



# **OV/Fax Server (Brooktrout Edition)**

**Release 3.5**

## **Release Notes**

**4/24/2020**

## **OV/Fax Server (Brooktrout Edition)**

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### **Edition Information**

April 2020

This edition applies to Version 3 Release 3.5 of OV/Fax Server. It also applies to subsequent releases until otherwise indicated in new editions.

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## What is in this Distribution

This distribution of OV/Fax Server - Brooktrout Edition, includes the following files.

### SETUP.EXE

- execute this file to install the OV/Fax Server

### OVFAXSETUP.MSI

- this is used by the SETUP.EXE program

### BOSTON.MSI

- execute this file to install the Dialogic® Brooktrout® Runtime Software (version 6.11.0).

### TFAX.ZIP

- contains a simple utility you can use to send a test fax. This verifies that your Brooktrout fax board and software are working. Follow the instructions in the included readme.txt file.

## Changes & Fixes in Release 3.5

1. The Dialogic® Brooktrout® Runtime Software is updated to version 6.11
2. The ehllapi elements have been updated to IBM Personal Communications V14
3. OV/Fax Server has been re-built under Visual Studio 2019 and does not require any older runtime libraries.
4. The FaxAdmin utility has been enhanced to pickup any changes to the Brooktrout system directory
5. Corrected the substitution variable for current page number, for fax headers/footers.

## Changes & Fixes in Release 3.2x

The following fixes have been included with this distribution.

### **FAX-016**

Handle situations where a fax has been “cleaned down” on the Host, and cannot be found when the server sends a status update for that fax. The Host will now send a CANCEL request for such faxes, as it would for normally completed faxes. This causes it to be removed from the server.

### **FAX-018**

Certain hang up error code(s) can be returned by the fax board after the complete fax has been received at the destination. Since an error code is received, the fax could be rescheduled, and sent again. With this fix, OVFax ignores such errors, and returns a normal fax status back to CICS. At present, only error code 4054 is handled in this way. If logging is enabled on the server, the error code is logged.

### **FAX-019**

Add the new program parameter, PORTS(n), allowing the customer to override the number

of fax ports on the server, when necessary. This can be used to tune the FAXSERV to the correct number of fax ports on the system, and establishes the number of threads running.

#### **FAX-020**

Added the **Channel Error Code Analysis**, which can perform a reset on the fax board(s) if certain error conditions are detected. See below. This reset can also be initiated manually by pressing F11 in the fax server window.

#### **FAX-021**

Added support for fax headers and footers. New INI parms are defined to allow specification of fax header & footer lines. See details below.

#### **Dialogic® Brooktrout® Runtime Software upgraded to v6.110**

This release includes version 6.110 of the Brooktrout firmware and drivers. See [Installation of Dialogic Brooktrout Runtime Software](#) for more information.

#### **Misc changes**

Fax channels are now reset immediately following any call (success or failure) before being detached. They continue to also be reset when attached before a new call.

#### **INI file**

The fax server will now create a default INI file (faxserv.ini) when none is found at startup. It contains values controlling the **Connection Fail Rate Analysis**, and the **Channel Error Code Analysis** features. These are described below.

#### **Channel Error Code Analysis**

This enhancement detects conditions where the fax board driver or hardware becomes 'incapacitated'. This can be manifested by driver or hardware error codes, or any other single error code returned for all channels. The overall connection fail rate may also be considered before deciding to perform a reset. This reset may also be manually initiated by the system administrator by pressing F11 and confirming.

There are 2 INI parameters that control this analysis, listed below with their default values.

**ErrorCodeEnable = True; enable error code analysis**

**ErrorCodeInterval = 500; # connections between error code analyses**

To disable this analysis, change the ErrorCodeEnable INI value to FALSE.

When enabled, the analysis is performed after every 500 (default value) connection attempts. If all channels show the same error code, a fax board reset is performed, and the fax server will continue running. Tracking messages are issued to the screen, the fax log and the windows event log.

If all channels have error codes, but they are different from each other, then the channel connection stats table is dumped to the fax log, and the server continues normal operation.

If the server is running without logging, then no log messages will be written. Logging can be enabled by starting the server with the LOG or TRACE parameter, or by hitting F6 to cycle thru the log settings.

#### **Server logging improvements...**

**...Logging level can be changed on the go**

The current logging level is displayed on the screen. Hitting the F6 key will cycle thru all of the values, *none* → *log* → *trace* → *tracebuf* → *none*...

**...New logging level, TRACEBUF**

Shows data buffers going to & coming from the CICS Host component. This adds a lot of data to the log and should only be used when necessary.

**...Fax transmission statistics logged (with trace level logging)**

Following each terminated call, several statistics are written to the log, when the logging level is at least *trace*. This includes statistics for the fax as a whole, and for each page. It will add several lines of data to the log. These can facilitate understanding of fax problems and line quality, as they provide an overview of the quality of the transmission.

**Fax Headers and Footers**

The following INI parameters allow you to customize one or more header and or footer lines, which will appear on all faxes sent by the server. You can presume about 85 characters to fit on a line.

**FaxHeaderMode = [ I | O ]; # I=insert, O=overlay**

The line(s) of header and footer data will either overlay the fax image, or be inserted before and after it. Default is Insert mode.

**FaxHeader =**

**FaxFooter =**

Specify the text you want to appear on all fax header and or footer lines. Both of these parms take the same variables which you can layout as you want. The following symbols are substituted with OV/Fax values.

<u>Symbol</u>	<u>Description</u>	<u>Source</u>
@co	configured Company Name	See 'System Configuration' in the FAXADMIN utility.
@sr	configured Server Name	See 'System Configuration' in the FAXADMIN utility.
@to	CSID of target	Obtained from the destination fax during call.
@fr	configured Server Fax Number	See 'System Configuration' in the FAXADMIN utility.
@pc	total page count	Calculated during fax conversion to TIFF

In addition the following variables are valid with Brooktrout fax cards.

%a	Day of the week, 3-character abbreviation
%A	Day of the week, full-length

%b	Month, 3 character abbreviation
%m	Month, 01-12
%g	Month, _1-12, a two-character field where a leading zero is replaced by a space. (The underscore (" _ ") character here is used to represent a space character.)
%d	Day of the month, 01-31
%e	Day of the month, _1-31, a two-character field where a leading zero is replaced by a space. (The underscore (" _ ") character here is used to represent a space character.)
%H	Hour, 00-23
%h	Hour, __-23, a two-character field where leading zeroes are replaced by spaces. (The underscore (" _ ") character here is used to represent a space character.)
%l	Hour, 01-12
%M	Minute, 00-59
%k	Minute, __-59, a two-character field where leading zeroes are replaced by spaces. (The underscore (" _ ") character here is used to represent a space character.)
%p	Indicates the time of day (AM/PM). If you use this format character, you must also use the "l" hour character.
%nP	Page number, 01-99 (leading 0 is rendered as a space), optional 'n' resets page numbering as specified, and when sent together, the 'n' in the header overrides the 'n' in the footer.
%nQ	Same as nP, but uses 2-digit page numbers 01-99 with leading zeros.
%nU	Same as nP, but uses 3-digit page numbers 001-999 with leading zero
%nR	Same as nP, but uses 3-digit page numbers 001-999

%N^	Insert N blank G3 lines before header/footer. This directive can only appear at the beginning of the format string.
%N_	Insert N blank G3 lines after header/footer. This directive can only appear at the beginning of the format string.
%S	Seconds, 00-59
%y	Year, 00-99
%Y	4-digit year
%%	Percent (%) character

Examples:

FaxHeader="%d %b %Y %l:%M:%S%p @co Page: %P of @pc"

29 Jul 1969 09:05:12PM Acme Inc. Page: 1 of 1

FaxFooter="Sent to @to, from server @sr (@fr)"

Sent to 212 925-6383, from server New York 21 (212 638-5445)

## Changes & Fixes in Release 3.1x

### **FAX-007**

Conversion utilities for .BMP files might not create valid file headers, and might issue "invalid" messages for valid .BMP files.

A number of conversion utilities could terminate abnormally, with unusual return codes.

### **FAX-008**

The TIF2RAS conversion utility could enter a loop condition while processing the input .TIF file.

The standalone conversion utilities in the UTILS folder had a dependency on the run time module, MSVCR100.DLL. While this is installed during OV FAX Server setup, it may not exist on another PC, where these utilities are to be used. This fix removes this dependency, allowing the utilities to be run on any Windows system capable of running 32-bit programs.

**FAX-014**

The Server could ABEND if an error occurred at the end of fax processing for multi-page faxes.

**FAX-015**

On a busy server, faxes may be sent to the wrong fax number.

**Improved Connection Failure Handling**

The server has been enhanced to deal with 'connection failure' situations. Connection failures can occur for somewhat normal conditions, such as a busy or wrong fax number. Connection failures can also occur because a channel is 'bad', such as when a configured fax channel has no phone line, or the line becomes disconnected, or the line becomes too noisy to handle calls or has no dial tone. In any such situation, the server is unable to 'make a phone call' using this channel. Any faxes using that fax channel would fail, and an error status would be returned to the HOST. They would be retried as directed by the HOST, but if they keep getting this same fax channel, it's possible that the fax would eventually be failed altogether. At a minimum, this causes delays in delivering the fax.

This enhancement ensures any call that fails to make a connection will be attempted over a different fax channel, before an error status is returned to the host. This would not apply where only a single fax channel is configured.

As a result, no faxes should incur these errors unless a connection failure occurs on 2 different fax channels. This eliminates unnecessary error status' being returned to the HOST, and improves throughput of these faxes.

**Connection Fail Rate Analysis**

This enhancement also relates to connection failures. With or without the connection failure enhancement described above, a bad phone line impairs the overall throughput. In order to help you identify when this condition might exist, the server now logs statistics showing the number of connection successes and failures for each fax channel. If a channel shows a high number of failures and few successes, that line should be checked. Note that a connection failure could also result from a wrong fax number, so a certain number of failures can be expected.

There are 2 INI parameters that control this analysis, listed below with their default values.

**FailRateInterval = 100; #conn attempts between fail rate analysis**

**FailRateLimit = 50; %failures to prompt an alert**

Assuming these defaults, this analysis is performed for each fax channel after 100 connection attempts (both successful and failed). It is also performed at shutdown. If more than 50% are failed, then an alert is issued to the screen, the fax log and the windows event log. When you see this alert, you should verify that the channel and or fax line is connected and has a clean dialtone.

If less than 50% are failed, then an informational message is written to the fax log showing the statistics for that channel.

If the server is running without logging, then no log messages will be written. Logging can be enabled by starting the server with the LOG or TRACE parameter, or by hitting F6 to cycle thru the log settings.

## Brooktrout vs. Gammalink Editions

OV/Fax Server (Brooktrout Edition), supports only Dialogic® Brooktrout® fax products.

The older Gammalink fax boards were supported in OV/Fax Server for Windows v3.2x, and earlier versions.

## Supported Brooktrout Fax Boards

The Brooktrout Bfv API used to access fax services is supported by the following fax products. Dialogic® Brooktrout® TR1034® Fax Boards, Dialogic® Brooktrout® TruFax® Fax Boards, and the Dialogic® Brooktrout® SR140 Fax Software.

OV/Fax Server for Windows - Brooktrout Edition was tested only on Dialogic® Brooktrout® TR1034® Fax Boards.

## 64-bit Considerations

64-bit versions of your Terminal Emulator software (IBM Personal Communications, Host Explorer etc.) are NOT supported by OVFax Server. You must use the 32-bit versions of the product.

The following OV/Fax facilities will function on a 32-bit OS, but not on a 64-bit OS

### Barcode support

If you issue fax source from the host that includes the @\* (barcode) commands, they will not generate barcodes on a 64-bit OS. If you require this facility, please install the product on a 32-bit operating system.

### RASEDIT & RASVIEW Utilities

These utilities are used offline, to review and edit .RAS files (for example, to edit cover pages). These utilities can only be used on a 32-bit OS.

Since they are not used by the fax processing logic, they can be copied to any 32-bit PC, even if the product is installed on a 64-bit operating system.

## Installation of Dialogic Brooktrout Runtime Software

This OV/Fax distribution includes the Dialogic® Brooktrout® Runtime Software (Version 6.11.0), in the module BOSTON.MSI. If you have not already installed this software, you should do so before you run OV/Fax. It can be installed either before or after the OV/Fax server installation.

If you are running an older version of the Dialogic® Brooktrout® Runtime Software, you should uninstall it, and then install the current version.

After installing BOSTON.MSI, you should run the Brooktrout Configuration Tool to configure and start the Boston Host Service. A link to this tool is installed in the Start Menu. You use

this tool to configure parameters, and to set the Boston Host Service to start automatically. This 'startup type' option can be found in the *Options-Preferences* dialog.

To avoid problems, please make certain that all the file names specify the full path and are correctly pointing to the file location. By default, all of these are located in *C:\Program Files (x86)\Brooktrout*.

See the *OV/Fax Server for Windows v3.30 - Brooktrout Edition, User Guide* for more installation details.

## Limitations

1. OV/Fax Server for Windows does not support inbound faxes. If you require this feature, please contact TBS Software.