FIREBIRD EMBEDDED SERVER

Session HOWTO-P306-R

Firebird Conference • Praha 2005 • Firebird Conference

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– Owner and manager of FRRED Software GmbH
  o Logistics software for transport, export
    Add-On for ERP-Systems (SAP, BAAN, Navision, ProAlpha, etc.)
  o approx. 30 installations all over Germany
  o all installations with **Firebird**
  o average 5-10 users, avg. database size 100 MB

– Working with InterBase since v4 (Delphi 1)

– Working with Firebird since the very beginning (Version 0.9)

– Member of the **Firebird Foundation** since the very beginning

FirebirdSQL
Foundation

FULL MEMBER
Supporting
Firebird development

About this **SESSION**

This session will demonstrate the Firebird Embedded Server and willl show

Firebird Embedded Server

- **What is** the Firebird Embedded Server

- **How** does it work

- What can it be **used for**

- How to **install** it

- When and **how to use** it

- **Restrictions**

- **Examples**

Note: There's an example application (including Delphi 5 SourceCode), a database and an InnoSetup installation script that can be found on the Conference CD

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<u>**WHAT** is the Firebird Embedded Server?</u>

The Embedded Server is a Firebird Server that resides inside a DLL.

As the install notes state:

> *The embedded server is a fully functional server linked as a dynamic library (fbembed.dll).*
> *It has exactly the same features as the usual server and exports the standard Firebird API entrypoints.*

So, if a Firebird Server is already installed there will be no access to the registry settings!

Thus the Embedded Server can be easily distributed with a simple setup together with your app, or being burnt on a CD for a read-only demo-app or...

The Embedded Server can co-exist with any Firebird installation, the dll itself can be even used as a standard fbclient.dll for redirecting to a server (only in combination with with the TCP/IP protocol; so using a local installed FBServer has to be invoked by TCP/IP!)

The Embedded Server can be used as often as liked on a local machine.

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How to **INSTALL**

Installation is easy.

The Embedded Server comes in a zip-file that does just contain some files

File	Location	Description
fbclient.dll	{$APP}	The embedded server itself Renam this to gds32.dll depending on the access
ib_util.dll	{$APP}	
firebird.conf	{$APP}	configuration file
aliases.conf	{$APP}	alias file
firebird.msg	{$APP}[1]	Firebird Messages
fbintl.dll	{$APP\INTL}[1]	Needed, when character sets are used
fbudf.dll	{$APP\UDF}[1]	Needed when UDFs are used

{$APP} indicates the application directory.

[1] The location for these files might be different to the applciation directory.
 In this case this has to be defined in the **firebird.conf** file in the section *RootDirectory*
 These files may be omitted.

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Installation is easy.
Period!

Firebird Embedded Server

Example: InnoSetup

[Files]
Source: Prog\MyApp.exe; DestDir: {app}; Flags: ignoreversion
Source: DB\MYDB.FDB; DestDir: {app}\DB; Flags: confirmoverwrite
Source: fbEmbedded\gds32.dll; DestDir: {app};
Source: fbEmbedded\Intl\fbintl.dll; DestDir: {app}\Intl;
Source: fbEmbedded\firebird.conf; DestDir: {app};
Source: fbEmbedded\firebird.msg; DestDir: {app};

And within the application:

when running the first time default the
database settings to the setup defaults

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CONCLUSION

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- Put all the files you need in the appropriate directories

- Start your application

- GO!

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Since the Embedded Server gives you a fully functional Firebird server with full
API support it's always a good choice for various tasks like

- **Demo-Applications**
  Easily deliver a running demo of your application with full database access.
  By easy means, like InnoSetup, build a complete setup script within minutes.

- **Catalogue applications on CD/DVD**
  Deliver read only databases on a CD/DVD.

- **On an USB stick**
  An Emergency kit for presentations,
  Having the application and database on the USB-stick enables you to run it on
  any machine the USB stick will be accepted.

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RESTRICTIONS

The security-database is NOT used (thus not part of the installation),
→ so any user can login.

    But:
    SQL privileges still apply (as stored in the system tables),
    → so a username with appropriate rights has to be supplied
      (the password is not checked).

The fbclient.dll will work as a standard library when connecting to remote servers.

A connection to a local Firebird Server instance without a TCP/IP call isn't possible.

You may run any number of applications with the embedded server without any conflicts.

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EXAMPLES

Having said enough –

let's have a look into the practice!

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Note:
The demo program / dll and the database as well as the InnoSetup installation script will be on the Conference CD.

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ANY MORE QUESTIONS ???

Firebird Embedded Server

... and later on ...

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FirebirdSQL Foundation

FULL MEMBER
Supporting
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and don't forget to **JOIN**!

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