Caché SQL — Version F.13
Release Information

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APPENDIX

A

Caché SQL Version F.13 Release Information

New Features

Caché SQL Server

InterSystems is in the process of upgrading the relational server for Caché. The new Caché SQL server provides:

- GUI Server Master Configuration
- Improved performance for insert/update operations

Note: For this transitional release, the server management and preference settings are limited to the operations described below. All information provided is subject to change in future releases.

Caché SQL Server Management Tools

The Caché SQL Server menus have been removed from the Caché character based menus. They have been replaced by the GUI system configuration window and the functions and globals described below.

System Configuration Window

The System Configuration Connectivity panel allows you to define Server Masters and enable them to be automatically started at startup time. You can define a customized set of Server Masters for each defined system configuration. You can also delete server master definitions from this window.

Procedure **To define a Server Master:**

1. Select the configuration name for which you would like to define Server masters from the Caché Configuration window and click on the System Configuration button.

2. Select the Connectivity tab. Figure A-1 shows the Connectivity panel in the Caché System Configuration Window.

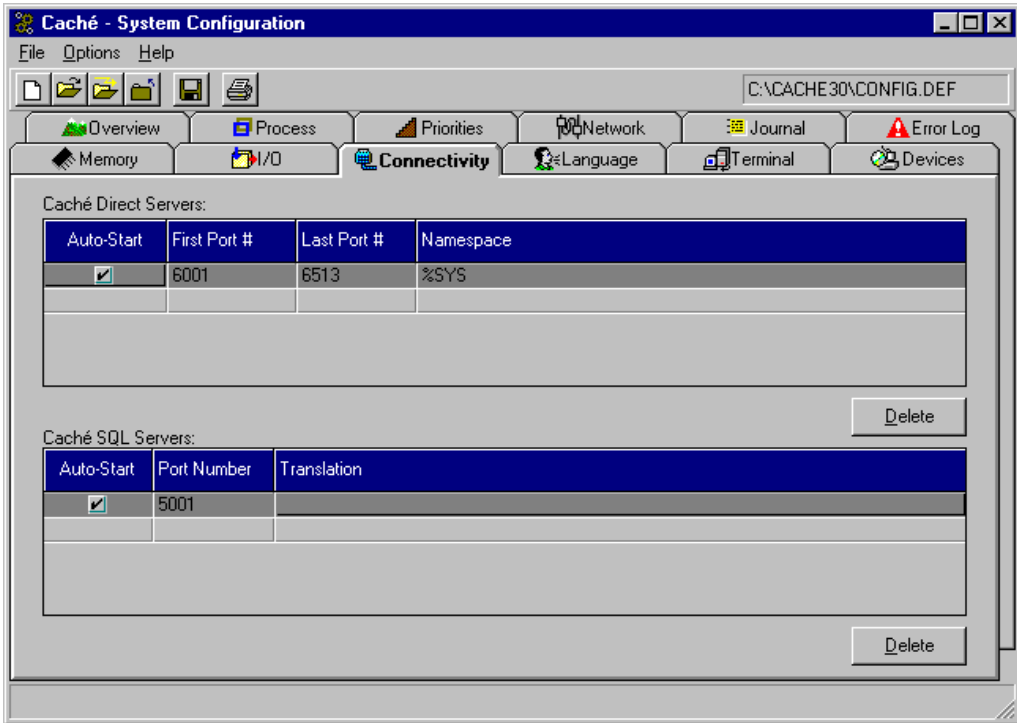

Figure A-1: Caché System Configuration Window — Connectivity Panel

3. Type in the TCP port number for your Server Master under the Caché SQL Servers section on the Connectivity Panel.

4. Click on the auto-start checkbox to automatically start your Server Master when Caché starts.

5. If you have defined any translation tables via the NLS Configuration utility, identify the table to be used with each TCP port.

6. Restart Caché to start any new Server Masters marked for autostart.

Note: Clicking on the Delete button deletes a Server Master from your configuration.

Server Management Functions

Table A-1 describes functions that affect the Caché SQL Server. You can execute any of the functions described below via the ***DO*** command.

Table A-1: Caché SQL Server Management Functions

Entry Point	Description
StartAll^%qsnstart	Start all the Server Masters, each with its own TCP port and I/O translation table, as specified in the Server Master TCP Configuration list, ^["%SYS"]CacheSql("Config","TCP"). StartAll repetitively calls 'DO Start^%qsnstart(...)'. It has no input parameters. This function must be called in the %SYS namespace.
Start^%qsnstart(port[,trans])	Start a background server master process for the given TCP port and I/O translation table. Parameter / Description / Default / Required *port* — TCP/IP Port# — N/A — Yes *trans* — I/O translation table to be used when communicating with the client (on systems that support $zcvt) — "BIN" — No
Purge^%qsnstart(days)	Purge all cached queries in the current namespace that have not had a prepare in the number of days specified by the *days* variable. These cached queries are removed from the internal database of cached queries, and their routines are deleted. DO Purge^%qsnstart(0) purges ALL the cached queries in the current namespace. For Purge() or Purge(""), the applicable default value for days (see below) is used. Purge can be called directly, but is also called automatically once daily in each active namespace by the first Caché SQL Server to receive a logoff message.

Table A-1: Caché SQL Server Management Functions (Continued)

Entry Point	Description
showerr^%qsnerr	For every error logged by the Caché SQL server, the error log report displays the following information: ▫ Error Type — can be “Server” or “Server Master” ▫ Date/Time logged — date and time error was logged ▫ Server ID # — internal ID # of the server process or Server Master that incurred the error ▫ History ID # — ID # of the server process in the archive global ▫ Forced Error — Yes or No ▫ Caché SQL Server Function — Function code number for error (listed in the *Caché SQL Driver User's Guide*). ▫ $ZE Error — Caché error message ▫ ISC Return Code (SQLCODE) — SQLCODE error message number ▫ SQLCODE Message — SQLCODE error message text ▫ Device Type — Type of network device. 1=TCP ▫ INPUT/OUTPUT Device — port number being used by the server process that incurred the error ▫ Error Directory — directory in which error occurred ▫ $JOB — server process number on which the error occurred
^RESJOB	Delete a server master process. You must perform RESJOB from the System Manager's namespace, i.e.: ***%SYS>D ^RESJ0B*** **Note:** You can also delete Server Masters via the System Configuration Connectivity panel.
Note: No variables need to be defined when calling any of these entry points.	

Caché SQL Server Preferences and Defaults

Several preferences and their defaults can be specified by setting the preference globals described in Table A-2. However, none of these values are required to run the Caché SQL Server.

For each of the items in the following table, the system default may be overridden by setting a system-wide default value in the ^["%SYS"]%CacheSql global. This default may be overridden for a particular namespace, by setting a namespace-specific value in the ^CacheSql global within that namespace.

Table A-2: Caché SQL Server Preferences

Description	System-wide default	System Default
	Namespace-specific default	
Value to use when Purge^%qsnstart("") is called. All cached queries that haven't had a prepare performed in at least this # of days are purged.	^%CacheSql("DaysBeforePurge")	40
	^CacheSql("DaysBeforePurge")	
Initial characters to be used for routine names for cached queries.	^%CacheSql("Prefix")	"CacheSQL"
	^CacheSql("Prefix")	
1 => save the .INT code when caching a query	^%CacheSql("Save .INT")	0
0 => don't save the .INT code when caching a query	^%CacheSql("Save .INT")	
1 => save the .MAC code when caching a query	^%CacheSql("Save .MAC")	0
0 => don't save the .MAC code when caching a query	^CacheSql("Save .MAC")	

Wide Character Support

InterSystems now supports the insertion and editing of wide characters in the Base Table and Field definition forms (The description fields, coding fields, etc.). Wide characters are ***not*** supported in table, field, or view names.

UNICODE "wide" characters specified in the applicable NLS "IDENT" tables, can now appear within identifiers (such as table and field names) in SQL queries.

Macro Compiler

- Caché supports language modes for MACRO routines. This allows you to:
  - Switch language modes when using the full screen editor.
  - Compile (%RCOMPIL) and copy (%RCOPY) routines in a specified language mode.
  - Output (%RO) and input (%RI) routines in specified language mode.
    %RI preserves the language mode specified in %RO. If no language mode is specified, %RI prompts you for the language mode.
  - Display language mode in detailed Routine Display (%RD).

Corrections

SQL Server

- InterSystems has corrected a bug that did not allow deletion of Server Masters.

Queries

- InterSystems has corrected an <UNDEFINED> error compiling a query joining two views that each have calculated fields with the same alias.
- InterSystems has corrected a problem parsing General Views that use aliases.
- InterSystems has corrected a problem that caused SELECT queries with invalid field names to report back an error without the name of the invalid field.

Utilities

- Users in implied namespaces now see any % routines stored in the implied namespace when specifying * at the Routine(s): prompt in the CHUI based utilities. You still must specify %* to see the % routines in mapped namespaces.

F.12 New Features and Enhancements

The following changes are included in Caché SQL Version F.12 but were not included in the Caché SQL Version F.12 Release Information

Caché SQL Server

- The Caché SQL Server Master no longer takes up a user license slot.

F.12 Corrections

Caché SQL ODBC Driver

- InterSystems has corrected a <STORE> error when selecting more than 200 fields from a table via the Caché SQL ODBC Driver. You must delete all stored procedures from your Caché Server to resolve this problem.

Available Documentation

Caché SQL

The documentation set for InterSystems Caché SQL relational database product includes the following manuals:

- This *Caché SQL — Version F.13 Release Information*; Revision Date: August, 1997.
- *Open M with SQL — Version F.12 Release Information*; Revision Date: September, 1997.
- *Open M/SQL Developer Guide* — Version F.6 & F.7; Revision Date: September 11, 1995.
- *Open M with SQL Database Administrator's Guide — Version F.9, F.10;* Revision Date: December 9, 1996.
- *User Interface Programming Guide — Version F.4;* Revision Date: October 6, 1994.
- *Open M with SQL Data Dictionary Guide* — Version F.10; Revision Date: April 2, 1997.
- *Open M/SQL M/PACT (*includes *M/PACT Addendum)* — Version B; Revision Date: July 2, 1990.

Caché SQL Server

If you plan to use Caché SQL Server, you also need the following documentation:

- *Caché SQL Driver User's Guide* —Version 2.2; Revision Date: September, 1997.
- *Open M/SQL Server Programming Guid*e — Version E.3; Revision Date: May 5, 1993. *Available on request*.
- *Open M Relational Server Manager's Guide* — Version F.10; Revision Date: December 9, 1996.