

How to Embed Additional Files into a JES2Mail or JES2FTP PDF File

JES2Mail and JES2FTP provide the ability to embed files into a PDF document. Adobe refers to this capability as “attaching files”, however since “attachment” is used more frequently to describe a file attached to an email message, the term “embedded” is more accurate for the JES2Mail and JES2FTP functionality.

In the JES2Mail world, embedded files are placed inside a PDF file that is created, and then the PDF file can be attached to an email message and delivered to the desired recipient.

To demonstrate the file embedding process we’ll use the process of creating a comma-delimited (.csv) spreadsheet file from a report and embed it into the PDF copy of the report that is produced. All that is required to embed the .csv file into the PDF document is the addition of a PDFEmbed statement in the script that is used. The ruleset that processes the report contains the following statements:

```
Name: Comma Delimited Extract
PackageType: PDF
To: support@tonesoft.com
From: jes2mail@tonesoft.com
Font: Courier
FontSize: Medium
PageSize: Letter
Orientation: Landscape
Script: DD:SCRIPT
```

This ruleset contains the basic statements to create a PDF document from a typical, 133-column report. The script file, located at the SCRIPT DD statement in our job, contains these statements:

```
)InitialPage
ZExtractFileName = 'sales.csv'
ExtractData(Comma, " ", 5:2, 5:134)
)OnEachPage
ExtractData(Comma, "25x,11x,13x,13x,13x,13x,13x,13x,13x",7:2)
Outputpage
)OnSubReportBegin
PDFEmbed("Extract.txt", ZExtractFilename, text, trim, -
"Copy for Excel")
```

An OnSubReportBegin section has been added to the script and this new section contains a PDFEmbed statement. The reason that the PDFEmbed statement has been placed into an OnSubReportBegin section rather than in the InitialPage section is to allow for possible splitting of the report. If the report were being split, then it is likely that the .csv file would also require splitting.

This would necessitate placing the PDFEmbed statement in the OnSubReportBegin section and since the statement works equally well in this section regardless of whether the report is being split or not, it is a good habit to always use this section for this purpose.

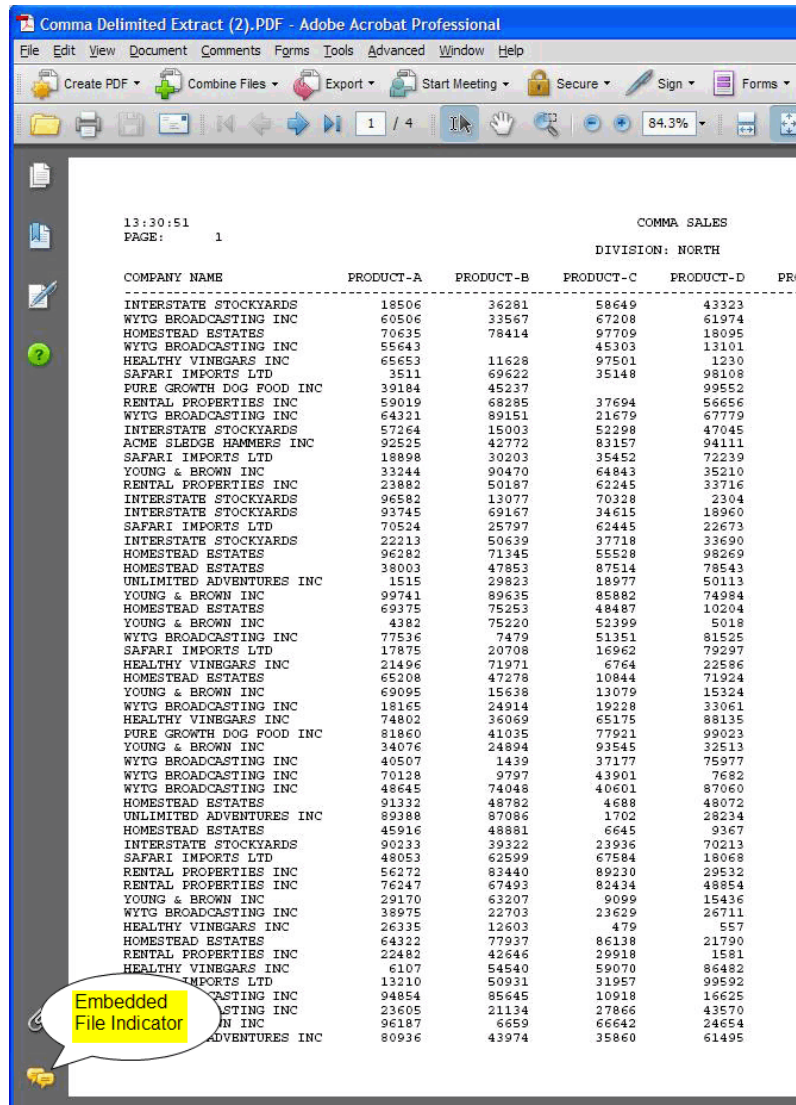
The PDFEmbed statement uses the file name of “Extract.txt” as the file to be embedded.

This file name has special meaning to JES2Mail and JES2FTP and always refers to the internal file being created through the ExtractData statements.

The second parameter represents the name of the file that will be carried inside the PDF document. This value has already been placed into the ZExtractFilename system variable so we simply use that variable name here.

The "text" parameter indicates that the file is a text file and will be converted to ASCII and that CR/LF characters will added to each line. The "trim" value indicates that trailing spaces on each line of the text file will be removed. The last parameter is a description string that will be used for display purposes when the PDF document is opened.

When the resulting PDF document is opened inside Adobe Acrobat, the report appears like this:



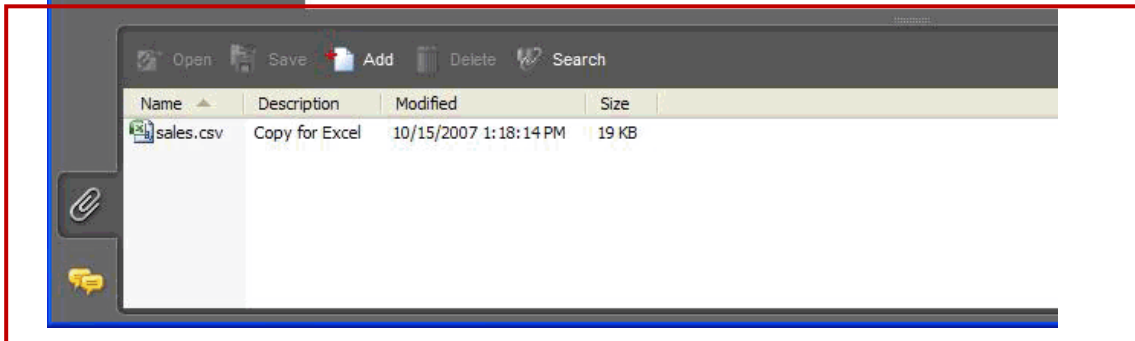
Notice that the Adobe Attachments indicator appears to illustrate that our embedded file has been attached to this document.

Clicking on this indicator launches an attachments window under the report itself, as shown below:

13:30:51
PAGE: 1

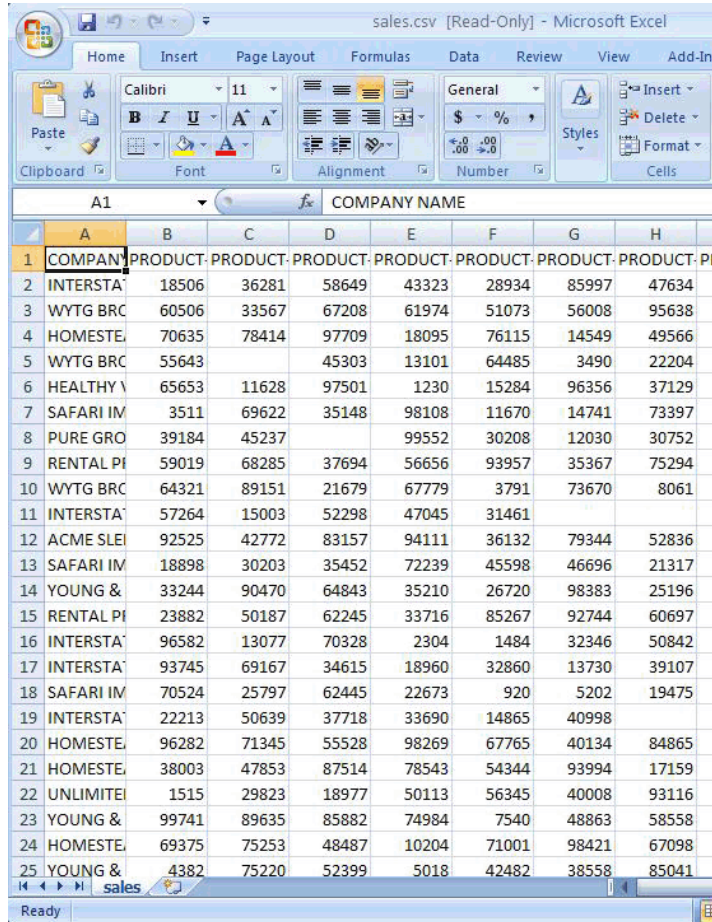
COMMA SALES
DIVISION: NORTH

COMPANY NAME	PRODUCT-A	PRODUCT-B	PRODUCT-C	PRODUCT-D	PRODUCT
INTERSTATE STOCKYARDS	18506	36281	58649	43323	289
WYTG BROADCASTING INC	60506	33567	67208	61974	510
HOMESTEAD ESTATES	70635	78414	97709	18095	761
WYTG BROADCASTING INC	55643		45303	13101	644
HEALTHY VINEGARS INC	65653	11628	97501	1230	152
SAFARI IMPORTS LTD	3511	69622	35148	98108	116
PURE GROWTH DOG FOOD INC	39184	45237		99552	302
RENTAL PROPERTIES INC	59019	68285	37694	56656	939
WYTG BROADCASTING INC	64321	89151	21679	67779	37
INTERSTATE STOCKYARDS	57264	15003	52298	47045	314
ACME SLEDGE HAMMERS INC	92525	42772	82157	94111	361
SAFARI IMPORTS LTD	18998	30203	35452	72239	455
YOUNG & BROWN INC	33244	90470	64843	55210	267
RENTAL PROPERTIES INC	33882	50187	62245	33716	852
INTERSTATE STOCKYARDS	96582	13077	70328	2304	14
INTERSTATE STOCKYARDS	93745	69167	34615	18960	328
SAFARI IMPORTS LTD	70524	25797	62445	22673	9
INTERSTATE STOCKYARDS	22213	50639	37718	33690	148
HOMESTEAD ESTATES	96282	71345	55538	98269	677
HOMESTEAD ESTATES	38003	47853	87514	78543	543
UNLIMITED ADVENTURES INC	1515	29823	18977	50113	563
YOUNG & BROWN INC	99741	89635	85882	74984	75
HOMESTEAD ESTATES	69375	75253	48487	10204	710
YOUNG & BROWN INC	4382	75230	52399	5018	424
WYTG BROADCASTING INC	77936	7479	51351	81525	387
SAFARI IMPORTS LTD	17875	20708	16962	79297	920
HEALTHY VINEGARS INC	21496	71971	6764	22586	407
HOMESTEAD ESTATES	65208	47278	10844	71924	135
YOUNG & BROWN INC	69095	15638	13079	15324	571
WYTG BROADCASTING INC	18165	24914	19228	33061	232
HEALTHY VINEGARS INC	74802	18069	65175	88135	456
PURE GROWTH DOG FOOD INC	81860	41035	77921	90923	505
YOUNG & BROWN INC	34076	24894	93545	32513	714
WYTG BROADCASTING INC	40507	1439	37177	75977	640
WYTG BROADCASTING INC	70128	9797	43901	7682	129
WYTG BROADCASTING INC	48645	74048	40601	87060	280
HOMESTEAD ESTATES	91332	48782	4688	48072	425
UNLIMITED ADVENTURES INC	89388	87086	3702	28234	207
HOMESTEAD ESTATES	45916	48881	6645	9367	371
INTERSTATE STOCKYARDS	90233	39322	23936	70213	557
SAFARI IMPORTS LTD	48053	62599	67584	18068	412
RENTAL PROPERTIES INC	56272	83440	89230	29532	766
RENTAL PROPERTIES INC	76247	67493	82434	48854	269
YOUNG & BROWN INC	29170	63207	9099	15436	24
WYTG BROADCASTING INC	38975	22703	23639	26711	514
HEALTHY VINEGARS INC	26335	12603	479	557	282
HOMESTEAD ESTATES	64322	77937	86138	21790	244
RENTAL PROPERTIES INC	22482	42646	29918	1581	139
HEALTHY VINEGARS INC	6107	54540	59070	86482	563
SAFARI IMPORTS LTD	13210	50931	31957	99592	119
WYTG BROADCASTING INC	94854	85645	10918	15625	934
WYTG BROADCASTING INC	33605	21134	27866	43570	26
YOUNG & BROWN INC	96187	6659	66642	24654	822
UNLIMITED ADVENTURES INC	80936	43974	35860	61495	281



Now we can see that our “sales.csv” file has been attached, or embedded, into the PDF document itself.

Double clicking on the .csv file will open the file in Excel.



	A1	COMPANY NAME						
	A	B	C	D	E	F	G	H
1	COMPAN	PRODUCT	PRODUCT	PRODUCT	PRODUCT	PRODUCT	PRODUCT	PRODUCT
2	INTERSTA	18506	36281	58649	43323	28934	85997	47634
3	WYTG BRC	60506	33567	67208	61974	51073	56008	95638
4	HOMESTE	70635	78414	97709	18095	76115	14549	49566
5	WYTG BRC	55643		45303	13101	64485	3490	22204
6	HEALTHY \	65653	11628	97501	1230	15284	96356	37129
7	SAFARI IM	3511	69622	35148	98108	11670	14741	73397
8	PURE GRO	39184	45237		99552	30208	12030	30752
9	RENTAL PI	59019	68285	37694	56656	93957	35367	75294
10	WYTG BRC	64321	89151	21679	67779	3791	73670	8061
11	INTERSTA	57264	15003	52298	47045	31461		
12	ACME SLEI	92525	42772	83157	94111	36132	79344	52836
13	SAFARI IM	18898	30203	35452	72239	45598	46696	21317
14	YOUNG &	33244	90470	64843	35210	26720	98383	25196
15	RENTAL PI	23882	50187	62245	33716	85267	92744	60697
16	INTERSTA	96582	13077	70328	2304	1484	32346	50842
17	INTERSTA	93745	69167	34615	18960	32860	13730	39107
18	SAFARI IM	70524	25797	62445	22673	920	5202	19475
19	INTERSTA	22213	50639	37718	33690	14865	40998	
20	HOMESTE	96282	71345	55528	98269	67765	40134	84865
21	HOMESTE	38003	47853	87514	78543	54344	93994	17159
22	UNLIMITE	1515	29823	18977	50113	56345	40008	93116
23	YOUNG &	99741	89635	85882	74984	7540	48863	58558
24	HOMESTE	69375	75253	48487	10204	71001	98421	67098
25	YOUNG &	4382	75220	52399	5018	42482	38558	85041

Multiple files can be embedded into a PDF document by having multiple PDFEmbed statements within your script. For example, here is an expansion of the previous script that adds a logo jpeg file as an additional file embedded into the PDF document:

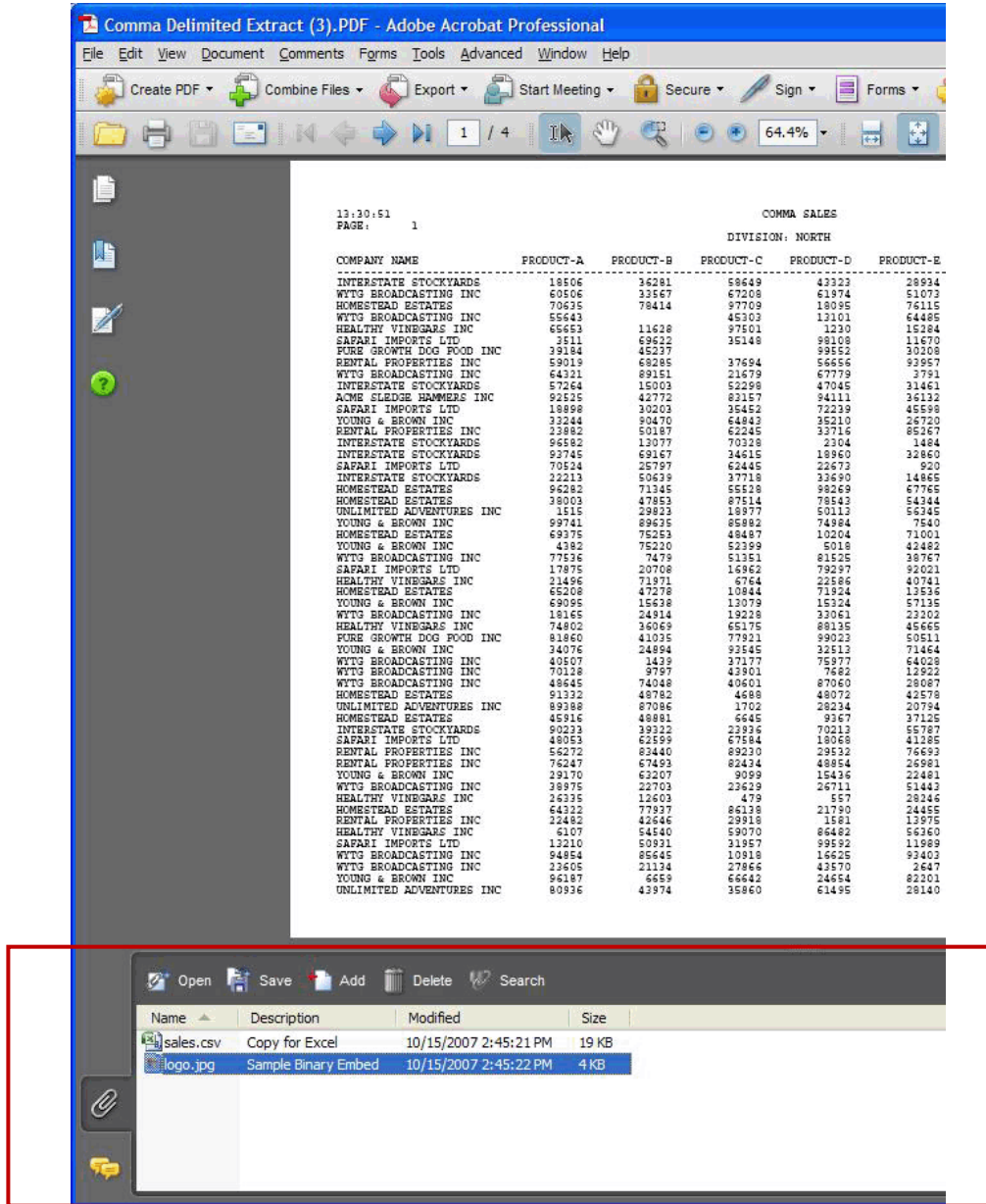
```

)InitialPage
ZExtractFileName = 'sales.csv'
ExtractData(Comma, " ", 5:2, 5:134)
)OnEachPage
ExtractData(Comma, "25x,11x,13x,13x,13x,13x,13x,13x,13x", 7:2)
Outputpage
)OnsubReportBegin
PDFEmbed("Extract.txt", ZExtractFilename, text, trim, -
"Copy for Excel")
PDFEmbed("bend.pds.binary(logoljpg)", "logo.jpg", binary, notrim, -
"Sample Binary Embed")

```

The second PDFEmbed statement embeds a jpeg file that has been uploaded to the host and specifies that it is a binary file so that no ASCII translation or modification is performed on the file and no attempt is made to trim trailing spaces from within the file.

When the PDF is opened and the attachment icon is clicked in Acrobat, the indication that two files have been attached to this PDF document appears, as shown in the example below:



The file embedding feature of JES2Mail and JES2FTP has significant benefits, including the transportability of the document and embedded files as one physical package to eliminate the risk of the files being separated. Further, because the embedded files are located inside the PDF document, the entire package can be secured via the built-in Adobe PDF encryption algorithms. For details on encryption, read the How To article: "How to Add AES Encryption".

Try JES2Mail and JES2FTP in your z/OS shop – Request a no cost evaluation...