Database Toolbox Release Notes

The "Database Toolbox 3.0 Release Notes" on page 1-1 describe the changes introduced in the latest version of the Database Toolbox. The following topics are discussed in these Release Notes.
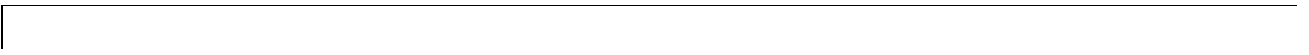
The Database Toolbox Release Notes also provide information about recent versions of the product, in case you are upgrading from a version that was released prior to Release 13 with Service Pack 1.

Printing the Release Notes

If you would like to print the Release Notes, you can link to a PDF version.

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Database Toolbox 3.0 Release Notes

New Features

This section summarizes the new features and enhancements introduced in the Database Toolbox 3.0.

If you are upgrading from a release earlier than Release 13, then you should see "New Features" on page 3-2 in the Database Toolbox 2.2 Release Notes.

New Data Types Supported

The Database Toolbox now supports Java BINARY (BLOB or Binary Large Objects) and OTHER data types, such as bitmap images and MAT-files. For details, see the relevant sections in the Visual Query Builder documentation and the Database Toolbox functions documentation.

Visual Query Builder (VQB) Enhancements

- You can now use the VQB to export data from MATLAB, and insert it into new rows in a database. See "Exporting Data Using the VQB" for details.

- You can now use **Display** menu items in the VQB with structure and numeric formats for retrieved data as specified in **Preferences** or with setdbprefs. In previous releases, you could use **Display** menu items for the cell array format only.

- You can now use the VQB for tables and fields that contain spaces in their names. They appear inside quotation marks in the VQB lists.

- When you double-click a variable in the **Data** field of the VQB, it now opens in the Array Editor. In previous versions, the contents display in the Command Window. You can still display the contents in the Command Window by typing the variable name in the Command Window.

- In the VQB, when you edit the query in the **SQL statement** field and then select **Query -> Save**, the query in the **SQL statement** field is saved rather than the query represented by the other VQB fields.

Database Toolbox Functions Compilable

Because of changes made to the MATLAB Compiler, you can compile Database Toolbox functions to create stand-alone applications that do not require MATLAB when run.

Major Bug Fixes

The Database Toolbox Version 3.0 includes performance improvements and bug fixes made since Version 2.2.1. You can see a list of the particularly important Version 3.0 bug fixes.

If you are viewing these Release Notes in PDF form, please refer to the HTML form of the Release Notes, using either the Help browser or the MathWorks Web site and use the link provided.

If you are upgrading from a version earlier than Release 2.2.1, you should also see "Major Bug Fixes" on page 2-2.

Platform Limitations

Note The platform limitations for the Database Toolbox 3.0 are the same as they were for Version 2.2. Those limitations are described below.

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logintimeout Not Supported on Linux

On Linux platforms, `logintimeout` is not supported.

Upgrading from an Earlier Release

This section describes issues involved in upgrading from the Database Toolbox 2.2.1.

If you are upgrading from an earlier version, then see "Upgrading from an Earlier Release" on page 4-3.

BOOLEAN Data Types Now Represented as 1's and 0's

Previously, if you retrieved a BOOLEAN field from a database using fetch, the values were returned as true or false strings. Now they are returned as 1's and 0's in MATLAB and have a class of logical. For details see the Visual Query Builder documentation, and the fetch and insert function reference pages.

Known Software and Documentation Problems

You can see a list of known software and documentation problems in Version 3.0.

If you are viewing these Release Notes in PDF form, please refer to the HTML form of the Release Notes, using either the Help browser or the MathWorks Web site and use the link provided.

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Database Toolbox 2.2.1 Release Notes

Major Bug Fixes

The Database Toolbox Version 2.2.1 includes performance improvements and bug fixes made since Version 2.2. You can see a list of the particularly important Version 2.2.1 bug fixes.

If you are viewing these Release Notes in PDF form, please refer to the HTML form of the Release Notes, using either the Help browser or the MathWorks Web site and use the link provided.

Upgrading from an Earlier Release

This section describes the upgrade issues involved in moving from Version 2.2 to Version 2.2.1.

If you are upgrading from Version 2.1, also see "Upgrading from an Earlier Release" on page 4-3.

Saving Edited SQL Statements in the VQB

In the VQB, when you edit the query in the **SQL statment** field and then select **Query -> Save**, the query in the **SQL statement** field is saved rather than the query represented by the other VQB fields.

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Database Toolbox 2.2 Release Notes

New Features

This section introduces the new features and enhancements in the Database Toolbox 2.2, added since the Database Toolbox 2.1 (Release 12.0).

For information about Database Toolbox features that are incorporated from Version 2.0, see "New Features" on page 4-2 in the Database Toolbox 2.1 Release Notes.

Retrieve Data as numeric or structure Format

You can specify as a preference the format in which data is retrieved from a database, called the DataReturnFormat. Options are numeric, structure, and cellarray. Previous versions of the Database Toolbox only supported the cellarray format.

You can use the numeric format when all data to be retrieved is numeric or when nonnumeric data is not relevant. Any strings in the data are converted as specified in the NullNumberRead preference, for example, NaN. The numeric format allows for a significant reduction in memory usage. The structure format allows you to access the retrieved data as a MATLAB structure.

To set the preference, use the setdbprefs function. In the Visual Query Builder, set the format using the **Query -> Preferences** menu. For details on the options, see the reference page for setdbprefs.

Export Numeric or Structure Data

Using insert and update, you can export data that is a numeric matrix, a structure, or a cell array. Previous versions only supported data in a cell array for export. There is no specific action you take to specify the format for exported data; the data is exported in its current MATLAB format.

Specify Error Handling Preference

You can specify the behavior for handling errors when retrieving data from a database, called the ErrorHandling preference. The options are store, report, and empty. Previous versions of the Database Toolbox only supported the store option, meaning the error message is stored in the returned data. The report option immediately displays any error messages in the Command Window. For the empty option, the error message is in the returned data, but it returns objects that could not be created as empty handles.

To set the preference, use the `setdbprefs` function. In the Visual Query Builder, set the preference using the **Query -> Preferences** menu. For details on the options, see the reference page for `setdbprefs`.

LONGCHAR Data Type Supported

The `LONGCHAR` data type is supported. This is called the Memo data type in Microsoft Access.

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Database Toolbox 2.1 Release Notes

New Features

This section introduces the new features and enhancements added in the Database Toolbox 2.1 since the Database Toolbox 2.0 (Release 11.0).

Platforms Supported

The Database Toolbox now runs on all platforms that support MATLAB 6, with the exception of the HP 10.2 (HP 700).

Performance Improvement

Version 2.1 performance for fetching data from your database has increased by a factor of roughly 100 over Version 2.0. This improvement was first introduced in Version 2.0.1.

Starting the Database Toolbox

Do not run `feature('dispatchjava',1)` to start the Database Toolbox, as was required for Version 2.0. Instead, begin by running the Database Toolbox function you want to use.

Exporting Results to Report Generator

When using the Visual Query Builder, you can now export query results using the Report Generator, if the Report Generator product is part of your system configuration. To use it, select **Report Generator** from the Visual Query Builder **Display** menu.

Grouping Constraints for a Single Field

A **Group** button has been added to the **Where**, **Subquery**, and **Having** dialog boxes. Use the **Group** button to group constraints for a single field, especially when using the OR operator. Basically, the **Group** button allows you to evaluate a set of constraints as a whole.

Upgrading from an Earlier Release

This section describes the upgrade issues involved in moving from the Database Toolbox 2.0.1 to the Database Toolbox 2.1.

Starting the Database Toolbox

Do not run `feature('dispatchjava',1)` to start the Database Toolbox, as was required for Version 2.0. Instead, begin by running the Database Toolbox function you want to use.