D2000 DBManager

The process allows an access of D2000 real-time information system to data stored in external database sources. It is a basic element for solving problems of vertical integration of information systems in enterprises.

The process **D2000 DBManager** provides access to external database sources by means of standard ODBC drivers of individual database systems. It also allows to read and write data with the access control.

The process D2000 DBManager was tested and should work with these databases:

- Oracle Database (versions 9i, 10g, 11g, 12c)
 - Note: We recommend applying available patches of Oracle client as well as Oracle ODBC driver older versions of Oracle client/driver suffered from various errors (handle leaks, instability etc.).
- Microsof SQL Server (versions 2000 2005)
- Microsoft Access (versions 2000 XP)
- Sybase Anywhere (versions 6 12)
- Informix (driver version 4.10.00.16554, check a *Scrollable Cursors* option on Advanced tab and set *Cursor Behavior* to value "1 Preserve" on Environment tab)
- Firebird (version 2.0.4, native ODBC driver or driver from GM Software)
 - Note 1: Native ODBC driver (version 2.0.0.148) doesn't enable editing in paged mode (browser in HI, actions PG*). Seemingly editing works but no data are modified in database.

Note 2: ODBC driver from GM - Software supports editing and inserting rows in paged mode, but it displays only the first row of the table.

From the version D2000 v7.0, along with the "standard" process **D2000 DBManager**, a variant that only works with Oracle databases (**dbmanager_ora.exe**) is implemented. This variant does not use the ODBC interface, but accesses the database via the OCI (Oracle Client Interface). It is available on Windows platforms as well as on OpenVMS. When using the **dbmanager_ora.exe**, the configuration dialog box of an object of **Database** type contains TNS (Transparent Network Substrate) in the parameter DSN (see the description of the file *trsnames.ora* in the Oracle documentation).

Advantages of use of dbmanager_ora.exe compared to dbmanager.exe:

- · Availability to OpenVMS.
- Possibility of page access to index-organized tables of Oracle database (IOT- index organized tables). ODBC drivers Oracle contain an error
 (tested for the versions 9.02.00.00 up to 9.02.00.06), that causes application crash on page access to IOT and therefore the ODBC version of the
 DBManager does not provide page access if finds out that the table is IOT.
- Less leakage of system resources: ODBC drivers for Oracle (tested for versions 9.02.00.00 up to 9.02.00.06) leak 4 handles in connect
 /disconnect cycle, OCI interface leak only one :-) .. in any case we recommend to set an amount of prepared connections for object of Database
 type larger enough in order to prevent from frequent opening and closing of the connections.
- Possibility to enable the debug information on the status of Oracle cluster (see the parameter /DBCY).

