Location Intelligence

GeoStan™ FileServer

Version 2.1

Reference Manual for z/OS

April 2019

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GeoStan™ FileServer

About GeoStan FileServer

GeoStan FileServer is an add-on product designed to significantly improve performance of GeoStan batch and GeoStan interactive (CICS). A started task caches GeoStan data, and makes that cached data available to all instances of GeoStan running on that partition, eliminating the need for most of the physical I/O performed otherwise. This allows GeoStan to run up to four times faster than it does without GeoStan FileServer.

GeoStan does not efficiently cache data. Without GeoStan FileServer, any caching that does occur is in each address space. This potentially consumes a great deal of memory if many instances of GeoStan are running on a single partition. GeoStan FileServer ensures that the data is cached in a central location, rather than on an address space by address space basis.

NOTE: GeoStan FileServer relies on a started task. If the started task is not running, it prevents execution of all instances of GeoStan running on that particular partition, which could potentially impede work. The started task must run on every partition on which GeoStan runs.

GeoStan FileServer is designed for use in system configurations which are running multiple instances of GeoStan on a partition at the same time. Performance benefits may also be realized in configurations which are running a single GeoStan instance, especially over time, as cache data gets loaded. However, the performance gains may not offset the cost of setup and maintenance.

C H A P T E R 2

Using GeoStan™ FileServer

After installing GeoStan FileServer, you must relink your application(s) using GeoStan with the appropriate `FILESVR.CNTL` members. For more details on installing and linking GeoStan FileServer, see the *Configuring GeoStan FileServer: Additional Information* section of the *Centrus® z/OS Product Suite Installation Guide*.

Refer to the following commands for use in displaying specific settings. The available commands are detailed in the GeoStan FileServer commands section, below. Error and informational messages displayed by GeoStan FileServer are listed along with their explanations in the GeoStan FileServer messages section.

GeoStan FileServer commands

The following operator commands may be issued to GeoStan FileServer via MVS modify. You may also issue an MVS stop command.

Command	Parameters
DISPLAY {STORAGE|VARIABLES|STATUS}	STORAGE-Displays the number of blocks loaded, the amount of storage in use. how many blocks were read from disk and how many blocks were released from the LRU cache. VARIABLES-Displays the current status of each user settable variable. STATUS-Equals issuing all of the other DISPLAY commands. It also prints the current list of unopenable datasets.
SET UNOPENEDFILES {TRUE|FALSE}	If set to FALSE, the system displays a failure to open any particular file only once. If set to TRUE, the system displays a failure to open any particular file each time an open on that file is attempted.

GeoStan FileServer messages

The following messages may be displayed by GeoStan FileServer for informational purposes or to indicate an error during runtime.

Messages and descriptions
CSF001 CENTRUS FILE SERVER VERSION 2.0 HAS SUCCESSFULLY STARTED Displays on the console when the GeoStan FileServer starts successfully.
CSF002 OPEN DATASET: **datasetname** Indicates the **datasetname** of a successfully opened file. This message is part of the display when issuing "DISPLAY STATUS".
CSF003 INTERNAL ERROR: CANNOT RELEASE THE LRU BLOCK. Indicates an internal error with the GeoStan FileServer. Contact Technical Support with the error number and message.
CSF004 INTERNAL ERROR: COULD NOT FIND AN APPROPRIATE LRU BLOCK OF THE RIGHT SIZE TO RELEASE. Indicates an internal error with the GeoStan FileServer. Contact Technical Support with the error number and message.
CSF005 INTERNAL ERROR: CANNOT FIND AN AVAILABLE REQUEST IN THE POOL. Indicates an internal error with the GeoStan FileServer. Contact Technical Support with the error number and message.
CSF006 DYNALLOC FAILED, RC=**rc** INFO=**infotxt** DDN=**ddname** DSN=**dsname** Indicates that the GeoStan FileServer was unable to dynamically allocate the dataset named by **dsname**. Look up the return code and information code in the IBM manual regarding SVC 99 (DYNALLOC.)
CSF007 OPENING **ddname datasetname** Indicates the **ddname** and **datasetname** currently being opened by the GeoStan FileServer when the dataset is being dynamically allocated-that is, when clients of the GeoStan FileServer request an open of a **datasetname** rather than a pre-allocated **ddname**.
CSF008 OPENING **ddname** Indicates the **ddname** currently being opened by GeoStan FileServer when a client requests an open of a pre-allocated **ddname**.
CSF009 INTERNAL ERROR. CANNOT GET DATA FROM FILE. BLOCKS HAVE NOT BEEN ALLOCATED. Indicates an internal error with the GeoStan FileServer. Contact Technical Support with the error number and message.
CSF010 INTERNAL ERROR: BLOCK INDEX IS PAST END OF FILE. Indicates an internal error with the GeoStan FileServer. Contact Technical Support with the error number and message.
CSF011 FSEEK FAILED DSN=**datasetname** Indicates an error reading **datasetname**. Check to see if the dataset is allocated properly and readable. If the dataset indicated is not in error, contact Technical Support with the error number and message.

Messages and descriptions
CSF012 MEMORY LIMIT AT numblocks BLOCKS AND numbytes BYTES OF STORAGE Indicates that GeoStan FileServer has used all of the available memory allocated to its address space. This message is typically informational. If the number of bytes is insufficient (too high or too low), modify the REGION parameter in the JCL.
CSF013 UNABLE TO ALLOCATE MEMORY FOR DATA BLOCK. Indicates that GeoStan FileServer is unable to allocate memory. Failure to allocate memory in this instance constitutes a serious internal error. Contact technical support with the error number and message.
CSF014 FILE READING ERROR: INCOMPLETE BLOCK READ. Indicates an internal error with the GeoStan FileServer. Contact technical support with the error number and message.
CSF015 VARIABLE RECORD LENGTH NOT YET SUPPORTED Indicates that GeoStan FileServer was asked to read a file with variable record length. This record format is not supported at this time.
CSF016 UNABLE TO OPEN DATASET dsname Indicates that GeoStan FileServer was unable to open the dataset or ddname. Ensure that your client application is attempting to open either a catalogued dataset, or a ddname that has been pre-allocated in the GeoStan FileServer JCL. How often this message is displayed can be controlled via the "SET VARIABLE UNOPENEDFILES" operator command.
CSF017 COULD NOT FIND DSN datasetname Indicates that GeoStan FileServer could not find the file among its allocated files. This is an internal error. Contact technical support with the error number and text.
CSF018 ERROR CLOSING datasetname Indicates that GeoStan FileServer encountered an error while closing the named dataset or ddname. This is an internal error. Contact technical Support with the error number and text.
CSF019 COULD NOT FIND FILE TO CLOSE Indicates that GeoStan FileServer could not find the dataset or ddname in its internal structures of open files. This is an internal error. Contact technical support with the error number and text. This may be a failure in the client code rather than the server itself, requesting a close of a dataset or ddname that had never been successfully opened.
CSF020 UNKNOWN SERVER COMMAND (commandcode) Indicates that GeoStan FileServer was issued an invalid command via an XMS call from a client application. Contact Technical Support with the error number and message.
CSF021 numblocks TOTAL BLOCKS IN USE WITH numbytes BYTES OF STORAGE Indicates the number of total blocks and number of total bytes currently allocated in memory for file caching. It is issued in response to the operator command DISPLAY STORAGE.
CSF022 numblocks TOTAL BLOCKS IN USE WITH numbytes BYTES OF STORAGE Indicates the number of total blocks and number of total bytes currently used in memory for file caching. It is issued in response to the operator command DISPLAY STATUS

Messages and descriptions
CSF023 numblocks BLOCKS FOUND IN STORAGE Indicates the number of times the GeoStan FileServer has found a block of data already in memory when requested by a client. Stated another way, this is the number of times that the GeoStan FileServer did not have to perform a physical I/O, because the requested block of data was already in central storage. It is issued in response to the operator command DISPLAY STATUS
CSF024 numblocks BLOCKS READ FROM DISK Indicates the number of total blocks read from disk into memory for file caching. Stated another way, this is the number of times a client has requested a block of data that was not already found in central storage. It is issued in response to the operator command DISPLAY STATUS.
CSF025 numblocks BLOCKS RELEASED FROM LRU Indicates the number of total blocks of file data that have been released from central storage due to having used all available region. It is issued in response to the operator command DISPLAY STATUS.
CSF026 parameter IS AN INVALID DISPLAY PARAMETER Indicates that GeoStan FileServer was issued an invalid operator command **parameter**. Issue a DISPLAY command with a correct subparameter.
CSF027 INVALID COMMAND: command Indicates that GeoStan FileServer was issued an invalid operator **command**. Issue a valid operator **command**.
CSF028 CENTRUS TERMINAL FILE SERVER ERROR: sss,nnn,ccc,rrr,ttt,fff,iii Indicates that GeoStan FileServer's error handler has encountered an error. Contact Technical Support with the error number and message. The error codes can be located in an IBM Language Environment manual, in the _FEEDBACK structure: sss: tok_sev, nnn: tok_msgno, ccc: tok_case, rrr: tok_sever, ttt: tok_ctrl, fff: tok_facid and iii: tok_isi.
CSF029 SERVICE NAME SET TO servicename Indicates the NameToken **servicename** currently in use for the GeoStan FileServer.
CSF030 SVC UPDATE, RC=rc Indicates the a call to the set name token (IEANTCR) service failed with the provided return code. Determine the return code in the IBM manual for the name/token callable service. If it is unresolvable, contact technical support with the error number and message.
CSF031 AX=axvalue LX=lxvalue DATA=datavalue Displays XMS values after successfully calling the name/token callable service. The displayed values are the same values that clients receive from a name/token get request.
CSF032 OPERATOR STOP REQUESTED Indicates that the system operator has requested a stop for the GeoStan FileServer.
CSF033 PROCESSING operatorcmd Indicates that the GeoStan FileServer has received the displayed operator command.
CSF034 CENTRUS FILE SERVER IS TERMINATING Indicates that the GeoStan FileServer is terminating. This message will be displayed upon either normal or abnormal termination.

Messages and descriptions
CSF035 UNABLE TO INITIALIZE XMS, RC=returncode LX=lxvalue DATA=datavalue AX=axvalue Indicates an internal error with the GeoStan FileServer. Contact Technical Support with the error number and message.
CSF036 CEEHDLR FAILED WITH MESSAGE NUMBER msgnumber Indicates an internal error with an object module that communicates with the GeoStan FileServer. The message number can be researched via the IBM Language environment manual for the CEEHDLR call. If you are unable to determine the cause of the failure, contact technical support with the error number and message.
CSF037 UNOPENEDFILES: {TRUE|FALSE} Indicates the setting for printing each occurrence of the unopened files message, CSF016. See the GeoStan FileServer commands section for a description of this setting. This message prints in response to the DISPLAY VARIABLES and DISPLAY STATUS operator commands.
CSF038 CITY STATE FILE FAILED TO LOAD Indicates that the City/State file was not successfully loaded into GeoStan FileServer's address space.
CSF039 number CITY STATE RECORDS RETURNED Indicates the number of City/State file records that have been successfully returned to the application.
CSF040 CITY STATE DATA LOADED, RELEASE DATE: mm/yy Indicates the release date **mm/yy** of City/State file currently loaded.
CSF041 UNABLE TO READ DATA FROM ddname. FAILED BLOCK WAS blocknum CSF041 (LE error message will be displayed here) This two-line error message indicates that FileServer has encountered a failed read request when attempting to read file **ddname** at block number **blocknum**. The second line displays any error message returned to FileServer from the Language Environment. The file may be incorrectly installed, check the file in question and verify that the upload or copy step completed without errors during data file installation.
CSF042 UNABLE TO RETRIEVE FILE DATA FOR ddname: retcode Indicates an internal error with the GeoStan FileServer. Contact Technical Support with the error number and message.

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