



Bisoños Usuarios de GNU/Linux de Mallorca y Alrededores | Bergantells Usuaris de GNU/Linux de Mallorca i Afegitons

cpudyn, SuSE and Pentium 4 Mobile (25315 lectures)

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[cpudyn](#)⁽¹⁾ is a KISS (Keep It Simple, Stupid) utility designed to save laptop --and desktop-- computers power and heat. The latest cpudyn version works fine with SuSE ([see changelog](#)⁽²⁾).

- New 0.99.0 version

- **SuSE 9.0 update**: Is necessary to remove the **cpufreqd** package installed by default.

I've seen cpudyn installation problems in a couple of mailing lists --in Majorca we count "one, two and a couple" ;) Here how to install cpudyn in one Pentium 4 M laptop with SuSE 8.2 (and probably SuSE 9.0):

1. [Download](#)⁽³⁾ cpudyn latest version (0.99.0, 13-Feb-2004) from the [official site](#)⁽¹⁾ and decompress the file (my ~/tmp/ directory is used in this page examples, change "benjami" to your user name):

```
benjami@codol:~> cd tmp
benjami@codol:~/tmp> wget http://mnm.uib.es/~gallir/cpudyn/download/cpudyn-0.99.0.tgz
benjami@codol:~/tmp> tar zxvf cpudyn-0.99.0.tgz
```

2. Change to root user, go to the new cpudyn folder, compile and install:

```
benjami@codol:~/tmp> su -
Password:
codol:~ # cd /home/benjami/tmp/cpudyn/
(this is a copy&paste: of course, you should change the "benjami" with your user name)
codol:/home/benjami/tmp/cpudyn # make install
```

3. Now you can manually start cpudyn daemon:

```
codol:/home/benjami/tmp/cpudyn # /etc/init.d/cpudyn start
```

4. But cpudyn daemon needs the appropriate processor Kernel module working. One symptom that you don't have the module is that /proc/cpufreq file is empty:

```
codol:/home/benjami/tmp/cpudyn # cat /proc/cpufreq
minimum CPU frequency - maximum CPU frequency - policy
codol:/home/benjami/tmp/cpudyn #
```

5. P4-clockmod is the appropriate module for the Pentium 4 M processor. Probe it:

```
codol:/home/benjami/tmp/cpudyn # modprobe p4-clockmod
```

If you no receive any error, the module is working and you can see it with lsmod:

```
codol:/home/benjami/tmp/cpudyn # lsmod | grep p4-clockmod
p4-clockmod      1488  0 (unused)
freq_table      1376  0 [p4-clockmod]
```



6. Now you can see changes in the /proc/cpufreq file:

```
codol:/home/benjami/tmp/cpudyn # exit
logout
benjami@codol:~/tmp> cat /proc/cpufreq
    minimum CPU frequency - maximum CPU frequency - policy
CPU 0      149519 kHz ( 12 %) - 1196153 kHz (100 %) - performance
```

... when the chip is in performance mode, and when is powersaving ...

```
benjami@codol:~/tmp> cat /proc/cpufreq
    minimum CPU frequency - maximum CPU frequency - policy
CPU 0      149519 kHz ( 12 %) - 1196153 kHz (100 %) - powersave
```

watch is great to constantly see this file contents:

```
benjami@codol:~/tmp> watch -n 1 cat /proc/cpufreq
```

7. Finally, you can use YaST2 in order to load the p4-clockmod module and cpudyn daemon at startup. YaST2 allows to change the cpudyn parameters too:

1. [Figure 1](#)⁽⁴⁾: Load p4-clockmod module on startup.
Go to YaST2 Control Center > System > Editor for /etc/sysconfig Files. Now select System > Kernel > MODULES_LOADED_ON_BOOT in the left tree. Add p4-clockmod to the existing list.
2. [Figure 2](#)⁽⁵⁾: Start cpudyn daemon on startup.
Go to YaST2 Control Center > System > Runlevel Editor. Click Runlevel properties button. Search cpudyn in the list. Select 3 i 5 in the Service will be started in following runlevels section, and clic the Finish button.
3. [Figure 3](#)⁽⁶⁾: Change cpudyn parameters.
Go to YaST2 Control Center > System > Editor for /etc/sysconfig Files. Now select Other > etc > sysconfig > cpudyn > OPTS in the left tree. To see all of the parameter possibilities, run `man cpudynd` or read the [official homepage](#)⁽⁷⁾ examples and FAQ section.

Other modules

I only know those modules (and I'm not sure, feedback wanted :) that you should use to replace p4-clockmod as mentioned in this article:

- Centrino: speedstep_ICH or speedstep_smi ([«I'm not sure», says the post author](#)⁽⁸⁾)
- Pentium III: freq_table and speedstep
- AMD: powernow-k6, powernow-k7 and powermate
- AMD Athlon Mobile: powernow-k7

Lista de enlaces de este artículo:

1. <http://mnm.uib.es/~gallir/cpudyn>
2. <http://mnm.uib.es/~gallir/cpudyn/cpudyn/changelog>
3. <http://mnm.uib.es/~gallir/cpudyn/download/>
4. <http://bulma.net/~benjami/stuff/cpudyn-suse/cpudyn-yast2-01.png>
5. <http://bulma.net/~benjami/stuff/cpudyn-suse/cpudyn-yast2-02.png>
6. <http://bulma.net/~benjami/stuff/cpudyn-suse/cpudyn-yast2-03.png>
7. <http://mnm.uib.es/%7Egallir/cpudyn>
8. <http://bulma.net/body.phtml?nIdNoticia=1946&nIdPage=last#20434>



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