

# Inquire – Knowledge Base Article

**Product Group:** SOFTWARE **Product:** @ptitude Analyst **Version:** @ptitude Analyst 4.0 or higher

### Abstract

When entering double byte characters (such as Asian or Cyrillic characters) into @ptitude Analyst running with a MS SQL database, the characters might not get stored properly. This document outlines how to set up a SQL database to accept these extended characters.

## Overview

International languages may have/use collation that is not compatible with local collation used in the US 'SQL\_Latin1\_General\_CP1\_CI\_AS'. This document outlines the steps required to convert an existing database collation to a desired one.

## **Collation Conversion Process**

The following steps are to be followed for a successful conversion of the database:

- A. Perform a full back up of your database.
- B. Obtain the database' current collation settings
- C. Select the desired collation
- D. Run the "ChangeCollation.exe" utility to create a script
- E. Run the script
- F. Verification

**NOTE 1**: all scripts need to run under the "sa" user credentials! The default password for this is 'skf' (lower case) but may be different in your specific scenario.

**NOTE 2**: This procedure requires proficiency with Microsoft SQL Studio Manager.

# General information about Collation

Information about the collation process can be found at these URLs:

SQL Server 2005: http://msdn.microsoft.com/en-us/library/ms143508(SQL.90).aspx

For Stell Seliver 2008: 9005: 1/msdn.microsoft.com/en-us/library/ms144250.aspx 5271 Viewridge Court \* San Diego, California, 92123 USA Telephone 1-800-523-7514 Web: www.skf.com/cm



#### A. Backup Your Database.

Perform a full back up of your database following standard procedures documented in <asdf> or your company's directions. Make sure to attach the database again after the backup is completed.

#### B. Obtain Current Collation Settings

Collation setting strings are very similar. You may want to verify the current setting first before making any changes. This step is not necessary if you know you need to make changes. To obtain the current collection settings do the following:

- 1. Start the SQL Server Management Studio, login with the "sa" account.
- 2. Open a new query window
- 3. Enter the following SQL statement:

```
SELECT CONVERT(char, SERVERPROPERTY('collation'))
```

The result should be a single column with one row holding a string. An example output is:

SQL\_Latin1\_General\_CP1\_CI\_AS



#### C. Select the desired database collation

You will need to select the desired collation from the list of available collations. To obtain this list do the following:

- 1. Start the SQL Server Management Studio, login with the "sa" account.
- 2. Open a new query window
- 3. Enter the following SQL statement:

```
SELECT * FROM ::fn_helpcollations()
```

Figure 1 below shows an example output of all available collation selections. As many collation setting strings are very similar, please verify the desired collation setting by carefully reading the description. In the following steps you will need the collation name string.

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	604	Korean_90_CI_AS_KS_WS	Korean-90, c	ase-insensitive, accent-sensi	tive, kanatype-se	nsitive, width-s	ensitive		
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Figure 1: Example list of available collations

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#### **D.** Creating the Conversion Script with AlterCollation.exe The AlterCollation.exe utility can be found on the @ptitude Analyst DVD in the Tools directory. Copy this utility to your hard disk.

Use the following procedure to create the conversion script:

- 1. Close all connections to the SKFUSER database i.e., make sure that no @ptitude Analyst user remains logged in. <steps to verify this?>
  - 🛃 Change Collation \_ 🗆 × NOTE: If you change from a case insensitive to a Server: MyServemame[\sqlexpress] case sensitive collation order you may find errors Integrated Security occur when recreating functions and check constraints - this is because your SQL code will be User ID: parsed in a case sensitive manner. Password: NOTE: Once the script has been executed you will see any error messages shown in red in the window below directly after the SQL code that Database: skfuser failed Korean 90 CI AS Collation: • Drop All Keys and Constraints. (By Default only the required items are dropped) • Full Text Language Switch database to single user mode while ✓ running script. This is the safest option but does not work with database mirroring. Script and Execute Script Only
- 2. Double click to start AlterCollation.exe application.

Figure 2: Default AlterCollation.exe setup screen

- Enter the server name for the server field (e.g. SKF-TESTER-TWO\sqlexpress). You can obtain the proper server name by starting the SQL Server Management Studio tool. The start up dialog will show the correct server name. Note that the SQL Server commercial version does not require "\sqlexpress"
- 4. Enter "skfuser" under Database field.
- 5. Select the desired collation. Figure 2 above shows Korean\_90\_CI\_AS is selected. Enter or select the name string you have identified in step C.
- 6. Leave Full Text Language field empty.
- 7. Click on Script Only to generate database scripts. The utility will now create the script needed to change the collation. Figure 3 shows the output of this step.



🔜 Change Collation		
Server:	USSDGDT414ZZB1 Integrated Security	NOTE: If you change from a case insensitive to a case sensitive collation order you may find errors occur when recreating functions and check constraints - this is because your SQL code will be
User ID:		parsed in a case sensitive manner.
Password:		NOTE: Once the script has been executed you will
Database:	skfuser	see any error messages shown in red in the window below directly after the SQL code that failed
Collation:	Korean_90_CI_AS	Drop All Keys and Constraints. (By Default
Full Text Language:	<b>_</b>	only the required items are dropped)
Script and Execute	Script Only Cancel	Switch database to single user mode while running script. This is the safest option but does not work with database mirroring.
alter database [skfuser] se	t single_user	
GO		
USE [skfuser]		
GO		
set arithabort on		
GO		<b>_</b>

Figure 3: AlterCollation showing the created script (bottom textbox).

### E. Running the Alter Collation script

The alter collation script will process the following steps automatically:

- a. Switch to single user connection.
- b. Disable all triggers.
- c. Drop constraints.
- d. Drop indexes.
- e. Switch collation to selected collation.
- f. Alter the database column properties to DATABASE\_DEFAULT (will cause it to inherit the database collation properties)
- g. Re-create the indexes.
- h. Re-create the constraints.
- i. Re-enable the triggers.
- j. Set the database to multi user.

Follow these steps to execute the alter collation script:

- 1. Select the contents of the text box. Click inside, press ctrl-a to select all text and ctrl-c to copy this to the clipboard.
- 2. Start the SQL Server Management Studio, login with the "sa" account.
- 3. Open a new query window
- 4. Paste the script from the clipboard into the new query window (ctrl-v).

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Figure 4: SQL Server Management Studio showing alter collation script

5. Click the "execute" button or press F5 to run the script. This will take several minutes to execute.

### DO NOT INTERRUPT PROCESS UNTIL DONE



Figure 5: SQL Server Management Studio showing successful script execution.

#### F. Verification

If the execution of the script concluded successfully, no further verification steps are necessary.

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