

Understanding Field Properties



Fields are the columns within a table structure of a database. The fields are configured with parameters that define the data type, length of the field (byte size), size of the field (precision and scale), and default value (if any). These field parameters and characteristics and the different data types are described below.

Related Topics

- [Understanding the PremiSys Database](#)

[Don't see on your screen a feature described in this topic?](#)



CAUTION! Users unfamiliar with the database or without training in database structure should not attempt to configure databases to work with PremiSys™ software. See your Systems or Database Administrator.



IMPORTANT! Never add, alter or edit any of the system databases or their tables using software applications outside of the IDenticard Systems program purchased. Adding, deleting or modifying any data, fields, tables and/or databases in any way using Microsoft® SQL or any other third-party software application will adversely affect data integrity and could render the IDenticard Systems program partially or wholly unusable.

▣ [Identifying Columns in the Table Window](#)

When you open a table in the Data Management module of PremiSys software, a Table window appears, similar to the one below. The full name of the window depends on the name of the table that you selected.

Field Actions	Column Name	Data Type	Length	Size	Allow Null	Default Value
New	Dept_Name	nvarchar	50	-	True	
Edit	Dept_Desc	nvarchar	100	-	True	
Delete						

The left-most column lists the names of the fields in the table. The "Data Type" column displays the data type of the field. The "Length" column displays the storage size of the field, in bytes. The "Size" column represents [precision](#) and [scale](#) and only applies to numeric data types. Note that not all fields have a value for the "Size" property. The "Default Value" column indicates the default value, if one is specified.

"True" or "False" appears in the Allow Null column. "False" means that the field MUST contain data. "True" means that the field may remain blank.

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▣ [Identifying Data Types](#)

PremiSys software uses the data types listed below. The table identifies the data type and some of its associated properties. Also included is a column showing screen-design controls that are commonly associated with fields of the listed type. Commonly used data types are: VarChar, Int, BigInt, DateTime and Numeric.

Data Type	Commonly Used Controls	Indicates that the Field can store...	Notes
BigInt (big integer)	Textbox, Label, Check Box, List Box, Combo Box	an integer between -9,223,372,036,854,775,808 and 9,223,372,036,854,775,807 , inclusive. Uses 8 bytes of storage space.	Can be up to 19 digits long but not all 19 digit numbers are supported. See the range at left.
Binary (binary data)	Textbox, Label, Check Box, List Box, Combo Box	fixed-length binary data, up to 8000 characters long.	Default length is "50"
Bit	Check boxes	either 0 or 1. Uses 1 byte of storage space.	This data type is necessary for fields used with check- box controls in PremiSys software.
Char (character)	Textbox, Label, Check Box, List Box, Combo Box	up to 8000 characters, holds any combination of letters, numbers, and symbols. Any value will take up all of the storage space versus VarChar that will only use the storage space needed.	Default length is "10." You may change the length.
DateTime (date and time)	Textbox, Label	dates from January 1, 1753, to December 31, 9999. Uses 8 bytes of storage space.	This data type is preferred for date fields in PremiSys software.
Decimal	Textbox, Label	a number from (-10^{38}) through (10^{38}) ; precision default value is 18.	
Float	Textbox, Label	an integer representing an approximation of numbers from -1.79E308 to 1.79E308	

		Precision is 53. Uses 8 bytes of storage space.	
Image (graphic)	Photo, Signature	variable-length binary data. Can hold between 0 and 2,147,483,647 bytes.	
Int (integer)	Textbox, Label, Check Box, List Box, Combo Box	an integer between -2,147,483,648 and 2,147,483,647, inclusive.	
Money	Textbox, Label, Check Box, List Box, Combo Box	monetary values between -922,337,203,685,477.5808 and 922,337,203,685,477.5807 Uses 8 bytes of storage space.	
NChar (national character)	Textbox, Label, Check Box, List Box, Combo Box	fixed-length Unicode character data of n characters, where n is between 1 and 4,000.	Default length is "10." You may change the length.
NText (national text)	Textbox, Label, Check Box, List Box, Combo Box	variable-length Unicode data with a maximum length of 1,073,741,823 characters ($2^{30} - 1$).	
NVarChar (national varying character)	Textbox, Label, Check Box, List Box, Combo Box	variable-length Unicode character data of n characters, where n is between 1 and 4,000.	Default length is "50." You may change the length.
Real	Textbox, Label, Check Box, List Box, Combo Box	a floating-point column similar to float, with 7-digit precision, and range of values of approximately - 3.4E - 38 to 3.4E 38. Uses 4 bytes of storage space.	
UniquelIdentifier (globally unique identifier (GUID))	N/A	a 16-byte binary number guaranteed to be unique in the world, usually used in replication or as a primary key to uniquely identify rows in a table.	
SmallDateTime (small date and	Textbox, Label	dates from January 1, 1900, to June 6, 2079, with	

time)		accuracy to the minute. Uses 4 bytes of storage space.	
SmallInt (small integer)	Textbox, Label	a whole number between -32768 and 32,767, inclusive. Uses 2 bytes of storage space.	
SmallMoney	Textbox, Label, Check Box, List Box, Combo Box	monetary values between -214,748.3648 and 214,748.3647. Uses 4 bytes of storage space.	
Text	Textbox, Label, Check Box, List Box, Combo Box	variable-length, can hold up to 2,147,483,647 bytes of printable characters.	
Timestamp	Label	time and date information, updated automatically every time that a row with a timestamp column is inserted or updated; a monotonically- increasing counter whose values will always be unique within a database.	
TinyInt (tiny integer)	Textbox, Label	a whole number between 0 and 255, inclusive. Uses 1 byte of storage space.	
VarBinary (varying (variable-length) binary)	Textbox, Label	variable-length binary data.	
VarChar (varying (variable-length) character)	Textbox, Label, Check Box, List Box, Combo Box	variable-length non-Unicode character data (text) with length of <i>n</i> bytes, where <i>n</i> is between 1 and 8,000. Select this type when you know that entries in the field will contain data of a varying lengths. Can contain null values.	Default length is "50." You may change the length.

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