

Improving your ROI for JD Edwards EnterpriseOne

Introduction

JD Edwards EnterpriseOne is a powerful suite of products designed to meet the full spectrum of enterprise software needs. However, you can significantly improve your ROI for EnterpriseOne by reducing your EnterpriseOne batch window, controlling ad hoc jobs, and distributing output more efficiently.

UC4 Software is a leading provider of innovative enterprise scheduling products that have automated application business processes, improved efficiency, and significantly reduced IT operating expenses for over 1,600 companies worldwide. When applied to EnterpriseOne, The UC4 platform significantly reduces the EnterpriseOne batch window, controls ad hoc jobs, and automates output distribution.

This white paper details the enhancements that the UC4 platform offers EnterpriseOne, and shows why UC4 is the best solution for providing these enhancements.

If you have not yet purchased EnterpriseOne, or are just starting an EnterpriseOne implementation, we discuss at the end of this paper the benefits of adopting UC4 as early as possible in the implementation cycle.

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EnterpriseOne: Opportunities for Enhancement

When you purchased JD Edwards EnterpriseOne, most likely your goal was to automate recurring business processes. You probably purchased one or more of the following EnterpriseOne solutions:

- Asset Lifecycle Management
- Business Intelligence and Performance Management
- Collaboration and Integration
- Customer Relationship Management
- Financial Management
- Homebuilder Management
- Human Capital Management
- Project Management
- Real Estate Management
- Supplier Relationship Management
- Supply Chain Management

The level of automation provided by these solutions justified the cost, and was a great improvement over the manual procedures they replaced. However, if you are like many other organizations that implemented EnterpriseOne, you soon became aware of five areas that could be improved:

- Length of batch window
- Labor-intensive parameter changes to batch jobs
- Tracking child jobs
- Labor-intensive ad hoc jobs
- Report distribution
- Coordinating processing between EnterpriseOne and other applications

Nightly Batch Processing

JD Edwards EnterpriseOne comes with a basic scheduler. Jobs are run in the order they are submitted to a queue, but there can be no dependencies between jobs. Each queue can be set to allow a certain number of jobs to be processed at the same time. If the queue capacity is set to three, then three jobs will run at the same time, even if one of the jobs should complete before the next two jobs run. You can run jobs through several queues, but there is no way to coordinate jobs across queues.

If you are running simple job streams with limited numbers of jobs, the EnterpriseOne scheduler is generally satisfactory. However, if you are running complex, lengthy job streams, your processing time can stretch out over many hours and exceed the available nightly batch window. The lack of functionality can lead to complex scripted workarounds.

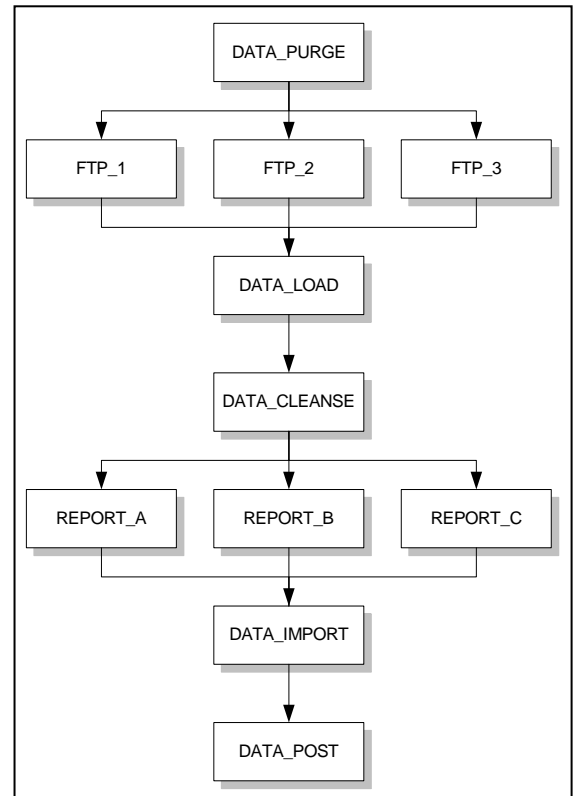


Figure A: A job flow mixing sequential and parallel processing

Parameter Changes

In EnterpriseOne, changing parameter values is a complex process. Parameters are stored in a parameter set (version) and given a version number. To change a parameter on the fly or dynamically generate it while running through a schedule, the version needs to be modified constantly or a new version needs to be created.

Ad Hoc Jobs

JD Edwards EnterpriseOne permits end users to submit jobs on an ad hoc basis. This is a valuable feature, but ad hoc jobs can consume computing resources and interfere with regularly scheduled jobs.

Report Distribution

To ensure that your company is running as efficiently as possible, you want the information in reports to get to your employees as quickly as possible. EnterpriseOne produces reports in PDF format. However, it does not have a mechanism for viewing and distributing the PDFs. Distribution must be done manually or by writing scripts.

The next three sections in this white paper discuss how the UC4 platform enhances each of the areas described above.

Coordinating Processing Between Applications

The EnterpriseOne scheduler can only schedule EnterpriseOne jobs. It cannot schedule jobs in other applications.

Automating Parameter Changes

In the past, you had to update EnterpriseOne parameters stored in versions manually. This limited the extent to which you could automate EnterpriseOne processes. The UC4 platform overcomes that restriction by updating parameters in real-time. It's now possible to retrieve values from a corporate database at the time a job is executed. This enables a level of automation unattainable with the EnterpriseOne scheduler.

Tracking Child Jobs

When you run an EnterpriseOne job from UC4, or UC4 captures a job submitted directly from EnterpriseOne, UC4 can track any child jobs kicked off by the parent job. UC4 tracks the parent job in the operations console. The parent job reflects the status of itself and all its children. The parent job shows a running status until all of its children have completed. If a child job fails, the parent job shows a failed status. This makes the operator's job much easier, enabling them to spot problems and correct them in a timely fashion.

Shortening the Nightly Batch Window

While JD Edwards EnterpriseOne pays for itself many times over, you can boost your ROI by shortening the nightly batch window with the advanced scheduling features in UC4.

In EnterpriseOne, batch processing can be stretched out unnecessarily if you have a job stream where some jobs must run sequentially, but other jobs can run in parallel. For example, you may have a job stream that logically looks like the illustration in Figure A. The GE job runs, then the three FTP jobs run at the same time, then DATA_LOAD runs, etc.

In EnterpriseOne, you are forced to submit all of the jobs to a single queue that allows only one job to be processed at a time. This ensures that DATA_PURGE will complete executing before the FTP jobs are run. If you were to set the queue capacity to three jobs, DATA_PURGE, FTP_1, and FTP-2 would all execute at the same time.

You cannot submit the jobs to different queues because EnterpriseOne cannot make the execution of a job in one queue dependent on the completion of a job in another queue.

Therefore you are forced to use one queue that can process only one job at a time: the FTP and Report jobs must run sequentially, unnecessarily extending the total execution time.

EnterpriseOne is also incapable of stopping the execution of a job stream when one of its jobs fails. If a job fails, the next job in the queue still executes. This can result in lengthy reruns of job streams.

In the UC4 platform, you can precisely model the job flow shown in Figure A, creating the job flow as an UC4 chain object. UC4 chains support sequential and parallel processing in any combination, and support job abort blocking. If a job aborts, the job can block all following jobs in the job stream from executing and alert an operator. After correcting the problem, you can begin processing the job stream from the point of failure, rather than rerunning the entire job stream. This can save a considerable amount of time and make the difference between completing processing within the batch processing window or running over your schedule.

After implementing UC4, an analyst working for a major corporation had the following to say about the impact on their batch processing window: "Just by installing UC4 and converting our current JDE schedule, we shaved 2.5 hours off of our nightly batch window (of 10 hours). That's before we even implemented any event based processing – which we figure will shave another two hours off."

Managing Ad Hoc Jobs

Like many ERP applications, JD Edwards EnterpriseOne permits individuals to submit jobs on an ad hoc basis. Ad hoc jobs usually are reports that provide the user with needed information. This is a valuable feature, but ad hoc jobs can consume computing resources and often prevent regularly scheduled jobs from running on time.

Ad hoc jobs can be directed through EnterpriseOne queues, providing some degree of control, since queues can be set to run a fixed number of jobs at a time. But queue capacity cannot be readily changed during the day, so if a queue is set to run three jobs at a time that setting is in effect all day long. Any ad hoc submission will "bump" a scheduled job from its normal slot.

There is no way to prioritise the jobs submitted to an EnterpriseOne queue. Jobs are processed on a first-come, first-served basis. A relatively unimportant report may monopolize a system while an urgent report waits to be processed.

UC4 can manage ad hoc jobs submitted through the EnterpriseOne interface and ad hoc jobs submitted directly from UC4. In either case, UC4 will bring to bear its full range of job management features, streamlining processing and ensuring maximum efficiency. If full management is not the goal, you can use UC4 to monitor the EnterpriseOne jobs without controlling them.

UC4 provides intelligent queues and job priorities, and the capacity of UC4 queues can be automatically changed throughout the day. For example, low priority jobs can be assigned to a queue that can process only one job at a time during regular business hours, but changes to a capacity of 10 jobs during the night hours. Queues themselves can be assigned priorities, so jobs are processed through a high priority queue before jobs in a low priority queue. Individual jobs can be assigned priorities ensuring that high priority jobs are processed first, even if they were submitted after lower priority jobs.

If you choose only to monitor ad hoc jobs (as well as all jobs) submitted from EnterpriseOne, you can track the status of each job, and any child jobs spawned by the job, in the UC4 Explorer window.

With UC4, you can accommodate ad hoc jobs knowing they will be processed in a timely fashion without disrupting scheduled operations.

Automated Report Distribution

The information contained in reports is useful only when it gets into the hands of your employees and customers. Speed up the distribution of information, and your whole operation becomes more efficient.

JD Edwards EnterpriseOne produces reports as PDF files. However, it does not have a mechanism for viewing or distributing the PDFs. Distribution must be done manually or by writing scripts. Often corporations will place the files in a directory structure and the users manually retrieve the files from the appropriate directory.

The UC4 platform provides several output distribution functions that give users fast access to reports:

- Immediately after reports are generated, users can view the PDF files online from UC4. This is the quickest way to view output, and works particularly well for users that submit ad hoc jobs from UC4. UC4 also provides a high level of security for the reports. Users can be restricted to viewing only reports that they run, or they can be given broader access.
- For users that do not have access to UC4, UC4 can send the PDF files as an email attachment automatically. The files can be sent to any number of users or email groups
- Reports can be sent to any number of print devices anywhere in your network, including printers and fax machines.

Report distribution is often an after-thought. With UC4, it becomes an integral part of your EnterpriseOne solution.

Coordinating Processing Between Applications

Most applications, including EnterpriseOne, come with at least basic scheduling capabilities. Some, such as Oracle Applications, come with a slightly more sophisticated tool. However, none of these applications have the ability to schedule jobs in other applications, making it difficult, if not impossible, to automate processing across applications.

UC4 can schedule processes across all major applications in your enterprise, which means you can model a process that manages data flow across multiple applications. For example, a job finishing in one application can be setup as a prerequisite for a job starting in another application.

UC4 also provides a single point for monitoring and controlling your distributed IT environment. All jobs processing in all applications are displayed in the UC4 Explorer window. Using Explorer, you can put jobs on hold, delete jobs, change parameters and conditions, and kill running jobs with a mouse click. The single point of control is the most efficient way to monitor your enterprise applications.

How the UC4/JD Edwards EnterpriseOne Integration Works

The UC4 EnterpriseOne interface brings powerful job scheduling, application workload balancing, and output management to EnterpriseOne.

A customer can implement the UC4 EnterpriseOne interface on three increasingly integrated levels:

- Monitoring JDE UBEs run by the JDE scheduler and users from UC4.
- Sending UBEs to JDE through UC4.
- Transparently intercepting and managing UBEs launched from JDE.

Each EnterpriseOne job is represented by a "module" in UC4. Modules are combined into UC4 "chains" that model EnterpriseOne job streams.

The chains can be run by EnterpriseOne users when needed, or they can be scheduled to run at specific times and on specific days. UC4 does not use the EnterpriseOne “runube” process. UC4 also has the intelligence to determine if an EnterpriseOne job has child processes.

UC4 automates much of the initial setup for the EnterpriseOne integration. For example, UC4 imports all EnterpriseOne jobs and creates the corresponding modules in UC4. This can save hours of development time.

Benefits of Early Implementation

If you are considering purchasing EnterpriseOne, or have just purchased it, you are aware that implementing EnterpriseOne is a major undertaking. You can greatly reduce your implementation costs by using the UC4 platform from the beginning of the project.

It's easy to think of UC4 as just a job-scheduling tool that also automates EnterpriseOne processes. But UC4 also is a powerful development tool that you can use to:

- Automate testing
- Eliminate redundant scripting and script maintenance
- Document workflows and procedures
- Maintain a history and audit trail of production runs
- Automate migration from development to test to production environments
- Reduce training

Automated Testing

During development, you must test the EnterpriseOne procedures you create. Without UC4, this can be a time-consuming procedure that someone must monitor step-by-step. UC4 can automate parameter entry as well as the procedures and frees your development staff to work on other tasks while the test is being run. Testing is further simplified by the ability of UC4 to monitor child jobs.

Eliminate Scripting

UC4 utilizes an object-oriented approach that allows you to define a job once, and reuse it multiple times. If you change a parameter, login, or other variable, you only need to change it once and the changes cascade to every instance of the object. Complex libraries of scripts that must be maintained individually become a thing of the past.

History and Audit Trail

During testing, it is important to track each action taken so that if problems occur, you can determine the cause. If you are running EnterpriseOne processes manually, it requires significant effort to record each step.

UC4 automatically keeps a history of every job run, the parameters that were used, and the output generated at each step. These records are readily available for viewing online and can be easily printed.

Documented Workflows and Procedures

One of the most critical aspects of an EnterpriseOne implementation is documentation of the workflows and procedures. UC4 provides tools that make documentation an integral part of the development process.

In UC4, "chains" represent workflows. Each step in a chain is represented by a component. UC4 can display chains graphically, giving you a visual representation of the workflow. By printing the graphic displays, you have a diagram for each workflow.

To provide additional information, you can attach written documentation to each chain and component in a chain. The documentation can explain the function of the chain or component, and provide information to operators in case of a problem.

Automated Migration

One of the more error prone tasks is migrating procedures from a development environment to a test environment, and subsequently to a production environment. The UC4 export and import utilities make migration an error-free, repeatable process. Variables such as database logins, printers, and libraries can be mapped when moving UC4 modules and chains into a new environment, eliminating potentially erroneous code changes and reducing the time to deliver new EnterpriseOne solutions.

For more information on the general features and benefits of UC4, see the UC4 white paper titled *Beyond Job Scheduling: The UC4 Vision of Enterprise Automation*.

Increasing the Return on Your Investment in EnterpriseOne

You purchased JD Edwards EnterpriseOne to streamline your administrative functions and make them more efficient. This was critical if your corporation was going to remain competitive in these challenging times.

Now it's time to take the next step and further improve your ROI by automating batch processing, controlling ad hoc job requests, and automating report distribution. If you are just beginning an EnterpriseOne implementation, you want to streamline the implementation process.

The UC4 platform is the clear choice. It is a true enterprise scheduler that is fully integrated with EnterpriseOne, enhancing EnterpriseOne in all the critical areas. It also provides a development environment that can significantly shorten implementation time.

About UC4 Software

UC4 Software is the leading provider of intelligent service automation solutions that enable organizations to connect IT service delivery with business demand. Combining real-time intelligence with just-in-time execution ensures customers can automate processes that traverse on-premises, virtualized and cloud computing platforms at low risk and cost. In excess of 1600 organizations worldwide trust in UC4 to automate the mission-critical IT systems that drive their business operations. Visit www.uc4.com for more information.

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