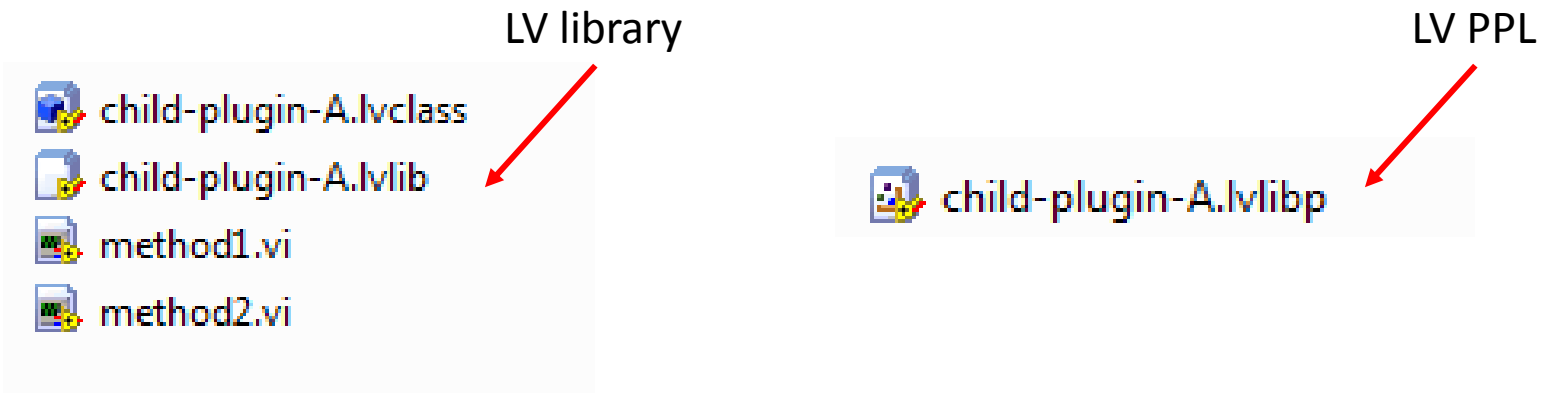
LV Packed Project Libraries and Plug-in Architecture

Arev Hambardzumyan

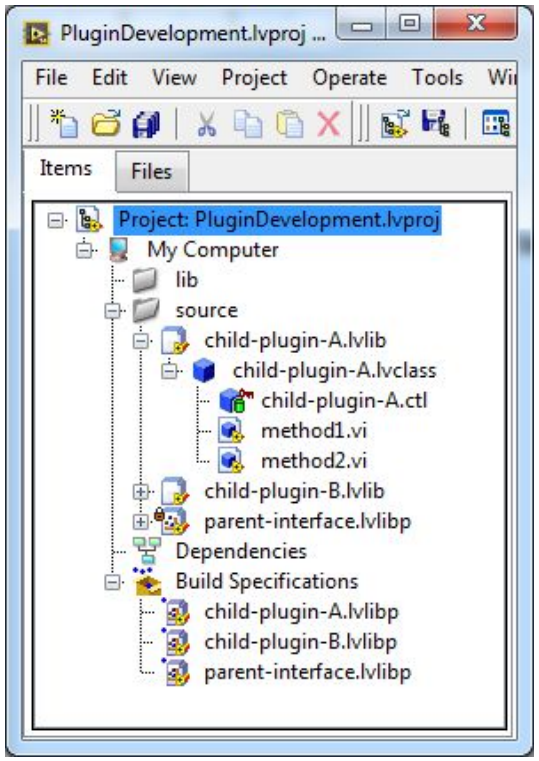
LabVIEW Packed Project Libraries

- LabVIEW Packed Project Library (PPL) is a precompiled file containing multiple project files.
- VIs included into PPL do not contain block diagram.
- PPLs are used for distributing VIs, or library of VIs, when the block diagram should not be accessible.
- LV PPL is a single, precompiled file.



PPL Types and Creation

- PPLs are built using LV libraries.
- All VIs, classes, etc. which are going to be included in the PPL should be included into a LV library.
- Two types of PPLs can be created:
  - Debug – contains block diagram, used for debugging purposes
  - Release – does not contain diagram, used for distribution, and other purposes, where diagram should not be included.

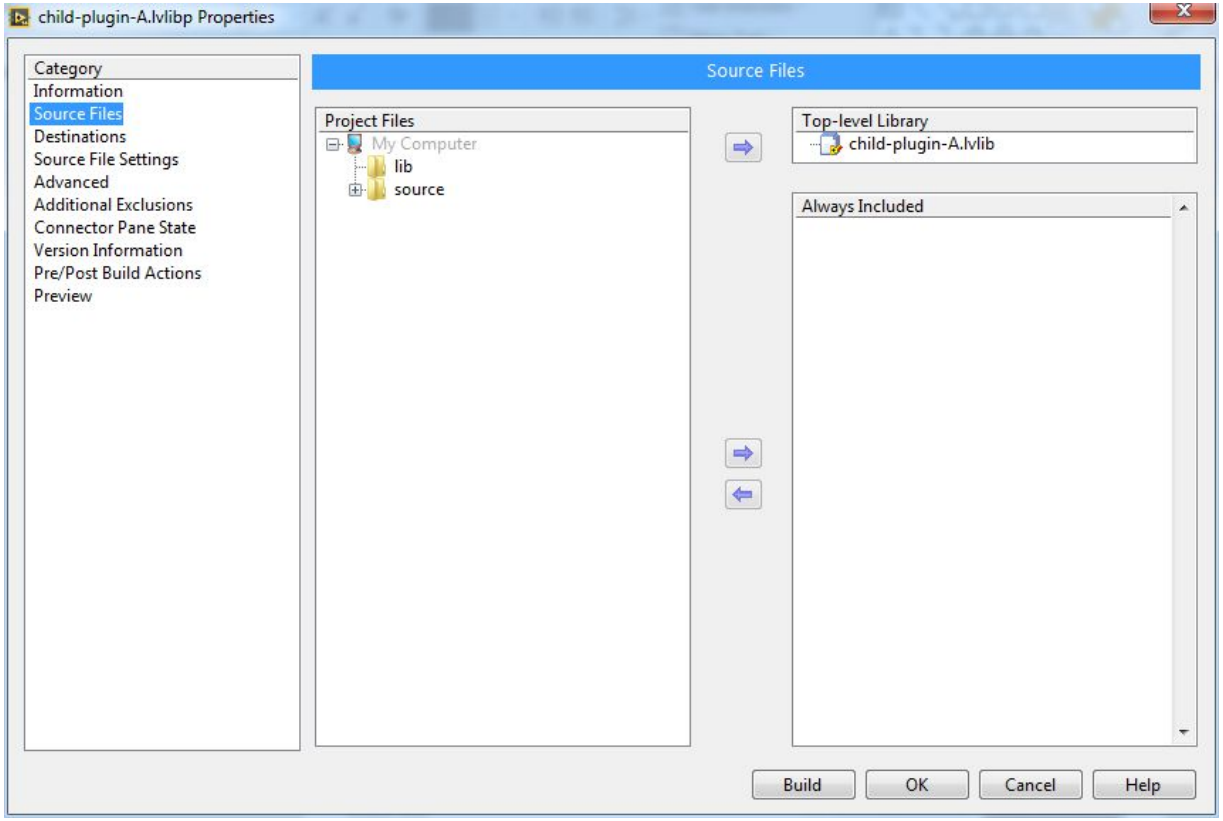


RFA Solutions

Phone: +374 (10) 21-97-69
Email: info@rafasolutions.com
Web: www.rafasolutions.com

PPL Types and Creation (cont.)

- To create a PPL, new Packed Library should be created from the Build Specification section of the LV project.
- As a top-level library, LV library containing all required files is selected.



RFA Solutions

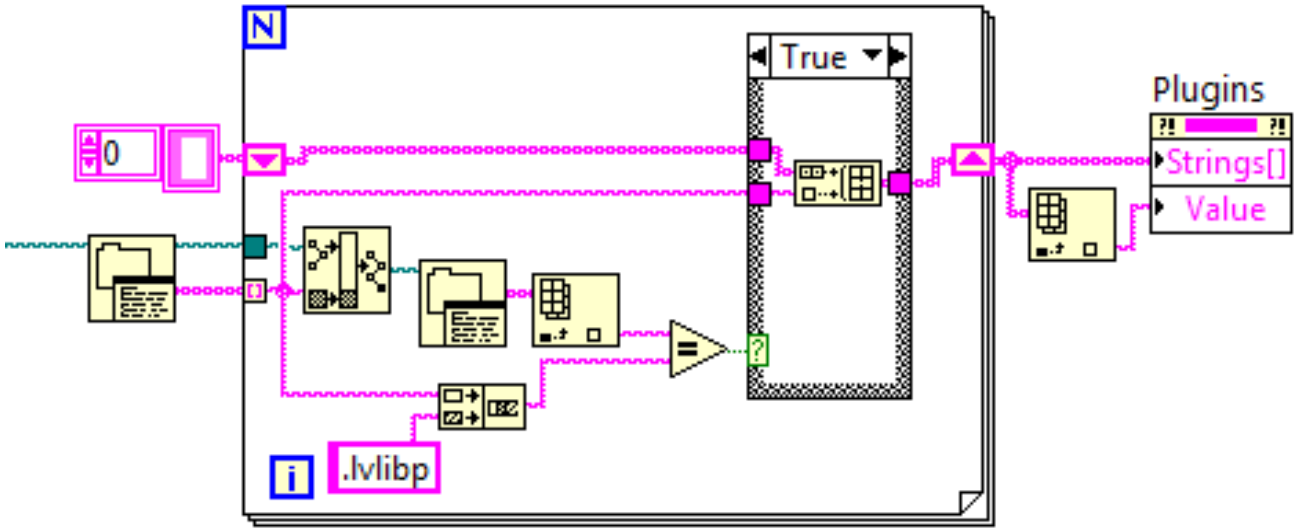
Phone: +374 (10) 21-97-69
Email: info@rafasolutions.com
Web: www.rafasolutions.com

Plug-in Architecture

- Plug-in architecture allows to have scalable applications, which do not require recompilation.
- It allows to add new functions into already installed software.
- Plug-in architecture can be used for example to add drivers for new types of hardware.
- Plug-in architecture is based on usage of Packed Project Libraries.

Plug-in Architecture

- Newly added plug-ins are search for in the plug-in directory (any directory setup in the main software application).
- In the example below all found plug-ins are populated into Combo box, for user to select which one to use.

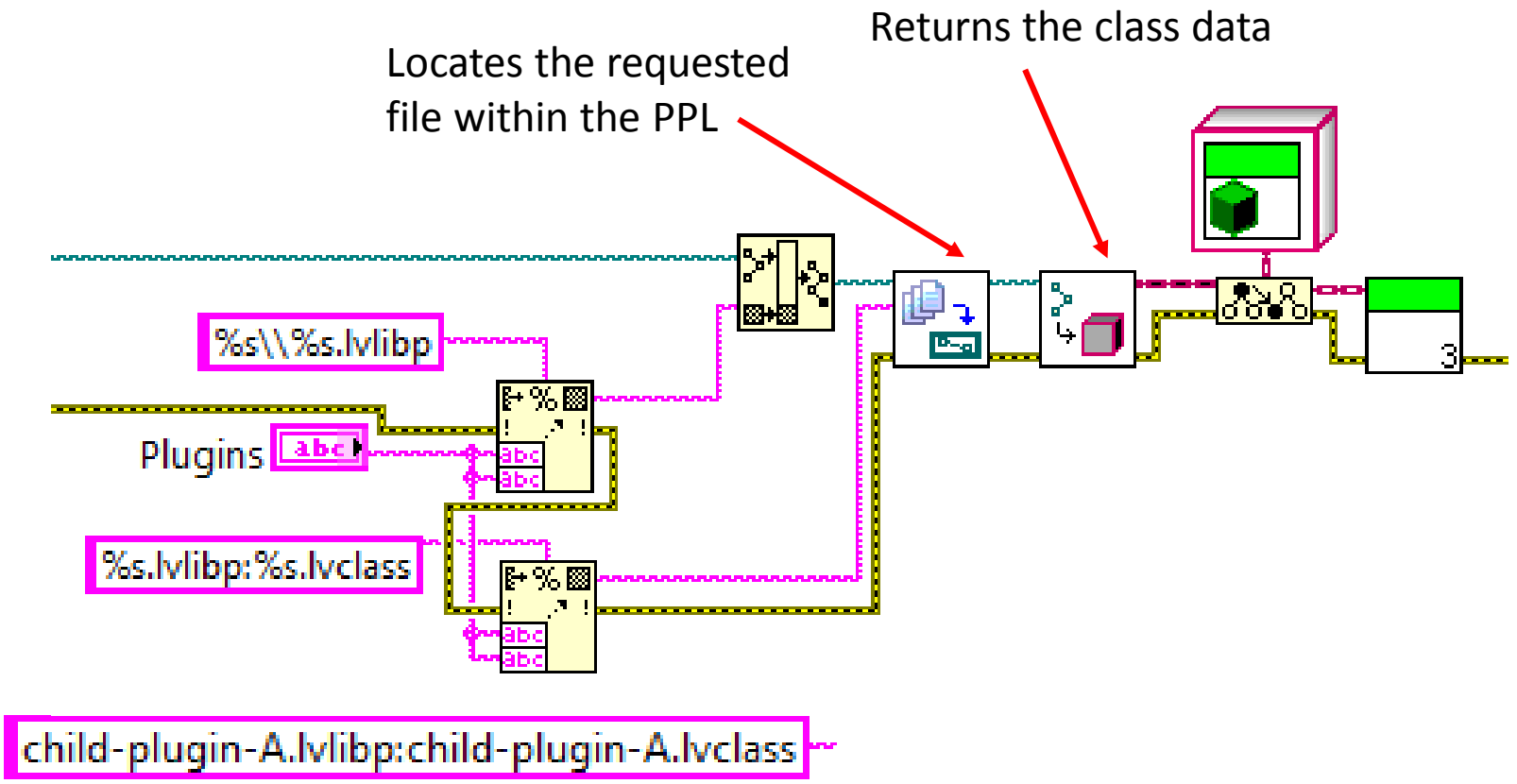


RFA Solutions

Phone: +374 (10) 21-97-69
Email: info@rafasolutions.com
Web: www.rafasolutions.com

Plug-in Architecture

- After the required plug-in is selected, it is called to be run.



RFA Solutions

Phone: +374 (10) 21-97-69
Email: info@rafasolutions.com
Web: www.rafasolutions.com

Plug-in Architecture

- Each plug-in should have the same interfaces, as the parent class.
- In the example the project contains parent interface, and two children, with the same methods.
- PPLs created using children libraries are a separate plug-ins, called in the main application.