



Print Solutions from Atac

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BHCS & SQL Connectivity

Barr Systems' Barr Host Communications Suite (BHCS) can interact with SQL Server, storing Accounting and/or Operator Console messages. Accounting information comprises one record for each job successfully printed. The Notifications module in the BHCS 7.2 and above stream stores all Operator Console messages in SQL, optionally emailing specific Users / Groups if nominated messages occur.

BHCS can interact with all SQL Server products, Express or full, 32-bit or 64-bit. The Express edition of SQL is free, but limited to 2GB total size. SQL can be local or remote, allowing you to utilise existing SQL resources.

When BHCS is first installed, by default LOCAL SYSTEM credentials are applied to the BHCS Services. LOCAL SYSTEM credentials have full rights to the local PC, but almost none to remote servers or LAN resources. If BHCS is to interact with a LAN location, then a User Account with Local Admin rights and permissions to external resources must be specified.

More specifically, if writing to a LAN folder, the Barr SpoolCore Service needs a User Account with appropriate permissions. If polling files in from LAN locations, the Barr Print Utility Service needs a User Account with permissions to read and delete from the polled folders. Credential changes can be applied to a BHCS system's individual Services any time after installation, if LOCAL SYSTEM was initially installed.

Successfully completed jobs' Accounting information is written to SQL if BHCS Accounting is enabled. The default SQL credentials accepted are Windows credentials, so the Barr SpoolCore Service's login id is used (cannot be LOCAL SYSTEM).

The Notifications records are written to SQL by the Barr Message Service and read from SQL by the Barr Notifications Service. Both of these Services must therefore have User credentials present in order to login to SQL appropriately.

If your planned BHCS installation will need SQL access, it's best therefore to establish a User Account with Local Admin rights first. Install BHCS using these credentials for Services and ditto for local SQL installation. The one User Account can be used for Barr Services' logins, reading and writing to LAN and interacting with SQL.

Remember, Accounting is available in all BHCS versions but the Notifications module is only present in BHCS 7.2 and above. Upgrading from 7.1.x to 7.2 or above is easy; run SETUP and specify UPGRADE as your Setup choice.

Contact Atac any time for free assistance setting up your BHCS system for LAN and SQL access.

More information at...

<https://www.atac.com.au>

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Output Manager & Output Enhancement Documentation

Bluecrest's Output Manager (OM) comes with extensive documentation, found in [MGRx.x\doc]. There's an Installation Guide to help you plan and prepare your installation as well as User, Operator and Command Guides in PDF format. There is a Command Guide specific to each Input and Output client which OM supports.

The PDFs have hyperlinked Bookmark tabs for rapid access to any so marked part of the guides. Each Guide also has a Table of Contents that is itself hyperlinked directly to the relevant pages.

The OM User Guide and Command Guides provide all the information you need to build Profiles which control the Input, Output and Merge processing of your jobs. Actions to take before and after a job runs are included as well as commands to invoke OE Input, Output and Merge scripts.

Release Notes are supplied with each release of OM. These are found in the [MGRx.x\doc] folder and the subdirectory [MGRx.x\doc\Previous Releases] contains the Release Notes files from earlier OM versions.

Bluecrest's Output Enhancement (OE) documentation is also located in [MGRx.x\doc]. The OE documentation includes a User Guide, a Reference Guide, a Smartstream User Guide and a Debugger User Guide.

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The OE User Guide provides a top level view of how OE works, describing the scripting language's structure and how Objects are used. The OE Editor is covered in detail, with numerous examples of how common tasks are performed.

The OE Smartstream User Guide provides guidance as to the type of scripts which can be created; Input, Output and Merge scripts. Examples demonstrate the Profile commands needed to invoke each type of script. OE Variables' initialisation via Profile entries is discussed, as are multi-pass scripts which are used to create output in sorted sequence.

The OE Reference Guide details OE Coding Standards, Functions and Actions in detail, as well as their validity in Input, Output and Merge scripts. Each Function is fully described along with any optional parameters. Multiple examples of each Function are presented and explained.

The OE Debugger User Guide comes in handy when you need to track down why your script isn't behaving. The Debugger allows single or multi-stepping through OE scripts, allowing you to see script flow and trace Variable assignments. Breakpoints can be created with multiple triggers available. Your script can run up until a breakpoint comes true, then pause and allow you to examine the environment. Several examples of OE Debugger are included.

The OM User Guide and OE Reference Guide are both indispensable tools when you are writing, testing and debugging OE scripts.

Contact Atac for training and help with OM and OE, any time.

NJE vs RJE – A Technical Comparison

Which is better, Network Job Entry or Remote Job Entry? When compared to RJE, NJE has at least five distinct strengths.

1. Advantage NJE: Peer-to-Peer Communications

RJE was developed in the days when computers used 80 column punched cards to receive input programs and data and output was directed to 132 column printers or 80 column card punches. RJE workstations were fixed function devices designed only for sending cards to the mainframe and receiving print lines and cards back. At the time no one imagined personal computers, local area networks or high-speed laser printers... NJE was developed as companies began deploying multiple mainframes at multiple locations. NJE allows for the exchange of jobs and print between peer hosts. Work can be submitted at one location in an enterprise, processed at another location and printed at a third location. In an NJE network, hosts and remote stations function as peers with no translation of information moving between them. NJE also enables users to transmit files without the need for programming, and receive output from the host. In addition, these users can send and receive print data sets and batch jobs. Users can also receive notification of job completion.

2. Advantage NJE: Job Routing and Control

In NJE communications, mainframes attach headers to jobs and data sets. These message headers contain a rich set of user and job information that is preserved when the job is routed from node to node. Routing headers provide the ability to add intelligence to NJE-based processing. Header information, including information about a job's originator, is always generated by the mainframe. However, the mainframe does not include these headers in the case of an RJE transmission.

3. Advantage NJE: Security

The ability to set authorisation levels and password protection provides additional security for the connection between two NJE nodes. These settings are configured on the Host NJE node and grant a level of control to the remote NJE node via JES or RACF configuration. Security features, other than password protection, were not emphasised in RJE design. NJE provides authorisation levels and password security along with the added capability to control routing using job header information.

4. Advantage NJE: Ease of Configuration

NJE is straightforward and relatively simple to configure. First, for NJE over SNA a communications link is established in VTAM, the same as configuring an RJE connection. Next, the NJE node is defined to JES. Compared to an RJE setup, configuring an RJE workstation is a much more laborious task. A typical RJE definition consists of defining RJE workstation facilities, teleprocessing lines and logical lines for SNA terminals (such as an IBM 3770, 3790 or a System/32 workstation). The remote configuration can range from one remote terminal (such as a 2770 or 3780) to an RJE workstation consisting of a system operating many devices. Support of multiple logical units permits the concurrent use of more than one device at an RJE workstation. With NJE you can have multiple SYSOUT Transmitters active with only one logical unit. RJE only allows one console per device and NJE allows virtually an unlimited number of consoles and the consoles require no host configuration.

5. Advantage NJE: Compatibility with Industry-Standard Clients and Server

NJE enjoys widespread third-party software support, enhancing its compatibility with industry-standard desktop and server systems such as Microsoft® Windows. Products like BARR/NJE, developed by Barr Systems Inc., enable support for NJE command and control using widely installed Microsoft desktops.

Barr Systems' BHCS supports both RJE & NJE. Contact Atac to discuss your requirements today.

More information at...

<https://www.atac.com.au>

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Q & A

Q. We are trying to install BHCS 7.1.44.7 onto Server 2016. We are unable to Browse Network Users for the Service Account User. Why?

A. BHCS 7.1.44.7 was released by Barr Systems in December 2013, well before Server 2016. We suggest you download BHCS 7.1.50+, which is compatible with Server 2016, Server 2019 and Server 2022.

Q. Is there any way to make the Output Manager MAXNEXTSIDES argument a variable? Was hoping to feed it in via the profile if it's possible.

A. You can reference the profile setting directly in the PARENT statement like this:

```
[PARENT_Input] PARENT MAXNEXTSIDES PROFILE_MAXNEXT [OBJECT_Pass1];
```

In this case the profile would have a line saying MAXNEXT=15000.

Q. Can we get a discount if we prepay three years of Barr maintenance?

A. Yes, we can offer a 10% discount for a multi-year renewal, or initial multi-year purchase with product.

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