Key Features Highlights

z/OS, OS/390, MVS & VSE JCL conversion

Customizable JCL batch converter

Pure shell scripting

Mainframe logic preservation

Runtime VSAM support

VSAM utilities support

Legacy compatible SORT utility

ASA & AFP printing support

Dynamic PROC parameters substitution support

XCICS integration for on-line generated JCLs

Integrated scheduling system

Web base spooling system

XEBE

Xframe Enhanced Batch Environment

The XFRAME® Enhanced Batch Environment (XEBE) allows the rehosting of mainframe batch applications on Unix, Linux or Windows systems, through a successful combination of conversion tools and native high-performance runtime software.

JCL conversion

The XFRAME® Job Converter is able to translate JCLs from IBM z/OS, OS/390, MVS and VSE systems into native Unix and Linux scripts (CSH, KSH and POSIX Shell) or Windows WSH (Windows Scripts Host). Additionally, it supports the conversion from Sun/Clerity MBM. The produced scripts maintain the same logic and functionality of the original JCLs simplifying the tests and the maintenance.

The script conversion uses a one-to-one strategy, preserving the same "step" logic and translating each source statement exactly into one script statement. This is possible because the converted script will run using the powerful features offered by the XEBE. The mainframe programmers will continue to maintain their jobs in the new scripting language without the need to learn a new logic, but only learning a new syntax.

The converter is highly customizable: this allows the achievement of 100% automated translation, as well as the possibility to completely replace existing steps with new ones (i.e., an XCOM file transfer may be automatically replaced by an FTP one).

XVSAM

The XVSAM file system provides a full VSAM emulation layer, supporting KSDS, ESDS and RRDS files. Batch programs may access directly the XVSAM files and operate like in the source environment, taking advantage of mainframe-like features such as; disposition (DISP), catalogues, Generation Data Groups (GDG), ASA and AFP printing and more.

Additionally, XVSAM provides a set of utilities that reproduce the functionalities of IBM programs such as; IDCAMS, IEFBR14, IEBCONV, etc.

XSort

XSORT is a fully-featured, high-performance sort utility for Unix, Linux and Windows system. It works with both XVSAM and regular files with the same capabilities of the mainframe sort:

- SORT
- MERGE
- INCLUDE
- OMIT
- SUMMARIZE
- OUTREC

It accepts the same input data cards of IBM DFSORT, therefore, no conversion for SORT or ICEMAN input is necessary.

Integration

The XEBE allows the execution of programs that are coded in COBOL, PL/I and C languages. It integrates perfectly with databases such as, Oracle™ and IBM UDB™, taking care to perform the CONNECTION and BINDING functions, therefore avoiding the need to change the user's programs for the implementation of such functions as normally required on open systems.

Although the automatic library loading may be virtually integrated with any third-party software without the need to re-link the executables.

The scripts produced by the XEBE Job Converter can run with every scheduling system, so the user is free to choose the preferred scheduler.

Scheduler

If the client chooses to use its preferred scheduler, XFRAME® that comes along with its own scheduling system, XBM, which is an industrial-strength, cost-effective scheduling and workload manager solution for Unix, Linux and Windows systems.

Even If it is suitable for every scheduling/workload management purpose on Open Systems, XBM is the most suitable add-on for XFRAME®, providing rehosted applications with a mainframe-like scheduling system.

XBM is able to start and supervise execution of batch tasks all over the network, keeping track of their execution, without any external input or controlling system, reducing the potential points of failure, while network scheduling and cooperation are performed through a trusted peer-to-peer interaction. More than one instance can start on a single system, in both normal or super-user mode, thus controlling the batch work of one or more users.

XBM offers many features that allow an easy replication of simple and complex mainframe scheduling and job activation policies:

- Job initiators (engines)
- Job classes
- User management
- Job waiting queue
- Logical resources locking
- Event handling
- Job chaining

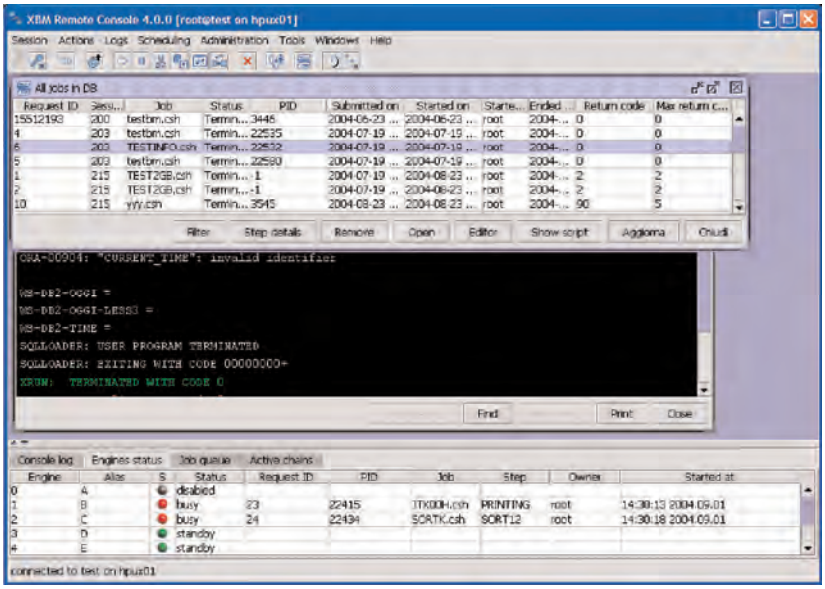
XBM solves a large set of job concurrency events, avoiding procedure conflicts and granting user data integrity. Using its Logical Resources, XBM ensures the correct job concurrency. It enables the execution of a submitted job only when all requested resources are available and lockable (i.e. files). A resource may be any logic item: a name, a table, a file, etc. By default, XBM considers the name of the job itself like a resource, denying the parallel execution of two tasks with the same name unless required.

Through events XBM enables the execution of jobs only when requested events have occurred: Logical events, file events and job events are currently supported and they can be easily combined, thus allowing programmers to pre-define the requirements of a job. (i.e., a job is executed only when a certain event happens, such as when a certain variable occurs or a second job is completed and its return code has a well-defined value).

Furthermore, using Chains complex job execution sequences can be defined too. By programming steps, jobs, conditions and actions, a powerful jobs chaining can be achieved.

By using Engines, Events and Chains an existing batch job can be optimized by splitting previously serialized steps into different tasks running parallelized on different engines. In this way, a full advantage of modern multi-CPU systems can be exploited using the power of more than one CPU.

XBM may be controlled through a command line interface or through a GUI based remote interface. The GUI interface is able to run on every system supporting a Java Virtual Machine and allows the operators to interact with the XBM daemons in a user-friendly and easy way.



XBM keeps track of all performed activities on a RDBMS systems, allowing a detailed analysis of jobs and steps execution time and duration. OracleDatabase, IMS/DB and MySQL are actually certified, but every JDBC compliant DB can be used. Through GUI Consoles, logs and job tracks can be easily browsed and searched, facilitating administrative and programming tasks. In addition to events or chain guided scheduling, XBM also provides a time guided scheduling system.

Execution of jobs can be planned on a specific date or time from a customized calendar (i.e., the last working day of the month). More than one calendar can be created and customized specifying working and non- working days.

Repetitive tasks can also be scheduled by selecting their frequency (monthly, weekly, hourly, etc.) and the exclusion/inclusion list (i.e., every day at 4:30 am except Saturday and Sunday).

XSPOOL

XSPOOL is a web based printout deployment system, which distributes the printing output of the batch programs directly on the users desktop through a web interface. Through the XSPOOL batch interface, programs can send their printouts to the XSPOOL repository. Once they are there, remote users can connect the XSPOOL web interface with a standard browser and navigate, search, view printouts, change their characteristics and print them globally or partially.

Overview of HTWC

HTWC is one of the top leading European rehosting, software conversion and application management solutions company. HTWC focuses on large organizations and is a valid aid in all those problem solving processes related to enterprise systems. In particular, HTWC deals with all matters related to the integration and modernization of legacy environments. HTWC has specialized in Mainframe rehosting and software management solutions since 1987.

Currently, HTWC labs develop products for rehosting analysis, migration, conversion and reengineering of legacy software. The integration of these products guarantees a reliable, flexible and cost effective solution for our customers.

Further information

For further information on the XFRAME® products, please visit our website at www.htwc.com or for specific questions, please contact us directly at info@htwc.com.

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