Ajax

Matt Novinger

E-day +1
Asynchronous JavaScript and XML

- **Asynchronous**
  - Makes requests in the background, without interfering with the current page

- **JavaScript**
  - Used to initiate the background request and process the response

- **XML**
  - The format of the data that is returned from the server. This is in contrast to the typical HTML page that is returned from a normal request
Why?

- Allows you to load content without reloading the entire page
- You can fetch new content based on user input
- Perform long running tasks in the background
How?

- XMLHttpRequest
- “a DOM API that can be used by JavaScript and other web browser scripting languages to transfer XML and other text data between a web server and a browser.” – wikipedia
- DOM stands for Document Object Model; it defines an API for interacting with elements of an HTML or XML page
```javascript
function ajax(url, vars, callbackFunction) {
    var request = new XMLHttpRequest();
    request.open("POST", url, true);
    request.setRequestHeader("Content-Type",
                          "application/x-www-form-urlencoded");

    request.onreadystatechange = function() {
        var done = 4, ok = 200;
        if (request.readyState == done && request.status == ok) {
            if (request.responseText) {
                callbackFunction(request.responseText);
            }
        }
    }
    request.send(vars);
}
```
There are many JavaScript frameworks available that hide the details of XMLHttpRequest.

- **Prototype**
  ```javascript
  new Ajax.Request('/some_url', { method:'get' });
  ```

- **YUI (yahoo! user interface)**
  ```javascript
  YAHOO.util.Connect.asyncRequest('GET', sUrl, callback);
  ```

- **jQuery**
  ```javascript
  $.get("test.php");
  ```