Informix Dynamic Server 9.3x Utilities Quick Reference Guide

compliments of

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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 version. This guide is based on 9.3x, 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, November 2, 2002 __ --- lester@advancedatatools.com

ONCHECK
Usage: oncheck {-cCheckOptions | -pPrintOptions} [-y | -n] [-q]
         [{ database[:[owner.]table[,fragdbs|#index]]
         | TBLspace number | Chunk number } { rowid | page number }]

-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]]
        I   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 (-cI) database[:[owner.]table[#index]]
        l   Leaf node keys only (-ci) database[:[owner.]table[#index]]
        L   Leaf node keys and rowids (-cI) 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]
        P   Dump page for the given chunk number and page number [chunk num and page
                number]
        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.   (not in EDS)
        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 { -[ipsy] }

-I	Initialize disk space and shared memory, leave in on-line mode. (Note: This will destroy all data on any existing dbspaces)
-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

ONLOAD
Usage: onload [-l] [-t <tape device>] [-b <block size>] [-s <tape size>]
                [-d <DBspace>] <database>[:[<owner>.]<table>]
                [{-i <old index name> <new index name>}]
                [{-fd old-DBspace-name new-DBspace-name}]
                [{-fi index-name old-DBspace-name new-DBspace-name}]
                [{-c <old constraint name> <new constraint name>}]

-l	Use logical log tape configuration
-t	Tape devices
-b	Tape block size
-s	Tape size
-d	DBspace name
-i	Rename index during load
-fd	Change dbspace during load
-fi	Change dbspace of index during load
-c	Rename constraint during load

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

-a	<kbytes> Increase shared memory segment size.
-b	<version> Revert Dynamic Server disk structures.
-c	[block	unblock] Do Checkpoint. Block or unblock server.
-D	<max PDQ priority allowed>
-d	{standard|{primary|secondary <servername>}} set DR server type
-F	Free unused memory segments
-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>

ONMODE - continued

-R	Rebuild the /INFORMIXDIR/etc/.infos.DBSERVERNAME file
-r	Set shared memory buffer cache to resident
-S	<max # decision support scans>
-s	Shutdown to single user
-u	Shutdown and kill all attached sessions
-W	{STMT_CACHE_NOLIMIT {0|1} | STMT_CACHE_HITS <#>} Sets ssc parameters.
-y	Do not require confirmation
-Z	<address> heuristically complete specified transaction
-z	<sid> Kill specified session id

ONPARAMS

Usage: onparams -a -d <DBspace> [-s <size>] [-i] | -d -l <log file number> [-y] | -p -s <size> [-d <DBspace>] [-y]

-a	Add a logical log file
-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> [-t] -p <path> -o <offset> -s <size> [-m <path> <offset>] } | { -b <BLOBspace> -g <pagesize> -p <path> -o <offset> -s <size> [-m <path> <offset>] } | { -S <SBLOBspace> [-t] -p <path> -o <offset> -s <size> [-m <path> <offset>] [-Mo <mdoffset>] [-Ms <mdsize>] [-Df <default-list>] } | { -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>

-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}] }

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	
-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:

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
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
iov	Print disk IO statistics by vp
iof	Print disk IO statistics by chunk/file
iog	Print AIO global information

ONSTAT MT COMMANDS - continued

iob	Print big buffer usage by IO VP class
ppf	[<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
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, including key only entries (all)
stm	[<sesson id>] Prints all prepared statements approximate memory usage in a session

ONTAPE

usage: ontape { -a | -c | -l | -p | -r [-D DBspace_list] | -s [-L archive_level] [-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
-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

ONUNLOAD

Usage: onunload [-l] [-t <tape device>] [-b <block size>] [-s <tape size>]
<database>[:[<owner>.]<table>]

-l	Use logical log tape configuration
-t	Tape devices
-b	Tape block size
-s	Tape size