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GOOP[®] Development Suite – News in version 4.1

This release includes installers for LabVIEW 2010 and 2009. For LabVIEW 8.6 and 8.5 we refer to GOOP Development Suite version 3.6. For LabVIEW 8.2.1 we refer to GOOP Development Suite v2.5. For earlier LabVIEW versions: use the GOOP Inheritance Toolkit and UML Modeller v1.

The most important change in this release is the tool for converting GOOP 3 to GOOP 4 and RT support.

New features (changes from 4.0):

- RT support introduced
- Conversion of GOOP 3 classes to GOOP 4
- When the UML modeller creates a method that has the name Get or Set + a name of the class's attributes, the method template will be a property method
- More right click options added in the class diagram to find/locate VIs and classes in the selected project
- Active object design pattern added that supports dynamic events
- Updated GOOP 4 templates
- GOOP examples added to NI Example Finder
- Support for debugging class attributes
- Auto sync feature added in UML Modeller

Fixed issues (changes from 4.0):

- Open VI Ref in State Diagram analysis doesn't open the VI ref in right application instance
- Reading The Scrolling position should be relative
- Internal errors for some actions, e. g. adding methods
- GetAttributes doesn't give an error out if it is called on an invalid reference
- GDS crashes when applying design pattern to a class while the class is locked
- The installer gives an incorrect error message when using the webregister service

Did you know that...

The tool is packed with cool features and you probably haven't seen them all. Here are some features you may not have noticed:

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The most important change in this release is that we introduce GOOP 4, a lightweight class template leveraging the LabVIEW Data Value Reference (DVR) concept to achieve better performance.

New features (changes from v3.6):

- GOOP4. New DVR template for standard class and singleton. We have made it a lightweight template, therefore only basic GOOP support, like reference support and named objects, are included by default. Additional GOOP functions are added for an existing class using design patterns.
- Design patterns for GOOP 4 classes added, these are used to add GOOP functionality to an existing GOOP 4 class:
 1. Class Attribute
 2. Persistent
 3. Debugging
 4. Interface
- Support for singleton classes to inherit other singleton classes.
- UML class/code analysis much faster
- Design patterns functions added in the UML Class diagrams
- Help file added
- GOOP Utility functions added in menu
 - Stop debug process
 - DVR In placement node added to the tool palette.
- License key check against version number.
- UML Note node support formatted string and auto line break.

- Direct State diagram analysis for VI, through right click option in the Project Explorer window Description is currently collapsed. Click to expand.

Fixed issues (changes from v3.6):

- UML modeller allows opening several copies of the same diagram
- Option ignore user.lib, inst.lib vi.lib in UML modeller don't always work
- Repeated click OK in "Update class icon" blocks the execution
- Create VI Icon can hang
- Change Sub class to Base in LV2010, doesn't work
- UML Editor could not open old diagrams

Did you know that...

The tool is packed with cool features and you probably haven't seen them all. Here are some features you may not have noticed:

- You can launch the VI Icon editor on any VI (class VI or standard VI). Right click on the VI and select "GOOP->Edit Icon...".
- You can select one class to reverse engineer, it will show that class and the classes it use. Right click on the class and select "UML->View class in class diagram".
- You can add an Active Object design pattern to an existing class. This feature adds a process VI and an internal job queue for the class. Right click on a class (native or GOOP3) and select "GOOP->Add Design Pattern".
- You can reverse engineer state machine VIs into a UML state diagram. This feature works for enum and string based state machines.
- When you are bored: try the random color generation in the Class Icon UI or, in the UML tool, try the "Tools->Auto Place..." features. These will cheer you up.

Release History

GOOP[®] Development Suite – News in version 3.6

This release includes installers for LabVIEW 2009, 8.6 and 8.5. For LabVIEW 8.2.1 we refer to GOOP Development Suite v2.5. For earlier LabVIEW versions: use the GOOP Inheritance Toolkit and UML Modeller v1.

In this release we fixed many LV2009 related issues and also added some new features.

New Features (changes from v3.5.1):

- Clone VI with Option Open VI afterwards

- Shift Click to select and deselect multiple objects
- Ctrl Drag to copy objects
- Auto Create Package function when right clicking on Class Diagram
- When hovering over an association and pressing the Shift, the context help has been improved
- Option to find the class in the Project Tree

Q1. How do I use the new class templates and kernel?

A. They are automatically used for all classes created with the new version of the tool. The GOOP kernel (run-time VIs used by all GOOP3 classes) is backward compatible. Existing classes will automatically use the new GOOP kernel.

Q2. How do I update existing classes to the new template?

A. Select "Tools->GOOP->Class Template Update...". This will open a UI where you can select individual classes or update all classes in your project. The update will remove unnecessary wires etc. and keep your code executable (backup first). NOTE. This feature is not available for Community Edition users, it is only for purchased licenses of the tool.

Fixed issues (changes from v3.5.1):

- An extra window appears/disappears in UML modeller before context help is shown
- Crash when Trying to Change icon on Locked VI
- Package Right Click: Remove Package Only option
- GOOP debugger fix for new template
- Collaps/Expands Package not always working for large diagrams
- Call Parent Method SubVI isn't correct after a GOOP2 to GOOP3 conversion in LV 2009
- GDS error when closing "Class Update" window clicking on the red cross.
- VI Error when creating a Class Property Set method with 6x8X6 pattern
- UML crash when deleting objects on diagram
- UML tool sometimes add stereotype <> at reverse engineer
- Debugger doesn't show base class attributes
- Can't print or export state diagram in LV 2009

GOOP[®] Development Suite – News in version 3.5.1

This release includes installers for LabVIEW 2009, 8.6 and 8.5. For LabVIEW 8.2.1 we refer to GOOP Development Suite v2.5. For earlier LabVIEW versions: use the GOOP Inheritance Toolkit and UML Modeller v1.

The main improvement with this release is tool compatibility with LabVIEW 2009. The v3.1 did not install on LabVIEW 2009. Existing GOOP code created with earlier tool versions should be fine to execute on LabVIEW 2009.

This document describes improvements done from version 3.1 to version 3.5 and 3.5.1 of the tool. Improvements made in 3.5.1 are explicitly marked, the others were added in version 3.5.

New Features (changes from v3.1):

- Adjustable size on UML packages and notes
- Optional setting to always open UML tool on last opened diagram
- Option to ignore classes in LabVIEW libs – vi.lib, user.lib and instrument.lib - at reverse engineer of UML diagrams
- UML Packages with classes inside can now be expanded and collapsed
- Updated GOOP class templates to version 1.1.2.0. Changed priority to time critical for GetAttributesToModify() and GetClassAttributesToModify(). The GOOP 3 kernel VIs are not updated.

Fixed issues (changes from v3.1):

- Fixes for LV 2009 project environment integration. The GDS v3.1 installation does not work on LabVIEW 2009.
- Adding method to a class causes GDS to crash in some situations
- Updated tab indexing in create method dialog
- Create VI Icon-tool does not report to LV that VI has been changed
- UML Crash when it tries to open a VI saved in higher LV Version (GDS v3.5.1)
- Copy a package could hang the UML modeler (GDS v3.5.1)
- Sync filters used for synch as well as for reverse engineering (GDS v3.5.1)
- Can't create methods for classes in project folders (GDS v3.5.1)
- Misspelled vi.lib in filter dialog (GDS v3.5.1)

GOOP[®] Development Suite – News in version 3.1

This release includes installers for LabVIEW 8.6 and 8.5. For LabVIEW 8.2.1 we refer to GOOP Development Suite v2.5. For earlier LabVIEW versions: use the GOOP Inheritance Toolkit and UML Modeller v1.

New Features:

- Clone VI is improved – you can now clone a method VI to multiple classes!
- Updated GOOP 3 class templates (v1.1.1.0) and GOOP 3 kernel VIs (v3.1.2)
 - Added user reference counter for named objects. You can track how many clients are using each object.
 - Improved performance in Create and Destroy
 - Cleaner method template for Create. Cleaned up so the ObjectReference.ctl don't need to be used in Create.
 - Bux fix for object status.
- Updated the “Update to new class template” feature for the new class templates.

Fixed issues:

- Check if file is read-only before saving.
- Open VI function in State Diagram open the VI in wrong application instance.
- If file UMLModeller_WhereIsIniFileStored.ini points to an unexisting location the UML tool won't start.
- Changed the class template of GetObjectStatus to re-entrant.
- Rename class using a prefix and an underscore results in incorrect name.
- After a Clone Method function has been performed and it overwrites the target file, then the all Source Code is selected on the block diagram.
- Error in labeling an transition in the state diagram – UML tool crashes.
- Tab order in Add Method dialog improved.
- New Feature Added: Search function for finding objects on diagram.
- Edit Icon function don't save the VI after updating.
- Can't debug classes located under folders inside Ivlibs.

- Icon Body Text incorrect for certain names.

GOOP Development Suite – News in version 3.0

General

Now compatible with LabVIEW 8.6. New features include Clone Method and integration with UML tools from other vendors. The GOOP2 to GOOP3 upgrade feature has been improved to handle more complex designs.

A number of minor improvements have been done to further increase the stability of the tool.

This release includes installers for LabVIEW 8.6 and 8.5. For LabVIEW 8.2.1 we refer to GOOP Development Suite v2.5. For earlier LabVIEW versions: use the GOOP Inheritance Toolkit and UML Modeller v1.

New Features:

- Support for LabVIEW 8.6. Installer also for LabVIEW 8.5.
- Clone Method – Methods can be copied and saved to a new name and also placed in another class.
- Export class diagram to XMI – XMI is the XML standard for exchanging UML diagrams between tools from different vendors. Export to XMI and then import into any XMI compatible UML tool. This is an add-on feature.
- API for some of the core GOOP Development Suite features – this is an add-on feature.

Fixed issues:

- Error cloning Class Method to a LV-LIB
- Added method in Native LabVOOP class in class diagram fails sync to Code
- GOOP2--GOOP3 conversion fails.
- Debugger don't show classes containing refs
- Debugger don't show classes in llibs
- Adding method on UML Interface node hangs LV
- Working with Locked class
- G2 to G3 convert: Dynamic Dispatch missing on some methods
- G2 to G3 convert: Insufficient info when conversion fails
- G2 to G3 convert: Instable for complex relationships

GOOP Development Suite – News in version 2.5

General

Many new useful features have been added and in addition a number of changes have been made to increase stability.

New Features:

- Update class template version – Ensures class templates can easily be kept compatible with new LV versions and also bug fixed
- Support for class in llb files – Classes can now be placed in an llb file as an alternative to file folder
- Support for Autopopulating folders – Folders containing classes can now be set to autopopulating
- Upgrade GOOP 1 to GOOP 3 – Automatically upgrade your GOOP 1 application to GOOP 3. Some manual labor will still be needed
- Undo-Redo in UML Modeler
- Initial synch after class creation – Ensures the default methods, like Create and Destroy for GOOP 3, are added to the UML class when code is generated
- Default file folder for llibs – When llibs are used the class creation wizard uses the llib folder as default for the class file path

Fixed issues:

- Limitations in Community Edition incorrect for GOOP3
- Activation not possible – Activation occasionally fails
- Duplicated and erroneous relationships at synch
- Convert GOOP 1 (LLB) to GOOP 3 fails for llb classes
- Upgrade GOOP 1 to GOOP 3 - Create is incorrect
- Cannot change child class inheritance - GDS crashes in some situations
- Code generation fails on VISA ref num – Code generation from UML fails for VISA refnum

Problem (crash) at GOOP1 -> GOOP3 – Upgrade fails for large complex project