Appendix 2

Frequently Asked Questions

In this appendix there are answers to questions frequently asked by developers, who face with Bold for Delphi technology for the first time. Some of these questions are taken from Internet-conferences and forums of developers.

General Questions

Question. Which Rational Rose versions can be used with Bold for Delphi?

Answer: Rational Rose 98 version or greater.

Question. Is it possible to create Bold-applications without the graphic interface?

Answer. Yes. The variant of such use was shown in Chapter 10 at the description of an example of data storage concerning the form location in the XML-document.

Question. Which program modules are necessary to be delivered additionally at distribution of the applications created with Bold for Delphi use?

Answer. None (concerning Bold).

Question. How to import the information from text files or Excel files into the Bold-application?

Answer. For this purpose an example of program library can be used as a basis (see Appendix 1).

Question. How to obtain tagged value during the program run?

Answer. It is possible to use the following operator

```
BoldSystemHandle.System.BoldSystemTypeInfo.ClassTypeInfoByExpressionName['MyClass'].TaggedValues[
'persistent']
```

Question. Is it possible to change tagged values during the application run?

Answer. No, because the tagged value is a part of the application model, and it is impossible to change it during the application run.

Question. How to obtain BoldID value?

Answer. The easiest way to use for this purpose free distributed OCL extensions (see Chapter 15).

Question. How to map the full list of all OS elements, for example in BoldGrid?

Answer: To connect BoldGrid to TboldListHandle which, in turn, should be connected to the system handle. To leave empty "Expression" property of the list handle. In result the returned information will contain all elements of the OS.

DBMS

Question. Is it possible to use already created "usual" databases?

Answer. Yes, if the special program adapter for transferring an "old" DB into Bold database is written. For this purpose an example of program library can be used as a basis (see Appendix 1).

Question. How to generate structure of a database in run-time?

Answer. It is possible to use as a basis the following code

```
BodSystemHandle.PersistenceHandleDB.CreateDataBaseSchema(true);
```

The logic parameter specifies, whether to ignore or not "extraneous" tables (which are not created automatically when generating DB, for example, if the SQL-server uses its system tables).

Question. How to find out whether the object space is synchronized with the database? How to end work without saving the data in DB?

Answer. For this purpose it is possible to use BoldDirty property. Below you can see the example of such check at attempt of closing the main form. For exit without synchronization you can use DisCard method (see the same listing below).

```
procedure TfrmMain.FormCloseQuery(Sender: TObject; var CanClose: Boolean);
begin
  CanClose := true;
  if (BoldSystemHandle1.Active and BoldSystemHandle1.system.BoldDirty) then
  begin
    if MessageDlg('Unsaved objects are present. Do you wish to save them in DB?', mtConfirmation,
[mbYes, mbNo], 0) = mrYes then
      BoldSystemHandle1.UpdateDatabase   // OS and DB synchronization
    else
      BoldSystemHandle1.system.Discard   // exit without OS synchronization
  end
end;
```

Components and OCL

Question. How to provide filling standard ComboBox with the values list from any handle?

Answer: You can use the following procedure

```
procedure FillComboFromBold(classname:string;attr:string;
                            Comb : TComponent);
var I :word;
    st:string;
begin
  TComboBox(Comb).Clear;
  n:=dm.sys.system.ClassByExpressionName[TL(cname)].Count;
  for i:=0 to n-1 do
  begin
    st:=dm.sys.system.ClassByExpressionName[TL(cname)]
        .BoldObjects[i].BoldMemberByExpressionName[TL(attr)].AsString;
    TComboBox(Comb).Items.Add(st);
  end;
end;
```

Question. How to carry out incremental search in the list handle?

Answer. It is possible to use the following code as a basis

```
procedure TMyForm.EditSearchChange(Sender: TObject);
var st,expr :string;
begin
  st:='%'+EditSearch.Text+'%';
  Expr:='self->orderby(attrsearch)'+'->select(attrsearch.sqlLikeCaseInsensitive('+
  QuotedStr(st)+'))';
  MyListHandle.Expression:=Expr;
end;
```

Question. Is it possible to adjust appearance of the autoform (color, font, etc.)?

Answer. Yes. For this purpose it is possible to use the sources delivered with Bold for Delphi, or to make partial settings by program way (the example below) during the application run.

```
procedure ShowAutoFormForClass(ClassName:String);
var AF : TForm;
    nc,i : word;
    grid:TBoldGrid;
    im:TImage;

begin
  AF:=AutoFormProviderRegistry.FormForElement(dm.Sys.System
      .ClassByExpressionName[TL(ClassName)]);
  if Assigned(AF) then AF.Show;
```

```
AF.Ctl3D:=False;
AF.Caption:='This form for class '+ClassName;
AF.left:=0;
AF.Top:=0;
AF.AutoSize:=false;
af.Width:=400;
grid:=(AF.FindComponent('BoldGrid') as TBoldGrid);
if assigned(grid)  then
begin
 grid.Align:=alClient;
 grid.Color:=$00E1FFFF;
 grid.DefaultColWidth:=150;
end;
end;
```

Question. How to fill TRichEdit standard component with the information from BLOB-attribute?

Answer. It is possible to use the following code as a basis (it is necessary to use try..finally in a real code)

```
Procedure RichEditFromList(R:TRichEdit;H:TBoldListHandle; AttrBlob:string);
begin
 R.Clear;
 R.Lines.LoadFromStream((H.CurrentBoldObject.BoldMemberByExpressionName[AttrBlob] as
TBABlob).CreateBlobStream(bmRead));
 (H.CurrentBoldObject.BoldMemberByExpressionName[AttrBlob] as
TBABlob).CreateBlobStream(bmRead).Free;
end;
```

Question. How to use BoldFilter component?

Answer. This component is a little out-of-date and is introduced for compatibility with Bold for Delphi previous versions. It is much more convenient to use OCL for filtering. For example, for filtering authors by the countries it is possible to use the following OCL-expression in the list handle

```
Author.allInstances->select(country.name='France');
```

Question: What for BoldComparer component is necessary?

Answer. This component is also introduced for compatibility with Bold for Delphi previous versions. It is intended for sorting objects in the list. It is much more convenient to use OCL instead of this component. For example, for sorting authors by surname it is possible to use the following OCL-expression in the list handle

```
Author.allInstances->orderby(surname);
```

Here flexibility is in the fact that OCL allows to sort authors, for example, by quantity of the written books (at that this quantity is calculated "hurriedly") i.e. using effectively navigation on model.

```
Author.allInstances->orderby(wrote->size);
```

Question. How to make filtering under several conditions?

Answer. For this purpose it is possible to use any compound logic expression as a filter condition. For example, the following OCL-expression will select all authors, except for the author "Twain", and at that the quantity of the books written by every author will be more than two

```
Author.allInstances->select((name<>'Twain' ) and (writes->size>2))
```

Chained filtering is another way for achieving the same result

```
Author.allInstances->select(name<>'Twain' )->select(writes->size>2)
```