TSMC N28HPC Memory Compiler Installation Guide

eSRAM

DTP/MDP

Files required for N28HPC Memory Compiler Installation

1. Compiler tool package:

- MC2_2012.02.00.c.tar.gz (tsmc_n28hpcmc_20120200) => Released on tsmc on-line

2. Memory Compilers are in-pair with MC2_2012.02.00.c

- tsn28hpc1prf_20120200
- tsn28hpc2prf_20120200
- tsn28hpcd127spsram_20120200
- tsn28hpcdpsram_20120200
- tsn28hpcuhddpsram_20120200
- tsn28hpcrom_20120200
- Download from TSMC-Online

3. License key for corresponding license features

Information for License Key Generation

- **TSMC memory compiler support the following host**
  - 32-bit Linux [Processor : Intel/AMD]
    - Recommended RedHat Enterprise Linux **4/5**
  - 64-bit Linux [Processor : Intel/AMD 64]
    - Recommended RedHat Enterprise Linux **5**
  - 64-bit SunOS 5.9 [Processor : SPARC64]
  - 64-bit SunOS 5.10 [Processor : SPARC64]
  - 64-bit SunOS 5.10 [Processor : Intel/AMD 64]

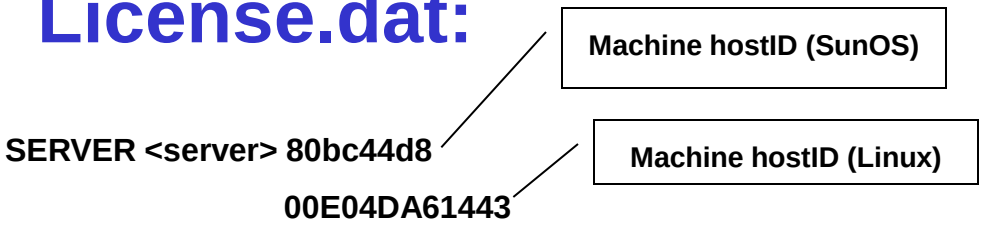
- **Provide machine hostID for license key generation**
  - **Example : 83cdac13 (SunOS) / 00E04DA61443 (Linux)**

Types of License Key

- **Evaluation license (Frond-End kit and LEF only)**
  - Require license feature MC2-CLV, MC2-Main and the corresponding memory library features
  - Six months evaluation period
  - A message “License check-out failed for feature MC2-CPV” is expected for evaluation license key
- **Formal license (include Frond-End & Back-End kits)**
  - Require license feature MC2-CLV, MC2-CPV, MC2-Main and corresponding library features
    - MC2-CPV includes GDSII and SPICE netlist generation feature

License Key Example - evaluation

License.dat:




```
SERVER <server> 80bc44d8
                00E04DA61443

DAEMON interrad
INCREMENT MC2-CLV interrad 2010.06 01-jan-2011 1 FF6FAFB4A825 \
                SIGN="09A1 5905 554A ABFD CF05 BBDA B360 7E53 2C15 D8B0 7631 \
                D0F3 65AB CEE0 2401 17AE 6722 017E CD3B 80A7 B679 C3E6 A573 \
                0895 03E3 EFCC 8CCD C134 341B BD5C" SIGN2="0E4E ED30 D07B 1886 \
                532A DF94 16F1 7A61 5441 ACDD 33A2 5837 0089 851A B240 179C \
                948B C0FA 9B47 8A13 4A7F 572A C754 9C58 D721 AC8A 9A3B 6551 \
                4743 56DD"
INCREMENT MC2-Main interrad 2010.06 01-jan-2011 1 0FA34E138A86 \
                SIGN="127F 5E94 1791 F10A 31E4 FDB4 B6D0 F8C5 1DFD 2F85 36BF \
                60DC 2A0E A870 5E0A 1BB8 2600 1702 7964 420E FAD3 B9BE 9000 \
                E713 4F54 E778 1942 7080 C049 0926" SIGN2="12ED A546 0704 8177 \
                B4B7 703B 374F C3CF A351 9A72 8C3C C144 882B F063 E5C8 0A46 \
                ED34 21B2 D8F6 BA88 51EF 3733 C46F E667 756A 0EE2 C27D 0EE0 \
                4500 19A8"
INCREMENT MC2-tsn28hpc1prf interrad 2010.06 01-jan-2011 1 \
                447B53FD7554 SIGN="0020 55ED 4894 33D2 A8EB FEA8 34D3 19A3 \
                F356 4CDB 953A 7A5A 7155 6287 461B 186A A4A4 6F6C 29EF BDB1 \
                F0A8 8CF1 EF0D F952 F6C3 0F59 BA47 C527 1627 5F62" SIGN2="0515 \
                B6BD DCBF 50EC 9ABB 84DD D7E8 C4DB 55AD 6B52 36A5 4EE1 0039 \
                2611 2411 1B1F F840 FDC2 93AA 5286 4EAD C64B 1638 E194 E37A \
                AAE2 D518 385D DDD8 5AE7"
```

Installation procedure:

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1. Unpack and install the tools

install.sh -install

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** MC2 Packaging and Installation utility **

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Installing MC2...
Testing environment compatible for MC2...
[WARN] Linux 2.4.18-17.7.xsmp is not supported by MC2. MC2 has been
[WARN] tested on SunOS 5.8 and Linux 2.4.7-10. Other platforms
[WARN] have not been tested and are not supported.
[WARN] You may be installing from an unsupported OS version.
Continue with installation? (y/n)
y
Continuing with the installation
Enter the path of the MC2 tar zip file : $tarfile_path/MC2_2012.02.00.c.tar.gz
Enter the path where you would like to install MC2 :$install_path
/bin/cp: `$tarfile_path/MC2_2012.02.00.c.tar.gz' and `$install_path/MC2_2012.02.00.c.tar.gz' are the same file
Extracting MC2 files from MC2_2012.02.00.c.tar.gz
>>

Installation procedure (cont'd):

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2. Start up the license deamo and setup the compiler environment

- 2a. License setup preparation:

Prepare a file to be sourced (i.e. cshrc.mc2) and include the following commands:

```
setenv MC2_INSTALL_DIR $install_path/MC2_2012.02.00.c
set path = ($MC2_INSTALL_DIR/bin $path)
setenv LM_LICENSE_FILE $license_path/license.dat
```

```
>> source $sourcefile_path/cshrc.mc2
```

- 2b. Invoke license file:

```
>> cd $MC2_INTALL_DIR/aux/flexlm/<platform>/
>> lmgrd –c $license_path/license.dat
```

The most important step to start-up the license

Note:

(i) Platform

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i86_re3 : Linux 32 bit on AMD/Intel CPU
amd64_re3: Linux 64 bit on AMD/Intel CPU
sun4_u8 : SunOS 32 bit on SPARC CPU
sun64_u8 : SunOS 64 bit on SPARC CPU
x64_sun10 : SunOS 64 bit on AMD/Intel CPU

(ii) The license is a floating license. End-user can just invoke the license to start with hostid from the license server and source "cshrc.mc2" to run SRAM compiler from other machines.

Installation procedure (cont'd):

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3. Invoke SRAM compiler

In GUI mode (i.e.):

>> setenv MC_HOME $compiler_path (path for tsn28hpc{ sram type }.mco)
>> mc2-eu -c tsn28hpc{ sram type }.mco
or use the following command to bypass password

>> mc2-eu -c tsn28hpc{ sram type }.mco –p tsmceva

*** tsmceva is the password to run compiler by GUI mode**