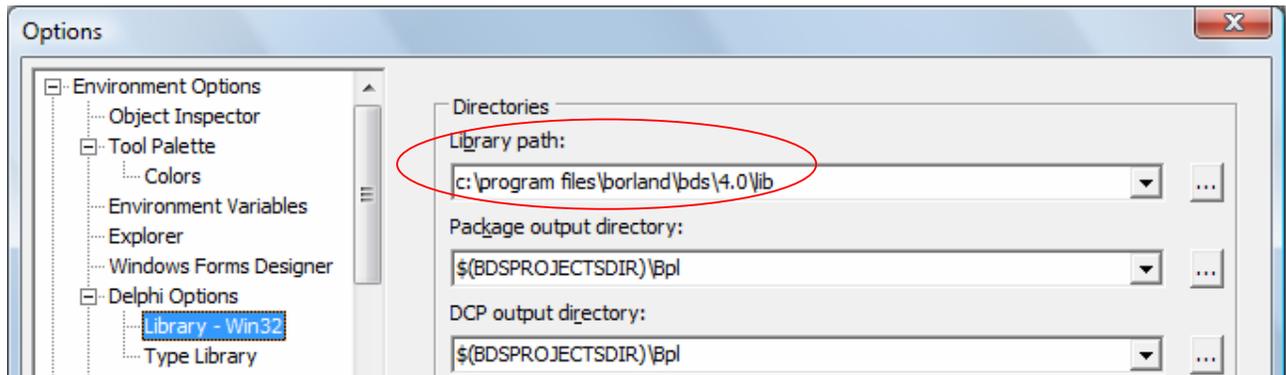


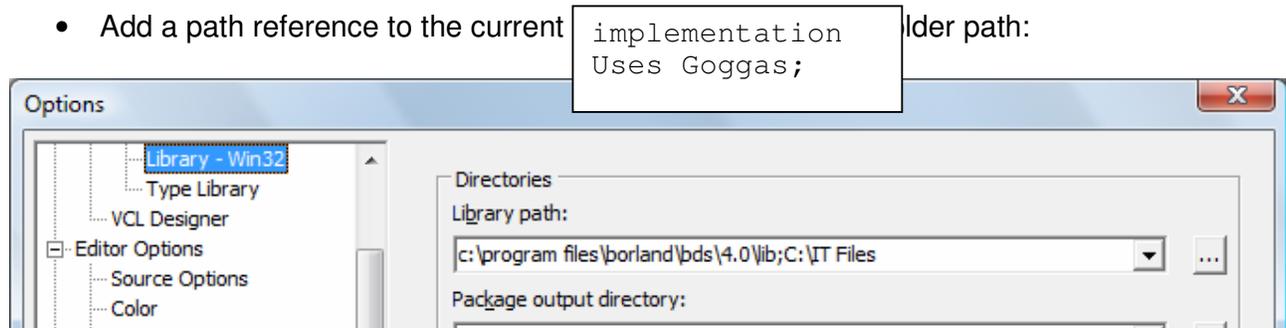
Loading the files necessary to use Goggas on your computer:

- Copy the 'IT Files' compressed folder to an all users accessible location on your PC;
- Unzip the compressed folder;
- Navigate to Tools → Options → Delphi Options → Library – Win32;

The Library path should contain a path to where the current Delphi system library files reside:



- Add a path reference to the current implementation folder path:



From here on you can load a new Delphi Project and place a Uses clause in the implementation section of the Form Unit as follows:

The Goggas unit contains all the methods and grid settings that allow Goggas to appear and carry out instructions.

In order to use Goggas in programs, we need to create Gogga objects (of the Gogga Class) and use the available methods to produce the desired outcome/s. So, a local (local meaning the desired part of the program where the variable/s will be used) needs to be declared:  
For example:

```
implementation
Uses Goggas;
Var Bug : TGogga;
```

However, declaring a class variable (object) is not enough to get it working; an object needs to be created in order to be used. Gogga objects have the following properties (fields):

Property	Allowable Value(s)
Colour	Any colour constant (e.g. clRed, clGreen) or RGB setting
Direction	A value in the range 1 to 4 (1=Up, 2=Down, 3=Left, 4=Right)*
Position	Any value for Across (in the range 0 to 39) and Down (0 to 24)*
Trail Colour	Any colour constant (e.g. clRed, clGreen) or RGB setting
Trail Width	A value in the range 0 to 10

Each declared Gogga object has the following methods (actions) available:

Method	Action
Create	Object with Default <sup>†</sup> properties
Create(GoggaColour)	Object with Default <sup>†</sup> properties + colour set
Create(Across, Down)	Object with Default <sup>†</sup> properties + Across and Down set
Create(Across, Down, GoggaColour)	Object with Default <sup>†</sup> properties + Across, Down and Colour set
Create(Across, Down, GoggaColour, Direction)	Object with Default <sup>†</sup> properties + Across, Down, Colour and Direction set
Create(Across, Down, Direction)	Object with Default <sup>†</sup> properties + Across, Down and Direction set
Move	Moves the Object by 1 space in the set Direction on the Grid*
setColour(Colour)	Sets the Object's colour to a constant (e.g. clRed, clGreen) or RGB setting
setDirection(Direction)	Sets the Object's direction to a value in the range 1 to 4 (1=Up, 2=Down, 3=Left, 4=Right)*
setTrailColour(Colour)	Sets the Object's Trail colour
setTrailWidth(Width)	Sets the Object's Trail width
ShowOff	Sets the Object to invisible
ShowOn	Sets the Object to visible
TrailOff	Sets the Object's Trail to invisible
TrailOn	Sets the Object's Trail to visible
TurnLeft	Turns the Object left
TurnRight	Turns the Object right

A further (typed, Boolean) method exists to determine if the Object can move or not. An Object can move if it hasn't passed the Grid\* boundaries in any direction or if it hasn't completed a maximum (1000) number of moves.

Method	Result
CanMove	TRUE if the above criteria are met, otherwise FALSE

## Default† Properties:

Property	Value
Colour	clRed
Direction	1 (Up)
Position	Across = 7, Down = 5
Trail Colour	clRed
Trail Width	5
Trail Visible	True (Yes)
Visible	True (Yes)

## Notes:

- An object must always be created before any other methods can be used;
- Property settings that are not included in any of the Create methods may be set by calling the relevant method after the object has been created;
- An object's Trail Colour will always be the same as the object's colour when the object is created.

\*Another class exists in the Gogga environment (pre-declared and created as 'Gogga') which deals exclusively with the Grid settings and constants relating to any Objects placed on the Grid:

## Constants:

Property	Value
Gogga.Up	1
Gogga.Down	2
Gogga.Left	3
Gogga.Right	4
Gogga.MaxMoves	1000

These constants can be used at any time when an Object's Direction needs to be changed or the maximum number of moves for an Object needs to be checked.

## Methods:

Method	Action
Gogga.setGridSize(Across, Down)	Sets the Grid size to Across (X) and Down (Y), max (X) = 40, max (Y) = 25
Gogga.setGridSpeed(Speed)	Sets the speed of actions on the Grid (in ms), max = 2000ms (2s)
Gogga.setGridTitle(Title)	Sets the title of the output window

Note: The above methods can only be called before Gogga Objects are created, otherwise they will be ignored. Default property settings:

Property	Value
Across	15
Down	10
Speed	500
Title	Gogga Grid

A first program (can be activated by either a button\_click or form\_activate event-handler):

```
procedure TForm1.FormActivate(Sender: TObject);
Var Bug : TGogga;
begin
  //To draw a square in the middle of the Grid
  Bug := TGogga.Create;
  Bug.Move;
  Bug.Move;
  Bug.TurnLeft;
  Bug.Move;
  Bug.Move;
  Bug.TurnLeft;
  Bug.Move;
  Bug.Move;
  Bug.TurnLeft;
  Bug.Move;
  Bug.Move;
  Bug.TurnLeft;
end;
```