
SETTE tools Documentation

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Shell scripts

1.1 fcm_job.sh

1.1.1 Simple job for NEMO tests

SYNOPSIS

```
$ ./fcm_job.sh INPUT_FILE_CONFIG_NAME NUMBER_PROC TEST_NAME
```

DESCRIPTION

Simple job for SET TESTS for NEMO (SETTE)

get input files (if needed) : tar file

Block quote ends without a blank line; unexpected unindent.

(note this job needs to have an input_CONFIG.cfg in which can be found input tar file name)

runs job in interactive or batch mode : all jobs using 1 process are run interactive, and all MPP jobs are

run in batch (MPI_INTERACT="no") or interactive (MPI_INTERACT="yes") see sette.sh and BATCH_TEMPLATE directory

and call post_test_tidyup function (that moves in NEMO_VALIDATION_DIR solver.stat & ocean.output)

EXAMPLES

```
$ ./fcm_job.sh INPUT_FILE_CONFIG_NAME NUMBER_PROC TEST_NAME
```

run a job of config GYRE with 1 processor SHORT test (5 days)

```
$ ./fcm_job.sh input_GYRE.cfg 1 SHORT
```

run a job of config ORCA2_LIM_PISCES with 8 processors test RESTARTABILITY

```
$ ./fcm_job.sh input_ORCA2_LIM_PISCES.cfg 8 LONG
```

TODO

option debug

EVOLUTIONS

\$Id\$

- creation

1.2 all_functions.sh

1.2.1 Set of functions used by sette.sh (NEMO tests)

SYNOPSIS

```
$ ./set_namelist INPUT_NAMELIST VARIABLE VALUE
$ post_test_tidyup
```

DESCRIPTION

function superegrep input variable value

function set_namelist input namelist_name variable value output namelist

function post_test_tidyup creates nemo_validation tree, and save output & debug files this function creates tree of validation in NEMO_VALIDATION_DIR as follows :

NEMO_VALIDATION_DIR/WCONFIG_NAME/WCOMPILER_NAME/REVISION_NUMBER(or DATE)/TEST_NAME

NEMO_VALIDATION_DIR : is choosen in param.cfg

WCONFIG_NAME : set by makenemo at the moment of compilation

WCOMPILER_NAME : set by makenemo at the moment of compilation

REVISION_NUMBER(or DATE) : revision number by svn info, if problems with svn date is taken

TEST_NAME : set in sette.sh for each configuration to be tested (directory TEST_NAME is created under \${NEW_CONF} directory)

EXAMPLES

```
$ ./set_namelist namelist nn_itend 75
$ ./set_namelist namelist_ice_lim2 cn_icerst_in \"00101231_restart_ice\"
$ post_test_tidyup
```

TODO

option debug

EVOLUTIONS

\$Id: \$

- creation

1.3 prepare_exe_dir.sh

1.3.1 Set of functions used by sette.sh (NEMO tests)

SYNOPSIS

```
$ ./prepare_exe_dir.sh
```

DESCRIPTION

prepare_exe_dir.sh creates execution directory takes name of TEST_NAME defined in every test in sette.sh

it is necessary to define in sette.sh TEST_NAME (example : export TEST_NAME="LONG") to create execution directory in where run test.

NOTE : each test has to run in its own directory (of execution), if not existing files are re-written (for example namelist)

EXAMPLES

```
$ ./prepare_exe_dir.sh
```

TODO

option debug

EVOLUTIONS

\$Id: \$

- creation

1.4 sette.sh

1.4.1 Set of tests for NEMO

SYNOPSIS

```
$ ./sette.sh
```

DESCRIPTION

Variables to be checked by user:

COMPILER : name of compiler as defined in NEMOGCM/ARCH directory

BATCH_COMMAND : name of the command for batch submission

MPI_INTERACT :

for MPP tests, “no” for batch execution, “yes” for interactive execution

NOTE: for run with 1 process tests are run always in MPI_INTERACT=“yes”

Principal script is sette.sh, that calls

makenemo

creates the executable in `${CONFIG_NAME}/BLD/bin/nemo.exe` (and its link opa in `${CONFIG_NAME}/EXP00`)

param.cfg : sets and loads following directories:

FORCING_DIR : is the directory for forcing files (tarfile)

INPUT_DIR : is the directory for input files storing

TMPDIR : is the temporary directory (if needed)

NEMO_VALIDATION_DIR : is the validation directory

(NOTE: this file is the same for all configurations to be tested with sette)

all_functions.sh : loads functions used by sette (note: new functions can be added here)

set_namelist : function declared in all_functions that set namelist parameters for tests

post_test_tidyup : creates validation storage directory and copy needed output files (solver.stat and ocean.output) in it after execution of test.

Tree of VALIDATION is:

`NEMO_VALIDATION_DIR/WCONFIG_NAME/WCOMPILER_NAME/TEST_NAME/REVISION_NUMBER(or DATE)`

prepare_exe_dir.sh : defines and creates directory where the test is executed

execution directory takes name of TEST_NAME defined in every test in sette.sh

(each test is executed in its own directory)

fcm_job.sh

runs job in interactive or batch mode : all jobs using 1 process are run interactive, and all MPP jobs are

run in batch (MPI_INTERACT=“no”) or interactive (MPI_INTERACT=“yes”) see sette.sh and BATCH_TEMPLATE directory

(note this job needs to have an input_CONFIG.cfg in which can be found input tar file)

NOTE: if job is not launched for some problems you have executable ready in `${EXE_DIR}` directory

NOTE: the changed namelists are leaved in `${EXE_DIR}` directory whereas original namelist remains in `${NEW_CONF}/EXP00`

in `${SETTE_DIR}` is created output.sette with the echo of executed commands

if sette.sh is stopped in output.sette there is written the last command executed by sette.sh

if you run: `./sette.sh 2>&1 | tee out.sette`

in `${SETTE_DIR}` `out.sette` is redirected standard error & standard output

EXAMPLES

```
$ ./sette.sh
```

TODO

option debug

EVOLUTIONS

\$Id: sette.sh 2756 2011-04-29 15:16:07Z flavoni \$

- creation

1.5 sette_beginner.sh

1.5.1 Set of tests for NEMO for beginners

SYNOPSIS

```
$ ./sette_beginner.sh
```

DESCRIPTION

First simple example of how to use SETTE: create `GYRE_SHORT` configuration, compile it with 1 proc, and test it for a `SHORT` test: 5days

Indices and tables

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