

# Informix 14.10 Command Utilities Quick Reference Guide

(Updated July 2019)

Compliments of



An IBM Advanced Partner

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***Advanced DataTools*** is an Advanced Level IBM Informix Data Management Partner and has been an authorized Informix partner since 1993. Our goal is to boost the performance and reliability of your database systems and enable your staff to utilize Informix to meet your business requirements effectively. We provide Informix Training, 24x7 Support, Migrations, and Consulting to Informix users around the world.

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, 9.X, 10.X, 11.X and 12.X following. This updated guide is based on 14.10.FC1 and is meant to jog your memory. Some of the commands are very powerful so please use them with care. And some command options may not be available in earlier versions.

**Enjoy this updated version! - Lester Knutsen**

## **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 Database 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

-pw [<filename>] - Supply an encryption password

## **ONINIT**

Usage: oninit -[ijpsy] [-pw [<filename>]] -SDS=<alias>

-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 administrative or single-user mode

-p Do not reclaim temporary tables

-s Initialize shared memory, leave in quiescent mode

-t Test startup: adjust configuration, print all parameters, and exit

-v Initialize in verbose mode displaying extra debugging messages

-w Wait until server is initialized successfully

-y Respond yes to all prompts

-S Start database server in standard mode; disables HDR

-D Prevent both ER and HDR from initializing

-U Specifies a list of users who can access IDS in administration mode

-SDS =<alias> Define SDS primary server alias

-PHY Initialize shared memory, but wait for logical log restore

-pw [<filename>] - Supply an encryption password

## ONMODE

Usage: [-abBCCcDdFfIjklMmnOPpQRrSsuWxYyZz] | [-wf <onconfig variable>=<value>] |  
[-wm <onconfig 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 #|threshold <size> | duration <seconds>|rangesize <size>|alice <mode>}  
compression <low|med|high|default> 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  
{add RSS <servername> <optional password>} add RSS server  
{change RSS <servername> <password>} change RSS server password  
{delete RSS <servername>} remove RSS server definition  
{RSS <source Node> <optional password>} set RSS server type  
{set SDS primary <alias> [force]} define SDS primary server alias  
{clear SDS primary <alias> [force]} remove SDS primary server alias  
{make primary <alias> [force]} make server into the MACH11 primary  
{on|off|enable|flush} configure or flush shared statement cache  
-e Free unused memory segments  
-F stop verbose error trapping  
-I <iserrno> [<session ID>] trap specified error for session ID  
-j Change to administrative or single-user mode  
-k Shutdown completely  
-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  
-P [start|stop|restart] <servername> dynamic listen thread control  
-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 <onconfig variable>=<value> update the value for the variable in memory and onconfig file  
-wm <onconfig variable>=<value> update the value for the variable in memory only  
-wi <path> Import tunable configuration parameters from the specified file  
-we <path> Export all configuration parameters to the specified file  
-x <n> <remote server> Start up SMX pipes to remote server  
-y Do not require confirmation  
-Y <sid> [0|1|2] [filename] Set or unset dynamic explain where 0=off 1=plan + statistics on  
2=only plan on  
-Z <address> heuristically complete specified transaction  
-z <sid> Kill specified session id  
-cache surrogates Reload entries from the surrogates file /etc/informix/allowed.surrogates

## 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 <mdsize>] } | -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 -P <PLOGspace> -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 <mdsize>] [-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
- u Create the new space unencrypted

## ONSTAT

Usage: onstat [-abBcC prof -C hot -C part -C clean -C range -C map -C alice -C all -d -d [update] -D -f -F -g -G -h -i -j -k -l -L -m -o -p] [-i] [-r [<seconds>]] [-o [<outfile>]] [<infile>]

- a Print all info as onstat -mcuxskbPFhRtdGfLpO; onstat -g all; onstat -XC
- b Print buffers
- B Print all buffers
- c Print configuration file
- C Print btree cleaner requests
- C prof Print profile information for the system and scanner threads
- C hot Print hot list index keys
- C part Print all partitions with index statistics
- C clean Print information about all partitions cleaned and need to be
- C range Print savings in pages processed with range scanning
- C map Print current alice bitmap for all indexes being cleaned
- C alice Print efficiency of alice cleaning method
- C all Print all onstat -C options
- d Print spaces and chunks
- d [update] update - Ask server to update BLOB chunk statistics
- D Print spaces and detailed chunk read and write stats
- f Print dataskip status
- F Print page flushers
- g Print MT subcommand or ENTERPRISE REPLICATION COMMAND (see below)
- G Print global transaction ids
- h Print buffer hash chain info
- i Interactive mode
- j Print interactive status of the active onpload process
- k Print locks
- l Print logging
- L Print distribution of available locks on the lock free lists
- m Print message log
- o Output shared memory into specified file (default: onstat.out)
- p Print profile

## **ONSTAT (continued)**

-P Print partition buffer summary  
-r Repeat options every <seconds> seconds (default: 5)  
-R Print LRU queues  
-s Print latches  
-t Print TBLspaces  
-T Print tablespace information  
-u Print user threads  
-x Print transactions  
-X Print entire list of sharers and waiters for buffers  
-z Zero profile counts  
<infile> Read shared memory information from specified dump file

## **ONSTAT -g MT COMMANDS:**

act Print active threads  
afr <pool name|session id> Print allocated pool fragments  
all Print all MT information  
ath Print all threads  
bfr <blk pool address> Print allocated block pool blocks for <blk pool address>  
bth Print blocking threads  
buf Print profile information related to buffer pools  
cac Print information about all cached objects  
cac agg Print the aggregate cache  
cac aqt Print the aqt cache  
cac am [<AM name>] Print the access method cache  
cac cast Print the cast cache  
cac dic Print the dictionary cache  
cac dsc Print the distribution cache  
cac ed Print the external directive cache  
cac lbacply Print the LBAC security policy cache  
cac lbacsrc Print the LBAC credential cache  
cac opci Print the op class instance cache  
cac prc Print the procedure cache  
cac prn Print the procedure name cache  
cac rr Print the resolution routine cache  
cac ssc Print the statement cache  
cac ttype Print the secondary transient cache  
cac typei [<xtype id>] Print the extended type by id cache  
cac typen [<xtype name>] Print the extended type by name cache  
cfg Print configuration parameter info, basic info: name and current value of all params  
cfg <name> Print basic info for the given parameter  
cfg full Print all info, all params  
cfg tunable Print params that can be modified on the fly  
cfg diff Print params that have been adjusted or modified  
cfg msg Print params that generated a warning or error message  
ckp Print checkpoint statistics  
cluster Print cluster information  
cmsm Print Connection Manager statistics  
con Print conditions with waiters  
cpu Print CPU info for all threads  
dbc Print dbScheduler/dbWorker thread info  
ddr Print DDR log post processing information  
defragment Print the status of defragmentation commands given  
dic Print dictionary cache information  
dis Print a list of database servers and the status of each  
dll Print dynamic library statistics  
dmp <address> <length> Dump <length> bytes of shared memory starting at <address>  
dri [ sta | msg | ckpt | idx ] Print data replication information  
dsc Print a list of distribution cache informationenv [ all | [<session-id>] ] [<variable-name>]  
dsk Print storage manager information  
env [ all | [<session-id>] ] [<variable-name>[,<variable-name>...]] Print environment variable settings.  
ffr <pool name|session id> Print free pool fragments  
glo Print MT global information  
his [<ntraces>] Prints SQL statement tracing information for <ntraces>  
imc Print information about connected MaxConnect instances  
iob Print big buffer usage by IO VP class

## **ONSTAT (continued)**

iof Print disk IO statistics by chunk/file  
iog Print AIO global information  
ioh Print IO history statistics by minute for the last hour  
iov Print disk IO statistics by vp  
ipl Print index page logging status  
lap Print light append information  
laq Print recovery queue statistics  
lmm Print Low Memory Manager information  
lmx Print all locked mutexes  
lsc Print Light Scan information  
mem [<pool name>|<session id>] Print pool statistics  
mgm Print Memory Grant Manager information  
nbm Print block map for non-resident segments  
nsc [<client id>] Print net shared memory status  
nsd Print net shared memory data  
nss [<session id>] Print net shared memory status  
ntd Print net dispatch information  
ntm Print net message information  
ntt Print net user thread access times  
ntu Print net user thread profile information  
opn [<tid>] Print open tables  
plk Print partition lock profiles  
pos Print /INFORMIXDIR/etc/.infos.DBSERVERNAME file  
ppf [<partition number> | 0] Print partition profiles  
ppd [<partition number> | 0] Print partition compression dictionary information  
pqs [<session id>] Print statistics for an active query  
prc Print information about SPL routine cache  
probe Print query probing data (workload analysis)  
proxy [all | [<proxy id> [<txn id> [<op num>]]] ] Print updatable secondary related information  
qst Print queue statistics  
rbm Print block map for resident segment  
rea Print ready threads  
rss [verbose | log | <RSS Srv name>] Print RSS server related information  
rwm Print Read/Write Mutex lists  
sch Print VP scheduler statistics  
scn Print RSAM scan info  
sds [verbose | <SDS server name>] Print SDS related information  
seg Print memory segment statistics  
ses [<session id>] Print session information  
sle Print all sleeping threads  
smb Print smart-large-object usage  
smx [ses] Print smx related information  
spi Print spin locks with long spins  
spf [<session id>] Prints execution statistics for prepared statements  
sql [<session id>] Print SQL information  
sqh [<sql heap address>] Print sql heap for <sql heap address> or summary for all sql heaps  
src <pattern> <mask> Search memory for <pattern>, where <pattern>==(memory&<mask>)  
ssc [pool|all] Prints ssc pool summary, or statement cache summary and entries  
stk <tid> Dump the stack of a specified thread  
stm [<session id>] Prints all prepared statements approximate memory usage in a session  
stq [<session id>] Print stream queue information  
sts Print max and current stack sizes  
tgp Print generic page thread profiles  
tpf [<tid> | 0] Print thread profiles  
ufr <pool name|session id> Print pool usage breakdown  
vpcache Print CPU VP memory block cache statistics  
wai Print waiting threads  
wmx Print all mutexes with waiters  
wst Print thread wait statistics

## **ONSTAT -g ENTERPRISE REPLICATION COMMANDS:**

cat [scope | replname ] Print Enterprise Replication global catalog information  
cdr Print Enterprise Replication statistics  
cdr config [parameter\_name] [long] Print Enterprise Replication configuration information  
cdr config CDR\_ENV [variable\_name] [long] Print Enterprise Replication configuration information  
dtc Print statistics for the Enterprise Replication delete table cleaner  
dss [ UDR | UDRx ] Print statistics about data sync threads and user-defined data types  
grp [ A|E|Ex|G|L|Lx|M|Mz|P|pager|R|S|S|Sx|T|UDR|UDRx ] Print statistics about Replication grouper  
nif [ all | sites | serverid | sum ] Print statistics about the Enterprise Replication network interface  
que Print statistics for the Enterprise Replication high-level queues  
rcv [serverid] Print statistics about the Enterprise Replication receive manager  
rep [replname] Print events that are in the queue for the schedule manager  
rqm [ ACKQ | CNTRLQ | RECVQ | SENDQ | SYNCQ | SBSPACES | FULL | BRIEF | VERBOSE ]  
Print statistics of low-level queues  
sync Print the Enterprise Replication synchronization status

## **ONSTAT -g CHANGED DATA CAPTURE COMMANDS:**

cdc [<sessid>] [long] Print Change Data Capture information  
cdc [<sessid>] config [long] Print Change Data Capture configuration parameters for session(s)  
cdc [<sessid>] bufm [long] Print Change Data Capture buffer manager information for session(s)  
cdc [<sessid>] table [<full-table-name>] [long] Print Change Data Capture captured table information

## **ONTAPE:**

Usage: ontape { -a [-d] |  
-c |  
-l [-C | -X] [-d] |  
-p [-e]-encrypt[-decrypt] [-pw [<filename>]] [-rename {-f <filename> |  
-p <old path> -o <old offset> -n <new path> -o <new offset>...}]  
[-t tape\_device\_path [-v]] [-d] |  
-S [-d] [-pw [<filename>]] |  
-r [-encrypt[-decrypt] [-pw [<filename>]] [-rename {-f <filename> |  
-p <old path> -o <old offset> -n <new path> -o <new offset>...}]  
[-D DBspace\_list] [-t tape\_device\_path [-v]] [-d] |  
-s [[-L archive\_level][-F]] [-A database\_list] [-B database\_list]  
[-N database\_list] [-U database\_list] [-t tape\_device\_path [-v]] [-d] }

-a Automatic backup of logical logs  
-c Continuous backup of logical logs  
-d non-interactive mode for back up to or restore from a directory  
-l Logical restore  
-p [-e] Physical restore (-e for external physical 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  
-C continuous logical log restore  
-F Backup without updating archive information (useful for HDR, cloning etc.)  
-N set the following database(s) to no logging  
-S Salvage logical logs only  
-U set the following database(s) to unbuffered logging  
-X finish continuous logical log restore and bring server to quiescent mode

-pw Encryption password will be supplied either interactively or in a file  
-encrypt Encrypt all physically restored spaces  
-decrypt Decrypt all physically restored spaces  
-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

-t Set the tape device path for current backup or restore. Use STDIO for backup to standard output or restore from standard input.  
-v Write informational message to standard error.



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