Access 2010 specifications

This article has information about the limits of Microsoft Access database files and objects. In most cases when a database exceeds the following limits it might be an indication of a design issue. Using the information in this article and a careful examination of your database design might help you locate what needs to be corrected for successful implementation. For example, importing data directly from Microsoft Excel into Access without normalization can result in creation of additional fields (columns). If you'd like information about designing databases or normalization, take a look at the resources in the Additional information section.

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Database specifications

The following list of tables applies to Microsoft Access 2010 and Access 2007 databases:

General

ATTRIBUTE	MAXIMUM
Total size for an Access 2010 database (.accdb), including all database objects and data	2 gigabytes, minus the space needed for system objects. NOTE You can work around this size limitation by linking to tables in other Access databases. You can link to tables in multiple database files, each of which can be as large as 2GB. TIP For more information on reducing the size of your database, see Help prevent and correct database file problems by using Compact and Repair.
Total number of objects in a database	32,768
Number of modules (including forms and reports that have the **HasModule** property set to **True**)	1,000
Number of characters in an object name	64
Number of characters in a password	14
Number of characters in a user name or group name	20
Number of concurrent users	255

Table

ATTRIBUTE	MAXIMUM
Number of characters in a table name	64
Number of characters in a field name	64
Number of fields in a table	255
Number of open tables	2,048 including linked tables and the tables opened internally by Access
Table size	2 gigabyte minus the space needed for the system objects
Number of characters in a Text field	255
Number of characters in a Memo field	65,535 when entering data through the user interface; 1 gigabyte of character storage when entering data programmatically
Size of an OLE Object field	1 gigabyte
Number of indexes in a table	32 including indexes created internally to maintain table relationships, single-field and composite indexes.
Number of fields in an index or primary key	10
Number of characters in a validation message	255
Number of characters in a validation rule including punctuations and operators	2,048
Number of characters in a field or table description	255
	4,000

Number of characters in a record (excluding Memo and OLE Object fields) when the **UnicodeCompression** property of the fields is set to **Yes**

Number of characters in a field property setting	255

Query

ATTRIBUTE	MAXIMUM
Number of enforced relationships	32 per table, minus the number of indexes that are on the table for fields or combinations of fields that are not involved in relationships*
Number of tables in a query	32*
Number of joins in a query	16*
Number of fields in a recordset	255
Recordset size	1 gigabyte
Sort limit	255 characters in one or more fields
Number of levels of nested queries	50*
Number of characters in a cell in the query design grid	1,024
Number of characters for a parameter in a parameter query	255
Number of AND operators in a WHERE or HAVING clause	99*
Number of characters in an SQL statement	Approximately 64,000*

*Maximum values might be lower if the query includes multivalued lookup fields.

Form and Report

ATTRIBUTE	MAXIMUM
Number of characters in a label	2,048
Number of characters in a text box	65,535
Form or report width	22,75 in. (57.79 cm)
Section height	22.75 in. (57.79 cm)
Height of all sections plus section headers (in Design view)	200 in. (508 cm)
Number of levels of nested forms or reports	7
Number of fields or expressions that you can sort or group on in a report	10
Number of headers and footers in a report	1 report header/footer; 1 page header/footer; 10 group headers/footers
Number of printed pages in a report	65,536
Number of controls and sections that you can add over the lifetime of the form or report	754
Number of characters in an SQL statement that serves as the **Recordsource** or **Rowsource** property of a form, report, or control (both .accdb and .adp)	32,750

Macro

ATTRIBUTE	MAXIMUM
Number of actions in a macro	999
Number of characters in a condition	255
Number of characters in a comment	255
Number of characters in an action argument	255

Project specifications

The following list of tables applies to Access 2010 and Access 2007 projects:

General

ATTRIBUTE	MAXIMUM
Number of objects in an Access project (.adp)	32,768
Number of modules (including forms and reports that have the **HasModule** property set to **True**)	1,000
Number of characters in an object name	64
Number of columns in a table	250 (Microsoft SQL Server 6.5)
	1024 (Microsoft SQL Server 7.0, 2000 and 2005)

Form and Report

ATTRIBUTE	MAXIMUM
Number of characters in a label	2,048
Number of characters in a text box	65,535
Form or report width	22 in. (55.87 cm)
Section height	22 in. (55.87 cm)
Height of all sections plus section headers (in Design view)	200 in. (508 cm)
Number of levels of nested forms or reports	7
Number of fields or expressions that you can sort or group on in a report	10
Number of headers and footers in a report	1 report header/footer; 1 page header/footer; 10 group headers/footers
Number of printed pages in a report	65,536
Number of controls and sections you can add over the lifetime of the form or report	754
Number of characters in an SQL statement that serves as the **Recordsource** or **Rowsource** property of a form, report, or control (both .accdb and .adp)	32,750

Macro

ATTRIBUTE	MAXIMUM
Number of actions in a macro	999
Number of characters in a condition	255
Number of characters in a comment	255
Number of characters in an action argument	255

Additional information

- Database design basics
- Learn the structure of an Access database
- Build an Access database to share on the Web
- Protect your data with backup and restore processes