Optimizer Plans, Directives, and SQL Tracing

```
OPTCOMPIND          2    # Always use cost as the query plan criterion.
DIRECTIVES          1    # Enable optimizer directives.
EXT_DIRECTIVES [11] 0    # Disable external directives.
OPT_GOAL           -1    # Optimize for all rows that the query returns.
IFX_FOLDVIEW [10]   0    # No view folding in join or UNION ALL queries.
AUTO_REPREPARE [11] 1    # Automatically reoptimize after DDL.
EXPLAIN_STAT [11]   1    # Write query statistics to a file.
# SQLTRACE [11]          level=low,ntraces=1000,size=2,mode=global
```

Scan

```
RA_PAGES [11]       64   # Sequential scans, read 64 disk pages ahead.
RA_THRESHOLD [11]   16   # Read next group when 16 pages remain.
BATCHEDREAD_TABLE [11] 0 # Control light scans.
```

Security

```
# DBCREATE_
PERMISSION        informix  # If unset, no restrictions.
# DB_LIBRARY_PATH [11]      # Shared objects.
IFX_EXTEND_ROLE [10]        #Enables EXTEND role restrictions.
SECURITY_
LOCALCONNECTION [11]        # No security checking for local connections.
UNSECURE_ONSTAT [11]        # Can be set to relax  onstat -g restrictions.
ADMIN_MODE_USERS [11]       # Can specify administration mode users.
ADMIN_USER_MODE_
WITH_DBSA [11]              # Can allow administration mode
                            connections for users.
SSL_KEYSTORE_LABEL [11]     #Label of IDS certificate in SSL protocol.
```

Label-Based Access Control

```
PLCY_HASHSIZE [11]  31   # 31 hash buckets in security cache.
PLCY_POOLSIZE [11]  127  # Up to 127 entries in each bucket.
USRC_HASHSIZE [11]  31   # 31 buckets in credential cache.
USRC_POOLSIZE [11]  127  # Up to 127 entries in each bucket.
```

Optical Storage Subsystem

```
STAGEBLOB           # Set this to the OSS staging area name.
OPCACHEMAX     0    # Disables OSS memory cache.
```

High Availability and Enterprise Replication Security

```
ENCRYPT_HDR [11]    # Can enable HDR encryption.
ENCRYPY_SMX [11]    # Can set SDS and RSS encryption.
ENCRYPT_CDR [11]  0 # Disables ER encryption.
ENCRYPT_CIPHERS [11]# Ciphers and encryption modes.
ENCRYPT_MAC [11]    # Message authentication code (MAC).
ENCRYPT_MACFILE [11]# Can list paths of MAC key files.
ENCRYPT_SWITCH [11] # Can set key renegotiation frequency.
```

Other Enterprise Replication Features

```
CDR_EVALTHREADS     1,2  # One evaluator and two other threads
                         per CPU VP.
CDR_DSLOCKWAIT      5    # 5 second Datasync wait for
                         database locks.
CDR_QUEUEMEM        4096 # Up to 4096 KB queue memory.
CDR_NIFCOMPRESS     0    # No link level compression.
CDR_SERIAL          0    # Allow duplicate serial keys.
CDR_DBSPACE [9]          # The dbspace for syscdr database.
CDR_QHDR_DBSPACE         # TX record headers location.
CDR_QDATA_SBSPACE [9]    # Sbspace list for TX row data.
CDR_MAX_DYNAMIC_LOGS [9] 0 # No dynamic logs.
CDR_SUPPRESS_ATSRISWARN [11] # Datasync codes to suppress.
```

High Availability Clusters

```
DRAUTO              0    # Disables automatic switchover.
DRINTERVAL          30   # Flush HDR buffer every 30 seconds.
DRTIMEOUT           30   # HDR network timeout is 30 seconds.
HA_ALIAS [11]            # Server name (for HDR, SDS, and RSS).
DRLOSTFOUND [11]    $INFORMIXDIR/etc/dr.lostfound
DRIDXAUTO [11]      0    # No automatic HDR index repair.
LOG_INDEX_BUILDS [11]    # No index page logging.
SDS_ENABLE [11]          # Can enable (1) or disable (0) SDS server.
SDS_TIMEOUT [11]    20   # Seconds to mark a secondary down.
SDS_TEMPDBS [11]         # List of up to 16 temporary SDS dbspaces.
SDS_PAGING [11]          # 2 comma-separated buffer-paging file paths.
UPDATABLE_SECONDARY [11] 0 # 2 comma-separated buffer-paging file paths.
FAILOVER_CALLBACK [11]   # Can set failover callback program.
TEMPTAB_NOLOG [11]  0    # Set to 1 to disable logging on temp tables.
DELAY_APPLY [11]    0    # Delay factor for RSS servers.
STOP_APPLY [11]     0    # Halts the apply on an RSS server.
LOG_STAGING_DIR [11]     # Directory to stage log files.
```

Logical Recovery Threads

```
OFF_RECVRY_THREADS  10   # Ten threads for cold restore or fast recovery.
ON_RECVRY_THREADS   1    # Warm restore worker thread.
```

Diagnostic Dump Features

```
DUMPDIR [11]        $INFORMIXDIR/tmp  # Directory for AF diagnostics.
DUMPSHMEM           1                 # Dump a copy of all shared memory.
DUMPGCORE           0                 # No dumping of a core image using gcore.
DUMPCORE            0                 # Prevents dumping of  a core image.
DUMPCNT             1                 # Only one memory or core dump per session.
```

Alarm Program Feature

```
ALARMPROGRAM [11]       $INFORMIXDIR/etc/alarmprogram.sh
ALRM_ALL_EVENTS [10]    0     # Noteworthy events trigger ALARMPROGRAM.
STORAGE_FULL_ALARM [11] 600,3 # Storage full alarms of severity 3 and higher can
                              only be raised every 600 seconds.
SYSALARMPROGRAM [11]    $INFORMIXDIR/etc/evidence.sh.
```

Technical Support Parameters

```
RAS_PLOG_SPEED      0    # Do not change; auto updated.
RAS_LLOG_SPEED      0    # Do not change; auto updated.
```

Queue and Wait Statistics

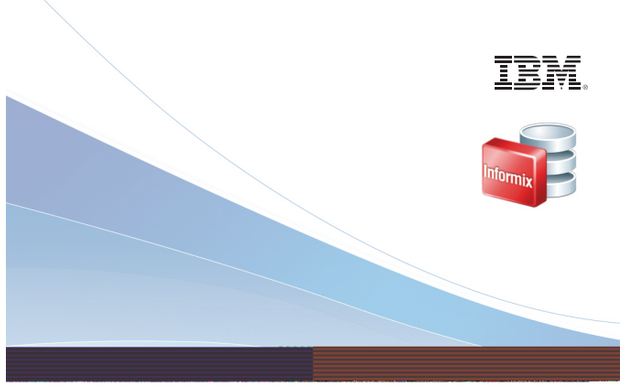
```
QSTATS              0    # Disables queue statistics collection.
WSTATS              0    # Disables wait statistics collection.
```

Buffer-Pool Configuration and LRU Tuning

```
# These two  BUFFERPOOL settings are for 2KB default page size:
BUFFERPOOL [11]     default,buffers=10000,lrus=8,
                    lru_min_dirty=50.00,lru_max_dirty=60.50
BUFFERPOOL [11]     size=2k,buffers=50000,lrus=8,
                    lru_min_dirty=50,lru_max_dirty=60
# These BUFFERPOOL setting are for a 4KB default page size:
BUFFERPOOL [11]     default,buffers=10000,lrus=8,
                    lru_min_dirty=50.00,lru_max_dirty=60.50
BUFFERPOOL [11]     size=4k,buffers=10000,lrus=8,
                    lru_min_dirty=50,lru_max_dirty=60
AUTO_LRU_TUNING [11] 1   # LRUs are automatically tuned.
```

Java Configuration

```
#VPCLASS [11]       jvp,num=1                  # Initial number of JVPs.
JVPJAVAHOME [11]    $INFORMIXDIR/extend/krakatoa/jre/
                                               # JDK installation root
                                               directory.
JVPHOME [11]        $INFORMIXDIR/extend/krakatoa
                                               # Krakatoa installation
                                               directory.
JVPLOGFILE [11]     $INFORMIXDIR/jvp.log       # JVP log file.
#JDKVERSION [11]    1.5
JVPPROPFILE [11]    $INFORMIXDIR/extend/krakatoa/.jvpprops# JVP property file.
JVPJAVALIB [11]      (platform-specific value)
                                               # JRE libraries path from
                                               JVPJAVAHOME.
JVPJAVAVM [11]      (platform-specific value)
#JVPARGS [11]       verbose:jni                # Set Java VM options.
#JVPCLASSPATH [11]  $INFORMIXDIR/extend/krakatoa # Classpath to use at
                    /krakatoa_g.jar:$INFORMIXDIR/extend  Java™ VM start-up.
                    /krakatoa/jdbc_g.jar       # Classpath to use a Java
JVPCLASSPATH [11]   $INFORMIXDIR/extend/krakatoa VM start-up.
                    /krakatoa.jar:$INFORMIXDIR/extend
                    /krakatoa/jdbc.jar
```



Quick Reference:

Configuration Parameters in the onconfig.std File

IBM® Informix® Dynamic Server
Version 11.50.xC6
SC23-9833-01
Default settings

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