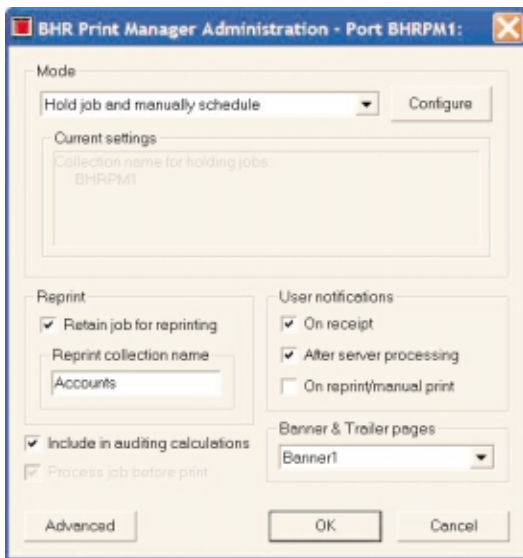**BHRPrintManager** is a complete solution for all print management needs. With installation and setup in under 5 minutes, BHRPrintManager provides a high performance addition to any company.


BHRPrintManager fits seamlessly into any printing infrastructure, processing jobs from any host system and application - AS/400/iSeries, any Unix, Windows, Macintosh, Mainframe and more.

Features

● **BHRPrintManager server** - Core server module providing the processing infrastructure for all modules. This includes email notifications to users, error notifications to internal staff, reprint capability and printer status checking to guarantee printing.

● **Auditing** - Records details of every job successfully printed into a database. Included in this information is the name of the user printing, the document name, the printer used and the number of pages. Tables are available in the database to define cost per page information for each printer and finishing option (e.g. laminating, binding etc.). Users can be grouped together in the database by department or cost centre. Reports can be prepared for (a) monthly printing costs for individuals and departments, (b) output figures for individual printers enabling budget planning and ROI calculations.

● **Auto-schedule job (least number of jobs)** - Automatically sends each job to a printer which contains the least number of jobs in a defined group of printers.

● **Auto-schedule job (lowest number of bytes)** - Automatically sends each job to a printer which contains the lowest cumulative job size (lowest cumulative number of bytes) in a defined group of printers.

● **Auto-schedule job (maximise pages per minute)** - Automatically sends each job to a printer with the largest printing capacity available out of a defined group of printers. The available printing capacity of a printer is calculated by multiplying the pages per minute rating of a printing with the cumulative number of pages currently held in the queue.

● **Auto-schedule job (round robin)** - Automatically sends each job to the next printer in a defined group of printers.

● **Cost reduction (colour)** - Ensures that a print job does contain colour before sending it through to a colour printer. If it only contains black&white or greyscale information, the job is sent to the black&white printer defined under the setup.

● **Cost reduction (volume)** - Ensures that print jobs which exceed a page number threshold are redirected away from expensive desktop machines onto more economical machines. The user defines the page number threshold per printer.

● **Hold job and manually schedule** - Stores all jobs printed, in a designated area and sends an email notification of the job arrival to 'print room' staff. Jobs can then be reviewed to ensure they should be printed and to decide on the best printer to use. The reviewing and printing can be done from the central server or from remote

PCs (can be multiple). Page ranges can be specified when printing to only produce those pages that are required. The job requirements can be displayed to verify the printing controls requested by the user (e.g. input and output trays). These controls can be modified by the print room staff before printing. A record is maintained on the printed jobs including the date and time, print room user and the total number of prints.

● **Job splitting (by page blocks)** - Shares a job across all the printers defined in a printer group by splitting the job into blocks of pages and sending each block to the next printer in the group. The number of pages defined in a block is defined by the setup.

● **Job splitting (equal sharing)** - Shares a job across all the printers defined in a printer group by splitting the job into equal size page blocks, one block for each printer in the group.
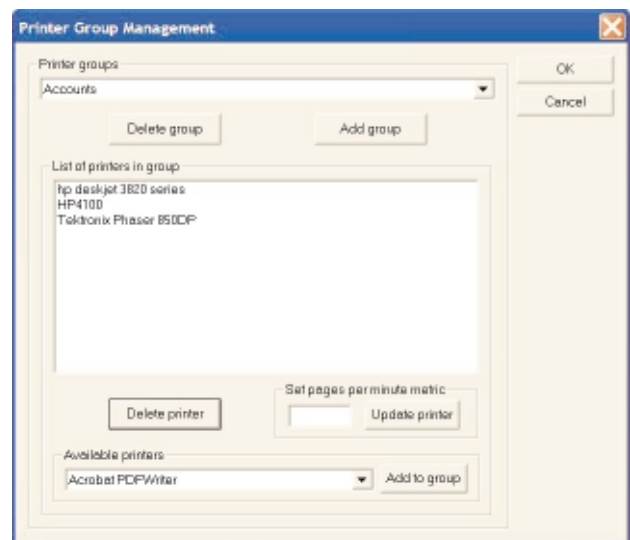
● **Print to archive** - Stores a copy of the print job in the import directory of any archive system. The job is stored together with an associated archive index file, the structure of which is totally configurable. The names of the job and index file are defined by the user. PostScript jobs can be converted into PDF files.

● **Print to email** - Sends every job back to a user email address. The job is attached to the email with the subject line and body text configurable with job specific information. The email address to send to is obtained through a lookup list that links the network user name or the print job document name (or both) with an email address. Partial matches can be performed to extract data out of the document name.

● **Print to file** - Places a copy of each print job in a directory

● **User's local printer** - Sends each print job to the print that is local to each user. This is done by maintaining a lookup list that links the network user name or the print job document name (or both) with a printer queue. Partial matches can be performed to extract data out of the document name. A 'hot desk' system is achieved simply by changing the lookup list to match the new location.

Benefits

● Greatly reduces printing costs by (a) redirecting black&white or greyscale jobs away from the colour printer onto more cost effective black&white printers, (b) directing jobs, over a page number threshold, onto a more cost effective volume printer.

● Greatly increases savings on printing by filtering out unwanted print jobs and manually selecting the best printer for the job. This 'print room' style of processing holds jobs on a central server allowing printer operators to remove the unnecessary documents and schedule the rest. This can be done from the central server or any remote desktop.

● Collects printing statistics for all print runs allowing queries and cost calculations. This information can be used for recharging departments/cost centres for work and analysis of printing performance and downtime.

● Generates management statistics for printing practices including ROI/performance figures for printers together with the printing requirements of departments and individuals.

● Automatically informs users about the status of their jobs; (a) when jobs are first received, (b) when processing finishes and (c) when a reprint is made. This provides essential visibility to the user of any decisions made during back office processing. Any errors resulting in processing are also sent to support staff via email.

● Traps unauthorised reprinting of jobs by notifying the document owner of the action. This greatly reduces the security risk and expense.

● Maximise the speed of printing by selecting a printer from a defined group which will produce the job the fastest.

● Greatly increase the speed of printing large print runs by splitting output across multiple printers in a defined printer group. The greatest increases are seen during the printing of large end of month/quarter/year reports where print timeframes are tight. This in effect can make one virtual high speed printer (e.g. 100 pages per minute plus) out of several lower volume machines without the large costs associated with high speed machines.

● Protects business operations and increases the effectiveness of any CRM infrastructure by placing a copy of each job into an archive. Any archive system can be used that has an 'import from file' mechanism.

● Provides a document approval process for key documents by emailing jobs back to the user after processing to enable proofing, signing etc.

● Ensures that all print jobs are printed even if a printer fails through error. By grouping printers together, a failure on one printer results in subsequent jobs being moved onto other error free printers in the group.

● Provides an effective insurance policy for all business documentation by storing a copy of every job ready for reprinting. When reprinting, only resends those pages that are needed.

● Enables user 'hot desking' by automatically sending jobs to the print queue local to each user. This mechanism results in significant simplification of the printing infrastructure, greatly helping support staff.

● Allows users to define all processing requirements for each print job as they print. This 'job ticket' style of printing can be used to request any printing/finishing feature including binding type, stitching & stapling, trimming, postage type and laminating to name but a few.

Technical Overview

Implemented as a standard Windows port, **BHRPrintManager** can be used with any standard Windows print queue or queues that use the Create!form suite of electronic forms products. Each port consists of a set of standard settings (e.g. email notifications, reprint switch etc.) together with the port's mode. These modes are described in the 'Features' section earlier. Multiple ports can be created on the one PC with each port only operating in one mode. For sophisticated configurations, it is common to daisy chain printer queues together with each having a **BHRPrintManager** port performing a different mode. Each mode requires a licence key in order to operate. These licences can be machine specific, site wide or time based to allow user evaluations. An 'all mode' licence is also available.

Auditing information is stored in a Microsoft Access database. Included in this database are tables to define the cost per page for each printer, to setup up department names and link users to them. Several reports are available allowing date based searches to display costs per user, per department and per printer. If required, additional reports can be added to this database by the user. [**BHR Business Solutions** is available to add additional queries/reports as required - please contact us for more information]. The connection into the auditing database is via ODBC and so if required, the connection string can be modified to store information into any ODBC compliant database. In this case, it is the responsibility of the user to create and manage the queries/reports to display the required printing statistics.

The printing of jobs from stored reprints or when using the 'Hold and schedule' mode is done by using a network friendly utility. This utility can be run directly on the server or remotely from any PC. When run remotely, no software is required to be loaded on the remote machines. All that is required is to set all directory paths to their network form (i.e. UNC paths which use the notation \\servername\sharename rather than C:), navigate to the shared **BHRPrintManager** directory on the server and run the 'PrintPreview' utility. Multiple instances can be run with each automatically updating the displayed information every 10 seconds.

Notifications are sent via the SMTP email protocol. Any SMTP compliant gateway can be used to send these notifications. Lookup tables are maintained in the product linking the document name of print jobs or the user's network name with the destination email address(es). Multiple email recipients can be defined through a simple comma delimited list.
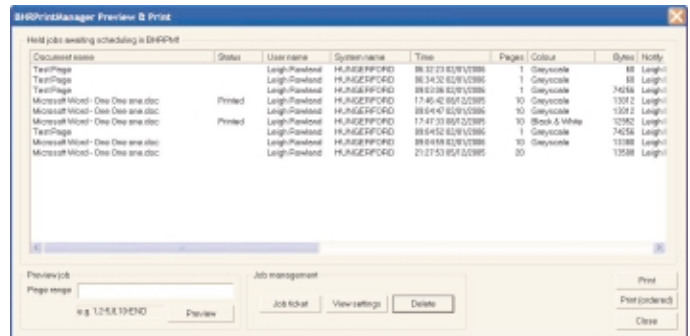
User requirements for the print job are defined in two ways; through driver settings and via the **BHRPrintManager** job tickets. Jobs held under the 'Hold and Schedule' mode or those to be reprinted can have their printer control commands displayed. If required, these commands can be manually changed by selecting the correct printer command from the drivers installed on the machine. Automatic conversion of printer controls is performed on printing (both manual and automatic printing). This mapping of printer controls is done by matching each command name contained in the job with the available commands on the destination printer driver. When the name matches, the command is replaced. For example, if an option selected by the user was "Tray 1", then the command related to "Tray 1" in the destination driver is used to replace when printing. Under this mechanism, the printer is controlled in the same way even though printers of different types are used.

Requirements

● Hard disk: 8Mb
● Memory: 256Kb or greater
● Windows version: NT, 2000, XP, 2003
● Any SMTP email system (for notifications and PrintToEmail only)
● GhostScript (for preview and PDF conversion only)
● Adobe Acrobat or Acrobat reader v5 or greater (for PDF viewing)

About BHR Business Solutions

BHR Business Solutions is a global technology solution provider working with domestic and global companies on document output management and data integration solutions. BHR Business Solutions has a wealth of experience in combining off the shelf products with custom written software to resolve key business issues.

These projects range from printing solutions, electronic forms, document output management and archiving to bill presentment and payment and wireless warehouse systems. Projects have been carried out on a wide variety of application platforms (Windows, OS/400, VMS, UNIX etc.) and technologies. Our consultants work as part of your IT teams, using their wealth of knowledge to help define company strategic direction and technology implementation plans. A portfolio of in-house products such as BHRPrintManager and richPDF are combined with third party offerings to provide the basis to many solutions.

For more information,
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