



Datasheet: VSEn

Provide concurrent VSAM access between batch and CICS





Is the use of VSAM ShareOption/4 impacting your CICS performance? Do you want to gain the benefits of concurrent batch access to your online files without the performance issues associated with VSAM ShareOption/4?

Updated data for CICS users

If your data center is like most others, providing users of VSAM-reliant CICS applications with up-to-date data throughout the business day is an important requirement. Equally important is the growing business need to offer 24/7 application availability without the problems associated with a difficult-to-manage batch window.

Whatever your situation, SYSB-II® is a robust system tool that provides concurrent VSAM file access between batch and CICS.

With SYSB-II:

-  Files can be regularly updated via batch without impacting online users or system performance
-  Users have increased application availability
-  Users get up-to-date data throughout the business day
-  CICS data integrity and recovery services are extended to batch



SYSB-II is unique in that batch jobs appear to CICS as any other CICS transaction. CICS data integrity and recovery services such as sync point processing, dynamic transaction backout, journaling, and recovery are extended to batch – without changing your batch programs. When batch jobs are not sharing CICS files, no additional overhead (SO4) is incurred, and CICS maintains the shortest VSAM I/O path to the data.

Architecture

SYSB-II intercepts batch VSAM requests, translates the I/O requests into CICS I/O protocol, and then allows CICS to perform the VSAM operation on behalf of the batch job. SYSB-II is active in the CICS partition only when filesharing batch jobs are processing. SYSB-II runs as a legitimate command-level CICS transaction, following CICS rules and standards.



SYSB-II extends CICS file record locking and updating to include your batch programs. With SYSB-II, a batch job's file access is transferred to CICS. CICS's file management controls file access, regardless of whether the access originates in batch or online.

File sharing can be selectively implemented at the DLBL level. SYSB-II intercepts and accesses only specific batch files you request in the batch job. SYSB-II requires less overhead, offers greater control, and delivers bulletproof integrity – all without requiring any modification to the batch program.

CICS services extended to batch

In addition to VSAM file sharing, SYSB-II contains a powerful batch CEMT interface; high level CICS file open and close capabilities; the ability to start transactions from batch; support of links to CICS programs from batch; and the ability to run CICS programs containing EXEC CICS commands in batch.

Local and remote file access

SYSB-II connects directly to any local or remote CICS partition. Batch programs can access VSAM data from one or more local or remote CICS partitions, including remote CICS address spaces in an MVS environment. SYSB-II uses cross-partition communication (XPCC) when accessing local partitions and VTAM services to run batch jobs on one CPU and update files on a different CPU.

Online and batch performance

Online performance is preserved with SYSB-II so batch jobs can be run at anytime WITHOUT affecting terminal response time. Preserving performance can be achieved by:

- ✔ Lowering your ShareOptions to (1,3) or (2,3). SYSB-II provides ShareOption (4,3) benefits with the lower overhead of ShareOption (1,3) or (2,3).
- ✔ Setting the appropriate dispatching priority for the SYSB CICS transaction. SYSB-II batch jobs acquire CICS cycles based on cycles available and the priority of the SYSB transaction.
- ✔ Setting different dispatching priorities on virtual terminals. If several SYSB-II batch jobs are run concurrently, you can prioritize the individual jobs by assigning them to a particular range of CICS virtual terminals. Terminals 1 through 10 can have a different dispatching priority than terminals in range 11 through 20. You can assign specific batch jobs to a specific range of virtual terminals by adding a SYSB keyword to the batch DLBL statement.
- ✔ Using SYSB-II's batch job performance-enhancing features to improve batch run times, such as advanced buffering techniques, keeping batch read I/O in the batch partition, and implementing XPCC to communicate between the CICS and batch partitions. You implement these features by adding another keyword to the batch DLBL statement.

SYSB-II provides the level of control needed to meet changing processing needs.

Sync point processing and recovery

SYSB-II uses three distinct sync point methods to commit record updates.

These methods are:

- ① Completing Job Step.
- ② Completing a Logical Unit of Work (tied to the user-defined number of I/Os in one or more specific files in the batch job).
- ③ Initiating Program. (Rollback requests are also supported.)

(Methods 1 and 2 require no program modifications.)

Deciding which method to use depends upon the job length, the number of updates, and the time the records can be locked. SYSB-II's flexibility allows total control over managing your unique applications, including sync point processing across multiple CICS partitions.

Batch updates are journaled to the CICS journal file along with normal CICS updates. Both batch and online updates are included when CICS forward recovery is performed.



SYSB-II's batch job journaling and backward recovery feature records before and after images of batch updates and can be selectively implemented. For those organizations that do not use CICS journaling, SYSB-II provides its own batch journaling system. The SYSB-II backward recovery feature requires CICS to be up and available. Backward recovery provides an easy way to back out batch updates, sync point by sync point, until the beginning of the batch step. The backward recovery feature offers:

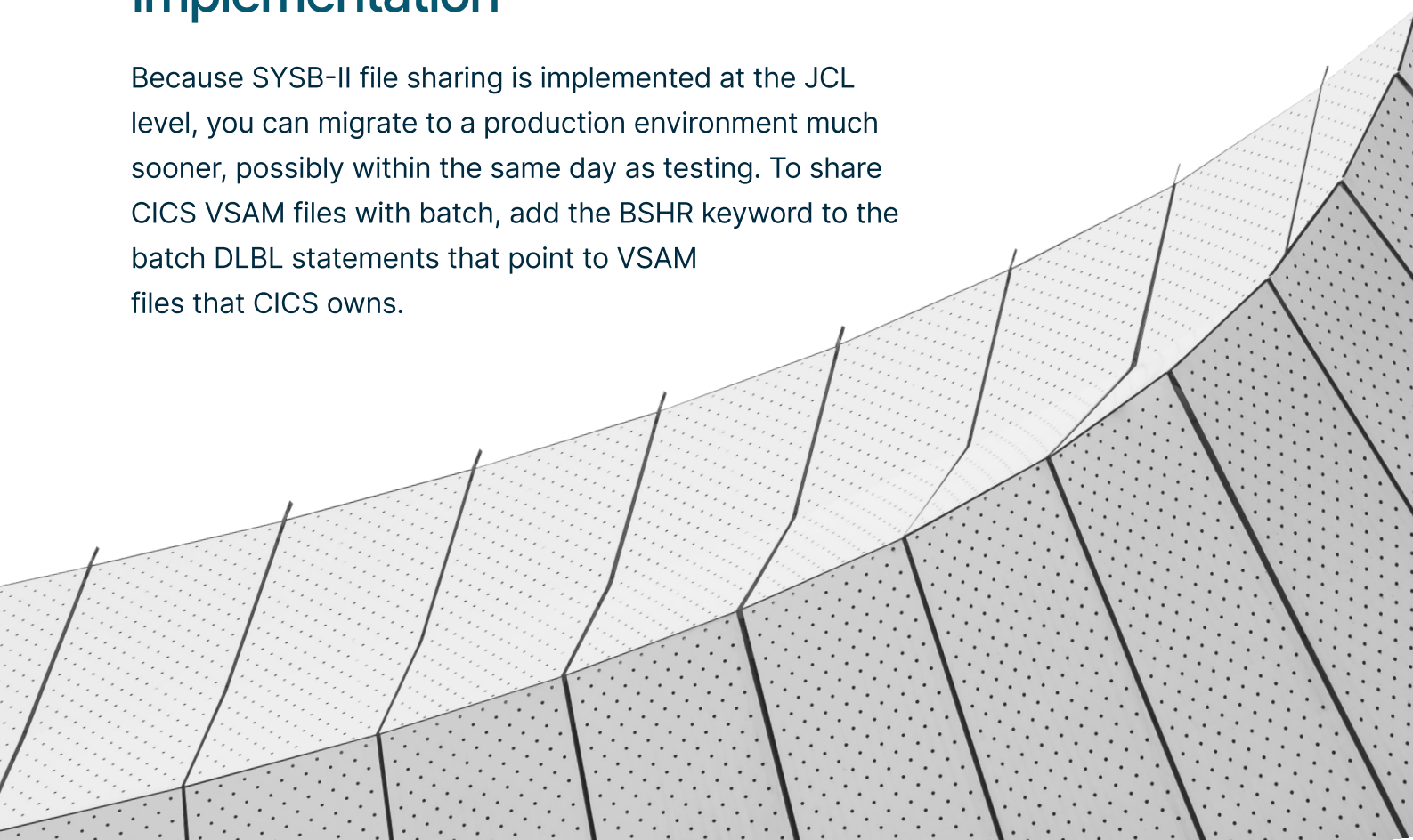
- ✔ Three backout options
- ✔ Data collision identification
- ✔ Byte-level recovery
- ✔ Multiple file/partition support

Installation














Product installation takes only one to four hours. You can begin testing in a matter of minutes once installed.

Implementation




Because SYSB-II file sharing is implemented at the JCL level, you can migrate to a production environment much sooner, possibly within the same day as testing. To share CICS VSAM files with batch, add the BSHR keyword to the batch DLBL statements that point to VSAM files that CICS owns.



Product summary

-  Requires no program modifications, relinking, or IPLs
-  Installs in one to four hours and begin testing in minutes
-  Provides the ability to control the CICS dispatching priority on behalf of the batch jobs
-  Assures batch access to VSAM files regardless of CICS status
-  Provides batch job journaling/backward recovery
-  Uses performance enhancing features to improve batch run times
-  Offers SYSB-II-managed or CICS-managed file recovery
-  Directly connects to any local or remote CICS partition
-  Intercepts I/O for specific batch files that are being shared instead of all files
-  Uses multiple level sync point processing methods
-  Allows CICS programs to be run from batch
-  Contains a batch CEMT interface
-  Utilizes dataset, transaction, and resource level security

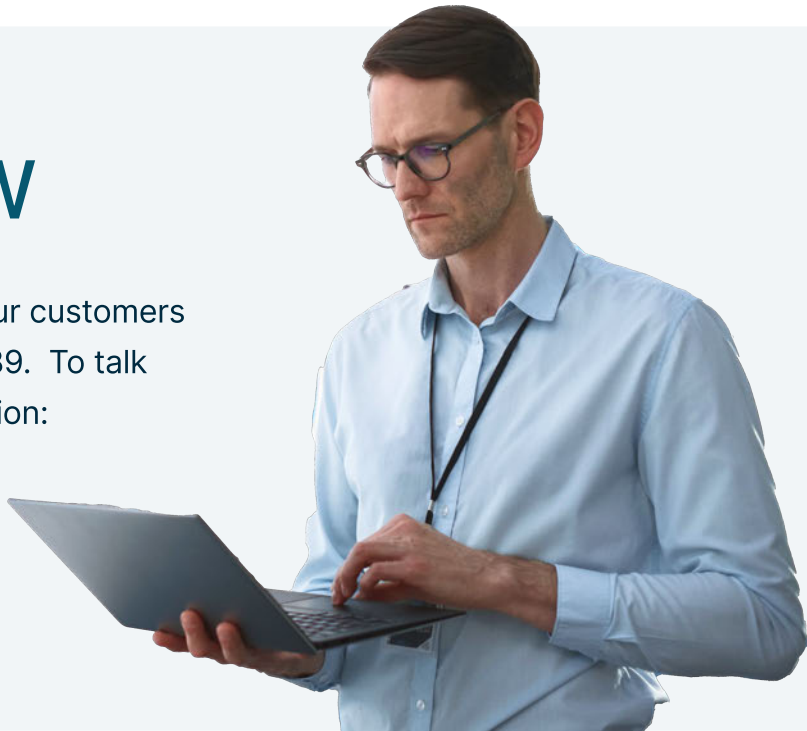
System requirements

-  VSEn 6.3
-  CICS Transaction Server, any version that IBM supports
-  VTAM

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