Microsoft® SQL Server® 2008 Internals

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To ensure the ongoing accuracy of this book and its companion content, we've reviewed and confirmed the errors listed below. If you find a new error, we hope you'll report it to us on our website: www.microsoftpressstore.com/contact-us/errata.

Page	Location	Description	Date corrected
	Global	All references to "recovery mode" should be changed to "recovery model".	3/30/2012
30	Last paragraph, first sentence	Reads: ...since it was read into disk). Should read: ... since it was read into memory).	3/30/2012
49	Table 1-3, second row, fifth column, second sentence	Reads: The calculated shared % is effective MAX – MIN = 30. Should read: The calculated shared % is effective MAX – MIN = 25.	3/30/2012
53	Last bulleted item, end of second line	Reads: allocations_db_per_sec Should read: allocations_kb_per_sec	3/30/2012
56	"SQL Server Browser" section, third paragraph	Reads: If the SQL Server Browser service is not running on a computer, you cannot connect to SQL Server on that machine unless you provide the correct port number. However, if the SQL Server Browser service is not running, the following connections will not work: Should read: If the SQL Server Browser service is not running on a computer, you cannot connect to SQL Server on that machine unless you provide the correct port number. Additionally, if the SQL Server Browser service is not running, the following connections will not work:	3/30/2012

Page	Location	Description	Date corrected
56	First paragraph, second line	Reads: Other services might include the SQL Server Full-Text Search service and SQL Server Integration Services (SSIS). Should read: Other services might include the SQL Server Reporting Services and SQL Server Integration Services (SSIS).	3/30/2012
56	"SQL Server Browser" section, third paragraph, second bulleted item	Reads: Using the DAC to connect to a named instance or the default instance if it us not using TCP/IP port 1433 Should read: Using the DAC to connect to a named instance or the default instance if the DAC for the default instance is not using (the default) TCP/IP port 1434	3/30/2012
78	"Commit Table" section, first paragraph, third sentence	Reads: The CSN is then inserted—along with the transaction identifier, log sequence information, begin time, and other data… Should read: The CSN is then inserted—along with the transaction identifier, log sequence information, commit time, and other data…	3/30/2012
116	First paragraph, second sentence	Reads: The other five events, in comparison, are asynchronous, meaning… Should read: The other four events, in comparison, are asynchronous, meaning…	3/30/2012
127	"The Resource Database" section, second paragraph, third sentence	Reads: For SQL Server 2008, the RTM build, this is 10.0.1600.22. Should read: For SQL Server 2008, Service Pack 1, this is Mar 29, 2009.	3/30/2012

Page	Location	Description	Date corrected
143	First and second bulleted items	First bulleted item begins: Add a new filegroup to a database. This bulleted item should be split into the following: Add a new filegroup to a database. (Adding files to those filegroups must be done in a separate ALTER DATABASE command.) Modify an existing file in one of the following ways: The second bulleted item begins: Mark the file as OFFLINE. This bulleted item should be split into the following: Mark the file as OFFLINE. You should set a file to OFFLINE when the physical file has become corrupted and the file backup is available to use for restoring. (There is also an option to mark the whole database as OFFLINE, which I'll discuss shortly when I talk about database properties.) Marking a file as OFFLINE allows you to indicate that you don't want SQL Server to recover that particular file when it is restarted. Modify an existing filegroup in one of the following ways:	3/30/2012
153	Second paragraph, seventh sentence	Reads: RECOVERY_ PENDING Should read: RECOVERY_PENDING	3/30/2012
158	Last bulleted item, second line	Reads: TORN_PAGE_DETCTION Should read: TORN_PAGE_DETECTION	3/30/2012
159	First and fourth paragraphs	First paragraph, last sentence reads: ...suspect_ pages… Should read: ...suspect_pages... Fourth paragraph, first sentence reads: ...TORN_PAGE_DECECTION... Should read: ...TORN_PAGE_DETECTION…	3/30/2012
166	Last paragraph, first sentence	Reads: Because tempdb is used for many internal operations in SQL Server 2008 than in previous versions… Should read: Because tempdb is used for many more internal operations in SQL Server 2008 than in previous versions…	3/30/2012

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173	First paragraph, third sentence	Reads: The login name sa has the user name dbo. This name is a *special login* that is used by the sa login, by all logins in the sysadmin role, and by whatever login is listed in sys.databases as the owner of the database Should read: The dbo is a special database principal that is mapped to the login owning the database and it is also used by all logins in the sysadmin server role.	3/30/2012
173	"Principals and Schemas" section, first paragraph, first sentence	Reads: Prior to SQL Server 2005, there was a CREATE SCHEMA command, but it effectively did nothing because there was an implicit relationship between users and schemas that could be changed or removed. Should read: Prior to SQL Server 2005, there was a CREATE SCHEMA command, but it effectively did nothing because there was an implicit relationship between users and schemas that could not be changed or removed.	3/30/2012
176	Last paragraph	Reads: If your transaction log is rebuilt by attaching the database, using the FOR ATTACH_REBUILD_LOG breaks the log backup chain. You should consider making a full backup after performing this operation. Should read: If your transaction log is rebuilt by attaching the database, using the FOR ATTACH_REBUILD_LOG puts the database to SIMPLE recovery. If the database was originally in FULL or BULK_LOGGED recovery, it is recommended that you switch back to that original recovery model, and make a full backup after performing the ATTACH operation.	3/30/2012
179	Steps 2 and 3	Step 2, last line of code reads: -eE:\ SQLData\Log\ERRORLOG Should read: -eE:\SQLData\Log\ERRORLOG Step 3 reads: ...physically move the files for to the new location. Should read: physically move the files to the new location.	3/30/2012
186	First paragraph, third sentence	Reads: A transaction log cannot be truncated prior to the point of the earliest transaction that is still open,… Should read: A transaction log cannot be truncated past the point of the earliest transaction that is still open,…	3/30/2012

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187, 188	Last paragraph, Active state; Figure 4.3	Page 187, the following parenthetical statement should be removed: (Unused space in the physical log is not part of any VLF.) Page 188, Figure 4.3: The label VLF #5 should appear over the box marked "unused space"	3/30/2012
188	"Observing Virtual Log Files" section, code table, penultimate row, FSeqNo column	Reads: 40 Should read: 48	3/30/2012
188	Second pararaph	Reads: Unused One or more VLFs at the physical end of the log files might not have been used yet if not enough logged activity has taken place or if earlier VLFs have been marked as reusable and then reused. Should read: Unused One or more VLFs at the physical end of the log files might not have been used yet if not enough logged activity has taken place.	3/30/2012
188	"Observing Virtual Log Files" section, first paragraph	Reads: You can observe the same key properties of virtual log files by executing the undocumented command DBCC LOGINFO. This command takes no parameters, so it must be run in the database for which you want information. It returns one row for each VLF. When I run this command in my AdventureWorks2008 database, I get the following eight rows returned (not all columns are shown): Should read: You can observe the same key properties of virtual log files by executing the undocumented command DBCC LOGINFO. This command doesn't need a parameter; it reports the VLFs for the current database, but you can specify a database name or database ID in parentheses. The following all return the same output: USE master; DBCC LOGINFO; DBCC LOGINFO(master); DBCC LOGINFO(1); When I run the DBCC LOGINFO command in my AdventureWorks2008 database, I get the following eight rows returned (not all columns are shown):	
199	First paragraph, second sentence	Reads: ...all the index pages have been captured as part of the database backup. Should read: …all the index pages have been captured as part of the log backup.	3/30/2012

Page	Location	Description	Date corrected
221	Sixth paragraph	The following sentence should be removed: In addition this format is not affected by your session's SET DATEFORMAT or SET LANGUAGE settings The last sentence should read: Using this format, March 4, 1948, could be represented as 19480304 or 1948-03-04. Should read: However, since SQL Server's interpretation of 1948-03-04 can vary based on your SET DATEFORMAT settings, it is recommended that you use 19480304, or in general format: yyyymmdd.	3/30/2012
271	Third paragraph, first sentence	Should read: There are nine entries in the column offset array with the value (after byte-swapping) of hex 22, or decimal 34, and one entry with the decimal value of hex 23, or decimal 35.	
274	Second bulleted item	The second bulleted item should be removed: This will return the value '1900-01-01' 00:00:00.00', which is the default when no date is specified.	3/30/2012
289	"Allocation Structures" section, second paragraph, penultimate sentence	Reads: ...which contain one bit per extent.) Should read: ...which contain one bit per extent.	3/30/2012
304	"Using the dm_db_index_ physical_stats DMV" section, first paragraph, second sentence	Reads: DMV can give you insight into whether or not… Should read: This DMV can give you insight into whether or not…	3/30/2012

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321	First paragraph, second thru last sentence	Reads: The index key part of the entry always indicates the minimum value that could be on the pointed-to page. Note that they do not necessarily indicate the actual lowest value, just the lowest possible value for the page (as when the row with the lowest key value on a page is deleted, the index row in the level above is not updated). Should read: The index key part of the entry indicates the first value that could be on the pointed-to page. If the index was built in ASC sequence, the first value will be the minimum value; if the index was built in DESC sequence, the first value will be the maximum value. Note that they do not necessarily indicate the actual first value, just the first possible value for the page (as when the row with the lowest or highest key value on a page is deleted, the index row in the level above is not updated).	3/30/2012
340	"Indexes on Computed Columns" section, first paragraph, third and fourth sentences	The following sentences are technically inaccurate and should therefore be deleted: Such a computed column can be an index key, included column, or part of a PRIMARY KEY or UNIQUE constraint. You cannot define a FOREIGN KEY, CHECK, or DEFAULT constraint on a computed column, and computed columns are always considered nullable unless you enclose the expression in the ISNULL function.	3/30/2012
412	Table 7-7, Data-Dependent-Length Data Types section	This section of the table lists the storage requirements in reverse order. It should reflect 2+ when not sparse, and 4+ when sparse.	
418	Second bulleted item	Reads: ...8 entries of 0xa... Should read: ...9 entries of 0xa…	
418	Third bulleted item, first sub-bulleted item	Reads: ...(Number of columns -1)/30... Should read: ...CEILING(Number of columns -1)/30…	
422	Fourth bulleted item, third sub-bulleted item	Reads: The MaritalStatus is 1 byte, with the value of 0x0053, or 'S' Should read: The MaritalStatus is 2 bytes, with the value of 0x0053, or 'S'	

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430	Third paragraph, last sentence	Reads: In general, SQL Server tries to keep no more than 300 entries in the dictionary. Should read: In general, SQL Server tries to keep no more than 255 entries in the dictionary.	3/30/2012
437	Last paragraph, second sentence	Reads: …understand Figure 7-15 and… Should read: …understand Figure 7-16 and…	3/30/2012
469	Fourth paragraph, first sentence	Reads: In additional to the Independence assumption,… Should read: In addition to the Independence assumption,…	3/30/2012
477	"Index Selection" section, first paragraph, second sentence	Reads: …limiting operation in a query and to convert that operation that can be performed… Should read: …limiting operation in a query and to convert that to an operation that can be performed…	3/30/2012
506	First paragraph, second sentence	Reads: …that the row (Resource 1:69641:1) was locked with an X lock. Should read: …that the row (Resource 1:75676:1) was locked with an X lock.	3/30/2012
534	Tip reader aid, fourth sentence	Reads: …200 bytes… Should read: …300 bytes…	
558	Second paragraph, penultimate sentence	Reads: For example, the OSQL interface uses the ODBC driver, which sets QUOTED_IDENTIFIER to OFF for every connection,… Should read: For example, the OSQL interface sets QUOTED_IDENTIFIER to OFF for every connection,…	
566	First paragraph, penultimate line	Reads: …from the sys.dm_exec_ cached_plan_dependent_objects function,… Should read: …from the sys.dm_exec_cached_plan_dependent_objects function,…	3/30/2012

Page	Location	Description	Date corrected
638	Third full paragraph, first sentence	Reads: Ironically, although this isolation level is intended to help avoid blocking, if there are any users in the database when the preceding command is executed, the ALTER statement blocks it. Should read: Ironically, although this isolation level is intended to help avoid blocking, if there are any users in the database when the preceding command is executed, the ALTER statement blocks.	3/30/2012
640	Last paragraph, first sentence	Reads: The column snapshot_isolation_state has possible values of 0 to 4... Should read: The column snapshot_isolation_state has possible values of 0 to 3...	
647	Table 16, row 5	The row that begins with "You cannot use ALTER DATABASE to change the database versioning state..." contains incorrect information; it should therefore be deleted.	3/30/2012
657	"Controlling Locking" section, first paragraph, third sentence	Reads: Keep in mind that by setting an isolation level, you have an impact on the locks that held, the conflicts that cause blocking, and the duration of your locks. Should read: Keep in mind that by setting an isolation level, you have an impact on the locks that are held, the conflicts that cause blocking, and the duration of your locks.	3/30/2012
658	Code block, hint syntax for DELETE, UPDATE, and INSERT sections	The end of the first line of each of these sections of the code block reads: DELETE [FROM] object [WITH (locking hint) [WHERE <search conditions>] UDPATE object [WITH (locking hint) SET <set_clause> [WHERE <search conditions>] INSERT [INTO] object [WITH (locking hint) <insert specification> Should read: DELETE [FROM] object [WITH (locking hint)] [WHERE <search conditions>] UDPATE object [WITH (locking hint)] SET <set_clause> [WHERE <search conditions>] INSERT [INTO] object [WITH (locking hint)] <insert specification>	3/30/2012
661	Step 3 step result paragraph, penultimate line	Reads: SELECT TOP 1 * FROM <OrderTable> Should read: SELECT TOP 1 * FROM <OrderTable> (READPAST);	

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753	Rightmost column	The entries for "VIA (Visual Interface Adapter)" and "Visual Interface Adapter (VIA)" should be deleted and their page references relocated to the "Virtual Interface Adapter (VIA)" entry.	3/30/2012