

## Blacknest Data System (BDS)

### BdsAutodrm Daemon – 1.2.8 - 2010-09-02

#### 1. Introduction

The BdsAutodrm daemon provides an email autodrm client for the BDS system. It processes email requests for seismic sensor data and other information and sends the resulting data back to the requester by email or via an FTP server. The BdsAutodrm daemon is a client of the BdsServer and connects through the DataAccess API in order to fetch the requested data.

There is normally one BdsAutodrm daemon running on a suitable host that has access to a local POP email server.

#### 2. Usage

The BdsAutodrm is normally started off and system boot time by the BdsAutodrm initialisation script in /etc/rc.d/init.d. It can thus be started and stopped with the following command line commands:

```
service BdsAutodrm start
service BdsAutodrm stop
```

The BdsAutodrm daemon runs as the **bds** user to enhance system security. For debugging the BdsAutodrm also takes the following command line arguments:

|         |  |
|---------|--|
| -f      | Run in foreground mode   |
| -d 0x03 | Set debug options. This takes a bit mask in hexadecimal form to enable different levels of debug print outs. Please see the source code for more information on the options. |

#### 3. Configuration

The BdsAutodrm uses a single text file, /etc/BdsAutodrm.conf, to define its configuration. This configuration file is read when the program starts up. The configuration file's mode only allows the user **bds** and **root** to access it to provide a degree of protection for the BdsServer password. The configuration file has the following parameters defined:

|              |  |
|--------------|--|
| BdsServer    | The host name for the BdsServer                                      |
| BdsUser      | The BdsServer user and password (separated with a “:”)               |
| Mailbox      | The POP3 mailbox URL. For example pop://bdsautodrm:beam00@localhost. |
| SmtptServer  | The SMTP servers URL. For example smtp://localhost                   |
| EmailAddress | The email address of this Autodrm                                    |
| FtpHost      | The FTP host name  |
| FtpRootPath  | The FTP servers root file path                                       |

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|                |  |
|----------------|--|
| FtpDirectory   | The FTP servers file directory relative to the FtpRootPath. This is where the BdsAutodrm will write the file for FTP transfer. |
| FtpUser        | The FTP user for the remote user to use to access the data.  |
| EmailMaxLength | The maximum email length in Bytes before FTP transfers are used  |

## 4. Operation

The BdsAutodrm program interrogates the POP mail box once every 10 seconds for new mail. The POP3 email server can reside on any host to which the BdsAutodrm program has access. The incoming email is parsed and processed. The BdsAutodrm program uses the BDS API to the BdsServer to access sensor data and meta data. The resulting data is either sent in an email back to the user or is written to an FTP servers directory and an email giving details of how to fetch the data is returned to the user.

All data format conversion is performed in the BdsServer and so the availability of different formats for data output depends on the format converters implemented in the BdsServer.

The BdsAutodrm's user API is based on GSE2.0 and the existing Autodrm servers at Blacknest. The manuals for these can be used to formulate commands and to understand responses.

## 5. Error Logs

The BdsAutodrm will output error and warning logs to the standard system's syslog daemon. These will normally be written into the /var/log/messages file.

## 6. Extensions

The BdsAutodrm supports the following extensions to the old Blacknest Autodrm.

- NETWORK <network> parameter. This allows the network to be set for test puposes.
- Supports some of the extra regular extension syntax. All of this is supported except that “\*” is passed as “.\*” for backwards compatibility.

## 7. Further Information

For further information please look at the BDS system documentation at:  
<https://portal.beam.ltd.uk/support/blacknest>.