



Variable Data Print in Founder ElecRoc™

Version 6

User Guide

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Beijing Founder Electronics Co., Ltd.

FOUNDER

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This manual provides a complete introduction to all the functions and features of Founder ElecRoc Workflow Management System. However, some of them are available upon additional payment, the user interface and functions may vary accordingly. For more information, contact Founder's sales personnel.

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Chapter 1 Usage Overview

The VDP (variable data print) module in ElecRoc is designed to output various types of files such as .txt, .csv and .excel that contain variable data, as an .inx file, in the layout or format that the data will be printed. The INX file can then be submitted to ElecRoc for digital / inkjet printing.

The process is mainly comprised of the following steps:

1. Enter into VDP module. In ElecRoc's job window, you can click the rightmost toolbar icon  to enter into the VDP module. As shown in the below, its main body is an INX file list, while three icons located at the upper-right corner (, , ) represent its three key tools.

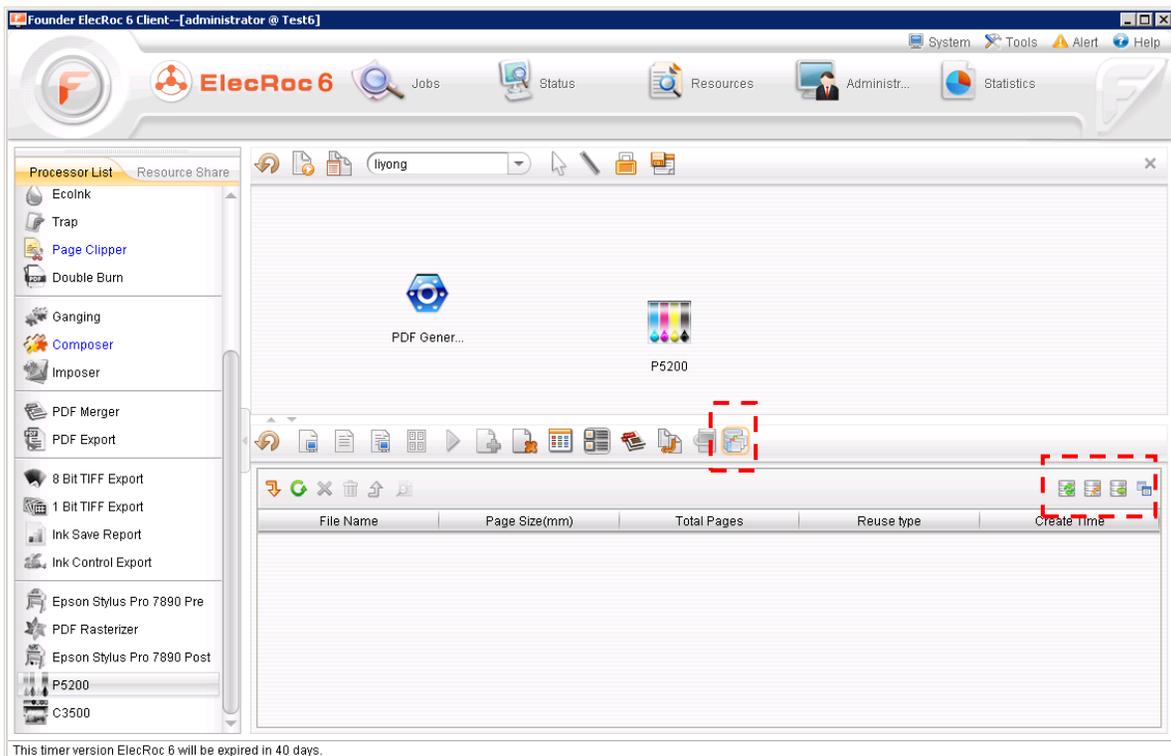


Figure 1 ElecRoc's job window

2. Data conversion. Click the icon  to run the data convert tool, converting one or more .txt (or .csv/.excel) files that contain variable data into an .epd data file, an intermediary format employed in the VDP module. The EPD file is the basis for the next step "template creation". For details on data conversion, refer to *Chapter 2*.

3. Template creation. Click the icon  to run the VDP Editor, defining via a template the layout or format the variable data will be printed. For details about the Editor, refer to *Chapter 3*.

4. INX generation. After you have got the EPD data file and the template, you can generate the INX file. Click the icon  to generate the INX file. For details about the generation, refer to *Chapter 4*.

5. INX output. INX files' output and related operations can be done with the toolbar icons located at the upper-left corner, or with the right-click menu items. See the following figure.

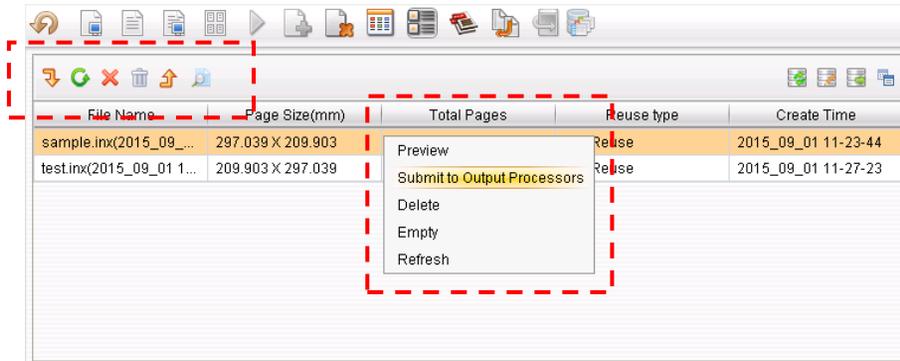


Figure 2 VDP user interface

1) **Preview.** Before real print, a preview aiming to check out the output result and thus avoid any possible print error is recommended. Choose an INX file and then click the toolbar icon , or right-click the INX and then choose **Preview**, to open the following dialog box. Specify the page range and then click **OK**. The file for preview is in PDF format, and in general, the system will automatically start your Adobe Reader to open it.

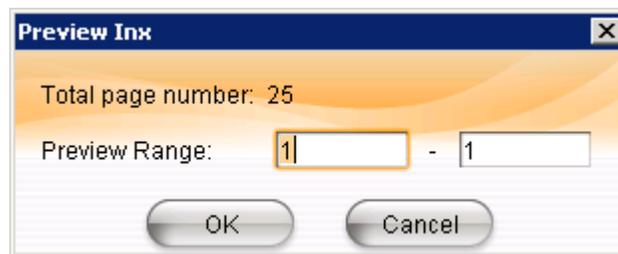


Figure 3 Preview INX

2) **Submit.** After you have generated an INX file, click the refresh icon  to show up it. And then you can submit for output (being printed or exported), in three ways.

Way ①: Drag and drop the INX file onto the node in your job. This way supports 3 types of nodes, inkjet printer, digital printer, and PDF Export.

Way ②: Choose the INX file and make use of the toolbar icons. A click on the icon  will list all the inkjet or digital printing nodes in your job for selection. And a click on the icon  lists all the PDF Export nodes.

Way ③: Right-click the INX file. The short-cut menu contains a command **Submit to Output Processors**, with which you can open the following dialog box.

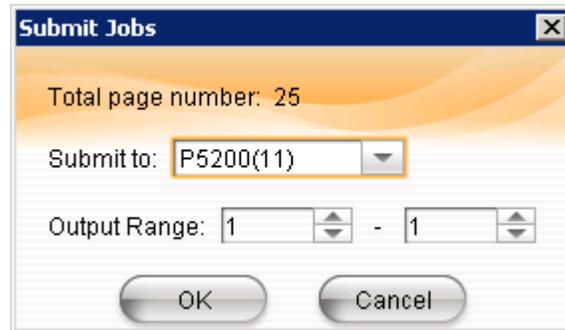


Figure 4 Submit INX

Choose a node from the dropdown list, which contains all the inkjet & digital printing nodes from your job. The number in brackets indicates the node ID, which identifies the node in case that there are same node names in your job. In addition, you can specify the output range.

3) **Import/Export.** The system supports you to import or export an INX file into or out of the INX file list.

Click the icon  to import an INX file. This brings convenience for repetitive use of an INX file, e.g. in some cases an existing INX file can save you a lot of time needed to run the data convert tool, the Editor and the Generator over again.

Click the icon  to export an INX file. Also this can be done by dragging and dropping the INX file to a PDF Export node in your job. Being exported from ElecRoc to any specified location, the INX file can be easily backed up or saved for repetitive use.

4) **Delete/Empty.**

An INX file can be deleted from ElecRoc by clicking the toolbar icon  or by right-clicking the INX file and choosing **Delete**.

All the INX files in current job can be deleted from ElecRoc by clicking the toolbar icon  or by right-clicking any file and choosing **Empty**.

Chapter 2 Data Convert Tool

This tool is designed to help the VDP module, especially the Editor, identify the data contained in your clients' various types of data files. The original data files from your clients may be .txt or .csv files, or Excel workbooks, or even SQL Server and Access database files. With this tool, all of these file types will be converted into an intermediary file format that can be identified by the system, i.e. .epd.

Enabling the VDP module to correctly identify the data inside your clients' files, the data conversion will not damage or lose any original data.

In this tool, original data is classified into 3 types: *Single*, *Composite*, and *Database*. Sections 2.1-2.3 below are steps for converting the *Single* and *Composite* data, while Section 2.4 is for the *Database*.

2.1 Single Data File

1) Launch the Tool

Click the rightmost toolbar icon  in ElecRoc's job window to enter into the VDP module. And then click the icon  to run the convert tool.

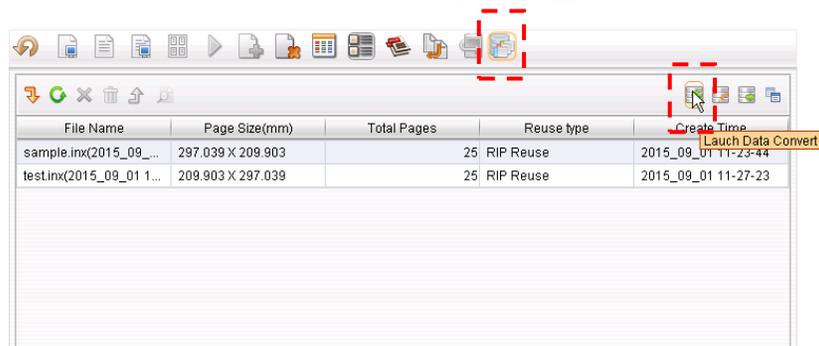


Figure 5 Launch the data convert tool

2) Choose Original Data

1) Choose a data type, here we take the simplest type *Single Data* as example (it is checked by default), see ①.

2) Click the button **Select File**, see ②, and then choose from your local computer or network the original data file. Also this can be done by specifying a full file path.

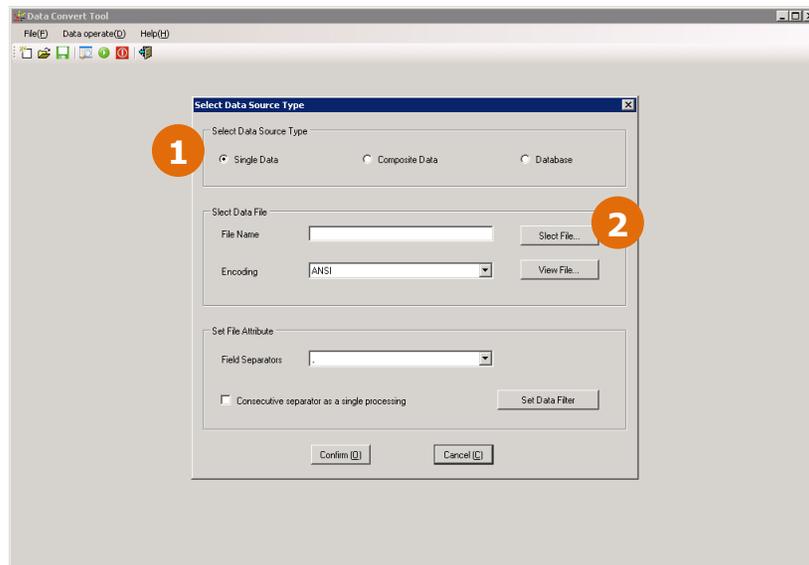


Figure 6 Choose original data file

Note: The example here is a CSV file named *sample1.txt* that can be opened with Windows Notepad. As shown in the below, it contains many lines of data, and each line consists of 6 pieces of data, separated by comma. Data in real production is perhaps simpler than this example, for instance, it might contain only barcode number.

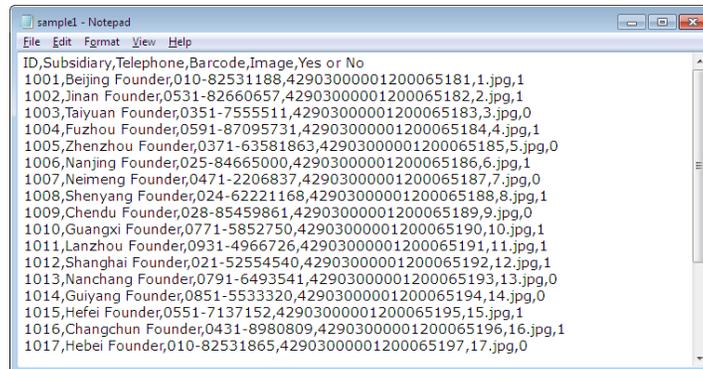


Figure 7 Example file

Click **Confirm** to enter into the following window.

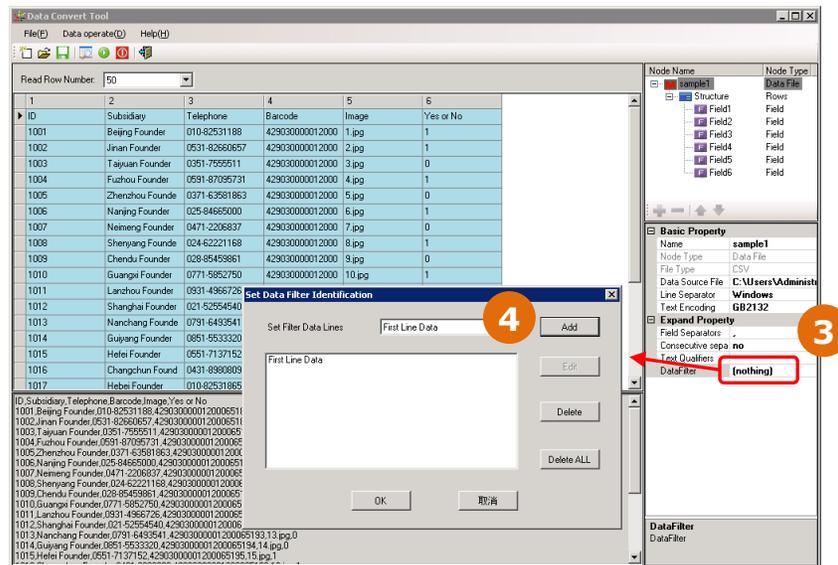


Figure 8 Initial result

3) Configure parameters

Configure the following parameters at the lower-right corner (see ③):

Text Encoding: specify the encoding mode used by the original file, e.g. ANSI, so that all characters in the file can be identified.

Field Separators: specify or input the separator used between any two data segments each line in the original file, e.g. comma.

DataFilter: The first line in the original file is often the names for the variables (or fields), and thus cannot be regarded as data and should be filtered. Click the button  aside the **DataFilter** parameter to open a dialog box, see ④, and then choose **First Line Data** and click **Add**, and then click **OK**.

Click **Yes** in case that you see the following pop-up when you are configuring the above parameters.

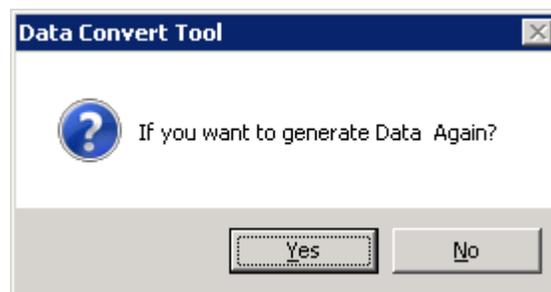


Figure 9 Pop-up

As displayed in the **Structure** area (located at the upper-right corner),

the first line has been identified as field names, see ⑤.

4) Save the Settings

Click the toolbar icon , see ⑥, to save the above settings.

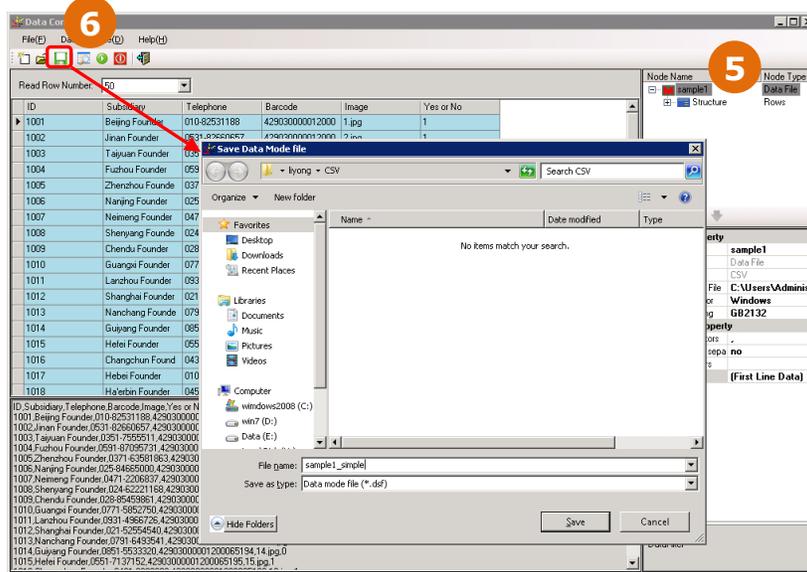


Figure 10 Save the settings

5) Data Preview

Click the toolbar icon , and input the data range you want to preview, see ⑦, and then click **Confirm**. The result shows what fields are contained in each line of data, and what detailed value is for each field.

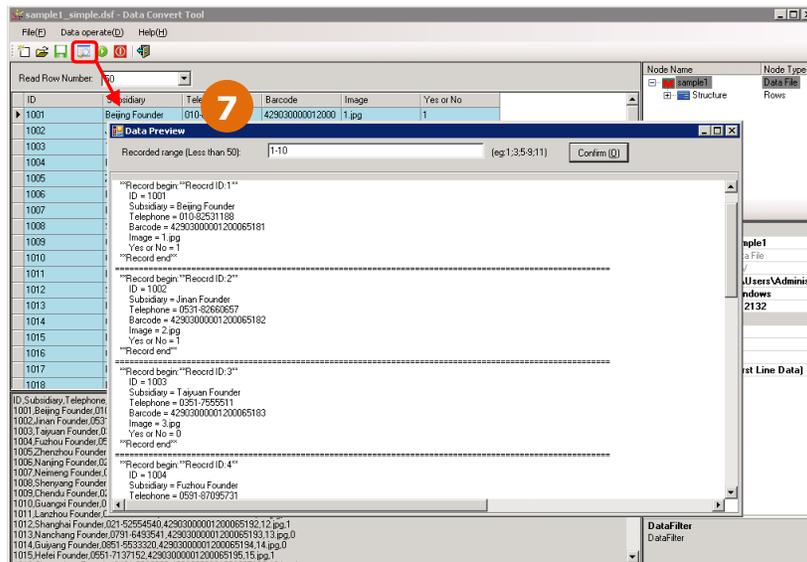


Figure 11 Data preview

6) Submit for Conversion

Return to the main window and click the toolbar icon . If converted successfully, a hint pops up. In case that you want to stop the conversion halfway, you can click the toolbar icon .

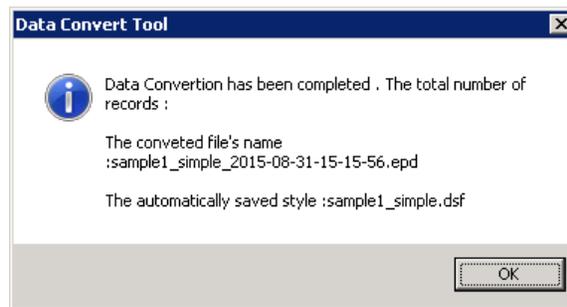


Figure 12 Data Conversion

Now you have completed the conversion. And you can exit the tool.

Note: Operations are different if you chose an original data file of fixed length.

1) In this case, choose **Fixed Length** for the **Field Separators** parameter.

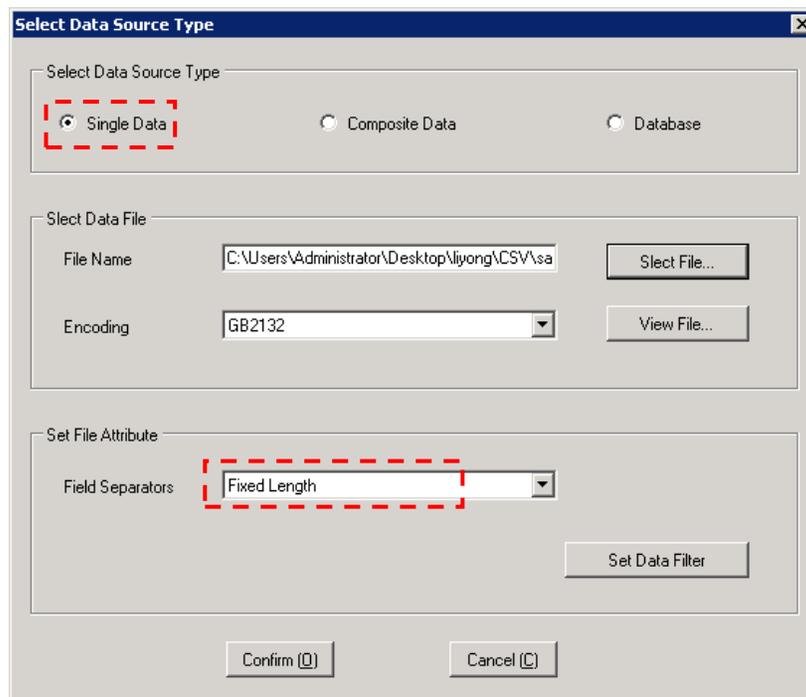


Figure 13 Choose original data file

2) In the next window, choose the **Structure** node at the upper-right corner, see ①, and then at the left area, press down and drag the left mouse button to choose a data of certain length, and then release the mouse button. Input field name in the pop-up dialog and then click **OK**, see ②. In this way, you have defined a field and set its values.

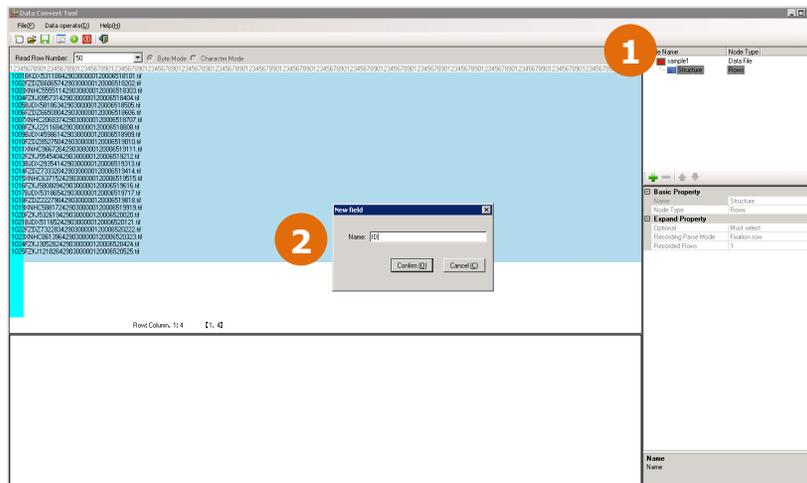


Figure 14 Field divide

Repeat the above operation to divide the rest data into multiple fields.

2.2 Composite Data File – CSV

1) Choose Original Data

After you enter into the tool, choose *Composite Data*, and then choose a CSV file by using the button **Select File**, and then click **Confirm**.

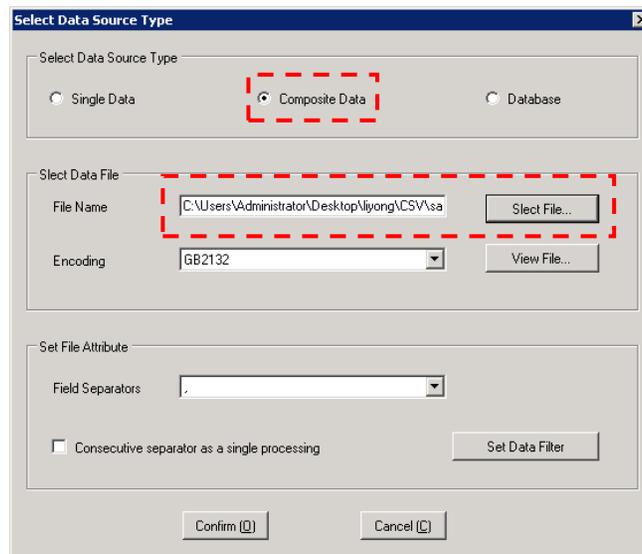


Figure 15 Choose original data file

Note: This dialog box can be opened anytime by clicking the toolbar icon , or by choosing from the main menu **File > New Data Mode**.

The example used here is named *sample1.csv*, which can be opened by Notepad or Excel. As shown in the below, it contains many lines, and each

line consists of 6 pieces of data, separated each other by a comma. The first line is names, and the rest lines are data and different from each other. Data in real production perhaps is simpler than this example, for instance, it might contain only barcode number.

```

sample1 - Notepad
File Edit Format View Help
ID,Subsidiary,Telephone,Barcode,Image,Yes or No
1001,Beijing Founder,010-82531188,42903000001200065181,1.jpg,1
1002,Jinan Founder,0531-82660657,42903000001200065182,2.jpg,1
1003,Taiyuan Founder,0351-7555511,42903000001200065183,3.jpg,0
1004,Fuzhou Founder,0591-87095731,42903000001200065184,4.jpg,1
1005,Zhenzhou Founder,0371-63581863,42903000001200065185,5.jpg,0
1006,Nanjing Founder,025-84665000,42903000001200065186,6.jpg,1
1007,Neimeng Founder,0471-2206837,42903000001200065187,7.jpg,0
1008,Shenyang Founder,024-62221168,42903000001200065188,8.jpg,1
1009,Chendu Founder,028-85459861,42903000001200065189,9.jpg,0
1010,Guangxi Founder,0771-5852750,42903000001200065190,10.jpg,1
1011,Lanzhou Founder,0931-4966726,42903000001200065191,11.jpg,1
1012,Shanghai Founder,021-52554540,42903000001200065192,12.jpg,1
1013,Nanchang Founder,0791-6493541,42903000001200065193,13.jpg,0
1014,Guiyang Founder,0851-5533320,42903000001200065194,14.jpg,0
1015,Hefei Founder,0551-7137152,42903000001200065195,15.jpg,1
1016,Changchun Founder,0431-8980809,42903000001200065196,16.jpg,1
1017,Hebei Founder,010-82531865,42903000001200065197,17.jpg,0
  
```

Figure 16 Example file

2) Wizard's step 1: Frame Analyze

A wizard window appears after you click **Confirm** in the previous step. The first step of the wizard is named *Frame Analyze*.

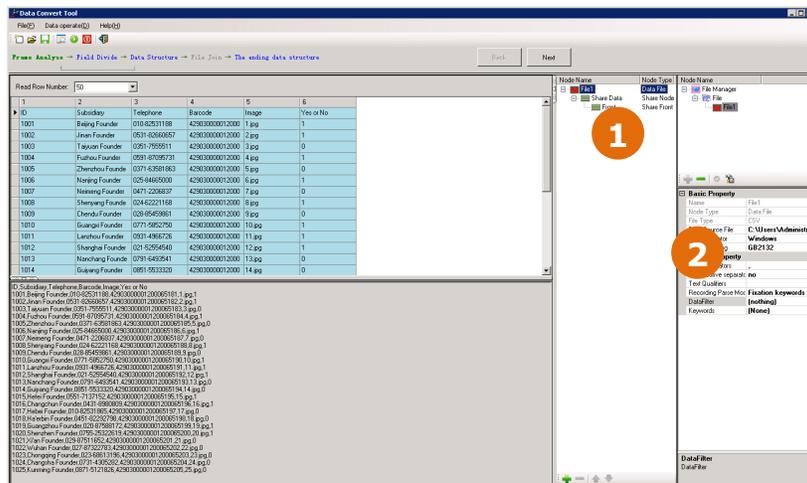


Figure 17 Frame Analyze

1) On the directory tree in the middle of the window, ensure that the original file *File1* is being selected, see①.

2) Configure parameters at the lower-right corner as follows, see②:

Set **Field Separators** to a comma (this is because each piece of data in the example original file is separated from each other).

Set **Recording Parse Mode** to **Fixed row** (this is because each line in the example original file is different from each other). A hint pops up. Click **Yes**.

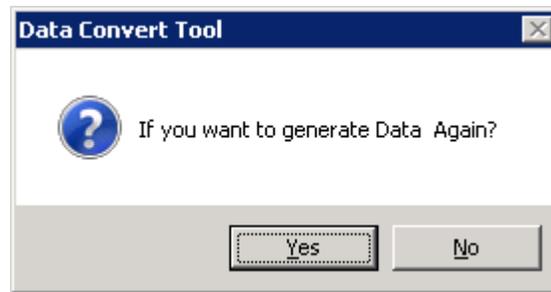


Figure 18 Hint

Filter out the first line at the **DataFilter** parameter. As to the example used here, its first line is names, and should not be regarded as data, and thus need to be filtered. Click the **DataFilter** parameter to open a dialog box, choose **First Line Data** from the dropdown list, and then click **Add** and **OK**.

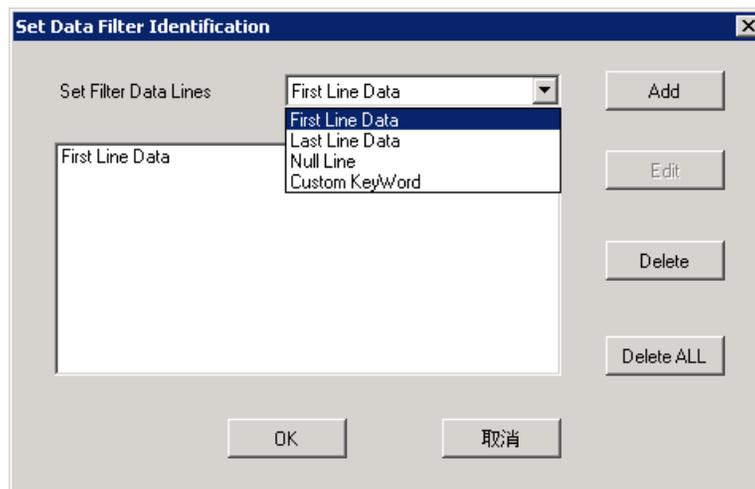


Figure 19 Filter the first line

3) Click Next.

3) Wizard's step 2: Field Divide

The second step of the wizard is *Field Divide*.

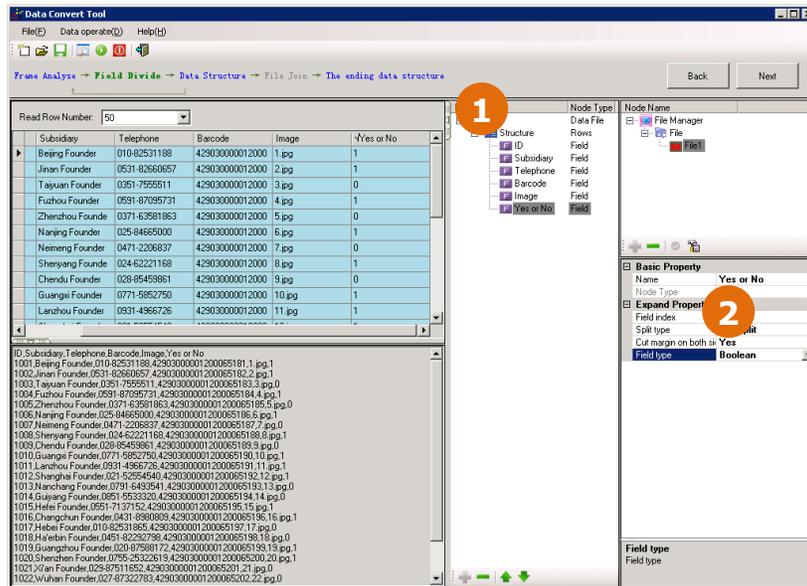


Figure 20 Field divide

First, check if the type and name for each field are correct. The type is *Character* by default. If it is actually not *Character*, please set it to its real type. As to the name, once being filtered, the first line will automatically be regarded as field names, and in this case, you do not need to change them. In case that the first line is not filtered, the names by default will be *Field1*, *Field2*, and so on. For better memory, please re-name them at your will.

1) In the middle of the window, see①, expand the **Structure** node (by clicking \oplus) to show up all the fields (the example above contains 6 fields). And then choose a field.

2) See②, to change the type, find out the **Field type** parameter at the lower-right corner and choose its right type. To change the name, find out the parameter **Name** and input a new name.

Then, if needed, you can further divide a field (see steps 3)-6) below). CSV file often uses symbols such as comma to divide a line into several fields, and thus a further divide is usually not needed.

3) If you need to divide a field, choose the field and then choose a suitable option at the **Split type** parameter, see③. Here we take the option *CSV* as example, and then choose a separator at **Field Separators** (input manually in case that your needed option is not in the list). The result will be immediately displayed in the left table.

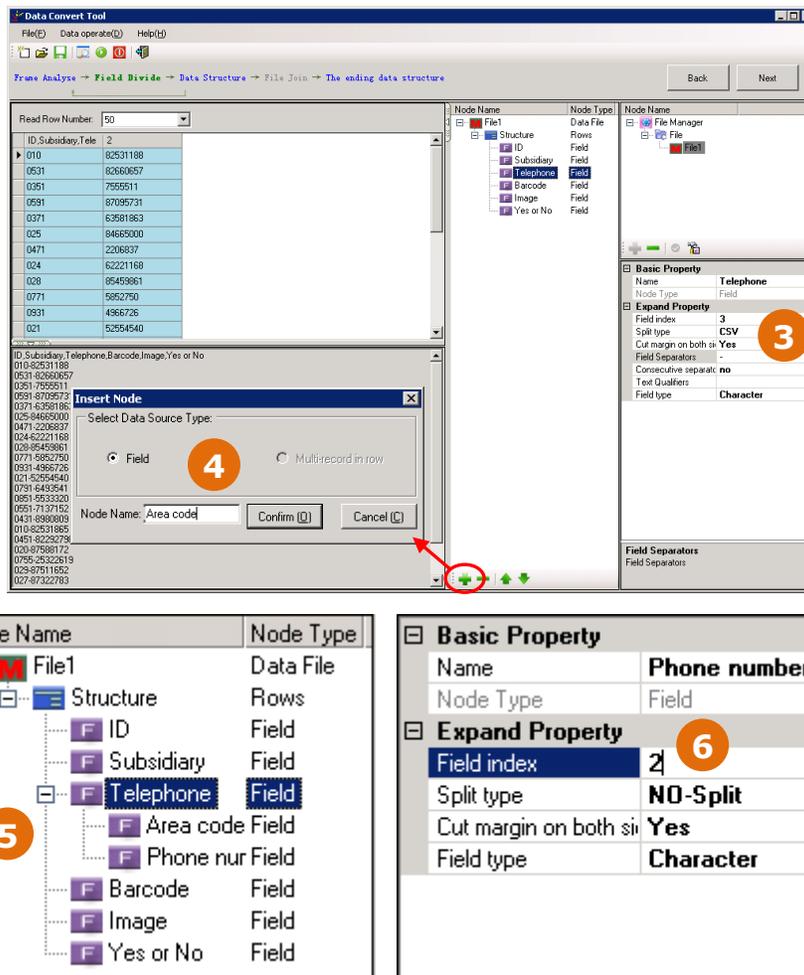


Figure 21 Divide a field

4) The icon  becomes activated when you have chosen a field divide mode. Click this icon or right-click a field and then choose **Insert node**, to open a dialog, see ④. Input the node name and click **OK**.

5) Repeat the step 4) to insert another node, i.e. by steps 4)-5) you will create two sub-fields under the field, see ⑤.

6) Choose the first sub-field and set its *Field index* to 1. And similarly, set that for the second sub-field to 2, see ⑥.

And then, click **Next**.

4) Wizard's step 3: Data Structure

Expand all nodes to see if the data structure determined by previous two steps is correct or not. If correct, click **Next** to continue; if not, you can click **Back** to re-configure.

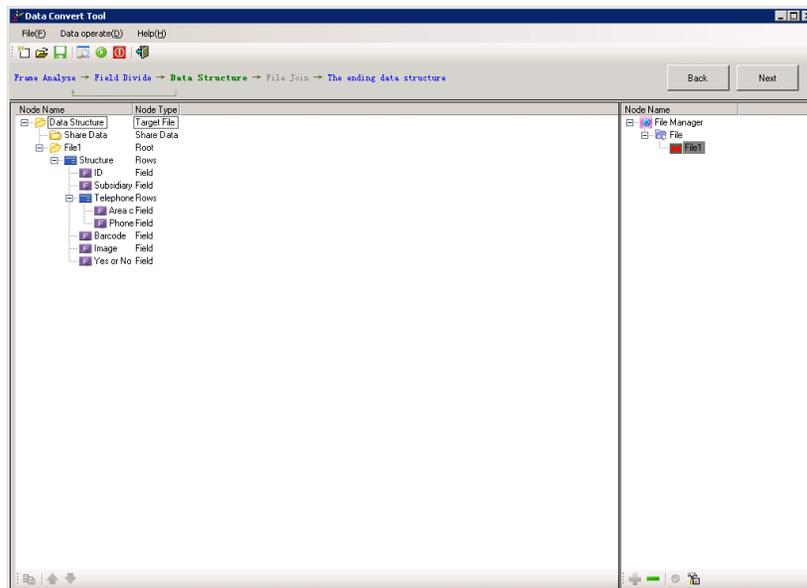


Figure 22 Data structure

5) Wizard's step 4: File Combine

The system asks if you want to add other data file, after you click **Next** in the previous step.

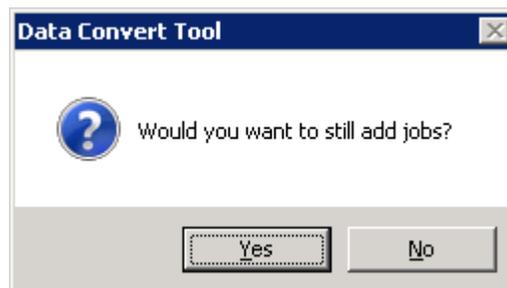


Figure 23 Add File

If needed, click **Yes**. If not, click **No** to continue the next step.

If you choose **Yes**, you will then repeat the previous 4 steps, i.e. to choose a new data file, and then analyze, divide, and confirm structure, till you see the above pop-up over again. Then click **No** to see the following user interface.

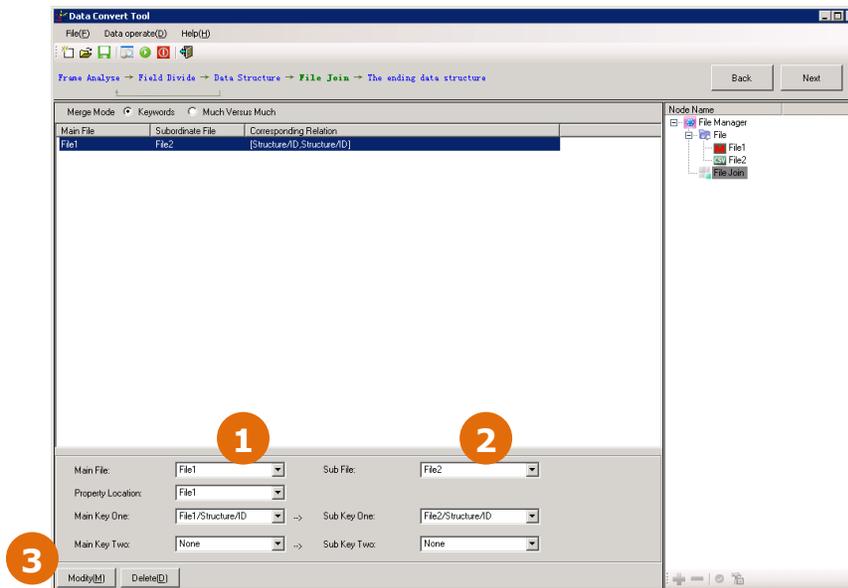


Figure 24 File Combination

Here we take the *Keywords* mode as example.

1) Choose a file as main file, e.g. *File1*, and then choose a field from the main file as *Main Key One*.

2) Choose a file as sub file, e.g. later-added *File2*, and then choose a field from the minor file as *Sub Key One*.

To set up an effective file combination, the values for the two fields *Main Key One* and *Sub Key One* must be completely the same.

3) Click **Add**.

Click **Next**.

6) Wizard's step 5: Final Structure

This step displays the final data structure, determined by the previous steps, for you to confirm.

If correct, click the toolbar icon  to save the settings.

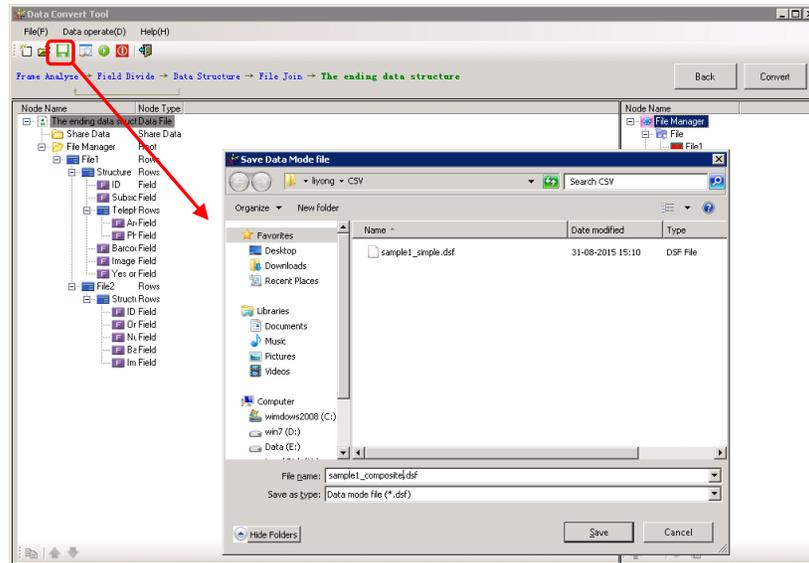


Figure 25 Final data structure

7) Data Preview

Click the toolbar icon  in the above window. And then, in the pop-up window, input the preview range, and click **Confirm**.

The result appears in the below, showing what fields are contained in each line of data, and what detailed value for each field is.

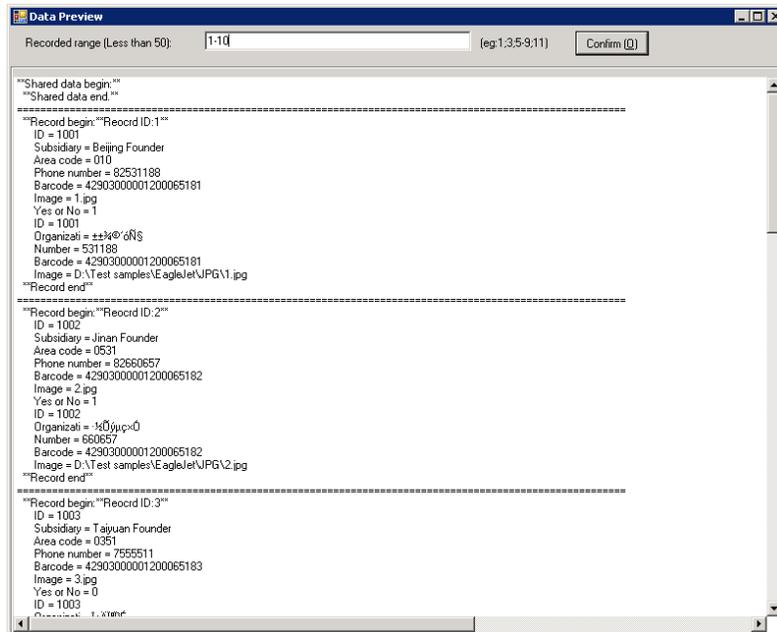


Figure 26 Data preview

8) File Conversion

Return to the main window, and click the button **Convert** or the toolbar icon . In case that you want to stop the conversion halfway, you can click the toolbar icon .

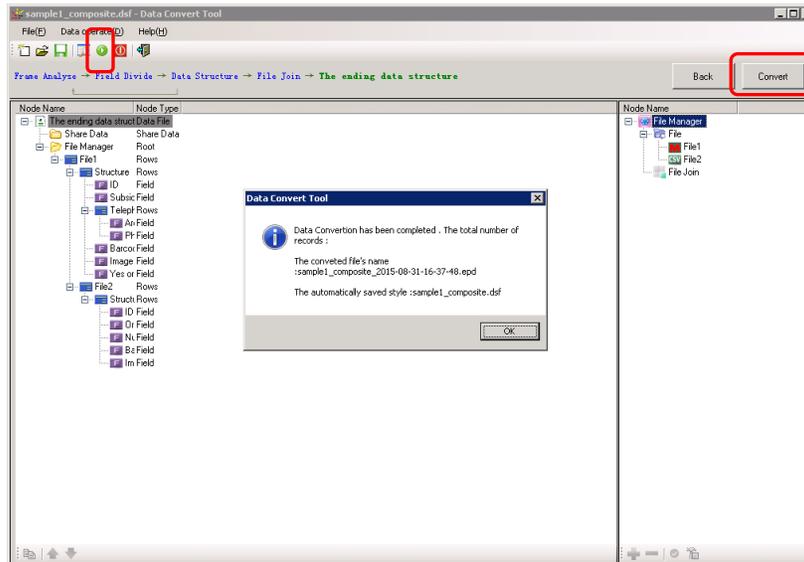


Figure 27 Data Conversion

A box pops up showing if the converting is successful. Now you have completed the conversion and can exit the tool.

2.3 Composite Data File – Fixed Length

1) Choose Original Data

After you enter into the tool, choose *Composite Data*, and then choose a file of fixed length by using the button **Select File**, and set the **Field Separators** to **Fixed Length**, then click **Confirm**.

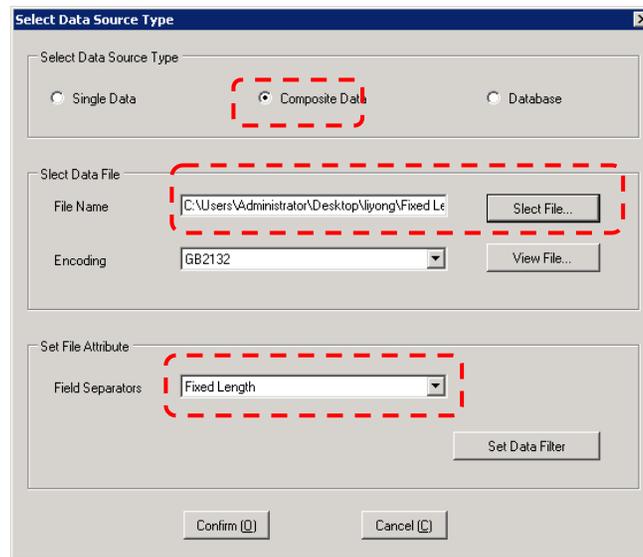


Figure 28 Choose original data file

Note: The example used here is named *sample1.txt*, which can be opened by Notepad. As shown in the below, it contains many lines, and each line's length is fixed and absolutely the same, without any separator.

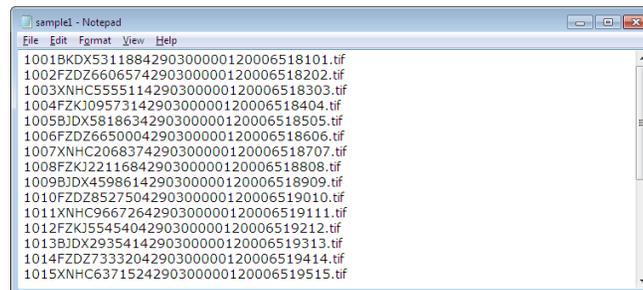


Figure 29 Example file

2) Wizard's step 1: Frame Analyze

A wizard window appears after you click **Confirm** in the previous step. The first step of the wizard is named *Frame Analyze*.

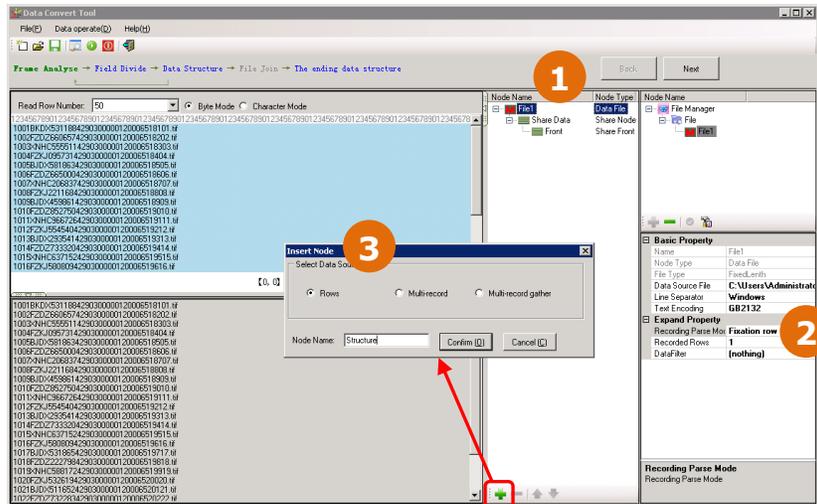


Figure 30 Frame Analyze

1) On the directory tree in the middle window, ensure that the original file *File1* is being selected, see①.

2) Configure parameters at the lower-right corner as follows, see②:

Set **Data Parse Mode** to **Fixed row** (this is because each line in the original file is different from each other).

Configure the **DataFilter** parameter if needed (Because the example file used here is comprised entirely of data, and thus nothing needs to be filtered).

3) At the bottom of the window, click the icon  to open a dialog box, see③. Choose the type **Rows**, input node name and then click **OK**.

Click **Next**.

3) Wizard's step 2: Field Divide

The second step of the wizard is *Field Divide*.

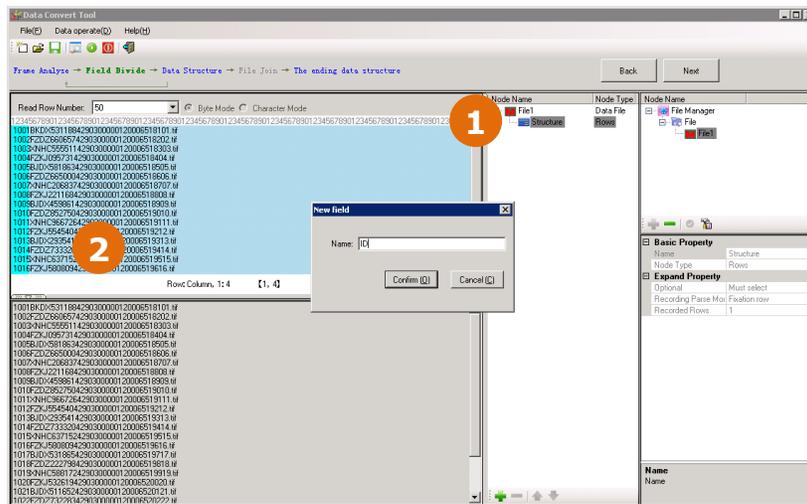


Figure 31 Field Divide

1) In the middle of the window, see①, choose the **Rows** node created in the step 1 **Frame Analyze**.

2) At the upper-left of the window, press down and drag your left mouse button to choose a certain length of data as the values for a field, see②, and then release the mouse button to open a dialog box. Input the field name and click **OK**.

Also this operation can be done as follows:

3) Choose the **Rows** node created in the step 1 **Frame Analyze**, and then click the icon **+** at the bottom of the window to open a dialog box, see③. Choose the type **Field**, and then input field name and click **OK**.

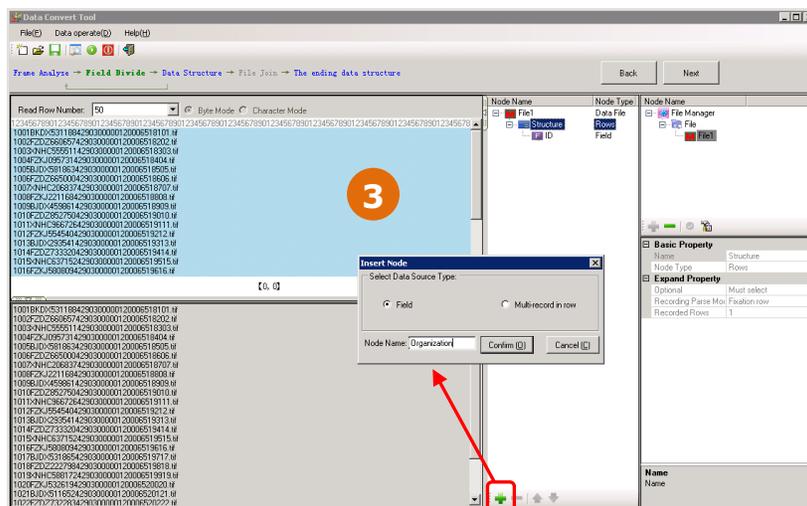


Figure 32 Insert field

4) Choose the newly-created field node on the directory tree, and then

in the left data area, press down and drag your left mouse button to choose a certain length of data as the values for the field, and then release the mouse button to open a hint box. And choose **OK**. Values for the field can also be specified by way of the parameters **Field Offset** and **Field Length** at the lower-right corner, see④. The former refers to at which digit each value starts and the later refers to how many digits each value contains.

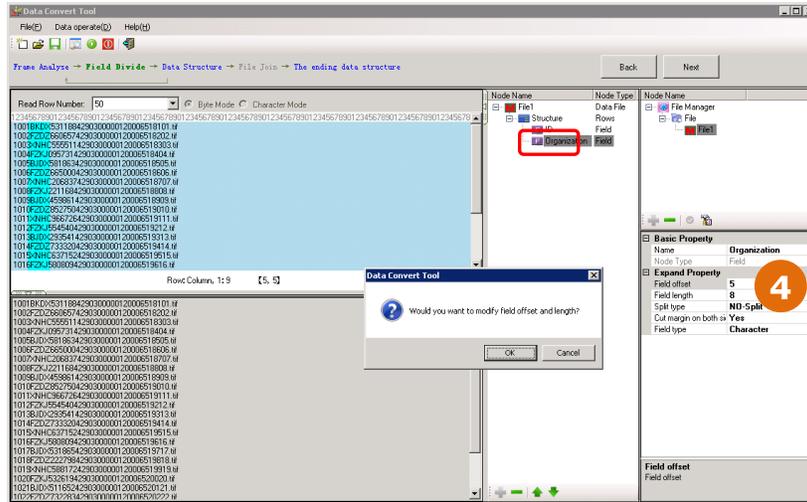


Figure 33 Specify the values

Repeat any of the two ways above to divide the rest data into multiple fields.

After the dividing, please set correct type for each field. And each divided field, can be further divided into several sub-fields (see step 2 in previous Section 2.2).

Click **Next**.

4) Wizard's step 3: Data Structure

Expand all nodes to see if the data structure determined by the previous two steps is correct. If correct, click **Next** to continue; if not, you can click **Back** to re-configure.

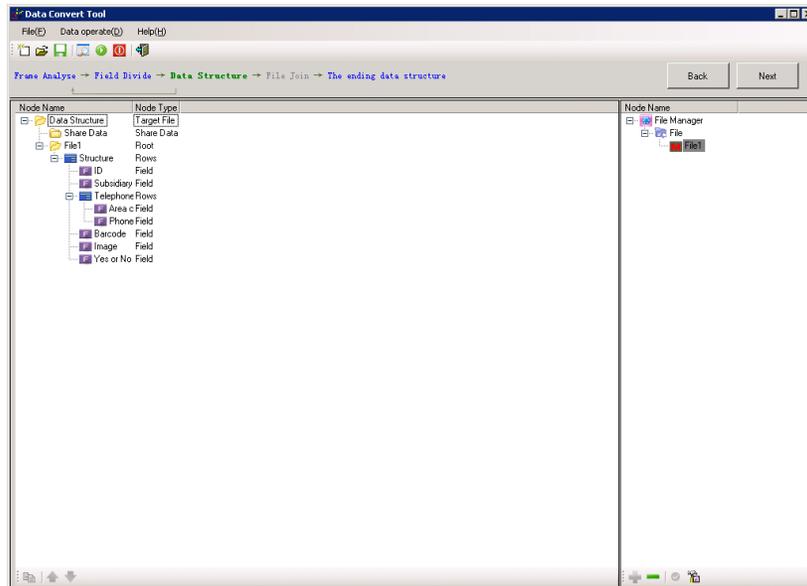


Figure 34 Data structure

5) Wizard's step 4: File Combine

The system asks if you want to add other data file, after you click **Next** in the previous step.

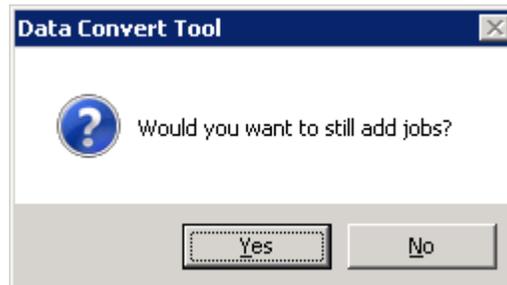


Figure 35 Add File

If needed, click **Yes**. If not, click **No** to continue the next step.

If you choose **Yes**, you will then repeat the previous 4 steps, i.e. to choose a new data file, and then analyze, divide, and confirm structure, till you see the above pop-up over again. Then click **No** to see the following user interface.

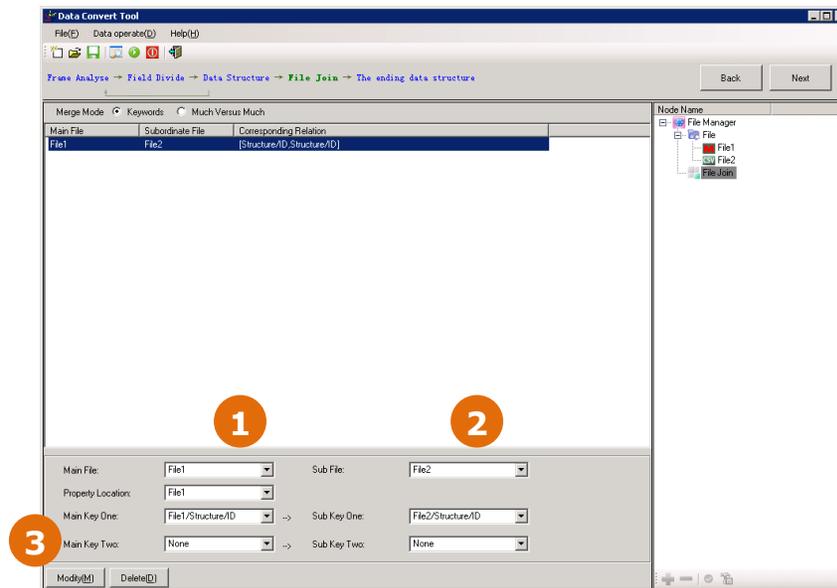


Figure 36 File Combination

Here we take the *Keywords* mode as example.

1) Choose a file as main file, e.g. *File1*, and then choose a field from the main file as *Main Key One*.

2) Choose a file as sub file, e.g. later-added *File2*, and then choose a field from the minor file as *Sub Key One*.

To set up an effective file combination, the values for the two fields *Main Key One* and *Sub Key One* must be completely the same.

3) Click **Add**.

Click **Next**.

6) Wizard's step 5: Final Structure

This step displays the final data structure, determined by the previous steps, for you to confirm.

If correct, click the toolbar icon  to save the settings.

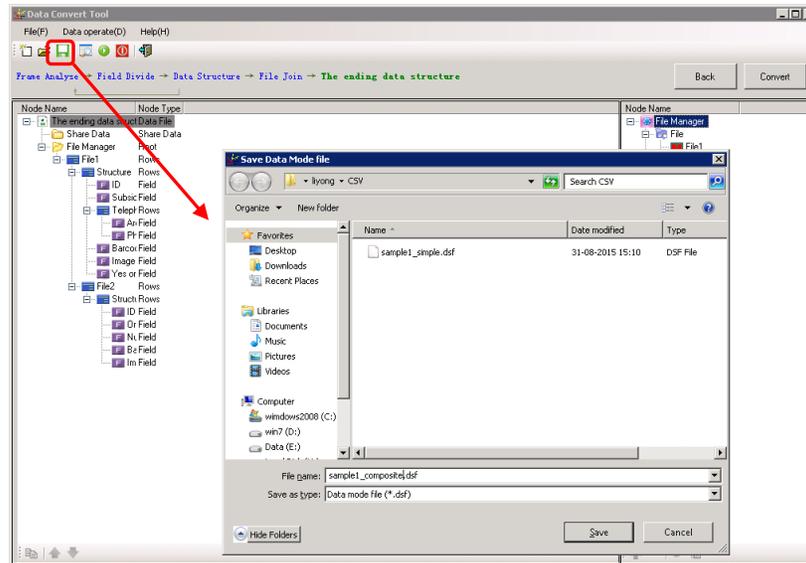


Figure 37 Final data structure

7) Data Preview

Click the toolbar icon  in the above window. And then, in the pop-up window, input the preview range, and click **Confirm**.

The result appears in the below, showing what fields are contained in each line of data, and what detailed value for each field is.

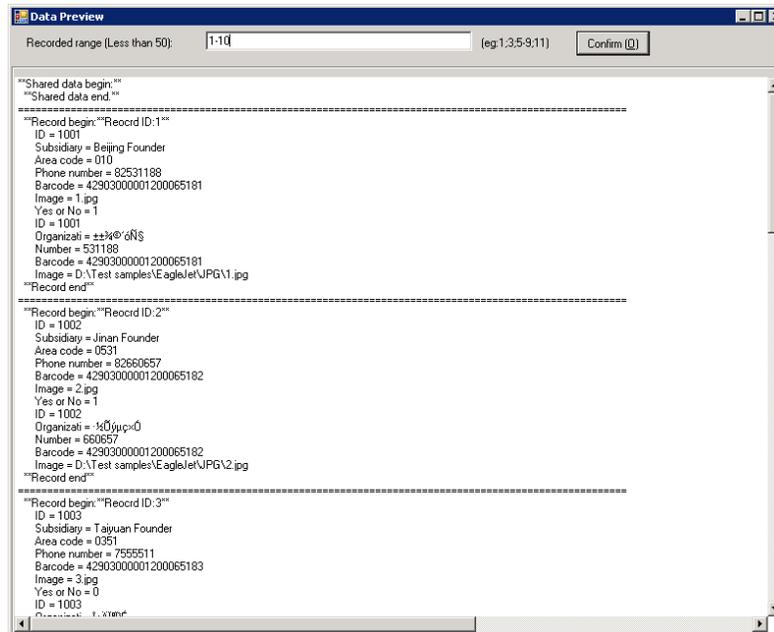


Figure 38 Data preview

8) File Conversion

Return to the main window, and click the button **Convert** or the toolbar icon . In case that you want to stop the conversion halfway, you can click the toolbar icon .

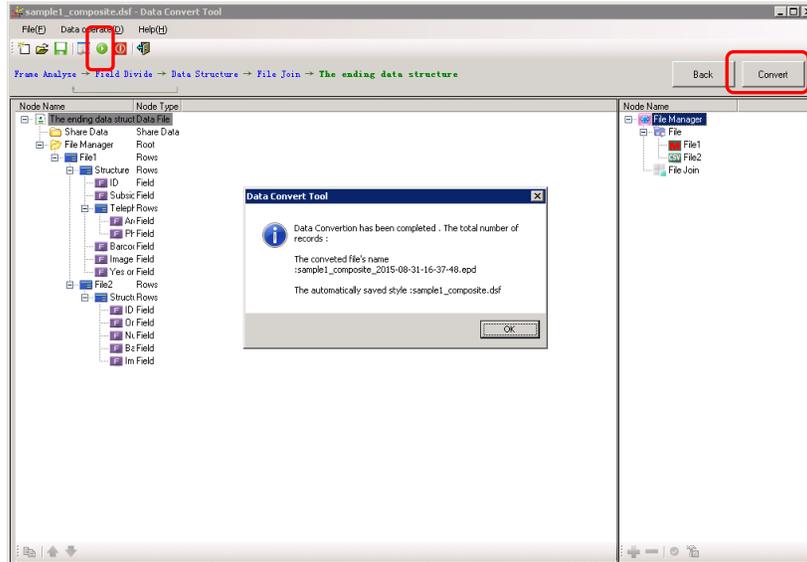


Figure 39 Data Conversion

A box pops up showing if the converting is successful. Now you have completed the conversion and can exit the tool.

2.4 Database File

1) Choose Original Data

After you enter into the tool, choose **Database**, and then you will see a dialog box popped up, see the left figure below.

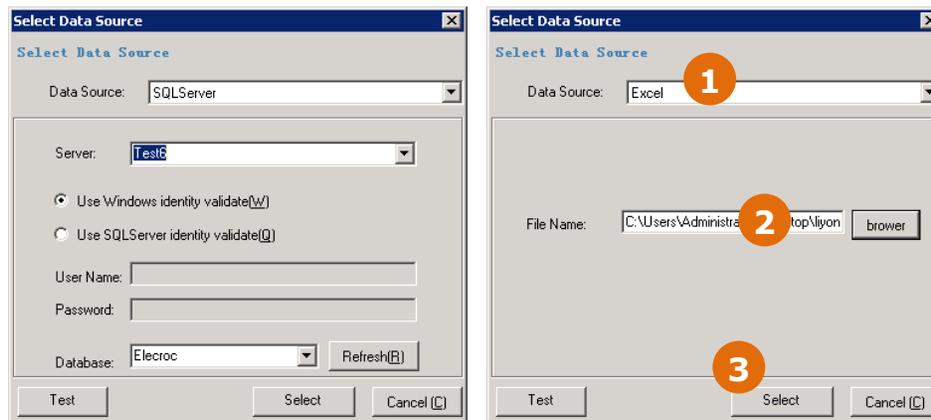


Figure 40 Database

1) At the parameter **Data Source**, choose **Excel** (see ①, here we take

Excel as example, if needed, you can choose other option).

2) At the parameter **File Name**, see② above, input the full file path or click **Browse** to choose the Excel file.

3) See③ above, Click the button **Select** to open the following dialog box, and in which you need to tick the sheets you want to use.

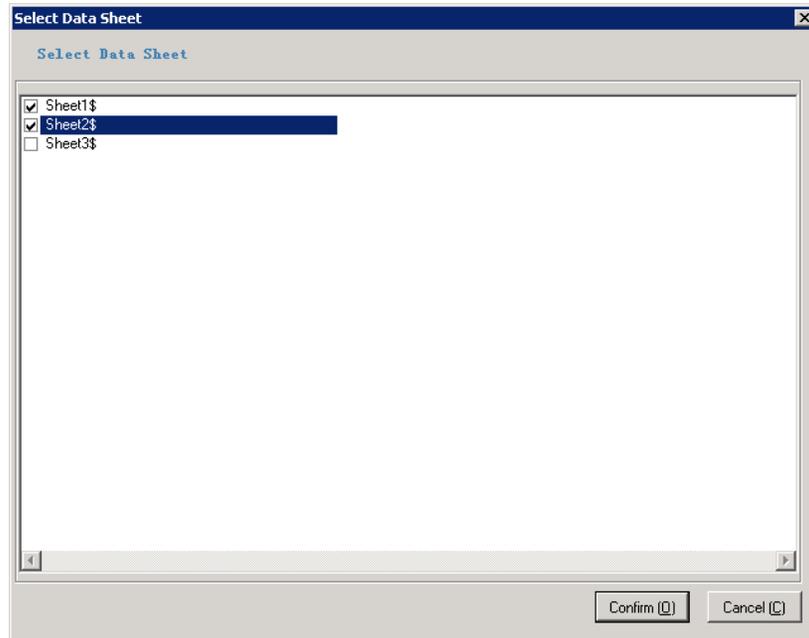


Figure 41 Choose Data Sheets

Note: The example used here is named *Sample.xls*, and can be opened with Excel. It contains three sheets. The two sheets ticked in the above figure contain the content as shown in the below.

ID	Subsidiary	Telephone	Image
1001	北京大学	010-82531188	01.tif
1002	方正电子	0531-62660657	02.tif
1003	河南方正	0351-7559511	03.tif
1004	福州方正	0591-87095731	04.tif
1005	郑州方正	0371-63581863	05.tif
1006	南京方正	025-84665000	06.tif
1007	内蒙方正	0471-2206837	07.tif
1008	沈阳方正	024-62221168	08.tif
1009	成都方正	028-85459861	09.tif
1010	广西方正	0771-9852750	10.tif
1011	兰州方正	0931-4966726	11.tif
1012	上海方正	021-52594540	12.tif
1013	南昌方正	0791-6493941	13.tif
1014	贵阳方正	0851-8533320	14.tif
1015	合肥方正	0551-7137152	15.tif
1016	长春方正	0431-9980809	16.tif
1017	河北方正	010-82531865	17.tif

ID	Organization Code	Image
1001	531188	01.tif
1002	660657	02.tif
1002	555511	03.tif
1004	957312	04.tif
1005	581863	05.tif
1006	665000	06.tif
1007	206837	07.tif
1008	221168	08.tif
1009	459861	09.tif
1010	852750	10.tif
1011	966726	11.tif
1012	564540	12.tif
1013	493541	13.tif
1014	533320	14.tif
1015	137152	15.tif
1016	980809	16.tif

Figure 42 Example file

2) Wizard's step 1: Frame Analyze

A wizard window appears after you click **Confirm** in the previous step. The first step of the wizard is named *Frame Analyze*.

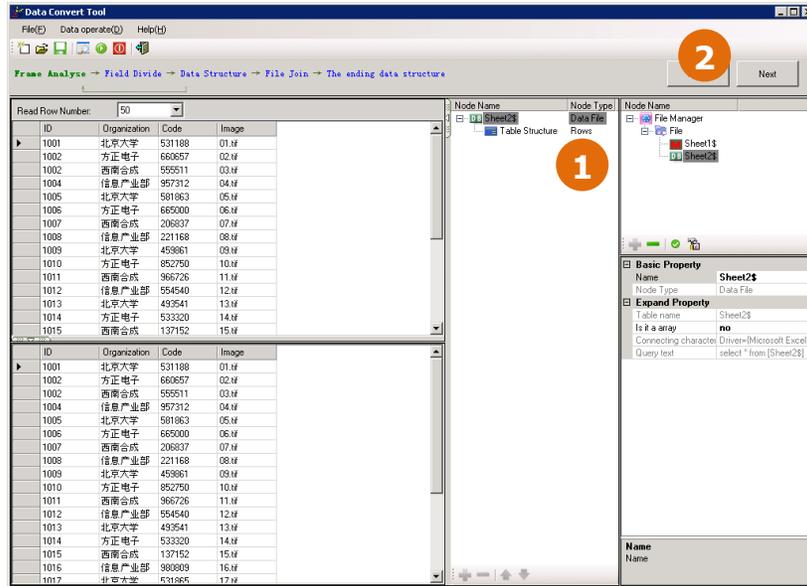


Figure 43 Frame Analyze

- 1) Choose a sheet from the directory tree located at the upper-right corner of the window, see ①, by default, the last sheet will be selected.
- 2) Click **Next**.

3) Wizard's step 2: Field Divide

The second step of the wizard is *Field Divide*.

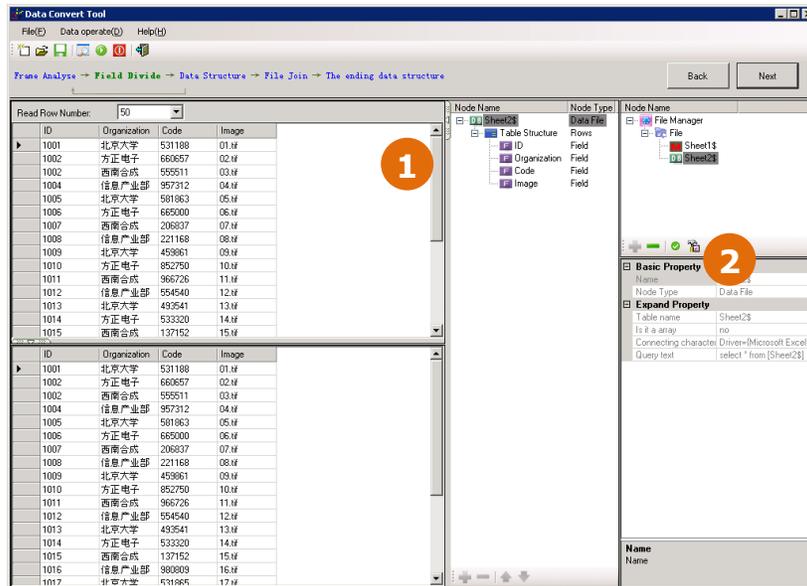


Figure 44 Field Divide

1) The system automatically finishes the work of dividing fields. Expand the node **Table Structure** (see①, by clicking \oplus) located in the middle of the window, and you can see the automatically-generated fields (in the example above, four fields are displayed).

2) By default, the system names the fields with the content in the first row of the sheet. If needed, you can choose a field and then rename it at the lower-right corner of the window, see②.

Click **Next**.

4) Wizard's step 3: Data Structure

Expand all nodes to see if the data structure determined by the previous two steps is correct.

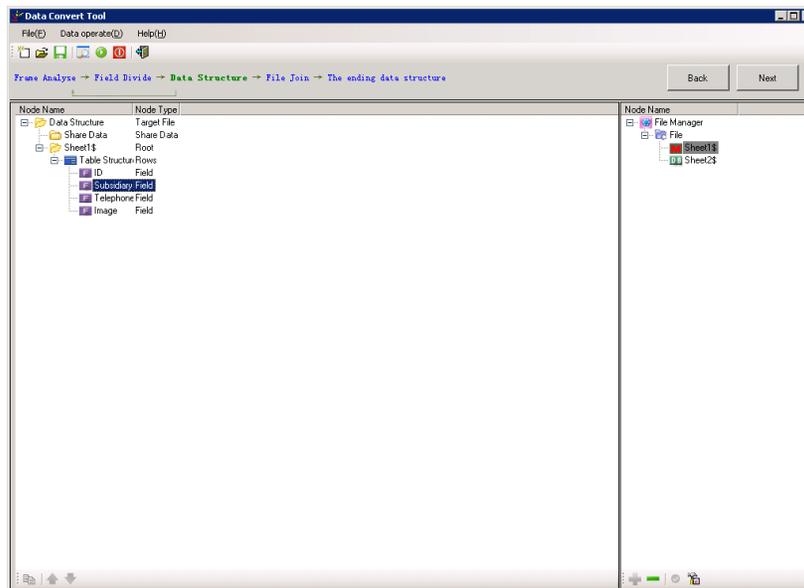


Figure 45 Data Structure

If you have ticked more than one sheet, please choose other sheet located at the upper-right corner, and then repeat the previous three steps to determine its data structure.

When you have determined all sheets' data structures, click **Next** to continue; if not, you can click **Back** to re-configure.

5) Wizard's step 4: File Combine

The system asks if you want to add other data file, after you click **Next** in the previous step.

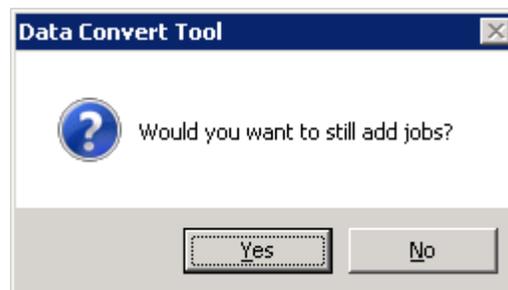


Figure 46 Add File

If needed, click **Yes**. If not, click **No** to continue the next step.

If you choose **Yes**, you will then repeat the previous 4 steps, i.e. to choose a new data file, and then analyze, divide, and confirm structure, till you see the above pop-up over again. Then click **No** to see the following

user interface.

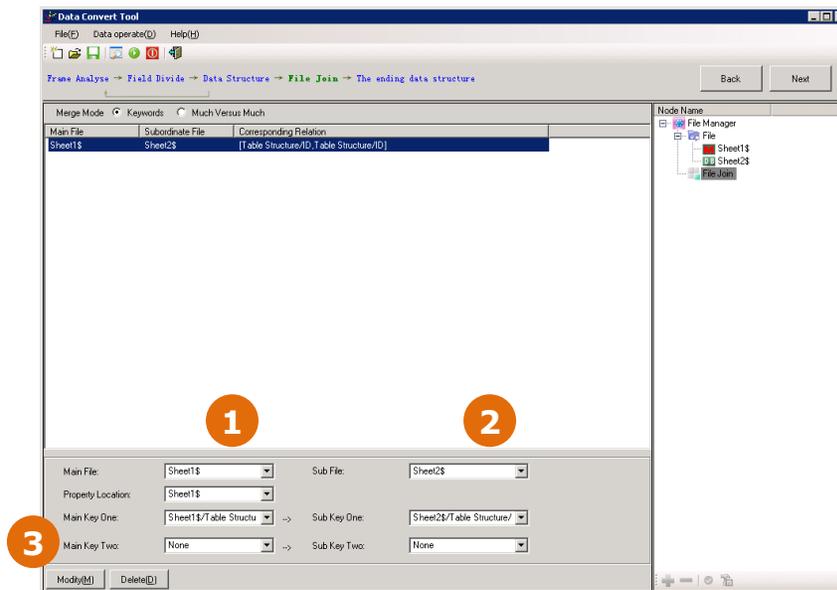


Figure 47 File Combination

Here we take the **Keywords** mode as example.

1) Choose a file as main file, e.g. *Sheet1*, and then choose a field from the main file as *Main Key One*.

2) Choose a file as sub file, e.g. later-added *Sheet2*, and then choose a field from the minor file as *Sub Key One*.

To set up an effective file combination, the values for the two fields *Main Key One* and *Sub Key One* must be completely the same.

3) Click **Add**.

Click **Next**.

6) Wizard's step 5: Final Structure

This step displays the final data structure, determined by the previous steps, for you to confirm.

If correct, click the toolbar icon  to save the settings.

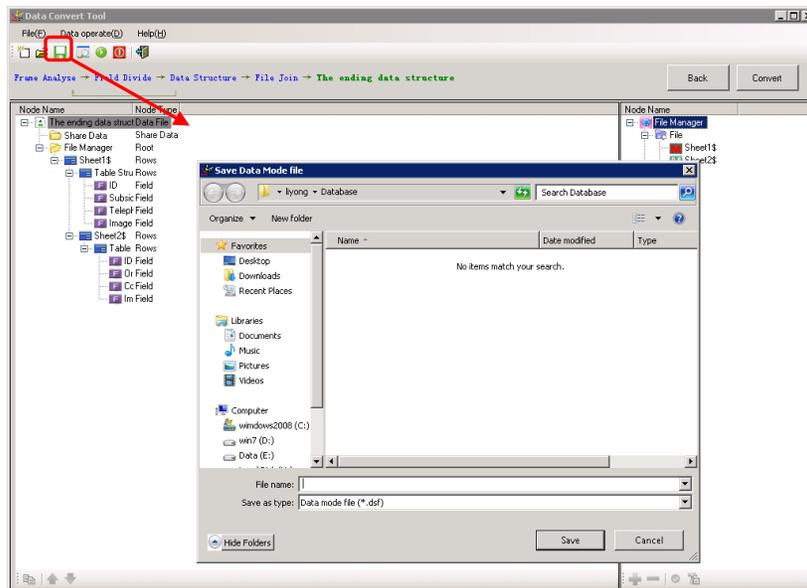


Figure 48 Final data structure

7) Data Preview

Click the toolbar icon  in the above window. And then, in the pop-up window, input the preview range, and click **Confirm**.

The result appears in the below, showing what fields are contained in each line of data, and what detailed value for each field is.

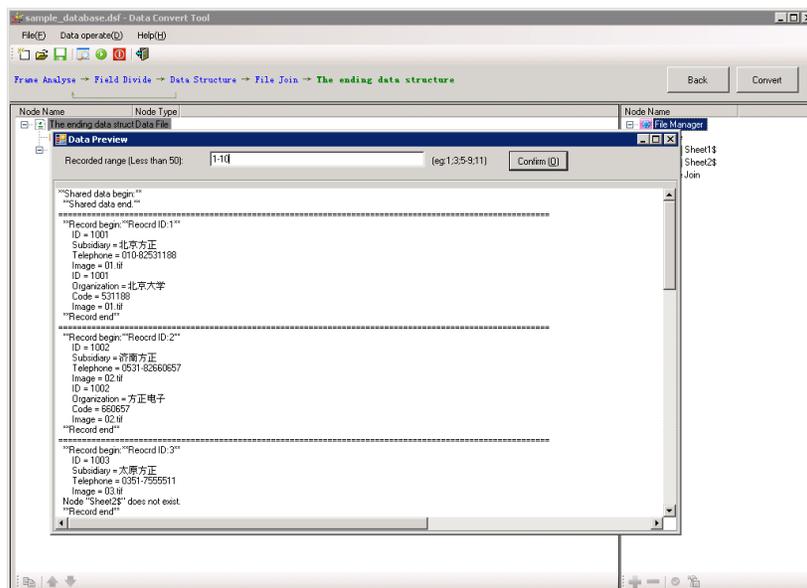


Figure 49 Data preview

8) File Conversion

Return to the main window, and click the button **Convert** or the toolbar icon . In case that you want to stop the conversion halfway, you can click the toolbar icon .

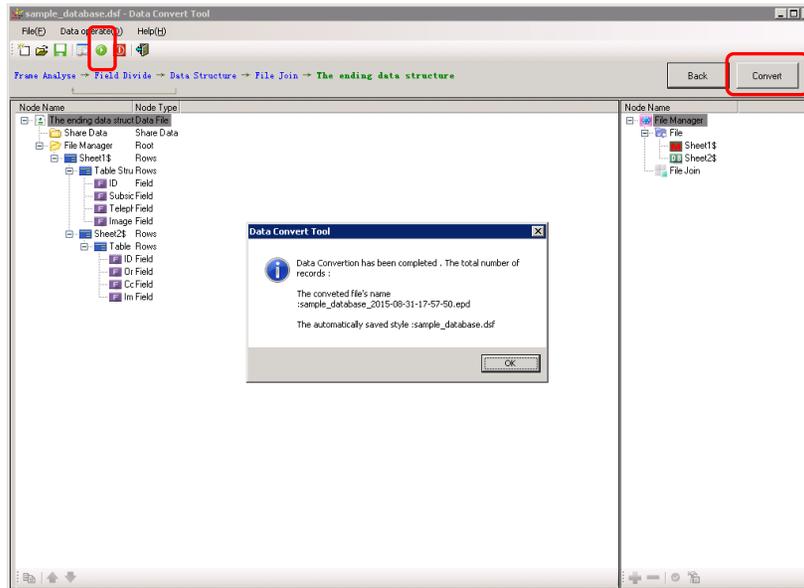


Figure 50 Data Conversion

A box pops up showing if the converting is successful. Now you have completed the conversion and can exit the tool.

Chapter 3 VDP Editor

The Editor is used to design the layout or format by which the variable data is printed. Its outcome is a template file.

Click the rightmost toolbar icon  in ElecRoc's job window to enter into the VDP module. And then click the icon  to run the Editor.

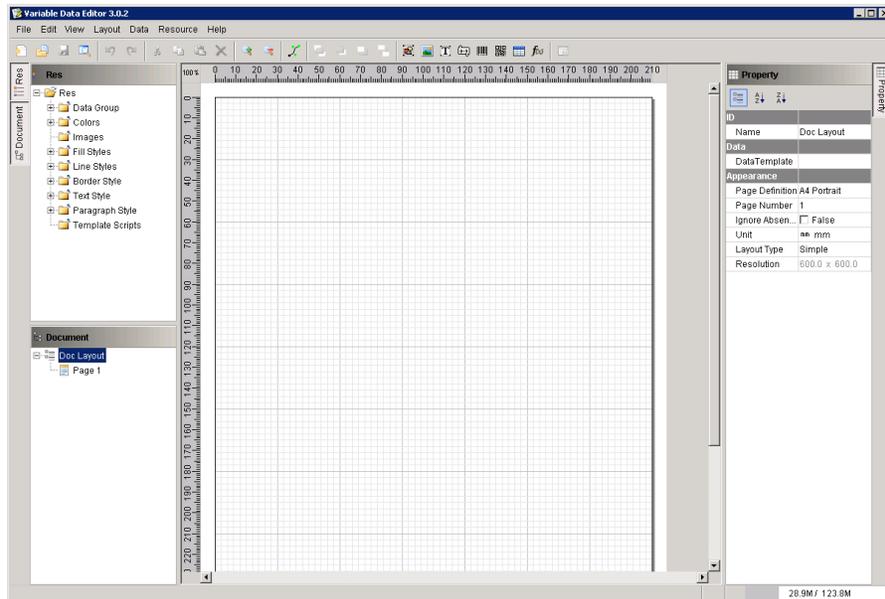


Figure 51 Main window

3.1 Resource Management

We recommend you first to upload into the system the pictures and PDF files you want to use.

Choose from the main menu **Resource** > **Resource Manager** to open the upload window.

We take the picture uploading as example. At the time when you print variable barcodes on a product's package box, you may need to use the design picture of the package box as background, to play a reference role, so that you can better determine the barcode's position.

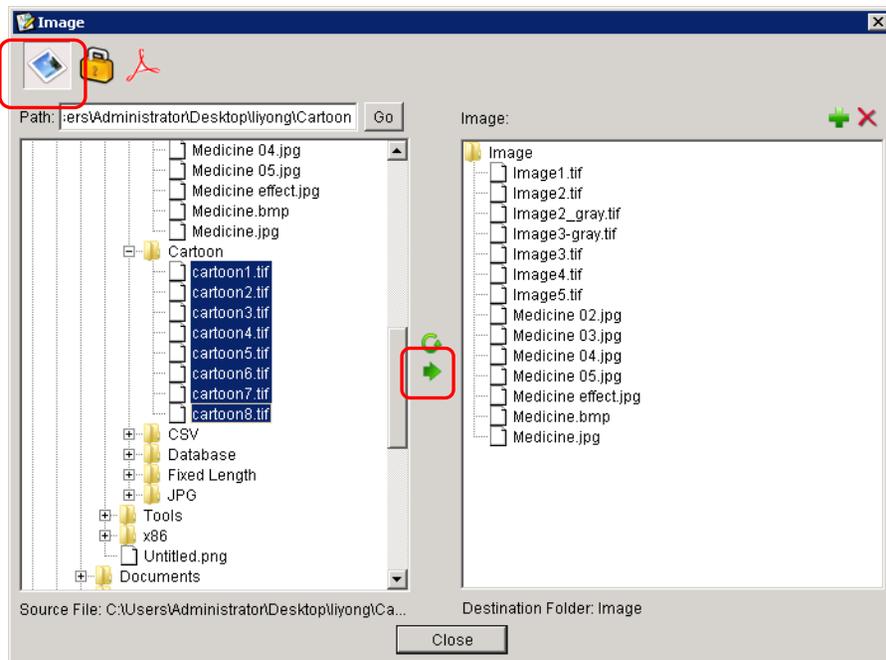


Figure 52 Resource Management

Choose the icon  at the upper-left corner, and then choose at the left pane the pictures you want to upload, from your local computer hard disk, and then click the button  to upload. Pictures shown at the right pane are uploaded ones available for use.

Return to the main window, and now you can create your template.

3.2 Create New Template

Each time when you start up the Editor, a new template will be created automatically. By clicking the toolbar icon  or by choosing from the main menu **File > New Template**, you can manually create a new one.

At the lower-left pane, choose **Doc Layout** and then configure the template's properties by way of the parameters displayed at the rightmost pane. Mainly, please use **Page Definition** and **Data Template** to set the page size and the EPD data file.

As to other parameters, define them according to your actual needs. For instance, the resolution is 600x600 dpi by default. If you want to use another resolution, before you create a new template, choose from the main menu **Edit > Preferences**, and then define it by way of the parameters **Normal > Horizontal/Vertical Resolution**. Its value range is 300-1200 dpi.

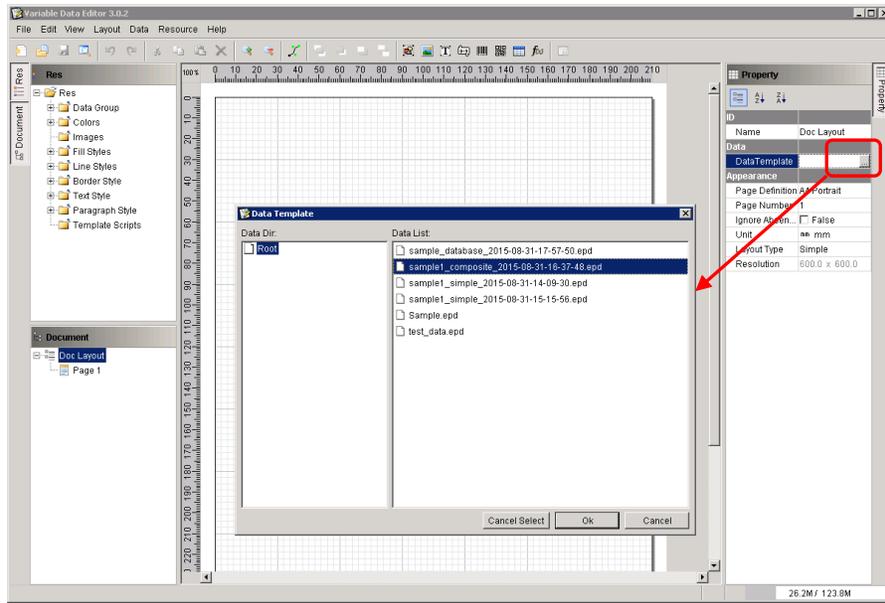


Figure 53 Template Properties

Page Definition: The size and orientation for the finally-generated file. The default setting is *A4 Portrait*.

Data Template: The EPD file generated by the data convert tool. By clicking the blank area behind this parameter, you will activate a button ; and by clicking this button, you will open a window, in which you can choose an EPD data file you want to use.

Note: In case that you are using simple data, i.e. data with single structure or the *Simple* data supported by the data convert tool, you can directly use the Editor's *Data Binding* instead of using the data convert tool to generate an EPD file.

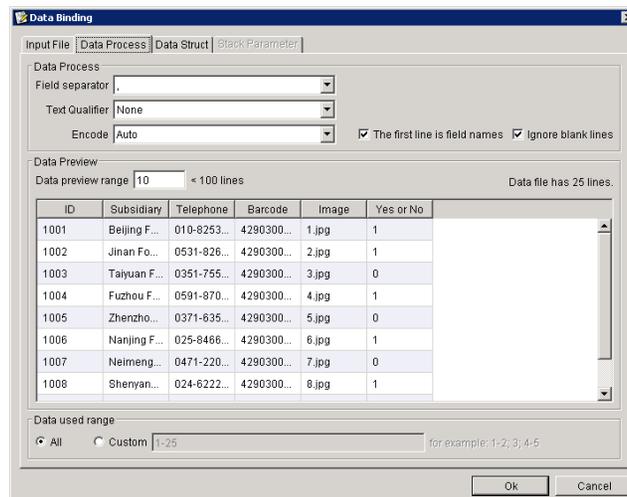


Figure 54 Data Binding

3.3 Add Items

In the toolbar lists 8 types of items that can be added into a template. To add an item, drag and drop it to suitable position on the page. As example, here we add some commonly-used items, including image, graph, barcode and text.

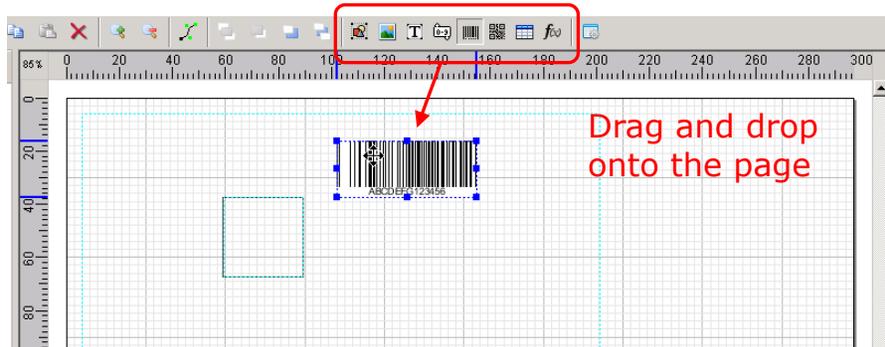


Figure 55 Add Items

3.4 Configure Items

Respectively choose the added items and configure their properties. This work can be done by using the parameters at the right pane, or right-click menu commands, or main menu commands.

1) Size & Position

There are three methods to adjust the size and position.

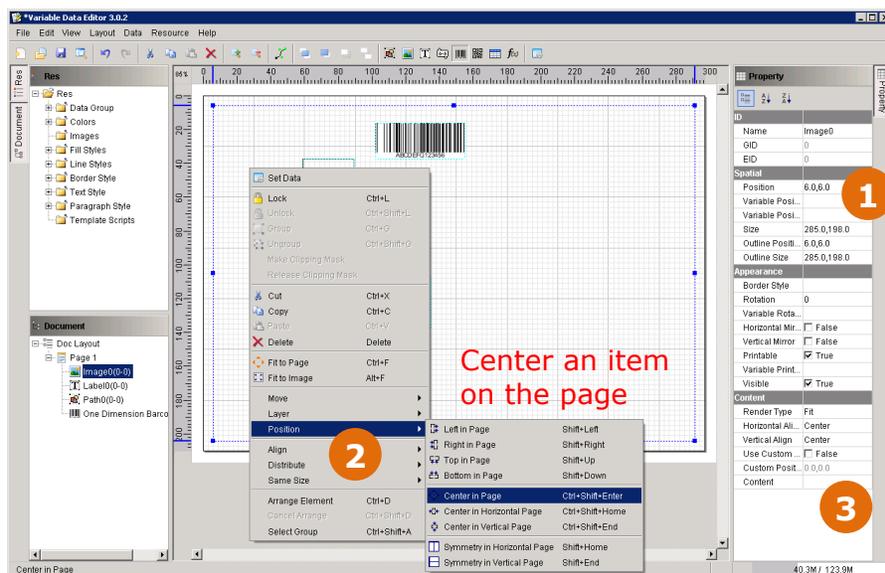


Figure 56 Size & position

1) Choose an item and use a drag & drop to randomly move it. And

being selected, each item shows 8 orientation points at its 4 sides and 4 angles. Move the cursor onto such point, and then drag and drop, in this way you can freely change the item's size.

2) Use the parameters at the right pane, mainly the size and position parameters, see① above, to accurately define the size and position. The position parameter controls the coordinates of the item's upper-left corner. The origin of the coordinate system is the upper-left page corner.

3) Use the commands under the right-click menu **Position** or main menu **Layout > Position**, see② above, to snap an item to 4 page edges, or center it horizontally, vertically, or at both directions on the page.

2) Image

Image item is often used as a fixed background picture that plays a reference role, so that you can better determine where the variable data shall be output. Usually it uses the product package design picture, a picture that may have already been printed by offset press, and thus no need for being printed as variable data by digital or inkjet printers.

Choose an image item, and then click at the blank area behind the **Content** parameter at the right pane, see③ above, and then choose **New** from the activated dropdown list.

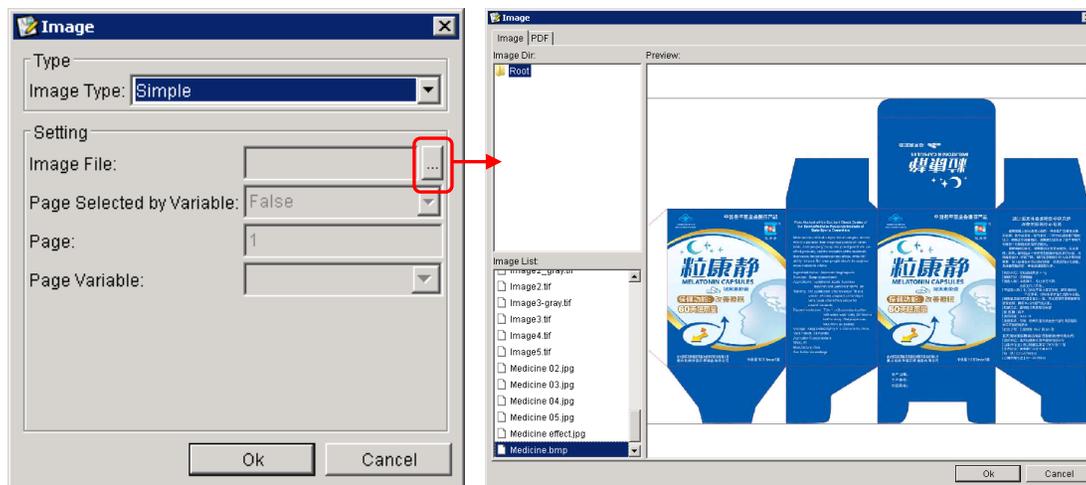


Figure 57 Specify the image

Click the button  behind the parameter **Image File**, and then choose an image you want to use, from the pop-up dialog box. Optional images are those uploaded previously by using **Resource Manager**.

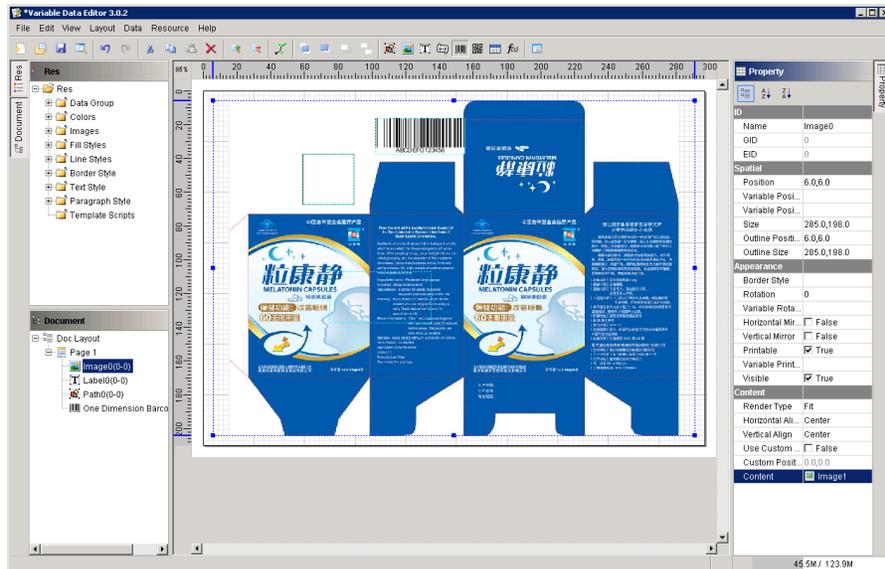


Figure 58 Setting finished

You may further define related parameters, at the right pane, such as scaling and centering. In general, the default settings are recommended.

Note: After you have configured the properties, we suggest you right-click the item and choose **Lock**, to lock its size, position, and other properties, so as to prevent any unintended modification in the next operations.

3) Graphic

Before you configure the barcode item, you may need a graph item to produce a white background, printed out with white ink and used as a bottom layer, underneath the barcode. This is applied to the case that no blank area on the background image is left for the barcode, or the case that the paper color is not white enough.

1) **Choose the item.** First, you need to find out and choose the already-added graph item. At the lower-left corner of the window lists all the added items on the page, see① below.

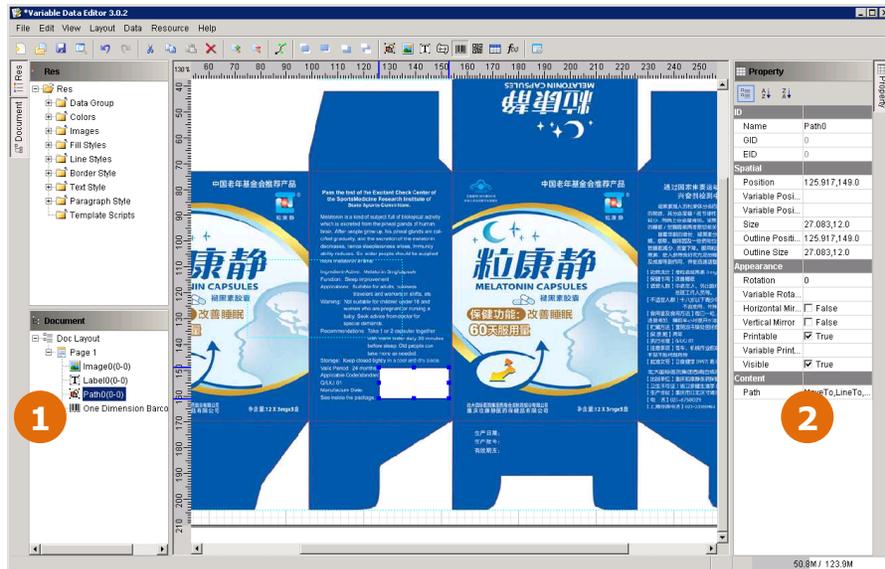


Figure 59 Adjust position & size

2) **Layer.** Due to overlap between items, the graph item may be covered entirely by the image item configured previously. In this case, use the commands under the main menu **Layout > Layer**, or equivalent right-click menu commands, to show up the graph.

At the lower-left corner, the more the item stays near the bottom, the more the item appears at the forefront; vice versa.

3) **View.** If the item is too small to be viewed, you can use the toolbar icon  or the commands under the main menu **View** to zoom in the view.

4) **Size & position.** Adjust the size and position as you do with the image item.

5) **Graph's properties.** Click the button  behind the parameter **Path**, see ② above, to open the setup window.

Here we take how to define the fill color as example: Click on the blank area behind the **Fill Color** parameter, and then choose the button **New**, see ③ below. In the pop-up dialog, choose **Fill Color** and then continue to choose **New**, see ④ below. And then choose a color and click **OK** (see ⑤ below, for instance the spot color *Spot white*, choose the **Spot Color** mode and click the button **Select**, and then choose the spot color in the pop-up dialog).

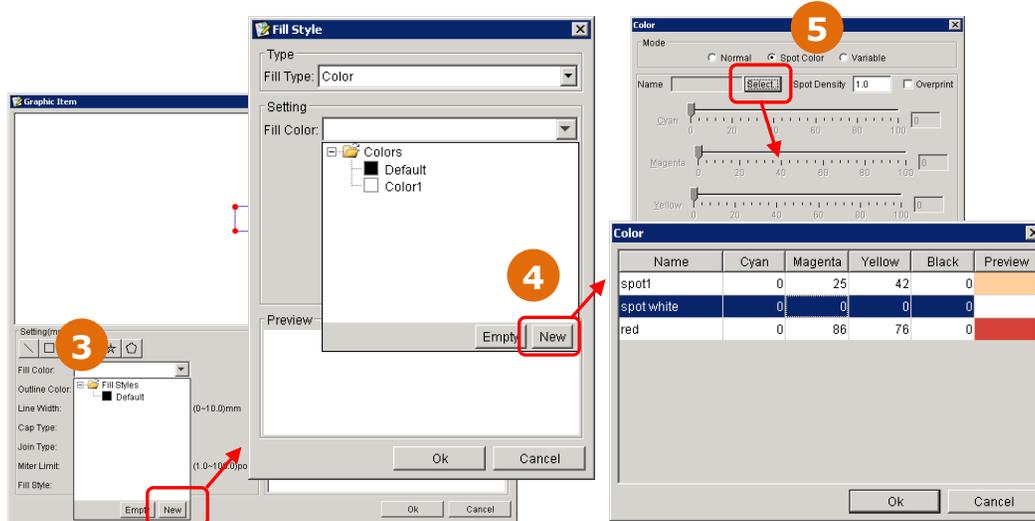


Figure 60 Configure a graph's properties

Note: If you want to use spot color, please choose from main menu **Edit > Preferences > Spot Color Manager** to define spot colors beforehand.

Use the same method to define the outline color. Or you can choose **Empty**, which means not to use any color at all.

4) Barcode

Now let's configure the barcodes.

1) Choose the barcode item and move it onto the graph item.



Figure 61 Configure the barcode's size & position

2) Barcode type and parameters. Choose a suitable barcode type at the parameter **Barcode Type**, such as Code 128C, and then click **Barcode**

Parameter to open its parameter setup window.

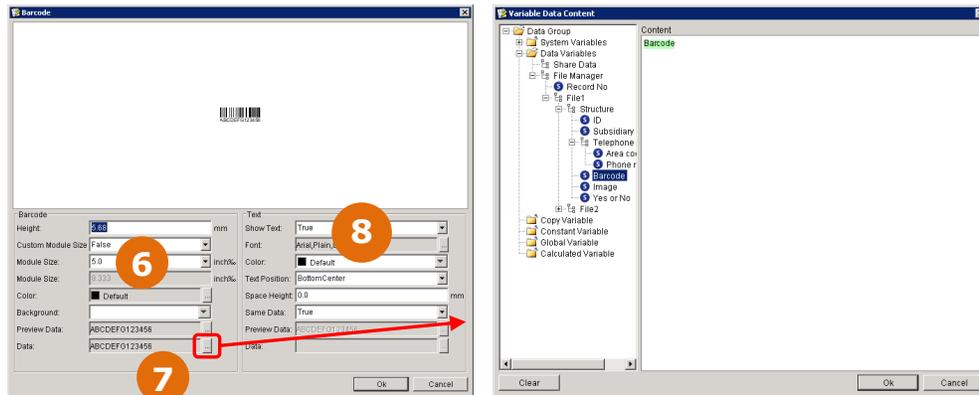


Figure 62 Barcode parameters

Configure at least the following parameters:

Height, Width: Specify the barcode's height and width by way of the parameters **Height** and **Module Size**. Their values should base on your actual needs, see⑥ above.

Preview Data/Data: There are two types of data. **Preview Data** refers to the data used only for preview. The barcode shown at the top of the setup window uses the preview data. The real data used in actual print is defined by way of the parameter **Data**. Such data for a barcode may be fixed constant data, or variable data, or even combination of constant and variable data.

Click the button  behind the parameter **Data**, see⑦ above, to open a dialog box. At the left lists all optional variables, including those fields generated by the data convert tool. Expand and find out the variable you want to use, and then double-click it. At the right displays the variable you have chosen, including the default constant "ABCEFG123456" (delete it if not needed). Click **OK**.

Text: This setting controls if the barcode's data appears as text along with the barcode after the print. If you want to print such text, please specify suitable font and size for the text, see⑧ above, ensuring the text be completely displayed within the given height and width.

3) Size & position. Return to the main window. Make adjustment if the barcode's position or height changes due to the above settings.

5) Text

As to the text item, do the configurations as per the methods above.

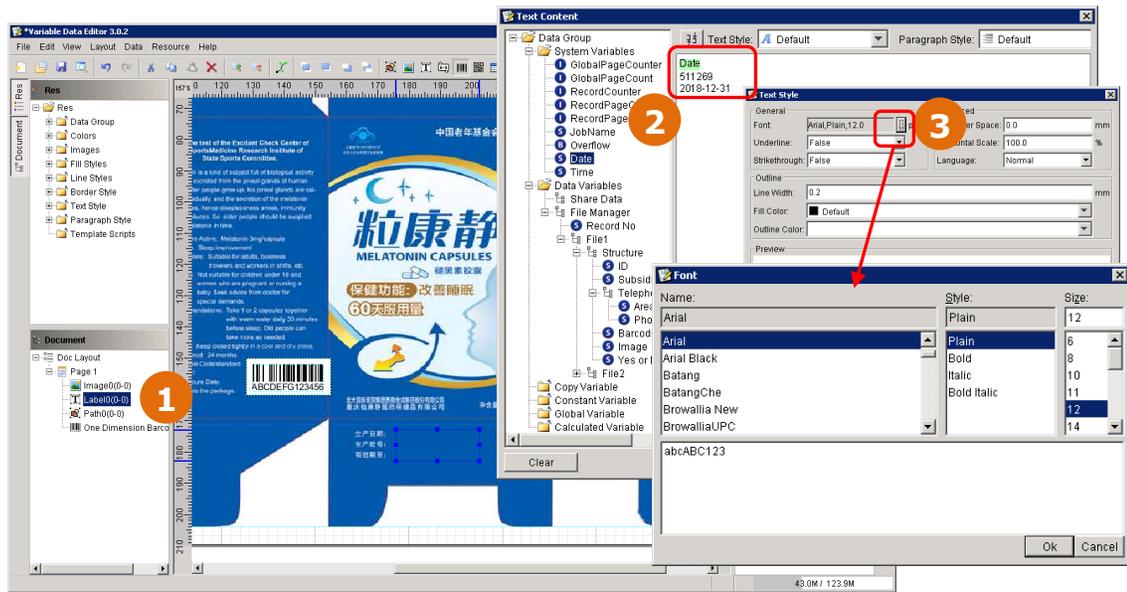


Figure 63 Configure the text item

1) Choose the text item, adjust its size and position, and then click the **Data** parameter to open its setup window, see①.

2) Expand all optional variables, including system variables, and double-click the one you want to use. And then choose the text you added or input, right-click and choose **Text style** or **Paragraph style**, and you can further define the font or paragraph properties, see②.

3) Take the text style as example. You can configure the details such as font, size, and font style, see③.

3.5 Preview

Choose the main menu **File > Preview**, or click the toolbar icon .

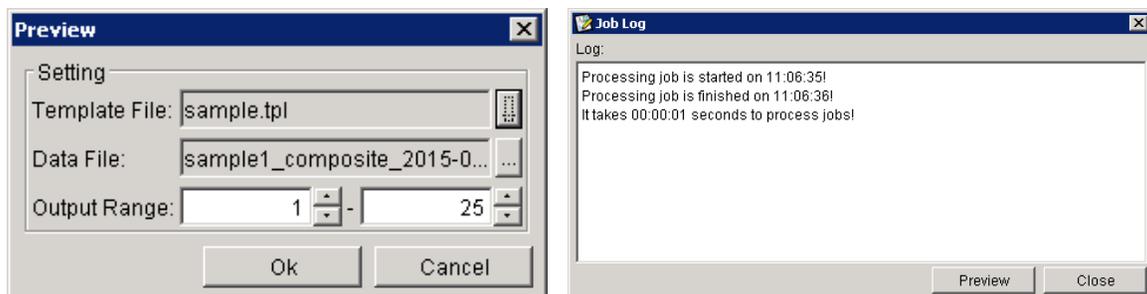


Figure 64 Preview setup

By default, the setup dialog box shows the name, the bound data file and output range for the current template. If needed, you can modify all of

them. And then click **OK** to open the preview window.

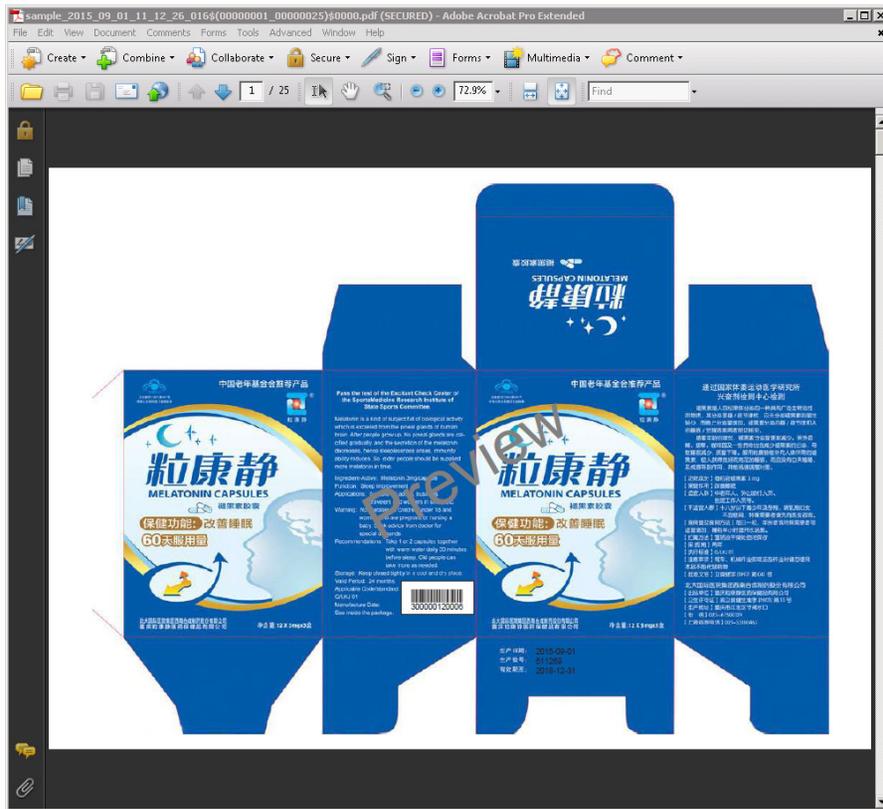


Figure 65 The preview window

3.6 Save Template

Click the toolbar icon  to save your template.

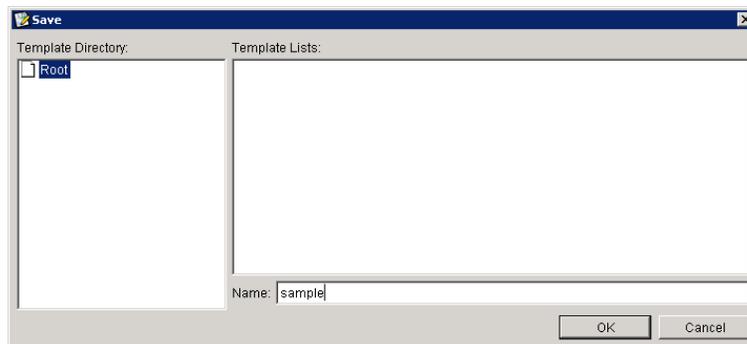


Figure 66 Save the template

Chapter 4 VDP Generator

You can now use the Generator to make the INX file after you have produced the data file with the data convert tool and the template with the Editor.

Click the rightmost toolbar icon  in ElecRoc's job window to enter into the VDP module. And then click the icon  to run the Generator.

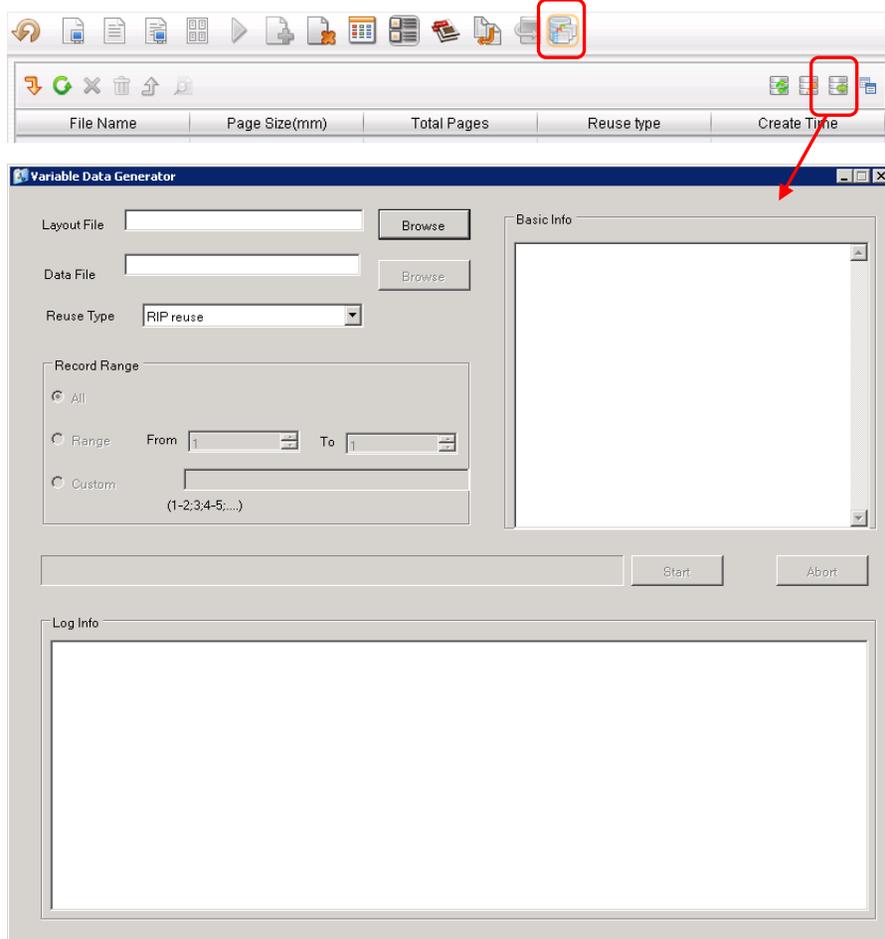


Figure 67 VDP Generator

Choose the template file. Click the **Browse** button behind **Layout File** to open the following window. Here lists all the templates created with the Editor on current ElecRoc Client.

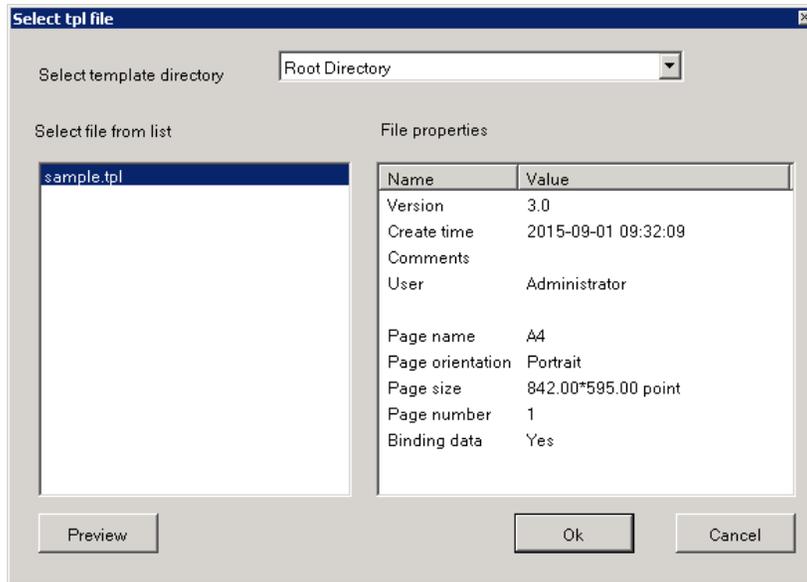


Figure 68 Choose the template

Before the generation, we suggest you click the button **Preview** to foresee the output result, so as to avoid any possible error.



Figure 69 Preview the template

Close the preview window, and return to the template selection window, click **OK** to back away.

Choose the data file. Click the **Browse** button behind **Data File** to open

the following window. Here lists all the data files generated with the data convert tool on current ElecRoc Client. In general, choose the same data file that your template uses.

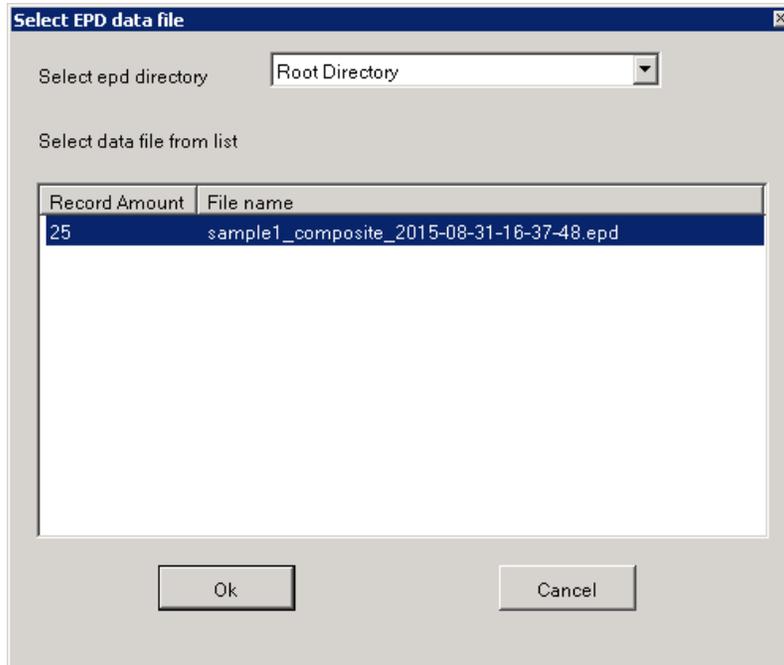


Figure 70 Choose data file

Note: If your template has been applied with *Data Binding* instead of a data file, please choose *Simple* from the **Select epd directory** dropdown list, and then you can see and choose the bound data file.

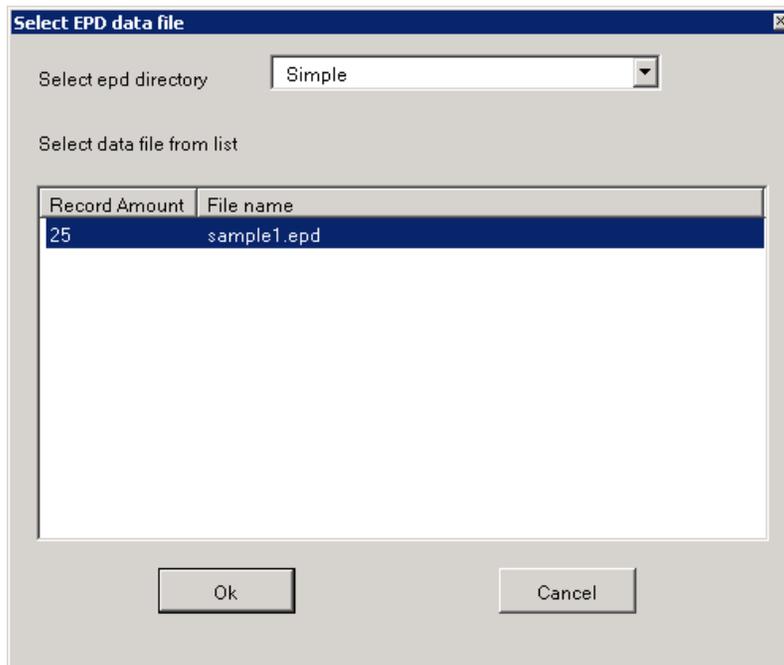


Figure 71 Bind data

1) Click **OK**, and return to the main window.

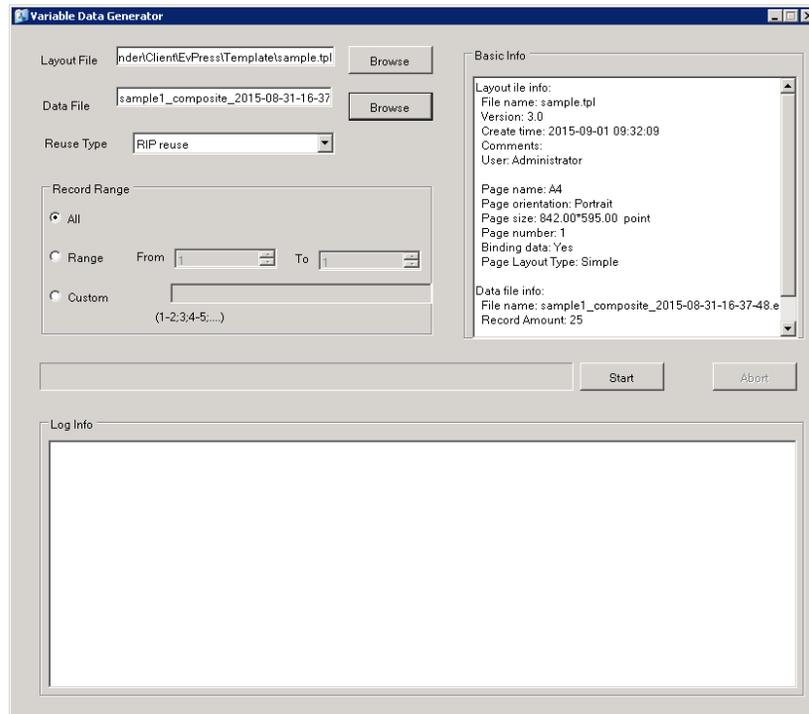


Figure 72 Parameter setup

2) Choose a repetition type. Choose **No reuse**, if not needed.

RIP reuse: At the time when the system outputs the data line by line, it will compare the output results of the first and second lines. If there are invariable or same data objects between the two results, such as fixed images and constant texts, then being checked, this option enables the system to re-use the tiffs of the same and invariable data objects, i.e. no longer RIP again these objects when it outputs the rest lines of the data, so as to improve the RIP efficiency.

Device reuse: This option requires device support from the backend digital or inkjet printers, and currently is only applied to the HP Indigo series. If checked, in the device's RIP process, it will re-use the tiffs of the same and invariable data objects, so as to improve the RIP efficiency.

3) Specify the output range. The default setting **All** means to output all the variable data in your data file. If needed, you can choose **Range** or **Custom** and let the system output only part of the data.

4) Click **Start**.

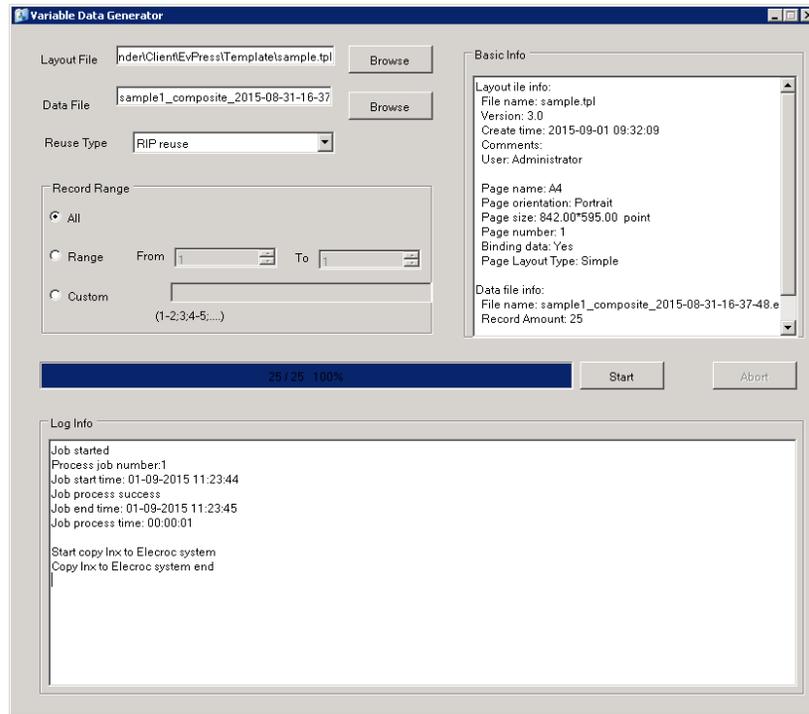


Figure 73 Generating INX

5) The progress bar shows the progress. The log info below shows the detailed processing information. When the generation is completed, return to ElecRoc job window and click the refresh icon , and then you can see the generated INX file.

File Name	Page Size(mm)	Total Pages	Reuse type	Create Time
sample.inx(2015_09_...	297.039 X 209.903	25	RIP Reuse	2015_09_01 11-23-44
test.inx(2015_09_01 1...	209.903 X 297.039	25	RIP Reuse	2015_09_01 11-27-23

Figure 74 INX file list