mailmerge

Reference Sheets

Information about this document
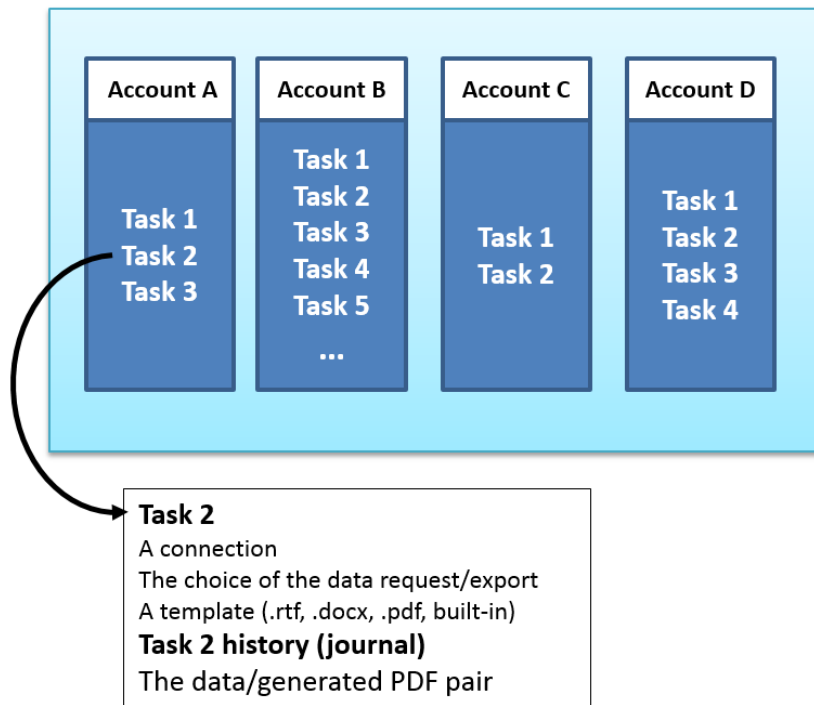
Editor:	EpiConcept, 47 rue de Charenton, 75012 Paris, France www.epiconcept.fr
Title:	Mailmerge Reference Sheets
Current version:	v3.2 - 3 December 2019
Previous versions:	Version 1 - 10 June 2015 ; Version 2.1 - 11 November 2015 ; Version 2.2 - 17 December 2015 ; Version 2.3 - 29 February 2016 ; Version 2.4 - 5 January 2017 ; Version 3 - 7 December 2017; version 3.1 - 9 May 2019
Applies to:	Mailmerge
License:	Copyright © EpiConcept 2019
Author(s):	Curtis Broderick
Distribution:	Public
Other languages:	Available in French
Corollary documents:	Voozanoo 4 Reference Sheets
Other information :	
Feedback:	Please signal any errors or problems with this document to c.broderick@epiconcept.fr

Table of contents

mailmerge

The Mailmerge concept

Mailmerge is an application created on the Voozanoo 4 platform. The role of this application is to allow any person or process to merge a set of data and a document template to generate a PDF file for printing and ultimately postal mailing. A mail merge task connects to another Voozanoo 4 application (the Provider or target application) via a URL defined by the user in order to fetch data from the target application to fill in the template document. A Mailmerge task can be configured to retrieve data from a non-Voozanoo4 application as well.

Account A	Account B	Account C	Account D
Task 1 Task 2 Task 3	Task 1 Task 2 Task 3 Task 4 Task 5 ...	Task 1 Task 2	Task 1 Task 2 Task 3 Task 4

Task 2
A connection
The choice of the data request/export
A template (.rtf, .docx, .pdf, built-in)
Task 2 history (journal)
The data/generated PDF pair

mailmerge

A Mailmerge task = a connection + a data request (or export) + a model (template). Before creating a task, one must have a data source (the provider application) and a model (template).

Connexion

Login *	**①**	user4mm
Mot de passe *	**②**	••••••••••
Adresse (URL) *	**③**	https://notre_org.voozanoo.net/nom_de_projet
Notifier les mailings	**④** ○	Oui
	◉	Non

Specifying a connection to a data source

- From your home screen which displays the list of your mail merge tasks select **Action** > **Display data sources**.
- Click on **Create** to create a new connection.
- Enter the information associated with the target application (*provider*) from which you will retrieve your data.

1. Username: An account name created by the administrator (typically dedicated to use of Mailmerge which only allows reading records) of the target application which has the right to read all or some of the application's data.

2. Password: The password for that account

3. Application URL: L'URL de l'application ex: https://my_org.voozanoo.net/project_name

Select **yes** only if the target application manages the return of data about which lines of the dataquery were used during the execution of the mail merge task. Otherwise, select **no**.

*A Mailmerge task = a connection + a data request or export + a model (template). The **Overlay** is where each variable is positioned over a static PDF model document. One uses the **Overlay** type model (template) typically where the document is preformatted, like a form, where there are specific places on the sheet of paper for the data to be placed.*

Explanation

Overlay

When you create a task (see below for details), to use the Overlay method, choose ❶ **External file** as the model type and then upload ❷ your document. Notice that there is also an optional second file you can upload ❸ which will be used as a background. This is usually for a graphic or header that needs to be printed as well.

PDF format

The PDF file that you use as a model must be in version 1.4 or lower of the PDF format. Look at the file properties of your model to make sure. If you are creating the PDF document yourself using Microsoft Word, when you save the file as a .pdf, click on the **options...** in the save dialog box and check the option **ISO 19005-1 (PDF/A)** in order for it to be saved in version 1.4 usable for Mailmerge. Note: It is possible transform a PDF file from a version higher than 1.4 to the version 1.4, see Annex 1.

Click the Calibration ❹ button and then place the variables, fixed text and functions onto your template.

Malaria case report overlay example

There are some pre-established functions ❺ that give the current date. Note that the texts that ❻ cross over each other for **smear_ont**, **pcr**, and **rdt** are not errors. The **X** needs to be placed directly on the checkbox for these.

Start by dragging one of the three objects (<>, T, _F_) onto your PDF model as needed. Place the object exactly where you want it to display. The display of the text will follow the Global parameters for font and size that you have chosen.
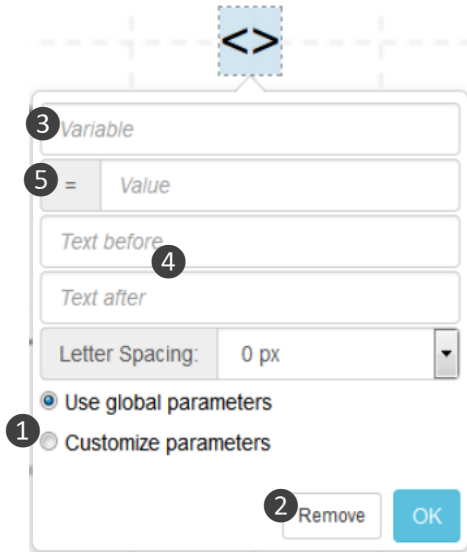
You can modify ❶ the font, size, and spacing for a specific variable, text or function by clicking the option **Customise parameters** in this particular object's properties. To delete an object you have placed onto the template, click on the **Remove** ❷ button.

(T) Text This is simply a static text that you can place anywhere on the document.

(< >) Variable Once dragged onto the PDF, click in the field **Variable** ❸ and select the variable to be placed onto the PDF template. You can place fixed text ❹ before or after the variable if desired. The field =**Value** ❺ has two use cases. See the cases in the grey info boxes to the left.

(_F_) The Fonction element In order to place the current date that the PDF Mailmerge is generated, you can drag the __Fonction__ element onto the PDF template. The date can be displayed in one of three formats.

**DATE_SHORT** ex: 13/10/14
DATE_LONG ex: 13 October 2014
DATE_FULL ex: Monday 13 October 2014

To finish, click on **Exit calibration** to return to the mail merge task parameters and **Save** your work.

Screen objects

Case 1 : substring This is the case where you want to display only part of the variable's value. It is often the case with dates because their standard format is year-month-date (ex : 2014-12-31). In order to place the date on a form that shows a line such as **Date ___ / ___ / ___** (dd,mm,yyyy) , you'll need to place the variable three times on the different areas and use the substring option to pick out the part that you need. Drag the variable to the part of the form that needs the date of the month. In the field **=value**, put [9,2]. This means, show its value but starting with the 9th character and going for 2 characters. This will give the day, 31. Then, drag that same variable onto the template into the middle section of the date, for which we'll need the month, and put [6,2] into the field **= Value**. This will take the value starting with the 6th character and going for 2 characters. Finally, do the same for the year putting in [1,4] into the **= Value** field.

Case 2: Dictionary variables Forms often contain check boxes as in the malaria case form above. Use the **= Value** field to indicate that you want an X placed on the form if the variable contains a specific value. For example, if you have the variable *pat_sex* for the patient's sex with the options *Male* and *Female*, then in the field **= Value** enter [X]Male and place this variable (with the X directly over the box) onto the form for Male. Do the same for the check box Female, adding again the variable *pat_sex*, but this time, in the **= Value**, enter [X]Female.

The use of the Microsoft Word MergeField is the recommended method to create your models. The declaration of variables is done using the native MergeField element in Microsoft Word. Write your letter and insert the variables at the precise points you want them displayed.
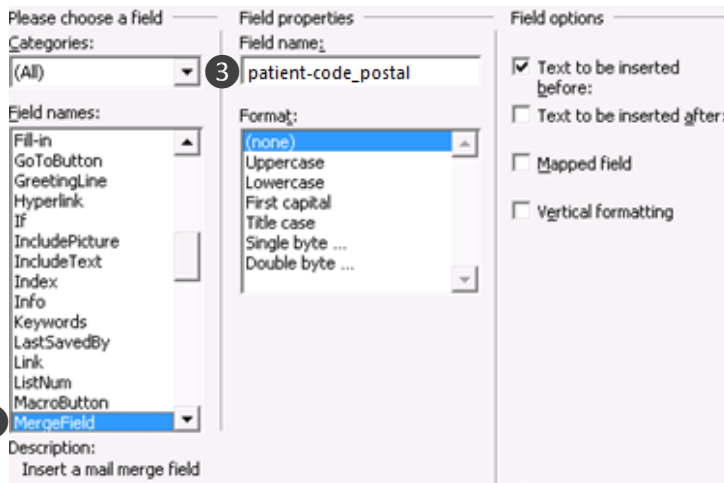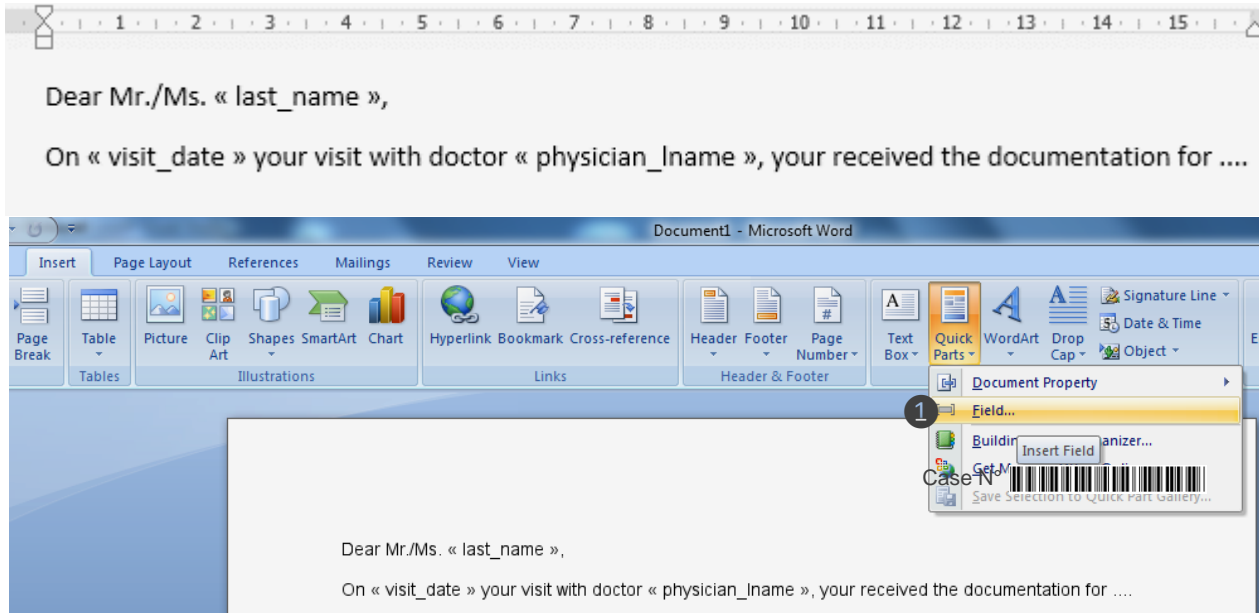
Adding variables to your text

To insert a variable, go to the tab Insert then Quick Parts then select ❶ **Field…** .

Select the type **MergeField** ❷ and then enter the name of the desired variable as *varset_name-variable_name*❸. Do not format the text (leave it as **(none)**) as this will have no effect in on the final document. If you would like to include the current date, then place the date function into the **Field name**, ex:

__DATE__SHORT__ short date example: **13/10/14**
__DATE__LONG__ long date example: **13 October 2014**
__DATE__FULL__ full date example: **Monday 13 October 2014**

Save your Microsoft Word document in the **.docx** format. This is the file to be uploaded and which will be merged with the data from the selected export or datarequest.

C39P24DlTt

To include barcodes on your PDF output files, install the Windows font C39P24DlTt or C39HrP24DhTt (found at https://www.wfonts.com). Then apply the desired font to the

IMPORTANT: If your data request is not an export (made manually with a personalised property), then you do not need to prefix each variable with the varset name. Instead of *patient-code_postal*, you would only enter *code-postal*.

Placing a table into the MS Word model, for example a sub-table as shown below, is possible but only if you use Mailmerge as a web service completely managed from your application. Your application must send the data (XML file) as well as the model document.

Cher(e) Madame/Monsieur Martin,

Voici les résultats de vos analyses biologiques

- Hypertension : négatif
- Hyperlipidémie : négatif
- HIV : négatif

Substance	Mesure	Normal
Triglycérides	0,57 g/l	< 1,5
Cholestérol Total	1,85 g/l	< 2,0
Cholestérol LDL	1,1 g/l	< 1,6
Cholestérol HDL	1,2 mmol/l	1 à 1,6

Example of the result of a table

❶ Type de signal : «type_signal»

Signaux dans les communes ci-dessous :

❷ «TableStart:Array-communes»

- «commune»

«TableEnd:Array-communes»

Commune	Nombre	> +2 Z
❸ «TableStart:Array-details» «commune»	«mesure_signal»	«plus2z» «TableEnd:Array-details»

Explanation

Displaying a table

Your .docx model will still use the **MergeField** as described above, but for lists and tables, you will need to use the commands `TableStart:` and `TableEnd:`. Your XML document contains the data that will fill in the variables, lists, and tables. Here is an example.

Example MS Word model

❶ Disease type: «`type_signal`»
A single variable, nothing special. It is the disease type.

❷ A list of cities that have exposure to the disease:
A single column table (array) which will display the cities with a bullet point placed in front of them.

```
«TableStart:Array-communes»
    • «commune»
«TableEnd:Array-communes»
```

❸ Cities and values table: see the xml table below.

Below we see the resulting PDF output with the data merged from the XML file.

Data in XML form sent to the model

Type de signal : Grippe

Signaux dans les communes ci-dessous :

- Antony
- Bourg-la-Reine
- Bagneux
- Fontenay-aux-Roses
- Montrouge
- Malakoff

Commune	Nombre	> +2 Z
Antony	1645	2.1
Bourg-la-Reine	789	2.9
Bagneux	619	3.1
Fontenay-aux-Roses	498	2.5
Montrouge	915	2.2
Malakoff	1309	2.2

```xml
<?xml version="1.0" encoding="UTF-8"?>
<Mailing xmlns="http://tempuri.org/XMLSchema.xsd" id="1" batchId="1">
    <Mail id="123456789">
 <Field name="type_signal" type="String">Grippe</Field>

    <Table name="Array-communes">
      <TableRow>
        <Field name="commune" type="string">Antony</Field>
      </TableRow>
      <TableRow>
        <Field name="commune" type="string">Bourg-la-Reine</Field>
      </TableRow>

...etc
    </Table>

<Table name="Array-details">
      <TableRow>
        <Field name="commune" type="string">Antony</Field>
      <Field name="mesure_signal" type="string">1645</Field>
      <Field name="plus2z" type="string">2.1</Field>
      </TableRow>
      <TableRow>
        <Field name="commune" type="string">Bourg-la-Reine</Field>
      <Field name="mesure_signal" type="string">789</Field>
      <Field name="plus2z" type="string">2.9</Field>
      </TableRow>

...etc
    </Table>
    </Mail>
</Mailing>
```
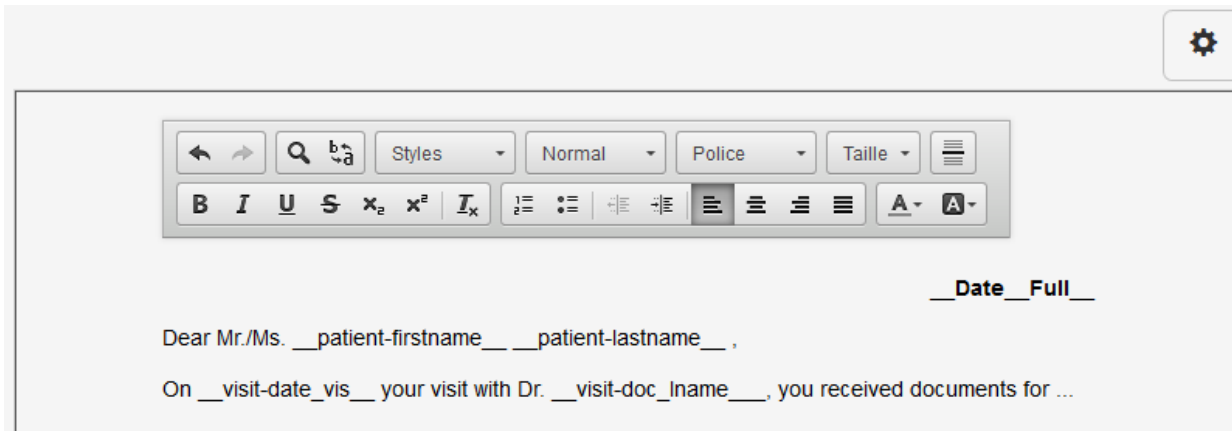
epiconcept

mailmerge

Below you see an example of a model created within Mailmerge.

Create the model online within Mailmerge

By using this method, you create your model (template) directly in Mailmerge by adding variables, that is, you do not upload any model. When creating a task, for the Model type, select **Online** (see the following section *Create a Mailmerge Task*). Write your letter or list and place the varset hyphen variable exactly where needed and surround it with double underscores as shown. Be careful if you are applying formatting to the variables (bold, colors, etc.) as the formatting must include the underscores, ex: Dear Mr. __patient-lastname__, is fine, but Dear Mr. __patient-lastname__ is not. The following date functions are also available which will place the current day's date into the final set of created letters.

__Date__Short__	ex: 13/10/14
__Date__Long__	ex: 13 October 2014
__Date__Full__	ex: Monday, 13 October 2014

Finally, do not forget to click on the **Save** button.

mailmerge

A Mailmerge task = a connection + a data request (or export) + a model (template). Here we will select the data request and choose a model (see the previous sections on creating a model).

Ajouter / Editer une tâche

Nom * ①	Formulaire TTR avec Barcod
Mots clés ②	appel TTR
Utilisation d'un provider * ③	✓
Type du provider * ④	⦿ Service web Voozanoo 4 ◯ Service web
Connexion * ⑤	https://sandbox.preprod.v▾ [+]
Requête données * ⑥	données grippe ▾
Dico format	Code ▾
Type de modèle *	⦿ Fichier externe ◯ En ligne

Sélectionner un modèle de document [?]

[Parcourir...]

File name	Action
barcode_ll.docx	Download the file - Delete

From the home screen which shows the list of available tasks, select **Action** > **New mailing task**. Enter the following information for the new task.

1. Name: Give a descriptive name that identifies the task

2. Tags: Give one or more identification tags to the task (ex: 3-month reminder)

3. Use provider: Choose **Yes** ✓ to indicate that you will provide a URL and query/export to be used. Choose **No** to indicate that the application using Mailmerge as a webservice will send the data directly.

4. Provider type: Select Webservice Voozanoo4 (see below for provider type "Webservice")

5. Login: Select one the connections previously created. If needed, you can create a new connection here with the plus button

6. Dataquery: Select one of the available data requests or exports for this connection. The available data requests and exports are those that the user account (created in the connection step above) has access to.

Continued from above

Mots clés

    appel TTR

Utilisation d'un provider *

    ✓

Type du provider *

    ● Service web Voozanoo 4
    ○ Service web

Connexion *

    https://sandbox.preprod.v   ▾   +

Requête données *

    données grippe   ▾

Dico format ⑦

    Code   ▾

Type de modèle * ⑧

    ● Fichier externe
    ○ En ligne

Sélectionner un modèle de document [?]

    Parcourir...

File name	Action
⑨ barcode_ll.docx	Download the file - Delete

Sélectionner un fond de page si nécessaire [?]

    Parcourir...

File name	Action
No file loaded yet	

7. Dico format: When you one or more dictionary type variables (choice) onto the model, you determine here what value will be displayed. You can choose to have displayed the label (ex: Wednesday), the short label (ex: wed), the code (ex: 3) or raw, that is, the id_data for the dictionary element in the database (ex: 251). Showing the label is the most common. Note that the format is used for all the dictionary type variables that are displayed on the page.

8. Model Type: Choose **File** to upload a document model (type .docx or .pdf). Choose **Online** to create a model directly with the editor built into Mailmerge.

9. Select the model document to use: Upload the model (template) document that the data will be merged with or create the model directly in Mailmerge. A document that has already been created must be a .docx, or .pdf document. See the sections above *Creating a template* on how to create a template document and link the variables. If your model is type .docx, upload it for this task and clique on **Save**. If your template is the type .pdf, upload it for this task and then see above *Creating a template: type Overlay* on how to position (calibrate) the variables onto it. After the calibration, click the button **Save**. Finally, if you want to create your model directly within Mailmerge (not uploading an external document), consult *Creating a template: type Online* above.

epiconcept

mailmerge

You have created a connection to the provider application and chosen the template (model) and data request. You can now run the task to produce the PDF file of the data merged with the model.

Run the task

From your home screen that shows the list of tasks, click on the menu icon to the left of the desired task and select ❶ **Mail merge**. The merging of the data request's data and the template will begin. If you want to choose only certain records from the data request, choose ❷ **View Data**, then check the boxes of those that you want generated and finally click on **Generate a document > Selected**.

Search (filter) the data*

When you choose ❷ **View Data**, the upper part of the screen shows the first ten variables from the data query (the data query you chose during the task creation step) in order to search or filter the files. The search fields are linked together by a logical AND operation and whatever is typed into a field is evaluated according to the data request in the target application.

Getting the results

When the mail merge task is completed, click on the green indicator ❹ on the top right of the window and then click on the task to download the resulting PDF file. You can also see and download the PDF at any time (they are stored) by clicking on ❸ **Mailings** in the menu next to a task.

* If the data request chosen is an export created with the Export creation tool in the Voozanoo application, the search fields will not work. See the technical documentation for adding <condition> tags and begin/end attributes to the data query resource file.

epiconcept

mailmerge

To create a data request to a non-Voozanoo4 application, the target application must be able to send a CSV file (the data which will get merged into the template), a dataset URL (XML file which explains the structure of the CSV data file) and finally "Post Handle", a table to where Mail Merge will send the IDs of the files that have been used in an executed Mailmerge operation.

Ajouter / Editer une tâche

Nom *	Autre application
Mots clés	
Utilisation d'un provider *	✓
Type du provider *	○ Service web Voozanoo 4
	● Service web
Nom de l'utilisateur *	
Mot de passe *	
csv URL *	
Dataset URL *	
Post handle URL	
Type de modèle *	○ Fichier externe
	○ En ligne

Sortir

First, create a new connection to the application as explained above in *Specifying a connection to the data source*, and then in the creation of the new task, select the button **Webservice**.

Here are the fields to fill in:

Username: The name of a user or account so that Mail Merge can log into the application.

Password: Password for this user/account.

CSV URL: The URL from which to fetch the CSV containing the data to be merged.

Dataset URL: The URL to get the XML file that describes the data structure of the CSV file.

Post handle URL: The URL to post the Data request line IDs that Mailmerge used when it executed the task.

epiconcept

If you need to merge the current record on the screen into a Mailmerge model document, you can easily create a button to do this. In the example below, we will have a simple database of patients who are involved in a transportation study. We'll make a button on the page to create a single "participant" sheet that can be printed.

If not already in place, create your Mailmerge task (connection + dataquery/export + template) as normal.

In EpiCraft

In the EpiCraft editor, go to the form page that you want to place the button on and add a Bulk component ❶ where the button will be. Name is something like "Mailmerge task N°xxx". Add a Mailmerge widget (will appear as a button❷) by creating a personal property for this Bulk component called **form.widget** and add the following XML instructions.

```
<Mailmerge id_mm="553" dataset="patient" label="Study subject sheet (PDF)" class="btn-success">
  <option output="html" option_name="output_format" value="pdf"/>
  <option output="html" option_name="save_before_execute" value="true" />
  <option output="html" option_name="output_file_name" value="patient_sheet" />
</Mailmerge>
```

On the first line, replace the task ID **553** with the task ID you want to launch. Replace the dataset **patient** with the name of the varset of the page. And finally replace the output file name from **patient_sheet** to something of your own liking. See the technical details of the other options for the Mailmerge widget at https://epiconcept-paris.github.io/epidocs/voozanoo4_widgetMailmerge.html

When you click on this button, you'll be presented with a PDF file to download.
Note: if you'd like to create a button that creates a PDF of all the records, say on an administrator's page, just remove the attribute dataset="xxxxx" in the first line.
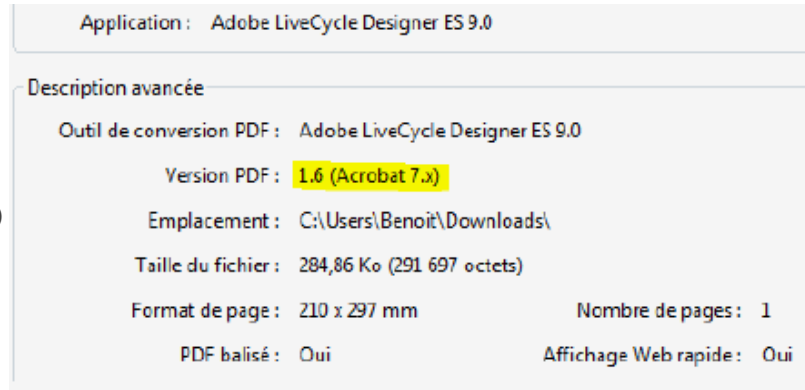
mailmerge

By using the free open source Windows application PDF Creator (http://www.pdfforge.org), you can transform a PDF document into a PDF document version 1.4 which can be used in Mailmerge.
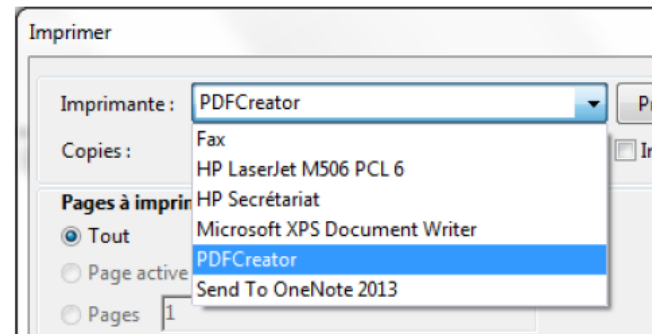
Converting a pdf document to version 1.4

1. Install the application PDFCreator on your PC.

2. Open the PDF you want to convert with Adobe Acrobat Reader.

3. Print it out to the new "printer" named **PDFCreator**.

4. In PDFCreator dialog box, go to the settings and choose the default Save setting: PDF/A-2B.

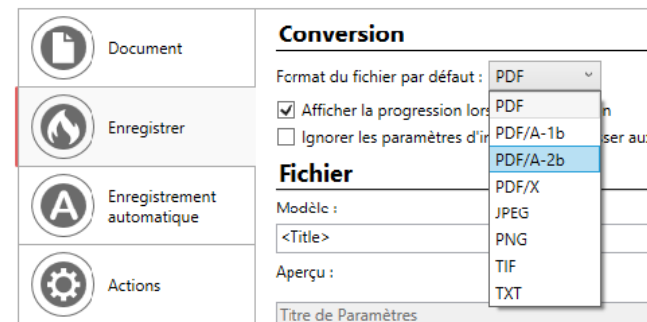**5.** The created PDF file will be in version 1.4 as necessary for use in Mailmerge.

PDFCreator

①

②
Application : Adobe LiveCycle Designer ES 9.0

Description avancée

Outil de conversion PDF : Adobe LiveCycle Designer ES 9.0

Version PDF : 1.6 (Acrobat 7.x)

Emplacement : C:\Users\Benoit\Downloads\

Taille du fichier : 284,86 Ko (291 697 octets)

Format de page : 210 x 297 mm   Nombre de pages : 1

PDF balisé : Oui   Affichage Web rapide : Oui

③
Imprimer

Imprimante : PDFCreator   Pro

Copies :   Im

Fax
HP LaserJet M506 PCL 6
HP Secrétariat
Microsoft XPS Document Writer
PDFCreator
Send To OneNote 2013

Pages à imprin

● Tout
○ Page active
○ Pages 1

④
Document

Enregistrer

Enregistrement automatique

Actions

Conversion

Format du fichier par défaut : PDF

☑ Afficher la progression lors
☐ Ignorer les paramètres d'ir   ser aux

Fichier

Modèle :

<Title>

Aperçu :

Titre de Paramètres

PDF
PDF/A-1b
PDF/A-2b
PDF/X
JPEG
PNG
TIF
TXT

⑤
Application : PDFCreator 2.1.2.0

Description avancée

Outil de conversion PDF : PDFCreator 2.1.2.0; modified using iTextSharp 5.2.1 (c) 1T3X

Version PDF : 1.4 (Acrobat 5.x)

Emplacement : C:\Users\Benoit\Downloads\

Taille du fichier : 114,83 Ko (117 590 octets)

Format de page : 210 x 297 mm   Nombre de pages : 1

PDF balisé : Non   Affichage Web rapide : Non

epiconcept