

Data Conversion for Adabas or RDBMS

The conversion tables shown in this section list the Natural data formats and their corresponding data types in an Adabas database or in a relational database management system (RDBMS).

The generation of DDMs from an RDBMS requires the conversion from RDBMS-specific data types to Natural data formats. For general information on data access and data conversion, see the list of related documentation in *Related Topics*.

For information on using large and dynamic variables and/or fields, refer to the section *DDM Generation and Editing for Varying Length Columns* in the *Statements* documentation.

This section covers the following topics:

- Adabas
- Adabas D
- Adabas SQL Server
- DB2
- Informix
- Oracle
- Sybase
- Microsoft SQL Server
- Related Topics

Adabas

Data Type	Adabas Data Format	Natural Data Format/Length
alphanumeric	A (n)	An
binary	B (n)	Bn
fixed	F (n) but: F8	In I4
float	G (n)	Fn
packed	P (n)	P (2 * n - 1)
unpacked	U (n)	Nn
wide character (Unicode)	W (n)	U (n/2 rounded down)

Adabas D

RDBMS Data Type	Natural Data Format/Length
boolean	L
char (<i>n</i>)	<i>An</i>
date	A10
fixed (<i>p,q</i>)	<i>Np-q,q</i>
float	F8
integer	I4
long	A (DYNAMIC)
long varchar	A (DYNAMIC)
smallint	I2
string	<i>An</i>
time	A8
timestamp	A26
varchar	<i>An</i>

Adabas SQL Server

RDBMS Data Type	Natural Data Format/Length
char(5)	A5
char(253)	A253
decimal(5)	N5
decimal(10.4)	N6.4
double precision	N10.6
float(1...21)	N2.6
float(22...53)	N10.6
integer	I4
numeric(5)	N5
numeric(10.4)	N6.4
real	F4
smallint	I2

DB2

RDBMS Data Type	Natural Data Format/Length
date	A10
blob	B (DYNAMIC)
clob	A (DYNAMIC)
dbclob	U (DYNAMIC)
decimal(5)	N5
decimal(10.4)	N6.4
fixed character(5)	A5
float	<i>F_n</i>
graphic(<i>n</i>)	<i>U_n</i>
longvar	A (DYNAMIC)
longvarg	A (DYNAMIC)
large integer	I4
scientific notation	N10.6
small integer	I2
special data	A253
system date and time	A10
time	A8
timestamp	A26
varchar	<i>A_n</i>
varg	<i>2*A_n</i>
vargraphic(<i>n</i>)	<i>U_n</i>

Notes:

1. Prerequisite for the use of the data types `blob`, `clob`, `dbclob`, `graphic` and `vargraphic` with DB2 is Entire Access Version 6.1.1 and above.
2. In DB2, the data types `graphic` and `vargraphic` are only available when the database has been generated with a statement like `CREATE DATABASE mydb USING CODESET UTF-8 TERRITORY US`. Refer to your local DB2 documentation for further information.

Informix

RDBMS Data Type	Natural Data Format/Length
byte	<i>An</i>
char(<i>n</i>)	<i>An</i>
date	A10
datetime	A26
decimal(<i>p,q</i>)	<i>Np-q,q</i>
float	F8
integer	I4
interval	A17
money	N14.2
nchar(<i>2*n</i>)	<i>Un</i>
nvarchar(<i>2*n</i>)	<i>Un</i>
real	F4
serial	I4
smallfloat	F4
smallint	I2
text	<i>An</i>
varchar(<i>n</i>)	<i>An</i>

Note:

Prerequisite for the use of the data types nchar and nvarchar with Informix is Entire Access Version 6.1.1 and above.

Oracle

RDBMS Data Type	Natural Data Format/Length
blob	B (DYNAMIC)
char (<i>n</i>)	<i>An</i>
clob	A (DYNAMIC)
date	A10
decimal (<i>p,q</i>)	<i>Np-q,q</i>
double precision	F8
float	F4
integer	I4
long	A (DYNAMIC)
long raw	B (DYNAMIC)
nchar(<i>n</i>)	<i>Un</i>
nclob	U (DYNAMIC)
number	<i>Nn</i>
nvarchar2(<i>n</i>)	<i>Un</i>
raw (<i>n</i>)	<i>Bn</i>
real	F4
rowid	<i>An</i>
smallint	I2
timestamp	A26
varchar	<i>An</i>
varchar2 (<i>n</i>)	<i>An</i>

Notes:

1. Do not confuse the data types long and long raw, and clob and blob in the same table.
2. Prerequisite for the use of data type timestamp is Entire Access Version 5.3.1 Patch Level 3 and above. The timestamp variants timestamp with time zone and timestamp with local time zone are not supported.
3. Prerequisite for the use of the data types nchar, nvarchar2 and nclob with Oracle is Entire Access Version 6.1.1 and above.

Sybase

RDBMS Data Type	Natural Data Format/Length
binary (<i>n</i>)	<i>Bn</i>
bit	N1
char (<i>n</i>)	<i>An</i>
datetime	A26
float	F8
int	I4
money	N15.4
real	F4
smalldatetime	A26
smallint	I2
smallmoney	N6.4
timestamp	B8
tinyint	I2
unichar(<i>n</i>)	<i>Un</i>
univarchar(<i>n</i>)	<i>Un</i>
varbinary (<i>n</i>)	<i>Bn</i>
varchar (<i>n</i>)	<i>An</i>

Note:

Prerequisite for the use of the data types `unichar` and `univarchar` with Sybase is Entire Access Version 6.1.1 and above. These data types can only be used with the Entire Access `ctlib` interface for Sybase.

Microsoft SQL Server

RDBMS Data Type	Natural Data Format/Length
binary (<i>n</i>)	B <i>n</i>
bit	N1
char (<i>n</i>)	A <i>n</i>
datetime	A26
float	F8
image	B (DYNAMIC)
int	I4
money	N15.4
nchar(2* <i>n</i>)	U <i>n</i>
ntext	U (DYNAMIC)
nvarchar(2* <i>n</i>)	U <i>n</i>
real	F4
smalldatetime	A26
smallint	I2
smallmoney	N6.4
text	A (DYNAMIC)
timestamp	B8
tinyint	I2
varbinary (<i>n</i>)	B <i>n</i>
varchar (<i>n</i>)	A <i>n</i>

Note:

Prerequisite for the use of the data types `nchar`, `nvarchar` and `ntext` with Microsoft SQL Server is Entire Access Version 6.1.1 and above. Furthermore, these data types require the use of the MSSQLODBC driver of Entire Access Version 6.1.1 and above.

Related Topics

The following documentation sections relate to converting data from Adabas or RDBMSs:

- **Programming Guide:**
 - Accessing Data in an Adabas Database*
 - Accessing Data in an SQL Database*