MVBFS Functions

OpenInsight Record Locking for Multivalue Developers

Unlike most multivalue databases, OpenInsight basic+ has explicitly separated the locking and reading/writing of records. In OpenInsight, programmers call the LOCK statement before reading a record; they then modify the record (which does _not_ change the state of the lock), and then use the UNLOCK statement when it is appropriate to release the record lock.

However, when accessing a multivalue database through the MVBFS interface, it is important to use the remote database's locking to maintain database integrity. While this can be accomplished using the OpenInsight LOCK and UNLOCK statements, as a convenience the functions RTI_READU, RTI_WRITEU, and RTI_WRITERELEASE have been implemented.

RTI_READU mimics the READU functionality in other multivalue systems; it uses the host READU command (or comparable functionality) to lock and read the record, returning a status that indicates if the record was already locked, does not exist, or has been successfully read.

RTI_WRITEU mimics the WRITEU functionality in other multivalue systems; it writes the record and leaves the status of any locks unchanged. Note that this is comparable to normal OpenInsight WRITE functionality, and thus WRITE can be used instead of RTI_WRITEU if desired.

RTI_WRITERELEASE mimics the WRITE functionality in other multivalue systems; it writes, and then releases any locks on, the record.

If a lock on a record has been acquired with the RTI_READU function, it should normally be released by using the RTI_WRITERELEASE function. However, if the lock needs to be released without writing the record, you can use the UNLOCK statement and the lock will be released (either locally, if on an OpenInsight table, or on the host if on an MVBFS file).

MVBFS_NATIVE_TABLE is a function added in OpenInsight 9.4 to allow developers to read or write records to server-side tables even if they are not mapped. The primary purpose is to let a developer read or write values to a non-standard dictionary row, for instance a sequence counter.

See Also

RTI_READU_EQUATES