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Uploading and downloading files via http

In this article, I would show how you can upload and download files from InterSystems products via http.

The questions about working with files over http arise fairly often on community and I'm usually linking to my <u>FileServer</u> project which demonstrates file upload/download but I'd like to talk a bit more on how we can serve and receive files from InterSystems products.

Downloading a file

If you have a file in on a file system and you know the path you can serve it from REST or CSP context by calling this method:

```
ClassMethod serve(name As %String) As %Status
{
    #dim sc As %Status = $$$0K
    #dim %response As %CSP.Response
    kill %request.Data
    set %request.Data("STREAMOID",1) = ##class(%CSP.StreamServer).Encrypt(##class(%CSP
.StreamServer).GetOidForFile(name))
    if ##class(%CSP.StreamServer).OnPreHTTP() {
        set %response.Headers("Content-Disposition")="attachment; filename*=UTF-8''"
        ##class(%CSP.Page).EscapeURL(##class(%File).GetFilename(name), "UTF8")
        set sc = ##class(%CSP.StreamServer).OnPage()
    }
    quit sc
}
```

If you have a stream instead of a file name you can replace

##class(%CSP.StreamServer).GetOidForFile(name)

with

stream.%Oid()

That's it!

User in a browser would see download dialog.

Uploading a file

On a client side (I assume JS/HTML) create a file input:

```
<input id="myFile" type="file">
```

and write some JavaScript code that sends POST requests to a server (depends on a framework):

```
function FileLoad(){
    var formData = new FormData();
    formData.append("file", document.getElementById("myFile").files[0]);
    var xhr = new XMLHttpRequest();
    // Upload data to server
    xhr.open("POST", "/rest/path", true);
    xhr.send(formData);
    xhr.onload = function(e) {
        if (this.status == 200) {
            // everything is OK
        } else {
            alert(this.status + ' ' + this.statusText);
        };
    };
}
```

On a server side, you can get the stream as easy as

```
#dim %request As %CSP.Request
#dim stream As %CSP.BinaryStream
set stream = %request.GetMimeData("file")
```

After that, you can write this stream to a file, to a database or just process it without saving.

Links

- FileServer
- <u>MIME Form data</u>
- <u>WebDAV implementation</u> for InterSystems

#Beginner #Best Practices #Frontend #REST API #Caché

Source URL: https://community.intersystems.com/post/uploading-and-downloading-files-http