

What is STASH?

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What is STASH?

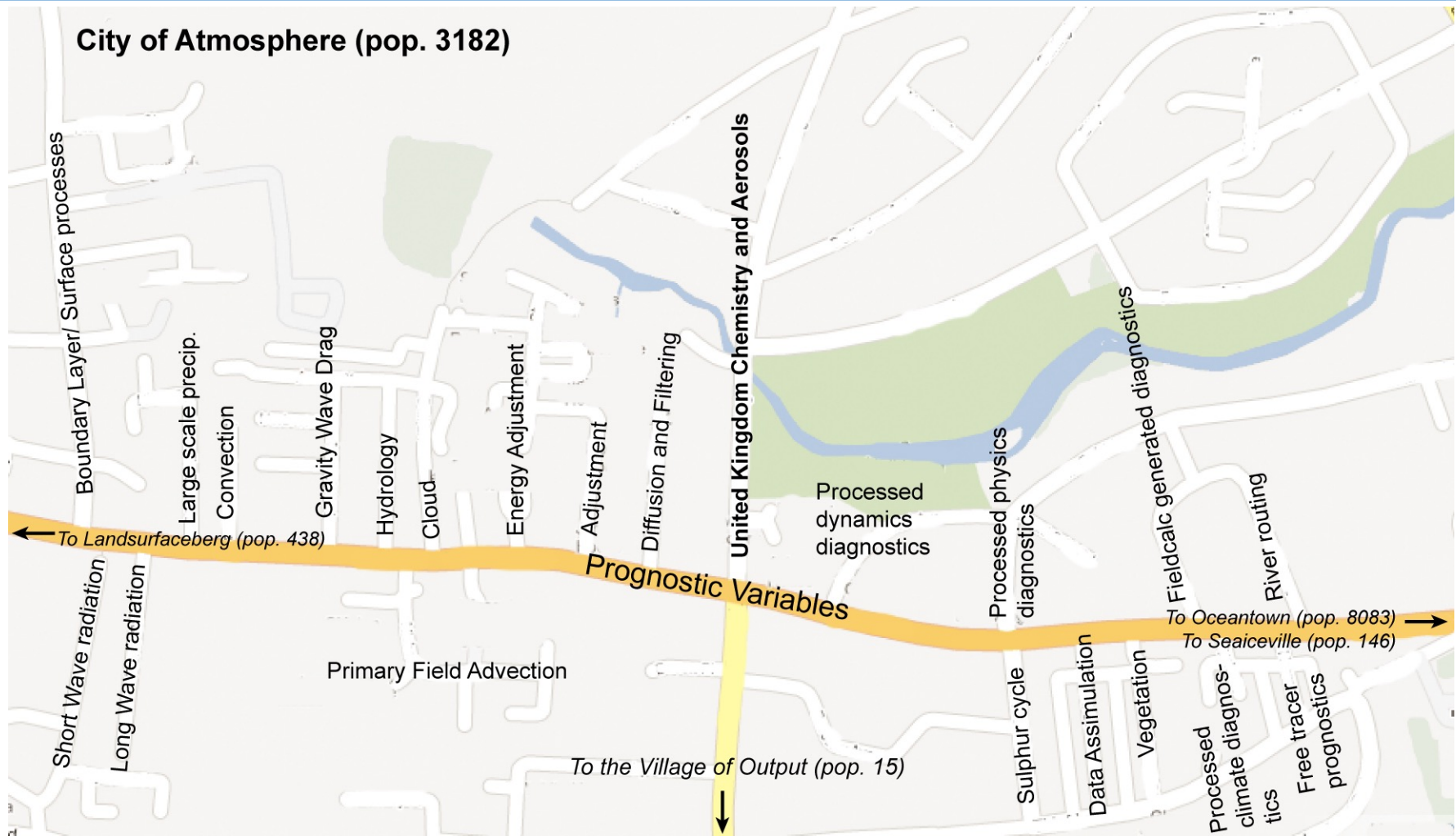
- STASH is the Unified Model's **Storage Handling and Diagnostic System** ("Spatial and Temporal Averaging and Storage Handling")

UNIFIED MODEL DOCUMENTATION PAPER NO C4

STORAGE HANDLING AND DIAGNOSTIC SYSTEM (STASH)

- It is designed to cope with the many different configurations that the UM can be used in, but still provide output in a consistent and standard way
- The basic building block of STASH is the *horizontal* field
 - It uniquely labels prognostic, ancillary, and diagnostic fields
- Calls to STASH are made every timestep to allow it to extract, process, and output data

Model Sections



STASH Sections



STASH sections, STASH items

- While it is easy to make variables within the UM, if you want to output this variable cleanly, it must be defined within STASH.
- Each STASH code is made up of 5 numbers, giving the address of the prognostic or diagnostic within the model.
 - The first two numbers are the **section**
 - The last three numbers are the **item**
 - There can only be **512 items** per section
- e.g.
 - UKCA N2O has STASH code 34049
 - Specific humidity has STASH code 10 (00010 = section 00, item 010)

Prognostics

- Prognostic variables are those that the code requires to derive all other quantities
 - e.g. u , v , q etc.
 - tracers are also prognostic quantities
- Prognostics are outputted in UM dump files (*jobida.da**)
- In the code these prognostics are held within a master array called **D1**

Diagnostics

- Diagnostics are all variables which are not prognostics (i.e. the model does not need these to restart, since it can calculate these from prognostic variables)
 - e.g. pressure on model levels, UKCA reaction fluxes etc
- Diagnostics are not held within **D1**, they are copied into STASH directly
- In the code this is done with a call to **copydiag** to put the diagnostic into the **STASHwork** array, before it is passed via a call to STASH
- For most UKCA diagnostics, these steps are already done for you using the **asad_chem_flux_diags** module

STASH treatment of variables

- The STASH system also provides a GUI in the UMUI for managing all model output
- Diagnostic and prognostic variables are treated equally when outputting to data files
- There is a high level of control over:
 - The time domain the variables are sampled and processed over
 - The spatial domain the variables are sampled and processed over
- The variables can output through different output streams (fields-files or 'PP files') or passed through to the climate meaning stream

pre-STASHmaster files

- If STASH sections are analogous to streets in a city, then STASH items are analogous to houses on each street
- In order to output the variable correctly then you need to get the address right
- This is done with the use of a pre-STASHmaster file
 - This defines the STASH section and item numbers, the levels it is valid for, if it is a prognostic or not, and many others
 - It can also be used to remove unwanted variables from a model dump
 - A full description can be found in UMDP C4 (ask me for a copy or see the collaboration Twiki)

Adding your diagnostic to the UMUI

```
H1 | SUBMODEL_NUMBER=1
H2 | SUBMODEL_NAME=ATMOS
H3 | UM_VERSION=7.3
#
#|Model |Sectn | Item |Name |
#|Space |Point | Time | Grid |LevelT|LevelF|LevelL|PseudT|PseudF|PseudL|LevCom|
#| Option Codes | Version Mask | Halo |
#|DataT |DumpP | PC1 | PC2 | PC3 | PC4 | PC5 | PC6 | PC7 | PC8 | PC9 | PCA |
#|Rotate| PPFC | USER | LBVC | BLEV | TLEV |RBLEV| CFLL | CFFF |
#
1 | 1 | 34 | 512 | NEW DIAGNOSTIC |
2 | 0 | 0 | 1 | 1 | 2 | 10 | 11 | 0 | 0 | 0 | 0 |
3 | 00000000000000000000000000000000 | 000000000000000000000001 | 3 |
4 | 1 | 0 | -99 -99 -99 -99 -99 -99 -99 -99 -99 -99 |
5 | 0 | 1871 | 1 | 65 | 0 | 0 | 0 | 0 | 0 |
#
1 | -1 | -1 | -1 | END OF FILE MARK |
2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
3 | 00000000000000000000000000000000 | 000000000000000000000000 | 0 |
4 | 0 | 0 | -99 -99 -99 -99 -30 -99 -99 -99 -99 -99 |
5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
#
```


Adding your diagnostic to the UGUI

umui application. Navigation of Job xhkp.a: "UKCA-TropIsop HECToR Phase2b N48L60 QESM-A"

- Model Selection
 - User Information and Target Machine
 - Input/Output Control and Resources
 - Sub-Model Configurations and Coupling
 - FCM Configuration
 - Compilation and Modifications
 - Reconfiguration
 - Independent Section Options
 - Post Processing
 - Atmosphere
 - Model Resolution and Domain
 - Model Configuration
 - Scientific Parameters and Sections
 - Data assimilation and temporal filtering
 - Ancillary and input data files
 - STASH
 - STASH macros
 - Control
 - NEMO
 - CICE

- STASH. Specification of Diagnostic requirements
- STASH related choices
- User-STASHmaster files. Diags, Progs & Ancills.
- Initialisation of User Prognostics

Specify User STASHmaster files : Job xhkp.a: "UKCA-TropIsop HECToR Phase2b N48L60 QESM-A"

| No. | Specify Local File |
|-----|--|
| 1 | ~ros/HadGEM3-A/vn7.3/HGPKG1/um71_ticket1552 |
| 2 | ~ros/HadGEM3-A/vn7.3/HGPKG1/stashmaster_ish_agwjb |
| 3 | ~annette/hadgem3/preSTASHmaster/sea_ice_temp |
| 4 | ~ukca/userprestash/parinsec0 |
| 5 | ~ukca/userprestash/VN7.3/r1.0/s0_CheM_STASH_emissions_v7.3 |
| 6 | ~ukca/userprestash/VN7.3/r1.0/s34_CheM_STASH_151-172_v7.3 |
| 7 | ~ukca/userprestash/VN7.3/r1.0/s34_CheM_STASH_fluxes2D_v7.3 |
| 8 | ~ukca/userprestash/VN7.3/r1.0/s34_CheT_STASH_tracers_v7.3 |
| 9 | ~luke/STASHmaster/new_field |
| 10 | |

Inert Edit
Sort

You are advised to visit the Prognostics follow-on window every time you change the above table or change a file in the table

Extending level or pseudo level code definitions.
Note. This will only work with modifications at this release.
Set codes that are not required to zero. See help.

New level code.

| Code | Define level for code. |
|------|------------------------|
| 1 | |
| 2 | |

Adding your diagnostic to the UGUI

umui application. Navigation of Job xhkp.a: "UKCA-TropIsop HECToR Phase2b N48L60 QESM-A"

- Model Selection
 - User Information and Target Machine
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 - Sub-Model Configurations and Coupling
 - FCM Configuration
 - Compilation and Modifications
 - Reconfiguration
 - Independent Section Options
 - Post Processing
 - Atmosphere
 - Model Resolution and Domain
 - Model Configuration
 - Scientific Parameters and Sections
 - Data assimilation and temporal filtering
 - Ancillary and input data files
 - STASH
 - STASH macros
 - Control
 - NEMO
 - CICE

Specification of User Prognostics : Job xhkp.a: "UKCA-TropIsop HECToR Phase2b N48L60 QESM-A"

All user-prognostic fields must be initialised by the reconfiguration.

Elsewhere, you have specified that the reconfiguration is on.

| Specify Initialisation Option | | | | |
|-------------------------------|-------------------------------------|--------|----------------|--|
| Item | NAME | Option | If 6: CONSTANT | If 7: NAMED FILE ON TARGET MACHINE |
| 34083 | MeOO MASS MIXING RATIO AFTER TIMES | 7 | | /work/n02/n02/ukca/ANCILS/QESM/CheT_init.anc |
| 34084 | EtOO MASS MIXING RATIO AFTER TSTEP | 7 | | /work/n02/n02/ukca/ANCILS/QESM/CheT_init.anc |
| 34085 | MeCO3 MAS MIXING RATIO AFTER TSTEP | 7 | | /work/n02/n02/ukca/ANCILS/QESM/CheT_init.anc |
| 34086 | n-PROO MAS MIXING RATIO AFTER TSTEP | 7 | | /work/n02/n02/ukca/ANCILS/QESM/CheT_init.anc |
| 34087 | i-PROO MAS MIXING RATIO AFTER TSTEP | 7 | | /work/n02/n02/ukca/ANCILS/QESM/CheT_init.anc |
| 34088 | EtCO3 MAS MIXING RATIO AFTER TSTEP | 7 | | /work/n02/n02/ukca/ANCILS/QESM/CheT_init.anc |
| 34089 | MeCOCH2OO MMR AFTER TSTEP | 7 | | /work/n02/n02/ukca/ANCILS/QESM/CheT_init.anc |
| 34090 | ISO2 MASS MIXING RATIO AFTER TSTEP | 7 | | /work/n02/n02/ukca/ANCILS/QESM/CheT_init.anc |
| 34094 | MeOH MASS MIXING RATIO AFTER TSTEP | 7 | | /work/n02/n02/ukca/ANCILS/QESM/CheT_init.anc |
| 34095 | MACRO2 MAS MIXING RATIO AFTER TSTEP | 7 | | /work/n02/n02/ukca/ANCILS/QESM/CheT_init.anc |
| 34150 | AGE OF AIR in SECONDS | 3 | | |
| 34512 | NEW DIAGNOSTIC | | | |
| Inert | Inert | Edit | Edit | |

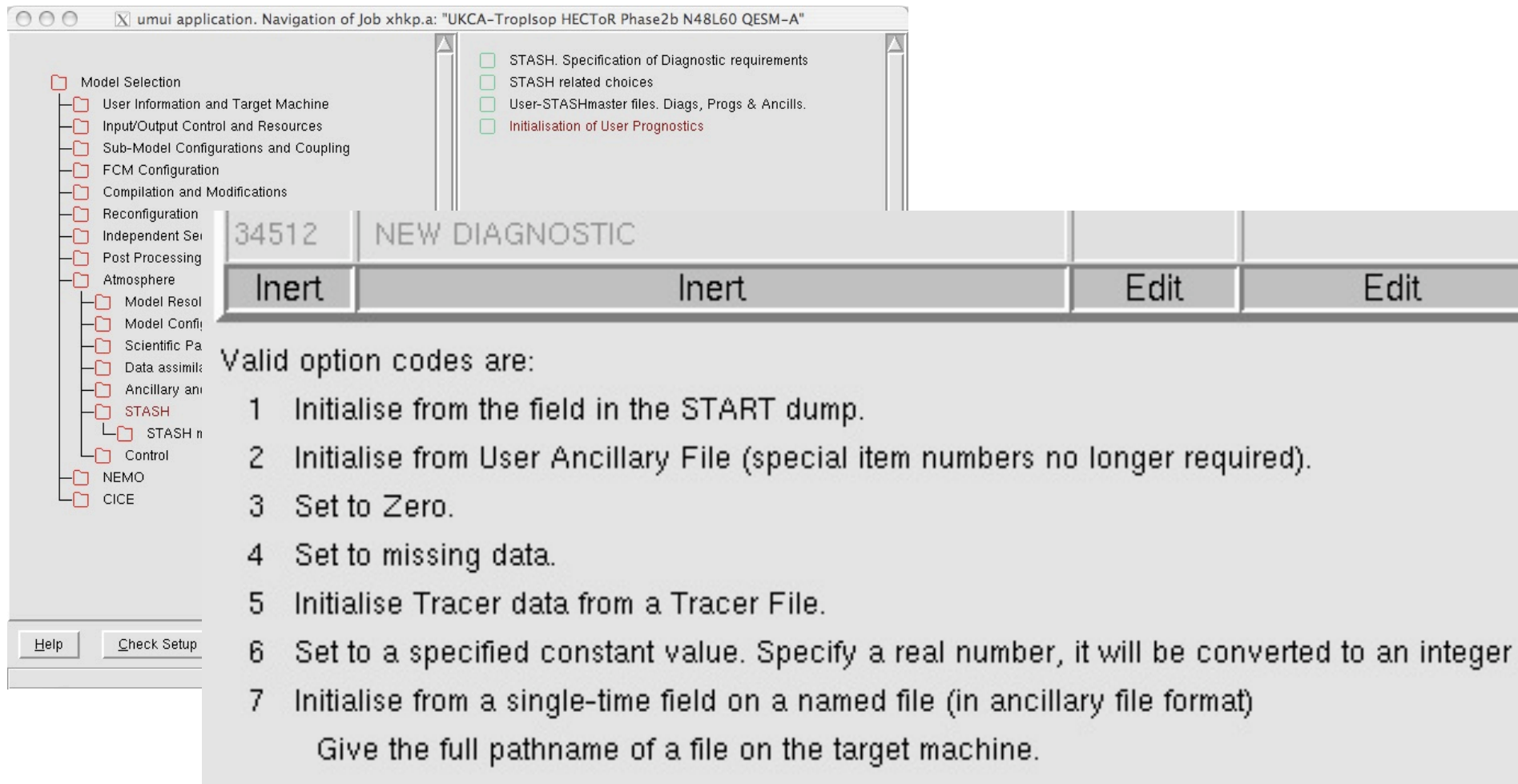
Help Check Setup Save Process

Valid option codes are:

- 1 Initialise from the field in the START dump.
- 2 Initialise from User Ancillary File (special item numbers no longer required).
- 3 Set to Zero.
- 4 Set to missing data.
- 5 Initialise Tracer data from a Tracer File.
- 6 Set to a specified constant value. Specify a real number, it will be converted to an integer if required.
- 7 Initialise from a single-time field on a named file (in ancillary file format)
 - Give the full pathname of a file on the target machine.

Push RECON to specify the reconfiguration options

Adding your diagnostic to the UMUI



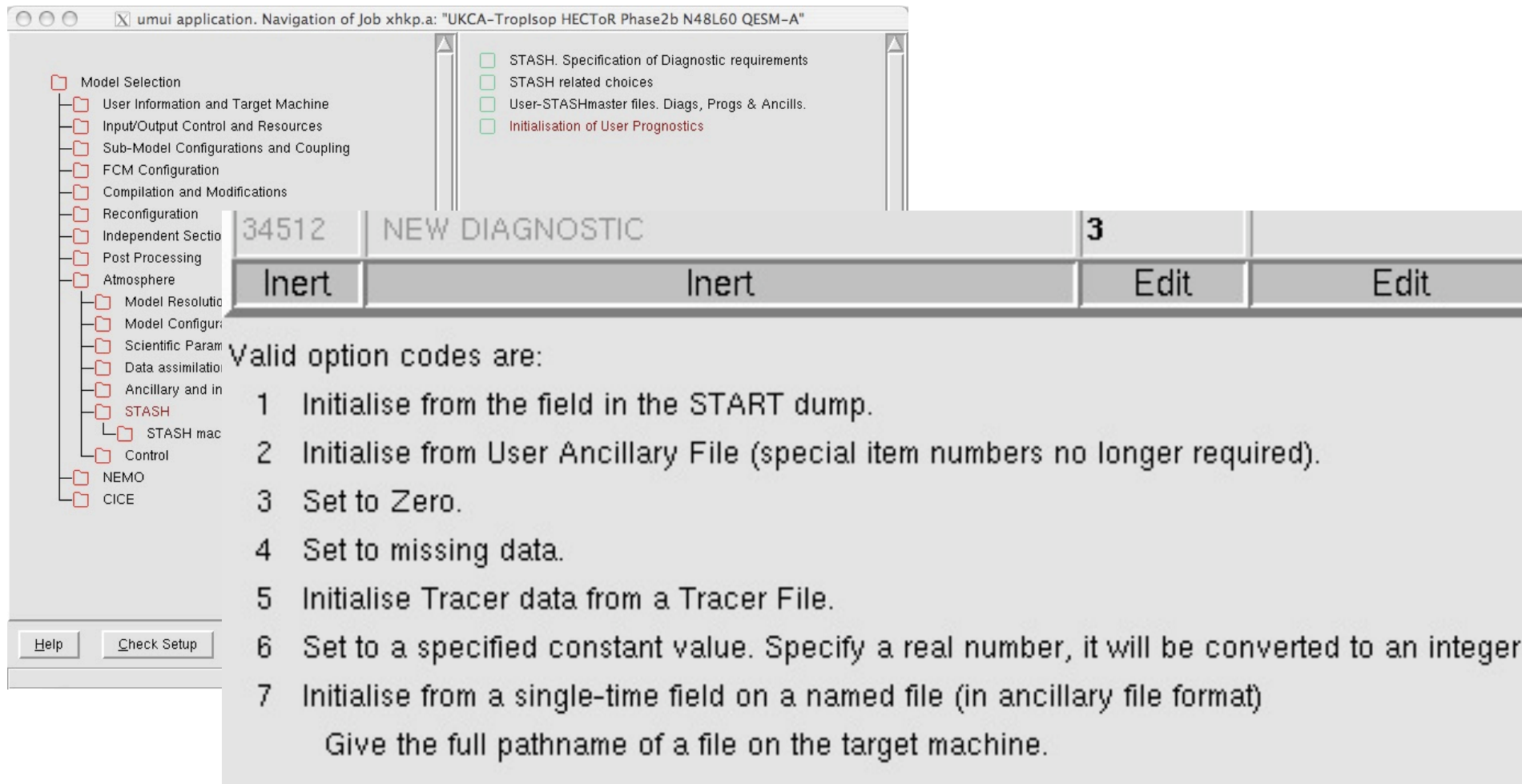
The screenshot shows the UMUI application window titled "umui application. Navigation of Job xhkp.a: 'UKCA-TropIsop HECToR Phase2b N48L60 QESM-A'". The interface includes a tree view on the left with categories like Model Selection, User Information and Target Machine, Input/Output Control and Resources, Sub-Model Configurations and Coupling, FCM Configuration, Compilation and Modifications, Reconfiguration, Independent Ser, Post Processing, Atmosphere, Model Resol, Model Confi, Scientific Pa, Data assimila, Ancillary an, STASH, STASH n, Control, NEMO, and CICE. The main area displays a list of options: STASH. Specification of Diagnostic requirements, STASH related choices, User-STASHmaster files. Diags, Progs & Ancills., and Initialisation of User Prognostics. Below this is a table with columns for option codes and actions.

| Option Code | Action |
|-------------|----------------|
| 34512 | NEW DIAGNOSTIC |
| Inert | Inert |
| | Edit |
| | Edit |

Valid option codes are:

- 1 Initialise from the field in the START dump.
- 2 Initialise from User Ancillary File (special item numbers no longer required).
- 3 Set to Zero.
- 4 Set to missing data.
- 5 Initialise Tracer data from a Tracer File.
- 6 Set to a specified constant value. Specify a real number, it will be converted to an integer
- 7 Initialise from a single-time field on a named file (in ancillary file format)
Give the full pathname of a file on the target machine.

Adding your diagnostic to the UMUI



The screenshot shows the UMUI application window titled "umui application. Navigation of Job xhkp.a: 'UKCA-TropI sop HECToR Phase2b N48L60 QESM-A'". The interface includes a tree view on the left with categories like Model Selection, User Information and Target Machine, Input/Output Control and Resources, Sub-Model Configurations and Coupling, FCM Configuration, Compilation and Modifications, Reconfiguration, Independent Section, Post Processing, Atmosphere, Model Resolution, Model Configuration, Scientific Parameters, Data assimilation, Ancillary and input, STASH, STASH mac, Control, NEMO, and CICE. The main area displays a list of diagnostic options: STASH. Specification of Diagnostic requirements, STASH related choices, User-STASHmaster files. Diags, Progs & Ancills., and Initialisation of User Prognostics. Below this is a table with columns for diagnostic codes and their descriptions.

| Code | Description | Action |
|-------|----------------|--------|
| 34512 | NEW DIAGNOSTIC | 3 |
| Inert | Inert | Edit |
| | | Edit |

Valid option codes are:

- 1 Initialise from the field in the START dump.
- 2 Initialise from User Ancillary File (special item numbers no longer required).
- 3 Set to Zero.
- 4 Set to missing data.
- 5 Initialise Tracer data from a Tracer File.
- 6 Set to a specified constant value. Specify a real number, it will be converted to an integer
- 7 Initialise from a single-time field on a named file (in ancillary file format)
Give the full pathname of a file on the target machine.

Adding your diagnostic to the UMI

The screenshot shows the UMI application interface. On the left is a tree view of the model configuration, including sections like Model Selection, Atmosphere, and NEMO. On the right, a list of diagnostic options is shown, with checkboxes for 'STASH. Specification of Diagnostic requirements', 'STASH related choices', 'User-STASHmaster files. Diags, Progs & Ancills.', and 'Initialisation of User Prognostics'. In the foreground, a 'Warnings for user diagnostics' dialog box is open, displaying the following text:

The following user diagnostics have overwritten system diagnostics:

If you change the user diagnostics/prognostics while editing this job, you will need to reload the stash master list in the stash window for the changes to take effect. The complete stash master list is usually only loaded once during each job edit when the stash window is first entered.

```
(1,0,274) from preSTASH file: "~ros/HadGEM3-A/vn7.3/HGPKG1/stashmaster_ish_agwjb"
(1,0,275) from preSTASH file: "~ros/HadGEM3-A/vn7.3/HGPKG1/stashmaster_ish_agwjb"
(1,0,276) from preSTASH file: "~ros/HadGEM3-A/vn7.3/HGPKG1/stashmaster_ish_agwjb"
(1,0,277) from preSTASH file: "~ros/HadGEM3-A/vn7.3/HGPKG1/stashmaster_ish_agwjb"
(1,0,278) from preSTASH file: "~ros/HadGEM3-A/vn7.3/HGPKG1/stashmaster_ish_agwjb"
(1,0,279) from preSTASH file: "~ros/HadGEM3-A/vn7.3/HGPKG1/stashmaster_ish_agwjb"
(1,0,280) from preSTASH file: "~ros/HadGEM3-A/vn7.3/HGPKG1/stashmaster_ish_agwjb"
(1,0,281) from preSTASH file: "~ros/HadGEM3-A/vn7.3/HGPKG1/stashmaster_ish_agwjb"
(1,0,282) from preSTASH file: "~ros/HadGEM3-A/vn7.3/HGPKG1/stashmaster_ish_agwjb"
(1,0,283) from preSTASH file: "~ros/HadGEM3-A/vn7.3/HGPKG1/stashmaster_ish_agwjb"
(1,0,284) from preSTASH file: "~ros/HadGEM3-A/vn7.3/HGPKG1/stashmaster_ish_agwjb"
(1,0,285) from preSTASH file: "~ros/HadGEM3-A/vn7.3/HGPKG1/stashmaster_ish_agwjb"
(1,0,49) from preSTASH file: "~annette/hadgem3/preSTASHmaster/sea_ice_temp"
(1,0,460) from preSTASH file: "~ukca/userprestash/parinsec0"
(1,34,151) from preSTASH file: "~ukca/userprestash/VN7.3/r1.0/s34_CheM_STASH_151-172_v7.3"
(1,34,152) from preSTASH file: "~ukca/userprestash/VN7.3/r1.0/s34_CheM_STASH_151-172_v7.3"
(1,34,153) from preSTASH file: "~ukca/userprestash/VN7.3/r1.0/s34_CheM_STASH_151-172_v7.3"
(1,34,154) from preSTASH file: "~ukca/userprestash/VN7.3/r1.0/s34_CheM_STASH_151-172_v7.3"
(1,34,155) from preSTASH file: "~ukca/userprestash/VN7.3/r1.0/s34_CheM_STASH_151-172_v7.3"
(1,34,156) from preSTASH file: "~ukca/userprestash/VN7.3/r1.0/s34_CheM_STASH_151-172_v7.3"
```

The dialog box also features a 'Continue' button at the bottom.

Adding your diagnostic to the UMUI

STASH Panel ATMOS. Experiment xhkp, Job a

STASH Profiles Diagnostics Help

Time Profiles available

| | | | | | | | | | | | |
|--------|--------|--------|--------|----------|---------|-------|---------|---------|---------|--------|----------|
| TDMPMN | T6HDM | T24H0Z | T6H | TDAYRAD | T6HDAYM | TDAYM | TDAYMON | TDAYMAX | TDAYMIN | T6HMON | T24HDMRV |
| TMONMN | T90DAY | T3HMN | TALLTS | TDPMUKCA | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Domain Profiles available

| | | | | | | | | | | | |
|-------|--------|----------|----------|---------|----------|--------|---------|----------|---------|-------|-------|
| DIAG | DALLTH | DPBLTH | DP17 | DALLRH | DA7ISCCP | DPV2 | DP500 | DALLTHCL | DIAGAOT | DPFTS | DSOIL |
| DTILE | DP17ZM | DP850200 | DP855020 | DICECAT | DP4 | DPBLRH | DP31CCM | DP31CCMZ | DP10100 | DP5 | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Usage Profiles available

| | | | | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| UPMEAN | UPA | UPC | UPF | UPG | UPD | UPB | UPE | UPH | UPI | UPJ | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|

STASH

| Sec | Item | Diagnostic Name | Time | Domain | Usage | Incl | Pckg | Avail | I+P+A | User/System |
|-------|-------|--------------------------------------|---------|--------|--------|--------|--------|-------|-------|-------------|
| 0 | 4 | THETA AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +G | Y | | SYSTEM |
| 0 | 10 | SPECIFIC HUMIDITY AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 12 | QCF AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDAYRAD | DIAG | UPF | Y | +F | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDMPMN | DIAG | UPMEAN | Y | +H | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | T3HMN | DIAG | UPD | Y | +K | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYM | DIAG | UPA | Y | +N | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYMON | DIAG | UPJ | Y | P | Y | X | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDMPMN | DIAG | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 25 | BOUNDARY LAYER DEPTH AFTER TIMESTEP | TDMPMN | DIAG | UPMEAN | Y | +A | Y | | SYSTEM |
| Inert | Inert | Active | Active | Active | Active | Active | Active | Inert | Inert | Inert |

Adding your diagnostic to the UMUI

STASH Panel ATMOS. Experiment xhkp, Job a

STASH Profiles Diagnostics Help

Time Prof

- TDMPMN Load New Diagnostics (Control-l)
- TMONMN Remove Diagnostic (Control-r)
- Clone Diagnostic (Control-c)
- Output Table to File
- Set Package Switches (Control-t)
- Clear Table
- Verify Diagnostics (Control-v)
- Re-check Availability
- Sort Diagnostics
- Change Sort Order

Domain P

DIAG

DTILE

Usage Pr

UPMEAN

| | | | | | | |
|----------|--------|---------|----------|---------|--------|----------|
| T6HDAYM | TDAYM | TDAYMON | TDAYMAX | TDAYMIN | T6HMON | T24HDMRV |
| DA7ISCCP | DPV2 | DP500 | DALLTHCL | DIAGAOT | DPFTS | DSOIL |
| DP4 | DPBLRH | DP31CCM | DP31CCMZ | DP10100 | DP5 | |
| UPD | UPB | UPE | UPH | UPI | UPJ | |

| STASH | | | | | | | | | | |
|-------|-------|--------------------------------------|---------|--------|--------|--------|--------|-------|-------|-------------|
| Sec | Item | Diagnostic Name | Time | Domain | Usage | Incl | Pckg | Avail | I+P+A | User/System |
| 0 | 4 | THETA AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +G | Y | | SYSTEM |
| 0 | 10 | SPECIFIC HUMIDITY AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 12 | QCF AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDAYRAD | DIAG | UPF | Y | +F | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDMPMN | DIAG | UPMEAN | Y | +H | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | T3HMN | DIAG | UPD | Y | +K | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYM | DIAG | UPA | Y | +N | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYMON | DIAG | UPJ | Y | P | Y | X | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDMPMN | DIAG | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 25 | BOUNDARY LAYER DEPTH AFTER TIMESTEP | TDMPMN | DIAG | UPMEAN | Y | +A | Y | | SYSTEM |
| Inert | Inert | Active | Active | Active | Active | Active | Active | Inert | Inert | Inert |

Adding your diagnostic to the UMUI

STASH Panel ATMOS. Experiment xhkp, Job a

STASH Profiles Diagnostics Help

Time Profiles available

| | | | | | | | | | | | |
|--------|--------|--------|--------|----------|---------|-------|---------|---------|---------|--------|----------|
| TDMPMN | T6HDM | T24H0Z | T6H | TDAYRAD | T6HDAYM | TDAYM | TDAYMON | TDAYMAX | TDAYMIN | T6HMON | T24HDMRV |
| TMONMN | T90DAY | T3HMN | TALLTS | TDPMUKCA | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Domain Profiles available

| | | | | | | | | | | | |
|-------|--------|----------|----------|---------|----------|--------|---------|----------|---------|-------|-------|
| DIAG | DALLTH | DPBLTH | DP17 | DALLRH | DA7ISCCP | DPV2 | DP500 | DALLTHCL | DIAGAOT | DPFTS | DSOIL |
| DTILE | DP17ZM | DP850200 | DP855020 | DICECAT | DP4 | DPBLRH | DP31CCM | DP31CCMZ | DP10100 | DP5 | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Usage Profiles available

| | | | | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| UPMEAN | UPA | UPC | UPF | UPG | UPD | UPB | UPE | UPH | UPI | UPJ | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|

STASH

| Sec | Item | Diagnostic Name | Time | Domain | Usage | Incl | Pckg | Avail | I+P+A | User/System |
|-------|-------|--------------------------------------|---------|--------|--------|--------|--------|-------|-------|-------------|
| 34 | 512 | NEW DIAGNOSTIC | | | | Y | + | Y | | USER |
| 0 | 4 | THETA AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +G | Y | | SYSTEM |
| 0 | 10 | SPECIFIC HUMIDITY AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 12 | QCF AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDAYRAD | DIAG | UPF | Y | +F | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDMPMN | DIAG | UPMEAN | Y | +H | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | T3HMN | DIAG | UPD | Y | +K | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYM | DIAG | UPA | Y | +N | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYMON | DIAG | UPJ | Y | P | Y | X | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDMPMN | DIAG | UPMEAN | Y | +A | Y | | SYSTEM |
| Inert | Inert | Active | Active | Active | Active | Active | Active | Inert | Inert | Inert |

Adding your diagnostic to the UMUI

STASH Panel ATMOS. Experiment xhkp, Job a

STASH Profiles Diagnostics Help

Time Profiles available

| | | | | | | | | | | | |
|--------|--------|--------|--------|----------|---------|-------|---------|---------|---------|--------|----------|
| TDMPMN | T6HDM | T24H0Z | T6H | TDAYRAD | T6HDAYM | TDAYM | TDAYMON | TDAYMAX | TDAYMIN | T6HMON | T24HDMRV |
| TMONMN | T90DAY | T3HMN | TALLTS | TDPMUKCA | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Domain Profiles available

| | | | | | | | | | | | |
|-------|--------|----------|----------|---------|----------|--------|---------|----------|---------|-------|-------|
| DIAG | DALLTH | DPBLTH | DP17 | DALLRH | DA7ISCCP | DPV2 | DP500 | DALLTHCL | DIAGAOT | DPFTS | DSOIL |
| DTILE | DP17ZM | DP850200 | DP855020 | DICECAT | DP4 | DPBLRH | DP31CCM | DP31CCMZ | DP10100 | DP5 | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Usage Profiles available

| | | | | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| UPMEAN | UPA | UPC | UPF | UPG | UPD | UPB | UPE | UPH | UPI | UPJ | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|

STASH

| Sec | Item | Diagnostic Name | Time | Domain | Usage | Incl | Pckg | Avail | I+P+A | User/System |
|-------|-------|--------------------------------------|---------|--------|--------|--------|--------|-------|-------|-------------|
| 34 | 512 | NEW DIAGNOSTIC | TDMPMN | DALLTH | UPMEAN | Y | + | Y | | USER |
| 0 | 4 | THETA AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +G | Y | | SYSTEM |
| 0 | 10 | SPECIFIC HUMIDITY AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 12 | QCF AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDAYRAD | DIAG | UPF | Y | +F | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDMPMN | DIAG | UPMEAN | Y | +H | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | T3HMN | DIAG | UPD | Y | +K | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYM | DIAG | UPA | Y | +N | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYMON | DIAG | UPJ | Y | P | Y | X | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDMPMN | DIAG | UPMEAN | Y | +A | Y | | SYSTEM |
| Inert | Inert | Active | Active | Active | Active | Active | Active | Inert | Inert | Inert |

Domain Profile

STASH Panel ATMOS. Experiment xhkp, Job a

STASH Profiles Diagnostics Help

Edit Profile → Edit time
 Delete Profile → Edit domain
 Copy Profile → Edit usage

| Time | Domain | Usage | Incl | Pckg | Avail | I+P+A | User/System |
|----------|---------|-------|---------|---------|---------|--------|-------------|
| TDAYRAD | T6HDAYM | TDAYM | TDAYMON | TDAYMAX | TDAYMIN | T6HMON | T24HDMRV |
| TDPNUKCA | | | | | | | |

Domain Profiles available

| | | | | | | | | | | | |
|-------|--------|----------|----------|---------|----------|--------|---------|----------|---------|-------|-------|
| DIAG | DALLTH | DPBLTH | DP17 | DALLRH | DA7ISCCP | DPV2 | DP500 | DALLTHCL | DIAGAOT | DPFTS | DSOIL |
| DTILE | DP17ZM | DP850200 | DP855020 | DICECAT | DP4 | DPBLRH | DP31CCM | DP31CCMZ | DP10100 | DP5 | |

Usage Profiles available

| | | | | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| UPMEAN | UPA | UPC | UPF | UPG | UPD | UPB | UPE | UPH | UPI | UPJ | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|

| STASH | | | | | | | | | | |
|-------|-------|--------------------------------------|---------|--------|--------|--------|--------|-------|-------|-------------|
| Sec | Item | Diagnostic Name | Time | Domain | Usage | Incl | Pckg | Avail | I+P+A | User/System |
| 34 | 512 | NEW DIAGNOSTIC | TDMPMN | DALLTH | UPMEAN | Y | + | Y | | USER |
| 0 | 4 | THETA AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +G | Y | | SYSTEM |
| 0 | 10 | SPECIFIC HUMIDITY AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 12 | QCF AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDAYRAD | DIAG | UPF | Y | +F | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDMPMN | DIAG | UPMEAN | Y | +H | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | T3HMN | DIAG | UPD | Y | +K | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYM | DIAG | UPA | Y | +N | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYMON | DIAG | UPJ | Y | P | Y | X | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDMPMN | DIAG | UPMEAN | Y | +A | Y | | SYSTEM |
| Inert | Inert | Active | Active | Active | Active | Active | Active | Inert | Inert | Inert |

Domain Profile

Profiles Diagnostics Help

able

- Edit Profile
- Delete Profile
- Copy Profile

Edit time

Edit domain

Edit usage

Domain profile specification (Levels) : Job xhkp.a: "UKCA-TropIsop HECToR Phase2b N48L60 QESM-A"

Domain profile name DALLTH

- Variables derived on a single or unspecified level
- Variables derived on model rho levels (Charney-Philips grid)
- Variables derived on model theta levels (Charney-Philips grid)
- Variables on deep soil levels

Select vertical level type

- Variables on pressure levels (hPa)
- Variables on geometric height levels (m)
- Variables on constant theta surfaces (K)
- Variables on potential vorticity levels
- Variables on cloud threshold levels (octas)

Specification of levels by

- Range of model levels
- List of selected model levels

Range starting at (see Level Names Help) ATMOS_BOTTOM Converts to: 1

Range ending at (see Level Names Help) ATMOS_TOP Converts to: 60

Level Names Help Help Abandon changes Close PSEUDO HORIZ TSERIES

Window Name : atmos_STASH_Domain. Job xhkp.a.

Climate Meaning

- We have passed this diagnostic through to **UPMEAN**, but what does this mean?
- There are 12 streams in the UM that lead to output files. I will cover the first 11 later, but the 12th is the climate meaning stream
 - This stream works slightly differently to the other streams, where “what you see is what you get”
 - The behaviour of the climate meaning stream is controlled elsewhere in the UMUI

Climate Meaning

umui application. Navigation of Job xhkp.a: "UKCA-TropIsop HECToR Phase2b N48L60 QESM-A"

- Model Selection
 - User Information and Target Machine
 - Input/Output Control and Resources
 - Sub-Model Configurations and Coupling
 - FCM Configuration
 - Compilation and Modifications
 - Reconfiguration
 - Independent Section Options
 - Post Processing
 - Atmosphere
 - Model Resolution and Domain
 - Model Configuration
 - Scientific Parameters and Sections
 - Data assimilation and temporal filtering
 - Ancillary and input data files
 - STASH
 - Control
 - Post processing, Dumping & Meaning
 - Choices of non-scientific sections
 - Output data files (LBCs etc)
 - Error Checking
 - STASH macros
 - NEMO
 - CICE

Buttons: Help, Check Setup, Save, Process, Submit, Import, Export

Means : Job xhkp.a: "UKCA-TropIsop HECToR Phase2b N48L60 QESM-A"

Select dumping and meaning option

- No dumping or climate meaning
- Regular frequency dumps with possible meaning sequence
- Irregular dump times - no climate meaning possible
- Regular frequency dumps for Gregorian-calendar Meaning

Select dumping packing option

- STASHmaster controlled packing for diagnostic and primary fields.
- Unpacked primary fields. STASHmaster-packed diagnostics.
- Unpacked primary and diagnostic fields.

Using Unit Days Hours Timesteps

Restart dumps every

Review the climate meaning follow-on panel and STASH climate mean diagnostic requests when modifying the dump period

archiving every (restart dump occurrences)

...starting at the (nth restart dump)

Set frequencies to 0 for never

Defining a meaning sequence

Using reference date for meaning

| | |
|--------|-----------------------------------|
| Year | <input type="text" value="1900"/> |
| Month | <input type="text" value="12"/> |
| Day | <input type="text" value="1"/> |
| Hour | <input type="text" value="0"/> |
| Minute | <input type="text" value="0"/> |
| Second | <input type="text" value="0"/> |

Elsewhere, you have specified:

A choice of the Climate-Mean code section is included . Climate-Means will work

Push next to define further requirements.

Buttons: Help, Abandon changes, Close, NEXT

Window Name : atmos_Control_PostProc_DumpMean. Job xhkp.a.

Climate Meaning

pm (monthly mean)
ps (seasonal mean)
py (annual mean)
px (decadal mean)
files will be produced

umui application. Navigation of Job xhkp.a: "UKCA-TropIsop HECToR Phase2b N48L60 QESM-A"

- Dumping and meaning
- User script release
- Define Climate-Mean sections choice

Dumping and Meaning sequences (2) : Job xhkp.a: "UKCA-TropIsop HECToR Phase 2b N48L60 QESM-A"

For regular dumping with climate meaning

Specify the number of meaning periods to use (1 to 4)

Define requirement for your meaning sequence.

Specify period lengths in terms of number of restart dumps for period 1
and then in multiples of the previous period

Specify frequencies as 'every nth period-m mean'. Set to 0 if not required

| Means | | |
|---------------|-----------------------|-----------------------|
| Period length | PP files Required Y/N | PP files archived Y/N |
| 3 | Y | Y |
| 3 | Y | Y |
| 4 | Y | Y |
| 10 | Y | Y |
| Edit | Edit | Edit |

Help Check Setup Save Process

Elsewhere, you have specified:

A choice of the Climate-Mean code section is included . Climate-Means will work if selected

Push back to redefine requirements.

Help Abandon changes Close BACK

Window Name : atmos_Control_PostProc_DumpMean2. Job xhkp.a.

Climate Meaning

STASH Panel ATMOS. Experiment xhkp, Job a

STASH Profiles Diagnostics Help

Time Profiles available

| | | | | | | | | | | | |
|--------|--------|--------|--------|----------|---------|-------|---------|---------|---------|--------|----------|
| TDMPMN | T6HDM | T24H0Z | T6H | TDAYRAD | T6HDAYM | TDAYM | TDAYMON | TDAYMAX | TDAYMIN | T6HMON | T24HDMRV |
| TMONMN | T90DAY | T3HMN | TALLTS | TDPMUKCA | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Domain Profiles available

| | | | | | | | | | | | |
|-------|--------|----------|----------|---------|----------|--------|---------|----------|---------|-------|-------|
| DIAG | DALLTH | DPBLTH | DP17 | DALLRH | DA7ISCCP | DPV2 | DP500 | DALLTHCL | DIAGAOT | DPFTS | DSOIL |
| DTILE | DP17ZM | DP850200 | DP855020 | DICECAT | DP4 | DPBLRH | DP31CCM | DP31CCMZ | DP10100 | DP5 | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Usage Profiles available

| | | | | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| UPMEAN | UPA | UPC | UPF | UPG | UPD | UPB | UPE | UPH | UPI | UPJ | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|

STASH

| Sec | Item | Diagnostic Name | Time | Domain | Usage | Incl | Pckg | Avail | I+P+A | User/System |
|-------|-------|--------------------------------------|---------|--------|--------|--------|--------|-------|-------|-------------|
| 34 | 512 | NEW DIAGNOSTIC | TDMPMN | DALLTH | UPMEAN | Y | + | Y | | USER |
| 0 | 4 | THETA AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +G | Y | | SYSTEM |
| 0 | 10 | SPECIFIC HUMIDITY AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 12 | QCF AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDAYRAD | DIAG | UPF | Y | +F | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDMPMN | DIAG | UPMEAN | Y | +H | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | T3HMN | DIAG | UPD | Y | +K | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYM | DIAG | UPA | Y | +N | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYMON | DIAG | UPJ | Y | P | Y | X | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDMPMN | DIAG | UPMEAN | Y | +A | Y | | SYSTEM |
| Inert | Inert | Active | Active | Active | Active | Active | Active | Inert | Inert | Inert |

Climate Meaning

STASH Panel ATMOS. Experiment xhkp, Job a

STASH Profiles Diagnostics Help

Edit Profile
 Delete Profile
 Copy Profile

Edit time
 Edit domain
 Edit usage

| | TDAYRAD | T6HDAYM | TDAYM | TDAYMON | TDAYMAX | TDAYMIN | T6HMON | T24HDMRV |
|---|----------|---------|-------|---------|---------|---------|--------|----------|
| T | | | | | | | | |
| T | TDPNUKCA | | | | | | | |
| T | | | | | | | | |
| T | | | | | | | | |

Domain Profiles available

| | | | | | | | | | | | |
|-------|--------|----------|----------|---------|----------|--------|---------|----------|---------|-------|-------|
| DIAG | DALLTH | DPBLTH | DP17 | DALLRH | DA7ISCCP | DPV2 | DP500 | DALLTHCL | DIAGAOT | DPFTS | DSOIL |
| DTILE | DP17ZM | DP850200 | DP855020 | DICECAT | DP4 | DPBLRH | DP31CCM | DP31CCMZ | DP10100 | DP5 | |
| | | | | | | | | | | | |

Usage Profiles available

| | | | | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| UPMEAN | UPA | UPC | UPF | UPG | UPD | UPB | UPE | UPH | UPI | UPJ | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|

| STASH | | | | | | | | | | |
|-------|-------|--------------------------------------|---------|--------|--------|--------|--------|-------|-------|-------------|
| Sec | Item | Diagnostic Name | Time | Domain | Usage | Incl | Pckg | Avail | I+P+A | User/System |
| 34 | 512 | NEW DIAGNOSTIC | TDMPMN | DALLTH | UPMEAN | Y | + | Y | | USER |
| 0 | 4 | THETA AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +G | Y | | SYSTEM |
| 0 | 10 | SPECIFIC HUMIDITY AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 12 | QCF AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDAYRAD | DIAG | UPF | Y | +F | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDMPMN | DIAG | UPMEAN | Y | +H | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | T3HMN | DIAG | UPD | Y | +K | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYM | DIAG | UPA | Y | +N | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYMON | DIAG | UPJ | Y | P | Y | X | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDMPMN | DIAG | UPMEAN | Y | +A | Y | | SYSTEM |
| Inert | Inert | Active | Active | Active | Active | Active | Active | Inert | Inert | Inert |

Climate Meaning

Profiles Diagnostics Help

- able
- Edit Profile ▶ Edit time
- Delete Profile ▶ Edit domain
- Copy Profile ▶ Edit usage

STASH Usage profile. : Job xhkp.a: "UKCA-TropIsop HECToR Phase2b N48L60 QESM-A"

Usage profile name

- Specify the final destination of the diagnostic
- Dump store with user specified TAG, specify tag below.
 - Secondary store with user specified TAG, specify tag below.
 - Dump store with climate mean TAG. Specify meaning periods below
 - PP-file. Specify stream below
 - Send mean diagnostic direct to mean PP-file (climate mean sections only)
-
- Tagged for climate mean period 1
 - Tagged for climate mean period 2
 - Tagged for climate mean period 3
 - Tagged for climate mean period 4

Elsewhere you have set up climate meaning as follows:
Climate meaning is specified
Number of climate mean periods: 4
Push FILES to see settings of PP-files to sub-models and reinitialisation.

Window Name : atmos_STASH_Usage. Job xhkp.a.

Climate Meaning

STASH Panel ATMOS. Experiment xhkp, Job a

STASH Profiles Diagnostics Help

Edit Profile
 Delete Profile
 Copy Profile

Edit time
 Edit domain
 Edit usage

| | TDAYRAD | T6HDAYM | TDAYM | TDAYMON | TDAYMAX | TDAYMIN | T6HMON | T24HDMRV |
|-----|---------|---------|-------|---------|---------|---------|--------|----------|
| TDP | TDP | | | | | | | |
| TDP | TDP | | | | | | | |
| TDP | TDP | | | | | | | |
| TDP | TDP | | | | | | | |

Domain Profiles available

| | | | | | | | | | | | |
|-------|--------|----------|----------|---------|----------|--------|---------|----------|---------|-------|-------|
| DIAG | DALLTH | DPBLTH | DP17 | DALLRH | DA7ISCCP | DPV2 | DP500 | DALLTHCL | DIAGAOT | DPFTS | DSOIL |
| DTILE | DP17ZM | DP850200 | DP855020 | DICECAT | DP4 | DPBLRH | DP31CCM | DP31CCMZ | DP10100 | DP5 | |
| | | | | | | | | | | | |

Usage Profiles available

| | | | | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| UPMEAN | UPA | UPC | UPF | UPG | UPD | UPB | UPE | UPH | UPI | UPJ | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|

| STASH | | | | | | | | | | |
|-------|-------|--------------------------------------|---------|--------|--------|--------|--------|-------|-------|-------------|
| Sec | Item | Diagnostic Name | Time | Domain | Usage | Incl | Pckg | Avail | I+P+A | User/System |
| 34 | 512 | NEW DIAGNOSTIC | TDMPMN | DALLTH | UPMEAN | Y | + | Y | | USER |
| 0 | 4 | THETA AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +G | Y | | SYSTEM |
| 0 | 10 | SPECIFIC HUMIDITY AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 12 | QCF AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDAYRAD | DIAG | UPF | Y | +F | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDMPMN | DIAG | UPMEAN | Y | +H | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | T3HMN | DIAG | UPD | Y | +K | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYM | DIAG | UPA | Y | +N | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYMON | DIAG | UPJ | Y | P | Y | X | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDMPMN | DIAG | UPMEAN | Y | +A | Y | | SYSTEM |
| Inert | Inert | Active | Active | Active | Active | Active | Active | Inert | Inert | Inert |

Profiles Diagnostics Help

- Edit Profile
- Delete Profile
- Copy Profile

able

- Edit time
- Edit domain
- Edit usage

Time profile name

- No time processing. Field valid at output timesteps.
- Time accumulation, specify accumulation period and sampling frequency below
- Time mean, specify meaning period and sampling frequency below
- Time series, specify recycling period and sampling frequency below
- Special daily-mean time series. Specify recycling period below.
- Maximum value in a period, specify period and sampling frequency below
- Minimum value in a period, specify period and sampling frequency below

Specify time processing required

Define the meaning period:

Time units Days Hours Dump periods Timesteps

Sampling period

Define the sampling frequency to make up the above:

Time units Days Hours Dump periods Timesteps

Frequency (every)

Sampling offset (0 for no offset)

Specify the output times for the diagnostic

Specification type Regular intervals Specified List

Time units Days Hours Dump periods Timesteps

Starting

Ending

Frequency (every)

Set ending to -1 for the whole run

Number of times in the list

| Output time list | |
|------------------|--------------------------|
| No. | Values need to be sorted |
| | |
| | |
| | |
| | |
| | |
| Inert | Inert |

Climate Meaning

- **Points to remember:**
 - All fields sent to **UPMEAN** must use **TDMPMN** or a derivative (e.g. offset in temporal sampling of data c.f. **TDMNUKCA**)
 - If e.g. **TMONMN** (monthly mean) is used then the data will be sampled incorrectly leading to problems with the values in the **.pm** files.
- If you are having problems outputting fields through climate meaning the solution is to send the data to another output stream

Other output streams

- Model Selection
 - User Information and Target Machine
 - Input/Output Control and Resources
 - Sub-Model Configurations and Coupling
 - FCM Configuration
 - Compilation and Modifications
 - Reconfiguration
 - Independent Section Options
 - Post Processing

- Main Switch + General Questions
- Initialization and processing of mean & standard PP files

Unpacked, profile 0

Select packing profile for mean PP files

- Packed as required for operational output streams, profile 1
- Packed as required for standard climate output, profile 2
- Packed as required for stratosphere model output, profile 4
- New standard climate packing, profile 5
- Simple GRIB packing, profile 6

GRIB format mean PP files

Define processing and post-processing requirements for the PP output streams.

Define periodic re-initialization for those files which require automatic post processing.

PP Files

| Basics | | | | | For re-initialised PP files, also specify | | | | | |
|--------------|-----------------|---------------|-------------------|------------------|---|----------|--------|-----------|-----------|-----------|
| PP File/Unit | Packing profile | Override size | GRIB FORMAT (Y/N) | Periodic Re-init | Period | Starting | Ending | Time Unit | Sub Model | Archiving |
| PP0/PA/60 | 5 | 16000 | N | Y | 30 | 0 | -1 | DA | A | Y |
| PP1/PB/61 | 5 | 0 | N | Y | 1 | 0 | -1 | DA | A | Y |
| PP2/PC/62 | 5 | 16000 | N | Y | 90 | 0 | -1 | DA | A | Y |
| PP3/PD/63 | 5 | 16000 | N | Y | 30 | 0 | -1 | DA | A | Y |
| PP4/PE/64 | 5 | 16000 | N | Y | 30 | 0 | -1 | DA | A | Y |
| PP5/PF/65 | 5 | 0 | N | Y | 90 | 0 | -1 | DA | A | Y |
| PP6/PG/66 | 5 | 0 | N | Y | 90 | 0 | -1 | DA | A | Y |
| PP7/PH/67 | 5 | 0 | N | Y | 30 | 0 | -1 | DA | A | N |
| PP8/PI/68 | 5 | 0 | N | Y | 90 | 0 | -1 | DA | A | Y |
| PP9/PJ/69 | 5 | 0 | N | Y | 90 | 0 | -1 | DA | A | Y |
| PP10/PK/151 | 5 | 16000 | N | Y | 30 | 0 | -1 | DA | A | N |
| Inert | Edit | Edit | Edit | Edit | Edit | Edit | Edit | Edit | Edit | Edit |

Time units are: DA=days, H=hours, T=timesteps, RM=real months.

Packing profiles numbers are as defined for mean PP file.

A (Atmosphere) is currently the only valid sub-model.

Help

Abandon changes

Close

Other output streams

STASH Panel ATMOS. Experiment xhkp, Job a

STASH Profiles Diagnostics Help

Time Profiles available

| | | | | | | | | | | | |
|--------|--------|--------|--------|----------|---------|-------|---------|---------|---------|--------|----------|
| TDMPMN | T6HDM | T24H0Z | T6H | TDAYRAD | T6HDAYM | TDAYM | TDAYMON | TDAYMAX | TDAYMIN | T6HMON | T24HDMRV |
| TMONMN | T90DAY | T3HMN | TALLTS | TDPMUKCA | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Domain Profiles available

| | | | | | | | | | | | |
|-------|--------|----------|----------|---------|----------|--------|---------|----------|---------|-------|-------|
| DIAG | DALLTH | DPBLTH | DP17 | DALLRH | DA7ISCCP | DPV2 | DP500 | DALLTHCL | DIAGAOT | DPFTS | DSOIL |
| DTILE | DP17ZM | DP850200 | DP855020 | DICECAT | DP4 | DPBLRH | DP31CCM | DP31CCMZ | DP10100 | DP5 | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Usage Profiles available

| | | | | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| UPMEAN | UPA | UPC | UPF | UPG | UPD | UPB | UPE | UPH | UPI | UPJ | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|

STASH

| Sec | Item | Diagnostic Name | Time | Domain | Usage | Incl | Pckg | Avail | I+P+A | User/System |
|-------|-------|--------------------------------------|---------|--------|--------|--------|--------|-------|-------|-------------|
| 34 | 512 | NEW DIAGNOSTIC | T3HMN | DALLTH | UPC | Y | + | Y | | USER |
| 0 | 4 | THETA AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +G | Y | | SYSTEM |
| 0 | 10 | SPECIFIC HUMIDITY AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 12 | QCF AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDAYRAD | DIAG | UPF | Y | +F | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDMPMN | DIAG | UPMEAN | Y | +H | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | T3HMN | DIAG | UPD | Y | +K | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYM | DIAG | UPA | Y | +N | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYMON | DIAG | UPJ | Y | P | Y | X | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDMPMN | DIAG | UPMEAN | Y | +A | Y | | SYSTEM |
| Inert | Inert | Active | Active | Active | Active | Active | Active | Inert | Inert | Inert |

Other output streams

STASH Panel ATMOS. Experiment xhkp, Job a

STASH Profiles Diagnostics Help

Time Prof

TDMPMN
TMONMN

Domain F

DIAG
DTILE

Usage Pr

UPMEAN

Load New Diagnostics (Control-l)
Remove Diagnostic (Control-r)
Clone Diagnostic (Control-c)
Output Table to File
Set Package Switches (Control-t)
Clear Table
Verify Diagnostics (Control-v)
Re-check Availability
Sort Diagnostics
Change Sort Order

| | | | | | | | |
|---|----------|--------|---------|----------|---------|--------|----------|
| | T8HDAYM | TDAYM | TDAYMON | TDAYMAX | TDAYMIN | T6HMON | T24HDMRV |
| A | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | DA7ISCCP | DPV2 | DP500 | DALLTHCL | DIAGAOT | DPFPTS | DSOIL |
| | DP4 | DPBLRH | DP31CCM | DP31CCMZ | DP10100 | DP5 | |
| | | | | | | | |
| | | | | | | | |
| | UPD | UPB | UPE | UPH | UPI | UPJ | |

| STASH | | | | | | | | | | |
|-------|-------|--------------------------------------|---------|--------|--------|--------|--------|-------|-------|-------------|
| Sec | Item | Diagnostic Name | Time | Domain | Usage | Incl | Pckg | Avail | I+P+A | User/System |
| 34 | 512 | NEW DIAGNOSTIC | T3HMN | DALLTH | UPC | Y | + | Y | | USER |
| 0 | 4 | THETA AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +G | Y | | SYSTEM |
| 0 | 10 | SPECIFIC HUMIDITY AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 12 | QCF AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDAYRAD | DIAG | UPF | Y | +F | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDMPMN | DIAG | UPMEAN | Y | +H | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | T3HMN | DIAG | UPD | Y | +K | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYM | DIAG | UPA | Y | +N | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYMON | DIAG | UPJ | Y | P | Y | X | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDMPMN | DIAG | UPMEAN | Y | +A | Y | | SYSTEM |
| Inert | Inert | Active | Active | Active | Active | Active | Active | Inert | Inert | Inert |

Other output streams

Load New Diagnostics (Control-l)
 Remove Diagnostic (Control-r)
 Clone Diagnostic (Control-c)
 Output Table to File
 Set Package Switches (Control-t)
 Clear Table
 Verify Diagnostics (Control-v)
 Re-check Availability
 Sort Diagnostics
 Change Sort Order

Warning:
You may exceed the maximum number of PP fields per file

Estimated number of PP files to be written:

17190 fields in stream 62
 5761 fields in Climate mean Period_1
 5761 fields in Climate mean Period_2
 5761 fields in Climate mean Period_3
 5761 fields in Climate mean Period_4

Maximum allowed is 4096 fields per stream.

Note: 'field' is a 2D horizontal field

Diagnostic Errors

Diag: "O3P MASS MIXING RATIO AFTER TSTEP " (34,59) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.
 Diag: "OH MASS MIXING RATIO AFTER TIMESTEP " (34,81) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.
 Diag: "HO2 MASS MIXING RATIO AFTER TIMESTEP" (34,82) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.
 Diag: "MeOO MASS MIXING RATIO AFTER TIMES " (34,83) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.
 Diag: "EtOO MASS MIXING RATIO AFTER TSTEP " (34,84) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.
 Diag: "MeCO3 MAS MIXING RATIO AFTER TSTEP " (34,85) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.
 Diag: "n-ProO MAS MIXING RATIO AFTER TSTEP " (34,86) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.
 Diag: "i-ProO MAS MIXING RATIO AFTER TSTEP " (34,87) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.
 Diag: "EtCO3 MAS MIXING RATIO AFTER TSTEP " (34,88) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.
 Diag: "MeCOCH2OO MMR AFTER TSTEP " (34,89) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.
 Diag: "ISO2 MASS MIXING RATIO AFTER TSTEP " (34,90) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.
 Diag: "MeOH MASS MIXING RATIO AFTER TSTEP " (34,94) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.
 Diag: "MACRO2 MAS MIXING RATIO AFTER TSTEP " (34,95) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.
 Diag: "AGE OF AIR in SECONDS " (34,150) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.

Warning:
You may exceed the maximum number of PP fields per file

Estimated number of PP files to be written:

17190 fields in stream 62
 5761 fields in Climate mean Period_1
 5761 fields in Climate mean Period_2
 5761 fields in Climate mean Period_3
 5761 fields in Climate mean Period_4

Maximum allowed is 4096 fields per stream.

Close

Other output streams

- Model Selection
 - User Information and Target Machine
 - Input/Output Control and Resources
 - Sub-Model Configurations and Coupling
 - FCM Configuration
 - Compilation and Modifications
 - Reconfiguration
 - Independent Section Options
 - Post Processing

- Main Switch + General Questions
- Initialization and processing of mean & standard PP files

Unpacked, profile 0

Select packing profile for mean PP files

- Packed as required for operational output streams, profile 1
- Packed as required for standard climate output, profile 2
- Packed as required for stratosphere model output, profile 4
- New standard climate packing, profile 5
- Simple GRIB packing, profile 6

GRIB format mean PP files

Define processing and post-processing requirements for the PP output streams.

Define periodic re-initialization for those files which require automatic post processing.

PP Files

| Basics | | | | | For re-initialised PP files, also specify | | | | | |
|--------------|-----------------|---------------|-------------------|------------------|---|----------|--------|-----------|-----------|-----------|
| PP File/Unit | Packing profile | Override size | GRIB FORMAT (Y/N) | Periodic Re-init | Period | Starting | Ending | Time Unit | Sub Model | Archiving |
| PP0/PA/60 | 5 | 16000 | N | Y | 30 | 0 | -1 | DA | A | Y |
| PP1/PB/61 | 5 | 0 | N | Y | 1 | 0 | -1 | DA | A | Y |
| PP2/PC/62 | 5 | 16000 | N | Y | 90 | 0 | -1 | DA | A | Y |
| PP3/PD/63 | 5 | 16000 | N | Y | 30 | 0 | -1 | DA | A | Y |
| PP4/PE/64 | 5 | 16000 | N | Y | 30 | 0 | -1 | DA | A | Y |
| PP5/PF/65 | 5 | 0 | N | Y | 90 | 0 | -1 | DA | A | Y |
| PP6/PG/66 | 5 | 0 | N | Y | 90 | 0 | -1 | DA | A | Y |
| PP7/PH/67 | 5 | 0 | N | Y | 30 | 0 | -1 | DA | A | N |
| PP8/PI/68 | 5 | 0 | N | Y | 90 | 0 | -1 | DA | A | Y |
| PP9/PJ/69 | 5 | 0 | N | Y | 90 | 0 | -1 | DA | A | Y |
| PP10/PK/151 | 5 | 16000 | N | Y | 30 | 0 | -1 | DA | A | N |
| Inert | Edit | Edit | Edit | Edit | Edit | Edit | Edit | Edit | Edit | Edit |

Time units are: DA=days, H=hours, T=timesteps, RM=real months.

Packing profiles numbers are as defined for mean PP file.

A (Atmosphere) is currently the only valid sub-model.

Help

Abandon changes

Close

Other output streams

STASH Panel ATMOS. Experiment xhkp, Job a

STASH Profiles Diagnostics Help

Time Profiles available

| | | | | | | | | | | | |
|--------|--------|--------|--------|----------|---------|-------|---------|---------|---------|--------|----------|
| TDMPMN | T6HDM | T24H0Z | T6H | TDAYRAD | T6HDAYM | TDAYM | TDAYMON | TDAYMAX | TDAYMIN | T6HMON | T24HDMRV |
| TMONMN | T90DAY | T3HMN | TALLTS | TDPMUKCA | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Domain Profiles available

| | | | | | | | | | | | |
|-------|--------|----------|----------|---------|----------|--------|---------|----------|---------|-------|-------|
| DIAG | DALLTH | DPBLTH | DP17 | DALLRH | DA7ISCCP | DPV2 | DP500 | DALLTHCL | DIAGAOT | DPFTS | DSOIL |
| DTILE | DP17ZM | DP850200 | DP855020 | DICECAT | DP4 | DPBLRH | DP31CCM | DP31CCMZ | DP10100 | DP5 | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Usage Profiles available

| | | | | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| UPMEAN | UPA | UPC | UPF | UPG | UPD | UPB | UPE | UPH | UPI | UPJ | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|

| STASH | | | | | | | | | | |
|-------|-------|--------------------------------------|---------|--------|--------|--------|--------|-------|-------|-------------|
| Sec | Item | Diagnostic Name | Time | Domain | Usage | Incl | Pckg | Avail | I+P+A | User/System |
| 34 | 512 | NEW DIAGNOSTIC | T3HMN | DALLTH | UPB | Y | + | Y | | USER |
| 0 | 4 | THETA AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +G | Y | | SYSTEM |
| 0 | 10 | SPECIFIC HUMIDITY AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 12 | QCF AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDAYRAD | DIAG | UPF | Y | +F | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDMPMN | DIAG | UPMEAN | Y | +H | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | T3HMN | DIAG | UPD | Y | +K | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYM | DIAG | UPA | Y | +N | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYMON | DIAG | UPJ | Y | P | Y | X | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDMPMN | DIAG | UPMEAN | Y | +A | Y | | SYSTEM |
| Inert | Inert | Active | Active | Active | Active | Active | Active | Inert | Inert | Inert |

Other output streams

Load New Diagnostics (Control-l)
 Remove Diagnostic (Control-r)
 Clone Diagnostic (Control-c)
 Output Table to File
 Set Package Switches (Control-t)
 Clear Table
 Verify Diagnostics (Control-v)
 Re-check Availability
 Sort Diagnostics
 Change Sort Order

Warning:
You may exceed the maximum number of PP fields per file

Estimated number of PP files to be written:

5761 fields in Climate mean Period_1
 5761 fields in Climate mean Period_2
 5761 fields in Climate mean Period_3
 5761 fields in Climate mean Period_4

Maximum allowed is 4096 fields per stream.

Note: 'field' is a 2D horizontal field

Diagnostic Errors

Diag: "O3P MASS MIXING RATIO AFTER TSTEP " (34,59) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.
 Diag: "OH MASS MIXING RATIO AFTER Timestep " (34,81) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.
 Diag: "HO2 MASS MIXING RATIO AFTER Timestep" (34,82) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.
 Diag: "MeOO MASS MIXING RATIO AFTER TIMES " (34,83) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.
 Diag: "EtOO MASS MIXING RATIO AFTER TSTEP " (34,84) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.
 Diag: "MeCO3 MAS MIXING RATIO AFTER TSTEP " (34,85) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.
 Diag: "n-PrOO MAS MIXING RATIO AFTER TSTEP " (34,86) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.
 Diag: "i-PrOO MAS MIXING RATIO AFTER TSTEP " (34,87) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.
 Diag: "EtCO3 MAS MIXING RATIO AFTER TSTEP " (34,88) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.
 Diag: "MeCOCH2OO MMR AFTER TSTEP " (34,89) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.
 Diag: "ISO2 MASS MIXING RATIO AFTER TSTEP " (34,90) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.
 Diag: "MeOH MASS MIXING RATIO AFTER TSTEP " (34,94) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.
 Diag: "MACRO2 MAS MIXING RATIO AFTER TSTEP " (34,95) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.
 Diag: "AGE OF AIR in SECONDS " (34,150) (TDMPMN,DALLTH,UPMEAN)
 DIAGNOSTIC ERROR: Diagnostic is not available for this model configuration.

Warning:
You may exceed the maximum number of PP fields per file

Estimated number of PP files to be written:

5761 fields in Climate mean Period_1
 5761 fields in Climate mean Period_2
 5761 fields in Climate mean Period_3
 5761 fields in Climate mean Period_4

Maximum allowed is 4096 fields per stream.

Close

Other output streams

- **Points to remember:**
 - When verifying diagnostics the climate meaning stream can usually take more than the 4096 specified (but not a massive amount more)
 - If you have asked for many more fields for **UPMEAN** then you may need to move these fields to one of the PP-streams (**UPA**, **UPB**, etc.)
 - In these streams you will need to use **TMONMN** for a monthly mean etc.
 - You may also need/want to make up your own temporal (and/or domain) profiles
 - These could be used in either the PP- or climate meaning streams

Diag: " NEW DIAGNOSTIC " (34,512) (T3HMN,DALLRH,UPB)
 DOMAIN PROF ERROR: Use profile on model theta-levels.

Which levels?

STASH Panel ATMOS. Experiment xhkp, Job a

STASH Profiles Diagnostics Help

Time Profiles available

| | | | | | | | | | | | |
|--------|--------|--------|--------|----------|---------|-------|---------|---------|---------|--------|----------|
| TDMPMN | T6HDM | T24H0Z | T6H | TDAYRAD | T6HDAYM | TDAYM | TDAYMON | TDAYMAX | TDAYMIN | T6HMON | T24HDMRV |
| TMONMN | T90DAY | T3HMN | TALLTS | TDPMUKCA | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Domain Profiles available

| | | | | | | | | | | | |
|-------|--------|----------|----------|---------|----------|--------|---------|----------|---------|-------|-------|
| DIAG | DALLTH | DPBLTH | DP17 | DALLRH | DA7ISCCP | DPV2 | DP500 | DALLTHCL | DIAGAOT | DPFTS | DSOIL |
| DTILE | DP17ZM | DP850200 | DP855020 | DICECAT | DP4 | DPBLRH | DP31CCM | DP31CCMZ | DP10100 | DP5 | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Usage Profiles available

| | | | | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| UPMEAN | UPA | UPC | UPF | UPG | UPD | UPB | UPE | UPH | UPI | UPJ | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|

STASH

| Sec | Item | Diagnostic Name | Time | Domain | Usage | Incl | Pckg | Avail | I+P+A | User/System |
|-------|-------|--------------------------------------|---------|--------|--------|--------|--------|-------|-------|-------------|
| 34 | 512 | NEW DIAGNOSTIC | T3HMN | DALLRH | UPB | Y | + | Y | | USER |
| 0 | 4 | THETA AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +G | Y | | SYSTEM |
| 0 | 10 | SPECIFIC HUMIDITY AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 12 | QCF AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDAYRAD | DIAG | UPF | Y | +F | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDMPMN | DIAG | UPMEAN | Y | +H | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | T3HMN | DIAG | UPD | Y | +K | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYM | DIAG | UPA | Y | +N | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYMON | DIAG | UPJ | Y | P | Y | X | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDMPMN | DIAG | UPMEAN | Y | +A | Y | | SYSTEM |
| Inert | Inert | Active | Active | Active | Active | Active | Active | Inert | Inert | Inert |

Other useful options

STASH Panel ATMOS. Experiment xhkp, Job a

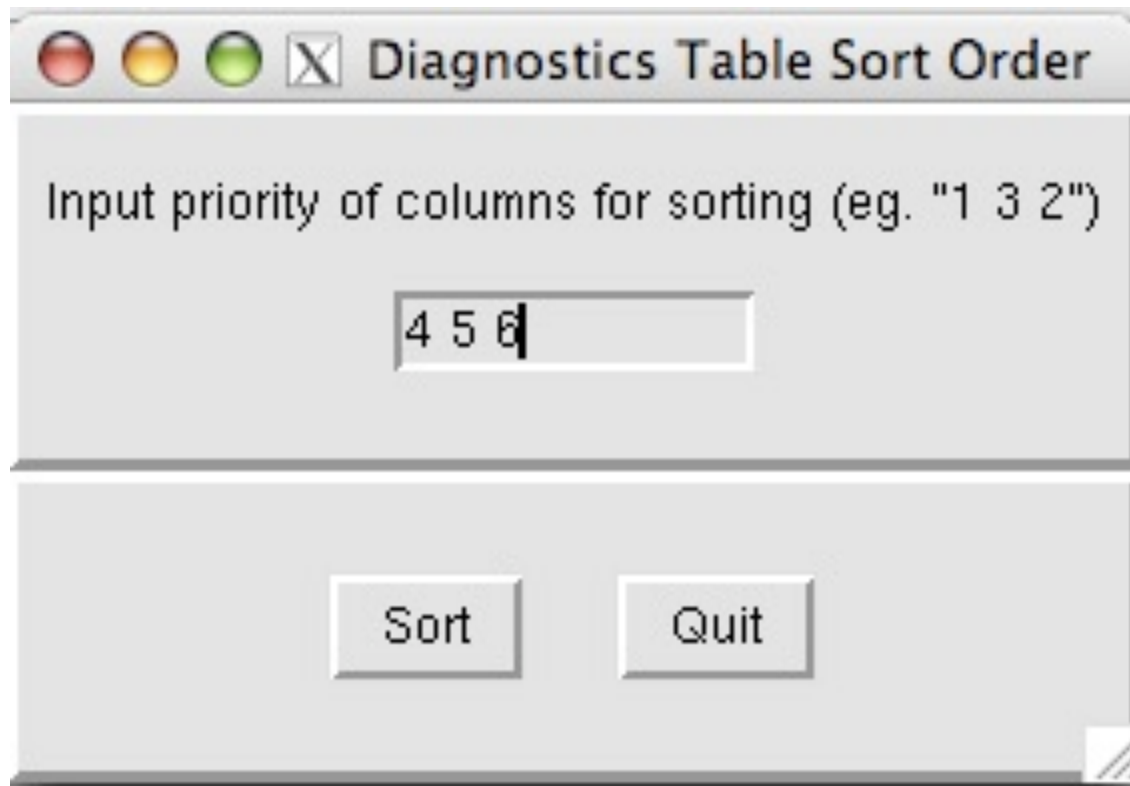
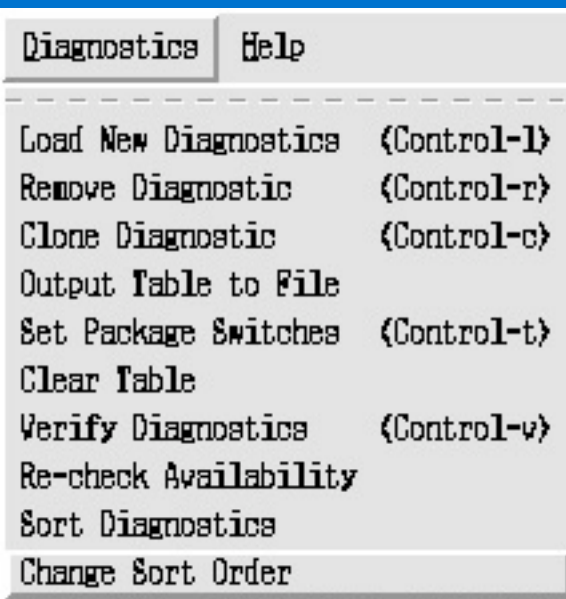
STASH Profiles Diagnostics Help

Time Prof

| | | | | | | | | | |
|----------|----------------------------------|----|----------|--------|---------|----------|---------|--------|----------|
| TDMPMN | Load New Diagnostics (Control-l) |) | T6HDAYM | TDAYM | TDAYMON | TDAYMAX | TDAYMIN | T6HMON | T24HDMRV |
| TMONMN | Remove Diagnostic (Control-r) | CA | | | | | | | |
| | Clone Diagnostic (Control-c) | | | | | | | | |
| | Output Table to File | | | | | | | | |
| | Set Package Switches (Control-t) | | | | | | | | |
| Domain P | Clear Table | | DA7ISCCP | DPV2 | DP500 | DALLTHCL | DIAGAOT | DPFPTS | DSOIL |
| DIAG | Verify Diagnostics (Control-v) | | DP4 | DPBLRH | DP31CCM | DP31CCMZ | DP10100 | DP5 | |
| DTILE | Re-check Availability | | | | | | | | |
| | Sort Diagnostics | | | | | | | | |
| Usage Pr | Change Sort Order | | UPD | UPB | UPE | UPH | UPI | UPJ | |
| UPMEAN | | | | | | | | | |

| STASH | | | | | | | | | | |
|-------|-------|--------------------------------------|---------|--------|--------|--------|--------|-------|-------|-------------|
| Sec | Item | Diagnostic Name | Time | Domain | Usage | Incl | Pckg | Avail | I+P+A | User/System |
| 34 | 512 | NEW DIAGNOSTIC | TALLTS | DALLTH | UPC | Y | + | Y | | USER |
| 0 | 4 | THETA AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +G | Y | | SYSTEM |
| 0 | 10 | SPECIFIC HUMIDITY AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 12 | QCF AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDAYRAD | DIAG | UPF | Y | +F | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDMPMN | DIAG | UPMEAN | Y | +H | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | T3HMN | DIAG | UPD | Y | +K | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYM | DIAG | UPA | Y | +N | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYMON | DIAG | UPJ | Y | P | Y | X | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDMPMN | DIAG | UPMEAN | Y | +A | Y | | SYSTEM |
| Inert | Inert | Active | Active | Active | Active | Active | Active | Inert | Inert | Inert |

Other useful options



Other useful options

Diagnostics Table Sort Order

Input priority of columns for sorting (eg. "1 3 2")

4 5 6

Sort Quit

STASH Panel ATMOS. Experiment xhkp, Job a

STASH Profiles Diagnostics Help

Time Profiles available

| | | | | | | | | |
|--------|--------|--------|--------|----------|---------|-------|---------|-------|
| TDMPMN | T6HDM | T24H0Z | T6H | TDAYRAD | T6HDAYM | TDAYM | TDAYMON | TDAYM |
| TMONMN | T90DAY | T3HMN | TALLTS | TDPMUKCA | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Domain Profiles available

| | | | | | | | | | | | |
|-------|--------|----------|----------|---------|----------|--------|---------|----------|---------|-------|-------|
| DIAG | DALLTH | DPBLTH | DP17 | DALLRH | DA7ISCCP | DPV2 | DP500 | DALLTHCL | DIAGAOT | DPFTS | DSOIL |
| DTILE | DP17ZM | DP850200 | DP855020 | DICECAT | DP4 | DPBLRH | DP31CCM | DP31CCMZ | DP10100 | DP5 | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Usage Profiles available

| | | | | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| UPMEAN | UPA | UPC | UPF | UPG | UPD | UPB | UPE | UPH | UPI | UPJ | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|

| STASH | | | | | | | | | | |
|-------|-------|--------------------------------------|----------|--------|--------|--------|--------|-------|-------|-------------|
| Sec | Item | Diagnostic Name | Time | Domain | Usage | Incl | Pckg | Avail | I+P+A | User/System |
| 26 | 1 | RIVER WATER STORAGE M2 | T24H0Z | DIAG | UPA | Y | +D | Y | | SYSTEM |
| 15 | 215 | THETA ON PV=+/-2 SURFACE | T24H0Z | DIAG | UPC | Y | +E | Y | | SYSTEM |
| 16 | 222 | PRESSURE AT MEAN SEA LEVEL | T24H0Z | DIAG | UPC | Y | +E | Y | | SYSTEM |
| 30 | 201 | U COMPNT OF WIND ON P LEV/UV GRID | T24H0Z | DP500 | UPC | Y | +E | Y | | SYSTEM |
| 30 | 202 | V COMPNT OF WIND ON P LEV/UV GRID | T24H0Z | DP500 | UPC | Y | +E | Y | | SYSTEM |
| 30 | 207 | GEOPOTENTIAL HEIGHT ON P LEV/UV GRID | T24H0Z | DP500 | UPC | Y | +E | Y | | SYSTEM |
| 8 | 245 | INLANDBASINFLOW ATM GRID KG/M2/S | T24HDMRV | DIAG | UPMEAN | Y | +H | Y | | SYSTEM |
| 26 | 1 | RIVER WATER STORAGE M2 | T24HDMRV | DIAG | UPMEAN | N | +H | Y | X | SYSTEM |
| 26 | 2 | GRIDBOX OUTFLOW KG/S | T24HDMRV | DIAG | UPMEAN | N | +H | Y | X | SYSTEM |
| 26 | 3 | GRIDBOX INFLOW KG/S | T24HDMRV | DIAG | UPMEAN | N | +H | Y | X | SYSTEM |
| Inert | Inert | Active | Active | Active | Active | Active | Active | Inert | Inert | Inert |

Other useful options

STASH Panel ATMOS. Experiment xhkp, Job a

STASH Profiles **Diagnostics** Help

Time Prof

- TDMPMN Load New Diagnostics (Control-l)
- TMONMN Remove Diagnostic (Control-r)
- Clone Diagnostic (Control-c)
- Output Table to File
- Set Package Switches (Control-t)
- Clear Table
- Verify Diagnostics (Control-w)
- Re-check Availability
- Sort Diagnostics

Domain F

- DIAG
- DTILE

Usage Pr

- UPMEAN

| | | | | | | |
|----------|--------|---------|----------|---------|--------|----------|
| T6HDAYM | TDAYM | TDAYMON | TDAYMAX | TDAYMIN | T6HMON | T24HDMRV |
| DA7ISCCP | DPV2 | DP500 | DALLTHCL | DIAGAOT | DPFTS | DSOIL |
| DP4 | DPBLRH | DP31CCM | DP31CCMZ | DP10100 | DP5 | |
| UPD | UPB | UPE | UPH | UPI | UPJ | |

| STASH | | | | | | | | | | |
|-------|-------|--------------------------------------|----------|--------|--------|--------|--------|-------|-------|-------------|
| Sec | Item | Diagnostic Name | Time | Domain | Usage | Incl | Pckg | Avail | I+P+A | User/System |
| 26 | 1 | RIVER WATER STORAGE M2 | T24H0Z | DIAG | UPA | Y | +D | Y | | SYSTEM |
| 15 | 215 | THETA ON PV=+/-2 SURFACE | T24H0Z | DIAG | UPC | Y | +E | Y | | SYSTEM |
| 16 | 222 | PRESSURE AT MEAN SEA LEVEL | T24H0Z | DIAG | UPC | Y | +E | Y | | SYSTEM |
| 30 | 201 | U COMPNT OF WIND ON P LEV/UV GRID | T24H0Z | DP500 | UPC | Y | +E | Y | | SYSTEM |
| 30 | 202 | V COMPNT OF WIND ON P LEV/UV GRID | T24H0Z | DP500 | UPC | Y | +E | Y | | SYSTEM |
| 30 | 207 | GEOPOTENTIAL HEIGHT ON P LEV/UV GRID | T24H0Z | DP500 | UPC | Y | +E | Y | | SYSTEM |
| 8 | 245 | INLANDBASINFLOW ATM GRID KG/M2/S | T24HDMRV | DIAG | UPMEAN | Y | +H | Y | | SYSTEM |
| 26 | 1 | RIVER WATER STORAGE M2 | T24HDMRV | DIAG | UPMEAN | N | +H | Y | X | SYSTEM |
| 26 | 2 | GRIDBOX OUTFLOW KG/S | T24HDMRV | DIAG | UPMEAN | N | +H | Y | X | SYSTEM |
| 26 | 3 | GRIDBOX INFLOW KG/S | T24HDMRV | DIAG | UPMEAN | N | +H | Y | X | SYSTEM |
| Inert | Inert | Active | Active | Active | Active | Active | Active | Inert | Inert | Inert |

Other useful options

STASH Panel ATMOS. Experiment xhkp, Job a

STASH Profiles Diagnostics Help

Time Profiles available

| | | | | | | | | | | | |
|--------|--------|--------|--------|----------|---------|-------|---------|---------|---------|--------|----------|
| TDMPMN | T6HDM | T24H0Z | T6H | TDAYRAD | T6HDAYM | TDAYM | TDAYMON | TDAYMAX | TDAYMIN | T6HMON | T24HDMRV |
| TMONMN | T90DAY | T3HMN | TALLTS | TDPMUKCA | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Domain Profiles available

| | | | | | | | | | | | |
|-------|--------|----------|----------|---------|----------|--------|---------|----------|---------|-------|-------|
| DIAG | DALLTH | DPBLTH | DP17 | DALLRH | DA7ISCCP | DPV2 | DP500 | DALLTHCL | DIAGAOT | DPFTS | DSOIL |
| DTILE | DP17ZM | DP850200 | DP855020 | DICECAT | DP4 | DPBLRH | DP31CCM | DP31CCMZ | DP10100 | DP5 | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Usage Profiles available

| | | | | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| UPMEAN | UPA | UPC | UPF | UPG | UPD | UPB | UPE | UPH | UPI | UPJ | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|

STASH

| Sec | Item | Diagnostic Name | Time | Domain | Usage | Incl | Pckg | Avail | I+P+A | User/System |
|-------|-------|--------------------------------------|---------|--------|--------|--------|--------|-------|-------|-------------|
| 0 | 4 | THETA AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +G | Y | | SYSTEM |
| 0 | 10 | SPECIFIC HUMIDITY AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 12 | QCF AFTER TIMESTEP | TDMPMN | DALLTH | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDAYRAD | DIAG | UPF | Y | +F | Y | | SYSTEM |
| 0 | 23 | SNOW AMOUNT OVER LAND AFT TSTP KG/M2 | TDMPMN | DIAG | UPMEAN | Y | +H | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | T3HMN | DIAG | UPD | Y | +K | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYM | DIAG | UPA | Y | +N | Y | | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDAYMON | DIAG | UPJ | Y | P | Y | X | SYSTEM |
| 0 | 24 | SURFACE TEMPERATURE AFTER TIMESTEP | TDMPMN | DIAG | UPMEAN | Y | +A | Y | | SYSTEM |
| 0 | 25 | BOUNDARY LAYER DEPTH AFTER TIMESTEP | TDMPMN | DIAG | UPMEAN | Y | +A | Y | | SYSTEM |
| Inert | Inert | Active | Active | Active | Active | Active | Active | Inert | Inert | Inert |

Other useful options

- You can also:
 - Output table to file (very useful for comparing STASH between jobs)
 - Set package switches
 - A set of diagnostics can be grouped together and turned on or off from the package table

| Diagnostics | Help |
|-----------------------|-------------|
| Load New Diagnostics | <Control-l> |
| Remove Diagnostic | <Control-r> |
| Clone Diagnostic | <Control-c> |
| Output Table to File | |
| Set Package Switches | <Control-t> |
| Clear Table | |
| Verify Diagnostics | <Control-v> |
| Re-check Availability | |
| Sort Diagnostics | |
| Change Sort Order | |

Package Switches

STASH Panel ATMOS. Experiment xhkp, Job a

STASH Profiles Diagnostics Help

Time Profile

- Load New Diagnostics (Control-l)
- Remove Diagnostic (Control-r)
- Clone Diagnostic (Control-c)
- Output Table to File
- Set Package Switches (Control-t)
- Clear Table
- Verify Diagnostics (Control-v)
- Re-check Availability
- Sort Diagnostics
- Change Sort Order

| | | | | | | |
|----------|--------|---------|----------|---------|--------|----------|
| T6HDAYM | TDAYM | TDAYMON | TDAYMAX | TDAYMIN | T6HMON | T24HDMRV |
| DA7ISCCP | DPV2 | DP500 | DALLTHCL | DIAGAOT | DPFTS | DSOIL |
| DP4 | DPBLRH | DP31CCM | DP31CCMZ | DP10100 | DP5 | |
| UPD | UPB | UPE | UPH | UPI | UPJ | |

| STASH | | | | | | | | | | |
|-------|-------|-------------------------------------|----------|--------|--------|--------|--------|-------|-------|-------------|
| Sec | Item | Diagnostic Name | Time | Domain | Usage | Incl | Pckg | Avail | I+P+A | User/System |
| 34 | 301 | Ox PROD: HO2+NO | TDPMUKCA | DALLTH | UPMEAN | Y | +U | Y | | USER |
| 34 | 302 | Ox PROD: MeOO+NO | TDPMUKCA | DALLTH | UPMEAN | Y | +U | Y | | USER |
| 34 | 303 | Ox PROD: NO+RO2 | TDPMUKCA | DALLTH | UPMEAN | Y | +U | Y | | USER |
| 34 | 304 | Ox PROD: OH+INORGANIC ACID | TDPMUKCA | DALLTH | UPMEAN | Y | +U | Y | | USER |
| 34 | 305 | Ox PROD: OH+ORGANIC NITRATE | TDPMUKCA | DALLTH | UPMEAN | Y | +U | Y | | USER |
| 34 | 306 | Ox PROD: ORGANIC NITRATE PHOTOLYSIS | TDPMUKCA | DALLTH | UPMEAN | Y | +U | Y | | USER |
| 34 | 307 | Ox PROD: OH + PAN-TYPE REACTIONS | TDPMUKCA | DALLTH | UPMEAN | Y | +U | Y | | USER |
| 34 | 311 | Ox LOSS: O(1D)+H2O | TDPMUKCA | DALLTH | UPMEAN | Y | +U | Y | | USER |
| 34 | 312 | Ox LOSS: MINOR LOSS REACTIONS | TDPMUKCA | DALLTH | UPMEAN | Y | +U | Y | | USER |
| 34 | 313 | Ox LOSS: HO2+O3 | TDPMUKCA | DALLTH | UPMEAN | Y | +U | Y | | USER |
| Inert | Inert | Active | Active | Active | Active | Active | Active | Inert | Inert | Inert |

Diagnostics | **Help**
 Load New Diagnostics {Control-l}
 Remove Diagnostic {Control-r}
 Clone Diagnostic {Control-c}
 Output Table to File
Set Package Switches {Control-t}
 Clear Table
 Verify Diagnostics {Control-v}
 Re-check Availability
 Sort Diagnostics
 Change Sort Order

Package Switches

STASH Tags for Diagnostics : Job xhkp.a: "UKCA-TropIsop HECToR Phase2b N48L60 QESM-A"

Package Include settings take effect on closure of this panel

| Diagnostic Packages | | |
|---------------------|-------------|-------------------------------|
| Package | Include Y/N | Description of package |
| Q | N | NAO |
| R | Y | Extremes |
| S | Y | Seasonal-decadal prediction |
| T | N | Sudden stratospheric warmings |
| U | Y | UKCA Ox/CO Budget CheT/CheST |
| V | Y | UKCA CheT/CheST Diagnostics |
| W | N | UKCA CheS/CheST Diagnostics |
| X | Y | UKCA CheM Diagnostics |
| Y | | |
| Z | | |

Inert Edit Edit

Help Abandon changes Close

Window Name : atmos_STASH_Tags. Job xhkp.a.

STASH Tags for Diagnostics : Job xhkp.a: "UKCA-TropIsop HECToR Phase2b N48L60 QESM-A"

Package Include settings take effect on closure of this panel

| Diagnostic Packages | | |
|---------------------|--------------------------------|-------------------------------|
| Package | Include Y/N | Description of package |
| Q | N | NAO |
| R | Y | Extremes |
| S | Y | Seasonal-decadal prediction |
| T | N | Sudden stratospheric warmings |
| U | <input type="text" value="N"/> | UKCA Ox/CO Budget CheT/CheST |
| V | Y | UKCA CheT/CheST Diagnostics |
| W | N | UKCA CheS/CheST Diagnostics |
| X | Y | UKCA CheM Diagnostics |
| Y | | |
| Z | | |

Inert Edit Edit

Help Abandon changes Close

Window Name : atmos_STASH_Tags. Job xhkp.a.

Note: May need to close STASH window and re-open!

Package Switches

STASH Panel ATMOS. Experiment xhkp, Job a

STASH Profiles Diagnostics Help

Time Profiles available

| | | | | | | | | | | | |
|--------|--------|--------|--------|----------|---------|-------|---------|---------|---------|--------|----------|
| TDMPMN | T6HDM | T24H0Z | T6H | TDAYRAD | T6HDAYM | TDAYM | TDAYMON | TDAYMAX | TDAYMIN | T6HMON | T24HDMRV |
| TMONMN | T90DAY | T3HMN | TALLTS | TDPMUKCA | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Domain Profiles available

| | | | | | | | | | | | |
|-------|--------|----------|----------|---------|----------|--------|---------|----------|---------|-------|-------|
| DIAG | DALLTH | DPBLTH | DP17 | DALLRH | DA7ISCCP | DPV2 | DP500 | DALLTHCL | DIAGAOT | DPFTS | DSOIL |
| DTILE | DP17ZM | DP850200 | DP855020 | DICECAT | DP4 | DPBLRH | DP31CCM | DP31CCMZ | DP10100 | DP5 | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Usage Profiles available

| | | | | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| UPMEAN | UPA | UPC | UPF | UPG | UPD | UPB | UPE | UPH | UPI | UPJ | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|

| STASH | | | | | | | | | | |
|-------|-------|-------------------------------------|----------|--------|--------|--------|--------|-------|-------|-------------|
| Sec | Item | Diagnostic Name | Time | Domain | Usage | Incl | Pckg | Avail | I+P+A | User/System |
| 34 | 301 | Ox PROD: HO2+NO | TDPMUKCA | DALLTH | UPMEAN | Y | U | Y | X | USER |
| 34 | 302 | Ox PROD: MeOO+NO | TDPMUKCA | DALLTH | UPMEAN | Y | U | Y | X | USER |
| 34 | 303 | Ox PROD: NO+RO2 | TDPMUKCA | DALLTH | UPMEAN | Y | U | Y | X | USER |
| 34 | 304 | Ox PROD: OH+INORGANIC ACID | TDPMUKCA | DALLTH | UPMEAN | Y | U | Y | X | USER |
| 34 | 305 | Ox PROD: OH+ORGANIC NITRATE | TDPMUKCA | DALLTH | UPMEAN | Y | U | Y | X | USER |
| 34 | 306 | Ox PROD: ORGANIC NITRATE PHOTOLYSIS | TDPMUKCA | DALLTH | UPMEAN | Y | U | Y | X | USER |
| 34 | 307 | Ox PROD: OH + PAN-TYPE REACTIONS | TDPMUKCA | DALLTH | UPMEAN | Y | U | Y | X | USER |
| 34 | 311 | Ox LOSS: O(1D)+H2O | TDPMUKCA | DALLTH | UPMEAN | Y | U | Y | X | USER |
| 34 | 312 | Ox LOSS: MINOR LOSS REACTIONS | TDPMUKCA | DALLTH | UPMEAN | Y | U | Y | X | USER |
| 34 | 313 | Ox LOSS: HO2+O3 | TDPMUKCA | DALLTH | UPMEAN | Y | U | Y | X | USER |
| Inert | Inert | Active | Active | Active | Active | Active | Active | Inert | Inert | Inert |