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Step by Step on how to use the SAPUI5 file upload feature

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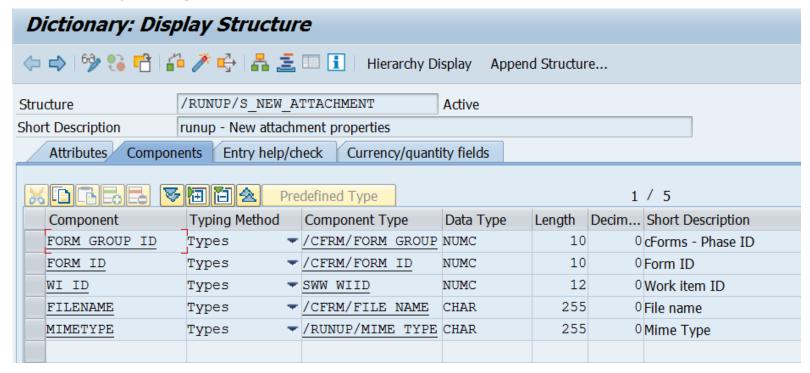


Introduction

This document will give you in details all the necessary steps (Backend and Frontend) to use easily the file upload feature in your SAP SAPUI5 apps.

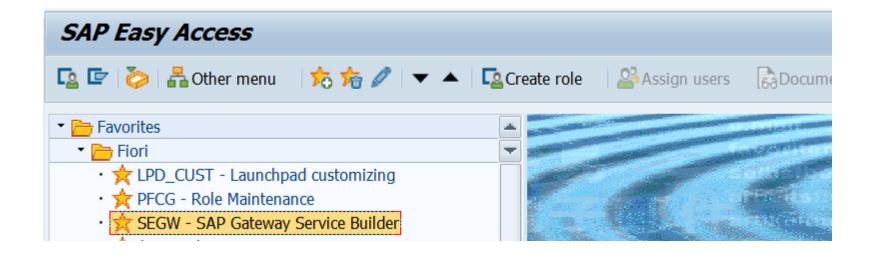
ABAP Back End preparation

Use the Data Dictionary tool (SE11) to prepare a new DD structure for the entity type to be created for uploading files

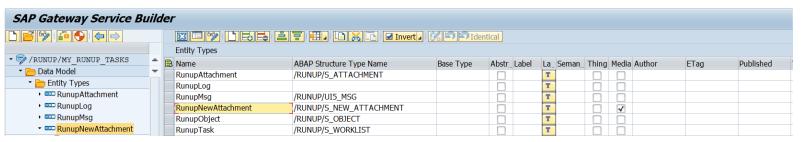


The Goal in the given example is to upload a file for workflow task and the workitem ID is used as one of the keys for the new file

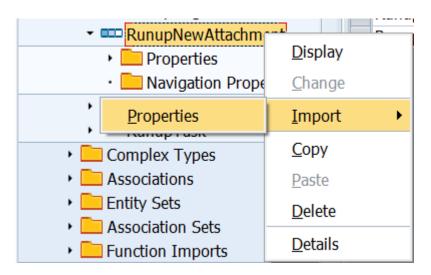
Call the Gateway Services Builder (SEGW)

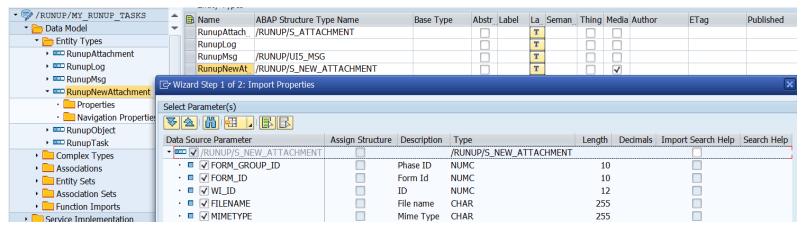


Create a new entity type that refers the dictionary structure created in step 1 and flag the media checkbox

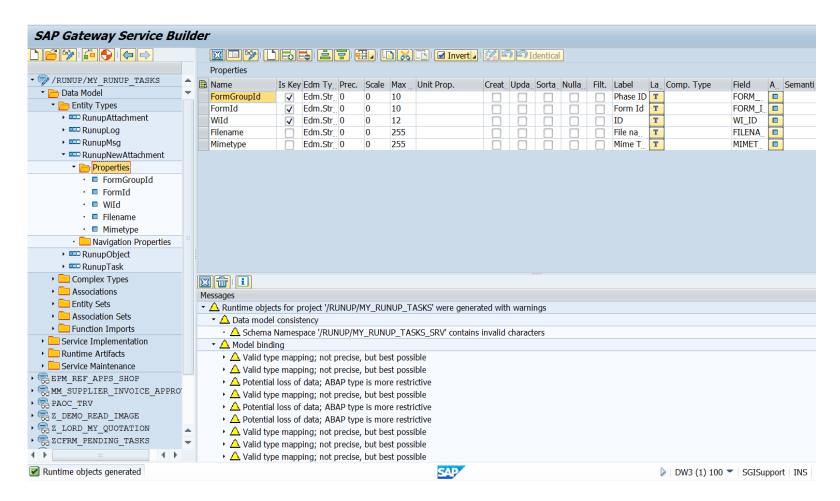


Import the entity type properties from the dictionary structure if not done during entity type creation

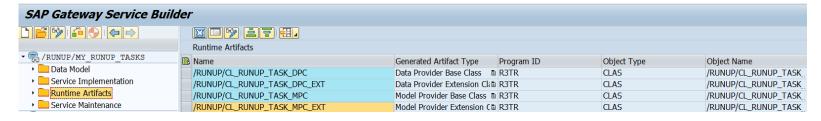


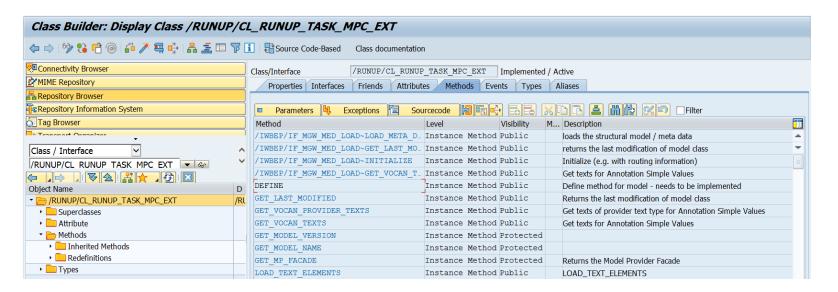


Save and generate

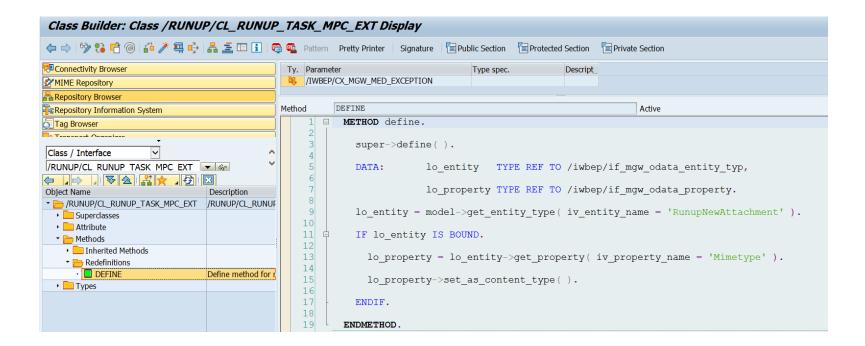


Update the data model definition using the MPC_EXT generated class





Redefine the standard method called DEFINE as below to declare your mime type property as content type for the new entity. In this provided example the property is called "Mimetype"



Frontend preparation

XML fragment for uploading your file

```
<core:FragmentDefinition xmlns:core="sap.ui.core" xmlns="sap.m">
    xmlns:b="sap.suite.ui.commons"
    xmlns:m="sap.m" xmlns="sap.ui.commons"
    xmlns:u="sap.ui.unified"
    xmlns:l="sap.ui.layout.form"
    title="{i18n>TIT ADD NW ATTACHMENT}"
    resizable="false"
    draggable="false"
    showHeader="false"
    horizontalScrolling="false"
    ContentWidth="850px">
   <content>
    <1:SimpleForm editable="true">
    <1:content>
     <m:VBox>
    <Label id="AttachFile" text="{i18n&gt;LBL ATTACH FILE}" />
    <u:FileUploader
     id="AttachUploader" width="700px"
     sameFilenameAllowed="false"
     placeholder="Select your file to upload" style="Emphasized">
    </u:FileUploader>
    </m:VBox>
   </l:content>
   </l:SimpleForm>
   </content>
   <Button icon="sap-icon://upload" id="ButAttachUpload"</pre>
                                                        press="OnAttachUpload" text="{i18n>LBL_BUT_UPLOAD}" type="Emphasized"/>
    </buttons>
 </Dialog>
</core:FragmentDefinition>
```

For reuse purposes, you can define a dialog in a XML fragment to be called from the view



Instantiating the XML fragment in the view (js) and closing the dialog

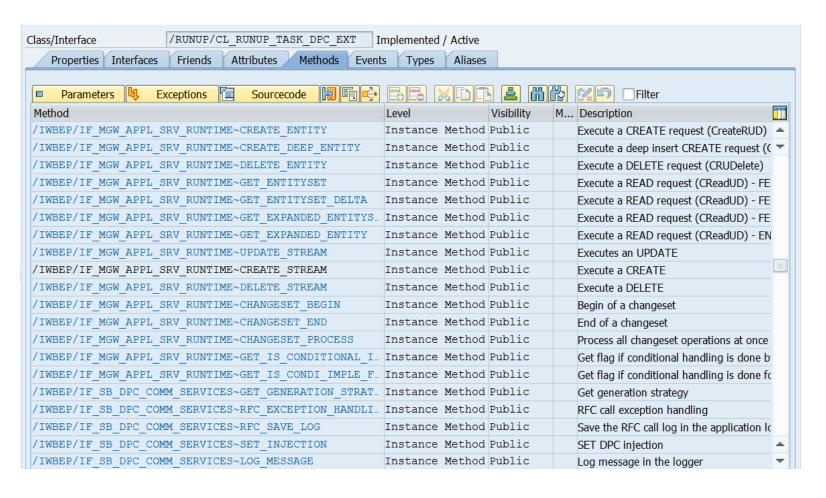
```
// Event handler for Opening the attachmnet dialog
 onAddAttachment: function(oEvent) {
   if (! this.oAttachDialog) {
   this.oAttachDialog = sap.ui.xmlfragment("runup tasks.AddAttachment",this.getView().getController());
   this.oAttachDialog.setModel(this.getView().getModel());
   this.getView().addDependent(this.oAttachDialog);
   this.oAttachDialog.setResizable(false);
   this.oAttachDialog.open();
  },
// Event handler for closing the attachment dialog
 OnCloseAttachDialog: function(oEvent) {
   if (! this.oAttachDialog) {
    this.oAttachDialog = sap.ui.xmlfragment("runup tasks.AddAttachment",this.getView().getController());
   var oFileUploader = sap.ui.getCore().byId("AttachUploader");
   oFileUploader.setValue("");
   this.oAttachDialog.close();
```

```
OnAttachUpload: function(oEvent) {
     var oFileUploader = sap.ui.getCore().byId("AttachUploader");
          sFileName = oFileUploader.getValue();
         if (!oFileUploader.getValue()) {
             sap.m.MessageToast.show("Choose a file first");
             return;
         }
     var file = jQuery.sap.domById(oFileUploader.getId() + "-fu").files[0];
     var base64 marker = 'data:' + file.type + ';base64,';
     var reader = new FileReader();
 // On load
  reader.onload = (function(theFile) {
    return function(evt) {
    // Locate base64 content
   var base64Index = evt.target.result.indexOf(base64 marker)
          + base64 marker.length;
   // Get base64 content
   var base64 = evt.target.result.substring(base64Index);
   var sTasksService = window.location.origin
     + "/sap/opu/odata/RUNUP/MY RUNUP TASKS SRV/RunupTasks";
   var sAttachService = window.location.origin
     + "/sap/opu/odata/RUNUP/MY RUNUP TASKS SRV/RunupNewAttachments";
   var oViewModel = oView.getModel();
   var oContext = oView.getBindingContext();
   var oRunupTask = oViewModel.getProperty(oContext.getPath());
   var oDataModel = sap.ui.getCore().getModel();
      sWorkitemId = JSON.stringify(oRunupTask.WiId);
      var service url = sAttachService;
  $.ajaxSetup({ cache: false });
```

```
jQuery.ajax({
      url : service url,
      async : false,
      dataType : 'json',
      cache : false,
      data: base64,
      type : "POST",
      beforeSend : function(xhr) {
        xhr.setRequestHeader("X-CSRF-Token", token);
        xhr.setRequestHeader("Content-Type", file.type);
        xhr.setRequestHeader("slug", sFileName);
        xhr.setRequestHeader("WorkitemId", oRunupTask.WiId);
      },
      success : function(odata) {
          sap.m.MessageToast.show("File successfully uploaded");
          oFileUploader.setValue("");
      error : function(odata) {
        sap.m.MessageToast.show("File Upload error");
    });
  };
}) (file);
// Read file
reader.readAsDataURL(file);
oView = this.getView();
oAttachDataModel = this.oDataModel;
 },
```

CREATE_STREAM method redefinition

After preparing all the frontend elements, you need to redefine the method CREATE_STREAM Of the generated class DPC_EXT



```
Method
        /IWBEP/IF MGW APPL SRV RUNTIME~CREATE STREAM
                                                        Active
   28
   29
           DATA: ls attachment
                                  TYPE /cfrm/s wf attach.
   30
           DATA: 1s attach type
                                  TYPE /cfrm/s attach type.
   31
   32
           DATA: ls hdr param
                                  TYPE ihttpnvp.
   33
           DATA: ls step
                                  TYPE /cfrm/steps.
   34
           DATA: ls workflowdata
                                  TYPE /cfrm/workflow data.
   35
   36
           DATA: lt hdr params
                                   TYPE
                                                tihttpnvp.
           37
   38
           DATA: lt messages
                                   TYPE TABLE OF swr mstruc.
   39
           DATA: lo facade TYPE REF TO /iwbep/if mgw dp int facade.
   40
   41
   42
           REFRESH: lt hdr params, lt attachments.
   43
   44
           lo facade
                        ?= /iwbep/if mgw conv srv runtime~get dp facade().
           lt hdr params = lo facade->get request header().
   45
   46
   47
           READ TABLE 1t hdr params INTO 1s hdr param WITH KEY name = 'workitemid'.
           IF sy-subrc = 0.
   48
            lv wiid = ls hdr param-value.
   49
   50
           ENDIF.
   51
   52
           IF lv wiid IS INITIAL.
      Ė
   53
            RAISE /iwbep/cx mgw busi exception.
   54
           ENDIF.
   55
```

The above code will allow you to read the parameters sent in the request header (like workitemid in the provided example)

After you can decode the base64 content to a xstring data and handle your content as you wish. In the provided example, I am using a home made function to transform the base64 to a xstring to be stored in SAP DMS later.

```
Total Case iv_entity_name.

WHEN gc_entity_types-runupnewattachment.

lv_file_name = iv_slug.

* Convert Base64 encoded data

CALL FUNCTION '/RUNUP/DECODE_BASE64'

EXPORTING

iv_base64 = is_media_resource-value

IMPORTING

ev_file_data = lv_file_data.
```

Assigned tags	
SAP Fiori	
NW ABAP Gateway (OData)	
OData	
SAPUI5	
FIORI add attachment	
FIORI file upload	
SAPUI5 Attachment	
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sap.ui.unified.FileUploader multi select not working on device

By Archana Chaubey Jul 02, 2018

8 Comments

You must be Logged on to comment or reply to a post.



Karthik A November 8, 2016 at 5:15 am

Great, But we already have sap controls to upload file, I appreciate your idea. But I would be grateful if you could reuse the existing controls.

Like 3 | Share



Valter Araujo

November 8, 2016 at 5:25 pm

Great experience but I agree with Karthik, SAP Fiori Design Guidelines recommends this component since version 1.26:

https://experience.sap.com/fiori-design-web/ui-components/upload-collection/

Like 1 | Share



This is actually reinventing in a typical way kudos for effort but not required.

Like 0 | Share



Momen Allouh March 14, 2017 at 7:06 pm

That is what i was looking for, Thanks Jalil Benthami for this details.

Because it is more easy to understand than the SAPUI5 sap.m.UploadCollection which i faced a lot of issues with it specially when binding attachments and adding attachment to previous bounded ones and other issues.....

So I just used a simple sap.m.List with custom list item template and binding my attachment model to it then I can add / remove / edit the model without missing up the UI. and a custom method for upload that use your simple organized ajax call.

Like 0 | Share



Thanks Jalil Benthami,

But I would like to ask something,

In the final step, How can I upload the file in SAP DMS, after get the file as base64?

Like 0 | Share



Former Member July 3, 2017 at 11:18 am

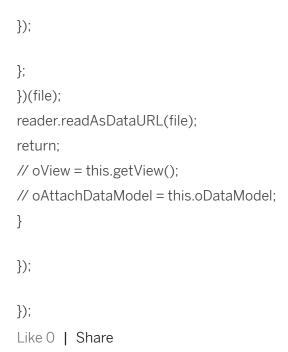
As i am new to sapui5 trying to upload a file from ui part.i follwed the blog still i am facing an issue.can anyone explain me why it is not working.

```
var token;
var Service1;
var oView;
var sFileName;
var oAttachDataModel;
sap.ui.define([
   "sap/ui/core/mvc/Controller"
   ], function(Controller) {
    "use strict";

return Controller.extend("namespace.controller.fileup_View1", {
    handleUploadPress: function(evnt) {
    //alert("hello");
    var oFileUploader = this.byld("fileUploader");
    sFileName = oFileUploader.getValue();
    if (sFileName === "") {
```

```
sap.m.MessageToast.show("Please select a File to Upload");
return;
} else {
// sap.m.MessageToast.show("File selected");
var oView = this.getView();
var oUploader = oView.byId("fileUploader");
var oFileUploader = this.getView().byId("fileUploader");
var file = jQuery.sap.domById(oFileUploader.getId() + "-fu").files[0];
var base64_marker = "data:" + file.type + ";base64,";
var filename = file.name;
var reader = new FileReader();
//on load
reader.onLoad = (function(file) {
return function(evt) {
//locate base64 content
var base64Index = evt.target.result.indexOf(base64_marker) + base64_marker.lenght;
// get base64 content
var base64 = evt.target.result.substring(base64Index);
var sTasksService = "http://sapserver2.us.xxxxxx.net.8001/sap/opu/odata/sap/ZOD_FILEATTACH_CRUD_SRV/fileSet('TextFileUpload')/$value";
var sService2 = "http://sapserver2.us.xxxxxx.net.8001/sap/opu/odata/sap/ZOD_FILEATTACH_CRUD_SRV/ATTACHUPLOADSet";
var oViewModel = oView.getModel();
var oContext = oView.getBindingContext();
var oTask = oViewModel.getProperty(oContext.getPath());
var oDataModel = sap.ui.getCore.getModel();
```

```
var sWorkitemId = JSON.stringify(oTask.wild);
var service_url = sService2;
$.ajaxsetup({
cache: false
});
jQuery.ajax({
url: service_url,
asyn: false,
datatype: "json",
cache: false,
data: base64.
type: "post",
beforeSend: function(xhr) {
xhr.setRequestHeader("x-csrf-Token", token);
xhr.setRequestHeader("content-Type", file.type);
xhr.setRequestHeader("slug", sFileName);
xhr.setRequestHeader("WorkitemId", oTask.Wild);
success: function(odata) {
sap.m.MessageToast.show("file successfully uploaded");
oFileUploader.setValue("");
},
error: function(odata) {
sap.m.MessageToast.show("file Upload error");
```





Former Member December 9, 2017 at 9:08 pm

Please supply the code for decoding base64 sir.

Thank you in advance

Like 0 | Share



sagar u February 16, 2018 at 12:47 pm Please provide the backend code for conversion of the 64bit encoded data to xstring and store it in database. /RUNUP/DECODEBASE64.

Like 0 | Share

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