

IBM Informix Dynamic Server 10.x Utilities Quick Reference Guide

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Advanced DataTools is dedicated to providing the best database tools, web technologies, consulting services and training to companies using IBM Informix® database software. We have years of relational database experience in designing and implementing systems. We have successfully implemented web-enabled data warehouses and OLTP systems for our customers. We offer advanced Informix training, and provide support for all aspects of a systems life cycle, from planning and development, to performance tuning and maintenance. Our goal is to boost the performance and reliability of your database systems, and enable your staff to effectively utilize Informix database systems to meet your business requirements.

In 1995, after years of trying to find a manual to check the command line syntax of a utility, or scribbling notes to myself on scraps of paper with the command line options of the Informix Dynamic Server utilities, I decided to make myself a quick reference guide. Several friends asked for copies, which resulted in the 5.X and then the 7.3x and 9.X versions. This guide is based on 10.X, and is meant to jog your memory. Some of the commands are very powerful so please use them with care. I hope this new version helps!

Regards - Lester Knutsen ---
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From Advanced DataTools Corporation
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ONCHECK

Usage: oncheck {-cCheckOptions | -pPrintOptions} [-y | -n] [-q]

[{ database:[owner.]table[,fragdbs]#index]
| TBLspace number | Chunk number } { rowid | page number }] [# pgs] [-h]

-c CheckOptions

- r Reserved pages
- R Reserved pages including logical and physical logs
- e Extents
- c Database catalogs [database]
- i Table indexes database:[owner.]table[#index]
- l Table indexes and rowids in index database:[owner.]table[#index]
- x Place share lock on table during index check
- d TBLspace data rows including bitmaps database:[owner.]table[,fragdbs]
- D TBLspace data rows including bitmaps, remainder pages and BLOBs database:[owner.]table[,fragdbs]
- s SBLOBspace metadata partitions
- S SBLOBspace metadata partitions and LO extents

-p PrintOptions

- r Reserved pages (-cr)
- R Reserved pages including logical and physical logs (-cR)
- e Extents report (-ce)
- c Catalog report (-cc) [database]
- k Keys in index (-ci) database:[owner.]table[#index]
- K Keys and rowids in index (-cl) database:[owner.]table[#index]
- l Leaf node keys only (-ci) database:[owner.]table[#index]
- L Leaf node keys and rowids (-cl) database:[owner.]table[#index]
- x Place share lock on table during index check
- d TBLspace data rows (-cd) database:[owner.]table[,fragdbs] [rowid]
- D TBLspace data rows including bitmaps, remainder pages and BLOBs (-cD) database:[owner.]table[,fragdbs] [page number]
- t TBLspace report database:[owner.]table[,fragdbs]
- T TBLspace disk utilization report database:[owner.]table[,fragdbs]
- p Dump page for the given [table[,fragdbs] and rowid | TBLspace and page number] {[# pgs] [-h]}
- P Dump page for the given chunk number and page number [chunk num and page number] {[# pgs] [-h]}
- B BLOBspace utilization for given table(s) database:[owner.]table[,fragdbs]
- s SBLOBspace metadata partitions
- S SBLOBspace metadata partitions and LO extents

-q Quiet mode - print only error messages

-n Answer NO to all questions

-y Answer YES to all questions

ONDBLOG

Usage: ondblog <new mode> [-f <filename>] [<database list>] new mode:

- buf Change database to buffered mode.
- unbuf Change database to unbuffered mode.
- nolog Change database to no logging.
- ansi Change database to be ANSI-compliant
- cancel Cancel logging request.

-f <filename> File containing list of databases for logging change.

<database list> List of databases for logging change.

ONINIT

Usage: oninit -[ijpsy]

- i Initialize disk space and shared memory, leave in on-line mode. (Note: This will destroy all data on any existing dbspaces)
- j Initialize shared memory, leave in single-user mode.
- p Do not reclaim temporary tables.
- s Initialize shared memory, leave in quiescent mode.
- y Respond yes to all prompts
- V Initialize in verbose mode displaying extra debugging messages

ONLOG

Usage: onlog [-l] [-q] [-b] [-d <tape device>]

- [-n < starting log unique identifier-><ending log unique identifier->]
- [-u <user name->] [-t <TBLspace number->] [-x <transaction number->]
- l Display maximum information about each log record
- q Do not display program header
- b Display information about logged BLOB pages (-d option only)
- d Read from tape device
- n Display the specified log(s)
- u Display the specified user(s)
- t Display the specified TBLspace(s)
- x Display the specified transaction(s)

ONMODE

usage: onmode [-abCcDdFkIMmnOpQRrSsuyZz] | [-wf <variable>=<value>] |

- [-wm <variable>=<value>]
- a <kbytes> Increase shared memory segment size.
- b <version> Revert Dynamic Server disk structures.
- BC [1|2] Change server large chunk mode
- c [block | unblock] Do Checkpoint. Block or unblock server.
- C {start #|stop #|high|low|threshold} Tune Btree scanner resources.
- D <max PDQ priority allowed>
- d {standard|{primary|secondary <servername>}} set DR server type
On DR secondary only:
{idxauto {on|off}} set DR automatic index repair mode
{index <database>:[owner.]<tablename>#<indexname>} DR repair index
- F Free unused memory segments
- j Change to single-user mode
- k Shutdown completely
- e {on|off|enable|flush} configure or flush shared statement cache.
- l Force to next logical log
- M <decision support memory in kbytes>
- m Go to multi-user on-line
- n Set shared memory buffer cache to non-resident
- O Override space down blocking a checkpoint
- p <+|#> <class> Start up or remove virtual processors of a specific class
- Q <max # decision support queries>
- R Rebuild the /INFORMIXDIR/etc/.infos.DBSERVERNAME file
- r Set shared memory buffer cache to resident
- S <max # decision support scans>
- s Change to quiescent mode
- u Change to quiescent mode and kill all attached sessions
- W {STMT_CACHE_NOLIMIT {0|1} | STMT_CACHE_HITS <#>} Sets SQL cache parameters.
- wf <variable>=<value> update the value for the variable in the onconfig file.
- wm <variable>=<value> update the value for the variable in memory.
- y Do not require confirmation
- Y <sid> [0|1] Set or unset dynamic explain
- Z <address> heuristically complete specified transaction
- z <sid> Kill specified session id

ONPARAMS

Usage: onparams -a -d <DBspace> [-s <size>] [-i] |
-b -g <pagesize> [-n <num buffers>][-r <num LRUs>] [-x <maxdirty>] [-m <mindirty>] } |
-d -l <log file number> [-y] |
-p -s <size> [-d <DBspace>] [-y]

-a Add a logical log file
-b Add a buffer pool
-i Insert after current log
-d Drop a logical log file
-p Change physical log size and location
-y Automatically responds "yes" to all prompts

ONSPACES

Usage: onspaces
-a <spacename> -p <path> -o <offset> -s <size> [-m <path> <offset>] { { [-Mo <mdoffset>]
[-Ms <mmsize>] } | -U } |
-c -d <DBspace> [-k <pagesize>] [-t] -p <path> -o <offset> -s <size> [-m <path> <offset>] |
-c -d <DBspace> [-k <pagesize>] -p <path> -o <offset> -s <size> [-m <path> <offset>]
[-ef <first_extent_size>] [-en <next_extent_size>] |
-c -b <BLOBspace> -g <pagesize> -p <path> -o <offset> -s <size> [-m <path> <offset>] |
-c -S <SBLOBspace> [-t] -p <path> -o <offset> -s <size> [-m <path> <offset>] [-Mo <mdoffset>]
[-Ms <mmsize>] [-Df <default-list>] |
-c -x <Extspace> -l <Location> |
-d <spacename> [-p <path> -o <offset>] [-f] [-y] |
-f[y] off [<DBspace-list>] | on [<DBspace-list>] |
-m <spacename> {-p <path> -o <offset> -m <path> <offset> [-y] | -f <filename>} |
-r <spacename> [-y] |
-s <spacename> -p <path> -o <offset> {-O | -D} [-y] |
-ch <sbspacename> -Df <default-list> |
-cl <sbspacename> |
-ren <spacename> -n <newname>

-a Add a chunk to a DBspace, BLOBspace or SBLOBspace
-c Create a DBspace, BLOBspace, SBLOBspace or Extspace
-d Drop a DBspace, BLOBspace, SBLOBspace, Extspace, or chunk
-f Change dataskip default for specified DBspaces
-m Add mirroring to an existing DBspace, BLOBspace or SBLOBspace
-r Turn mirroring off for a DBspace, BLOBspace or SBLOBspace
-s Change the status of a chunk
-ch Change default list for smart large object space
-cl garbage collect smart large objects that are not referenced default-list = {[LOGGING =
{ON|OFF}] [,ACCESSTIME = {ON|OFF}] [,AVG_LO_SIZE = {1 - 2097152}]}
-ren Rename a DBspace, BLOBspace, SBLOBspace or Extspace

ONSTAT

usage: onstat [-abcdfghklmpstuxzBCDFRX] [-i] [-r [<seconds>]] [-o [<outfile>]] [<infile>]

-a Print all info
-b Print buffers
-c Print configuration file
-d Print spaces and chunks
-d [update] update - Ask server to update BLOB chunk statistics
-f Print dataskip status
-g Print MT subcommand (default: all)
-i Interactive mode
-h Print buffer hash chain info
-j Print interactive status of the active onpload process
-k Print locks
-l Print logging
-m Print message log
-p Print profile
-s Print latches
-t Print TBLspaces
-u Print user threads
-x Print transactions
-z Zero profile counts
-B Print all buffers
-C Print btree cleaner requests
-D Print spaces and detailed chunk stats
-F Print page flushers
-G Print global transaction ids.
-P Print partition buffer summary
-R Print LRU queues
-T Print tablespace information
-X Print entire list of sharers and waiters for buffers
-r Repeat options every <seconds> seconds (default: 5)
-o Put shared memory into specified file (default: onstat.out)
<infile> Read shared memory information from specified dump file

ONSTAT MT COMMANDS: (onstat -g command)

all Print all MT information
ath Print all threads
wai Print waiting threads
act Print active threads
rea Print ready threads
sle Print all sleeping threads
spi Print spin locks with long spins
sch Print VP scheduler statistics
lmx Print all locked mutexes
lsc Print Light Scan information
wmx Print all mutexes with waiters
con Print conditions with waiters
stk <tid> Dump the stack of a specified thread
glo Print MT global information
mem [<pool name>|<session id>] Print pool statistics.
seg Print memory segment statistics
rbm Print block map for resident segment
nbm Print block map for non-resident segments
afr <pool name|session id> Print allocated pool fragments
ffr <pool name|session id> Print free pool fragments
ufr <pool name|session id> Print pool usage breakdown
ioy Print disk IO statistics by vp
iof Print disk IO statistics by chunk/file
iog Print AIO global information
ioy Print big buffer usage by IO VP class

ONSTAT MT COMMANDS - continued

lsc Print light scans
pof [<partition number> | 0] Print partition profiles
tpf [<tid> | 0] Print thread profiles
ntu Print net user thread profile information
ntt Print net user thread access times
ntm Print net message information
ntd Print net dispatch information
nss [<session id>] Print net shared memory status
nsc [<client id>] Print net shared memory status
nsd Print net shared memory data
sts Print max and current stack sizes
dic Print dictionary cache information
opn [<tid>] Print open tables
qst Print queue statistics
wst Print thread wait statistics
rwm Print Read/Write Mutex lists
ses [<session id>] Print session information
sql [<session id>] Print SQL information
stq [<session id>] Print stream queue information
smb Print smart-large-object usage
dri Print data replication information
pos Print /INFORMIXDIR/etc/.infos.DBSERVERNAME file
mgm Print Memory Grant Manager information
lap Print light append information
ddr Print DDR log post processing information
env [all | [<session-id>] [<variable-name>[,<variable-name>...]]
Display environment variable settings.
dmp <address> <length> Dump <length> bytes of shared memory starting at <address>
src <pattern> <mask> Search memory for <pattern>, where <pattern>==(memory&<mask>)
dll Print dynamic library statistics
ssc [pool|all] Prints ssc pool summary, or statement cache summary and entries
stm [<session id>] Prints all prepared statements approximate memory usage in a session
buf Print profile information related to buffer pools.

ONTAPE

usage: ontape -a | -c | -l | -p [-e] | -S |
-r [-rename {<filename> | -p <old path> -o <old offset> -n <new path> -o <new offset>...}]
[-D DBspace_list] |
-s [[-L archive_level][-F]] [-A database_list] [-B database_list] [-N database_list] [-U database_list] }
-a Automatic backup of logical logs
-c Continuous backup of logical logs
-l Logical restore
-p Physical restore for HDR
-e Physical restore for HDR from external restore
-r Full restore DBspaces/BLOBspaces as listed
-s Archive full system
-A Set the following database(s) to ansi logging
-B Set the following database(s) to buffered logging
-N Set the following database(s) to no logging
-U Set the following database(s) to unbuffered logging
-F Do not record the physical archive
-S Salvage logical logs only
-rename Rename chunks during cold restore with -rename options:
-f <filename> pathname of file containing list of mapped chunk pathnames
-p old pathname of chunk
-o old offset of chunk
-n new pathname of chunk
-o new offset of chunk