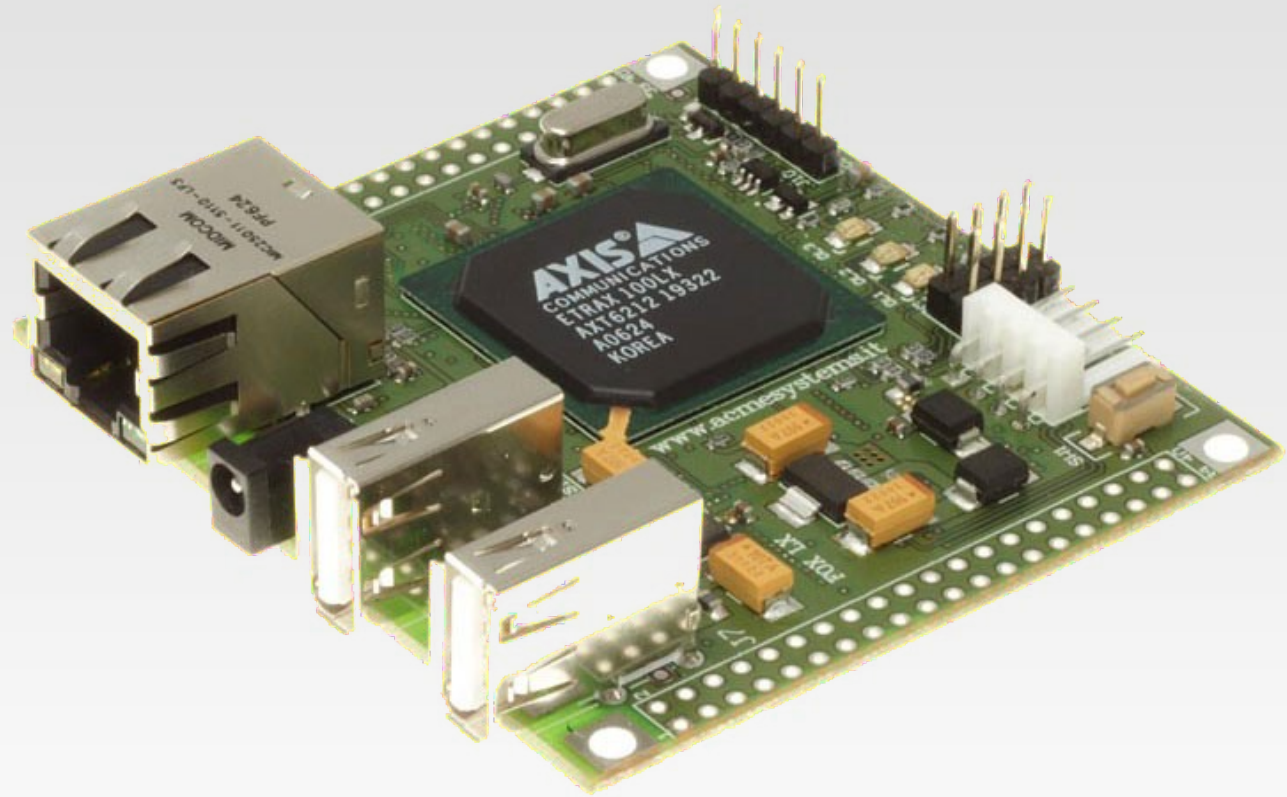


# ScratchBOX



- Alternativa à compilação cruzada
- Alternativa à compilação nativa
- Ambientes:
  - ARM
  - x86
  - MIPS
  - PowerPC
  - CRIS
- SDKs
  - Maemo SDK



# ScratchBOX::O que é?



- Ambiente de desenvolvimento completo para sistemas Embacados em Linux;
- Aplicações rodam nativamente, via emulação do qemu;
- Softwares do SDK (gcc, make, g++, ...) rodam na máquina hospedeira;
- PowerPC, MIPS and CRIS targets são experimentais

# ScratchBOX::Na Prática!



- Utilizado em conjunto ao SDK para o Maemo (Distro Embarcada Linux) da Nokia;
  - Bibliotecas Maemo/Hildon (port)
  - Teste de aplicações em Ambiente Gráfico
- Suporte nativo aos aplicativos para criação de pacotes debian:
  - dpkg-dev e dpkg
    - dpkg-buildpackage -b -rfakeroot



# ScratchBOX::Compilando



## Geany IDE

```
$ wget http://files.uvena.de/geany/geany-0.14.tar.bz2
$ tar -xvjf geany-0.14.tar.bz2
$ cd geany-0.14
$ export CFLAGS="-O3 -mcpu=arm1136j-s \
  -mtune=arm1136j-s -fomit-frame-pointer \
  -fsigned-char -mfpu=vfp -mfloat-abi=softfp"
$ export CXXFLAGS="${CFLAGS}"
$ ./configure --prefix=/usr --disable-socket
$ make
$ make DESTDIR=/home/fazzi/dev/geany/DEB install
$ file DEB/usr/bin/geany
geany: ELF 32-bit LSB executable, ARM, version 1 (SYSV), for
GNU/Linux 2.6.8, dynamically linked (uses shared libs), not stripped
```

# ScratchBOX::Empacotando



## Geany IDE

- **Crie um arquivo de configuração de pacotes**

```
$ vi ./DEB/DEBIAN/control
```

```
Package: geany
```

```
Version: 0.14-3
```

```
Architecture: armel
```

```
Maintainer: Marcus Fazzi(Maemo port) <anunakin@gmail.com>
```

```
Depends: libatk1.0-0, libcairo2, libgtk2.0-0, libpango1.0-0
```

```
Section: devel
```

```
Priority: optional
```

```
Size: 3880
```

```
Description: A fast and lightweight IDE http://geany.uvena.de
```

```
Geany is a small and lightweight IDE.
```

```
$ dpkg-deb -b DEB geany_0.14_armel.deb
```

# ScratchBOX::Testando...



```
$ dpkg -i geany_0.14_armel.deb  
  
$ Xephyr by typing Xephyr :2 -host-cursor \  
-screen 800x480x16 -dpi 96 -ac  
  
$ export DISPLAY=:2  
  
$ geany WebProxy.class.php
```



# ScratchBOX::Maemo SDK



WebProxy.class.php - /h...

File Edit Search View Document Project Build Tools Help

Symbols WebProxy.class.php

```
158 /**
159  * @return Object
160  * @desc Retorna os dados solicitados ao servidor.
161  */
162 function getresult() {
163     $conteudo = '';
164     $data = '';
165     $fp = fsockopen($this->server, $this->port);
166
167     //Cabecalho do arquivo.
168     fputs($fp, "HEAD $this->url" . " HTTP/1.0\r\n\r\n");
169     $this->bin_head(1); //Forca tipo binario
170     while (!feof($fp)) {
171         $data = fgets($fp);
```

14:26:47: This is Geany 0.14.  
14:26:49: File /home/fazzi/WebProxy.class.php opened(1).

line: 162 col: 0 sel: 0 INS TAB mode: Unix (L...

# ScratchBOX::links



- ScratchBOX  
<http://www.scratchbox.org/>
- Maemo.org  
<http://www.maemo.org/>  
<http://www.rkeene.org/projects/info/wiki/106>
- Qemu para ARM11  
<http://setanta.wordpress.com/2007/11/20/qemu-arm-eabi-no-scratchbox/>  
<http://www.rkeene.org/projects/info/wiki/106>
- CodeSourcery  
[http://www.codesourcery.com/gnu\\_toolchains/arm/](http://www.codesourcery.com/gnu_toolchains/arm/)
- Internet Tablet Talk  
<http://www.internettablettalk.com/>
- ToolChains atualizados  
<http://scratchbox.org/~jhakala/unofficial/>
- Anunakin's Blog  
<http://anunakin.blogspot.com/>

