



Lazarus

Ondřej Suchý

Write once, compile anywhere!

About Lazarus

- ž RAD, IDE, similar to Delphi
- ž Lazarus uses Free Pascal Compiler (FPC)
 - › Supportst many Pascals dialects, Object Pascal, Dephi, etc.
- ž Multiplatform
 - › Win32/Win64, Linux (Gtk1/2), FreeBSD a Mac OS
- ž Licence
 - › GPL (IDE), GLPL (Libraries)
- ž Uses Lazarus Component Library (LCL), similar to VCL in Delphi



- ProjectVersionInfoOptions
 - VersionInfoGroupBox: T
 - MajorVersionLabel: T
 - MinorVersionLabel: T
 - RevisionLabel: TLabel
 - BuildLabel: TLabel
 - MajorVersionSpinEdit
 - MinorVersionSpinEdit
 - RevisionSpinEdit: TSp
 - AutomaticallyIncras
 - BuildSpinEdit: TSpinE
 - UseVersionInfoCheckBo
 - LanguageSettingsGroup
 - LanguageSelectionLa
 - CharacterSetLabel: T

Properties Events Favorite

Align	alNone
▶ Anchors	[akTop
AutoScroll	False
AutoSize	False
BiDiMode	bdLeft
▶ BorderSpacing	(TCont
▶ ChildSizing	(TCont
Color	<input type="checkbox"/> clID
▶ Constraints	(TSizeC
Cursor	crDefa
DockSite	False
DragCursor	crDrag
DragKind	dkDra
DragMode	dmMa
Enabled	True
▶ Font	(TFont
Height	428

Lazarus project_versioninfo_options W32VersionInfo Main Project Compiler InfoBuild ProjectResources

```
110 // Show splashform
111 if ShowSplashScreen then begin
112     SplashForm := TSplashForm.Create(nil);
113     SplashForm.Show;
114     Application.ProcessMessages; // process splash paint message
115 CleanupPIDFile;
116 FreeThenNil(SplashForm);
```



121: 14 INS C:\Users\Ondra-ProBook\lazarus_svn\ide\lazarus.pp

Source Editor Design Editor Package Viewer



ProjectVersionInfoOptions

- VersionInfoGroupBox: T
 - MajorVersionLabel: T
 - MinorVersionLabel: T
 - RevisionLabel: TLabel
 - BuildLabel: TLabel
 - MajorVersionSpinEdit
 - MinorVersionSpinEdit
 - RevisionSpinEdit: TSp
 - AutomaticallyIncras
 - BuildSpinEdit: TSpinE
- UseVersionInfoCheckBo
- LanguageSettingsGroup
 - LanguageSelectionLa
 - CharacterSetLabel: TL

Properties Events Favorite

Align	alNone
▶ Anchors	[akTop
AutoScroll	False
AutoSize	False
BiDiMode	bdLeft
▶ BorderSpacing	(TCont
▶ ChildSizing	(TCont
Color	<input type="checkbox"/> cID
▶ Constraints	(TSizeC
Cursor	crDefa
DockSite	False
DragCursor	crDrag
DragKind	dkDraç
DragMode	dmMa
Enabled	True
▶ Font	(TFont
Height	428

Lazarus project_versioninfo_options W32VersionInfo Main Project Compiler InfoBuild ProjectResources

```

.   // Show splashform
110  if ShowSplashScreen then begin
.     SplashForm := TSplashForm.Create(nil);
.     SplashForm.Show;
.     Application.ProcessMessages; // process splash paint message
.   end;
115
.   TMainIDE.Create(Application);
.   if not Application.Terminated then
.   begin
.     MainIDE.CreateOftenUsedForms;
120    try
121      MainIDE.StartIDE;
.     except
.       Application.HandleException(MainIDE);
.     end;
125    {$IFDEF IDE_MEM_CHECK}CheckHeapWrtMemCnt('lazarus.pp: TMainIDE created');{$ENDIF}
.
.     try
.       Application.Run;
.     except
130      debugLn('lazarus.pp - unhandled exception');
.       CleanupPIDFile;
.       Halt;
.     end;
.   end;
135  CleanupPIDFile;
.   FreeThenNil(SplashForm);

```

121: 14

INS

C:\Users\Ondra-ProBook\lazarus_svn\ide\lazarus.pp

Source Editor Design Editor Package Viewer



- ProjectVersionInfoOptions
- VersionInfoGroupBox: T...
- MajorVersionLabel: T...
- MinorVersionLabel: T...
- RevisionLabel: TLab...
- BuildLabel: TLabel
- MajorVersionSpinEdit...
- MinorVersionSpinEdit...
- RevisionSpinEdit: TSp...
- AutomaticallyIncreas...
- BuildSpinEdit: TSpinE...
- UseVersionInfoCheckBo...
- LanguageSettingsGroup...
- LanguageSelectionLa...
- CharacterSetLabel: TL...

Properties Events Favorite

- Align alNone
- ▶ Anchors [akTop
- AutoScroll False
- AutoSize False
- BiDiMode bdLeft
- ▶ BorderSpacing (TCont
- ▶ ChildSizing (TCont
- Color cID
- ▶ Constraints (TSizeC
- Cursor crDefa
- DockSite False
- DragCursor crDrag
- DragKind dkDrag
- DragMode dmMa
- Enabled True
- ▶ Font (TFont
- Height 428

Find component... Standard Additional Common Controls Dialogs Data Controls System Misc Data Access SynEdit



ProjectVersionInfoOptionsFrame

Include Version Info in executable

Version Numbering

Major version: 0 Minor version: 0 Revision: 0 Build: 0

Automatically increase Build

AttributesGroupBox

Language Options

Language Selection: [Dropdown]

Character Set: [Dropdown]

Other Info

Key	Value



Source Editor Design Editor Package Viewer



Comunication

ž Subversion

- › <http://svn.freepascal.org/svn/lazarus/trunk>

ž GitHub Mirrow

- › <https://github.com/alrieckert/lazarus>

ž Mantis Bug Tracker

- › <http://bugs.freepascal.org/>

ž Wiki

- › <http://wiki.freepascal.org/>

(filter)



- Project Options
 - Application
 - Forms
 - FDoc Editor
 - Session
 - Version Info**
 - i18n
 - Miscellaneous
- Compiler Options
 - Paths
 - Build Modes
 - Parsing
 - Code Generation
 - Linking
 - Verbosity
 - Messages
 - Other
 - IDE Macros
 - Inherited
 - Compilation

Include version info in executable

Version numbering

Major version:

1

Minor version:

3

Revision:

0

Build:

0

Automatically increase build number

Language options

Language selection:

English - United States

Character set:

Unicode

Other info

Key	Value
ProductName	Lazarus IDE
ProductVersion	
Comments	
CompanyName	
FileDescription	
FileVersion	1.3.0.0

Use these compiler options as default for new projects

Help

Show Options

Test

...

OK

Cancel

Bug ID: 0015915, 0022645

- ž Resource files are rewritten even if executable file is not updated so it is redundant disk traffic
- ž Acknowledged bug

Bug ID: 0015915, 0022645

The screenshot shows a Windows Explorer window with the address bar set to 'Počítač > Místní disk (C:) > tmp > tmp_laz_project'. The search bar contains 'Prohledat: tmp_laz_project'. The main pane displays a table of files and folders:

Název položky	Datum změny	Typ	Velikost
unit1.lfm	14.5.2014 23:07	Lazarus Form	1 kB
project1.lpi	14.5.2014 23:07	Lazarus Project Inf...	3 kB
project1.lps	14.5.2014 23:07	Soubor LPS	2 kB
unit1.pas	14.5.2014 23:07	Pascal Source Code	1 kB
project1.res	14.5.2014 23:04	Compiled Resourc...	135 kB
project1.exe	14.5.2014 21:47	Aplikace	14 791 kB
project1.ico	12.5.2014 22:24	Ikona	134 kB
project1.lpr	12.5.2014 22:24	Lazarus Project M...	1 kB
backup	14.5.2014 23:07	Složka souborů	
lib	12.5.2014 22:24	Složka souborů	

The left sidebar shows navigation options like 'Oblíbené polce', 'Knihovny', and 'Domácí skupi'. The bottom status bar indicates 'Počet položek: 10' and 'Počítač'.

Results and cooperation

- ž I haven't finished yet, I've learned how Open Source development works
- ž Collaboration with community is quite good, project seems to be quite active, but the development of project is quite slow
- ž I've changed bug because somebody fixed the problem

Thank you for your attention