Steps:

1. Make a SVN checkout of the desired XBeach version/tag in a location reachable by the Linux cluster (P-drive or /n/MyDocuments/unix-h6). Note that the svn version available on the cluster may be outdated, compared to the version needed to checkout the XBeach repository. As a workaround, make a checkout on the windows side instead of Linux.
2. Write a shell script to install the XBeach version. Example script is present in /trunk/config/ and is given below. The script should compile XBeach, install it (in /opt/xbeach/) and create a module file for the new version to be put in /opt/xbeach/modules/
3. Add support for the new XBeach version to the Matlab Toolbox (OpenEarthTools) in the script xb\_write\_sh\_scripts\_xbversions.m

Example script below:

#!/bin/bash

. /etc/profile

# VERSION SPECIFIC PARAMETER!

export XBEACH\_PROJECT\_ID=xbx

export SVNNAME=xb\_xbx

export MODULEPATH=$MODULEPATH:/opt/modules

export SVNPATH=$(pwd)

cd $SVNNAME

# start with anaconda since it overwrites gcc !!!

module load anaconda/lnx64\_conda

module load gcc/4.9.2

module load hdf5/1.8.14\_gcc\_4.9.2

module load netcdf/v4.3.2\_v4.4.0\_gcc\_4.9.2

module load openmpi/1.8.3\_gcc\_4.9.2

make distclean

./autogen.sh

mkdir -p "/opt/xbeach/"$XBEACH\_PROJECT\_ID"\_gcc\_4.9.2\_1.8.3\_HEAD"

FCFLAGS="-mtune=corei7-avx -funroll-loops --param max-unroll-times=4 -ffree-line-length-none -O3 -ffast-math" ./configure --with-netcdf --with-mpi --prefix="/opt/xbeach/"$XBEACH\_PROJECT\_ID"\_gcc\_4.9.2\_1.8.3\_HEAD"

make

make install

cd $SVNPATH"/install"

tar -cf $SVNPATH"/artifacts.tar" bin lib

cd $SVNPATH"/"$SVNNAME"/config/"

/usr/share/Modules/bin/createmodule.py -p "/opt/xbeach/"$XBEACH\_PROJECT\_ID"\_gcc\_4.9.2\_1.8.3\_HEAD" ./teamcity-env.sh > "/opt/xbeach/modules/xbeach-"$XBEACH\_PROJECT\_ID"\_gcc\_4.9.2\_1.8.3\_HEAD"

chmod 777 "/opt/xbeach/modules/xbeach-"$XBEACH\_PROJECT\_ID"\_gcc\_4.9.2\_1.8.3\_HEAD"