



# Print Solutions from Atac

Newsletter for Asia Pacific Region

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## BHCS Routing Assignments

The Barr Host Communications Suite (BHCS) receives files from multiple sources and sends to multiple outputs. Sources can include RJE, NJE, TCP/IP, Channel (Bus & Tag, Escon or FiCon), Disk and other Barr units. Outputs can include RJE, NJE, TCP/IP, LAN, Disk, local printers and other Barr units.

On the BHCS Spool screen, the Outputs are shown at the top and the Spool files are shown at the bottom. When an Output is Ready, any files with matching "white-column" content which are also Ready, are sent to that output device.

Although the "white-columns" are user editable, manually changing the values next to each item to match is not something you want to be doing all the time. So how are the "white-column" values set and where does this take place?

Values next to each Output or Destination are seldom changed; it's the FILE attribute values in which we are interested. Some attributes come into Barr from the source or sending machine, i.e. LPR files have JobName/User/Class values already stamped into the LPD Header; NJE & RJE files have JobName, Form, Class etc. in the Job Header info, again populated by the HOST. We'll call these values, already present before reception into Barr, HOST values.

As files arrive into Barr, static values can be assigned to each based upon the receiving device, i.e. LPD Queue, IP Socket number, Disk location, Channel-ID. Next, files are fed into Spool and as this happens, they are processed by the Override Table.

The Override Table allows you to inject some logic into the attribute assignment process by evaluating a set of rules, each of which has zero or more Conditions and a list of Actions to perform if the Conditions are true, i.e. If the Form is "STD", then make the CLASS "B" and set the file to Ready.

Multiple rules are all processed in serial fashion, with Actions available to assign an attribute, assign the file to multi-destination-output, or just stop processing rules.

Actions are only executed if the Conditions are true, or there are no Conditions at all (Unconditional Rules always execute). Conditions can include testing an existing attribute or file State, i.e. If the Class = "B" and the file is READY etc.

So remember, attributes can be set prior to reception (HOST attributes), at the receiving device and finally via the Override Table. Understanding how this occurs will assist you to setup a turnkey operation where attribute assignments are made automatically, and files flow from source to destination without any human intervention.

Contact Atac if you'd like help to setup your routing requirements with BHCS.

## Output Enhancement (Emtex VDE) Programming

When you are programming in Output Enhancement, the Viewer becomes the IDE, comprising Editor and Debugger. Viewer functionality is still present; you can:

1. Run a job to the Viewer, then create or open a VDE script, which appears alongside.
2. Load a VDE script to the Editor, then run a job to the Viewer (in Output mode).

Both these techniques are very useful as you see each Object in the Viewer and the code beside it in the Editor. You can link the Viewer and the Editor code by:

1. Double-clicking the Object name ([OBJECT\_Address] etc.) in the Editor, then pressing F12.
2. Selecting the Object in the Viewer with the mouse, which causes the Editor to move to that Object and highlight all occurrences.

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Once linked, an Object can be resized in the Viewer and the Editor dimensions change accordingly. If the Editor dimensions are changed manually, pressing F5 updates the Object in the Viewer.

Working with the Editor and Viewer side-by-side is very useful. When editing a script, save but leave it open in the Editor. Run your job and if not happy, reprint the job to the Viewer and return to editing, right where you left off.

If your code utilises Output processing which changes the document, a reprint only shows the final document format after all Output processing has occurred. If you want to see the document before Output processing, you'll need to edit the Profile and comment out the VDEOUTPUTSOURCE line, then run the job to Viewer again.

Should you require step-by-step execution of a VDE script, the Debugger can provide this. Run your job, note the job number, switch the Viewer to Browse mode and Open the Profile (Job). The Open Job dialogue allows you to choose the Job and run either the Input Debugger or Output Debugger. Input relates to the Profile's VDEINPUTSOURCE code and Output relates to the Profile's VDEOUTPUTSOURCE code.

During debugging, you can step through the code, examining Variables, Object Text, Test results etc. with the Viewer pane showing document changes as they occur. However, you cannot edit the VDE script, or invoke F12 linking when debugging.

The techniques above will allow you to code VDE scripts in a WYSIWYG environment, then debug the code with real-time feedback from each line of code executed. When debugging your code, you might be surprised to see the actual execution path through Boundary and nested Region Objects.

Contact Atac for any help in training staff, writing code and getting it to do what you want.

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## Barr Connectivity Hardware

Barr Systems are best known for their BHCS (Barr Host Communications Suite) product offering, but over the years Barr have designed several hardware boards for direct connectivity to diverse systems as follows:-

BARR/PRINT CHANNEL is a software and hardware combination that allows you to physically connect your Windows-based computer to your mainframe channel. It emulates multiple mainframe-attached 3211 printers and is a relatively simple method of printing from the mainframe to your local network printers. Available in two flavours, Escon and Bus & Tag.

The BARR/PRINT CHANNEL FICON solution is a two PC/Server solution. The mainframe connects to the print FICON server via a FICON connection. A thin, flexible, fibre-optic FICON cable connects the adapter to the mainframe. Each interface on a FICON adapter is capable of supporting up to 16 CU images (LPARs) and 256 sub-channels (sessions). Using the Barr FICON Input service solution you can receive jobs to the Barr HOST Communication Suite (BHCS) and then from there you can direct your jobs to existing network print queues on a LAN.

BARR/CHANNEL, a combination of hardware and software, provides a fast and reliable way to directly connect Microsoft's® Host Integration Server to the mainframe channel via either Escon or Bus & Tag, efficiently supporting thousands of users with one gateway.

BARR/CHANNEL-IN SDK is a Software Development Kit (SDK) for fibre-optic Escon or parallel Bus & Tag channel solutions. The BARR/CHANNEL-IN SDK supplies all of the hardware and software to enable PC-based server applications to be directly channel-attached to the mainframe. The applications that can implement and benefit from the product are those that require bi-directional, high-speed, mainframe-to-server data transfer capabilities.

BARR/CHANNEL-OUT SDK is a Software Development Kit (SDK) that includes all of the hardware and software that you need to channel-attach S/390 devices to a PC. The BARR/CHANNEL-OUT SDK includes a sample host emulation device driver and source code to send output to an IBM 4245 printer. Virtually any S/390 device can be attached to the PC with this product.

BARR/SYNC for Host Integration Server provides high-speed, full-duplex communications for Microsoft Host Integration Server. The package includes the Barr SYNC PCI adapter, software drivers to work with the Host Integration Server, diagnostics and online help. Independent testing has shown that the Barr adapter used by BARR/SYNC can actually double bi-directional traffic at a given SDLC link speed. This is

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achieved by supporting the DATMODE=FULL parameter, where acknowledgements can be transmitted as the software receives data.

Contact Atac to discuss Barr's connectivity hardware and how it can benefit your company.

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## Q & A

**Q.** We have a file in BHCS which is in HELD state but when we right-click it, Ready is not available.

**A.** Try setting the file to Schedule first. Right-click | Schedule | OK sets the file to be Ready in 1 hour. Next, right-click and choose Remove Scheduling which will leave the file in Ready state. This has been fixed in BHCS 7.1.49.9 and higher.

**Q.** I have an Indexing issue in Output Manager. Pass 1 indexes each document on the number of pages, then Pass 2 splits the output when the small envelope size (6 sheets) has been passed. I'm not getting the output I expect.

**A.** Try changing the PARENT statement, so ONLY Pass 1 runs and then run the job. Right-click the job in the JQM and choose REPRINT. Examine the KEY field values to see if there are the correct number of Index entries and they have the values you expect to see. Indexes only exist after the Pass in which they are written; if a second Pass is run the index values are only present afterwards if re-written in the second Pass.

**Q.** Some Emtex clients are failing to start, with the message that the "Client is already in use". How can this be fixed?

**A.** At the GUI, choose Settings – Client Auto-Start. Set all to Manual (if already set to Manual, click the drop-down and select Manual again). Do this for all clients. Save and restart MGR. (No clients should auto-start.) Re-configure Auto-Start for the required clients.

The above procedure will re-sync the Auto-Start mechanism.

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## Feedback

Your feedback is valuable to Atac and helps us provide the high standard of service which you have come to expect from us, and which we are proud to deliver. Whether you have questions about our product range, a story to share regarding your experiences, or you would like to comment on our newsletter, just send us an **email**.

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