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O Quinto Elemento: FMX no Linux! (77)

Fernando Rizzato

Lead Software Consultant, LatAm

Da sala de reunião à vida real

Embarcadero Conference 2019

Suporte Linux no Delphi

- **1999** Borland Kylix: Também conhecido como Delphi para Linux
  - Era uma implementação da IDE no Linux
  - Linux x86 compilador de 32 bits
  - Foco majoritário em aplicações desktop
- **2002** Borland Kylix 3
  - Última atualização do produto
- **2017** Delphi 10.2 "Tokyo" reintroduz o suporte Linux no Delphi Enterprise+
  - Inicialmente Linux64 bit para aplicações server (backend)

Suporte Linux Server Side

- De **10.2** ao **10.3.1** - Foco somente em Linux 64-bit Servers
  - Console, WebBroker, DataSnap, RADServer
- Suportando Oficialmente
  - Ubuntu 18.04 LTS, Ubuntu 16.04 LTS, Ubuntu 14.04 LTS, and RedHat Enterprise Linux (version 7)
  - Esperado que funcione na ampla maioria das *distros*
- Todas as tecnologias necessárias para aplicações de backend
  - RTL, DB RTL, IOUtils and file system access, FireDAC, HTTP, REST, Cloud, WebBroker, Apache integration, DataSnap, EMS/RAD Server, JSON, XML, SOAP, Indy, IoT, and more

O Compilador Delphi para Linux

- Suporta **64-bit Intel** Linux
- Baseado na tecnologia **LLVM**
- Necessário um Linux para Importar o **SDK** (via PAServer)
- Não requer conexão **PAServer** para compilação
- Utiliza **PAServer** para testes e debug remotos
  - A IDE continua sendo executada no **Windows**
- Ao distribuir manualmente, observar **permissões** do binário no sistema destino (*chmod*)

Preparando sua Máquina Linux

- Ubuntu (https://ubuntu.com/download/server)
  - *sudo apt-get update && sudo apt-get upgrade && sudo apt-get dist-upgrade*
  - *sudo apt-get install joe wget p7zip-full curl build-essential zlib1g-dev libcurl4-gnutls-dev*
  - *sudo apt-get autoremove*
  - *sudo apt-get autoclean*

- RED HAT (https://developers.redhat.com/products/rhel/download)
  - *subscription-manager register --username username --password secret --autosubscribe*
  - *sudo yum groupinstall 'Development Tools'*
  - *sudo yum install zlib-devel*

Instalando o PAServer no Linux

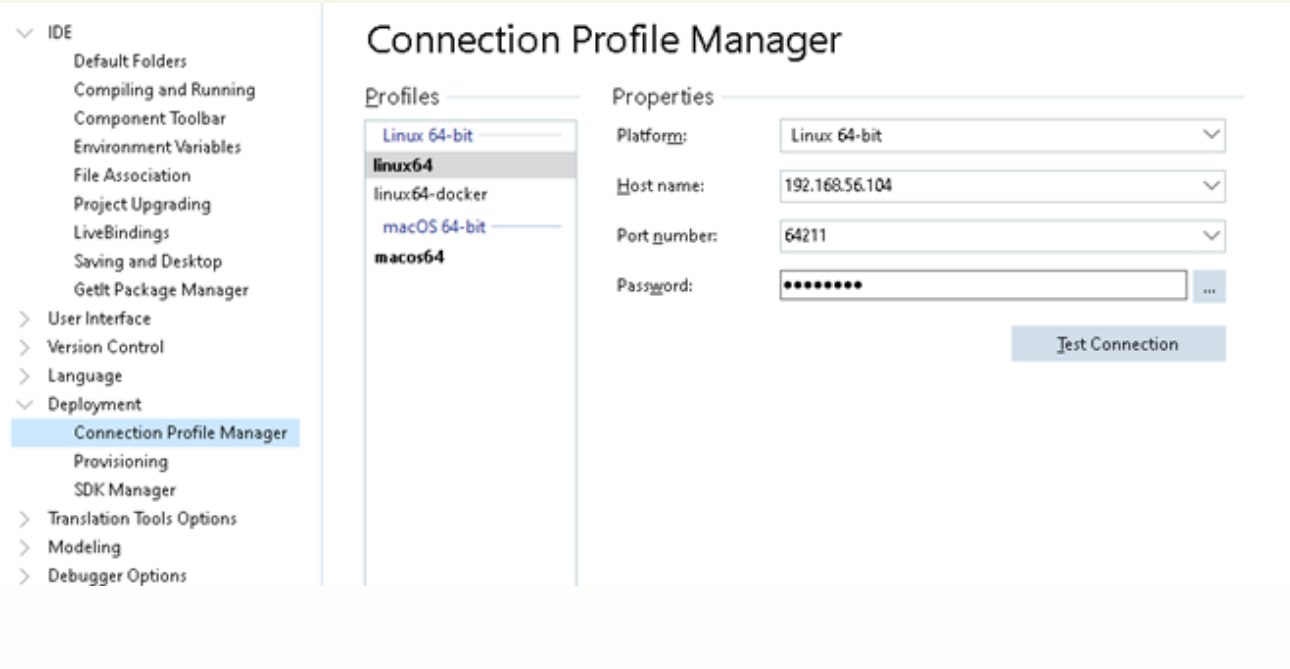
- O PAServer conecta a IDE do Delphi ao Linux
- Você pode copiar a partir do diretório de instalação do Delphi
  - Pasta PAServer, arquivo LinuxPAServerXX.X.tar.gz
  - Observar a versão da IDE versus PAServer
- Ou via download direto a partir da Embarcadero
  - http://docwiki.embarcadero.com/RADStudio/Rio/en/Installing_the_Platform_Assistant_on_Linux

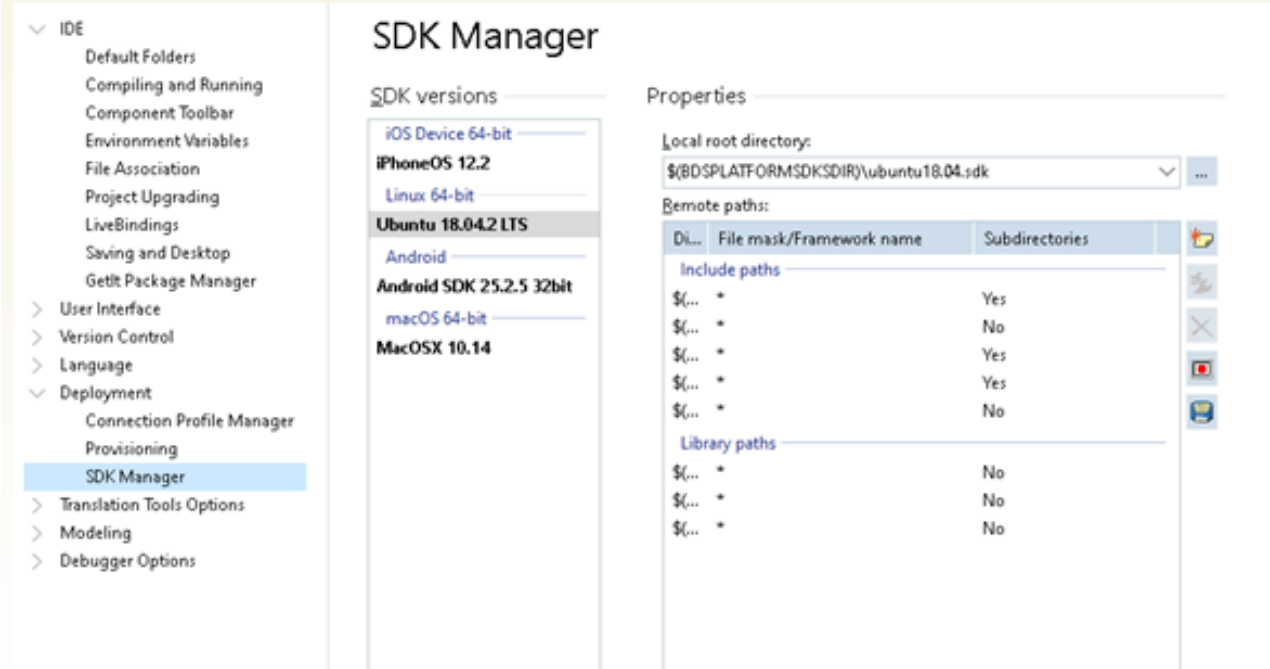
Instalando o PAServer no Linux

```
cd ~
wget http://altd.embarcadero.com/releases/studio/20.0/PAServer/Release2/LinuxPAServer20.0.tar.gz
tar -xvf LinuxPAServer20.0.tar.gz
rm LinuxPAServer20.0.tar.gz
mv PAServer-20.0 PAServer
PAServer/paserver
```

Configurando a IDE

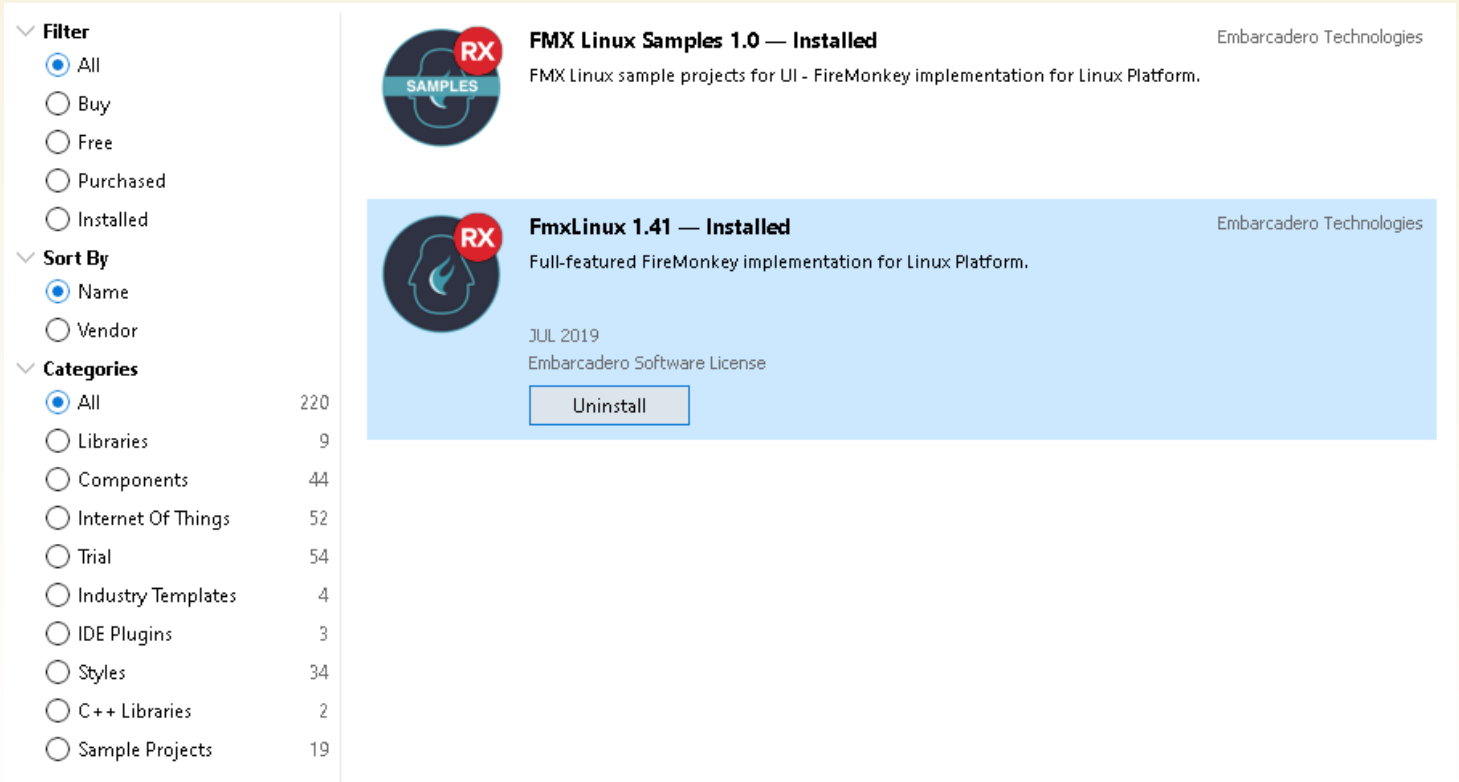
- Criar um Profile no Profile Manager
  - É aqui que você vai dizer onde está o PAServer (IP, Porta)
- Importar o SDK no SDK Manager
  - Este processo será executado apenas 1 vez*

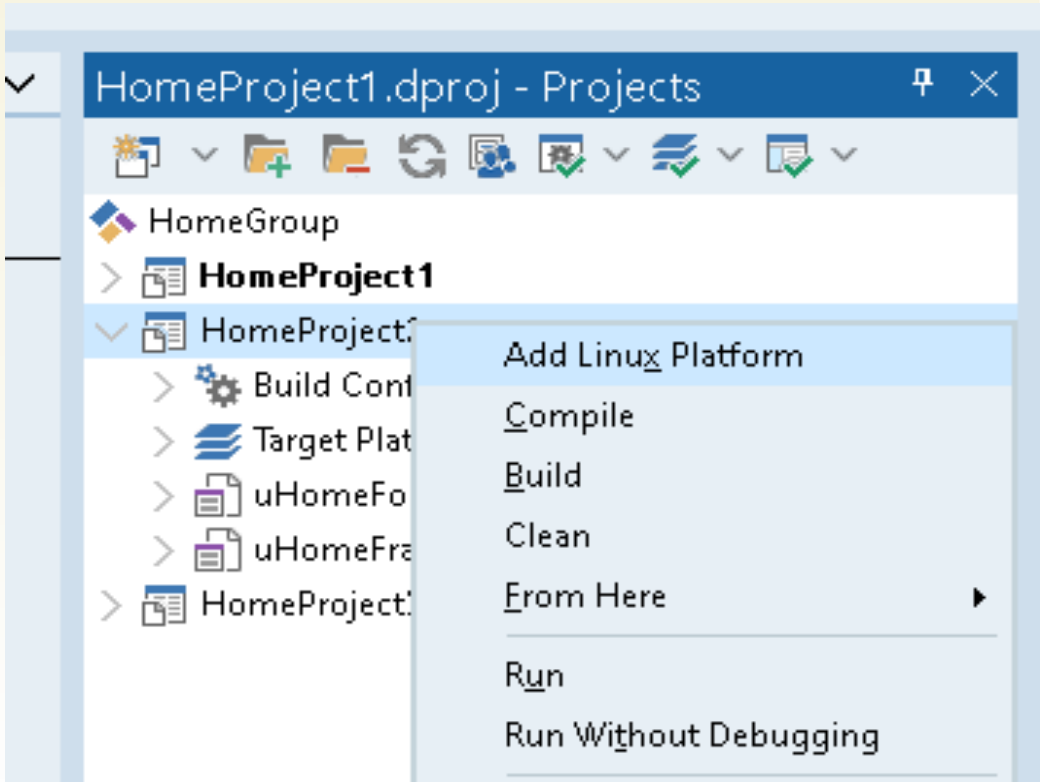




Ativando o FMXLinux (a partir do 10.3.2)

- Adicione o pacote **FMXLinux** a partir do GetIt
- Adicione o suporte a **Linux** a seu projeto FMX*

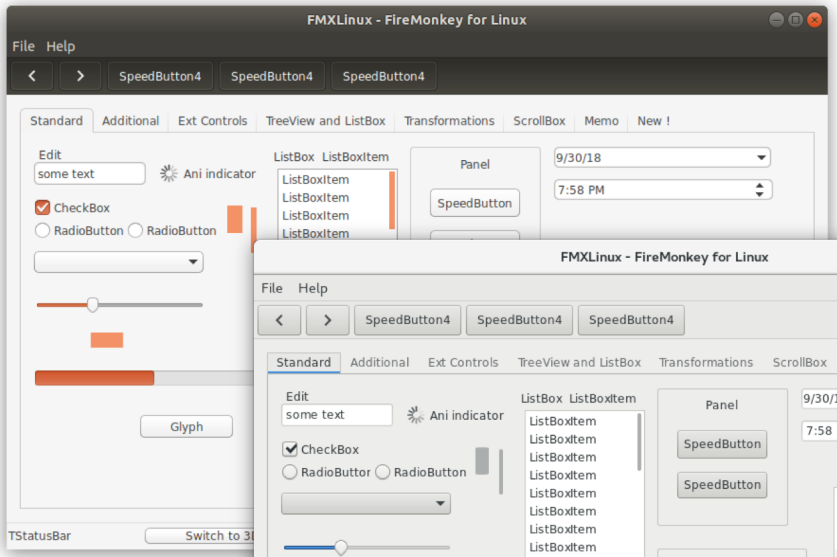




150+ Distribuições Testadas!

https://bitbucket.org/crossvcl/fmxlinux/issues/130/controlsdemo-test-on-different-linux

Alien-OS LTS 09. Juni 2019; ALT Linux 8.2; Antergos 17.11.; antiX 17.2; ArchBang Linux Winter 0112; Archman KDE Plasma 2019.02; ArcoLinux v18.11.2; Argent KDE Plasma 1.5.2; Artix Linux LXQT 2018.10.13; AryaLinux 1.0 XFCE; Asril OS 7.0 Lare; Astra Linux Common Edition 2.12.13; AUSTRUMI 3.9.0; AV Linux (2018.06.25); B2D Desktop 2019 V1.0.5 XFCE; BackBox Linux 5.2; BEE free MMXX; Berry Linux 1.30; BigLinux 7.10; Bionicpup64 8.0 CE; BlackArch Linux 2018.12.01; Black Lab Enterprise Linux 8; blackPanther OS v18.1; BlackWeb 1.2; BlankOn 11.0.1; Bluestar Linux 4.19.2; Bodhi Linux 5.0.0; BunsenLabs Linux Helium; CAELinux 2018; CAINE 10.0; Calculate Linux 18; CentOS 7; ChaletOS 16.04.2; Chakra GNU/Linux 2019.01 (GTK 3 install: use the Octopi application); CloverOS GNU/Linux 2019.07.19; Condres OS 2019.03 Gnome Edition; Debian 9.1; Deepin 15.4.1; Devuan 2.0.0 ASCII; Drauger OS 7.4.1; DuZeru; EasyOS 1.0.8; EndeavourOS 2019.07.15; Endless OS 3.5; ExTiX 19.0; EducatuX 9.8; Emmabuntüs DE3 1.0; Enso 0.3.1; ETi-pup 5.1.6; Exe GNU/Linux ASCII; Exton|OS v190521; Fatdog64 Linux 800 (GTK 3 install: use the gslapt application); Fedora 26; Feren OS (July 2018); Freespire 4.5.; GeckoLinux Static Plasma; Gentoo Linux 2016.07.04; Greenie Linux 18.04.0.2; Grml 2018.12; GoboLinux 016.01; Hamara Sugam 2.1; HexagonOS 1.0; Ignis OS 5.0; Kali Linux 2017.2; Kanotix Steelfire KDE; KaOS 2018.01 (GTK 3 install: use the Octopi application); KDE neon; Kubuntu 18.10; KXStudio 14.04.5; Linspire 8.0 RC1; Linux Kodachi 5.2; Linux Lite 4.2; Linux Mint 18.1; LinuxSchools Client V6.1; Live Raizo 10.19.06.30; Lubuntu 17.10; LuninuX OS 17.04; LXLE Linux 16.04.4; Mageia 6.1; MakuluLinux 15 Flash Edition; Manjaro Linux 17.0; Maui Linux 17.06; MAX: Madrid_Linux 10.0; MAZON OS 1.4.3.l; MorpheusArch Linux 2018.4; MX Linux 17.1; Namib GNU/Linux Budgie 18.08; Neptune 5.6; Netrunner 19.08 – Indigo; Network Security Toolkit 30-11210; Nova 6.0; NuTyX MATE 10.4; OpenMandriva Lx 3.0; openSUSE Leap 42.2; Oracle Linux 7.6; OSGeoLive 12.0; Pardus 17.4 XFCE; Parrot Studio 3.8; PCLinuxOS 2017.07; Peach OSI 16.04 TW; Pearl Linux MATE 7.0; PelicanHPC GNU Linux 4.1 XFCE; Pentoo 2018.0; Peppermint 9; Pinguy OS 18.04.1; Pisi Linux 2.1 ATA; Pixel OS 2.0; Bart; Plop Linux 4.3.9; Pop!_OS 18.10; Porteus 4.0 MATE; Poseidon Linux 9 MB2315; Q4OS 2.6 Scorpion; Rebellin Linux 3.5 Gnome; Redcore Linux Hardened 1806; Red Hat Enterprise Linux 7; Refracta 8.3; Resilient Linux 1.0; Robolinux Cinnamon 10.3; ROSA Fresh KDE R10; Runtu LITE 18.04; Sabayon Linux 18.05 GNOME Edition; SalentOS 2.0; Salix Xfce 14.2; Scientific Linux 7.4; SELKS 4.0; Septor-2019; SharkLinux 4.15.0-39; siduction 18.3.0 XFCE; Slax 9.8.0 (GTK 3 install: from terminal: sudo apt-get install libgtk3.0); Slackel 7.1; Slontoo 18.07.1 MATE; Solus 3 GNOME; SolydXK 201902; SparkyLinux 4.9; SuliX Professional 8; SuperX 5.0; SwagArch GNU/Linux 18.12; Tails 3.10.1; Trisquel 8.0 LTS Flidas; Tsurugi Linux Lab 2018.1; Ubuntu 16.10; Ubuntu Budgie 18.04.1; Ubuntu MATE 18.04.1; Ubuntu Studio 18.10; Ultimate Edition 5.0; Uruk GNU/Linux 2.0 XFCE; Void Linux MATE (2018.11.11.); Voyager 18.04 LTS; Xubuntu 18.04; Zorin OS 12.1 Core


FMXLinux - FireMonkey for Linux
File Help
SpeedButton4
SpeedButton4
SpeedButton4
Standard
Additional
Ext Controls
TreeView and ListBox
Transformations
ScrollBox
Memo
New !
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RadioButton
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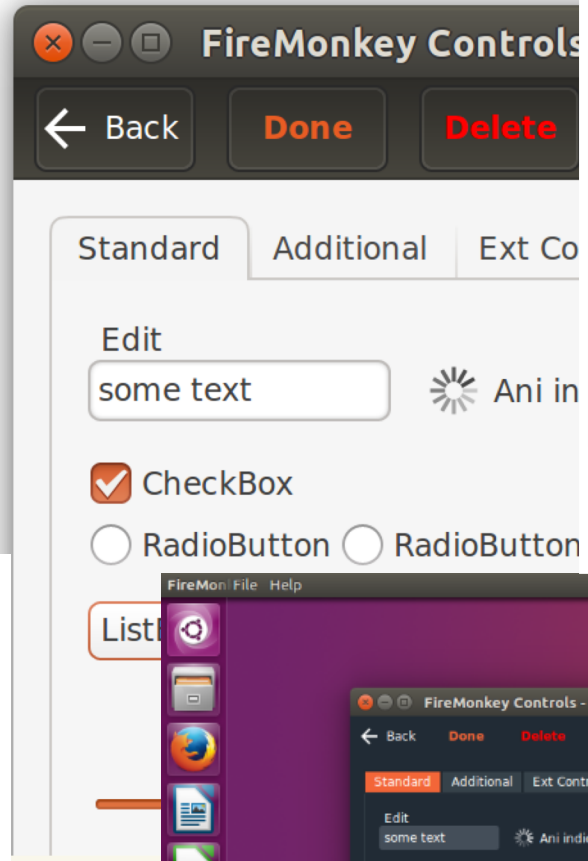
FireMonkey Controls
Back
Done
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Standard
Additional
Edit
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CheckBox
RadioButton
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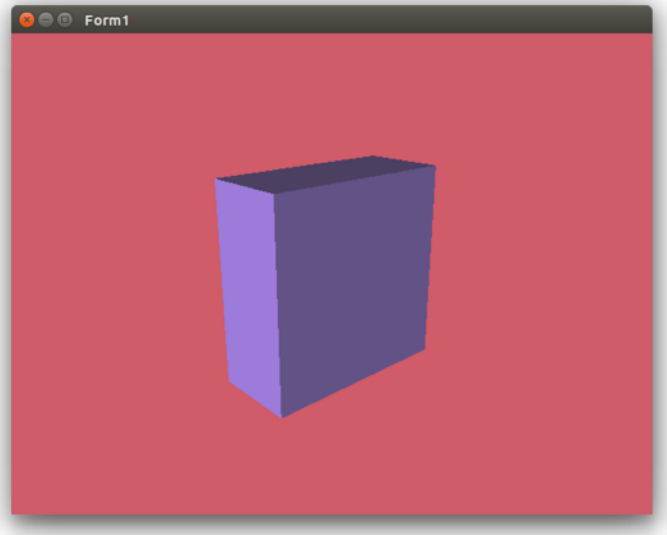
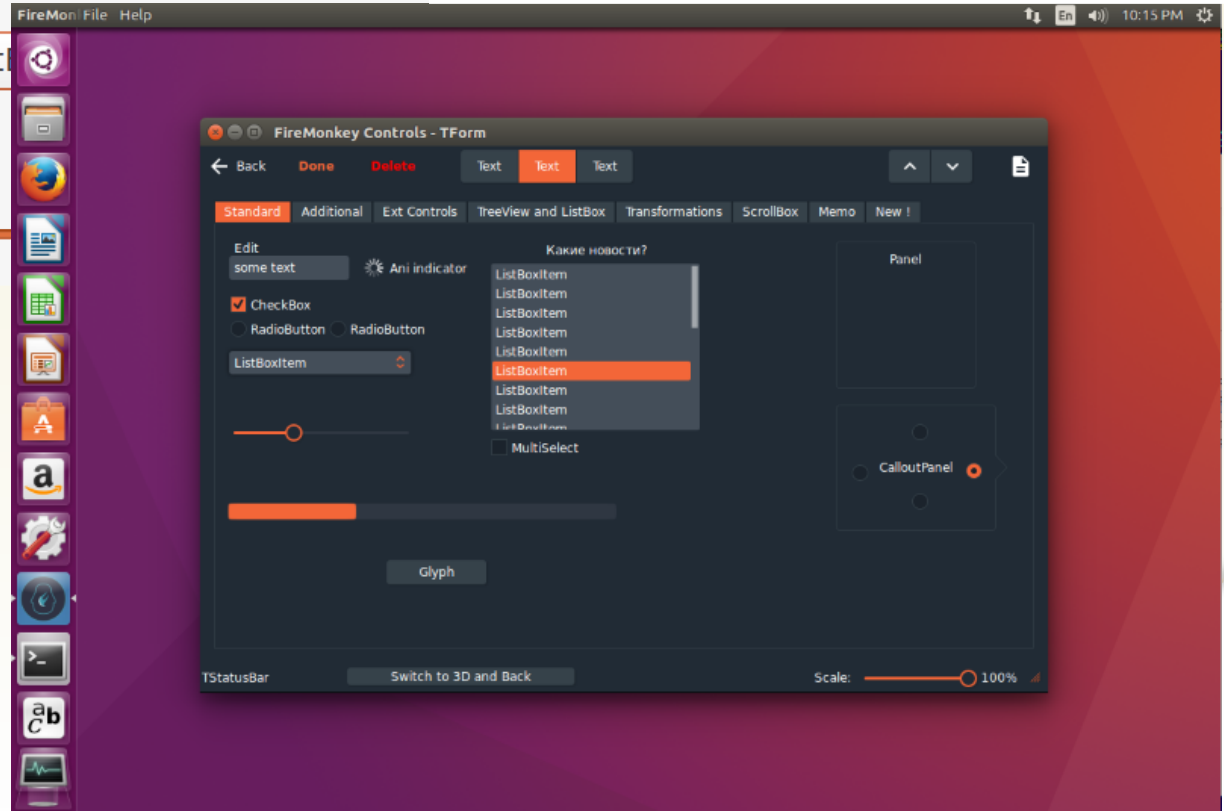

Form1


FireMonkey Controls - TForm
Standard
Additional
Ext Controls
Edit
some text
Ani indicator
CheckBox
RadioButton
RadioButton
ListBoxItem
Glyph
Button1
FireMonkey
Close
TStatusBar
Switch to 3D and Back
Scale:
100%


File Help
10:15 PM
FireMonkey Controls - TForm
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New !
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Ani indicator
Какие новости?
CheckBox
RadioButton
RadioButton
ListBoxItem
MultiSelect
Panel
CalloutPanel
Glyph
TStatusBar
Switch to 3D and Back
Scale:
100%

Recursos Adicionais

- http://docwiki.embarcadero.com/RADStudio/Rio/en/Linux_Application_Development
- http://docwiki.embarcadero.com/RADStudio/Rio/en/FireMonkey_for_Linux
- https://chapmanworld.com/2016/12/29/configure-delphi-and-redhat-or-ubuntu-for-linux-development/
- http://www.codecoder.top/pascal/how-to-developing-daemon-application-on-linux-with-delphi-10-2.html
- http://blog.paolorossi.net/2017/07/11/building-a-real-linux-daemon-with-delphi-part-1-2/
- http://blog.paolorossi.net/2017/09/04/building-a-real-linux-daemon-with-delphi-part-2/
- https://chapmanworld.com/2017/04/05/creating-a-linux-daemon-service-in-delphi/
- http://chapmanworld.com/2017/05/26/daemonizing-a-webbroker-application-on-linux/
- https://www.linkedin.com/pulse/using-delphi-102-tokyo-create-webservice-linux-jin-xie/
- http://ksdev.blogspot.com/2017/12/using-firemonkey-graphics-in-cgi-script.html
- https://bitbucket.org/crossvcl/fmxlinux/issues/130/controlsdemo-test-on-different-linux


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Obrigado
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Fernando Rizzato
Lead Software Consultant, LatAm
Fernando.Rizzato@Embarcadero.com
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