



Answers to Questions about Robot

Self-Processor and Network Partner Production
Automation Solutions

Jeff Miller, CU*Answers Operations Manager



31 July 2012

Executive Summary.....	3
Twenty Questions	3
What Do You Want to Know?	3
Robot Q&A	6
NIGHTLY PROCESSING.....	6
COMMANDS and SCHEDULING PROCESSES	8
ALERTS.....	11
SYSTEM MONITORING	12
DATE OPERATIONS.....	13
DOES IT MAKE COFFEE?	14
UNDER THE HOOD	16
SOME THINGS CAN'T BE FULLY AUTOMATED.....	17
... BUT WE'RE JUST GETTING STARTED	19
The Virtual Operator	20

Answers to Questions about Robot

Executive Summary

We asked you to give us your questions so that we could find out what things you would be interested to know about the Robot automation applications and where your interests lie as far as automation is concerned. The greatest interest was in nightly processing (stand-in, end of day, beginning of day). There is also a great deal of interest in system monitoring.

In reviewing your questions, we see that it will be important to distinguish between the automation application (Robot) and the programs and processes that are run *by* Robot.

Based on the areas of greatest interest, we are focusing our development on getting nightly processing automated and get resource monitoring quickly in place when you choose to include automation tools as a part of your processing environment.

Twenty Questions

OR: Is it Animal, Vegetable, or Mineral?

We've all played a game of twenty questions somewhere along the line. Is it bigger than a bread box? Is it alive? The game is about learning what a thing is by asking questions about it. In a sense, we've just engaged in a game of twenty questions – or in this case, seventy-five questions. Our questions were about the Robot automation applications.

In many instances, we can learn a lot from the questions that are asked as well. In this article, we will do three things:

- Talk about the components of automation
- Present the Q&A based on your questions
- Let you in on some of the exciting automation tools we're gearing up for you

What Do You Want to Know?

OR: Can it make Coffee?

What is this thing called Robot?

Let's say you have a coffeemaker and you attach a timer to it. Think of Robot as the timer. Can Robot make the coffee? No. It's not the coffee-maker; it's the timer that starts the coffeepot!

It's a top-notch timer, though! It will start the coffee pot for you; and let you know when the coffee's done. It will let you know if you forgot to grind some beans, even if you aren't home. It will even tell you if the coffee is too weak or too strong, and how it compares to the coffee you had last week.

So keep the coffee-maker analogy in mind – the automation application is like a coffee pot timer, the process applications brew the coffee. Robot doesn't process ACH, it doesn't purge EFT, and it doesn't create credit card reports or statements. Our applications brew the coffee; that is, we have programs that accomplish the jobs we need to get done. Robot (the "timer") takes that work and puts it into an organized process flow, schedules it to run when it needs to, and monitors how the work is going as it runs.

It uses the IBM system's capabilities to assist you in getting work done consistently and efficiently.

And so you ask, "Doesn't the Power-i have a built in job scheduler?" Yes, it does - along with communications protocols, network components, and so forth.



Run the job every day at 6:00pm.

So why use an automation application? Robot takes all the elements available on your system and puts them to work powerfully and efficiently.



Run the job every day at 6:00pm. Oh, and if it takes more than 15 minutes, send me an e-mail; text me if you get an error. By the way, if it doesn't run on time for some reason, let me know! Oh, also - this has to run on the 12th even if it's *not* a business day, OK? And if it's the first of the month and it's a Sunday, run it then, too. Skip Holidays, though, and

Robot is a suite of applications that work together to assist you in running processes on your system, aid in monitoring what is going on, and in general is designed to help move you toward monitoring your work and catches issues as they arise rather than performing all the processes yourself.

The initial packaged set of licensed applications for Robot that we will offer includes four pieces:

1. SCHEDULE

Schedule does exactly what it sounds like it would do: schedules things to happen on your system so that you don't have to execute them yourself. It can schedule jobs based on a particular time, can be event driven, knows when you're open and when you are not, can identify when a job is late, is taking too long to run, or doesn't run long enough; and it provides a record of the processing it has done. At a glance, you can see what jobs are scheduled to run, what has completed, and if there were any issues.

2. CONSOLE

Console focuses on automating message management. It also keeps a watch on your resources and can monitor system logs. It can automatically respond to message, screen messages you don't need to see (suppression), and manages message notification based on your needs. Have you ever lost track and not noticed a message sitting out on your system waiting for a reply? One of our favourite components of Console is the Message Notifier. It resides in your systray and pops a notification up right on your desktop when a message arrives in your message center.

3. ALERT

Alert works hand in hand with Console to handle message notifications. Alert can send e-mail and text notifications in response to messages that crop up on your system. It can automatically notify your operator – or your entire IT staff using a broadcast list. It will automatically handle the escalation of messages that need your attention.

4. NETWORK

Network will allow us to monitor remote partitions from a central location for events that require intervention and distributes instructions for new processes. It provides performance metrics for participants in the Network, checks system thresholds, monitors metrics of the other automation applications, and can escalate issues across the network.

CU*Answers has been using Robot for many years. Our EOD/BOD routines are handled by Robot, eDoc daily reports are handled by Robot, the new automated report routines run through Robot, and jobs we might otherwise mishandle – or miss altogether – are run by Robot as well. We can't get by without process automation, in fact. But in the past, we've only pushed it just so far. Now we are going to roll up our sleeves and put some new equipment in the tool shed.

Robot Q&A

OR: Let's Play 20 Questions!

Let's start by talking about the laws of Robotics. There are things that an automation application can do, and things it can't do. As we start reviewing questions, there are a few items to keep in mind as we go.

1. For a process to run automatically, it needs to be able to run without user intervention.
2. An automated process must be able to run without errors.
3. With the initial tools that we will be using, the any activities that are automated are limited to the Power-i environment.

Without getting into the details of each and every process, we will forge ahead and answer your questions based on these assumptions. Keep in the back of your mind that development will be required to make processes that now require user input to run without the menu options and front-end screens.

NIGHTLY PROCESSING

*Can Robot run a completely **unattended End-of-Day?***

Robot can run EOD/BOD processes, no problem. Once again, the question is, "Will those processes work with nobody around to watch?"

We have been using Robot to run EOD/BOD at CU*Answers for many years; however, we are staffed 24/7 and use a semi-manual approach because we have many clients and enough variables that we just don't want nightly processing starting without our blessing; but on a partition with a single CU, the equation changes. To run without any user intervention does require some application changes to be made. How do you know which processing day it is? Do you want to use system date or PROCDATE? What about stand-in?

We have been working on these routines and have successfully tested an automated cycle of Stand-In, EOD, Set Date, BOD, End and Post Stand-In in our test environment. At the time of this writing, we are in the process of beta testing in collaboration with a CU partner. This is one of the primary things you have been looking for and we're going to make sure it's one of the first things we get out to you.

*Can EOD/BOD **tape encryptions** be done by Robot?*

Yes.

*Can Robot run the **EOM** process?*

Yes. Before we do that, though, we want to get more common processes taken care of first (EOD/BOD/stand-in)! As we get those built for automation, we are also already starting to look at EOM. This is a critical process and we want to exercise extreme caution to make sure that any EOM automation that occurs is handled properly.

*Can Robot create specific **EOM** files and credit card work files, print files and flat files based on monthly or quarterly dates for **EOM/End-of-Quarter processing**?*

See above. We are already starting to look at how we will automate this work to the greatest extent possible and will initiate projects to automate statement and other EOM processes at that point. Again, member statements are a critical part of your business and a great deal of care must be taken before we let them run on their own.

*Can Robot perform a **manual EOD** process, go to the **EOM** process, and then perform a **manual BOD** process?*

The idea with Robot is to get away from doing things manually, but the answer is yes – Robot can do EOD, EOM and follow with BOD. We are beta testing automated EOD/BOD at present. Even when automated, the process can be run manually if needed; and as mentioned previously, we are looking at EOM for automation also.

*Prior to **EOM**, are there parameters to be configured for days and **dates** to process?*

Yes. For each new day to be processed on the system, the process date needs to be set prior to BOD. If you are asking if this will be automated, the answer is: yes – at least for EOD/BOD. We are testing date handling for EOD/BOD right now and are considering several approaches to handling EOM processing ranging from completely automated routines to an approach similar to that which we now use at CU*Answers. We are exercising caution where EOM is concerned because of the critical nature of the process.

*For multiple credit unions, could the **EOD/BOD** process be scheduled and staggered if two of three were open on a Saturday? Meaning the **next processing/business date would be different between two of three on the same IBM I system**?*

Yes. Each credit union can run with a unique job flow. We can set which days an update to the PROCDATE will be executed. Also, a unique calendar can be created for each client if necessary. We are in development and are building date handling that will acquire the next business date as part of the EOD/BOD process.

*Once EOD/BOD is set up to run smoothly, will Robot be able to submit daily reports for printing to **designated printers**?*

Where reports go is determined by the application. If the routines are present in the application to do printer routing or to accept parameters for printer routing, then that can be handled through a Robot job.

There are also Robot components that are specifically designed to handle report distribution, but we have chosen not to include those in this package to avoid lengthy development and increased costs to you.

In its present state, Robot does manage your nightly output queue movement as part of the EOD/BOD processing cycle.

COMMANDS and SCHEDULING PROCESSES

*Can we **manually run a ROBOT process** or does it have to be scheduled?*

Yes; in addition to running processes on a scheduled basis, processes can be initiated both manually and for that matter, built into menu options. We use all of these capabilities at CU*Answers.

*Can we **automate the creation of the daily MTVE file** AFTER EOD has been completed?*

Yes, subject to our initial assumptions; we will need to look at the process and make the determination at that point.

We transfer FILE {insert name here} to the IFS every day at 2am. Can ROBOT do this for me?

I am presuming that you mean you are transferring a file from a library on your IBM-I to a directory in the IFS. That has a command you need to do, and it has a time you need to do it. Perfect! Robot is great at running commands, programs, and scripts – and of course, doing it on a schedule. Yes, this is a job for Robot SCHEDULE.

*Can we schedule the **ISO Purge** process to run late night or early morning?*

Yes. The program called has no parameters and we use it regularly without error. As always, we will want to review and test the routine before automating.

*Can we automate the process of appending **Householding File** and schedule it to run more frequently?*

Yes, subject to our initial assumptions; we will want to look at the process and make the determination at that point.

*Can Robot **rename files on the IFS?***

Robot can execute a command to do a rename of a file in the IFS.

*Can Robot pull down a **batch ATM/Debit** file, rename the file, process it and check the report for errors or totals?*

Robot can run a process that does so if it can be executed on the system. Also, if the process renames the file and checks for errors and/or totals, Robot can automate that as well.

*Can a Robot job **place a hold on output queues?***

Yes; a Robot jobs can contain commands and a job could be built that ran a command to hold the writer and be executed when desired.

*Can **full backups** via DefMD be run by Robot?*

Yes, subject to our initial assumptions.

*Can **billing queries** be performed by Robot?*

Robot can run a process that performs a billing query. Remember – an automation application doesn't do queries. It can run a query process, however, subject to initial assumptions.

*Can Robot run **e-statement processing?***

Yes. We are already using Robot to handle several "e-processes" at CU*Answers. Subject to our initial assumptions, this can be automated.

*For Custom menu options (Ex: eDOC report archiving), can Robot select multiple output queues for **multiple credit unions?***

The automated job may control which OUTQ is selected. Ordinarily, each credit union will archive to the appropriate OUTQ using its own job flow.

*Can Robot initialize a tape with a rewind function and perform a CU*Base backup of specific/designated libraries?*

Yes, if the backup routine adheres to our basic assumptions for automation. All these commands are quite straightforward. A job could be built with the commands to perform these operations.

*Can Robot **print a specific report** based on file name and/or user data to a specific printer?*

Yes, given a job that correctly directs the reports. Note that Schedule distribution is based on print file name, not user data. An additional tool, Robot/REPORTS can interrogate all the other pool file attributes (including user data) for report distribution.

*Once a **Statement print file** is created, can Robot hold the job, change some parameters on the file and move it to a different output queue?*

If routines are available to perform these operations, then they can be scheduled in Robot.

*Can Robot run a **billing process** that would need different dollar amounts and run it multiple times as needed?*

If a billing process was available that allowed for the entry of those parameters that ran without error and without user intervention, it could then be scheduled.

*If a process needs to be done **twice on a particular day** (ex: Monday for FIS recon procedures) can it be scheduled to do so and then **only once the other days**?*

Yes.

*Can Robot **disable profiles** if the profiles are enabled during the day, but in the evenings we would need the profiles disabled?*

Bearing in mind that Robot does not manage profiles, there are a number of ways this could be approached. One option would be to create an alternate subsystem for the profiles in question and schedule jobs to start and end the subsystem as needed (for instance, ending the subsystem before starting EOD/BOD and restarting it afterwards).

*Can Robot be **configured for multiple credit unions** to do any of the varying tasks with a different user or process?*

Yes. Each job can be configured for different processes, schedules, queues for output, specific library lists, alert routines message queues, job queues, user profiles, can run on differing calendars, and more. The scheduling and automation capabilities of Robot are robust and are generally limited only by what the applications being scheduled will tolerate.

*Can Robot be configured to **run scheduled command line calls** with a set of parameters to create save files, clear output queues, etc.?*

Yes.

ALERTS

*Can ROBOT send me a **Text alert**?*

Yes; the ALERT application will allow you to send e-mails and texts, and pages. It can communicate with your PC, tablet, smart phone, and many other devices.

*Can we send an **Email** when a QSYSOPR message appears (eliminate having to check all the time)?*

Absolutely, and there are several ways you can get your notifications. Console has a PC application that will notify your Operator via an on-screen pop-up that there is a message that requires a response. Or, via Network, it can alert an operator at CU*Answers on their screen! And yes, an e-mail or text can be sent to you when a message comes up on your system.

*Can Robot send **email notification to data match agencies** to notify them when there are no matches (CA requirement)?*

Yes, it can. There are some assumptions being made, here. Robot does not check for data matches; but it can schedule a program that does so. If the routine identifies when there is a no-match condition, we can take advantage of Alert's e-mail capabilities and send the no-match notification to the agency as part of the process.

*Can Robot be configured to change the **default email address** for different CU's, send the e-statement message and when completed, change the email address back?*

The Robot package as presented has a robust e-mail messaging capability and can send e-mail based on the requirements of job being run. No default e-mail addresses would need to be changed; the automated job could be set to send the e-mail where needed for that job.

*Can ROBOT send a Text alert based on **different error messages** pre-set parameters?*

Yes, Robot is capable of sending text alerts and there is a great deal of flexibility on how the alerts are generated and distributed. For instance, general messages could go to one group of recipients while switch-related issues could be escalated directly to another group of individuals. Specific messages can be monitored and an Alert generated if the message occurs.

Can we **automatically restart the ATM file** in the event we go offline?

I think what you are asking is whether or not the subsystem can be restarted. Without getting too involved, yes. Initially, you will receive alerts or can have us monitor your switches so that an issue can be quickly responded to. Once we get things off the ground, we will develop recovery routines so that your switch jobs will recover automatically under specific conditions.

Can Robot **monitor for switches that have failed or stopped**?

Specific situations can be monitored for (subsystem ended, job ended, LCKW, an error message on system).

*Occasionally we get a call from COOP or FIS saying that our "Switch" is down and needs to be restarted. I end up bringing down the Subsystem of the affected service and bring it back up. Is there a way to **monitor the connection to COOP and FIS** and when data isn't being received for a specified amount of time that the subsystems get auto-restarted?*

See the previous question. We are not able to ping switches to check connectivity; that's blocked by vendors for obvious reasons. The connections almost always are capable of passing admin messages. This leaves us having to determine how much data passing back and forth is "enough." Given that there are administrative and keep-alive messages that in many cases can pass even if transactions are not, we have at this point not found a good approach to the "not enough data" scenario. The basic problem is that what may be insufficient data at 18:00 may not apply at all at 03:00. Simply put, there are a lot of conditions we can catch. Some still require your knowledge and expertise.

Can Robot **monitor for system messages** and determine what type of priority a message is?

Yes, and this is handled in several ways. Specific priority levels can be set such that the history log monitors for messages with a lower priority while the security audit log checks for a high priority limit. Messages can be assigned to messages groups and message groups are checked using a priority you specify. In general, the approach is to manage your messages by exception. In most cases, you will only monitor for messages requiring a response.

Can Robot **monitor logs** to determine whether a process was successful or not (such as an ftp)?

Yes. Robot can monitor the security audit log, FTP requests, and the system history log. FTP Request Log monitoring lets you monitor whenever your system receives an FTP request from another system, can ID the user who made the request, and note when the request was made. Robot/CONSOLE monitors for the following FTP requests: delete file, receive file, rename file, send file, and the execute command.

Can Robot alert or notify if an error message is above a certain severity?

Yes.

*Can the Robot **Share Draft Process be held** if the file was delayed until the file was uploaded to CU*Base?*

Yes; if you know there is a delay, it is very easy to place a process on hold. Also, the process could be made reactive to the presence of the share draft file on the system so that it does not run until the file is present. The job could be built so that you are notified if the file isn't present by a certain time. The notification could be escalated and a message sent by e-mail or text in case you are away from your desk to let you know there is a problem so you can follow up on it.

*If a process is started from CU*Base and has an error, or the connection/port has a message waiting to be answered, will it pause, and notify, or can it answer the message and continue?*

Two separate things. First, in the case of a message, Robot will pause and notify; it doesn't have to, but we want to be extremely careful about automatically responding to error messages. In the case of a failed connection, Console will be monitoring for issues and will alert you to problems.

*Can Robot start a process (ex: Stand-in-Audio), that takes about 10 minutes to start/complete and **wait until it is completed successfully** before it continues on with the next process?*

Yes. The start-up could be set as part of a group of automated jobs. The next job could monitor for the subsystem to be active, and each process in the flow might depend on the completion of the prior one. There are several different ways to approach this based on the requirements of the process. Several jobs we have here at CU*Answers are built to wait for the completion of each part of a set of processes before continuing on.

DATE OPERATIONS

*Can a process be scheduled for a certain **day of the month** on every month?*

Yes. Robot is a robust automation system and can easily schedule for a particular day each month; or the second Friday of a month; or on the first, but if the first falls on a Sunday then go to Monday; or on a particular date unless it is not a business day – then wait until the next business day; etc. We are doing every one of these at CU*Answers at present.

*Can Robot run a query that requires a **date field to be changed each day**?*

Robot can schedule a job that runs a query. If the command to run the query includes a date parameter, then yes, Robot can do that. It has robust date variable capabilities and can recalculate dates using a great variety of options.

*Will it run a report monthly with a **date range that changes?***

In the 12.0 release, we have added the ability to generate automated reports that may address your question. Purely from an automation perspective, yes - subject to initial assumptions. This would require the use of reserved command variables that calculate dates to use as parameters.

DOES IT MAKE COFFEE?

I'm going to use a few of your questions to point out that we must always remember to distinguish between *automation* of a process and the process itself. This goes back to our example of the coffee pot and the timer. We need to make sure that we keep in mind that the timer doesn't make the coffee. So let's answer some more questions about automation, and at the same time distinguish between the automation application (Robot) and the programs and processes that are run *by* Robot.

*Can maintenance **file processing be done by Robot?***

Robot does not process maintenance files; but yes, Robot can automate the routines that perform the maintenance file processing.

*If the current process of receiving drafts involves holding a queue so a file's "Save File" attribute can be changed to a *YES, **can Robot do hold, change the file and release it to print?***

Robot does none of those things. A process could be written to perform this sequence of steps and the process could then be automated and scheduled.

Can the Share Draft Processing be split up and run as so? (Ex: we receive at 2:00pm, but don't move detail check lists, post drafts, list exceptions or post corporate draft until right before EOD/BOD?)

This is a question that has its focus more on the process than on Robot, but it's a good way to look at how to approach automation.

First, we would look at how you wanted to approach the process and then create routines that would separate the process into the appropriate components to work the way you needed it to.

Could it then be automated? At this point, yes, as long as we kept to our assumptions about automation. In this case, two separate scheduled jobs would be created – one to process the 2:00PM receive, and another job (or possibly job group) to complete the pre-EOD processes.

*Can it perform our EFT **purges?***

Robot doesn't purge EFT files; it is a scheduling utility. But that does mean that it can run a program that does purges, subject to our basic presumptions. In this case, if we are talking about the ISO purges, the answer is yes (see above in the COMMANDS and SCHEDULING

PROCESSES section). The program called has no parameters and is a perfect candidate for scheduling.

Can backup files be transmitted electronically so we can eliminate the need for tape?

Robot/Schedule is an automation application, not a backup utility or a communications protocol. At the moment, backups via electronic file transmission are not currently supported by CU*Answers (That may be changing, too!). Eliminating the need for tape using virtual tape libraries as a backup mechanism is a separate discussion; but that said, Robot can schedule backup commands and initiate file transmission processes. Subject to our basic assumptions, yes! All these processes can be automated. There are also additional Robot components specifically geared to manage data backups and audits as well; these may be addressed at a future date if there is sufficient interest in data management.

*Is there a solution for **Disk to Disk backups** to bypass the need for tapes every day?*

This is not a question about Robot, but rather a question about a backup solution. CU*Answers does not support disk to disk backups at this moment; but when such a routine is available, then the answer is: yes, it could be automated.

*Would it be able to **generate Credit Report data** that we have to transmit monthly?*

Robot does not generate credit report data. It can easily schedule a process which creates credit bureau files, though! So the answer is yes, subject to our initial assumptions and assuming the process is not web-based on the back end.

*Can Robot **check previous file totals** from files stored on the IFS to ensure that processed files aren't duplicated?*

Robot is an automation application. It does not check file totals; applications are written to do that which Robot then can automate. If there is a program that checks files for duplicate totals, it will run given the basic assumptions regarding automation.

Can Robot Receive Drafts and notify if the amounts are the same as the previous day?

Robot does not receive drafts, but it can automate a process that receives drafts. If that process includes a routine that runs verification against the previous day's amounts, then yes – Robot can issue a notification to that effect in one of several ways.

*Can Robot **start and change printer output queues** to print certain reports and change the queues back when the printing is completed successfully?*

No. Robot/Schedule does not manage print queues; it is a scheduling and automation application. However, Schedule can automate a series of commands or programs designed to work with your print queues. We would need to review your objectives and then structure a set of commands or build the jobs according to your needs.

*Can it Robot be configured to print different reports from CU*Base, with different number of copies to different printers as needed?*

Automation is a separate thing from report print control (although Robot can control output queue from a job). The programs generating the reports determine output. If the process was created to meet the appropriate output and automation requirements, then the job could be scheduled. There are report distribution capabilities built into Robot based on print file name.

*Can **disk to disk** be a part of the automated EOD BOD process?*

Robot is not a disk to disk backup solution. If we make some (big) assumptions, though, it could be done. First, we would assume a disk to disk backup solution. The backup process must then meet our criteria for automation. At that point, we would build the processes into job schedules.

UNDER THE HOOD

*If we start Robot on accident, **is there a kill switch**?*

Robot runs pretty much all the time on your system – it is always “awake” and active. This allows the applications to run jobs when needed without your intervention, monitor your resources, send you Alerts when you need to know what’s going on. That said, scheduled jobs can be put on hold if necessary, and the application can be deactivated.

You can kick off jobs manually when you want the special options. DS (“Do Job Now”) can be run without any reactivity; that is, it will prevent unwanted downstream jobs from running due to dependency.

Just remember that once a particular job is started, it’s like pressing the enter key on your keyboard.

*Can any process that requires a **typed entry** be run?*

“Any” covers a lot of ground, and there are several considerations tied into this question; but in most cases the answer is yes. An entry is simply a parameter being loaded at run time. Fixed variables, reserved command variables, date variables, OPAL scripting and other tools allow a great many options for completing processes that need some information to run without intervention on the part of a user. On top of that, there are additional components that can be added as we develop your automation is needed that will manipulate screen entries and script otherwise manual processes.

SOME THINGS CAN'T BE FULLY AUTOMATED...

*What kind of automation could be achieved in the **ACH** process?*

This covers a lot of ground; but when we have progressed far enough along with process automation, the bulk of ACH processing can be automated. Retrieving files from the FRB site cannot be automated because a security token, secure user logon and password, and website interaction are required.

*As a self-processor we do not have overnight computer operators. We process all **ACH** files when we start our day. It would be great to automate the processing of the "overnight" ACH files so our members have their money sooner than the 7 am we arrive.*

The ACH files must be retrieved from off-system on a secure site which generally requires the use of a token, passphrase, user logon and password followed by selection of files on a website, and that is not something we will be able to automate with this application suite.

But wait! The CU*Answers Production Center is staffed 24/7 and we're already doing just that for other partners! We can arrange do that for you as well.

*Will Robot automatically pull the **ACH** and Check files from SunCorp and start the processing of them, then once that is done will it send an email to an employee saying to check the exceptions?*

There are a few things going on here. The obstacle in this scenario is that the files must be retrieved from off-system on a secure site which generally requires the use of a token, passphrase, as well as a user logon and password followed by selection of files (possibly from a web interface). The scope of the product right now addresses automation of processes on the system.

That said, Robot can watch for the file and start processing it once it is available on the system, watch for that job to complete, and then send a message.

*Can Robot interface with Fedline Advantage (uploading Returns/NOC file - download **ACH** files)?*

No. The FRB website requires a security token, passphrase, logon and password, and then selections are required on the site.

*Can files be **downloaded** from a website, **renamed**, **processed** and then renamed again in the **IFS**?*

There are several steps involved in this process. Can the file be downloaded from a website? No, as mentioned above, the current suite of products will not log onto websites, select, and download files. Once the file is retrieved, it can then be renamed, processed, and renamed again subject to our basic application assumptions.

*Can Robot **run a process** and then upload a file to a **website**?*

It can run the process, but the components of the licensed package are not able to log onto websites, select, and download files.

*Is there separate **users or security IDs** that need to be associated with the particular uses and will that expire and what would happen if the automated login/process was disabled?*

For automated jobs, you will define a user profile to associate with the batch jobs. The user profile should be set to *ENABLED but can be set to *SIGNOFF so that it can't be used interactively. The password can also be set to *NONE so that there is no way it can be used to sign on to the system.

*Can Robot be used to **download** share draft files, **record** their totals and **rename** them?*

This will depend on how the files are retrieved from off-system. If a program executes a routine that gets the file from a server (doing an FTP get, for instance), then the file can be retrieved. If there are website operations to perform, that is outside the scope of the current package. Robot does not record totals and rename files; it automates processes which do those things. Subject to the requirements for automation, Robot can certainly automate the processes.

*Can the **statement processing** be done by Robot?*

It can, but we want focus immediately on more frequent processes that are less hands-on. We are currently researching streamlining of the statement process with an eye on eventual automation.

*Can Robot **create credit bureau files** and upload them to the **web site**?*

The files can be created, subject to our basic assumptions. The components in the core license we are proposing do not interact with web sites. Future automation development may address web site uploads.

*Can Robot **create CPI files** and upload them to the **web site**?*

The files can be created, subject to base assumptions. The components in the core license we are proposing do not interact with web sites. Future automation development may address web site uploads.

*Can Robot **create CUNA files** and upload them to the **web site**?*

The files can be created, subject to base assumptions. The Robot elements in the core package do not work with web sites. Future automation development may address web site uploads.

... BUT WE'RE JUST GETTING STARTED

*Can we schedule the receipt of **daily FISERV recon files** - run before we are open for that day's business?*

Not immediately. The front end screen for the receive process requires user input - the job queue, number of copies, and printer fields - to be filled in. There is also a transaction file 'date to receive' field which is defaulted to current system date which would need to be auto filled using a date command variable. We would need to do some work before this particular process could be automated. Once that is done though, the answer is: yes!

*Can we automate **FISERV recon processing** this recon file after received?*

The process requires user input: you must manually enter the number 1 to process which brings up a prompt screen instructing the user to select the F5 key to actually run the process. If we can modify the application to run without these prompts, it could be automated. Of course, just because you can run a process without saying "OK" doesn't mean you should; we'll also want to look at what safeguards should be in place to protect you, as well.

*Can we send **notices** to a dedicated printer prior to start of business day?*

The notice programs are not conducive to automation in their present form. The notice production routine requires user input to select notice types, selection of specific notices by date, and other actions. This will require a project to address the requirements necessary to automate the process.

The Virtual Operator

What's coming next? The CU*Production, a tool set to assist you with your processing. You need to get more done and we want to give you the ability to do that. Here's what's coming next.

First, we are building an FAQ about Robot in the Answer Book. It will contain answers to most of the topics covered here as well as things that are not covered here. That will be done by September 30.

On September 26, we'll have a 60 minute live lunch-break webinar. We'll look at the Robot suite and a few examples of how we're using Robot here at CU*Answers. That will give you a chance to see what the applications look like. We'll review Schedule, Console, Alert, and Network.

We are already developing and testing the first wave of automation for CU*BASE, an engine geared to take some of the work off your hands and free you up to do other things. We have already run an automated stand-in/end-of-day/beginning-of-day cycle in our test environment, and it has been migrated to a beta site where EOD and BOD have been run from using the automation routines. We are currently preparing stand-in processes and starting to look at EOM processing.

The first production tool set (CU*Production Tier I) will get you started: licensing at an extremely advantageous rate, installation, configuration of the automation environment, system default set-up, calendar configuration, library list creation, and forecast object creation, set up of automation daily reports, nightly processing, resource monitoring, and more!

Thank you all for taking the time to ask some really great questions about process automation. Look for more information to follow in the upcoming weeks!