Microsoft SQL Server

Supported Data Types

Native Data Type	Internal Data Type
Binary	BLOB
Bit	BOOL
Char	STRING
DateTime	TIMESTAMP
Decimal (1 <=precision <= 10, scale = 0)	LONG
Decimal (11 <=precision <= 28, scale = 0)	NUMERIC
Decimal (1 <=precision <= 28, scale not = 0)	NUMERIC
Float	DOUBLE
Image	BLOB
Int	LONG
Money	NUMERIC
NChar	WSTRING
NText	BLOB
Numeric (1 <=precision <= 10, scale = 0)	LONG
Numeric (11 <=precision <= 28, scale = 0)	NUMERIC
Numeric (1 <=precision <= 28, scale not = 0)	NUMERIC
NVarChar	WSTRING
Real	DOUBLE
Smalldatetime	TIMESTAMP
Smallint	SHORT
Smallmoney	NUMERIC
Text	BLOB
Timestamp	<not supported>
Tinyint	BYTE
Uniqueidentifier	<not supported>
Varbinary	BLOB
Varchar	STRING

Known Limitations

- PDRE does not support the use of autoincrement fields as primary key fields in replicated tables. You can, however, use an autoincrement field as a primary key in a local table, or as a local field in a replicated table. If you need to generate unique IDs for a primary key field on a replicated table, please refer to Specifying Globally-Unique IDs.
- The "identity" property (for autoincrement) is not supported for any data type, but can be used in local tables.
- Timestamp fields are only supported in local tables.

Database Considerations

- Character fields can only contain characters associated with ASCII values in the range of 32 to 126.
- Because of a problem with the Microsoft ODBC driver, Binary and Char fields are supported up to a size of 4096.
- Primary keys must be defined in the database for all replicating tables. The following ODBC error will result

if primary keys are not defined when you attempt to replicate the table:

```
E 00dd 0427-15:50:40 sqlhelp 893 ODBC Error -1: (S1092) '[Microsoft]
[ODBC SQL Server Driver] Invalid attribute/option identifier' <0>

E 00dd 0427-15:50:40 sqlhelp 893 ODBC Error -1: (00000) '' <0>
```

- When creating the suggested 'PDUser' login for exclusive use by the replication engine (used also with PRD, DINST, and other utilities), ensure the login is NOT granted any Server Roles and is NOT set up as an alias of SA (dbo). The login should be assigned permissions to the target database and assigned "db_owner" privileges.

Using PeerDirect's GUIDs

- For general details about using PDRE's GUIDs, please refer to the section called Specifying Globally-Unique IDs earlier in this guide. Specifically, when calling the PDGetNextID (and PDGetSiteID) stored procedure, the following syntax will successfully return a GUID value for use in your insert commands. The following example assumes that the EmplID column in the Employee table has been identified as an ID field in the PeerDirect Replication Designer:

```
DECLARE @varNextID integer /* the next available GUID value */
DECLARE @varSiteID integer /* the current site's PDRE-assigned unique id */
DECLARE @varGUIDName varchar(50) /* the GUID identifier */

SELECT @varGUIDName = 'EmployeeEmplID'

EXECUTE PDGetSiteID @varSiteID OUTPUT /* gets the site's identifier */
EXECUTE PDGetNextID @varGUIDName, @varSiteID, @varNextID OUTPUT
IF @varNextID = 0
  RETURN

/* Do the insert using the retrieved GUID value */
INSERT INTO Employee   ( EmplID, EmployeeName )
VALUES ( @varNextID, 'John Doe' )
```