DBMaster Bundle manual

Version: 5.41 (Windows)

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1. Introductions

1.1 Purpose

This document provides application vendors with a guide to install their own application and DBMaster. With this document, the AP vendors should install their own application and connect to the underground DBMaster database without problems. Most of the processes mentioned here should be implemented in the Installation-Shield or other installation aided tools. The AP vendors should be aware of the processes and acquire the appropriate License Activation File from DBMaster in accordance with their own usage.

Unlike official version, which put DBMaster executable files and configuration file into DBMaster installation directory, Bundle Version will put executable files and configuration file into the directory you wanted and work independently without intervening DBMaster official or other bundle files. This is very convenient for AP vendor who wants to put his application and embedded database into one directory for easy management.

1.2 Notice

For beginners, the best way to understand this document is to manually implement it. Using the systematic process in this document, a user can catch the fundamentals and learn DBMaster rapidly. If no problems are incurred, a user can proceed to use the most popular installation aided packages, such as Install-Shield and Install-Anywhere, to perform the tasks.

In addition, every development tool has its own characteristic. For example, Delphi requires a BDE as bridge between the AP and ODBC\OLE DB settings. When an AP Vendor designs an installation module, they should include these elemental components as well, or the application will not function properly.

1.3 Other Sources of Information

DBMaster standard version provides many other user's guides and reference manuals in addition to this reference. For more information on a particular subject, consult one of these books:

- For more information on the designing, administering, and maintaining a DBMaster database, refer to the *"*Database Administrator's Guide*"*.
- For more information on the SQL language implemented by DBMaster, refer to the "SQL Command and Function Reference".
- For more information on the ESQL/C language implemented by DBMaster, refer to the "ESQL/C Programmer's Guide".

- For more information on error and warning messages, refer to the “Error and Message Reference”.
- For more information on using stored procedure, refer to the “Stored Procedure user’s guide”.

1.4 Technical Support

CASEMaker provides thirty days of complimentary email and phone support during the evaluation period. When software is registered an additional thirty days of support will be included. Thus extend the total support period for software to sixty days. However, CASEMaker will continue to provide email support for any bugs reported after the complimentary support or registered support has expired (free of charges).

Additional support is available beyond the sixty days for most products and may be purchased for twenty percent of the retail price of the product. Please contact sales@casemaker.com for more details and prices.

CASEMaker support contact information for your area (by snail mail, phone, or email) can be located at: http://www.casemaker.com/support. It is recommended that the current database of FAQ’s be searched before contacting CASEMaker support staff.

Please have the following information available when phoning support for a troubleshooting enquiry or include the information with a snail mail or email enquiry:

- Product name and version number
- Registration number
- Registered customer name and address
- Supplier/distributor where product was purchased
- Platform and computer system configuration
- Specific action(s) performed before error(s) occurred
- Error message and number, if any
- Any additional information deemed pertinent

2. Installation Flow

DBMaster can run in a Single-User Mode, Client Mode, or Server Mode. Thus, an AP vendor should install the various components and registry settings based solely on these three types of modes. The installation is illustrated as follows:

2.1 Single User Mode

- ✓ Place the DBMaster dmconfig.ini, DBMaster.Lic file, activation.dat file, DBMaster Execution Files, and Components into a specific folder
- ✓ Place the Applications into a specific folder
- ✓ Place the Data Files into a folder, indicated in the dmconfig.ini
- ✓ Place the files in Single User mode into one directory, or separate directories
- ✓ Set up the ODBC Driver, ODBC DSN, or BDE parameter (used only in Delphi), if required
- ✓ If a License Key is required, update the License Key. Note that this procedure is set during the installation phase.

2.2 Client/Server Mode – Server Side

- ✓ Place the DBMaster dmconfig.ini, DBMaster.Lic file, activation.dat, DBMaster Execution Files and Components into a specific folder.
- ✓ Place the Applications developed by an AP vendor into another specific folder, which will run on the server site.
- ✓ Place the files in Server Side mode into one directory, or into separate directories.
- ✓ Place the Data Files into another folder, which will be indicated in the dmconfig.ini.
- ✓ If a License Key is required, update the License Key. Note that this procedure is set during the installation phase.
- ✓ Optionally, register the DB as a NT Service so that a user will not have to manually start the DB.

2.3 Client/Server User Mode – Client Side

- ✓ Place the dmconfig.ini and DBMaster drivers into a specific folder.
- ✓ Place the Applications developed by an AP vendor into another specific folder.
- ✓ Place the files in Client Side mode into one directory, or into separate directories.

- ✓ Setup the ODBC Driver, ODBC DSN, OLE DB Driver or BDE parameter (used only in Delphi), if necessary.

3. Database Binary Components

3.1 Files List for Installation Types

Following table is an example for using DBMaster 5.4 bundle version, lists all files generated after installation in different modes.

"(Op)" indicates it is optional.

File	Client	Single	Server	Descriptions
dmconfig.ini[1]	☑	☑	☑	This file is the DBMaster configuration file. The server site uses it to indicate the locations of Data Files. The client site uses it to indicate the IP Address and Port Number of server site.
dmclassloader.jar			☑(Op)	This file is a dynamic class loader for java sp.
dmserver_en_US.dll		☑	☑	Dmserver localization (English).
dmsql_en_US.dll	☑	☑	☑	Dmsql32 localization (English).
rollover.exe		☑(Op)	☑(Op)	This file is a command line utility used to restore a database from backup files.
dmapi54.dll	☑	☑	☑	This file is the elemental DBMaster ODBC API Driver. Even when using the JDBC Driver, this file is still required. It supports ODBC Unicode and ANSI interface. User should register this driver in the ODBC Driver manager by default.

[1] AP vendor should write the configuration file into the customers' machines basing on the dmconfig.ini content in the developing environment. The dmconfig.ini file on this CD-ROM is only a sample. For details, please refer to the "Database Administrator Guide".

dmapi54a.dll	☑(Op)	☑(Op)	☑(Op)	When users have defined user defined character in their windows system and there is problem using the dmapi54.dll with the user defined character, users should only register this driver in ODBC Driver manager. This file supports ODBC ANSI interface only.
dmdttut.dll	☑(Op)	☑(Op)	☑(Op)	Jdatatransfer tool engine library.
dmjdbaut.dll	☑(Op)	☑(Op)	☑(Op)	Jdbatool internal reference library.
dmjsvrut.dll	☑(Op)	☑(Op)	☑(Op)	JServer manager internal reference library.
dmjdbc20.jar	☑	☑	☑	This file consist the JDBC classes of DBMaster. If a Java program needs to use JDBC 2.0, without XA protocol support, users need to add this file to CLASSPATH environment. For example, J2SE 1.3 SDK contains the JDBC 2.0 but not XA API.
dmjdbc20xa.jar	☑	☑	☑	This file consist the JDBC classes of DBMaster. If a Java program needs to use JDBC 2.0, with XA protocol support, users need to add this file to CLASSPATH environment. For example, J2EE 1.3 SDK contains the JDBC 2.0 and XA API.
dmjdbc30.jar	☑	☑	☑	This file consist the JDBC classes of DBMaster. If a Java program needs to use JDBC 3.0, which contains XA as its standard API, please add this file to CLASSPATH environment. For example, J2SE 1.4 SDK and J2EE 1.4 SDK both support JDBC 3.0.
dmxtt.jar	☑(Op)	☑(Op)	☑(Op)	The jar file for XTT Tool reference.
dmxtm.jar	☑(Op)	☑(Op)	☑(Op)	The jar file for XTM Tool reference.
jsql.jar	☑(Op)	☑(Op)	☑(Op)	The jar file for JSQL Tool all class files.
jtools.jar	☑(Op)	☑(Op)	☑(Op)	The jar file for JDBATool all class files.
startup.jar	☑(Op)	☑(Op)	☑(Op)	The jar file for Java Tool launching checking setting.
xtm.jar	☑(Op)	☑(Op)	☑(Op)	The jar file for XTM tool all class files.
xtt.jar	☑(Op)	☑(Op)	☑(Op)	The jar file for XTT Tool all class files.

dmjdbc54.dll	☑	☑	☑	Dmjdbc54.dll is the Java Native ODBC Driver (Type II). Via this tier, the pure JDBC classes are able to use the native ODBC API Driver. In other words, this file converts the JDBC call corresponding to the native DBMaster ODBC call.
dmjdbct3c.jar	☑(Op)			This file consists of classes supported by Type III JDBC client. If a Java program needs to use Type III JDBC, please place this file under the directory set by the environment variable CLASSPATH. For example, J2SE 1.4 SDK and J2EE 1.4 SDK both support Type III JDBC.
dmjdbct3s.war			☑(Op)	This file consists of classes supported by Type III JDBC server. If a Java program needs to use Type III JDBC, please place dmjdbc3c.jar under the directory set by the environment variable CLASSPATH.
dmole54.dll	☑(Op)			This file provides OLE DB for DBMaster.
dmppcc.exe		☑(Op)	☑(Op)	Compile ESQL/C into C language file.
dmppspc.exe			☑(Op)	This tool is the SQL stored procedure pre-processor. It is used when dmserver create the SQL stored procedure.
dmset.dll	☑(Op)	☑(Op)	☑(Op)	This file is used for ODBC Driver Manager to set up the DBMaster Driver and DSN.
dmsql32.exe[2]	☑(Op)	☑(Op)	☑(Op)	Interactive SQL command tools provided by DBMaster. It is particularly useful when debugging the ODBC settings. However, it is not suggested to deploy this tool during installing your applications.
dmsqlr32.dll		☑	☑	DBMaster Single User Mode main DLL program.
grammar.sql	☑(Op)	☑(Op)	☑(Op)	This file contains the SQL syntax for user's reference. It is very particularly useful when using dmSQL utility.

[2] Dmsql32.exe is particularly useful for developing test. Somehow, it is not suggested to deploy this tool during installing your applications.

dmserver.exe			☑	DBMaster C/S Mode main Server Program.
dmservic.exe			☑	DBMaster C/S Mode main Server Program but used only as NT Service Mode.
jconfig.exe	☑(Op)	☑(Op)	☑(Op)	The entry of launching JConfiguration Tool.
jdatatransfer.exe	☑(Op)	☑(Op)	☑(Op)	The entry of launching JDatatransfer Tool.
jdba.exe	☑(Op)	☑(Op)	☑(Op)	The entry of launching JDBATool.
jmonitor.exe	☑(Op)	☑(Op)	☑(Op)	The entry of launching JMonitor Tool.
jsql.exe	☑(Op)	☑(Op)	☑(Op)	The entry of launching JSQL Tool.
jsvrmgr.exe	☑(Op)	☑(Op)	☑(Op)	The entry of launching JServer Manager Tool.
Xtm.exe	☑(Op)	☑(Op)	☑(Op)	The entry of launching XTM Tool.
xtt.exe	☑(Op)	☑(Op)	☑(Op)	The entry of launching XTT Tool.
dmsvr32.dll			☑	DBMaster C/S Mode main Server DLL Program.
dmsvcutl.exe			☑(Op)	NT Service Registering Tools provided by DBMaster. This file will be used with dmservic.exe.
dmudf.dll		☑	☑	DBMaster User Defined Function DLL Program.
expat.dll		☑	☑	XML Parser DLL Program.
dbmaster.lic[3]		☑	☑	DBMaster License Key File. Please refer to Chapter 4 for details.
Iconv.dll		☑	☑	Using for libxml2 when xml file encoding convert.
libxml2.dll		☑	☑	Using for xml solution in xml function.
COPYRIGHT		☑	☑	DBMaster copyright file.
dbghelp.dll		☑(Op)	☑(Op)	Debug tracking related module.
dmschsvr.exe		☑(Op)	☑(Op)	Schedule task service program.
liblua.dll		☑	☑	DBMaster Lua function dll program and Lua C module develop library.
msvcr71.dll		☑	☑	VC7 running library file.

[3] The DBMaster.lic file on this CD-ROM is for demonstration only. The AP vendor should acquire the appropriate license key, comfort to the format of this file, and write into the DBMaster.lic in customers' machines.

\Endorsed\ directory **Note**: If you need not use the function of JTools, you can drop the directory.				
jai_codec.jar	☑(Op)	☑(Op)	☑(Op)	The jar file for Java tool display image.
jai_core.jar	☑(Op)	☑(Op)	☑(Op)	The jar file for Java tool display image.
jbcl.jar	☑(Op)	☑(Op)	☑(Op)	The jar file for specified layout implementation.
jh.jar	☑(Op)	☑(Op)	☑(Op)	The jar file for java tool help reference.
mlibwrapper_jai.jar	☑(Op)	☑(Op)	☑(Op)	The jar file for Java tool display image.
xalan.jar	☑(Op)	☑(Op)	☑(Op)	It's an XSLT processor for transforming XML documents into HTML, text or other XML document types.
xercesImpl.jar	☑(Op)	☑(Op)	☑(Op)	The java parser support XML 1.0 recommendation and contains advanced parser functionality.
xml-apis.jar	☑(Op)	☑(Op)	☑(Op)	The jar file for JAXP APIs.
xsltc.jar	☑(Op)	☑(Op)	☑(Op)	The jar file for XSL processor.
\shared\3rd\xdelta\ directory				
xdelta3.exe		☑(Op)	☑(Op)	A tool for DBMaster differential backup.
\shared\3rd\xpdf\ directory				
COPYING		☑(Op)	☑(Op)	Pdftotext copyright file.
pdftotext.1		☑(Op)	☑(Op)	Man pages of pdftotext.
pdftotext.cat		☑(Op)	☑(Op)	The pdftotext digital signature file.
pdftotext.exe		☑(Op)	☑(Op)	The executable program is used to convert Portable Document Format (PDF) files into plain text.
pdftotext.hlp		☑(Op)	☑(Op)	The pdftotext help file.
README		☑(Op)	☑(Op)	The readme file.
xpdfrc		☑(Op)	☑(Op)	The pdftotext configuration file.
\shared\3rd\xpdf\pdfmaps\ directory				
Adobe-CNS1.cidToUnicode		☑(Op)	☑(Op)	The file is used to specify mapping between Adobe-CNS1 character collection and Unicode.
Adobe-GB1.cidToUnicode		☑(Op)	☑(Op)	The file is used to specify mapping between Adobe-GB1 character collection and Unicode.

Adobe-Japan1.cidToUnicode		☑(Op)	☑(Op)	The file is used to specify mapping between Adobe-Japan1.cid and Unicode.
\shared\3rd\xpdf\pdfmaps\CMap\ directory				
78-EUC-H		☑(Op)	☑(Op)	CMap files of pdftotext for support Japanese.
78-EUC-V		☑(Op)	☑(Op)	
78-H		☑(Op)	☑(Op)	
78ms-RKSJ-H		☑(Op)	☑(Op)	
78ms-RKSJ-V		☑(Op)	☑(Op)	
78-RKSJ-H		☑(Op)	☑(Op)	
78-RKSJ-V		☑(Op)	☑(Op)	
78-V		☑(Op)	☑(Op)	
83pv-RKSJ-H		☑(Op)	☑(Op)	
90msp-RKSJ-H		☑(Op)	☑(Op)	
90msp-RKSJ-V		☑(Op)	☑(Op)	
90ms-RKSJ-H		☑(Op)	☑(Op)	
90ms-RKSJ-UCS2		☑(Op)	☑(Op)	
90ms-RKSJ-V		☑(Op)	☑(Op)	
90pv-RKSJ-H		☑(Op)	☑(Op)	
90pv-RKSJ-UCS2		☑(Op)	☑(Op)	
90pv-RKSJ-UCS2C		☑(Op)	☑(Op)	
90pv-RKSJ-V		☑(Op)	☑(Op)	
Add-H		☑(Op)	☑(Op)	
Add-RKSJ-H		☑(Op)	☑(Op)	
Add-RKSJ-V		☑(Op)	☑(Op)	
Add-V		☑(Op)	☑(Op)	
Adobe-Japan1-0		☑(Op)	☑(Op)	
Adobe-Japan1-1		☑(Op)	☑(Op)	
Adobe-Japan1-2		☑(Op)	☑(Op)	
Adobe-Japan1-3		☑(Op)	☑(Op)	
Adobe-Japan1-4		☑(Op)	☑(Op)	
Adobe-Japan1-UCS2		☑(Op)	☑(Op)	
EUC-H		☑(Op)	☑(Op)	
EUC-V		☑(Op)	☑(Op)	

Ext-H		☑(Op)	☑(Op)	
Ext-RKSJ-H		☑(Op)	☑(Op)	
Ext-RKSJ-V		☑(Op)	☑(Op)	
Ext-V		☑(Op)	☑(Op)	
H		☑(Op)	☑(Op)	
Hankaku		☑(Op)	☑(Op)	
Hiragana		☑(Op)	☑(Op)	
Katakana		☑(Op)	☑(Op)	
NWP-H		☑(Op)	☑(Op)	
NWP-V		☑(Op)	☑(Op)	
RKSJ-H		☑(Op)	☑(Op)	
RKSJ-V		☑(Op)	☑(Op)	
Roman		☑(Op)	☑(Op)	
UniJISPro-UCS2-HW-V		☑(Op)	☑(Op)	
UniJISPro-UCS2-V		☑(Op)	☑(Op)	
UniJISPro-UTF8-V		☑(Op)	☑(Op)	
UniJIS-UCS2-H		☑(Op)	☑(Op)	
UniJIS-UCS2-HW-H		☑(Op)	☑(Op)	
UniJIS-UCS2-HW-V		☑(Op)	☑(Op)	
UniJIS-UCS2-V		☑(Op)	☑(Op)	
UniJIS-UTF8-H		☑(Op)	☑(Op)	
UniJIS-UTF8-V		☑(Op)	☑(Op)	
UniJIS-UTF16-H		☑(Op)	☑(Op)	
UniJIS-UTF16-V		☑(Op)	☑(Op)	
V		☑(Op)	☑(Op)	
WP-Symbol		☑(Op)	☑(Op)	
Adobe-CNS1-0		☑(Op)	☑(Op)	CMap files of pdftotext for support Traditional Chinese.
Adobe-CNS1-1		☑(Op)	☑(Op)	
Adobe-CNS1-2		☑(Op)	☑(Op)	
Adobe-CNS1-3		☑(Op)	☑(Op)	
Adobe-CNS1-UCS2		☑(Op)	☑(Op)	

B5-H		☑(Op)	☑(Op)	
B5pc-H		☑(Op)	☑(Op)	
B5pc-UCS2		☑(Op)	☑(Op)	
B5pc-UCS2C		☑(Op)	☑(Op)	
B5pc-V		☑(Op)	☑(Op)	
B5-V		☑(Op)	☑(Op)	
CNS1-H		☑(Op)	☑(Op)	
CNS1-V		☑(Op)	☑(Op)	
CNS2-H		☑(Op)	☑(Op)	
CNS2-V		☑(Op)	☑(Op)	
CNS-EUC-H		☑(Op)	☑(Op)	
CNS-EUC-V		☑(Op)	☑(Op)	
ETen-B5-H		☑(Op)	☑(Op)	
ETen-B5-UCS2		☑(Op)	☑(Op)	
ETen-B5-V		☑(Op)	☑(Op)	
ETenms-B5-H		☑(Op)	☑(Op)	
ETenms-B5-V		☑(Op)	☑(Op)	
ETHK-B5-H		☑(Op)	☑(Op)	
ETHK-B5-V		☑(Op)	☑(Op)	
HKdla-B5-H		☑(Op)	☑(Op)	
HKdla-B5-V		☑(Op)	☑(Op)	
HKdlb-B5-H		☑(Op)	☑(Op)	
HKdlb-B5-V		☑(Op)	☑(Op)	
HKgccs-B5-H		☑(Op)	☑(Op)	
HKgccs-B5-V		☑(Op)	☑(Op)	
HKm314-B5-H		☑(Op)	☑(Op)	
HKm314-B5-V		☑(Op)	☑(Op)	
HKm471-B5-H		☑(Op)	☑(Op)	
HKm471-B5-V		☑(Op)	☑(Op)	
HKscs-B5-H		☑(Op)	☑(Op)	
HKscs-B5-V		☑(Op)	☑(Op)	
UniCNS-UCS2-H		☑(Op)	☑(Op)	
UniCNS-UCS2-V		☑(Op)	☑(Op)	
UniCNS-UTF8-H		☑(Op)	☑(Op)	

UniCNS-UTF8-V		☑(Op)	☑(Op)	
UniCNS-UTF16-H		☑(Op)	☑(Op)	
UniCNS-UTF16-V		☑(Op)	☑(Op)	
Adobe-GB1-0		☑(Op)	☑(Op)	CMap files of pdftotext for support Simplified Chinese.
Adobe-GB1-1		☑(Op)	☑(Op)	
Adobe-GB1-2		☑(Op)	☑(Op)	
Adobe-GB1-3		☑(Op)	☑(Op)	
Adobe-GB1-4		☑(Op)	☑(Op)	
Adobe-GB1-UCS2		☑(Op)	☑(Op)	
GB-EUC-H		☑(Op)	☑(Op)	
GB-EUC-V		☑(Op)	☑(Op)	
GB-H		☑(Op)	☑(Op)	
GBK2K-H		☑(Op)	☑(Op)	
GBK2K-V		☑(Op)	☑(Op)	
GBK-EUC-H		☑(Op)	☑(Op)	
GBK-EUC-UCS2		☑(Op)	☑(Op)	
GBK-EUC-V		☑(Op)	☑(Op)	
GBKp-EUC-H		☑(Op)	☑(Op)	
GBpc-EUC-H		☑(Op)	☑(Op)	
GBpc-EUC-UCS2		☑(Op)	☑(Op)	
GBpc-EUC-UCS2C		☑(Op)	☑(Op)	
GBpc-EUC-V		☑(Op)	☑(Op)	
GBKp-EUC-V		☑(Op)	☑(Op)	
GBT-EUC-H		☑(Op)	☑(Op)	
GBT-EUC-V		☑(Op)	☑(Op)	
GBT-H		☑(Op)	☑(Op)	
GBTpc-EUC-H		☑(Op)	☑(Op)	
GBTpc-EUC-V		☑(Op)	☑(Op)	
GBT-V		☑(Op)	☑(Op)	
GB-V		☑(Op)	☑(Op)	
UniGB-UCS2-H		☑(Op)	☑(Op)	
UniGB-UCS2-V		☑(Op)	☑(Op)	
UniGB-UTF8-H		☑(Op)	☑(Op)	
UniGB-UTF8-V		☑(Op)	☑(Op)	

UniGB-UTF16-H		☑(Op)	☑(Op)	
UniGB-UTF16-V		☑(Op)	☑(Op)	
\shared\codeorder\ directory				
big5_stroke.ord		☑(Op)	☑(Op)	This file could be used for the “sort order” purpose. In this case, if set in dmconfig.ini, the “sort order” will conform to the Big5 stroke sequence. A user could use another kind of “sort order” or totally ignore this when using default alphanumeric order. Please read the “Database Administrator Guide” for details.
sjis_dict.ord		☑(Op)	☑(Op)	This file is used to rule the sort order. If set in dmconfig.ini, the “sort order” will conform to the SHIFT-JIS stroke sequence. A user can use another sort order or totally ignore this when using the default alphanumeric order. Please reference the *Database Administrator Guide* for details.
\shared\codepage\ directory **Note:** This directory contains nineteen mapping files for different kinds of language, which is necessary both for Server and Client. For instance, Latin Lower case and Upper case conversion map. It suggests that user had better not modify the directory name and structure, in that DBMaster will link the needed files following the original directory structure. The directory does not exist before the DBMaster 4.0 bundle version.				
dmB5LToU.map	☑	☑	☑	
dmB5UToL.map	☑	☑	☑	
dmCyrillicLToU.map	☑	☑	☑	
dmCyrillicUToL.map	☑	☑	☑	
dmGBKLToU.map	☑	☑	☑	
dmGBKUToL.map	☑	☑	☑	
dmGreekLToU.map	☑	☑	☑	
dmGreekUToL.map	☑	☑	☑	
dmivfucode.map	☑	☑	☑	
dmJISLToU.map	☑	☑	☑	
dmJISUToL.map	☑	☑	☑	
dmLatin1LToU.map	☑	☑	☑	

dmLatin1UToL.map	☑	☑	☑	
dmLatin2LToU.map	☑	☑	☑	
dmLatin2UToL.map	☑	☑	☑	
dmEucjpLToU.map	☑	☑	☑	
dmEucjpUToL.map	☑	☑	☑	
dmGB18030LToU.map	☑	☑	☑	
dmGB18030UToL.map	☑	☑	☑	
\shared\locale\en directory				
dmisql.tab		☑(Op)	☑(Op)	Localization message when using dmSQL Tool. This is English localization.
dmserver.tab		☑(Op)	☑(Op)	Localization message when using dmserver Tool. This is English localization.
dmJdbc.properties		☑(Op)	☑(Op)	Localization message when using dmjdbc20.jar, dmjdbc30.jar, dmjdbc20xa.jar. This is English localization.
dmerr54.tab	☑(Op)	☑(Op)	☑(Op)	This file stores the localized error message. This is English localization.
dmpperr.tab	☑(Op)	☑(Op)	☑(Op)	This file stores the dmppcc.exe (ESQL/C pre-processor) error message. This is English localization.
dmsperr.tab	☑(Op)	☑(Op)	☑(Op)	This file stores the dmppspc.exe (SQL SP pre-processor) error message. This is English localization.
dmxtm.properties		☑(Op)	☑(Op)	Localization message when using dmxtm.jar. This is English localization.
\shared\locale\ja directory				
dmisql.tab		☑(Op)	☑(Op)	Localization message when using dmSQL Tool. This is Japanese localization.
dmserver.tab		☑(Op)	☑(Op)	Localization message when using dmserver Tool. This is Japanese localization.
dmJdbc.properties		☑(Op)	☑(Op)	Localization message when using dmjdbc20.jar, dmjdbc30.jar, dmjdbc20xa.jar. This is Japanese localization.

dmerr54.tab	☑(Op)	☑(Op)	☑(Op)	This file stores the localized error message. This is Japanese localization.
dmpperr.tab	☑(Op)	☑(Op)	☑(Op)	This file stores the dmppcc.exe (ESQL/C pre-processor) error message. This is Japanese localization.
dmsperr.tab	☑(Op)	☑(Op)	☑(Op)	This file stores the dmppspc.exe (SQL SP pre-processor) error message. This is Japanese localization.
dmxtm.properties		☑(Op)	☑(Op)	Localization message when using dmxtm.jar. This is Japanese localization.
\shared\locale\ja.EUCJP directory				
dmisql.tab		☑(Op)	☑(Op)	Localization message when using dmSQL Tool. This is Japanese localization.
dmserver.tab		☑(Op)	☑(Op)	Localization message when using dmserver Tool. This is Japanese localization.
dmJdbc.properties		☑(Op)	☑(Op)	Localization message when using dmjdbc20.jar, dmjdbc30.jar, dmjdbc20xa.jar. This is Japanese localization.
dmerr54.tab	☑(Op)	☑(Op)	☑(Op)	This file stores the localized error message. This is Japanese localization.
dmpperr.tab	☑(Op)	☑(Op)	☑(Op)	This file stores the dmppcc.exe (ESQL/C pre-processor) error message. This is Japanese localization.
dmsperr.tab	☑(Op)	☑(Op)	☑(Op)	This file stores the dmppspc.exe (SQL SP pre-processor) error message. This is Japanese localization.
dmxtm.properties		☑(Op)	☑(Op)	Localization message when using dmxtm.jar. This is Japanese localization.
\shared\locale\zh_CN directory				
dmisql.tab		☑(Op)	☑(Op)	Localization message when using dmSQL Tool. This is Simplified Chinese localization.

dmserver.tab		☑(Op)	☑(Op)	Localization message when using dmserver Tool. This is Simplified Chinese localization.
dmJdbc.properties		☑(Op)	☑(Op)	Localization message when using dmjdbc20.jar, dmjdbc30.jar, dmjdbc20xa.jar. This is Simplified Chinese localization.
dmerr54.tab	☑(Op)	☑(Op)	☑(Op)	This file stores the localized error message. This is Simplified Chinese localization.
dmpperr.tab	☑(Op)	☑(Op)	☑(Op)	This file stores the dmppcc.exe (ESQL/C pre-processor) error message. This is Simplified Chinese localization.
dmsperr.tab	☑(Op)	☑(Op)	☑(Op)	This file stores the dmppspc.exe (SQL SP pre-processor) error message. This is Simplified Chinese localization.
dmxtm.properties		☑(Op)	☑(Op)	Localization message when using dmxtm.jar. This is Simplified Chinese localization.
\shared\locale\zh_TW directory				
dmisql.tab		☑(Op)	☑(Op)	Localization message when using dmSQL Tool. This is Traditional Chinese localization.
dmserver.tab		☑(Op)	☑(Op)	Localization message when using dmserver Tool. This is Traditional Chinese localization.
dmJdbc.properties		☑(Op)	☑(Op)	Localization message when using dmjdbc20.jar, dmjdbc30.jar, dmjdbc20xa.jar. This is Traditional Chinese localization.
dmerr54.tab	☑(Op)	☑(Op)	☑(Op)	This file stores the localized error message. This is Traditional Chinese localization.
dmpperr.tab	☑(Op)	☑(Op)	☑(Op)	This file stores the dmppcc.exe (ESQL/C pre-processor) error message. This is Traditional Chinese localization.
dmsperr.tab	☑(Op)	☑(Op)	☑(Op)	This file stores the dmppspc.exe (SQL SP pre-processor) error message. This is Traditional Chinese localization.

dmxtm.properties		☑(Op)	☑(Op)	Localization message when using dmxtm.jar. This is Traditional Chinese localization.
\shared\lua\directory				
init.lua		☑(Op)	☑(Op)	Lua UDF user defined initial script file.
\shared\lua\clibs\directory				
cjson.dll		☑(Op)	☑(Op)	Lua UDF extend module for JSON dynamic link DLL program.
msgpack.dll		☑(Op)	☑(Op)	Lua UDF extend module for MsgPack dynamic link DLL program.
\ shared\lua\libs\directory				
LuaDate.lua		☑(Op)	☑(Op)	Lua UDF extend module for Date handle.
\shared\sp\ directory **Note**: If you need not use the function of stored procedure, you can drop the directory.				
DMSYSTEMSPSYSTEM.dll		☑	☑	SYSTEM Shared Object Stored Procedure DLL Program.
DMXMLSPSYSTEM.dll		☑	☑	XML-related Stored Procedure DLL Program.
DMCOPYTBSPSYSTEM.dll		☑	☑	Copy table stored procedure dynamic link lib Program.
DMXTMSPSYSTEM.dll		☑(Op)	☑(Op)	XTM-related Stored Procedure DLL Program.
DMXTTSPSYSTEM.dll		☑(Op)	☑(Op)	XTT-related Stored Procedure DLL Program.
AppendBlob.sql		☑(Op)	☑(Op)	Register Stored Procedure APPENDBLOB and APPENGBLOBBYOID by running this script.
CLEAN_TEMPSPSYSTEM.lua		☑(Op)	☑(Op)	CLEAR TEMPSP SYSTEM Shared Stored Procedure.
\shared\udf\ directory				
datetostr.sql		☑(Op)	☑(Op)	ADD DATETIME TO String function by running this script.

datetostr.dll		☑(Op)	☑(Op)	Date To String Function DLL Program. This function is deprecated in DBMaster 4.0. We retain these functions for purposes of backward compatibility, If this function is not used in your case, it should be removed from the installing files package.
dt.lua		☑(Op)	☑(Op)	LUA UDF DATETIME function Lua script file.
dt.sql		☑(Op)	☑(Op)	ADD LUA UDF DATETIME function by running this script.
jsoncol.lua		☑(Op)	☑(Op)	LUA UDF JSONCOLS function Lua script file.
libmedia.dll		☑	☑	These functions are multimedia related and used internally.
libblob.dll		☑	☑	BLOB-related Function DLL Program.
libtext.dll		☑	☑	HTML-related Function DLL Program.
strtoint.dll		☑	☑	String To Integer Function DLL Program.
to_date.sql		☑	☑	Support Oracle's "to_date()" function by running this script.
to_date.dll		☑	☑	TO_DATE Function DLL Program.
UTFConvert.sql		☑	☑	Support U8TOU16 function by running this script.
UTFConvert.dll		☑	☑	U8ToU16 UDF dynamic linking library.
libcrypt.sql		☑(Op)	☑(Op)	Support AES encrypt and decrypts function by running this script.
libcrypt.dll		☑(Op)	☑(Op)	AES encrypt and decrypts UDF dynamic linking DLL program.
\shared\stopword\directory				
cn.tab		☑	☑	User Defined Stop Word template for Simplified Chinese.
en.tab		☑	☑	User Defined Stop Word template for English.
tw.tab		☑	☑	User Defined Stop Word template for Traditional Chinese.
\include directory				
eqmacro.h	◆	◆	◆	The C header for writing ESQL/C or Stored Procedure.

eqspincl.h	◆	◆	◆	The C header for writing ESQL/C or Stored Procedure.
esqlda.h	◆	◆	◆	The C header for writing ESQL/C or Stored Procedure.
esqlincl.h	◆	◆	◆	The C header for writing ESQL/C or Stored Procedure.
esqlprot.h	◆	◆	◆	The C header for writing ESQL/C or Stored Procedure.
esqltype.h	◆	◆	◆	The C header for writing ESQL/C or Stored Procedure.
libudf.h	◆	◆	◆	The C header for writing user defined function.
odbc.h	◆	◆	◆	The C header for writing ODBC program.
sql.h	◆	◆	◆	The C header for writing ESQL/C, Stored procedure or ODBC program.
sqlca.h	◆	◆	◆	The C header for writing ESQL/C or Stored Procedure.
sqlext.h	◆	◆	◆	The C header for writing ESQL/C, Stored procedure or ODBC program.
sqlopt.h	◆	◆	◆	The C header for writing ODBC program.
sqltypes.h	◆	◆	◆	The C header for writing ESQL/C, Stored Procedure or ODBC program.
sqlucode.h	◆	◆	◆	The C header for writing ESQL/C, Stored Procedure or ODBC program.
sqlunix.h	◆	◆	◆	The C header for writing ESQL/C, Stored Procedure or ODBC program on Unix/Linux.
\include\lua\ directory				
lauxlib.h	◆	◆	◆	The C header for writing Lua C module function.
lua.h	◆	◆	◆	
lualib.h	◆	◆	◆	
\lib directory				
dmapi54.lib	◆	◆	◆	ODBC or ESQL/C library.
dmudf.lib	◆	◆	◆	User defined function library.
liblua.lib	◆	◆	◆	Lua C module library.
\templates directory				

vc60.dsp	◆	◆	◆	Templates for VC to create stored procedure.
vc60.mak	◆	◆	◆	Templates for VC to create stored procedure.
vc80.mak	◆	◆	◆	Templates for VC to create stored procedure.
\locale\en_US directory				
COPYRIGHT	☑	☑	☑	DBMaster copyright.
dmserver_en_US.dll		☑	☑	Dmserver localization for English.
dmsql_en_US.dll	☑	☑	☑	Dmsql32 localization for English.
\locale\ja_JP directory similar				
\locale\ja_JP.EUC directory similar				
\locale\zh_CN directory similar				
\locale\zh_TW directory similar				

NOTE :

If the version used does not include jtools, then the related jtools files will not be included in the DBMaster bundle.

Mark '◆' indicates it is for program development phase, Vendor doesn't need to publish those files.

No matter Single User Bundle or Client/Server Bundle – Server, It is quite common to place the DBMaster Home Directory in the same place as the AP Home Directory. In other words, please install DBMaster bundle version in the same directory of the binaries of your applications. If the application is Java-based, bundle should put all files in 'JRE or JDK Installation Directory' \bin\ and should add –Djava.library.path=DBMaster bundle version directory\, when launching java VM command.

3.2 Packages for different language environments

DBMaster 5.4 bundle version can support four language environments: English, Traditional Chinese, Simplified Chinese and Japanese. There are four packages in the folder **bundle\locale**, they response to four different languages:

package	Language
en_US	English
ja _JP	Japanese
zh_CN	Simplified Chinese
zh_TW	Traditional Chinese

The default language used is Japanese. If user wants to change it to other language, take Simplified Chinese for example, user should copy following files to the special location:

1. Copy all the files under the **locale\zh_CN** folder to the **bundle** directory. And then delete the other language dll files. Such as dmserver_ja_JP.dll and dmsql_ja_JP.dll.
2. Edit file **dbmaster.lic** and set **Language**=3 or 9.
3. When adopt **zh_CN** as the dll library, DBMaster supposes the OS is Simplified Chinese version OS then dmserver and dmsql32 will be displayed in Simplified Chinese interface. If the user's OS is not Simplified Chinese, dmserver and dmsql32 will be displayed in English interface.
4. If the 5.0 or previous version is used, user should copy all files under **locale\zh_CN\shared\errtab** to **shared\errtab** to change the error message information to Simplified Chinese. If the 5.1 or later version is used, it will not need this step, because DBMaster will detect the OS language. Once the OS is Simplified Chinese, the error message information will be Simplified Chinese.

3.3 Customize the bundle size after developing

DBMaster 5.4 bundle provides more features such as the SQL Stored Procedure and JTOOLS functions. So the bundle kit will be much bigger than DBMaster 4.x bundle version. However, AP vendor can remove some packages or files that won't need any longer after developing. Followings give the files can be moved.

Files can be removed if it will not be needed：

files can be removed	Used in which Function
\include	Stored procedure or ESQL/C procedure or native api programming
\lib	UDF\ODBC or ESQL/C library
\Locale	Localization for different languages, choice suitable language, copy corresponding files to **Bundle** folder and the other can removed
\templates	Templates for VC to create stored procedure

The following jtools files can be removed if will not be needed:

Jtools tool	files can be removed
XTT tool	xtt.exe xtt.jar dmxtt.jar DMXTTSPSYSTEM.dll dmjdbaut.dll
XTM tool	dmxtm.jar xtm.jar Xtm.exe DMXTMSPSYSTEM.dll dmjdbaut.dll
JSQL tool	jsql.jar jsql.exe dmjdbaut.dll
JDBA tool	jtools.jar jdba.exe dmjdbaut.dll dmdttut.dll dmjsvrut.dll
JServer Manager	jsvrmgr.exe dmjsvrut.dll dmjdbaut.dll
JConfiguration tool	jconfig.exe dmjdbaut.dll

JDatatransfer tool	jdatatransfer.exe DMXMLSPSYSTEM.dll dmdttut.dll dmjdbaut.dll
JMonitor	jmonitor.exe dmjdbaut.dll
JDBC TYPE 3	dmjdbct3s.war dmjdbct3c.jar

*Note: If user deletes all the above jtools function files, then the **startup.jar** file and the **\Endorsed** folder located in DBMaster bundle installation directory can also be removed.*

DBMaster's other related files used to implement the specified function are listed as follows. When the function is unneeded, users can remove the related files.

Function	files can be removed
OLE DB	dmole54.dll
ESQL/C	dmppcc.exe
SQL SP	dmppspc.exe
SET UP ODBC DRIVER MANAGER	dmset.dll
NT SERVICE	dmsvcutl.exe dmservic.exe
Restore DB	rollover.exe
Differential Backup	\shared\3rd\xdelta\ directory
Sort order: Big5 stroke sequence	big5_stroke.ord
Sort order: shift-jis stroke sequence	sjis_dict.ord
Media type: not use pdf1.7	\shared\3rd\xpdf\ directory

3.4 3rd party tool of DBMaster

In DBMaster 5.4 bundle version, there are three third party tools located in **\shared\3rd**. The three third party tools are xdelta, xpdf and described separately in the following chapters.

3.4.1 PDFTOTXT

pdftotext - The tool is used to convert Portable Document Format (PDF) files to text. Pdftotext is used when users insert files whose type is PDFTYPE, PDFFILETYPE, or call the UDF PDFTOTXT

Pdftotext converts Portable Document Format (PDF) files into plain text and the command is

pdftotext PDF-file text-file. If the parameter *text-file* is not specified, name of the text is same with name of the PDF file; If the parameter *text-file* is '-', the text is sent to screen.

3.4.2 XDELTA

xdelta.exe – The file is used when users do a differential backup.

4. Difference from standard version

DBMaster bundle version is the simple one of the standard version. There are many differences between bundle version and standard version, the listed followings are only a little part of them:

- Bundle version can be integrated with the front application perfectly. When user installing the application, the DBMaster bundle version can be installed directly, you need not to reinstall it.
- DBMaster bundle version can put executable and .dll files into the directory you want and work independently without intervention. But DBMaster standard version will put executable files and .**dll** files into the DBMaster installation directory. (Before 5.0, DBMaster standard version put executable files into the DBMaster installation directory, and put some **.dll (dmapi4x.dll and dmjdbc4x.dll)** files into the Windows system directory.)

  NOTE: The **.dll** files of bundle version cannot be put into the directory of the 'DBMaster installation directory'. Otherwise, the bundle version will conflict with the standard version.
- The dmconfig.ini file in DBMaster bundle version should exist in bundle version directory with all executable files (*.exe), dynamic linking library files (*.dll). It suggests that user had better not modify the original directory structure, in that DBMaster will link the needed files following the original directory structure. But DBMaster standard version will only search for the **dmconfig.ini** file in the installation directory.

4.1 Different files

There may be some files exist in bundle version but not in standard version and vice versa. Or the size\directory of files are different in both versions. Followings list these differences detail.

1. Bundle version has the following files and directories, but Standard version does not have:

File or Directory on Bundle version
Bundle Home Directory
\locale
DBMaster 5.4 Home Directory\shared\locale\en
dmpperr.tab

DBMaster 5.4 Home Directory\shared\locale\jp directory similar
DBMaster 5.4 Home Directory\shared\locale\ ja.EUCJP directory similar
DBMaster 5.4 Home Directory\shared\locale\ ja.EUCJP directory similar
DBMaster 5.4 Home Directory\shared\locale\ zh_CN directory similar
DBMaster 5.4 Home Directory\shared\locale\ zh_TW directory similar

2. **Standard version has the following files and directories, but Bundle version does not have:**

File or Directory on Standard Version
DBMaster 5.4 Home Directory
EVALUATION
README.TXT
dmconfig.l_K
dmconfig.t_P
DMSQL.INI
jsyscom_dbmaster.xml
unins000.dat
unins000.exe
DBMaster 5.4 Home Directory\shared\3rd\xdelta
COPYING
README
DBMaster 5.4 Home Directory\shared\locale\en
dmcvt.tab
dmjtool.tab
dmxtm.properties

DBMaster 5.4 Home Directory\shared\locale\jp directory similar **DBMaster 5.4 Home Directory\shared\locale\ ja.EUCJP directory similar** **DBMaster 5.4 Home Directory\shared\locale\ ja.EUCJP directory similar** **DBMaster 5.4 Home Directory\shared\locale\ zh_CN directory similar** **DBMaster 5.4 Home Directory\shared\locale\ zh_TW directory similar**
DBMaster 5.4 Home Directory\templates
xmludf.mak
DBMaster 5.4 Home Directory\bin
dbname.exe dmppc32.exe dmppc_zh_CN.dll dmrestoretb.exe dmserver_zh_CN.dll dmsql_zh_CN.dll dmxmludfmk.exe jcfgditor.ico jdatatran.ico jdbatool.ico jmonitor.ico jsql.ico jsvrmanager.ico msvcr71.dll upgrade.exe upgrade_zh_CN.dll xtm.ico xtt.ico
DBMaster 5.4 Home Directory\jre
DBMaster 5.4 Home Directory\jetty
DBMaster 5.4 Home Directory\samples
DBMaster 5.4 Home Directory\templates
Xmludf.mak

DBMaster 5.4 Home Directory\udf_templates
DBMaster 5.4 Home Directory\samples

3. The same files but different directory between Standard version and Bundle version:

Folder\File name	Standard Version	Bundle Version

\endorsed dmapi54.dll dmapi54a.dll dmdttut.dll dmjdbaut.dll dmjdbc20.jar dmjdbc20xa.jar dmjdbc30.jar dmjdbc54.dll dmjdbct3c.jar dmjsvrut.dll dmole54.dll dmppcc.exe dmppspc.exe dmserver.exe dmservic.exe dmset.dll dmsql32.exe dmsqlr32.dll dmsvcutl.exe dmsvr32.dll dmudf.dll dmxtm.jar dmxtt.jar expat.dll iconv.dll jsql.jar jtools.jar libxml2.dll rollover.exe startup.jar xtm.jar xtt.jar	DBMaster 5.4 Home Directory\bin	DBMaster bundle Home Directory

4. **Files in the following directories have same size, but different building data:**

shared\3rd
shared\codeorder
shared\codepage
shared\sp
shared\stopword
shared\udf

4.2 Different features

In the DBMaster bundle versions, the features are not as same as standard one. Some features having different using methods and some features are not included.

4.2.1 USING STORED PROCEDURE

DBMaster 5.4 bundle version provides the Stored Procedure function in ESQL/C, SQL and Java.

If you want to use the ESQL/C stored procedure in bundle version, you must setup the VC compiler in your computer. At present, DBMaster supports VC 6.0, VC 2003, VC2005 and VC2008 compiler. For 64 bit, user must install the VC 2005 or VC 2008.

When create Stored Procedure in bundle version, For unloading DB, DBMaster provides SET UNLOAD PROCDEF ON function to unload the procedure definition, and then load DB, user needs to copy the .dll or .so files of the Stored Procedure to the ***Shared/sp*** directory or the specified **DB_SPDIR**, if no **DB_SPDIR** specified, copy these files to **DB_DBDIR** directory.

SQL stored procedure is a logic implementation only can be done by SQL statement. So if you want to use the SQL stored procedure in bundle version, you needn't install the VC compiler in your computer.

DBMaster bundle version also provides the Java Stored Procedure function. For using Java SP, the JRE is required. Please copy **JRE** folder to the **Bundle** directory to make sure the Java SP can run successfully.

4.2.2 USING JTOOLS

DBMaster bundle also provides the user-friendly graphical user interface (GUI) to manager the database easily. These JTools hide the complexity of the DBMS and query language and provides an easy way to understand and to use interface.

NOTE *JTools are based on the Java Runtime Environment. The Java Development Kit (JDK) or a Java Runtime Environment (JRE) is required for using JTools. And now JRE 1.6 is recommended. Please install it before using JTools.*

DBMaster provides following JTools, user can double click the **.exe** file to open the Jtools directly:

JDBA Tool (jdba.exe): managing the database objects such as creating table, viewing the statistic value…etc.

JConfiguration Tool (jconfig.exe): configuring and customizing DBMaster databases instead of editing the dmconfig.ini.

JServer Manager Tool (jsvrmgr.exe): managing the database such as creating\deleting\restoring database and so on.

JDataTransfer Tool (jdatatransfer.exe): transferring data in and out of the database.

JMonitor Tool (jmonitor.exe): providing a graphical representation of various aspects of the database over time.

JSQL Tool (jsql.exe): executing the SQL command and run the batch file…etc.

XML Transfer Mapping Tool (xtm.exe): passing XML data to a database using XSL transformations.

XML Transfer Template Tool (xtt.exe): providing a customizable bridge between database data and XML documents.

4.2.3 NOT INCLUDED FEATURES

The following features are not included in bundle version:

Feature	In Bundle Version
Call XTM, XTT SP	No
OLE DB Driver	No
dmrestoretb	No
dbname	No
Use XML TYPE's utility	No

4.3 Note for 64bit Windows Platform

This is for 64bit Windows platform only.

If user fails to run the 64bit bundle version in windows 64bit environment, user should get **vcredist_x64.exe** from Microsoft's VS 2005 SP1 to retry.

5. License and Activation File

5.1 DBMaster.Lic content

According to the agreement, which has been acquired from DBMaster, the DBMaster.Lic content is as follows:

```
[DBMaster 5.4 product windows registration]
Bundle                          //DBMaster Product Edition
Language=2                      //Database Language Code Setting
                                //  0:ASCII, 1:BIG5, 2:JIS, 3:GB
                                // 4:Latin (ISO-8859-1), 5:Latin (ISO-8859-2)
                                // 6:Cyrllic (ISO_8859-5), 7:Greek (ISO-8859-7)
                                // 8: EUC-JP, 9: GB18030, 10: UTF-8
Name=ABC                        //User Name
Company=SYSCOM                  //Company Name
```

NOTE *The default language used in DBMaster.Lic is JIS, if users want to change the interface language or the default database language, please refer to the Chapter 3.3 Packages for different language environments.*

5.2 How to Upgrade License Key

If you want to upgrade your bundle version, please contact to the CASEMaker support for the new serial number and the corresponding **activation.dat**.

As you learned from the previous section, the License Key is only one line in the DBMaster.Lic. Therefore, you could use any Editor to “upgrade” the license key.

Additional, there should be a file named **activation.dat** correspond to the unique serial number under the bundle home directory. Please replace it with the new **activation.dat**.

Then your bundle version will be upgraded successfully.

Of course, if you still worry about the upgrading, you can buy the license key which supports more functions directly, Such as DBMaster 5.x, 5.1.x, 5.2.x, 5.3 x, 5.4.x.… Although, DBMaster Support team will give you proper suggestion according to your needs.

5.3 Activation File Content

User Information: DBMJ

Product Name: DBMaster

Version: 05.40.00

Edition: Bundle

Upgradable: Patch Upgrade

Locale Language: All

Serial ID: 103

Platform: Win32

License Start Date: Unlimited

License Expiration Date: Unlimited

Free Trial Period: Off

Max Connection: 5

Host Connection: 5

Max Database Size: Unlimited

Max Page Size: 32K

Max Journal File Size: 8G

Distributed Database: On

Database Replication: On

Backup Server: On

IO Server: On

Access Control List: On

Network Compression: On

FullText Indexing: On

Database Cobol Interface: On

Activation-Lines: 4

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXX

Signature-Lines: 3

YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY
YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY
YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY
YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY
YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY
YYYYYYYYYYYYYYY

6. Client Setting – ODBC and OLE DB Registry

After installing the client application on DBMaster bundle version, you can through this chapter to know how to register an ODBC and OLE DB driver.

6.1 Registering an ODBC Driver

For clarity with the formal release, Bundle version should use the driver named as “DBMaster 5.4 Driver <ABC>”. The portion of ABC presents the name of an AP Vendor. In doing this, the Bundle Driver will not be meshed with the formal release driver.

For simplicity, we will use <ABC> as an AP vendors name, <DBNAME> as the database name, <DSN> as the ODBC Data Source Name. DBMaster packed file listed in Chapter 3 would be put into the < *bundle installation directory* > directory.

6.1.1 ODBCINST.INI CONTAINS ALL ODBC DRIVERS LIST

The ODBCINST.INI key contains all the driver names and descriptions of the ODBC. This ODBCINST.INI key was put in:

HKEY_LOCAL_MACHINE

Software

ODBC

ODBCINST.INI *// ODBC Driver*

6.1.2 HOW TO ADD AN ODBC DRIVER

In the following diagraph, the blue-colored font is labeled as “Add Key”. Please note where the location is and what key to be added. In addition, the “Home” value is very important for the License Key file. If you are not able to set up the License correctly, try to check it.

If the procedures are followed properly, you will be able to enter the “Control Panel”, “ODBC Driver Manager”, click the “Driver” tab; you should see a driver named “DBMaster 5.4 Driver <ABC>” exists in the Driver List.

HKEY_LOCAL_MACHINE\Software\ODBC\ODBCINST.INI

ODBC Drivers *DBMaster 5.4 Driver <ABC>=’Installed’*

DBMaster x.x Driver <ABC>

```
Driver=< Home>\dmapi54.dll
Setup=< Home>\dmset.dll
Home=< bundle installation directory>
APILevel=1
ConnectFunction=YYN
DriverODBCVer=03.00
FileUsage=0
SQLLevel=1
HOME=< bundle installation directory >
```

6.1.3 REGISTERING ODBC DATA SOURCE NAME (DSN)

The applications provided by AP Vendors will access a DBMaster database via ODBC DSN. You should set up the ODBC DSN before using the applications.

ODBC.INI contains all available DSNs for applications to access. If the DSNs consist of SYSTEM DSN, and USER DSN, every user in the machine would be able to access the DSN. USER DSN, on the other hand, means that only the user currently logged in would be able to access the DSN. The ODBC.INI location is illustrated in the following diagraphs.

Please refer to the following diagraphs. These two illustrate how to register the SYSTEM DSN and USER DSN. AP. Vendors should be aware of the settings and prevent unauthorized users from illegally accessing a database.

```
HKEY_LOCAL_MACHINE
        Software
                ODBC
                        ODBC.INI        // System Data Source Name

HKEY_CURRENT_USER
        Software
                ODBC
                        ODBC.INI        // User Data Source Name
HKEY_CURRENT_USER
        Software
                ODBC
                ODBC.INI                ODBC Data Sources
                        <DSN>= DBMaster 5.4 Driver <ABC>
                <DSN>
                Database=<DBName>
                Driver=< bundle installation directory >/dmapi54.dll
```

HKEY_LOCAL_MACHINE

Software

ODBC

ODBC.INI

ODBC Data Sources

<DSN>= DBMaster 5.4 Driver <ABC>

<DSN>

Database=<DBName>

Driver= bundle installation directory >/dmapi54.dll

If the procedures are followed properly, you should be able to enter the “Control Panel”, “ODBC Driver Manager” and see a DSN set in the above procedures. Double-Click the DSN tab and click “Test” to see if that DSN setting works.

6.1.4 SETTING ENVIRONMENT VARIABLE

For the application can connect to the DBMaster successfully, please set the environments variable PATH, **PATH=%PATH%;C:\bundle**(suppose bundle version is installed or unzipped to **C:\bundle**).So the application program can find and link correct DBMaster driver file and dmconfig.ini file. For ODBC program, it needs dmapi54.dll and dmconfig.ini files, and for JDBC program, it needs dmapi54.dll, dmjdbc54.dll and dmconfig.ini.

Instead of setting PATH environment variable, user can also copy these files to the same place with the applications.

6.2 Registering an OLE DB Driver

An OLE DB provider is a software component enabling an OLE DB consumer to interact with a data source. OLE DB providers are analogous to ODBC drivers, JDBC drivers.

6.2.1 HOW TO REGISTER OLE DB PROVIDER

Users must manually register OLE DB provider when use it in application. The following steps description how to register an OLE DB provider.

1. Click the **Start**->**Run** menu button. The **Run** dialog box appears.
2. If you register the OLE DB provider, please enter the *regsvr32 <bundle’s dll file directory name>* command line in the **Run** dialog box. ex,. *regsvr32 C:\bundle\dmole54.dll*.If you need to register 32bit OLE DB provider on 64bit platform, please enter the *C:\Windows\SysWOW64\regsvr32.exe <bundle’s dll file directory name>* command line in the **Run** dialog box. ex,. *C:\Windows\SysWOW64\regsvr32.exe C:\bundle\dmole54.dll*.
3. The **RegSvr32** dialog box appears when the OLE DB provider registers successfully.
4. Click the **OK** button. The register information will be added to the registry.

When the OLE DB provider is registered successfully, user can use the OLE DB to access the DBMaster data through the following connection string: "*Provider=DMOLE54JB; Data*

Source=DB_Name;User Id=SYSADM;Password=xxxxx;", where ***Data Source*** *is the name of the accessed database,* **User Id** is the user name of access to the database and **Password** is the database user password.

Example:

```
Provider=DMOLE54JB;Data Source=DBSAMPLE5;User Id=SYSADM;Password=
```

6.2.2 HOW TO REMOVE THE REGISTERED OLE DB PROVIDER

If you want to delete the registered OLE DB provider, you can through the following steps to remove it.

1. Click the **Start**->**Run** menu button. The **Run** dialog box appears.
2. If you remove the OLE DB provider, please enter the *regsvr32 –u <bundle's dll file directory name>* command line in the **Run** dialog box to unregister it. ex,. *regsvr32 –u C:\bundle\dmole54.dll*. If you need to remove 32bit OLE DB provider on 64bit platform, please enter the *C:\Windows\SysWOW64\regsvr32.exe –u <bundle's dll file directory name>* command line in the **Run** dialog box. ex,. *C:\Windows\SysWOW64\regsvr32.exe –u C:\bundle\dmole54.dll*.
3. The **RegSvr32** dialog box appears when the OLE DB provider removes successfully.
4. Click the **OK** button. The register information will disappear.

7. Server Setting - Database Files and Service

7.1 Database Data Files

7.1.1 Copying the Data Files Directly to a Folder

The simplest way to transport data files is to copy the data files you created in the development machines to the destination machines. Note that the dmconfig.ini file has to be set accordingly.

7.1.2 Running a Script to GENERATE DB Files

The above methods do have some limitations. For example, if an AP Vendors wanted to build a trail version for a user, the trail version - license key will expire 90 days after the installation. Therefore, an AP Vendor should create a database during installation so that the user can keep using the database for an additional 90 days.

Firstly, an AP Vendors should unload all data from its developing database to a script via dmsql.

```
dmSQL> unload table from % to script;
```

This will unload all data and schema to script.s0 and script.b0 file. These two files later will need to be run during the installation. Script.b0 file contains the BLOB data. Therefore, an AP vendor can ignore this file if no BLOB data is used. After this step, an AP Vendor should add two lines to the script.s0 as follows:

```
create db <dbname>;        // create a database named <dbname>; Add into the first line
quit;                      // exit from the dmsql tools
```

Now, the AP vendors should set up a dmconfig.ini in the < *bundle installation directory* > directory as follows:

```
[<DBName>]
DB_DBDir =<DBDIR>                          //Data Files Directory
DB_FODIR = <DBDIR>\FO                      //File Object Directory
DB_USRBB = <DBDIR>\<DBName>.BB 3           //Blob Frame Size
DB_USRDB = <DBDIR>\<DBName>.DB 150         //Default Data File Name and Size
DB_SVADR = 127.0.0.1                       //Server IP Address
DB_PTNUM=9948                              //TCP/IP Port Number
```

Finally, run script.s0 through dmsql32.exe as the follows:

< *bundle installation directory* >/dmsql32.exe <script.s0 path>\script.s0

After this, a user could have a new database with the trial version - license key for another 90 days.

7.2 Starting the Database as a NT service

7.2.1 DMSVCUTL.EXE TOOLS

An AP vendor might want to start the database as a NT service so that the user will not have to manually start a database. DBMaster provide a tool program, dmsvcutl.exe for an AP Vendor to use. Be aware to use dmservic.exe instead of dmserver.exe when using dmsvcutl.exe.

7.2.2 INSTALLING AND STARTING THE DBMASTER SERVICE

Please follow the procedures below:

dmsvcutl.exe /i /d db_name [/t path_of_dmservic.exe] [/s]It will be registered as “Embedded Database” in NT Services List.

7.2.3 STOPPING AND REMOVING THE DBMASTER SERVICE

When uninstalling an application, do not forget to remove the NT service too. The procedure is as follows:

dmsvcutl.exe /r /d db_name

7.2.4 JSERVER MANAGER INSTALL/REMOVE NT SERVICE

Launch JServer Manager tool, pressing NT Service menu item to guide you installation/remove database section as NT Service.

7.3 Setting Environment Variable

For Read-Only Database is stored on CD-ROM, it's difficult for user to specify the path in **dmconfig.ini** file. It will be easier for user if DBMaster can support the default environment variable **$APP_HOME** and **$APP_DRIVE**.

- **$APP_HOME**: DBMaster bundle installed directory. It always gets the path where the executable program. Such as the **dmServer.exe** which is installed in the ***G:\db*** directory, DBMaster will automatically replace $APP_HOME with “G:\db” *w*hen reading the dmconfig.ini file.
- **$APP_DRIVE**: This variable returns an executable program where the drive letter. Such as the **dmServer.exe** which is installed in the ***G:\db*** directory, DBMaster will return the driver letter "D:" and automatically replace "D:" with “D:\dbmaster\5.4” when reading the dmconfig.ini file.

DBMaster bundle version also supports the system environment variables, such as *$ TEMP = “C:\TEMP”* which defined in the operating system environment variables. DBMaster will automatically replace the ***$ TEMP*** with ***"C: \ TEMP"*** when reading the dmconfig.ini file.

If the default environment variable **$ APP_HOME** or **$ APP_DRIVE** is defined in the system environment variables, DBMaster will not find the defined value of the system environment variables when reading the dmconfig.ini file, but priority using the default environment variable value.

If user has a CD-ROM, user can put the DBMaster bundle software and database on the CD-ROM with the following setting:

```
dmconfig.ini
```

```
[DBSAMPLE5]
DB DBDIR=$APP DRIVE\database
DB FODIR=$APP DRIVE\database\fo
DB TPFIL=$TEMP\DBSAMPLE5.tmp
DB_SMODE=6
```

8. Multiple versions on same OS

8.1 Multiple Bundle versions on same OS

If there are several bundle versions installed on the same OS, in order to manager database more effectively, you need to be aware of the following conventions:

5. Use different names when you register ODBC driver in *HKEY_LOCAL_MACHINE\Software\ODBC\ODBCINST.INI*.

   Make sure your database had linked to correct bundle driver installed in register.

6. Make sure had linked correct **.lib** file and **.dll** file in your DBMaster bundle when you compile application program, because it should has more library and dynamic linking library files in your OS at the same time.

9. Backup/Restore about DBMaster Bundle

There are 2 ways for backup/restore DBMaster bundle database, one is using off-line backup, the other is using jtools – JServer Manager Tool to help you implement on-line full backup, differential backup and incremental backup, but it should install bundle with jtools version to do.

You can perform a backup to a database that is not yet started through off-line backup. Perform an off-line backup involves specifying a location for the backup files. You should choose a backup directory location on a separate disk to reduce the risk of loss of data through media failure. When performing an offline backup, you should copy all related database files (.DB, .BB, .JNL, .SDB, .SBB), user specified tablespace data files, file objects (optional) and dmconfig.ini file of the source database to the specific directory of the target database.

The database administrator may find it necessary to restore all data from backup files if an unrecoverable error has occurred in the database. You can perform a database restoration from disk. Restore a database from disk can restore the database to the time of the last backup.

Adopt JServer Manager backup/restore GUI to help, it's a GUI interface, you can backup/restore bundle database by GUI direction. For more information about how to backup/restore by GUI, please refer to the *JServer Manager Guide*.

This instruction document must be given under the Non-Disclosure Agreement. Without the bundle agreement being signed, this instruction document must be returned to Syscom or be destroyed by the evaluator.