The PHP mail() Function

The PHP mail() function is used to send emails from inside a script.

```
mail(to,subject,message,headers,parameters)
```

Parameter	Description
to	Required. Specifies the receiver / receivers of the email
subject	Required. Specifies the subject of the email. **Note:** This parameter cannot contain any newline characters
message	Required. Defines the message to be sent. Each line should be separated with a LF (\n). Lines should not exceed 70 characters
headers	Optional. Specifies additional headers, like From, Cc, and Bcc. The additional headers should be separated with a CRLF (\r\n)
parameters	Optional. Specifies an additional parameter to the sendmail program

Note: For the mail functions to be available, PHP requires an installed and working email system. The program to be used is defined by the configuration settings in the php.ini file. Read more in the W3C PHP Mail reference.

http://w3schools.com/php/php_ref_mail.asp

PHP Simple E-Mail

The simplest way to send an email with PHP is to send a text email.

In the example below we first declare the variables ($to, $subject, $message, $from, $headers), then we use the variables in the mail() function to send an e-mail:

```
<?php

$to = "someone@example.com";
$subject = "Test mail";
$message = "Hello! This is a simple email message.";
$from = "someonelse@example.com";
$headers = "From: $from";
mail($to,$subject,$message,$headers);
echo "Mail Sent.";

?>
```

PHP Mail Form

With PHP, you can create a feedback-form on your website. The example below sends a text message to a specified e-mail address:

```
<?php
if (isset($_POST['email']))
//if "email" is filled out, send email
  {
  //send email
  $email = $_POST['email'] ;
  $subject = $_POST['subject'] ;
  $message = $_POST['message'] ;
  mail( "someone@example.com", "Subject: $subject",
  $message, "From: $email" );
  echo "Thank you for using our mail form";
  }
else
//if "email" is not filled out, display the form
  {
  echo "<form method='post' action='mailform.php'>
  Email: <input name='email' type='text' /><br />
  Subject: <input name='subject' type='text' /><br />
  Message:<br />
  <textarea name='message' rows='15' cols='40'>
  </textarea><br />
  <input type='submit' />
  </form>";
  }
?>
```

PHP Mail Form

This is how the example above works:

- First, check if the email input field is filled out
- If it is not set (like when the page is first visited); output the HTML form
- If it is set (after the form is filled out); send the email from the form
- When submit is pressed after the form is filled out, the page reloads, sees that the email input is set, and sends the email

Note: This is the simplest way to send e-mail, but it is not secure. In the next example we will discuss more about vulnerabilities in e-mail scripts, and how to validate user input to make it more secure.

PHP E-mail Injections

First, look at the PHP code from the previous example.

The problem with the code is that unauthorized users can insert data into the mail headers via the input form.

What happens if the user adds the following text to the email input field in the form?

```
someone@example.com%0ACc:person2@example.com
%0ABcc:person3@example.com,person3@example.com,
anotherperson4@example.com,person5@example.com
%0ABTo:person6@example.com
```

The mail() function puts the text above into the mail headers as usual, and now the header has an extra Cc:, Bcc:, and To: field. When the user clicks the submit button, the e-mail will be sent to all of the addresses above!

PHP Stopping E-mail Injections

The best way to stop e-mail injections is to validate the input.

The code below is the same as in the previous chapter, but now we have added an input validator that checks the email field in the form:

(you will need to copy and paste it into TextEdit/Coda/Dreamweaver to see it)

```
<html>
<body>
<?php
function spamcheck($field)
  {
  //filter_var() sanitizes the e-mail
  //address using FILTER_SANITIZE_EMAIL
  $field=filter_var($field, FILTER_SANITIZE_EMAIL);

  //filter_var() validates the e-mail
  //address using FILTER_VALIDATE_EMAIL
  if(filter_var($field, FILTER_VALIDATE_EMAIL))
    {
    return TRUE;
    }
  else
    {
    return FALSE;
    }
  }

if (isset($_REQUEST['email']))
  {//if "email" is filled out, proceed

  //check if the email address is invalid
  $mailcheck = spamcheck($_REQUEST['email']);
  if ($mailcheck==FALSE)
    {
    echo "Invalid input";
    }
  else
    {//send email
    $email = $_REQUEST['email'] ;
    $subject = $_REQUEST['subject'] ;
    $message = $_REQUEST['message'] ;
    mail("someone@example.com", "Subject: $subject",
    $message, "From: $email" );
    echo "Thank you for using our mail form";
    }
  }
else
  {//if "email" is not filled out, display the form
  echo "<form method='post' action='mailform.php'>
  Email: <input name='email' type='text' /><br />
  Subject: <input name='subject' type='text' /><br />
  Message:<br />
  <textarea name='message' rows='15' cols='40'>
  </textarea><br />
  <input type='submit' />
  </form>";
  }
?>

</body>
</html>
```

PHP Stopping E-mail Injections

In the code we use PHP filters to validate input:

- The FILTER_SANITIZE_EMAIL filter removes all illegal e-mail characters from a string

- The FILTER_VALIDATE_EMAIL filter validates value as an e-mail address

You can read more about filters in the PHP Filter lecture, or if you can't wait.

http://w3schools.com/php/php_filter.asp