Name

CDARCHIVER - archive time series data of seismic events or of a fixed time length to the disk or a CD ROM at a user-defined time interval .

Version

Release 1.2 for WindowNT

Synopsis

rexx cdarchiver

Description

CDARCHIVER carries out a series of tasks at a user-defined time interval. It extracts time series data from the ringbuffer files in either continuous or event mode and writes data in either Nanometrics X-format or Y-format to a user-defined archiving directory. Optionally, it also transfers compressed data files to a user-defined remote computer. On starting up, it creates a subdirectory under the archiving directory. Each time, before it retrieves any data, CDARCHIVER checks disk space so that new X-files/Y-files can be created and the archiving process does not affect the ongoing data acquisition process. CDARCHIVER creates a new subdirectory under the archiving directory every time when the current directory exceeds the user-defined volume. It then waits for a user-defined time interval and repeats the archiving process. A subdirectory has the name DYYYY_MM_DD based on current time. The network operator should check on the growth of the subdirectories under the archiving directory and manually use the CD writer to archive data from the hard disk to CDs. A subdirectory should be removed once its contents are written to the CD.

Environment

WINREXX script (.REX) for WindowNT.

Files

archiver.dat — the file contains the end time resolved in the last archiving process. CDARCHIVER reads the information in the file and updates it during every archiving process.

Configuration

Since CDARCHIVER is a script file -- cdarchiver.rex, all parameters used by the program are listed (with some brief explanations) at the beginning of the script file. Default setups are provided by Nanometrics. A network operator should check the validity of the parameters of paths and mode before using it the first time. The operator can change the parameters for time intervals later on based on the data flow of the network. The following are the setup parameters:

ExtractMode: The command line switch used by EXTRACTP called by CDARCHIVER. Extract data from the ringbuffer files in either continuous (-c) or event (-e) mode. In continuous mode, the length of a resulting X-file is defined by the command line arguments StartTime and EndTime. In event mode a single event file, naqs.elf, or a series of time stamped event files in the name format of naqs_YYYYMMDD.elf are required and the length of a resulting X-file is defined by the command line arguments PreEventTime and PostEventTime.

OutputType: The switch parameter used by CDARCHIVER to determine whether X5DECOMP should be called to produce Nanometrics Y5 data from the Nanometrics X5 data given as results of EXTRACTP.

RXDllPath: The full path to the directory that contains the DLLs of Rexx.

DSSPath: Full path to the directory in which NAQS is started. For example, C:\NMX\USER.

DateTimeFile: Name of the file containing the end time resolved from the last archiving process. The file is created in DSSPath directory.

kBytesNeeded: Minimum disk space required before retrieving any new data.

Duration: Time duration of the data to be extracted. It is in hh-mm-ss format and is used when extracting data in continuous mode.

Delay: Time duration between two archiving processes. It is in hh-mm-ss format.

RetransDelay: Time delay due to retransmission. It is in hh-mm-ss format.

RingbufferPath: Full path to the directory (for input) containing ringbuffer files. For example, C:\NMX\USER\RINGBUFF. It is used in executing EXTRACTP.

XDataPath: Full path to the directory (for output) containing X-files created by extract. For example, C:\NMX\USER\ARCHIVER. It is used in executing EXTRACTP.

TempDataPath: Full path to a temporary directory for CDARCHIVER to generate new data files.

Tolerance: The permissible time discontinuity between successive data blocks to be extracted. If the duration of the discontinuity exceeds the defined value, EXTRACTP creates a new X-file with starting time after the time discontinuity instead of writing to the same X-file continuously. If the sampling rate is 100 sample/second, a typical tolerance is 0.02 second -- two samples. It is used in executing EXTRACTP.

EventFile: The name of the event file, e.g. naqs.elf. It is used when extracting data in event mode.

EvtFilePath: Full path to the directory where the event file is located. For example, C:\NMX\USER\DATA. It is used when extracting data in event mode.

PreEventTime: Number of seconds before the event starting time found in an event file. It is used when extracting data in event mode.

PostEventTime: Number of seconds after the event is over. It is used when extracting data in event mode. For the following values:

E Tue Feb 27 14:01:04 1996 * 00012 (a line in naqs.elf)
PreEventTime = 5
PostEventTime = 10

the time duration of the data in the resulting X-file is 27 seconds and the starting time of the data is 1996-02-27:14:01:04.

CDVolume: It defines the maximum size in Mb of the subdirectory under the archiving directory. When it detects that the size of the subdirectory exceeds the given value, CDARCHIVER makes a new subdirectory in the format of DYYYY_MM_DD based on the current time. **Note that the value must be smaller than the usable volume of a CD ROM.**

UseFtp Set CDARCHIVER to ftp compressed data files to a remote computer. If it is set FALSE (do not ftp files), the parameters following this do not need to be defined.

RemoteHost The name of the computer (host) to ftp the files to. The remote computer must run FTPD and must be set up properly to accept the ftp connection without going through user and password verification.

RemotePath Full path to the directory on the remote computer where the ftp process puts the compressed data files.

LocZipPath Full path to the directory on the local computer where CDARCHIVER puts the compressed data files and then tries to ftp them to the remote computer. The compressed files in the directory are usually deleted by the remote computer after the latter confirms the integrity of the data.

See Also

EXTRACTP

X5DECOMP

Document on using ftp and ftpd on different platforms.

This document information

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