028
2024-07-30	261.395353	436	4.014726
2024-07-31	384.139745	556	3.986059

MONITORING DATA DOWNLOADS FROM COLHUB PORTALS

In this section the performance of the FrontEnds is analyzed, for both colhub.met.no and colhub-archive.met.no. The FEs performance is translated as user accessibility to the data which is one of the main goals for the project.

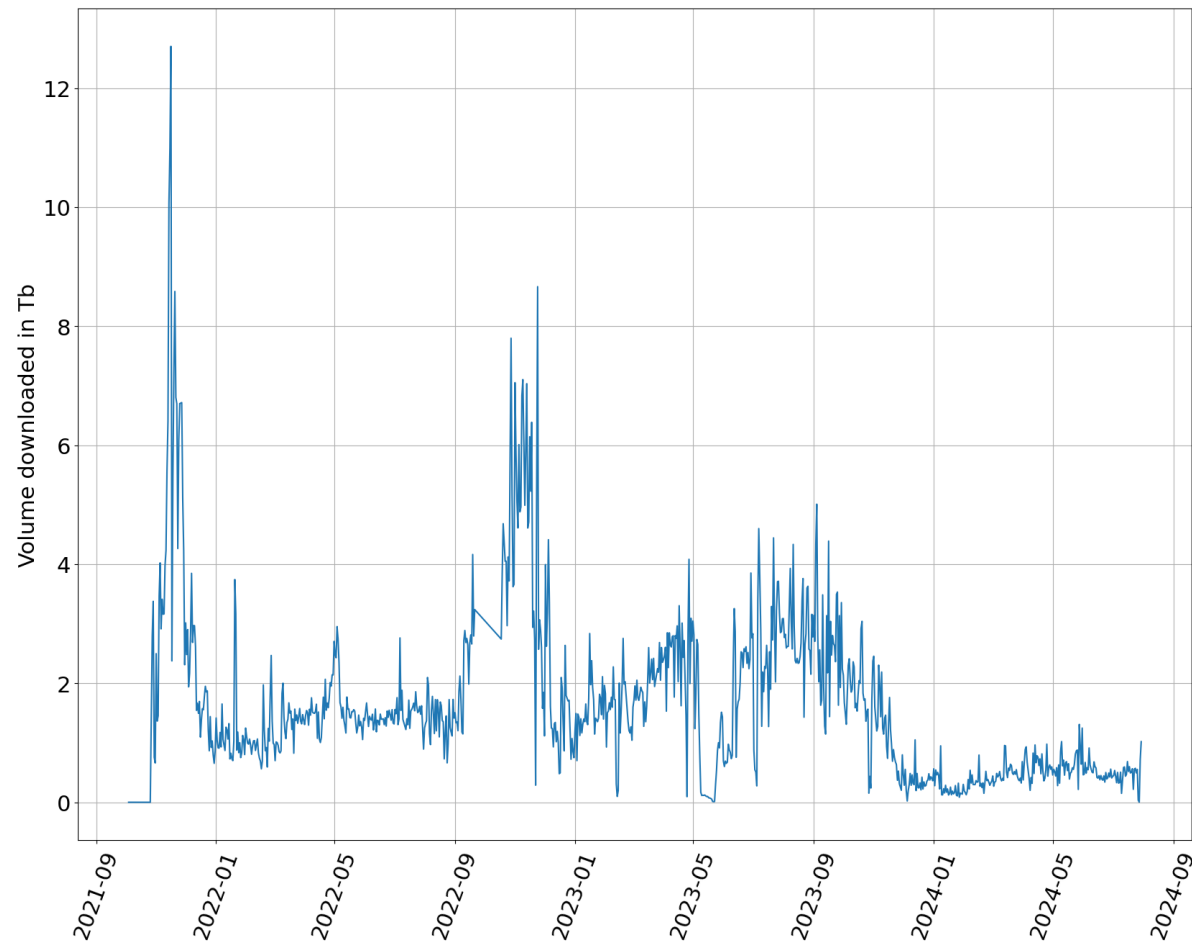
8.1 Portal: colhub.met.no

The first portal to analyze is colhub.met.no. The target of the analysis is to check the amount of data downloaded by users, but also the number of users accessing the datahub. Below the historical amount of data per day is represented.



The same data is also represented below, with a difference. This time the data is not accounted by number, but by volume. Although both graphs show similar trends, they are not exactly equal due to the variability in the ratio volume per product.

For instance, the seasonality of optical products could have an impact in the total volume of products.



The table below is also interesting. It shows the amount of products downloaded for each the different Sentinel products. As expected, S1 and S2 are the most used Sentinels. S3 is slightly used, while S5p is not used.

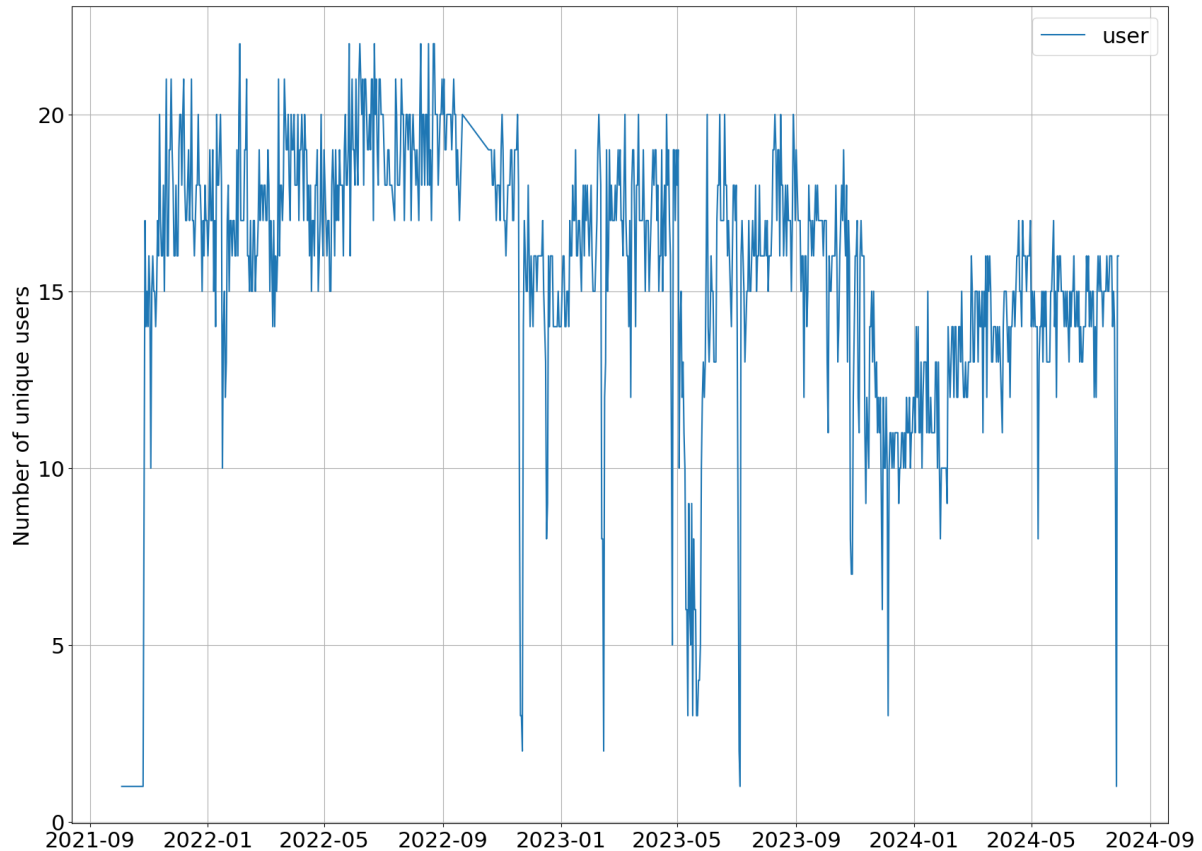
satellite	product_type	
S1	GRDH	246125
	GRDM	113421
	OCN	100285
	RAW	196353
	SLC	62826
S2	MSIL1C	554191
	MSIL1C_DTERRENG	3100
	MSIL2A	1135505
S3	OLCI_L1	8773
	OLCI_L2	490
	SLSTR_L1	13454
	SLSTR_L2	12
	SRAL_L1	23
	SRAL_L2	84
	SYN_L2	40
S5	NRTI_L2	9661
	OFFL_L1B	3
	OFFL_L2	11
		dtype: int64

The following table shows the total downloaded volume of data in Tb per month. Here the seasonality of some Sentinel products can affect the final numbers.

download_time	download_time	
2021	10	7.588303
	11	158.654049
	12	57.675128
2022	1	36.406545
	2	29.798405
	3	39.869718
	4	46.768604
	5	51.219186
	6	42.277098
	7	44.565096
	8	42.852304
	9	47.447532
	10	60.491409
	11	141.031091
	12	50.957670
2023	1	48.169138
	2	41.604374
	3	61.866205
	4	74.137962
	5	25.676479
	6	54.858885
	7	78.211367
	8	88.075235
	9	80.195622
	10	54.828457
	11	33.878596
	12	10.909848
2024	1	8.061366
	2	9.525797
	3	15.088652
	4	18.111391
	5	19.999434
	6	15.003660
	7	13.961555

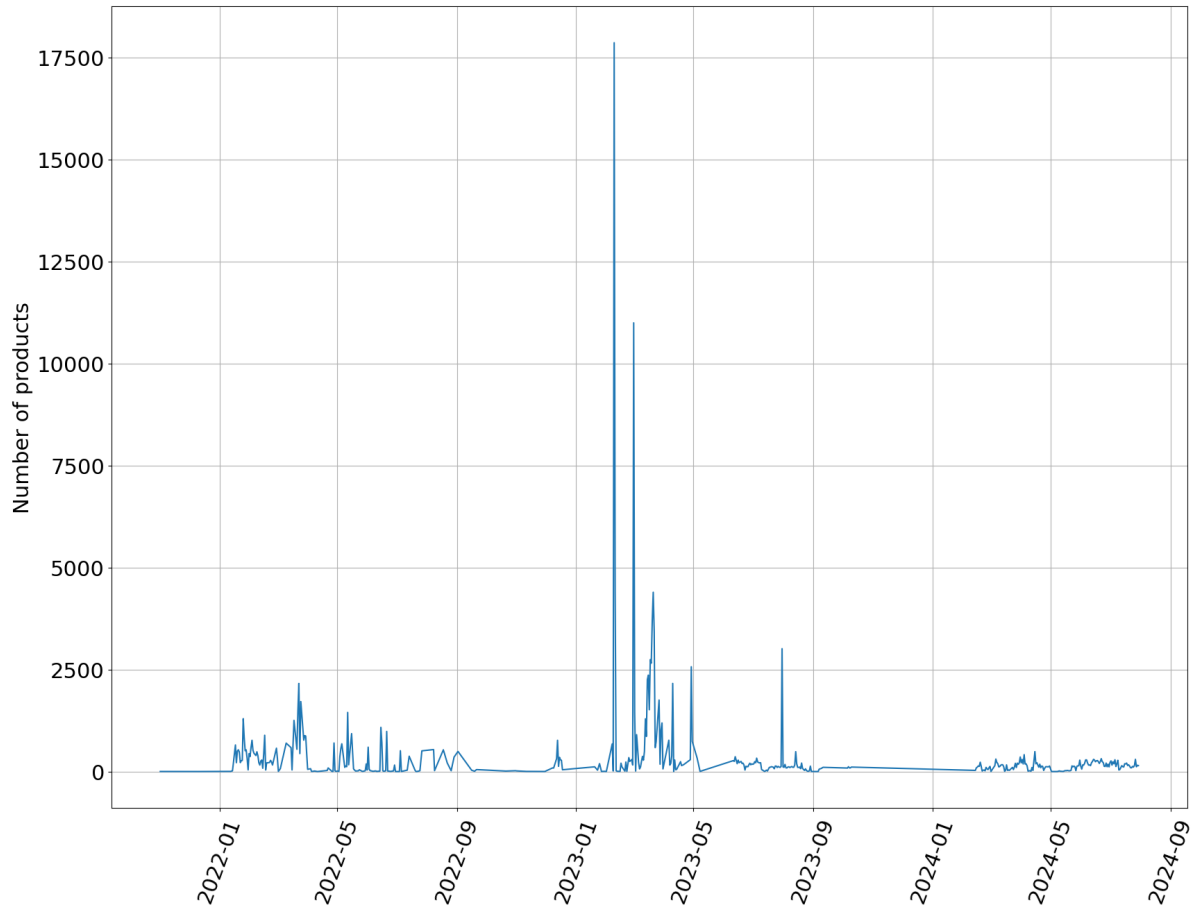
Name: size, dtype: float64

The number of users accessing and using the datahub is also important to be known. The plot below show the number of users per day. Some variability is represented in its numbers. Nevertheless, colhub.met.no is used by 15 to 20 users per day.



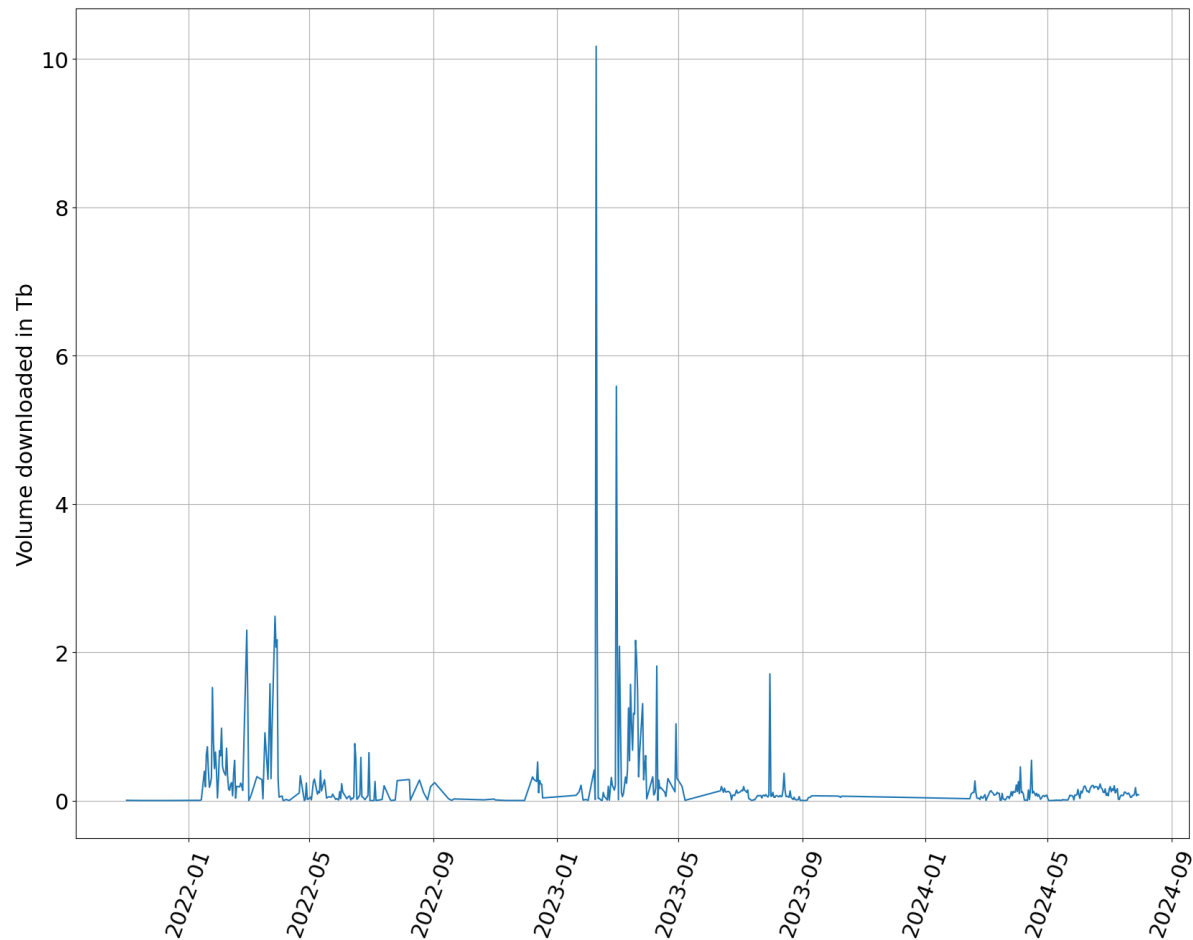
8.2 Portal: colhub-archive.met.no

Similar to [colhub.met.no](#), here it is presented the performance of [colhub-archive.met.no](#). First the number of products downloaded per day. As shown in the plot below, some days the number of products downloaded is null. This is a correct value which is not reflecting the performance of the FE. The archive is not as frequently accessed as [colhub.met.no](#). Only those users looking for historical data will used this portal.



As explained and shown in the previous section, the total volume downloaded is also shown in the graphic below.

```
Index(['size', 'download_duration'], dtype='object')
```



It is still interesting to see the number of products downloaded per product type. As shown in the previous section, S1 and S2 still are the most popular Sentinels.

satellite	product_type	
S1	GRDH	32230
	GRDM	9934
	OCN	1
	RAW	875
	SLC	3221
S2	MSIL1C	34589
	MSIL1C_DTERRENG	16832
	MSIL2A	59566
S3	OLCI_L1	4
	OLCI_L2	1
	SLSTR_L1	1478
	SRAL_L1	6
	SRAL_L2	160
S5	OFFL_L2	2
dtype: int64		

The table below shows the monthly retrieved volume of data in Tb.

download_time	download_time	
2021	December	0.000696

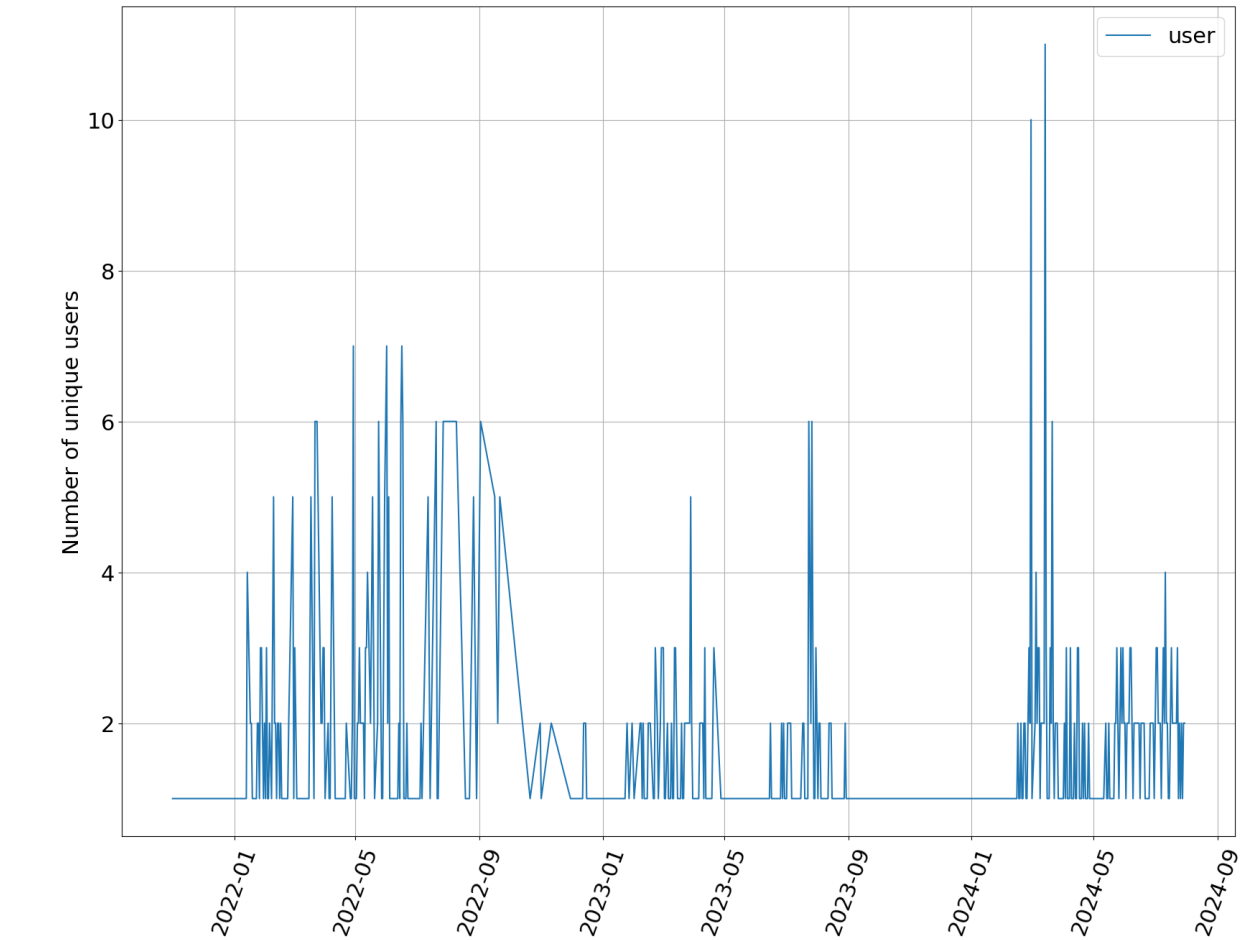
(continues on next page)

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2022	November	0.005186
	April	0.858194
	August	0.874257
	December	2.247264
	February	9.514969
	January	7.210722
	July	0.771705
	June	3.787335
	March	13.999207
	May	2.258999
2023	November	0.011412
	October	0.030705
	September	0.289683
	April	5.010196
	August	1.931697
	February	14.316868
	January	0.417223
	July	3.804772
	June	2.082679
	March	27.805556
2024	May	0.196331
	October	0.276372
	September	0.220003
	April	3.181320
	February	1.177107
	July	2.972555
	June	4.358417
	March	2.230899
May	0.761791	

Name: size, dtype: float64

The last graphic show the number of users accessing and downloading data from the portal. Again, the discontinuity in numbers of users it is not a sign of the portal performance.



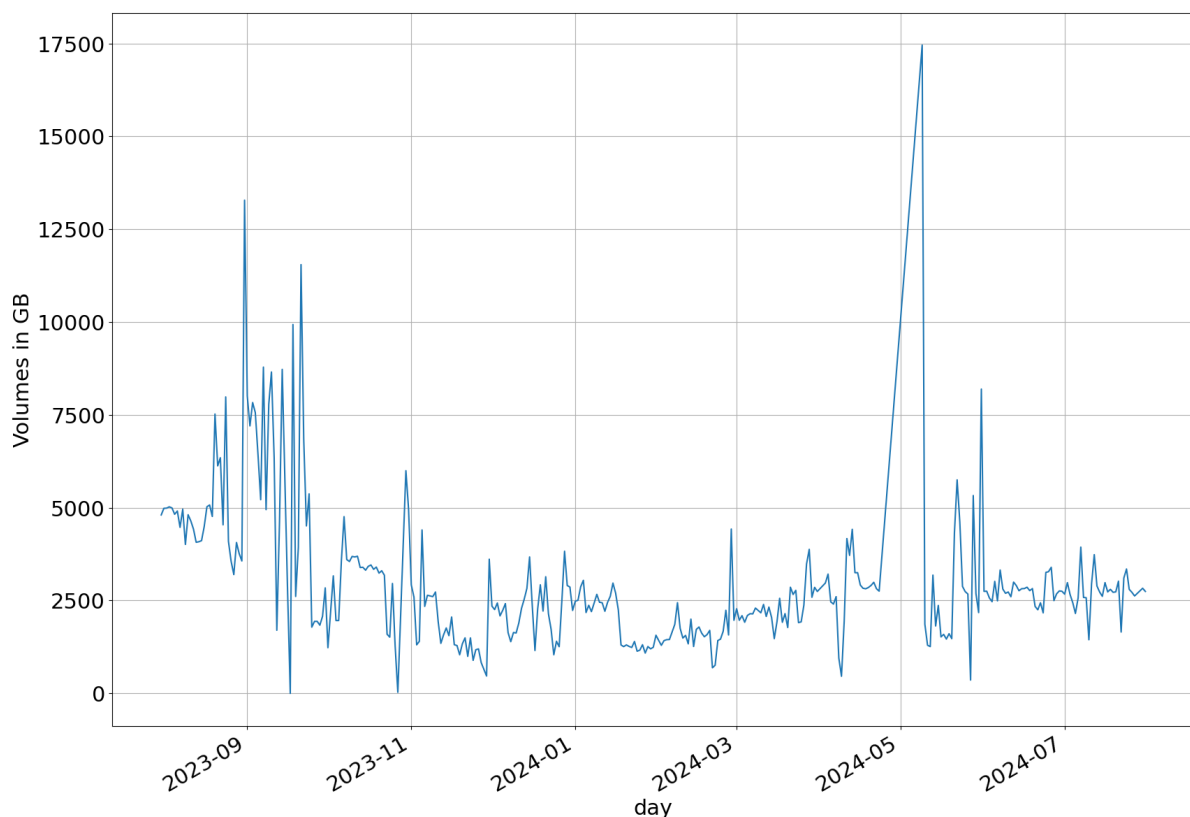
DATA VOLUMES FOR NBS

Satellite data storage requires an important amount of disk space, especially high resolution products such as the ones produced by the Sentinel constellation. This also represents an economical cost. Hence, it is very important to keep track of the total volume of data stored at MET Norway premises. In this section those numbers are shown.

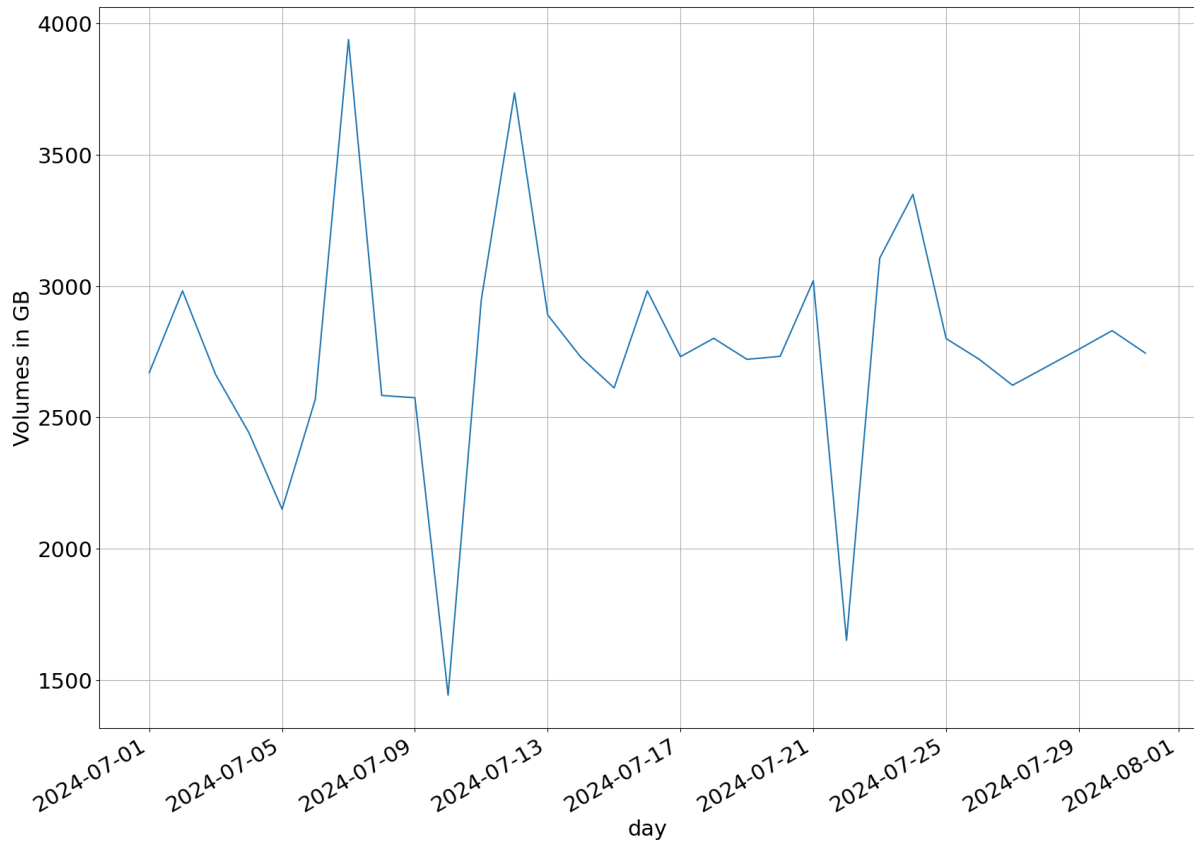
9.1 Volumes for AOI backends

Two type of products can be differentiated, products acquired from ESA datahub which keep the original format and Sentinel products transformed into NetCDF-CF. Those directly acquired from ESA are store at MET Norway BE for the AOI. Later on, they are made available to users through colhub-archive and colhub FEs.

The total amount of Sentinel products for the AOI, located in the AOI BE, represents 4857 TB



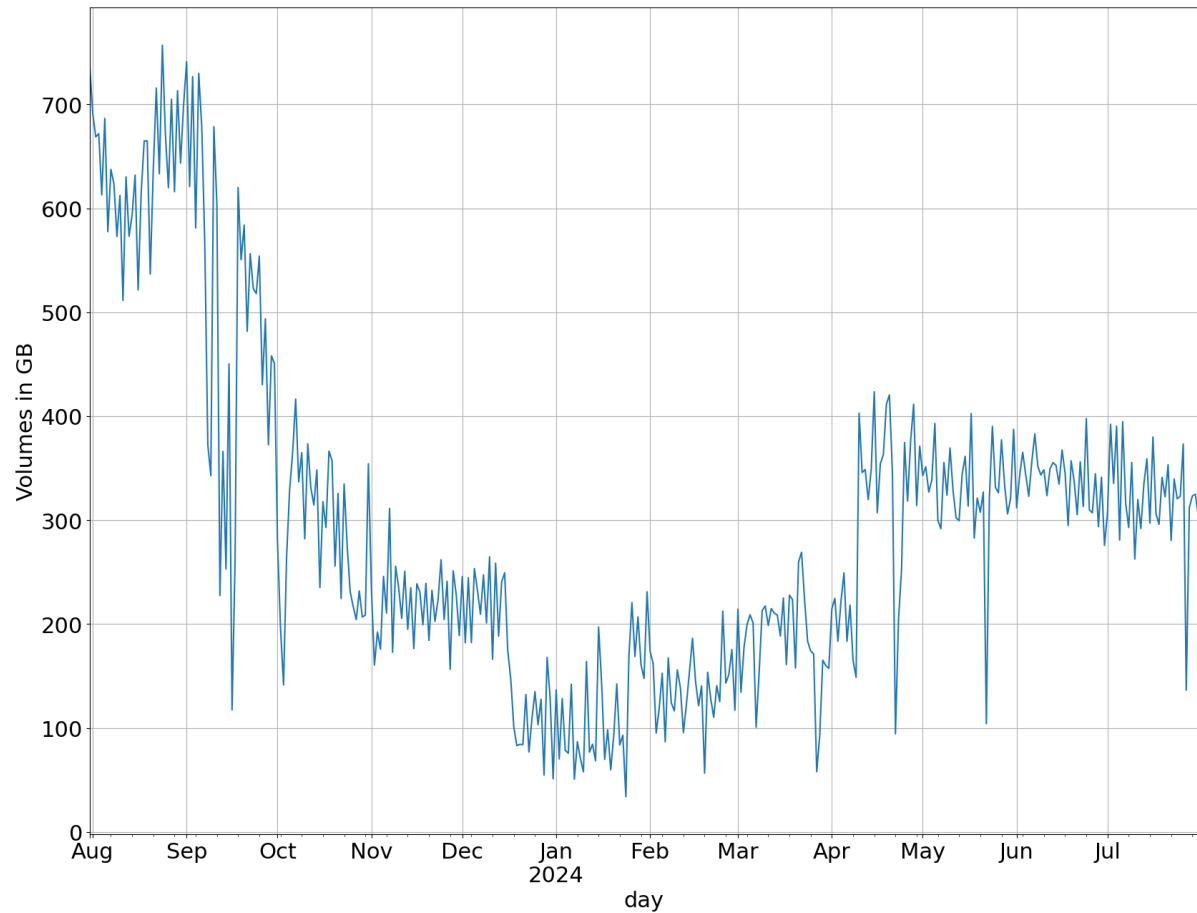
In the graphic above the volume of data per day in GB is shown for the last year. Here we can observed seasonality due to optical sensor products. The table below shows the same information for the last month.



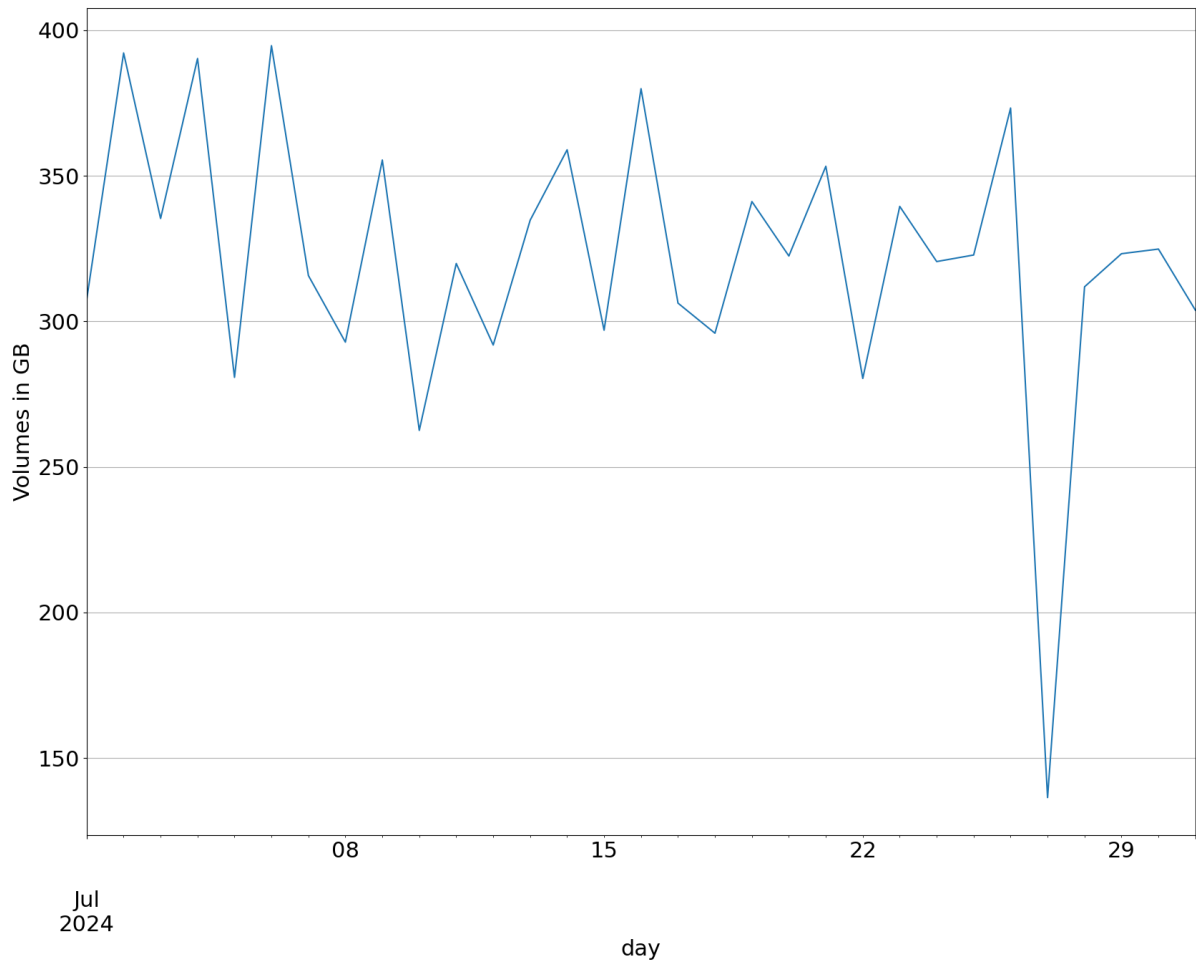
9.2 Volume for netcdf products

The products converted to NetCDF-CF are S1 and S2 products. These Sentinel datasets are served as SAFE format by ESA. This is not always convenient for users. Therefore as part of the NBS project, one of the MET Norway tasks as operator is to translate those products into NetCDF-CF.

The total amount of Sentinel-1 and Sentinel-2 products for the AOI transformed to NetCDF represents 917 TB

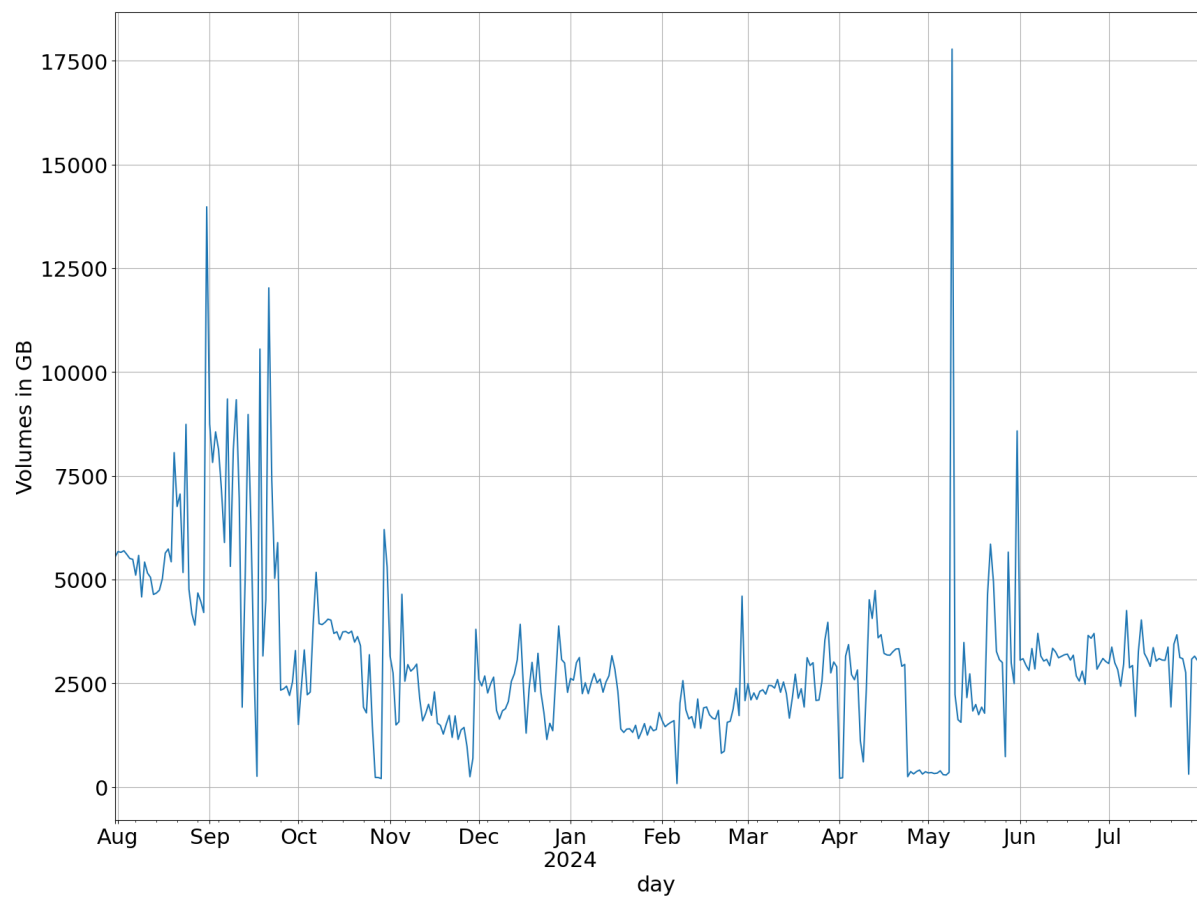


In the graphic above the volume of NetCDF-CF data per day in GB is shown for the last year. Here we can observed seasonality due to optical sensor products. The table below shows the same information for the last 30 days.



9.3 Totals

Finally, the total amount of disk space dedicated to the NBS project, including either products in SAFE and NetCDF formats, represents 5774 TB



In the graphic above the total volume of data per day in GB is shown for the last year. Here we can observed seasonality due to optical sensor products again. The table below shows the same information for the last month.

day	product_type	action	volume	number	timeliness
2024-07-01	GRDH	fscanner	56.101582	23.0	0.812868
2024-07-01	GRDH	synchronized	72.570669	43.0	1.030980
2024-07-01	GRDM	fscanner	5.573141	40.0	0.684640
2024-07-01	GRDM	synchronized	5.263878	15.0	1.169281
2024-07-01	OCN	synchronized	0.847877	43.0	1.190052
2024-07-01	RAW	synchronized	88.758477	64.0	0.974851
2024-07-01	SLC	synchronized	343.479441	45.0	1.531313
2024-07-02	GRDH	fscanner	68.277151	23.0	0.715596
2024-07-02	GRDH	synchronized	86.204706	53.0	4.262744
2024-07-02	GRDM	fscanner	6.386221	38.0	0.659581
2024-07-02	GRDM	synchronized	5.414519	15.0	3.045161
2024-07-02	OCN	synchronized	0.930611	50.0	4.233536
2024-07-02	RAW	synchronized	85.557223	62.0	4.086441
2024-07-02	SLC	synchronized	416.195535	56.0	4.602929
2024-07-03	GRDH	fscanner	41.696663	15.0	0.563483
2024-07-03	GRDH	synchronized	65.424739	39.0	1.300325
2024-07-03	GRDM	fscanner	6.285088	34.0	0.609809
2024-07-03	GRDM	synchronized	8.164932	22.0	0.673678
2024-07-03	OCN	synchronized	1.130363	52.0	1.510638
2024-07-03	RAW	synchronized	80.768118	61.0	1.021742
2024-07-03	SLC	synchronized	327.319938	43.0	2.000374

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2024-07-04	GRDH	fscanner	62.442459	23.0	0.599892
2024-07-04	GRDH	synchronized	78.332191	48.0	1.391622
2024-07-04	GRDM	fscanner	3.905983	36.0	0.827165
2024-07-04	GRDM	synchronized	4.240429	11.0	1.091316
2024-07-04	OCN	synchronized	0.794970	44.0	1.390762
2024-07-04	RAW	synchronized	83.841611	59.0	1.256852
2024-07-04	SLC	synchronized	377.630076	51.0	1.863529
2024-07-05	GRDH	fscanner	43.032130	18.0	0.726648
2024-07-05	GRDH	synchronized	66.246767	40.0	3.114022
2024-07-05	GRDM	fscanner	4.091698	29.0	0.662593
2024-07-05	GRDM	synchronized	5.843455	15.0	2.763810
2024-07-05	OCN	synchronized	0.975460	49.0	2.763147
2024-07-05	RAW	synchronized	78.150052	57.0	1.615890
2024-07-05	SLC	synchronized	319.345394	42.0	2.809969
2024-07-06	GRDH	fscanner	60.831492	23.0	0.674381
2024-07-06	GRDH	synchronized	87.209821	53.0	2.881611
2024-07-06	GRDM	fscanner	6.984351	47.0	0.680803
2024-07-06	GRDM	synchronized	6.267991	17.0	3.564983
2024-07-06	OCN	synchronized	1.046635	53.0	3.418969
2024-07-06	RAW	synchronized	96.673527	70.0	2.758405
2024-07-06	SLC	synchronized	416.951592	56.0	3.276922
2024-07-07	GRDH	fscanner	45.161674	15.0	0.708481
2024-07-07	GRDH	synchronized	50.063472	30.0	5.351882
2024-07-07	GRDM	fscanner	1.959370	18.0	0.655880
2024-07-07	GRDM	synchronized	5.110229	13.0	2.591907
2024-07-07	OCN	synchronized	0.753026	35.0	6.187905
2024-07-07	RAW	synchronized	59.724604	44.0	3.875333
2024-07-07	SLC	synchronized	237.234637	31.0	6.559348
2024-07-08	GRDH	fscanner	29.386383	10.0	1.370738
2024-07-08	GRDH	synchronized	54.561325	33.0	12.495867
2024-07-08	GRDM	fscanner	1.203779	11.0	0.634652
2024-07-08	GRDM	synchronized	5.418145	14.0	12.195025
2024-07-08	OCN	synchronized	0.742388	33.0	11.657079
2024-07-08	RAW	synchronized	66.222654	48.0	11.578522
2024-07-08	SLC	synchronized	260.059533	35.0	13.516640
2024-07-09	GRDH	fscanner	66.460949	20.0	0.836950
2024-07-09	GRDH	synchronized	48.312274	29.0	6.668906
2024-07-09	GRDM	fscanner	4.114095	38.0	0.762223
2024-07-09	GRDM	synchronized	3.952977	11.0	5.700902
2024-07-09	OCN	synchronized	0.615921	30.0	9.182488
2024-07-09	RAW	synchronized	52.820220	39.0	6.268255
2024-07-09	SLC	synchronized	236.849274	31.0	7.333546
2024-07-10	GRDH	fscanner	38.820683	16.0	0.638649
2024-07-10	GRDH	synchronized	79.070196	47.0	10.807446
2024-07-10	GRDM	fscanner	6.717721	35.0	0.607199
2024-07-10	GRDM	synchronized	7.553632	20.0	8.191685
2024-07-10	OCN	synchronized	1.120626	54.0	8.860780
2024-07-10	RAW	synchronized	93.350221	68.0	9.699170
2024-07-10	SLC	synchronized	388.791485	51.0	11.903563
2024-07-11	GRDH	fscanner	62.107420	23.0	0.621150
2024-07-11	GRDH	synchronized	109.581654	66.0	9.229484
2024-07-11	GRDM	fscanner	5.943109	40.0	0.682412
2024-07-11	GRDM	synchronized	7.676847	20.0	9.522650
2024-07-11	OCN	synchronized	1.333781	68.0	9.343273
2024-07-11	RAW	synchronized	118.878873	85.0	9.049802
2024-07-11	SLC	synchronized	513.658271	68.0	9.511961

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2024-07-12	GRDH	fscanner	43.404539	15.0	0.721516
2024-07-12	GRDH	synchronized	78.415432	47.0	1.274477
2024-07-12	GRDM	fscanner	6.561062	37.0	0.752854
2024-07-12	GRDM	synchronized	4.823130	14.0	0.585218
2024-07-12	OCN	synchronized	0.974244	54.0	1.300188
2024-07-12	RAW	synchronized	83.583681	61.0	0.927754
2024-07-12	SLC	synchronized	374.589530	49.0	1.703573
2024-07-13	GRDH	fscanner	50.064243	19.0	0.676661
2024-07-13	GRDH	synchronized	85.278634	51.0	1.087985
2024-07-13	GRDM	fscanner	6.871137	45.0	0.668591
2024-07-13	GRDM	synchronized	5.488807	16.0	0.837128
2024-07-13	OCN	synchronized	0.924259	48.0	1.070798
2024-07-13	RAW	synchronized	92.718521	67.0	0.858623
2024-07-13	SLC	synchronized	400.262396	53.0	1.513720
2024-07-14	GRDH	fscanner	65.201343	22.0	0.785596
2024-07-14	GRDH	synchronized	73.492585	45.0	1.153039
2024-07-14	GRDM	fscanner	6.582857	40.0	0.716487
2024-07-14	GRDM	synchronized	5.328718	14.0	0.637356
2024-07-14	OCN	synchronized	0.866510	45.0	1.076993
2024-07-14	RAW	synchronized	81.104144	59.0	0.914574
2024-07-14	SLC	synchronized	359.421979	48.0	1.502381
2024-07-15	GRDH	fscanner	44.519430	15.0	0.627682
2024-07-15	GRDH	synchronized	65.420322	39.0	1.129934
2024-07-15	GRDM	fscanner	6.285437	34.0	0.609731
2024-07-15	GRDM	synchronized	8.163985	22.0	0.615662
2024-07-15	OCN	synchronized	1.130476	52.0	1.041210
2024-07-15	RAW	synchronized	80.946873	61.0	0.862075
2024-07-15	SLC	synchronized	327.321538	43.0	1.424988
2024-07-16	GRDH	fscanner	64.671702	22.0	0.709834
2024-07-16	GRDH	synchronized	78.328066	48.0	1.111669
2024-07-16	GRDM	fscanner	3.810088	35.0	0.823296
2024-07-16	GRDM	synchronized	4.239956	11.0	0.874740
2024-07-16	OCN	synchronized	0.795799	44.0	1.030100
2024-07-16	RAW	synchronized	83.822077	59.0	0.808557
2024-07-16	SLC	synchronized	377.631524	51.0	1.422891
2024-07-17	GRDH	fscanner	46.072474	17.0	0.661726
2024-07-17	GRDH	synchronized	73.874440	45.0	1.156226
2024-07-17	GRDM	fscanner	3.996840	28.0	0.658641
2024-07-17	GRDM	synchronized	6.247348	16.0	1.114477
2024-07-17	OCN	synchronized	1.065774	54.0	1.298571
2024-07-17	RAW	synchronized	82.602388	60.0	0.901857
2024-07-17	SLC	synchronized	352.926905	47.0	1.601331
2024-07-18	GRDH	fscanner	58.625503	21.0	0.611500
2024-07-18	GRDH	synchronized	82.507352	50.0	0.997091
2024-07-18	GRDM	fscanner	6.368994	44.0	0.677696
2024-07-18	GRDM	synchronized	6.268241	17.0	0.936019
2024-07-18	OCN	synchronized	1.015969	51.0	1.052400
2024-07-18	RAW	synchronized	93.612861	68.0	0.858257
2024-07-18	SLC	synchronized	396.469493	53.0	1.367861
2024-07-19	GRDH	fscanner	69.501992	21.0	0.695817
2024-07-19	GRDH	synchronized	69.203653	42.0	1.126109
2024-07-19	GRDM	fscanner	3.471552	32.0	0.683630
2024-07-19	GRDM	synchronized	5.110127	13.0	1.808666
2024-07-19	OCN	synchronized	0.827899	41.0	1.182851
2024-07-19	RAW	synchronized	77.975759	56.0	0.929294
2024-07-19	SLC	synchronized	323.893419	43.0	1.458764

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2024-07-20	GRDH	fscanner	42.337330	13.0	0.845754
2024-07-20	GRDH	synchronized	86.209842	53.0	1.158900
2024-07-20	GRDM	fscanner	2.725636	25.0	0.714235
2024-07-20	GRDM	synchronized	4.417721	12.0	1.290051
2024-07-20	OCN	synchronized	0.823332	44.0	1.258807
2024-07-20	RAW	synchronized	92.064158	65.0	1.007120
2024-07-20	SLC	synchronized	405.597601	55.0	1.451886
2024-07-21	GRDH	fscanner	75.535892	23.0	0.925156
2024-07-21	GRDH	synchronized	106.513861	65.0	1.405560
2024-07-21	GRDM	fscanner	2.785991	27.0	0.699334
2024-07-21	GRDM	synchronized	3.664652	10.0	1.011450
2024-07-21	OCN	synchronized	0.889011	53.0	1.338424
2024-07-21	RAW	synchronized	107.532523	75.0	1.220599
2024-07-21	SLC	synchronized	498.434404	67.0	1.917744
2024-07-22	GRDH	fscanner	43.300075	16.0	0.606103
2024-07-22	GRDH	synchronized	65.106586	39.0	1.231519
2024-07-22	GRDM	fscanner	6.124032	33.0	0.600399
2024-07-22	GRDM	synchronized	9.448735	24.0	0.963984
2024-07-22	OCN	synchronized	1.267688	56.0	1.149370
2024-07-22	RAW	synchronized	84.342646	63.0	0.932822
2024-07-22	SLC	synchronized	314.426992	41.0	1.549956
2024-07-23	GRDH	fscanner	64.198990	23.0	0.654388
2024-07-23	GRDH	synchronized	78.041434	47.0	1.117802
2024-07-23	GRDM	fscanner	5.952863	40.0	0.682407
2024-07-23	GRDM	synchronized	5.586842	15.0	0.622888
2024-07-23	OCN	synchronized	0.925217	47.0	1.083689
2024-07-23	RAW	synchronized	86.431969	62.0	0.869574
2024-07-23	SLC	synchronized	375.936354	50.0	1.477711
2024-07-24	GRDH	fscanner	67.272806	22.0	0.805469
2024-07-24	GRDH	synchronized	78.416246	47.0	1.270184
2024-07-24	GRDM	fscanner	5.822421	36.0	0.784143
2024-07-24	GRDM	synchronized	4.519535	13.0	0.539915
2024-07-24	OCN	synchronized	0.941998	53.0	1.290133
2024-07-24	RAW	synchronized	82.551286	60.0	1.040427
2024-07-24	SLC	synchronized	374.592511	49.0	1.587515
2024-07-25	GRDH	fscanner	59.695216	21.0	0.691812
2024-07-25	GRDH	synchronized	85.472917	51.0	1.091229
2024-07-25	GRDM	fscanner	5.684440	41.0	0.601412
2024-07-25	GRDM	synchronized	5.488123	16.0	0.812357
2024-07-25	OCN	synchronized	0.924638	48.0	1.118806
2024-07-25	RAW	synchronized	94.383691	68.0	0.934352
2024-07-25	SLC	synchronized	401.196329	53.0	1.384136
2024-07-26	GRDH	fscanner	65.667127	22.0	0.680943
2024-07-26	GRDH	synchronized	73.492337	45.0	1.050304
2024-07-26	GRDM	fscanner	6.387661	38.0	0.657169
2024-07-26	GRDM	synchronized	5.328514	14.0	0.604216
2024-07-26	OCN	synchronized	0.865042	45.0	0.957570
2024-07-26	RAW	synchronized	81.007934	59.0	0.852373
2024-07-26	SLC	synchronized	359.420136	48.0	1.329921
2024-07-27	GRDH	fscanner	47.390123	17.0	0.804948
2024-07-27	GRDH	synchronized	65.416374	39.0	1.009025
2024-07-27	GRDM	fscanner	6.766106	36.0	0.693090
2024-07-27	GRDM	synchronized	7.943470	22.0	0.621962
2024-07-27	OCN	synchronized	1.127462	52.0	0.971170
2024-07-27	RAW	synchronized	80.355523	61.0	0.822090
2024-07-27	SLC	synchronized	327.262241	43.0	1.480795

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2024-07-29	GRDH	fscanner	80.039704	28.0	1.861551
2024-07-29	GRDH	synchronized	73.876321	45.0	1.071773
2024-07-29	GRDM	fscanner	6.131994	48.0	2.377099
2024-07-29	GRDM	synchronized	6.249404	16.0	1.189569
2024-07-29	OCN	synchronized	1.067023	54.0	1.120219
2024-07-29	RAW	synchronized	82.809653	60.0	0.927413
2024-07-29	SLC	synchronized	352.927084	47.0	1.601491
2024-07-30	GRDH	fscanner	66.832887	25.0	0.613101
2024-07-30	GRDH	synchronized	82.689357	50.0	0.992030
2024-07-30	GRDM	fscanner	6.984603	47.0	0.667278
2024-07-30	GRDM	synchronized	6.267778	17.0	0.969463
2024-07-30	OCN	synchronized	1.003079	50.0	1.026031
2024-07-30	RAW	synchronized	91.897560	67.0	0.852110
2024-07-30	SLC	synchronized	397.303839	53.0	1.461685
2024-07-31	GRDH	fscanner	68.180305	23.0	0.890008
2024-07-31	GRDH	synchronized	82.898156	50.0	1.049064
2024-07-31	GRDM	fscanner	3.482008	32.0	0.683704
2024-07-31	GRDM	synchronized	4.711745	12.0	2.650964
2024-07-31	OCN	synchronized	0.938016	49.0	1.216472
2024-07-31	RAW	synchronized	90.776987	64.0	0.910534
2024-07-31	SLC	synchronized	386.647985	51.0	1.404048
2024-07-01	MSIL1C	synchronized	526.676154	1204.0	4.009632
2024-07-02	MSIL1C	synchronized	641.013470	1443.0	3.908708
2024-07-03	MSIL1C	synchronized	562.606289	1297.0	3.117324
2024-07-04	MSIL1C	synchronized	616.499428	1450.0	2.973066
2024-07-05	MSIL1C	synchronized	543.046766	1216.0	3.237457
2024-07-06	MSIL1C	synchronized	659.391891	1440.0	3.491873
2024-07-07	MSIL1C	synchronized	586.841896	1281.0	2.626540
2024-07-08	MSIL1C	synchronized	582.521322	1296.0	3.548012
2024-07-09	MSIL1C	synchronized	567.305062	1329.0	2.851285
2024-07-10	MSIL1C	synchronized	1.640589	5.0	11.077598
2024-07-11	MSIL1C	synchronized	545.513025	1241.0	32.467519
2024-07-12	MSIL1C	synchronized	941.530367	2135.0	12.858691
2024-07-13	MSIL1C	synchronized	684.298794	1608.0	3.400565
2024-07-14	MSIL1C	synchronized	580.223916	1322.0	3.342129
2024-07-15	MSIL1C	synchronized	551.889809	1248.0	3.315891
2024-07-16	MSIL1C	synchronized	670.233650	1461.0	3.553069
2024-07-17	MSIL1C	synchronized	585.401587	1288.0	3.368595
2024-07-18	MSIL1C	synchronized	576.580197	1304.0	3.136921
2024-07-19	MSIL1C	synchronized	588.806865	1316.0	4.054085
2024-07-20	MSIL1C	synchronized	557.734285	1258.0	2.772987
2024-07-21	MSIL1C	synchronized	596.041326	1330.0	2.879789
2024-07-22	MSIL1C	synchronized	15.280187	34.0	2.714853
2024-07-23	MSIL1C	synchronized	821.992666	1930.0	21.385723
2024-07-24	MSIL1C	synchronized	821.460185	1890.0	6.875892
2024-07-25	MSIL1C	synchronized	551.574303	1282.0	6.191929
2024-07-26	MSIL1C	synchronized	639.077512	1453.0	4.592143
2024-07-27	MSIL1C	synchronized	628.433621	1434.0	3.858165
2024-07-29	MSIL1C	synchronized	570.233967	1361.0	4.059841
2024-07-30	MSIL1C	synchronized	476.101321	1121.0	3.949911
2024-07-31	MSIL1C	synchronized	572.879402	1330.0	3.741497
2024-07-01	MSIL2A	synchronized	710.228580	1267.0	4.790144
2024-07-02	MSIL2A	synchronized	814.159364	1443.0	4.020936
2024-07-03	MSIL2A	synchronized	711.056319	1295.0	3.312825
2024-07-04	MSIL2A	synchronized	770.072146	1438.0	3.451648
2024-07-05	MSIL2A	synchronized	697.813464	1232.0	3.668156

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2024-07-06	MSIL2A	synchronized	845.256019	1439.0	3.775781
2024-07-07	MSIL2A	synchronized	758.332724	1282.0	3.203650
2024-07-08	MSIL2A	synchronized	740.503325	1286.0	4.255402
2024-07-09	MSIL2A	synchronized	740.407210	1338.0	3.362187
2024-07-10	MSIL2A	synchronized	14.012522	26.0	8.214414
2024-07-11	MSIL2A	synchronized	669.977147	1184.0	26.310067
2024-07-12	MSIL2A	synchronized	1369.703861	2480.0	8.191784
2024-07-13	MSIL2A	synchronized	727.200288	1329.0	3.489791
2024-07-14	MSIL2A	synchronized	735.215970	1314.0	3.933116
2024-07-15	MSIL2A	synchronized	711.385159	1262.0	3.854269
2024-07-16	MSIL2A	synchronized	855.508814	1458.0	4.018350
2024-07-17	MSIL2A	synchronized	747.768880	1287.0	3.965278
2024-07-18	MSIL2A	synchronized	755.370740	1321.0	3.779259
2024-07-19	MSIL2A	synchronized	757.593651	1317.0	4.872428
2024-07-20	MSIL2A	synchronized	713.598995	1241.0	3.193412
2024-07-21	MSIL2A	synchronized	774.690955	1341.0	3.681519
2024-07-22	MSIL2A	synchronized	334.947619	602.0	7.578550
2024-07-23	MSIL2A	synchronized	706.309128	1291.0	22.275368
2024-07-24	MSIL2A	synchronized	1076.812948	1932.0	11.228881
2024-07-25	MSIL2A	synchronized	752.193024	1359.0	7.105795
2024-07-26	MSIL2A	synchronized	831.123320	1458.0	5.572593
2024-07-27	MSIL2A	synchronized	813.766101	1431.0	4.718231
2024-07-29	MSIL2A	synchronized	720.278173	1355.0	4.706783
2024-07-30	MSIL2A	synchronized	1005.128101	1839.0	6.059449
2024-07-31	MSIL2A	synchronized	732.104506	1308.0	4.783145
2024-07-01	OLCI_L1	synchronized	151.938795	191.0	6.013642
2024-07-01	OLCI_L2	synchronized	22.197390	204.0	9.284644
2024-07-01	SLSTR_L1	synchronized	67.129172	160.0	5.577020
2024-07-01	SLSTR_L2	synchronized	15.707200	248.0	24.032644
2024-07-01	SRAL_L1	synchronized	164.806753	98.0	39.797435
2024-07-01	SRAL_L2	synchronized	6.173899	226.0	40.546127
2024-07-01	SYN_L2	synchronized	47.085462	237.0	21.457091
2024-07-02	OLCI_L1	synchronized	163.929823	205.0	5.753198
2024-07-02	OLCI_L2	synchronized	21.905473	198.0	3.120354
2024-07-02	SLSTR_L1	synchronized	76.731424	183.0	3.927736
2024-07-02	SLSTR_L2	synchronized	17.898570	281.0	18.493284
2024-07-02	SRAL_L1	synchronized	136.634439	85.0	38.596410
2024-07-02	SRAL_L2	synchronized	5.448512	205.0	40.366490
2024-07-02	SYN_L2	synchronized	48.208243	238.0	21.134140
2024-07-03	OLCI_L1	synchronized	168.309782	211.0	9.283041
2024-07-03	OLCI_L2	synchronized	22.883786	210.0	10.023838
2024-07-03	SLSTR_L1	synchronized	73.880097	176.0	3.176704
2024-07-03	SLSTR_L2	synchronized	15.540555	245.0	20.627926
2024-07-03	SRAL_L1	synchronized	135.594074	82.0	38.558495
2024-07-03	SRAL_L2	synchronized	5.406785	208.0	39.502262
2024-07-03	SYN_L2	synchronized	52.357234	253.0	22.378511
2024-07-04	OLCI_L1	synchronized	6.967784	11.0	2.573927
2024-07-04	OLCI_L2	synchronized	1.226404	12.0	2.804559
2024-07-04	SLSTR_L1	synchronized	9.941290	24.0	17.423403
2024-07-04	SLSTR_L2	synchronized	2.349376	37.0	17.364678
2024-07-04	SRAL_L1	synchronized	27.165980	16.0	38.373574
2024-07-04	SRAL_L2	synchronized	0.860509	31.0	41.912131
2024-07-04	SYN_L2	synchronized	9.307347	51.0	17.401408
2024-07-07	OLCI_L1	synchronized	630.502335	797.0	51.976806
2024-07-07	OLCI_L2	synchronized	88.972183	790.0	52.308525
2024-07-07	SLSTR_L1	synchronized	281.325946	675.0	55.139908

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2024-07-07	SLSTR_L2	synchronized	64.670072	1019.0	58.138320
2024-07-07	SRAL_L1	synchronized	523.151772	325.0	79.193242
2024-07-07	SRAL_L2	synchronized	20.614353	779.0	78.120960
2024-07-07	SYN_L2	synchronized	192.573566	894.0	62.413174
2024-07-08	OLCI_L1	synchronized	154.108401	196.0	9.807008
2024-07-08	OLCI_L2	synchronized	23.160560	202.0	10.172819
2024-07-08	SLSTR_L1	synchronized	66.535472	160.0	3.067723
2024-07-08	SLSTR_L2	synchronized	15.648402	247.0	21.794651
2024-07-08	SRAL_L1	synchronized	138.817440	86.0	38.523608
2024-07-08	SRAL_L2	synchronized	5.590393	209.0	39.842643
2024-07-08	SYN_L2	synchronized	53.928118	241.0	21.944890
2024-07-09	OLCI_L1	synchronized	162.453434	206.0	6.627113
2024-07-09	OLCI_L2	synchronized	22.897234	202.0	4.878280
2024-07-09	SLSTR_L1	synchronized	67.730695	162.0	4.850340
2024-07-09	SLSTR_L2	synchronized	15.240387	241.0	23.080980
2024-07-09	SRAL_L1	synchronized	139.251322	87.0	39.788538
2024-07-09	SRAL_L2	synchronized	5.270862	204.0	39.841320
2024-07-09	SYN_L2	synchronized	53.986050	241.0	22.582201
2024-07-10	OLCI_L1	synchronized	114.472675	144.0	12.379594
2024-07-10	OLCI_L2	synchronized	15.745908	138.0	13.402946
2024-07-10	SLSTR_L1	synchronized	76.886662	184.0	5.402698
2024-07-10	SLSTR_L2	synchronized	16.911128	266.0	23.150598
2024-07-10	SRAL_L1	synchronized	139.298852	87.0	38.588809
2024-07-10	SRAL_L2	synchronized	5.219223	194.0	39.950105
2024-07-10	SYN_L2	synchronized	53.253138	240.0	22.217281
2024-07-11	OLCI_L1	synchronized	197.856136	252.0	14.131448
2024-07-11	OLCI_L2	synchronized	27.969296	255.0	14.438306
2024-07-11	SLSTR_L1	synchronized	75.876042	181.0	15.688541
2024-07-11	SLSTR_L2	synchronized	18.231755	287.0	21.504327
2024-07-11	SRAL_L1	synchronized	135.815310	84.0	38.666130
2024-07-11	SRAL_L2	synchronized	5.573575	210.0	39.470258
2024-07-11	SYN_L2	synchronized	48.868001	234.0	21.703896
2024-07-11	Unknown	deleted	0.000000	1.0	0.000000
2024-07-12	OLCI_L1	synchronized	157.247986	200.0	8.343184
2024-07-12	OLCI_L2	synchronized	22.097833	203.0	10.193312
2024-07-12	SLSTR_L1	synchronized	72.386353	173.0	15.591851
2024-07-12	SLSTR_L2	synchronized	16.415379	259.0	21.507403
2024-07-12	SRAL_L1	synchronized	138.898854	85.0	38.610799
2024-07-12	SRAL_L2	synchronized	5.491105	208.0	39.748456
2024-07-12	SYN_L2	synchronized	46.571901	243.0	21.006504
2024-07-13	OLCI_L1	synchronized	163.006336	208.0	6.513199
2024-07-13	OLCI_L2	synchronized	21.800270	202.0	9.296587
2024-07-13	SLSTR_L1	synchronized	70.722100	169.0	6.096230
2024-07-13	SLSTR_L2	synchronized	16.164680	255.0	21.210338
2024-07-13	SRAL_L1	synchronized	141.720343	88.0	38.547494
2024-07-13	SRAL_L2	synchronized	5.262044	201.0	39.631507
2024-07-13	SYN_L2	synchronized	45.636014	243.0	22.444344
2024-07-14	OLCI_L1	synchronized	151.553354	194.0	6.442942
2024-07-14	OLCI_L2	synchronized	21.484118	199.0	6.550458
2024-07-14	SLSTR_L1	synchronized	74.902590	179.0	5.369589
2024-07-14	SLSTR_L2	synchronized	17.004821	268.0	20.053499
2024-07-14	SRAL_L1	synchronized	138.432790	86.0	38.683794
2024-07-14	SRAL_L2	synchronized	5.309963	200.0	40.182193
2024-07-14	SYN_L2	synchronized	45.657649	239.0	21.310173
2024-07-15	OLCI_L1	synchronized	160.435352	209.0	9.503186
2024-07-15	OLCI_L2	synchronized	22.720359	205.0	5.870761

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2024-07-15	SLSTR_L1	synchronized	66.406359	159.0	3.388642
2024-07-15	SLSTR_L2	synchronized	14.795210	234.0	20.516276
2024-07-15	SRAL_L1	synchronized	135.955736	84.0	38.536518
2024-07-15	SRAL_L2	synchronized	5.399871	205.0	39.206881
2024-07-15	SYN_L2	synchronized	47.532975	236.0	20.565769
2024-07-16	OLCI_L1	synchronized	152.606768	198.0	6.270613
2024-07-16	OLCI_L2	synchronized	22.474997	200.0	10.409152
2024-07-16	SLSTR_L1	synchronized	65.822525	158.0	3.662288
2024-07-16	SLSTR_L2	synchronized	15.989822	252.0	20.444348
2024-07-16	SRAL_L1	synchronized	140.767610	85.0	39.290803
2024-07-16	SRAL_L2	synchronized	5.440350	204.0	40.006889
2024-07-16	SYN_L2	synchronized	46.057658	226.0	21.684552
2024-07-17	OLCI_L1	synchronized	158.759909	206.0	6.514438
2024-07-17	OLCI_L2	synchronized	21.869240	194.0	10.591861
2024-07-17	SLSTR_L1	synchronized	68.019920	164.0	15.981717
2024-07-17	SLSTR_L2	synchronized	14.862448	235.0	20.855704
2024-07-17	SRAL_L1	synchronized	139.915722	89.0	38.476026
2024-07-17	SRAL_L2	synchronized	5.261782	197.0	39.747828
2024-07-17	SYN_L2	synchronized	52.450070	243.0	20.538284
2024-07-18	OLCI_L1	synchronized	150.873170	196.0	6.109642
2024-07-18	OLCI_L2	synchronized	22.466053	204.0	4.062746
2024-07-18	SLSTR_L1	synchronized	67.727782	163.0	3.559764
2024-07-18	SLSTR_L2	synchronized	16.204092	256.0	18.934045
2024-07-18	SRAL_L1	synchronized	133.842269	82.0	39.347682
2024-07-18	SRAL_L2	synchronized	5.064783	192.0	40.283875
2024-07-18	SYN_L2	synchronized	51.184535	235.0	21.302516
2024-07-19	OLCI_L1	synchronized	154.793945	202.0	9.357186
2024-07-19	OLCI_L2	synchronized	21.860479	196.0	4.844118
2024-07-19	SLSTR_L1	synchronized	75.749309	182.0	15.429490
2024-07-19	SLSTR_L2	synchronized	16.098814	255.0	21.278513
2024-07-19	SRAL_L1	synchronized	135.889049	84.0	38.523853
2024-07-19	SRAL_L2	synchronized	5.466285	206.0	39.185237
2024-07-19	SYN_L2	synchronized	47.736428	228.0	20.474949
2024-07-20	OLCI_L1	synchronized	150.764908	196.0	9.785295
2024-07-20	OLCI_L2	synchronized	22.604764	205.0	10.284457
2024-07-20	SLSTR_L1	synchronized	69.556311	167.0	3.767684
2024-07-20	SLSTR_L2	synchronized	16.425714	259.0	21.148265
2024-07-20	SRAL_L1	synchronized	141.180436	86.0	38.902387
2024-07-20	SRAL_L2	synchronized	5.508440	205.0	39.567038
2024-07-20	SYN_L2	synchronized	47.929130	234.0	20.781178
2024-07-21	OLCI_L1	synchronized	159.879477	207.0	9.188589
2024-07-21	OLCI_L2	synchronized	21.026157	189.0	3.403661
2024-07-21	SLSTR_L1	synchronized	73.416017	176.0	14.803978
2024-07-21	SLSTR_L2	synchronized	16.340070	258.0	20.526586
2024-07-21	SRAL_L1	synchronized	139.869815	89.0	38.472745
2024-07-21	SRAL_L2	synchronized	5.370464	203.0	39.641216
2024-07-21	SYN_L2	synchronized	51.656949	241.0	23.242886
2024-07-22	OLCI_L1	synchronized	69.689890	95.0	2.644233
2024-07-22	OLCI_L2	synchronized	10.999744	101.0	2.850378
2024-07-22	SLSTR_L1	synchronized	74.947917	180.0	4.423251
2024-07-22	SLSTR_L2	synchronized	17.805275	281.0	18.489647
2024-07-22	SRAL_L1	synchronized	138.025842	83.0	39.124235
2024-07-22	SRAL_L2	synchronized	5.393479	202.0	40.109556
2024-07-22	SYN_L2	synchronized	39.396955	181.0	22.187505
2024-07-23	OLCI_L1	synchronized	234.887986	305.0	16.958713
2024-07-23	OLCI_L2	synchronized	33.706124	308.0	18.335723

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2024-07-23	SLSTR_L1	synchronized	73.789867	177.0	15.440323
2024-07-23	SLSTR_L2	synchronized	16.493226	261.0	20.641109
2024-07-23	SRAL_L1	synchronized	132.490410	83.0	38.845921
2024-07-23	SRAL_L2	synchronized	5.450729	205.0	40.141754
2024-07-23	SYN_L2	synchronized	62.021716	301.0	23.647466
2024-07-24	OLCI_L1	synchronized	150.420773	197.0	9.881327
2024-07-24	OLCI_L2	synchronized	22.406473	204.0	10.363557
2024-07-24	SLSTR_L1	synchronized	67.565359	162.0	15.820066
2024-07-24	SLSTR_L2	synchronized	15.676841	248.0	23.402020
2024-07-24	SRAL_L1	synchronized	143.163182	86.0	39.626042
2024-07-24	SRAL_L2	synchronized	5.454179	204.0	39.823080
2024-07-24	SYN_L2	synchronized	46.221328	236.0	21.557553
2024-07-25	OLCI_L1	synchronized	154.959682	204.0	6.083922
2024-07-25	OLCI_L2	synchronized	20.915674	190.0	4.668826
2024-07-25	SLSTR_L1	synchronized	70.023850	168.0	17.038275
2024-07-25	SLSTR_L2	synchronized	16.480064	259.0	19.447374
2024-07-25	SRAL_L1	synchronized	140.124692	89.0	38.534090
2024-07-25	SRAL_L2	synchronized	5.206331	197.0	40.173967
2024-07-25	SYN_L2	synchronized	47.925054	239.0	22.301628
2024-07-26	OLCI_L1	synchronized	133.939818	179.0	6.324413
2024-07-26	OLCI_L2	synchronized	21.772772	198.0	7.676752
2024-07-26	SLSTR_L1	synchronized	74.179278	178.0	5.290125
2024-07-26	SLSTR_L2	synchronized	16.878084	267.0	20.798777
2024-07-26	SRAL_L1	synchronized	134.725608	79.0	39.774948
2024-07-26	SRAL_L2	synchronized	5.426123	204.0	40.195040
2024-07-26	SYN_L2	synchronized	45.535912	227.0	20.152811
2024-07-27	OLCI_L1	synchronized	121.946111	168.0	10.357304
2024-07-27	OLCI_L2	synchronized	21.129722	193.0	10.536606
2024-07-27	SLSTR_L1	synchronized	67.947868	165.0	16.003219
2024-07-27	SLSTR_L2	synchronized	16.827417	266.0	19.103660
2024-07-27	SRAL_L1	synchronized	137.259455	82.0	39.524308
2024-07-27	SRAL_L2	synchronized	5.343665	199.0	40.062303
2024-07-27	SYN_L2	synchronized	42.812631	216.0	19.962916
2024-07-29	OLCI_L1	synchronized	149.042392	183.0	10.429869
2024-07-29	OLCI_L2	synchronized	20.835124	173.0	3.495003
2024-07-29	SLSTR_L1	synchronized	70.390545	170.0	10.403563
2024-07-29	SLSTR_L2	synchronized	17.205439	271.0	20.324612
2024-07-29	SRAL_L1	synchronized	137.214206	90.0	38.521851
2024-07-29	SRAL_L2	synchronized	5.469220	207.0	40.637643
2024-07-29	SYN_L2	synchronized	47.285437	226.0	22.467725
2024-07-30	OLCI_L1	synchronized	137.555092	168.0	6.407180
2024-07-30	OLCI_L2	synchronized	21.225416	177.0	11.912407
2024-07-30	SLSTR_L1	synchronized	72.126922	174.0	4.981485
2024-07-30	SLSTR_L2	synchronized	17.999442	284.0	18.770361
2024-07-30	SRAL_L1	synchronized	138.004886	83.0	39.771660
2024-07-30	SRAL_L2	synchronized	5.345876	205.0	39.916478
2024-07-30	SYN_L2	synchronized	42.474947	209.0	20.178176
2024-07-31	OLCI_L1	synchronized	136.629668	168.0	10.875090
2024-07-31	OLCI_L2	synchronized	22.170298	187.0	12.067945
2024-07-31	SLSTR_L1	synchronized	64.924168	157.0	3.901338
2024-07-31	SLSTR_L2	synchronized	15.780057	250.0	20.765396
2024-07-31	SRAL_L1	synchronized	133.046503	81.0	39.720227
2024-07-31	SRAL_L2	synchronized	5.529199	205.0	39.756499
2024-07-31	SYN_L2	synchronized	40.066442	206.0	21.963500
2024-07-01	NRTI_L2	synchronized	12.377005	306.0	1.946306
2024-07-01	OFFL_L1B	synchronized	306.091605	112.0	4.115615

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2024-07-01	OFFL_L2	synchronized	67.644886	185.0	39.548609
2024-07-02	NRTI_L2	synchronized	13.357121	326.0	1.929564
2024-07-02	OFFL_L1B	synchronized	306.019609	112.0	4.137568
2024-07-02	OFFL_L2	synchronized	67.479860	188.0	39.178354
2024-07-03	NRTI_L2	synchronized	13.632669	358.0	1.913117
2024-07-03	OFFL_L1B	synchronized	305.613159	112.0	4.049927
2024-07-03	OFFL_L2	synchronized	64.966925	180.0	39.600318
2024-07-04	NRTI_L2	synchronized	11.813338	318.0	1.879610
2024-07-04	OFFL_L1B	synchronized	305.939969	112.0	4.138067
2024-07-04	OFFL_L2	synchronized	68.626827	186.0	39.409125
2024-07-05	NRTI_L2	synchronized	12.976342	333.0	1.929562
2024-07-05	OFFL_L1B	synchronized	313.256519	116.0	4.159248
2024-07-05	OFFL_L2	synchronized	66.053183	182.0	39.692946
2024-07-06	NRTI_L2	synchronized	13.314214	333.0	1.946313
2024-07-06	OFFL_L1B	synchronized	318.510003	116.0	4.057918
2024-07-06	OFFL_L2	synchronized	56.801395	156.0	42.018808
2024-07-07	NRTI_L2	synchronized	13.064352	327.0	1.896249
2024-07-07	OFFL_L1B	synchronized	303.717984	112.0	4.111016
2024-07-07	OFFL_L2	synchronized	74.454601	208.0	41.753317
2024-07-08	NRTI_L2	synchronized	11.988439	319.0	1.929660
2024-07-08	OFFL_L1B	synchronized	306.268603	112.0	3.993176
2024-07-08	OFFL_L2	synchronized	67.046497	187.0	40.179135
2024-07-09	NRTI_L2	synchronized	13.337925	340.0	1.929621
2024-07-09	OFFL_L1B	synchronized	306.220864	112.0	4.125804
2024-07-09	OFFL_L2	synchronized	67.694185	185.0	40.063508
2024-07-10	NRTI_L2	synchronized	13.743056	333.0	1.879539
2024-07-10	OFFL_L1B	synchronized	321.157721	118.0	4.097882
2024-07-10	OFFL_L2	synchronized	55.079826	147.0	43.905758
2024-07-11	NRTI_L2	synchronized	12.450670	317.0	1.913000
2024-07-11	OFFL_L1B	synchronized	310.572015	114.0	4.061904
2024-07-11	OFFL_L2	synchronized	80.390002	222.0	41.310879
2024-07-12	NRTI_L2	synchronized	11.838191	316.0	1.896429
2024-07-12	OFFL_L1B	synchronized	305.962466	112.0	4.104515
2024-07-12	OFFL_L2	synchronized	54.751294	140.0	42.890962
2024-07-13	NRTI_L2	synchronized	12.484529	318.0	1.929661
2024-07-13	OFFL_L1B	synchronized	308.424888	112.0	3.998416
2024-07-13	OFFL_L2	synchronized	51.863813	130.0	46.246582
2024-07-14	NRTI_L2	synchronized	13.817449	343.0	1.912989
2024-07-14	OFFL_L1B	synchronized	305.668252	112.0	4.026005
2024-07-14	OFFL_L2	synchronized	47.744793	118.0	49.867806
2024-07-15	NRTI_L2	synchronized	12.480168	317.0	1.879552
2024-07-15	OFFL_L1B	synchronized	305.937479	112.0	4.074769
2024-07-15	OFFL_L2	synchronized	43.549600	107.0	57.260503
2024-07-16	NRTI_L2	synchronized	12.412322	324.0	1.929530
2024-07-16	OFFL_L1B	synchronized	328.044917	120.0	4.118974
2024-07-16	OFFL_L2	synchronized	53.159354	135.0	58.053706
2024-07-17	NRTI_L2	synchronized	12.119842	307.0	1.912909
2024-07-17	OFFL_L1B	synchronized	306.013451	112.0	4.011016
2024-07-17	OFFL_L2	synchronized	52.092967	132.0	60.299943
2024-07-18	NRTI_L2	synchronized	12.894896	324.0	1.896310
2024-07-18	OFFL_L1B	synchronized	303.576123	112.0	4.063569
2024-07-18	OFFL_L2	synchronized	60.639931	149.0	60.323876
2024-07-19	NRTI_L2	synchronized	13.492156	349.0	1.946224
2024-07-19	OFFL_L1B	synchronized	303.558634	112.0	4.031305
2024-07-19	OFFL_L2	synchronized	50.114752	131.0	60.932287
2024-07-20	NRTI_L2	synchronized	11.317266	308.0	1.896272

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2024-07-20	OFFL_L1B	synchronized	305.973930	112.0	3.981831
2024-07-20	OFFL_L2	synchronized	55.702494	137.0	60.426165
2024-07-21	NRTI_L2	synchronized	12.682887	333.0	1.912899
2024-07-21	OFFL_L1B	synchronized	306.097103	112.0	4.120581
2024-07-21	OFFL_L2	synchronized	67.992917	183.0	58.234680
2024-07-22	NRTI_L2	synchronized	13.216665	333.0	1.918485
2024-07-22	OFFL_L1B	synchronized	322.726000	118.0	4.142906
2024-07-22	OFFL_L2	synchronized	84.946408	236.0	51.773449
2024-07-23	NRTI_L2	synchronized	12.572560	324.0	1.896377
2024-07-23	OFFL_L1B	synchronized	311.472081	114.0	3.981235
2024-07-23	OFFL_L2	synchronized	77.986708	220.0	45.529849
2024-07-24	NRTI_L2	synchronized	12.048930	330.0	1.896282
2024-07-24	OFFL_L1B	synchronized	303.560285	112.0	3.812695
2024-07-24	OFFL_L2	synchronized	70.044060	190.0	41.598686
2024-07-25	NRTI_L2	synchronized	12.933026	336.0	1.912986
2024-07-25	OFFL_L1B	synchronized	305.940099	112.0	3.915000
2024-07-25	OFFL_L2	synchronized	68.971514	186.0	42.620056
2024-07-26	NRTI_L2	synchronized	5.769379	162.0	1.912961
2024-07-26	OFFL_L1B	synchronized	176.312490	64.0	4.065181
2024-07-26	OFFL_L2	synchronized	44.056065	107.0	48.125311
2024-07-27	NRTI_L2	synchronized	7.660029	207.0	1.936592
2024-07-27	OFFL_L1B	synchronized	207.868312	77.0	4.357577
2024-07-27	OFFL_L2	synchronized	15.300519	34.0	59.226886
2024-07-29	NRTI_L2	synchronized	12.171353	333.0	1.898196
2024-07-29	OFFL_L1B	synchronized	369.574389	136.0	8.021028
2024-07-29	OFFL_L2	synchronized	36.857588	91.0	84.177508
2024-07-30	NRTI_L2	synchronized	8.937857	270.0	1.914785
2024-07-30	OFFL_L1B	synchronized	217.885871	80.0	4.014726
2024-07-30	OFFL_L2	synchronized	34.571625	86.0	91.300312
2024-07-31	NRTI_L2	synchronized	12.708823	324.0	1.896889
2024-07-31	OFFL_L1B	synchronized	325.091490	120.0	3.986059
2024-07-31	OFFL_L2	synchronized	46.339431	112.0	100.109074
2024-07-01	s2_l2a	NaN	1.441662	4.0	NaN
2024-07-01	s1_ew	NaN	7.960163	7.0	NaN
2024-07-01	s1_iw	NaN	46.390564	38.0	NaN
2024-07-01	s2_l1c	NaN	251.642410	416.0	NaN
2024-07-02	s1_iw	NaN	52.078106	32.0	NaN
2024-07-02	s1_ew	NaN	11.709469	6.0	NaN
2024-07-02	s2_l1c	NaN	326.844570	538.0	NaN
2024-07-02	s2_l2a	NaN	1.573463	3.0	NaN
2024-07-03	s1_iw	NaN	19.776909	17.0	NaN
2024-07-03	s1_ew	NaN	19.744183	10.0	NaN
2024-07-03	s2_l1c	NaN	290.012947	478.0	NaN
2024-07-03	s2_l2a	NaN	5.806698	8.0	NaN
2024-07-04	s2_l2a	NaN	22.775429	0.0	NaN
2024-07-04	s2_l1c	NaN	310.761513	538.0	NaN
2024-07-04	s1_iw	NaN	43.942184	36.0	NaN
2024-07-04	s1_ew	NaN	12.823940	6.0	NaN
2024-07-05	s1_iw	NaN	15.903458	14.0	NaN
2024-07-05	s1_ew	NaN	17.388603	9.0	NaN
2024-07-05	s2_l1c	NaN	241.533901	402.0	NaN
2024-07-05	s2_l2a	NaN	5.936691	8.0	NaN
2024-07-06	s2_l2a	NaN	1.248455	4.0	NaN
2024-07-06	s2_l1c	NaN	326.743523	521.0	NaN
2024-07-06	s1_ew	NaN	13.692612	7.0	NaN
2024-07-06	s1_iw	NaN	53.014984	40.0	NaN

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2024-07-07	s1_iw	NaN	17.795254	11.0	NaN
2024-07-07	s1_ew	NaN	9.401760	4.0	NaN
2024-07-07	s2_l1c	NaN	287.125111	467.0	NaN
2024-07-07	s2_l2a	NaN	1.401104	3.0	NaN
2024-07-08	s2_l1c	NaN	255.212357	441.0	NaN
2024-07-08	s2_l2a	NaN	5.944920	8.0	NaN
2024-07-08	s1_iw	NaN	23.138176	14.0	NaN
2024-07-08	s1_ew	NaN	8.565655	3.0	NaN
2024-07-09	s1_iw	NaN	58.419086	38.0	NaN
2024-07-09	s1_ew	NaN	6.271858	2.0	NaN
2024-07-09	s2_l1c	NaN	266.476173	471.0	NaN
2024-07-09	s2_l2a	NaN	24.260513	0.0	NaN
2024-07-10	s2_l1c	NaN	216.037621	369.0	NaN
2024-07-10	s1_iw	NaN	16.020935	16.0	NaN
2024-07-10	s1_ew	NaN	25.325417	12.0	NaN
2024-07-10	s2_l2a	NaN	5.155441	8.0	NaN
2024-07-11	s2_l2a	NaN	1.434299	4.0	NaN
2024-07-11	s2_l1c	NaN	254.674911	413.0	NaN
2024-07-11	s1_ew	NaN	18.324821	8.0	NaN
2024-07-11	s1_iw	NaN	45.439159	36.0	NaN
2024-07-12	s1_iw	NaN	13.502190	11.0	NaN
2024-07-12	s1_ew	NaN	16.513451	10.0	NaN
2024-07-12	s2_l1c	NaN	260.035423	433.0	NaN
2024-07-12	s2_l2a	NaN	1.815536	3.0	NaN
2024-07-13	s1_iw	NaN	41.687794	38.0	NaN
2024-07-13	s1_ew	NaN	7.297005	6.0	NaN
2024-07-13	s2_l1c	NaN	280.168236	473.0	NaN
2024-07-13	s2_l2a	NaN	5.589359	8.0	NaN
2024-07-14	s2_l2a	NaN	23.914272	0.0	NaN
2024-07-14	s2_l1c	NaN	283.169003	480.0	NaN
2024-07-14	s1_iw	NaN	40.511913	30.0	NaN
2024-07-14	s1_ew	NaN	11.347179	6.0	NaN
2024-07-15	s1_iw	NaN	16.171776	16.0	NaN
2024-07-15	s1_ew	NaN	16.998631	9.0	NaN
2024-07-15	s2_l1c	NaN	257.785988	437.0	NaN
2024-07-15	s2_l2a	NaN	5.994442	8.0	NaN
2024-07-16	s2_l2a	NaN	1.320808	4.0	NaN
2024-07-16	s2_l1c	NaN	323.701843	535.0	NaN
2024-07-16	s1_ew	NaN	12.691967	5.0	NaN
2024-07-16	s1_iw	NaN	42.211285	34.0	NaN
2024-07-17	s1_iw	NaN	12.587296	12.0	NaN
2024-07-17	s1_ew	NaN	18.914612	9.0	NaN
2024-07-17	s2_l1c	NaN	273.558384	471.0	NaN
2024-07-17	s2_l2a	NaN	1.201317	3.0	NaN
2024-07-18	s2_l1c	NaN	236.936295	443.0	NaN
2024-07-18	s2_l2a	NaN	5.811172	8.0	NaN
2024-07-18	s1_iw	NaN	42.624752	37.0	NaN
2024-07-18	s1_ew	NaN	10.557137	5.0	NaN
2024-07-19	s1_iw	NaN	33.818771	21.0	NaN
2024-07-19	s1_ew	NaN	9.050011	3.0	NaN
2024-07-19	s2_l1c	NaN	273.809753	471.0	NaN
2024-07-19	s2_l2a	NaN	24.478664	0.0	NaN
2024-07-20	s2_l2a	NaN	6.561409	8.0	NaN
2024-07-20	s1_iw	NaN	39.391586	25.0	NaN
2024-07-20	s1_ew	NaN	2.524216	1.0	NaN
2024-07-20	s2_l1c	NaN	273.972450	472.0	NaN

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2024-07-21	s1_ew	NaN	6.194511	2.0	NaN
2024-07-21	s2_l1c	NaN	278.080082	467.0	NaN
2024-07-21	s1_iw	NaN	67.521252	36.0	NaN
2024-07-21	s2_l2a	NaN	1.476822	6.0	NaN
2024-07-22	s2_l2a	NaN	1.383869	3.0	NaN
2024-07-22	s2_l1c	NaN	246.721191	439.0	NaN
2024-07-22	s1_ew	NaN	21.294781	10.0	NaN
2024-07-22	s1_iw	NaN	10.979176	13.0	NaN
2024-07-23	s1_iw	NaN	40.837631	34.0	NaN
2024-07-23	s1_ew	NaN	17.970798	8.0	NaN
2024-07-23	s2_l1c	NaN	274.482922	474.0	NaN
2024-07-23	s2_l2a	NaN	6.198940	8.0	NaN
2024-07-24	s1_iw	NaN	13.039623	12.0	NaN
2024-07-24	s1_ew	NaN	14.252197	7.0	NaN
2024-07-24	s2_l1c	NaN	268.744343	477.0	NaN
2024-07-24	s2_l2a	NaN	24.503220	0.0	NaN
2024-07-25	s2_l2a	NaN	6.819981	8.0	NaN
2024-07-25	s2_l1c	NaN	265.295380	448.0	NaN
2024-07-25	s1_iw	NaN	43.957958	37.0	NaN
2024-07-25	s1_ew	NaN	6.719788	5.0	NaN
2024-07-26	s1_ew	NaN	12.734428	6.0	NaN
2024-07-26	s1_iw	NaN	49.484192	32.0	NaN
2024-07-26	s2_l1c	NaN	309.705345	520.0	NaN
2024-07-26	s2_l2a	NaN	1.355053	5.0	NaN
2024-07-27	s2_l2a	NaN	24.503273	0.0	NaN
2024-07-27	s2_l1c	NaN	71.723156	133.0	NaN
2024-07-27	s1_ew	NaN	23.698814	12.0	NaN
2024-07-27	s1_iw	NaN	16.457371	16.0	NaN
2024-07-28	s1_iw	NaN	48.961617	34.0	NaN
2024-07-28	s1_ew	NaN	12.599518	5.0	NaN
2024-07-28	s2_l1c	NaN	244.310822	438.0	NaN
2024-07-28	s2_l2a	NaN	5.993305	8.0	NaN
2024-07-29	s2_l1c	NaN	267.675728	477.0	NaN
2024-07-29	s2_l2a	NaN	24.503281	0.0	NaN
2024-07-29	s1_iw	NaN	12.311119	13.0	NaN
2024-07-29	s1_ew	NaN	18.747475	9.0	NaN
2024-07-30	s1_iw	NaN	47.417450	38.0	NaN
2024-07-30	s1_ew	NaN	16.473274	8.0	NaN
2024-07-30	s2_l1c	NaN	254.255852	424.0	NaN
2024-07-30	s2_l2a	NaN	6.684738	8.0	NaN
2024-07-31	s2_l2a	NaN	1.575390	4.0	NaN
2024-07-31	s1_iw	NaN	35.835045	10.0	NaN
2024-07-31	s1_ew	NaN	9.068714	4.0	NaN
2024-07-31	s2_l1c	NaN	257.351608	458.0	NaN

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