

ECMWF Product Requirements Editor (PREd)

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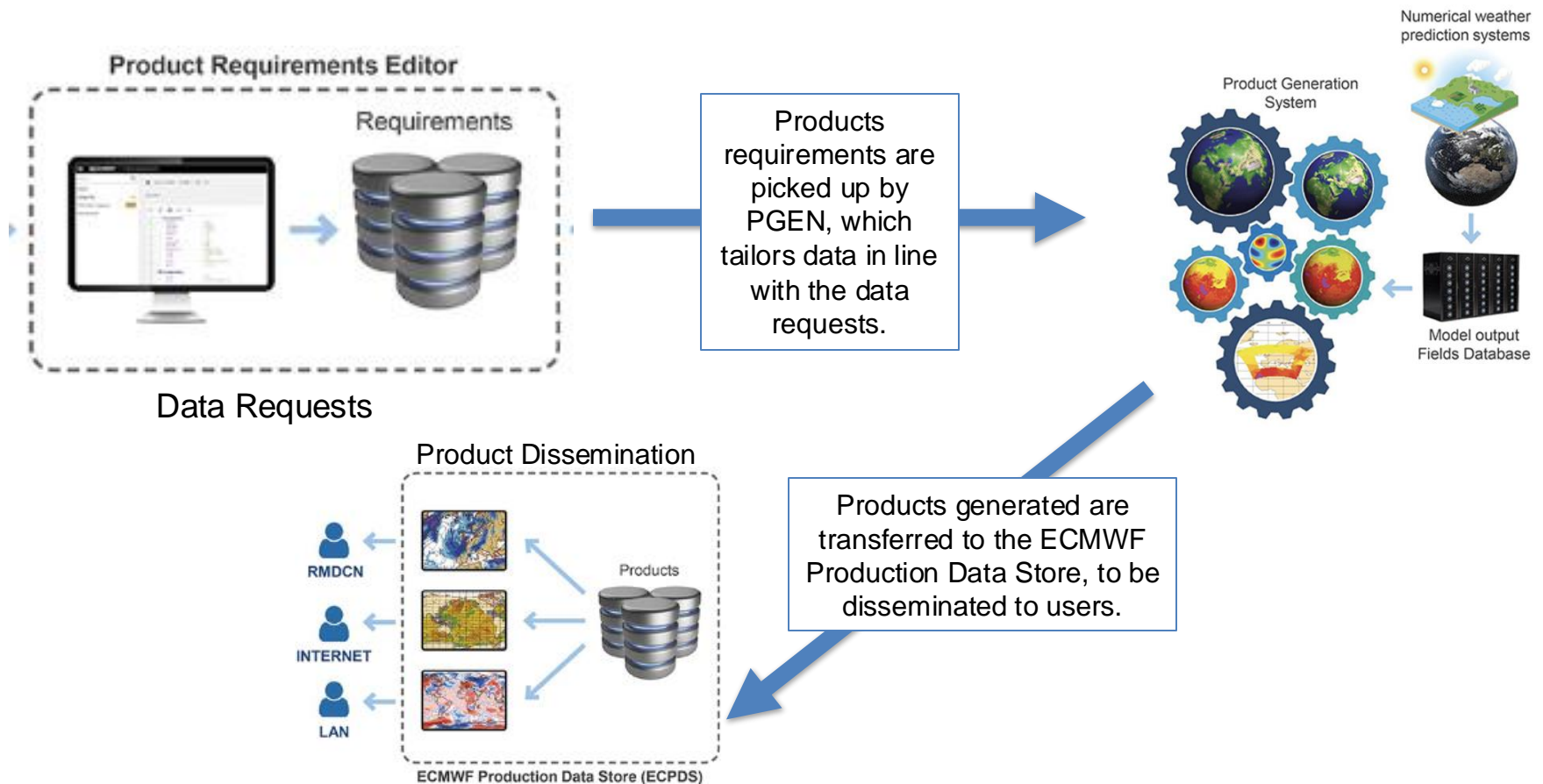
Some info about PREd

What is PREd?	<ul style="list-style-type: none">• A web application used for the management of real-time data requirements.• Access to PREd is set-up as part of the real-time forecast data delivery process.
Who can access PREd?	<ul style="list-style-type: none">• Member and Co-operating States• Real-time licensees with a Silver or Gold Service Packages• ECMWF internal users (like DSC team)
Where can I access PREd?	https://apps.ecmwf.int/products/requirements/

ECMWF data production and dissemination system

ECMWF's product dissemination system consists of three main components:

- **the Product Requirements Editor (PREd)**
- the Product Generation System (PGEN)
- the ECMWF's Production Data Store (ECPDS).



Some definitions in PREd

- Data requirements are grouped in logical containers.
- The home page (top level) shows the destination(s) that every organisation have been assigned.
- A **DESTINATION** represents a physical host (server) where data are transmitted after being generated.
- A destinations contains one or more **FEEDS**, which are containers where users can use the requirements editor to install the data.

ECMWF

Destinations + CREATE NEW DESTINATION VOLUMES

Name	Feeds	Daily volume produced (average maximum)	Disseminated
CIE ECMWF for SEE-MHEWS in EWCloud	1	3.70 GiB 3.70 GiB	3.67 GiB
DSC ECMWF test Data Services	14	610.49 GiB 632.89 GiB	n/a
DST Data Support-Trial Data for commercial contracts	14	0 GiB 0 GiB	n/a
EC1 ECMWF ecCharts	1	2312.70 GiB 2312.70 GiB	n/a
ECD ECMWF DDH	1	0 GiB 0 GiB	n/a
ECL ECMWF Cloud destination	1	0.20 GiB 0.20 GiB	n/a

MB or CS NMS > ECMWF > DSC > T1

DSC:T1 + UPDATE FEED REMOVE FEED

```
1 disseminate,
2   class      = od,
3   stream     = cefo,
4   expver     = 0001,
5   domain     = g,
6   type       = pf,
7   levtype    = sfc,
8   param      = 2f/tp,
9   time       = 0000,
10  step       = 0/to/1104/by/6,
11  use        =
12  monday/tuesday/wednesday/thursday/friday/saturday/sunday,
13  number     = 1/to/100,
14  area       = 56/4/45.2/20,
15  grid       = .4/.4
16+
17+ disseminate,
18+   type      = cf,
19+   number    = off
20+
21+ disseminate,
22+   stream    = cefh,
23+   type      = pf,
24+   number    = 1/to/10
```

Settings

Dissemination DELAY

Test feed OFF ON

Expiry date Monday, February 24, 2025

Actions

- View changes
- Discard changes
- Publish changes
- All versions

Draft

Last modified 2022/06/30 13:17

ECMWF test Data Services + UPDATE DESTINATION REMOVE DESTINATION

Feeds + CREATE NEW FEED VOLUMES BATCH ACTIONS

<input type="checkbox"/>	Name	Description	Option	Test feed	Daily volume produced (average maximum)	Last modified	Last modified by
<input type="checkbox"/>	CF	Cihan's test feed	DELAY	✓	0.00 GiB 0.01 GiB	2024/11/12 08:04	Cristian Codorean (ECMWF)
<input type="checkbox"/>	S1	Saritha's test	DELAY	✗	0 GiB 0 GiB	2024/05/29 10:26	Saritha Gudur (ECMWF)
<input type="checkbox"/>	T1	Ruth's feed	DELAY	✗	36.00 GiB 36.00 GiB	2023/12/14 10:20	Ruth Coughlan (ECMWF)
<input type="checkbox"/>	T3	Test Stream	DELAY	✗	0.00 GiB 0.00 GiB	2024/11/12 08:13	Cristian Codorean (ECMWF)
<input type="checkbox"/>	T5	Test Stream	DELAY	✗	1.00 GiB 1.25 GiB	2024/11/12 08:13	Cristian Codorean (ECMWF)
<input type="checkbox"/>	T9	Test stream for CY48r1 exp...	DELAY	✓	0.17 GiB 0.17 GiB	2023/03/02 14:51	Cristian Codorean (ECMWF)
<input type="checkbox"/>	TD	testing 48r1	DELAY	✓	1.07 GiB 7.52 GiB	2023/06/27 07:53	Cristian Codorean (ECMWF)
<input type="checkbox"/>	TE	Emma's test	DELAY	✗	0 GiB 0 GiB	2025/01/24 14:35	Emma Pidduck (ECMWF)

Volume estimates – Volume band

- Volume Band is based on the size of the data request.
- It is estimated using the software ecquote
- 6 Volume Bands in ECMWF service charge model

Volume band (number)	Average volume per day (GiB per day)
1	0 - 1
2	1 - 10
3	10 - 100
4	100 - 500
5	500 - 1,000
6	1,000 - 4,000

<https://github.com/ecmwf/ecquote>

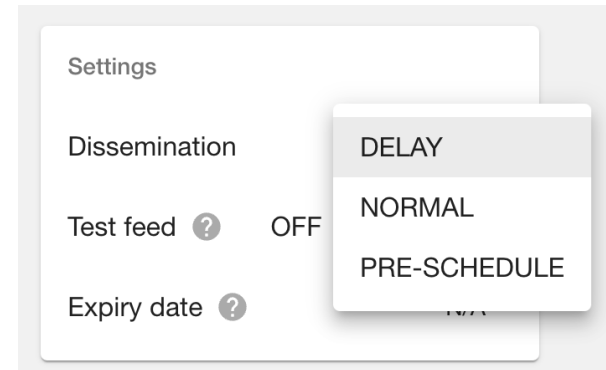
- The value to be considered to know in which volume band you are, is the **Average Volume per day** (GiB/day)
- The other information is the Maximum Volume per day.
- All feeds (also test feeds) are counted to calculate the volume band.

<input type="checkbox"/>	Name	D...	Option	Test feed	Daily volume produced (average maximum)
<input type="checkbox"/>	TH	Therm...	NORMAL	×	<u>513.56 GiB</u> 513.56 GiB
<input type="checkbox"/>	TL	Ilaria te...	DELAY	×	54.61 GiB 54.61 GiB
<input type="checkbox"/>	T1	Ruth's ...	DELAY	×	36.00 GiB 36.00 GiB

Modes for the feeds

- **NORMAL**: the files produced from that feed will be automatically pushed to the host
- **DELAY**: the files produced will be available in ECPDS but in mode “Stand by” (i.e. they are not automatically pushed)
- **PRE-SCHEDULE**: files are pushed to the user as soon as they are produced, without being queued until the dissemination schedule
- only for Gold/Silver users
- not applicable to all products

<https://confluence.ecmwf.int/display/DAC/Pre-Schedule+Delivery>



PREd Main page - Organisation's page

Null & Void Ltd.

LICENCE HISTORY

Licence #8681

Name	Feeds	Daily volume produced (average maximum)
NV2 Null & Void Ltd.	2	0.25 GiB 0.25 GiB
NVO Null & Void Ltd.	3	1.48 GiB 1.87 GiB

Licence(s) information

Licence #8681

Licence details

Start date	2025/03/03
Expiration date	2026/03/02
Information cost	€0.00
Maximum charge	Yes
Service charge model	July 2024
Volume band	100 - 500 GiB
Volume charge	€2.00
Service Package	Gold
Service charge	€2.00
Daily volume produced	average: 0.75 GiB maximum: 0.89 GiB

Service level agreement

PREd	
Access	✓
Max users	2
Max destinations	4
Test data for cycle upgrades	✓
Max changes by ECMWF	4
Max changes by user	Unlimited
Pre-schedule delivery	✓
ECPDS	
Access	✓
Max users	4
Max configuration changes	16
Backup host	✓
Max hosts	8
Aliases	✓
Compression	✓
Push delivery	✓
Max parallel connections	15
Directory targeting	✓

Single destination appearance

Null & Void Ltd.

Feeds (3/60)

[+ CREATE NEW FEED](#)

Name	Description	Option	Test feed	Daily volume produced (average maximum)	Last modified	Last modified by
A1	HRES data	NORMAL	×	0.04 GiB 0.04 GiB	2025/03/10 08:25	ECMWF
E1	ENS data	NORMAL	✓	1.36 GiB 1.70 GiB	2025/03/06 12:32	Ilaria Test
F1	ENS Extended	NORMAL	×	0.08 GiB 0.13 GiB	2025/03/06 09:49	ECMWF
1-3 of 3 < >						

Single feed appearance

DSC:TL

 UPDATE FEED  REMOVE FEED

```
1  disseminate,
2    class      = od,
3    stream     = scda,
4    expver     = 0001,
5    domain     = g,
6    type       = fc,
7    levtype    = sfc,
8    param      = 100u/100v/10u/10v/2t/i10fg/litoti/tcc/tp,
9    time       = 0600/1800,
10   step       = 0/to/90/by/1,
11   area       = 35.6/-122.6/28.3/-116.3,
12   grid       = .1/.1
13
14  disseminate,
15    stream     = oper,
16    time       = 0000/1200,
17    step       =
18    0/1/2/3/4/5/6/7/8/9/10/11/12/13/14/15/16/17/18/19/20/21/22/23/24/25/26/27
19    /28/29/30/31/32/33/34/35/36/37/38/39/40/41/42/43/44/45/46/47/48/49/50/51/
20    52/53/54/55/56/57/58/59/60/61/62/63/64/65/66/67/68/69/70/71/72/73/74/75/7
21    6/77/78/79/80/81/82/83/84/85/86/87/88/89/90/93/96/99/102/105/108/111/114/
22    117/120/123/126/129/132/135/138/141/144/150/156/162/168/174/180/186/192/1
23    98/204/210/216/222/228/234/240
24
25  disseminate,
26    stream     = oper,
27    time       = 0000/1200,
28    step       =
```

Settings

Dissemination

DELAY ▾

Test feed ?

OFF ☐ ON ☒

Expiry date ?

N/A

Actions

 View changes

 Discard changes

 Publish changes

 All versions

Draft

Create a draft in order to publish any changes on the feed.

[CREATE](#)

Volumes

Stream	Daily volume produced (average maximum)
oper	29.01 GiB 29.01 GiB
scda	25.61 GiB 25.61 GiB
Total	54.61 GiB 54.61 GiB

Installing data in PREd – The MARS Language

MARS language typical syntax

- Dissemination blocks
- Verb (“disseminate”) and couples keyword=value(s) separated by commas
- Comment with #
- Not case sensitive
- Values can be single, list or range

```
disseminate,  
keyword1 = value1,  
...      = ...,  
keywordn = value n
```

Examples of MARS keyword assignments

Format	Example
single value	param = temperature/SSRD
list of values	step = 12/24/48
range of values	date = 19990104/to/19990110/by/2

```
disseminate,  
class           = od,  
stream          = scda,  
expver          = 0001,  
domain          = g,  
type            = fc,  
levtype         = sfc,  
param           = 100u/100v/10u|,  
time            = 0600/1800,  
step            = 0/to/90/by/1,  
area            = 35.6/-122.6/28.3/-116.3,  
grid            = .1/.1
```

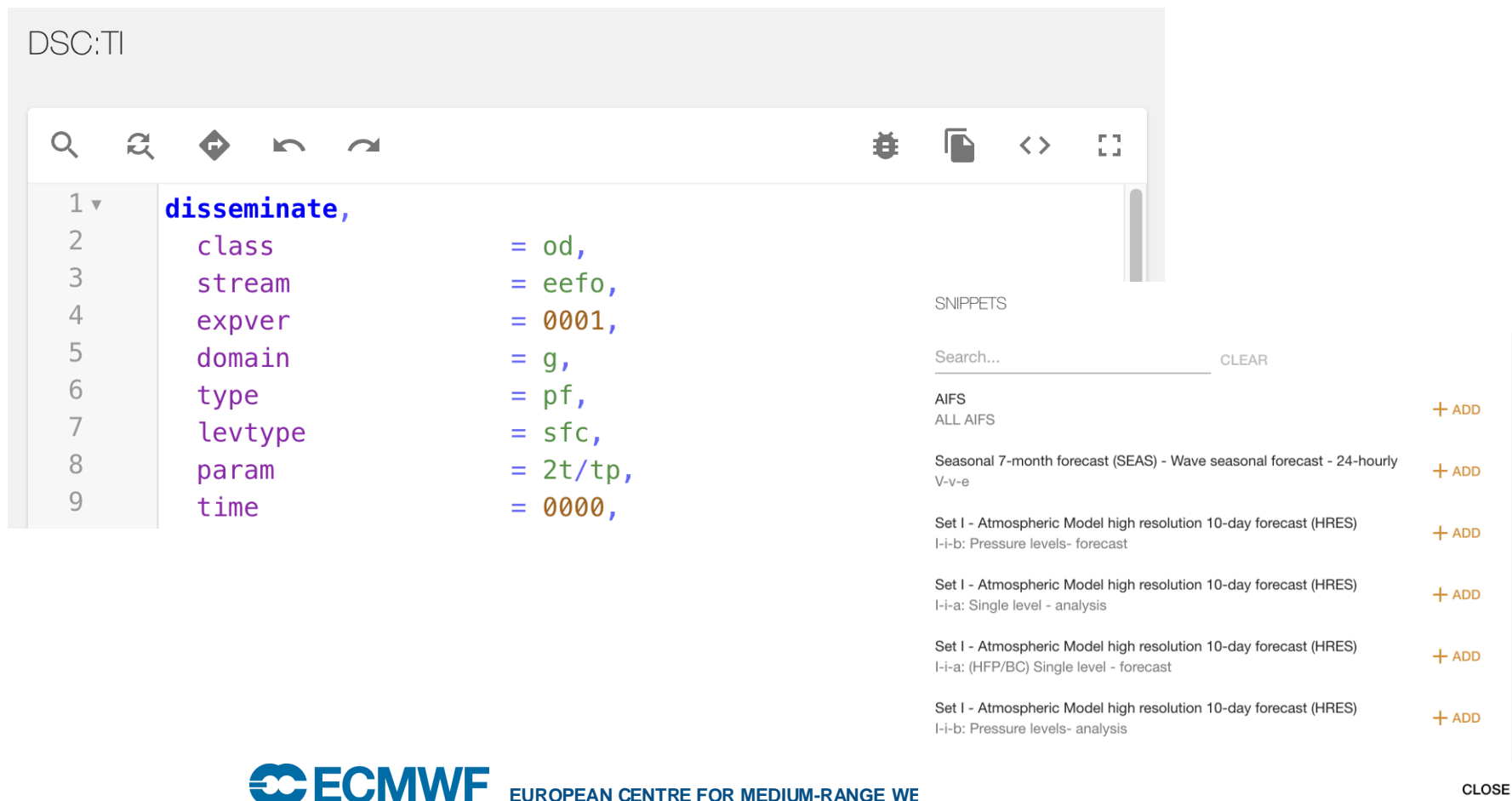
To get more information (note: these pages are for MARS, some info may not be valid in PREd):

- <https://confluence.ecmwf.int/display/UDOC/MARS+command+and+request+syntax>
- <https://confluence.ecmwf.int/display/UDOC/Keywords+in+MARS+and+Dissemination+requests> (keywords)

Installing data in PREd - Snippets

- The <> button.
- Snippets will help you in installing your data requirements in PREd.
- It inserts in the feed a template of the set of products you are interested, then you can modify according to your needs.

DSC:TI



The screenshot shows the PREd interface. On the left, a code editor displays a snippet for the 'disseminate' action. The snippet is a JSON-like structure with the following fields and values:

```
1 disseminate,  
2   class           = od,  
3   stream          = eefo,  
4   expver          = 0001,  
5   domain          = g,  
6   type            = pf,  
7   levtype         = sfc,  
8   param           = 2t/tp,  
9   time            = 0000,
```

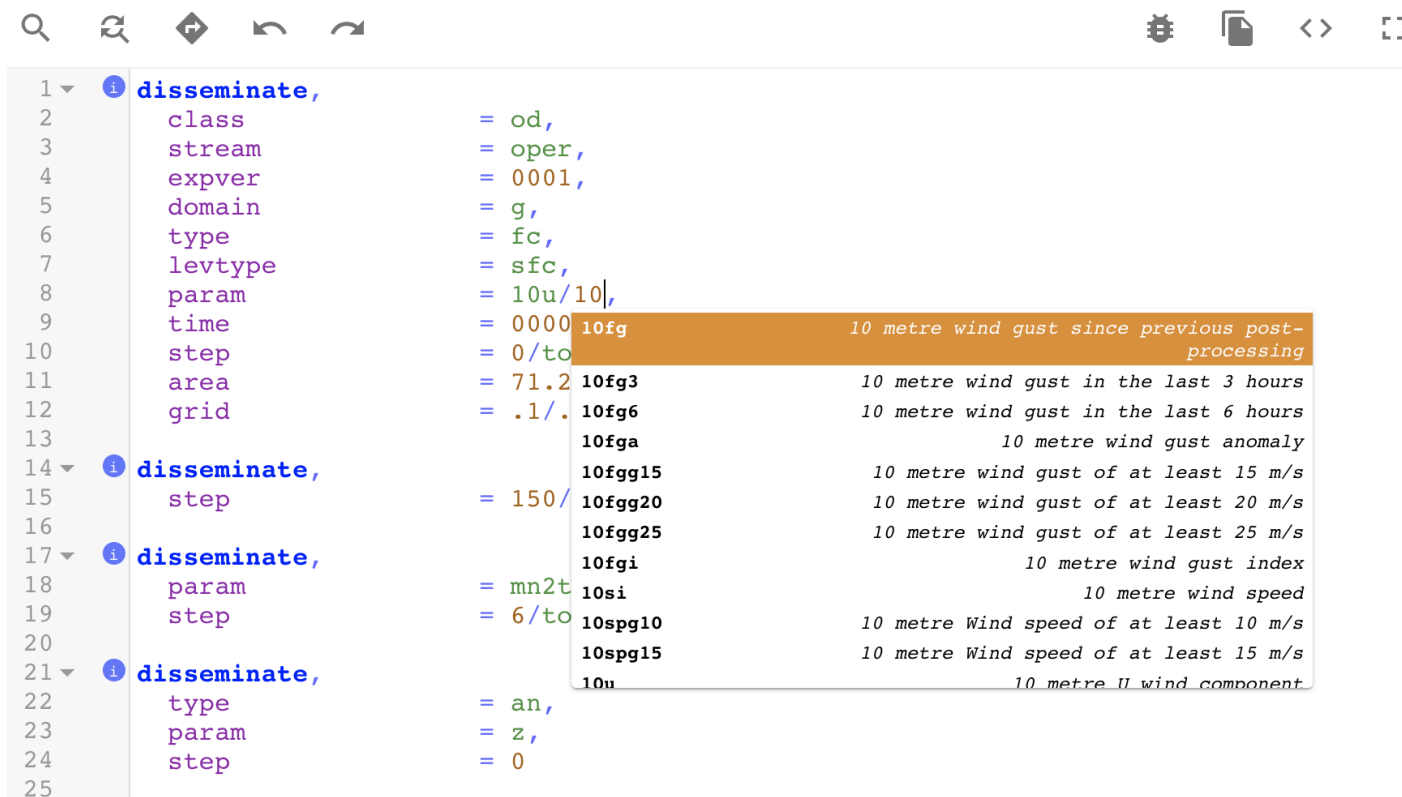
On the right, a panel titled 'SNIPPETS' lists available data products. Each product has a search bar, a 'CLEAR' button, and an '+ ADD' button. The products listed are:

- AIFS
ALL AIFS
- Seasonal 7-month forecast (SEAS) - Wave seasonal forecast - 24-hourly V-v-e
- Set I - Atmospheric Model high resolution 10-day forecast (HRES)
I-i-b: Pressure levels- forecast
- Set I - Atmospheric Model high resolution 10-day forecast (HRES)
I-i-a: Single level - analysis
- Set I - Atmospheric Model high resolution 10-day forecast (HRES)
I-i-a: (HFP/BC) Single level - forecast
- Set I - Atmospheric Model high resolution 10-day forecast (HRES)
I-i-b: Pressure levels- analysis

At the bottom left is the ECMWF logo and the text 'EUROPEAN CENTRE FOR MEDIUM-RANGE WE'. At the bottom right is a 'CLOSE' button.

Installing data in PREd - Autocomplete


- Provides a list of parameters that can be installed from the parameter database
- Can be called with ctrl+space



The screenshot shows a code editor with a dropdown menu open for the parameter '10fg'. The dropdown menu lists several parameters with their descriptions:

Parameter	Description
10fg	10 metre wind gust since previous post-processing
10fg3	10 metre wind gust in the last 3 hours
10fg6	10 metre wind gust in the last 6 hours
10fga	10 metre wind gust anomaly
10fgg15	10 metre wind gust of at least 15 m/s
10fgg20	10 metre wind gust of at least 20 m/s
10fgg25	10 metre wind gust of at least 25 m/s
10fgi	10 metre wind gust index
10si	10 metre wind speed
10spg10	10 metre Wind speed of at least 10 m/s
10spg15	10 metre Wind speed of at least 15 m/s
10u	10 metre U wind component

Installing data in PREd - Validation

- The bug symbol 
- Validate the data request against what is available and permitted to access.
- If there are errors in the request (products not available, steps that cannot be requested etc) the bug will turn red.
- It is not possible to publish the data request if it does not validate.

DSC:TI


```
1  ▼ disseminate,
2    class           = od,
3    stream          = eefo,
4    expver          = 0001,
5    domain          = g,
6    type            = pf,
7    levtype         = sfc,
8    param           = 2t/tp,
9    time            = 0000,
```

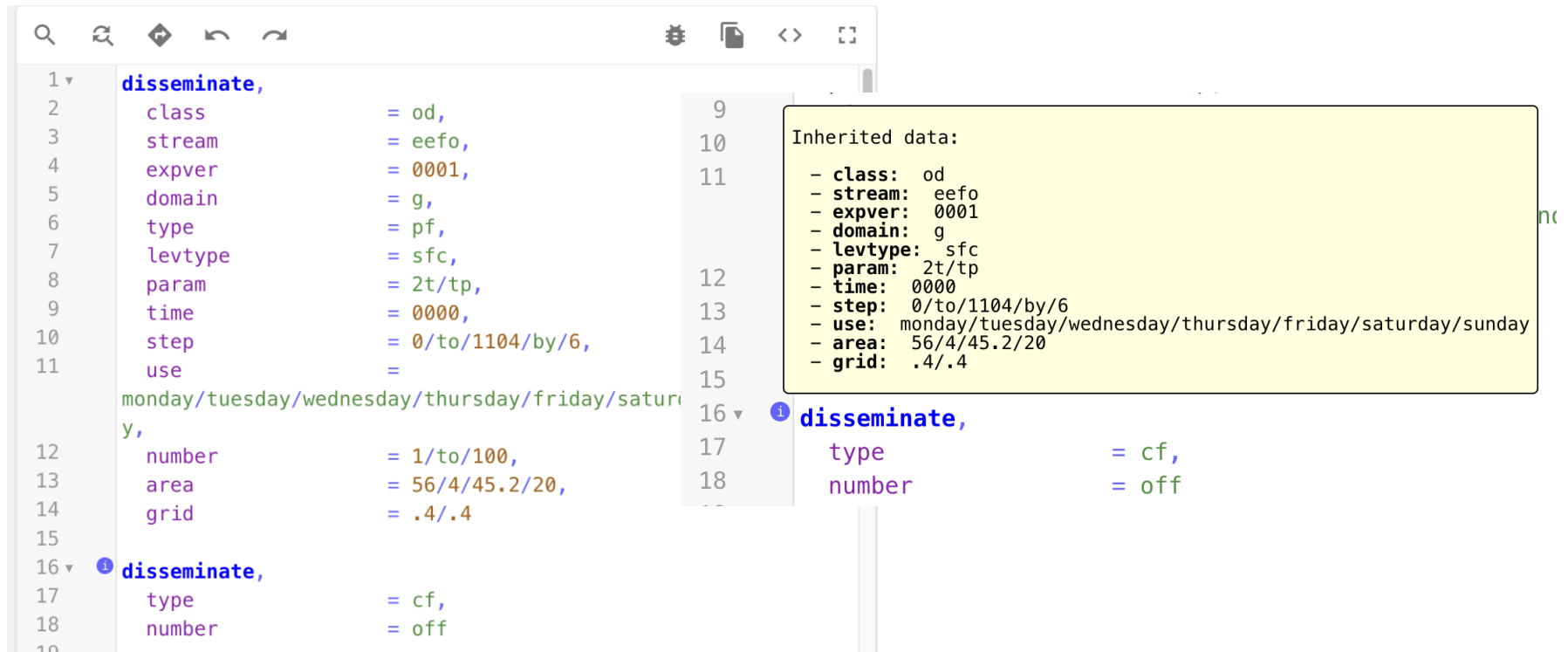
```
102  type=cf,
103  use=monday/tuesday/wednesday/thursday/friday/saturday/s
104  unday
105  ▼ ✖ ⓘ disseminate,
106  area=56/4/45/20,
107  class=od,
108  grid=0.1/0.1,
109  levtype=sfc,
```

product invalid: param=2t,time=0000,step=0,use=monday,number=1

<https://confluence.ecmwf.int/display/DAC/Com+mon+validation+errors>

Installing data in PReD - Inheritance

- Instead of repeating the same key=value couples that are shared with the previous dissemination request, it only shows the key=value couples that are not in common.
- See the inherited key/value couples hovering on the 



The screenshot shows a code editor with a dissemination request. The first request (lines 1-15) includes parameters like class, stream, expver, domain, type, levtype, param, time, step, and use. The second request (lines 16-18) is a simplified version showing only type and number. A tooltip titled "Inherited data:" is displayed over the second request, listing the parameters from the first request that are not repeated in the second.

```
1 disseminate,
2   class           = od,
3   stream          = eefo,
4   expver          = 0001,
5   domain          = g,
6   type            = pf,
7   levtype         = sfc,
8   param           = 2t/tp,
9   time            = 0000,
10  step            = 0/to/1104/by/6,
11  use              =
monday/tuesday/wednesday/thursday/friday/saturday,
12  number          = 1/to/100,
13  area            = 56/4/45.2/20,
14  grid            = .4/.4
15
16 disseminate,
17   type            = cf,
18   number          = off
```

Inherited data:

- class: od
- stream: eefo
- expver: 0001
- domain: g
- levtype: sfc
- param: 2t/tp
- time: 0000
- step: 0/to/1104/by/6
- use: monday/tuesday/wednesday/thursday/friday/saturday/sunday
- area: 56/4/45.2/20
- grid: .4/.4

Single feed functionalities – View changes






Settings

Dissemination **NORMAL** ▾

Test feed ? **OFF** ☒ **ON**

Expiry date ? Sunday, April 6, 2025

Actions

-  View changes
-  Discard changes
-  Publish changes
-  Request Publication
-  All versions

Changes between **Operational** and **Changes**

OPERATIONAL				CHANGES			
⌵ Expand 4 lines							
5	domain	=	g,	5	domain	=	g,
6	type	=	fc,	6	type	=	fc,
7	levtype	=	sfc,	7	levtype	=	sfc,
8	- param	=	100u/100v/10u/10v/2t/110fg/110ti/tcc/tp,	8	+ param	=	100u/100v/10u/10v/2t/110fg/110ti/tcc/tp,
9	time	=	0600/1800,	9	time	=	0600/1800,
10	step	=	0/to/90/by/1,	10	step	=	0/to/90/by/1,
11	area	=	35.6/-122.6/28.3/-116.3,	11	area	=	35.6/-122.6/28.3/-116.3,
⌶ Expand 226 lines							
Volume (average maximum)				Volume (average maximum)			
54.61 GiB 54.61 GiB				Total Volumes 0 GiB ▾ 54.61 GiB 0 GiB ▾ 54.61 GiB			

Add a description for this publication

Description*

new area

PUBLISH **CANCEL**

Single feed functionalities – All versions

List of previous versions of the feed

🏠 > NVO > E1 > Versions

Feed Versions

Description	Published at	Published by	Daily volume produced (average maximum)	
new parameter	2025/03/06 12:32	Ilaria Test	1.36 GiB 1.70 GiB	Operational ⋮
new area	2025/03/06 12:21	Ilaria Test	0.82 GiB 1.02 GiB	⋮
Set option to "NORMAL"	2025/03/06 09:49	ECMWF	0.38 GiB 0.48 GiB	⋮
demo	2025/03/05 15:23	ECMWF	0.38 GiB 0.48 GiB	⋮
	2025/03/05 15:19	ECMWF	0 GiB 0 GiB	⋮

Details

View changes

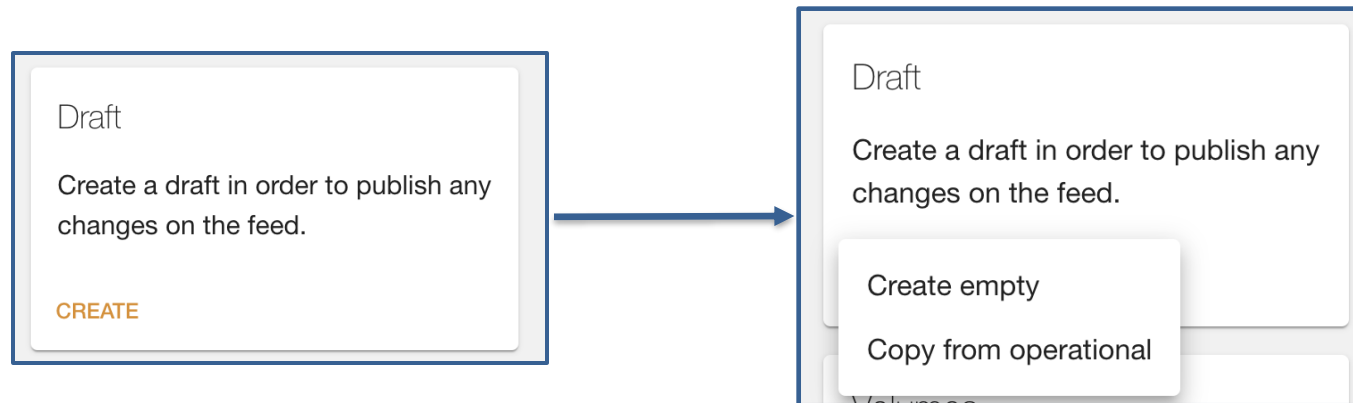
Compare with Operational

Revert

- **Details:** the data request in that version of the feed.
- **View changes:** the difference with the previous version.
- **Compare with operational:** the differences with the currently operational version.
- **Revert:** set that specific version of the feed as operational (overwriting the current operational version).

Single feed functionalities – Drafts and Volumes

Before publishing/sending a publication request for a feed, the user needs to create a **draft** of the new data request.



Volumes section shows the size of the data request splitted in the different streams.

Volumes	
Stream	Daily volume produced (average maximum)
oper	29.01 GiB 29.01 GiB
scda	25.61 GiB 25.61 GiB
Total	54.61 GiB 54.61 GiB

Pick-up times

- Changes after publication are not immediate.
- Check the pick-up times table to see what will be the next run to be disseminated according to the new data request.
- Times are in UTC.

Pick-up times			
Pick-up time ↓	Stream	Domain	Time
2025/02/13 02:09	waef	g	0000
2025/02/13 02:09	enfo	g	0000
2025/02/13 02:09	wave	g	0000
2025/02/13 02:09	oper	g	0000
2025/02/12 21:47	waef	g	1800
2025/02/12 21:47	enfo	g	1800
2025/02/12 21:47	scwv	g	1800
2025/02/12 21:47	scda	g	1800
2025/02/12 20:29	waef	g	1200
2025/02/12 20:29	wave	g	1200

Publication of new data requests

- Some max charge users from new service charge model can publish without waiting for DSC approval
 - Gold users: 24/7 (not for Bank Holidays or freezing period)
 - Silver users: Monday 00:00 UTC to Thursday 23:59 UTC. Outside this range, publication will be approved the first day that is not Sunday or a Bank Holiday (if outside the freezing period)
- Some users must send a publication request and need DSC approval:
 - Standard commercial Silver and Gold users
 - Max charge users of the previous service charge model

Reverting a feed: the files will be disseminated according to the reverted version only after the change is made (according to the pick-up times).

It is not possible to re-disseminate files from a run that is in the past.

DSC-32324 ECMWF PRed: Publication request for NVO:A1 approved

Cestino x Aggiornamenti x

ECMWF PRed (Jira) <data.services-jira-auto@ecmwf.int>
a me ▾

09:27 (4 ore fa)

Reply above this line.

Dear Ilaria Test,

This is an automated email.

ECMWF Data Services received a request (from you or shared with you) and a ticket has been created in our ticketing system Jira Service desk (JSD). A member of our team will get back to you.

You can review the ticket to make sure that it is correct by clicking "View request" at the end of this email and logging in to JSD. You can manage who receives notifications for this issue from the JSD portal.

If you did not have a username and password, it has been created for you and you should have received an email to notify you. If you have forgotten your password please visit <https://apps.ecmwf.int/auth/reset-password/> to reset your password

ECMWF Data Support Team
UK office hours Mon-Fri 9am to 5:30pm

Dear User

Thank you for creating a ticket on ECMWF Support Portal.
A member of ECMWF Support will follow up with you.

https://jira.ecmwf.int/serviceesk/customer/portal/3/DSC-32324?sda_source=notification-email

Some final considerations

You cannot get some one-time requests from PREd/ECPDS.

PREd (and ECPDS) are applications intended for routine operational delivery of data; they are not suitable as one-off data retrievals (for this we have MARS/archive).

The data in PREd/ECPDS is not retrieved from MARS and configured, but it's FDB (Field Database) created.

Fields Database: A domain-specific object store, designed to store, index and serve meteorological fields produced by the IFS. It acts as the first level of storage for recently created objects.

Limited number of users: we limit the number of people who can change requirements in PREd to avoid operational impacts.

Member States should coordinate access with their current Computing Representative or dissemination manager, while Licensed Users are bound by the contract limitations.

Thanks for your attention!

Questions?