

The system will limit the size of the log file(s). However, assuming that there is not too much logging per day, the application can create logs that are specific for each day.

```
$USER_ERROR_LOG = "User_Errors" . date('mdy') . ".log";
$error_LOG = "Errors" . date('mdy') . ".log";
...
error_log($eMessage,3,$USER_ERROR_LOG);
```

*Security and performance—The location of the log files should reside in a different folder than the application. The folder will need to allow write access for the application. However, it should be secured from read access or write access outside the server itself. Only authorized personnel should have access to the logs.*

Note that the constants (USER\_ERROR\_LOG and ERROR\_LOG) must be changed to variables due to the date method creating a possible variable output (different dates). The format would create a file name similar to User\_Errors06062015.log or Errors06062015.log.

PHP also makes it very easy to send an e-mail alert when something has been written to a log file. The webserver must include an e-mail server. Your local machine may not have this capability. However, usually, a web host provider (that has PHP capability) includes an e-mail service. To use this ability, you can add an error\_log statement:

```
error_log("Date/Time: $date - Serious System Problems with Dog Application. Check error log
for details", 1, "noone@helpme.com", "Subject: Dog Application Error \nFrom: System Log
<systemlog@helpme.com>" . "\r\n");
```

*Security and performance – While it is tempting to inform the associate receiving the e-mail message of the exact problem that has occurred in the application, do not. By default, e-mail is not encrypted. Sending an unencrypted e-mail with detailed information about your application is inviting hackers to corrupt your application. You should, however, provide enough information in the message (such as a date/time stamp and maybe an error number) to help the associate locate the error message(s) in the log file(s).*

The first parameter specifies the message of the e-mail. The second parameter informs error\_log to e-mail this information. The third parameter provides the “To” e-mail address. The fourth parameter is an extra header field. This field is commonly used to include the subject of the e-mail and the e-mail address that sent the message. The “From” address must be included or the message will not be sent. The “From” address does not, however, need to be an existing address.

*For more information on logging errors, visit*  
*Examples: <http://php.net/manual/en/function.error-log.php>*  
*Examples: [http://www.w3schools.com/php/php\\_error.asp](http://www.w3schools.com/php/php_error.asp)*

In the Dog application, you can provide the ability to log exceptions and e-mail major errors by adjusting the catch blocks of the dog\_interface (from Example 5-6).