

Introduction: sending a form, file uploads using Ajax/XHR2

Hi all, I've had many questions about how to submit a form with regular input fields AND benefit from the HTML5 built-in validation AND upload files AND monitor the file upload progress with a progress bar.

Many solutions proposed on the Web rely on jQuery plugins. However, coding such a behavior using only HTML5 APIs is easy, as we will see.

This part of the course will describe different approaches for implementing file upload associated with a form.

We included PHP server side code: the course focuses on HTML5 and front-end development - however, the PHP code is given "as is".

THE PROBLEM

Imagine that we have a regular HTML5 form, but next to the input fields for entering name, address, age, etc., we also want to select and upload multiple files (that can include images).

First approach: upload the files as soon as they are selected or dragged and dropped

We use XHR2/Ajax, a form with an `<input type=file multiple>` input field, and one or more `<progress>` elements for monitoring file uploads. The form can have more input fields of different types.

An example of this kind of form is shown below: drag and drop files, and they will start being uploaded, then submit the form. It will only be sent when all fields are valid.

FirstName :

LastName :

Please drag'n'drop one or more pictures/files in the zone below:

Drop files here

- 1238857_10151631868537444_1880695925_n.jpg
- banière.jpg
- signature.jpg
- 2013-02-14 10.04.02.jpg

This approach is similar to what Gmail does when you write a new email and upload files/pictures to your message. The attachments are uploaded as soon as they are selected or dropped into the message window, and the message is sent when you press the "send" button. A empty field with a `required` attribute, if left empty, will pop up an error message in a bubble and the form will not be submitted. Nice!

However, on the server side, we need a way to "join" the files that have been asynchronously uploaded with the rest of the form's values. This is easier to do than it sounds. Look at the provided PHP code provided with each of the examples.

Second approach: send all form content, including files, only when the form is submitted

- This method enables us to send all the form content (regular input field values + files selected) at once, *using a single Ajax request* (we will have only one progress bar),
- or we may *use multiple Ajax requests*, which we start only after the submit button has been clicked.

FirstName :

LastName :

Please select one or more pictures/files :

3 fichiers

- banière.jpg ☐
- 933876_130191980505590_2093187316_n.jpg ☐
- Rivka.jpg ☐

The difference between this and the first approach is that we are sending everything *at the same time* using Ajax/JavaScript: the regular input field content and the selected files.

The next page provides the source code of several examples, as well as the server-side PHP code.