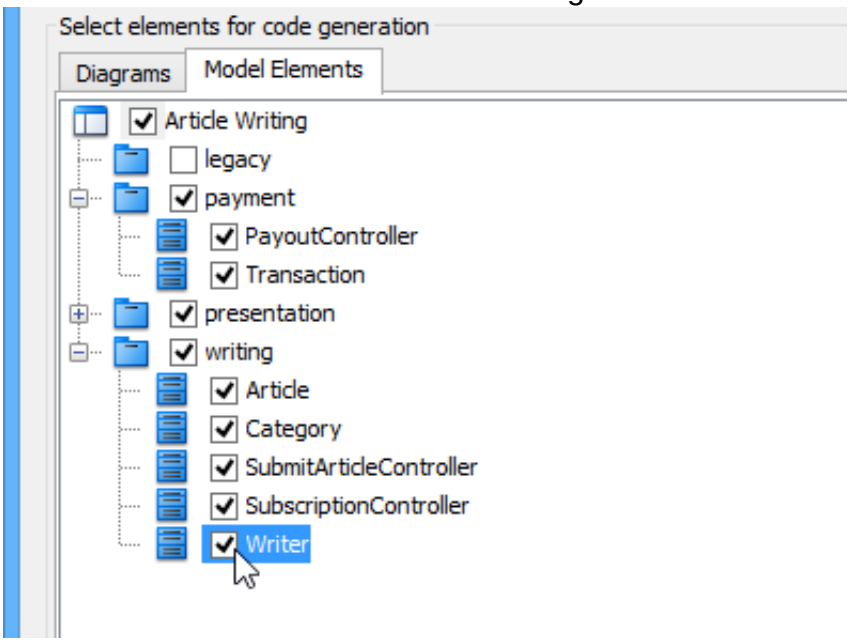
How to generate Delphi from UML

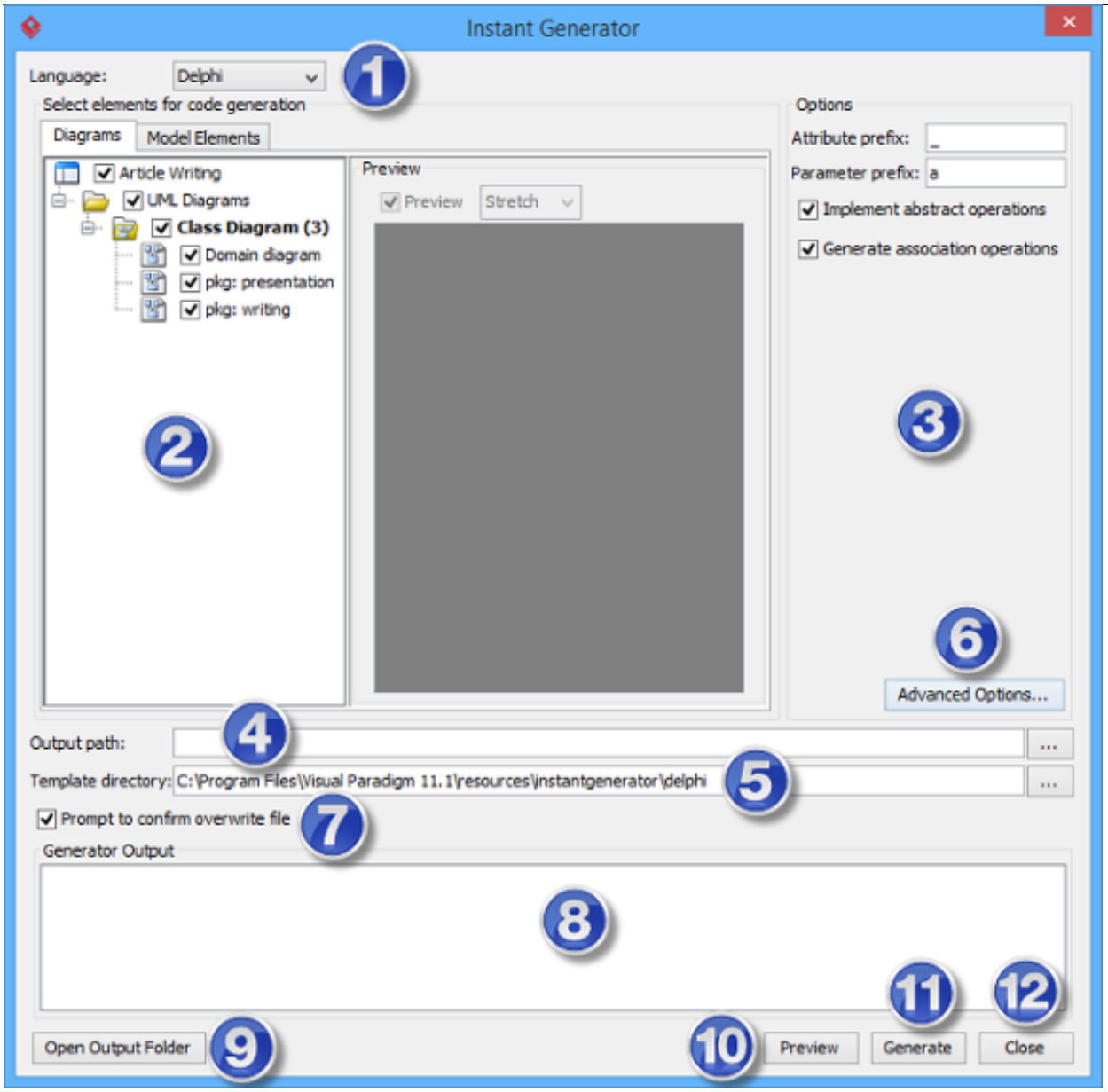
Instant Generator is the process of producing source code from UML class model. Designers or software architects can build a high level domain class model, then pass to programmer to perform more lower-level system or application modeling and eventually generate source code from implementation model. This chain makes building software faster and cheaper. In this chapter, we will go through the instant generation of Delphi. To generate code by instant generator:

1. Select **Tools > Code > Instant Generator** from the toolbar.
2. In the **Instant Generator** window, select **Delphi** as the **Language**.
3. Fill in the **Output Path**, which is the directory where you want the code to generate to.
4. Select the classes to generate code. In the **Diagrams** tab, you can select the diagrams to generate code for classes in the selected diagrams. Alternatively, open the **Model Elements** tab and select the classes to generate code.



5. Optionally configure the generator options. Read the section below for a description of options.
6. Click **Generate** to generate code.

Overview of Instant Generator

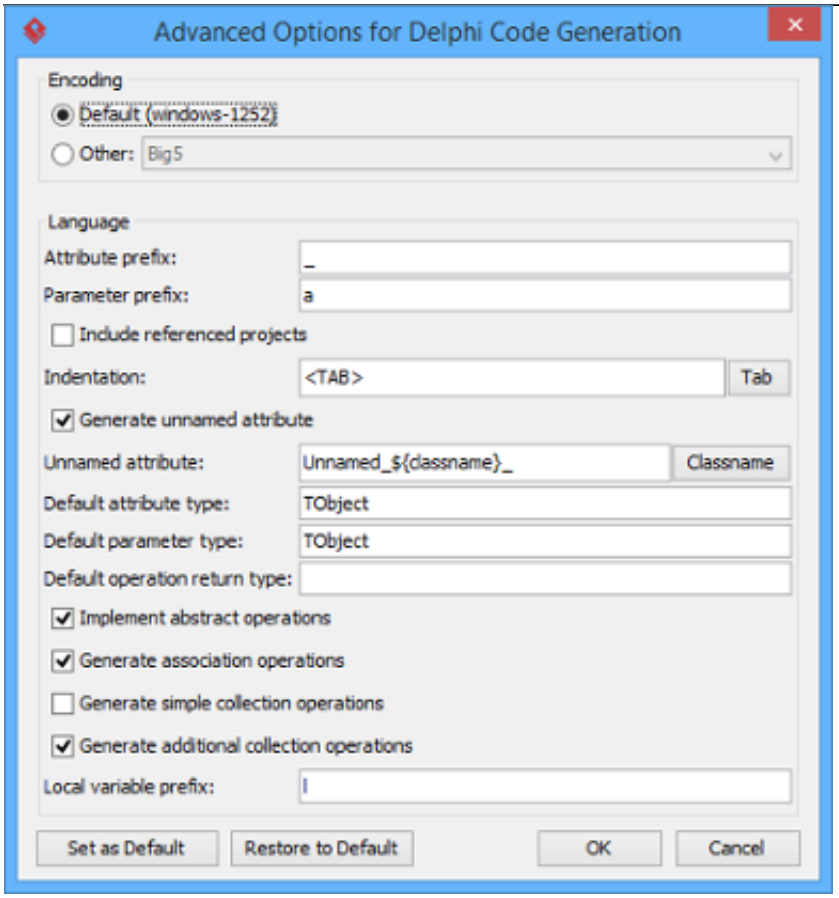


No.	Name	Description
1	Language	The programming language to generate.
2	Model element tree	A list of packages and classes that can be selected for code generation. You must select classes for code generation.
3	General options	Some of the common configurable options are shown here. You can configure them in advanced options.
4	Output path	The folder where you want the code files to be generated.
5	Template directory	Template governs how code will be generated from model to code. You can customize the template to suit your needs, such as to print

No.	Name	Description	
			company specific headers to each code file. If you want to use your own template, provide the template directory here. If you want to keep using the build in template, leave this option unchanged to let Visual Paradigm generate with build in template. To learn more about customization, read the final chapter of this part.
6		Advanced options	Click this button to configure any options related to code generation in a new window.
7		Prompt to confirm overwrite file	If a code file instant generator going to generate is already exist, by checking this option you will be asked whether to overwrite that file or not. If you uncheck this option, it will help you to overwrite the existing file automatically.
8		Output pane	Any warning, error or progress about generation will be printed here.
9		Open output folder	Open the output path with system browser.
10		Preview	Click to preview the code content. It is just a preview and code will not be generated to the output path by previewing.
11		Generate	Click to start generation.
12		Close	Click to close the instant generator.

Generator options

On the **Instant Generator** window you can configure some of the common code options at the right of window. You can also configure the advanced options for more detailed settings by clicking the **Advanced Options...** button.



Below is a description of available options.

Option	Description
Encoding	The encoding of source file.
Attribute prefix	The text to append to attribute name as prefix.
Parameter prefix	The text to append to parameter name as prefix.
Allow From Linked Project	Check to generate also classes in referenced project.
Indentation	Character(s) being used for indentation. Default is Tab**.**
Generate unnamed attribute	When two classes are associated, checking this option will generate attributes in both classes with each other as type. When unchecked, attributes will not be generated to both of them.
Unnamed attribute	Pattern will be applied when generating name for those attribute without name.
Default attribute type	Attribute type that will be used when attribute has no type specified.
Default parameter type	Parameter type that will be used when parameter has no type specified.
Default operation return type	Operation return type that will be used when operation has no return type specified.
Implement abstract operations	Whether or not to generate operations for implementing abstract operations defined in

Option	Description
	super class.
Generate association operations	If you check this box, when a role is selected to provide setter/getter, the corresponding operation(s) will be generated for the role's attribute.
Generate simple collection operations	Whether or not to generate setter and getter for accessing attribute of associated class, when getter and setter are checked.
Generate additional collection operations	Whether or not to generate add, remove and to methods for accessing attribute of associated class, when getter and setter are checked.
Local variable prefix	The characters to be appended to local variables.