Installation Guide for version 0003xx

> **Please note**
>
> From version 000400 onwards the installation uses 'cmake'. The new installation instructions can be found in the Installation Guide.

The Interpolation library (EMOSLIB) has been tested for different machine architectures that exist in ECMWF:

- Hppa - HP Fortran and C compilers
- Linux - The Portland Group compilers pgf90, pgcc and gfortran, gcc
- Rs6000 - XL Fortran & xlc Compiler

It is possible to use other options for the compilation of source code versions than those which are offered. For example: modifying the configuration files; changing the level of optimisation; etc. The make utility can be used repeatedly. It will only cause the re-compilation of routines which have been modified since the previous make.

The library is static and its name follows the normal UNIX convention (it starts with lib and ends in .a), so the library can be specified in the compile/link command using the standard *ld* convention, for example:

f77 -o program program.f ***-lemos***

Package contains examples for the GRIB, BUFR, CREX decoding and Interpolation.

The environment variable GRIBEX_DEBUG can be set to ON or OFF to switch the debug output from GRIBEX on or off.

The environment variable GRIBEX_CHECK can be set to ON or OFF to switch the checking of headers in GRIBEX on or off.

The environment variable JDCNDBG can be set to 1 in order to get comprehensive output from INTERPOLATION routines.

The following variable can be set to "true" in order to create CREX message with check digit.

USE_E=TRUE

PLEASE NOTE: If *build_library* script is used to build the library and the *install* script to install the library and tables, **it is not necessary to set these environment variables for the tables**!

The location of GRIB tables, BUFR tables, CREX tables, Local Definition of GRIB templates and land-sea mask could be specified by putting the specification of the environment variables in your start-up files (.profile, ...) to ensure you have access to them upon future logins. Thus:

Bourne or Korn shell

```
ECMWF_LOCAL_TABLE_PATH ="chosen directory"/gribtables/
export ECMWF_LOCAL_TABLE_PATH

BUFR_TABLES ="chosen directory"/bufrtables/
export BUFR_TABLES

CREX_TABLES ="chosen directory"/crextables/
export CREX_TABLES

MARS_LSM_PATH ="chosen directory"/land_sea_mask/
export MARS_LSM_PATH

LOCAL_DEFINITION_TEMPLATES ="chosen directory"/gribtemplates/
export LOCAL_DEFINITION_TEMPLATES
```

C-shell

```
setenv ECMWF_LOCAL_TABLE_PATH "chosen directory"/gribtables/

setenv BUFR_TABLES "chosen directory"/gribtables/

setenv CREX_TABLES "chosen directory"/gribtables/

setenv MARS_LSM_PATH "chosen directory"/gribtables/

setenv LOCAL_DEFINITION_TEMPLATES  "chosen directory"/gribtemplates/
```

Please note:

All software items above are available in the format "* .tar.gz" ie gzipped and tarred source for use with Unix or Linux based systems.