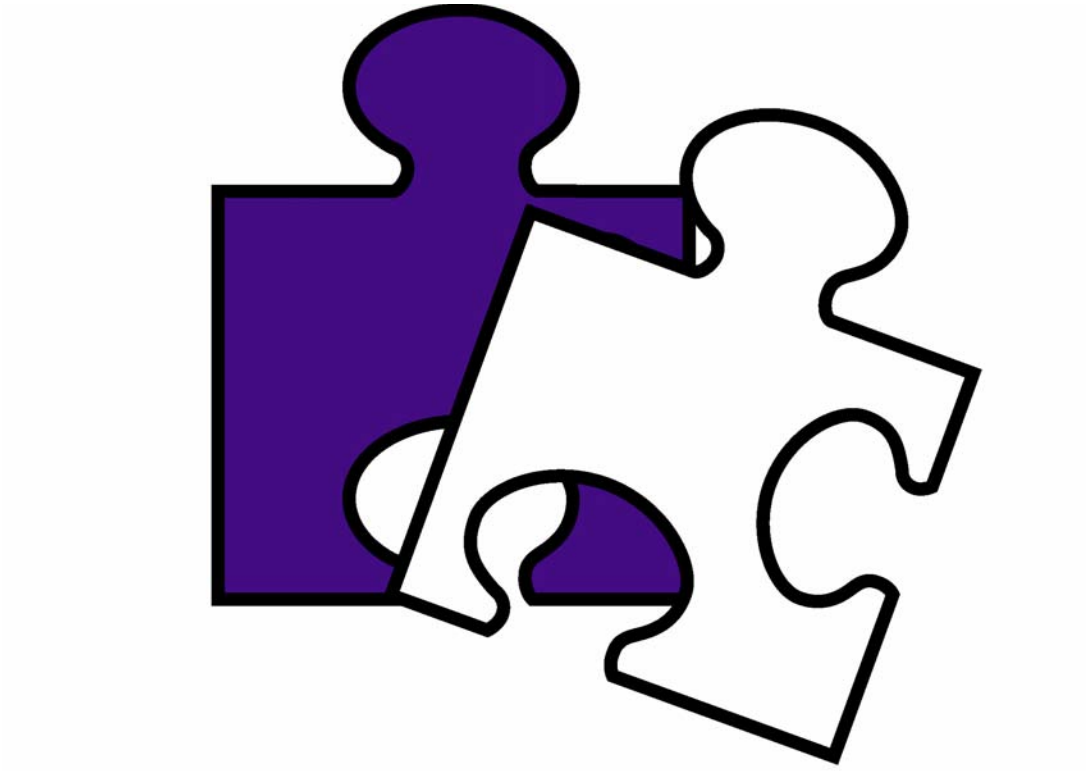

VisualMerge™

User Guide

January 2006
Version 1

Legal Note

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1

Introduction

The *VisualMerge User Guide* provides a brief overview of VisualMerge and provides step-by-step instructions for the most commonly used procedures.

The following topics are included in this chapter:

Chapter Topics

About VisualMerge

VisualMerge enables you to create personalized mailings using PDF forms as templates.

The following highlights VisualMerge's features:

- **Merge data to PDF forms**
  Instead of introducing a proprietary format to design your pages, VisualMerge allows you to use any PDF form as a template for your (mail) merge. This allows you to use existing forms or create new templates using a wide variety of industry-strength authoring applications.
- **User-friendly six-step process**
  Creating a merge is highly intuitive. VisualMerge walks you through a simple six-step process.
- **Use data from any common source**
  Supported data sources include Microsoft Access, Microsoft Excel, Comma Separated Value (CSV) text files.
- **Formatting options**
  You can apply any formatting to your numbers, currencies, dates and other data. You can also specify a front and back cover.
- **Multiple export methods**
  The output of your merge can be exported in different ways. Export methods include **save to disk**, **e-mail**, and **send to printer**.

About This Guide

This guide is based on VisualMerge Version 1.0.

The latest version of this document is available from: www.tallapplications.com.

The procedures in this guide should be followed in the order they appear.


NOTE

If anything in this document is unclear or if an error is found, please let us know. Send your comments and remarks to support@tallapplications.com. Please include the document name, version and a page number or text excerpt if applicable.

This guide contains the following chapters:

Chapter 1 Introduction — This chapter provides a brief description of VisualMerge, and an overview of the contents of this manual .

Chapter 2 Requirements and Installation — This chapter provides an overview of the system requirements, installation, and activation.

Chapter 3 Using VisualMerge — This chapter provides information about supported data sources, a PDF form overview, and procedures to create and implement a VisualMerge project.

Appendix A Expressions — This appendix explains what expressions are, what they can do and, most importantly, how to write your own expressions. Also included is an overview of field binding in VisualMerge.

Appendix B SQL Statements — This appendix provides an overview of using SQL statements in VisualMerge.

Staying Up To Date

VisualMerge is equipped with an automatic update feature. This feature requires a direct connection to the Internet. On start-up VisualMerge will check for available updates. If an update is found you will be asked if you want to install the update. You will need to restart the application after the update has been downloaded.

Getting More Help

Besides this guide, to get help with VisualMerge, try the following sources:

- For the latest information, visit www.tallapplications.com.
- If you have a specific problem which is not addressed in this document or on the web site, please contact the VisualMerge support team at support@tallapplications.com.

2

Requirements and Installation

This chapter describes the requirements and the steps necessary to install, uninstall, and upgrade VisualMerge. The following topics are included in this chapter:

Chapter Topics

Software Requirements

Table 2-1 lists the software configuration required to operate VisualMerge.

Table 2-1 *Software Requirements*

Component	Requirement
Supported Operating Systems	Windows 2000 with Service Pack 3 or higher
	Windows XP
	Windows Server 2003
Internet Browser and Internet Connection	A properly installed browser and an Internet connection is required to access the download page and to get more help and information. An Internet is also required for automatic updates, and is prefered for activating VisualMerge. VisualMerge can also be activated by contacting Support at: support@tallapplications.com.

Installing VisualMerge

To install VisualMerge, first download the VisualMergeSetup.exe program from the product download section of www.tallapplications.com.

The VisualMergeSetup.exe program consists of a series of dialog boxes that supply default answers to questions regarding the installation of files to your hard disk.

Run the VisualMergeSetup.exe program and follow the prompts to install the VisualMerge software.

NOTE

You can evaluate VisualMerge for an unlimited time. During evaluation, a banner will be placed across the merged documents. This banner will disappear when you buy and activate the software.

Purchasing and Activating VisualMerge

To purchase VisualMerge, go to the Buy page of www.tallapplications.com. Follow the instructions to login and purchase the VisualMerge application. For each licensed copy of VisualMerge purchases, you will receive a serial number. This serial number is necessary to activate your copy of VisualMerge.

NOTE

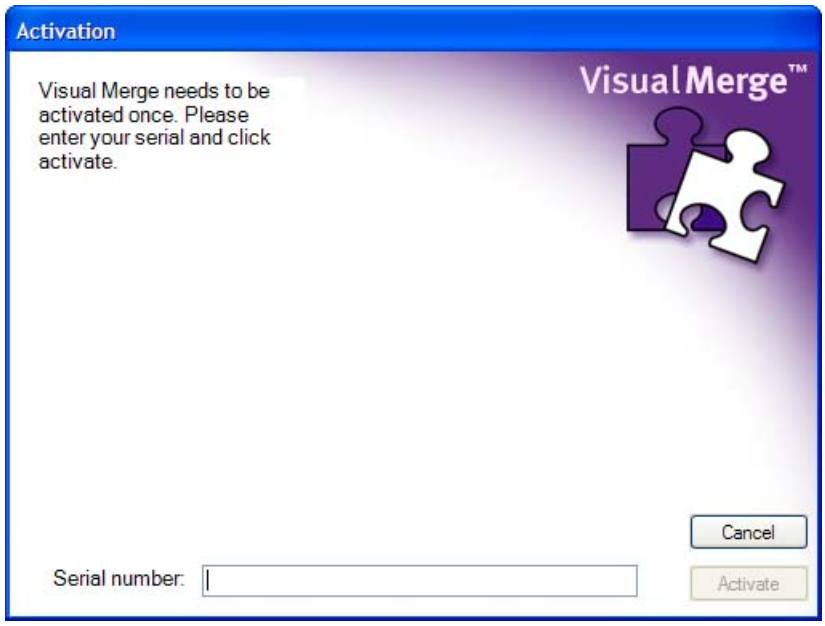
*If you need to activate VisualMerge and do not have a direct connection to the Internet, contact TallApplications Support at support@tallapplications.com or call us at +31 (0)77 47 48 677. Please note that we are located in The Netherlands (Europe), timezone **GMT +1**. Due to timezone differences, we may not be able to respond immediately. We do however monitor our email outside office hours to minimize response time.*

To activate VisualMerge, do the following:

Step 1 Start VisualMerge.
See Starting VisualMerge on page 3-2 for more detail on starting VisualMerge).

Step 2 Click **Activate**.
The Activation screen displays (Figure 2-1).

Figure 2-1 *VisualMerge Activation*



Step 3 Enter the serial number in the Serial number field.

Step 4 Click **Activate**.
If the serial number is valid, your copy of VisualMerge is now activated.

3

Using VisualMerge

VisualMerge is easy to use due to the intuitive six-step wizard-based interface. This chapter details what you will need to get started, as well as the steps required to successfully perform a merge.

The following topics are included in this chapter:

Chapter Topics

Supported Data Source Types

VisualMerge allows you to access data from Excel documents, Microsoft Access databases, or CSV files, map the data fields to specific form fields in a PDF form template, and merge the information from the data source into the PDF template.

The following describes these data source types, and how VisualMerge treats each one:

- **Comma Separated Value files (CSV)**
  A CSV file is a plain text file with data. The data is organized into rows which are separated into values by the separator, normally a comma. Hence the name Comma Separated Values. In this step, you will specify the folder that holds the CSV file(s). Each file will be treated as a table. CSV files must have the extension **.csv** or **.txt**.
- **Microsoft Excel (XLS)**
  Microsoft Excel is one of the most widespread office applications world wide. Excel files have the extension **.xls**. You can use data from any Excel workbook. By default, Excel exports each sheet as a table. The Excel grid maps to a table in a straight-forward way; columns are fields and rows are records.
- **Access (MDB)**
  Microsoft Access is an easy to use database platform which is part of the Microsoft Office family. Access database files have the extension **.mdb**.

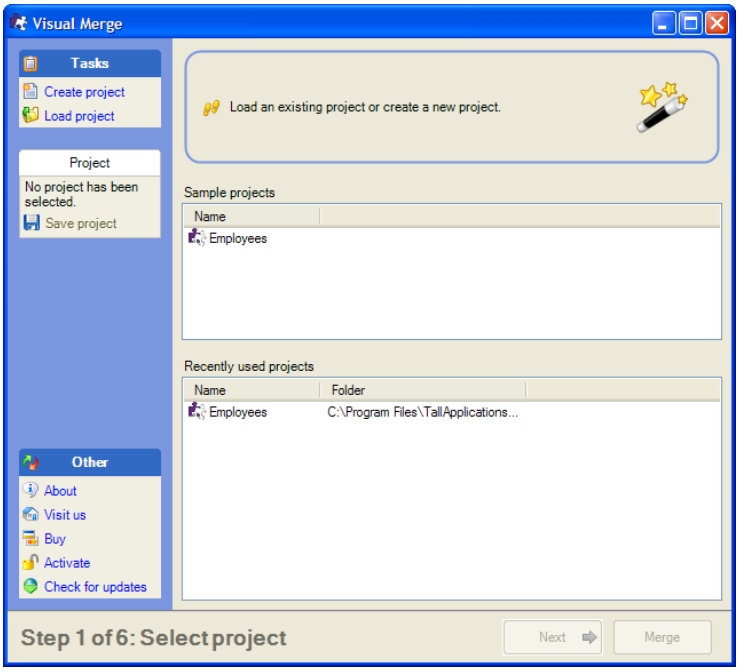
About PDF Forms

To use VisualMerge, you will need to first have a PDF document (or documents) with form fields. These fields are added to a PDF document using a PDF form editing tool like Adobe Acrobat Professional. When you specify a PDF form to use, VisualMerge will scan the PDF form and add all the form fields to the project. You will then be able to set up the field bindings. A field binding is an expression that determines what data form the data source is entered into the field during a merge.

Starting VisualMerge

To start VisualMerge select **Start > Programs > VisualMerge > VisualMerge**. The VisualMerge start screen displays (Figure 3-1).

Figure 3-1 *VisualMerge start screen*



Performing a Merge

VisualMerge takes you through a six-step process to easily perform a merge. This section describes the major steps, as well as the options each step provides. When you are done with a particular step, simply click **Next** to proceed to the next step.

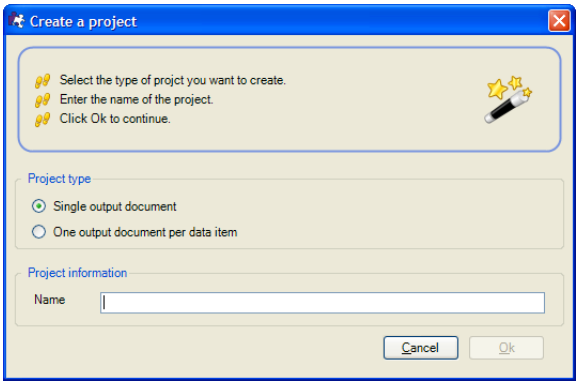
Step 1 of 6: Select Project

You can create a new merge project from scratch or use an existing preconfigured merge project.

Creating a New Merge Project

To create a new merge project, click Create Project. The Create a Project screen displays (Figure 3-2).

Figure 3-2 *Create a Project*



In the Project type section, choose one of the following:

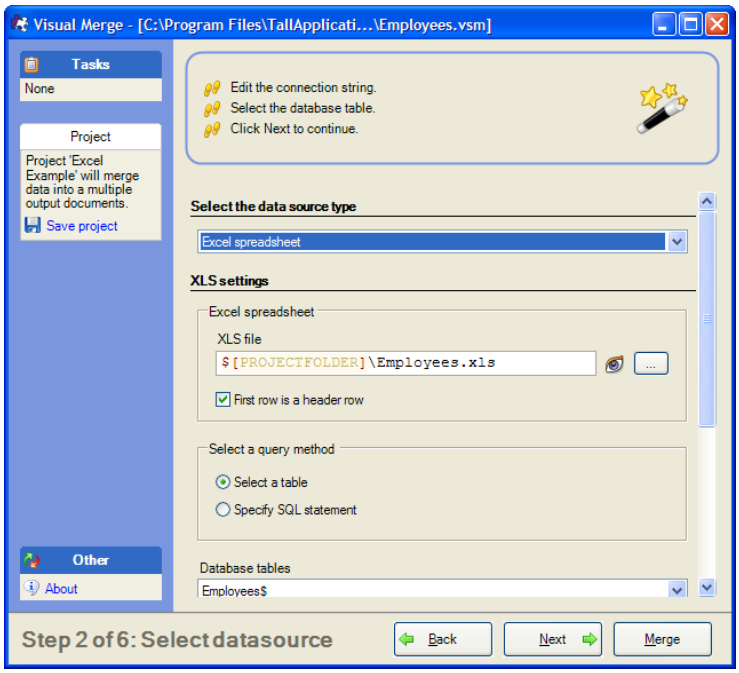
- **Single output document**
  A single document will be generated from the merge information. All the generated pages are gathered and combined into a single PDF document. You may want to use this setting if you are preparing a mailing letter that will be printed.
- **One output document per data item**
  Multiple documents will be created based on the merge information. A document is generated for each row in the data source. This project structure is very suitable for sending personalized documents via email. Each generated document can be sent to a different email address.

In the **Name** field, enter the name you want for this project, and click **Ok**. Proceed to *Step 2 of 6: Select Data Source*.

Using an Existing Merge Project

To use an existing project, either select a project from the **Recently used projects** list, or **Load project** to browse for and select a project to use. Then, click **Next**. The Step 2 of 6 screen displays (Figure 3-3).

Figure 3-3 *VisualMerge Step 2 of 6*



Step 2 of 6: Select Data Source

For this step, verify or make any necessary changes to the data source type or data source-specific settings. Table 3-1 describes the available configuration fields.

Table 3-1 *Select Data Source fields*

Field	Description
Select the data source type	Use this drop down list to specify type of data source you want to use in this merge project. Options include: • **Excel spreadsheet** (XLS) • **Access database** (MDB) • **Comma separated file** (CSV)
Settings	
Specify file / folder	Depending on the data source specified, specify the file or folder of the source you want to use. Click ... to browse and select the file/folder you want. Click to preview the data source expression.
First row is a header row / CSV files include header row	For Excel spreadsheets (XLS) and CSV files, if the first row in the file is a header row, make sure this checkbox is checked. Otherwise, uncheck this checkbox.
Select a query method	All supported data sources are organized as tables. You can simply select all data from a table or enter an SQL statement. Use the radio buttons to specify whether you want to select a table or specify an SQL statement. • **Select a table** If selected, use the **Database tables** drop down list to specify the table in the data source you want to use. • **Specify SQL statement** If selected, use the **SQL statement** text box specify custom queries. See Appendix B - About SQL Statements.for a quick SQL reference and links to other resources.

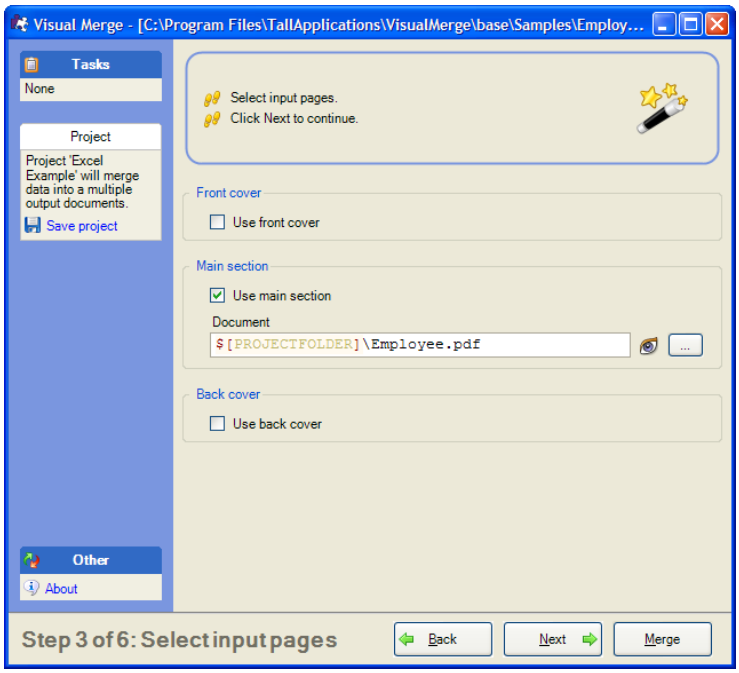
After you select data from a data source you can click **Preview data** to preview it. The preview window will display the first set of rows from the data source. You can use this to verify the right data is selected and to test the connection to the data source.

You can also click **Refresh** to ensure you are importing the most current data.

---When done with this step, click **Next**. ---

The Step 3 of 6 screen displays (Figure 3-4).

Figure 3-4 *VisualMerge Step 3 of 6*



Step 3 of 6: Select Input Pages

In this step, you will select the PDF templates to be used.

Use the checkboxes (**Use front cover**, **Use main section**, and **Use back cover**) to specify the PDFs you want to use in the merge.

This allows you to combine up the tree different PDF templates into the final output PDF.

The sections will be output in the following order:

- **Front cover**
  Output once for each output document.
- **Main section**
  Repeated for each row/data element.
- **Back cover**
  Output once for each output document.

Think of these selections as "sections". For example, the "front cover" may be an actual "cover", or a multi-page first section that just comes before the "main section".

While this allows you to customize each section, it is not necessary for all PDFs to have form fields to be included.

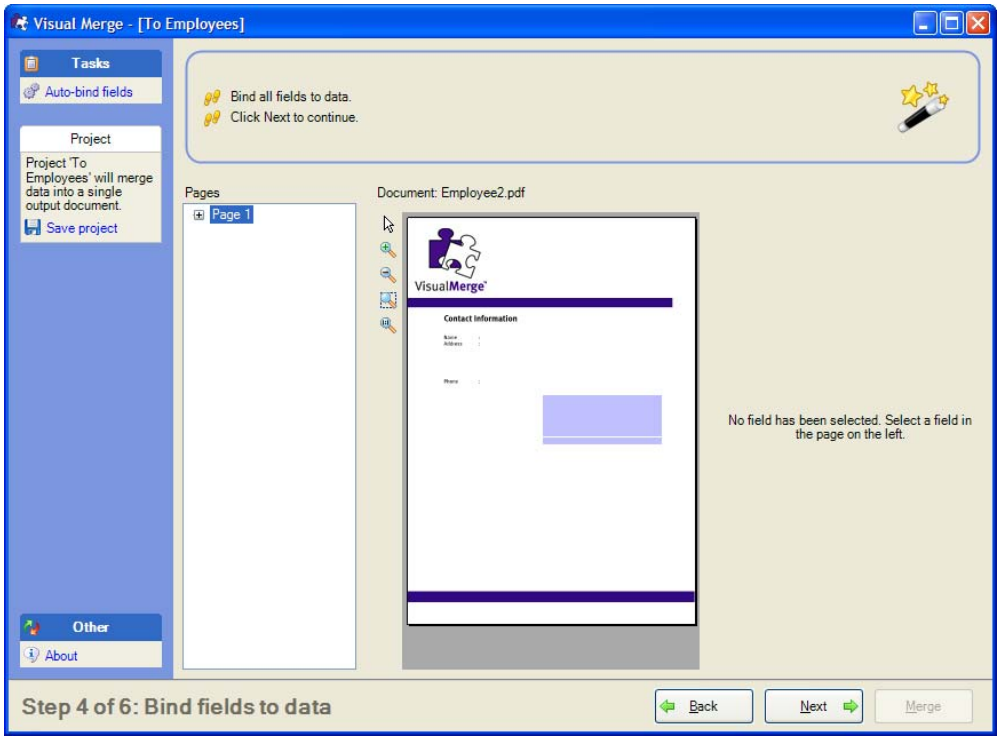
For each section selected, enter the path for the PDF or click ... to browse and select the PDF you want to use.

Click to preview the PDF expression.

---When done with this step, click **Next**. ---

The Step 4 of 6 screen displays (Figure 3-5).

Figure 3-5 *VisualMerge Step 4 of 6*



Step 4 of 6: Bind Fields To Data

In this step, you will bind the necessary fields in the PDF(s) to the appropriate data fields from the data source. For more information on Field Binding, see "About Field Binding" on page Appendix A-2.

You can bind fields to data manually, or you can use the Auto-bind wizard.

Auto-Bind Fields

The Auto-Bind Wizard helps you to bind PDF form fields to data quickly by providing default binding expressions. Auto-binding will look for fields with names that match the name of a field in a data source. A data source can have different types of data, like numbers, text, dates etc...

A form can also have different types of fields. The wizard will ask you to provide a default binding expression for each combination of data and field type. The wizard guides you through the process step by step.

To start the wizard, simply click **Auto-bind fields**. The Auto-Bind Wizard displays (Figure 3-6).

Figure 3-6 *VisualMerge Auto-Bind Wizard Welcome*

Follow the prompts on each screen of the wizard to complete the field binding.

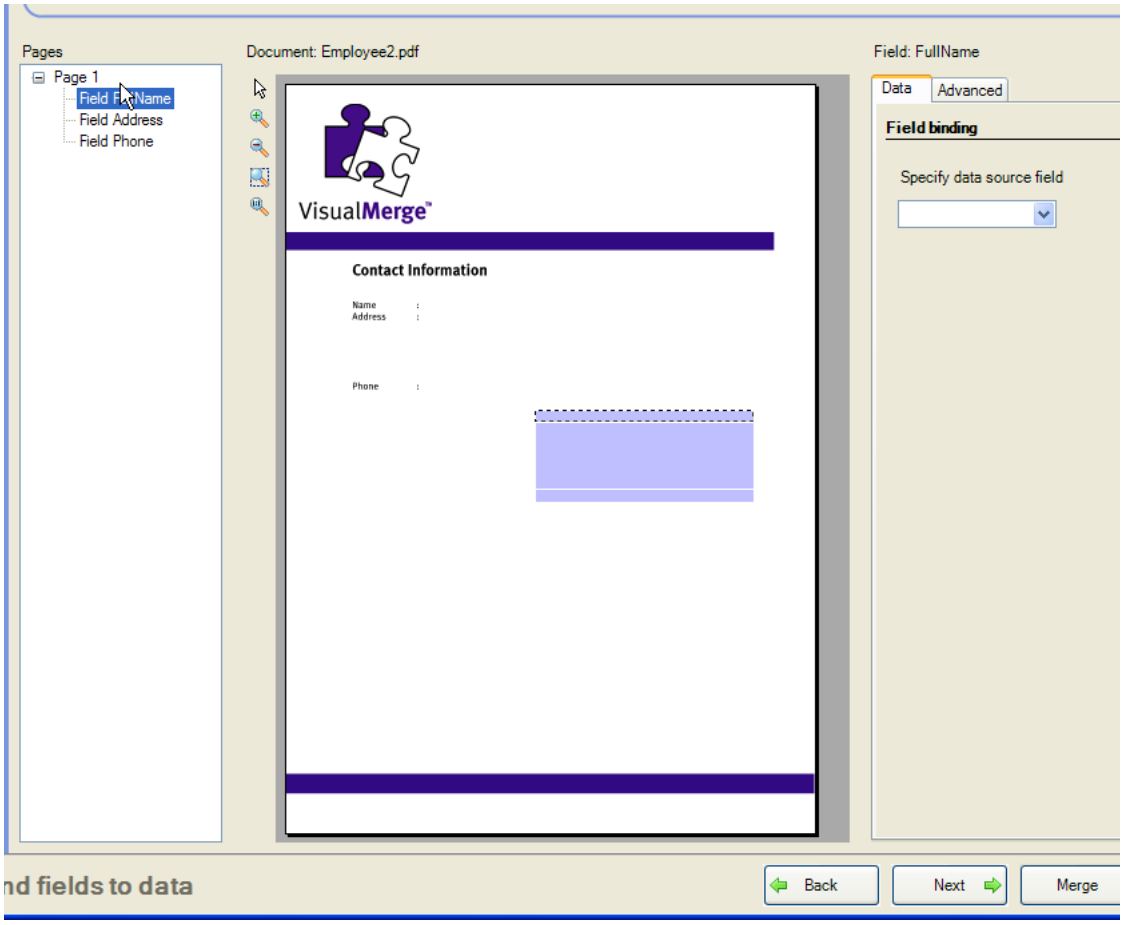
NOTE

The wizard will not make any changes to your project until you have finished the last step. You can stop the wizard at any time by clicking ***Cancel****.*

Manually Bind Fields

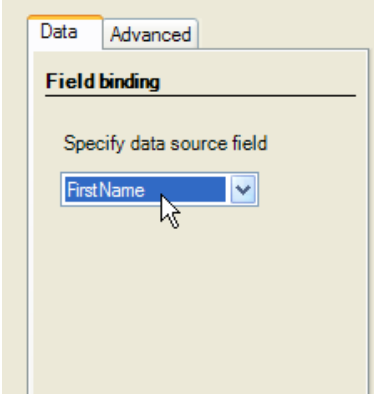
To manually bind fields, click in the expanding PDF page tree to show the form fields in the PDF and select a form field (see Figure 3-7).

Figure 3-7 *Select a form field*



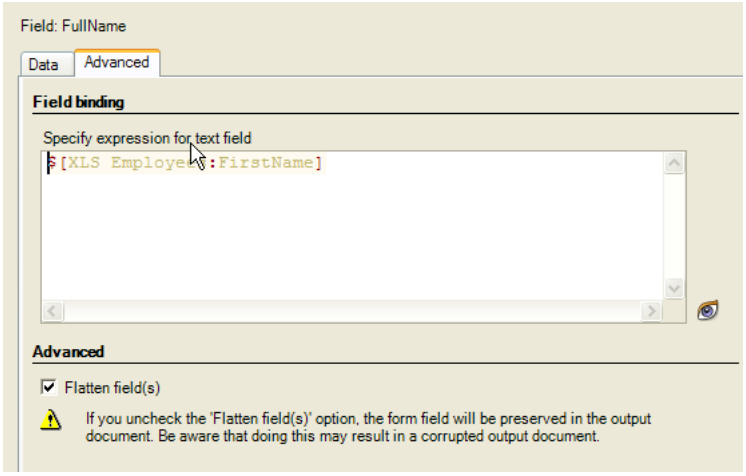
Next, select the data source field from the **Specify data source field** drop down list (see Figure 3-8).

Figure 3-8 *Specify data source field*



To enter your own binding expressions, click the Advanced tab, and enter your binding expression in the text box (see Figure 3-9).

Figure 3-9 *Specify data source field (Advanced)*



NOTE

For more information on field binding and using expressions, see Appendix A - Expressions.

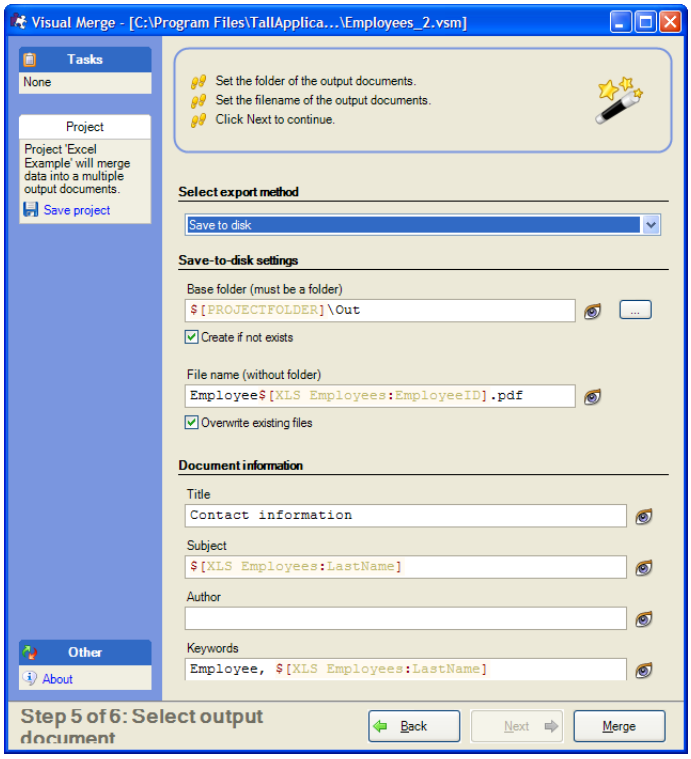
Flattening Fields

By default, VisualMerge flattens form fields. A flattened field is no longer editable. Uncheck the Flatten field(s) check box on the Advanced tab to change this default setting.

---When done with this step, click **Next**. ---

The Step 5 of 6 screen displays (Figure 3-10).

Figure 3-10 *VisualMerge Step 5 of 6*



Step 5 of 6: Select Output Document

In this step, you will specify the method used to output the final PDF. You will also specify document information.

Use the **Choose export method** drop down list to select on of the following: **Save to disk**, **Email as attachment**, and **Send to printer**.

Save to disk

Choose this option to save the final output PDF to a a directory on your hard drive or other location.

This is a simple export method and requires just two settings

- **Base folder**
  Specify the folder you want. You can also browse to find the folder you want.
- **File name**
  Specify the file name.

Both settings can be expressions referring data or merge parameters (For more information, see Appendix A - Expressions).

Additionally you can specify whether to automatically create the folder if it does not exists and whether to overwrite existing files.

Email as attachment

Choose this option to send the final merged PDF as an attachment by email. Table 3-2 describes the available configuration fields with this option.

***Table 3-2** Email as attachment fields*

Field	Description
SMTP Server	Name or IP address of your email server.
Subject	Subject of the email
From	Sender's email address
To	Recipient's email address
Cc	Email addresses that will receive a copy
Bcc	Email addresses that will receive a blind copy
Attachment name	File name for the attachment. This should end with .pdf
Body	The text for the email.


TIP

*You can use expressions when configuring the Email as attachment settings. For example, in the **Subject** field, you could enter **Mailing for $[data:customer]**. For more information about expressions, see Appendix A - Expressions*

Send to printer

With this method, the merged PDF will be sent to the printer you select from the **Printer** settings drop down list.

Document information

Common to all export methods are the following document property settings:

- **Title**
- **Subject**
- **Author**
- **Keywords**

Each document property is specified as an expression so that the actual property of the merged document can be retrieved from a data source or specified as a merge parameter.

If the result of a merge is a document that holds all orders of a specific customer you may specify the following expression for the Title property:

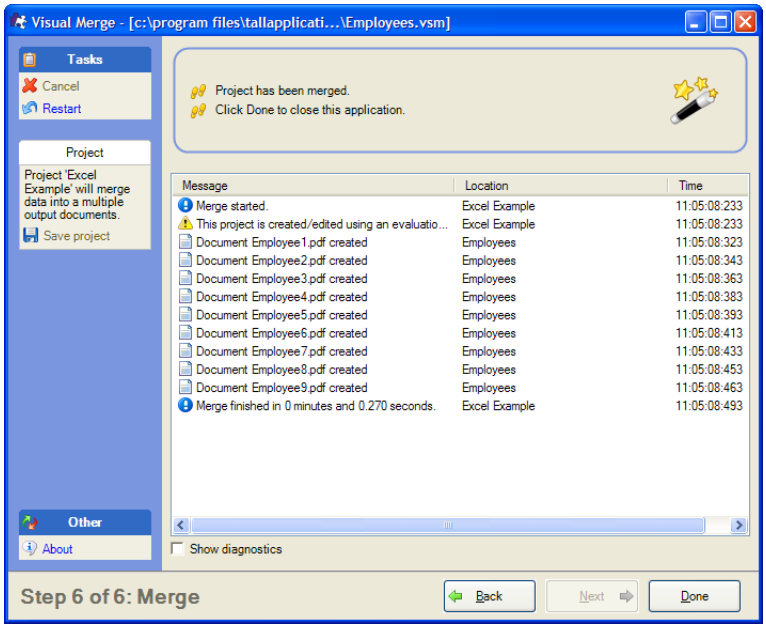
```
Orders of $[customers:name] in $[month] $[year]
```

This may resolve to Orders of Magic Inc. in July 2005 if **month** and **year** are specified as merge parameters, **customers** refers to the result of an SQL query, and **name** is a field in the result of the query.

--- When done with this step, click **Merge**. ---

The Step 6 of 6 screen displays (Figure 3-11). In this case, the Save to disk option was selected.

Figure 3-11 *Step 6 of 6 (Save to disk option selected)*



Step 6 of 6: Merge

The progress of the merge and any result messages display in the Message column of this screen.

If you chose the **Save to disk** option, you can double-click on the PDF file name to view the file.

You can do the following:

- Click **Save Project** and specify the folder and name.
- Click **Restart** to start again at Step 1 of 6.
- Click **Done** to close the program

TIP

*To get the most up-to-date information on VisualMerge, visit http://www.visualmerge.com, or click the **Visit us** link in the VisualMerge program.*

Appendix A

Expressions

This appendix explains what expressions are, what they can do and, most importantly, how to write your own expressions. Also covered is an overview of field binding in VisualMerge.

The following topics are included in this appendix:

Appendix Topics

About Expressions

VisualMerge features a very powerful expression language. Expressions can be used to assign values to a wide variety of properties such as output file names, form field values, e-mail message subjects, and SQL statements.

Entering expressions

Most textboxes in VisualMerge allow you to enter expressions. Every

text box that supports expressions has a preview button  . If you click this button the expression will be evaluated and the result is displayed.

What Happens During a Merge

Expressions are evaluated during a merge. Evalutation of an expression always results in a single value for either a setting or a form field. If an expression is specified on a page that is repeated many times, the expression is evaluated just as many times.

About Field Binding

PDF forms contain form fields. These fields are added to a PDF document using a PDF Form editing tool like Adobe Acrobat Professional. When you specify a PDF form to use, VisualMerge will scan the PDF form and add all the form fields to the project. You will then be able to set up the field bindings. A field binding is an expression that determines what data is entered into the field during a merge. The field binding effectively "binds" the field to data.

TIP

VisualMerge has an Auto-bind wizard feature to help you to bind PDF form fields to data quickly by providing default binding expressions.

Entering Expressions

In a nutshell, expressions allow you to dynamically assign values to fields. VisualMerge supports expressions using plain text and data references.

Plain text

Plain text is a static piece of text. During a merge, the value of the text will remain unchanged no matter how often it is repeated. An expression containing only plain text looks like this:

```
This is plain text
```

Data reference

A data reference is a dynamic part of an expression. During a merge it will be replaced by the value that it references at that time. For example, if we have a list of customers in our database, we could reference the customer's company name like this:

```
$[Customers:CompanyName]
```

In this expression **Customers** is the name of a data source that connects to the database with the list of customers. **CompanyName** is the name of a column in the table that holds the list of customers.

The data reference will result in a different value for each row in the data source.

VB.NET expressions

Visual Basic .NET expressions allow you to do calculations, compare values and format data. For example:

```
5 * 6 = { 5 * 6 }
```

The part between the accolades {} is an embedded VB.NET expression, the rest is plain text. The result of this expression is:

```
5 * 6 = 30
```

Within VB.NET expressions you can use data references. For example:

```
This product will cost you { ($[product:price]*(1-$[customer:discount]) }
```


NOTE

All characters that are not part of a data reference or VB.NET expression are considered plain text. This includes line breaks and spaces.

Boolean conditions

Boolean conditions are VB.NET expressions that result in true or false. Typically, these expressions compare two values. Boolean expressions use VB.NET syntax and cannot contain plain text.

Binding Specific Field Types

Using basic expressions in VisualMerge, you can bind specific form field types.

Textbox

The textbox is the most straight forward field type. It can contain one or multiple lines of text, depending on the settings of the field in the PDF form. The result of the binding expression is always text.

Checkbox

A checkbox can either be checked or not. The binding expression for the checkbox is a boolean condition. If the condition is true, the checkbox is checked, if it’s not, the checkbox is cleared.

For example:

```
$[Customers:Country] = “Mexico”
```

This condition fetches the customer’s country and compares it to **Mexico**. If the country name is indeed **Mexico** the expression is true and consequently the checkbox will be checked.

Radio button

A radio button is similar to a checkbox, however it is usually grouped with other radio buttons. Within the group of radio buttons exactly one option can be selected. In a PDF form each group of radio buttons is represented by a single field. Each radio button in the group is an option below that field.

Appendix B

SQL Statements

This appendix provides an overview of using SQL statements in VisualMerge.

The following topics are included in this appendix:

Appendix Topics

About SQL Statements

VisualMerge supports the standardized Structured Query Language (SQL) to select data from OLE DB based data sources, including Excel and CVS files.

SELECT statement

The SQL select statement is used to query for data. This statement will normally result in one or more rows.

Syntax

```
SELECT [fields] FROM [table] [WHERE conditions ] [ORDER BY sort-fields]
```

- **[fields]**
  The list fields to select or * for all fields. Separate fields with a comma.
- **[table]**
  The name of the table to select data from
- **[WHERE conditions]**
  This clause acts as a .lter. Only rows that match the conditions are included in the result.
- **[ORDER BY sort-fields]**
  This clause determines the order in which rows are included in the result.

The WHERE and ORDER BY clauses are optional.

WHERE clause

This clause acts as a filter expression. If the expression evaluates to true, the record is included in the query result. Multiple statements can be joined together using logical operators AND and OR.

For example:

```
SELECT * FROM orders WHERE payed=1 AND shipped=0
```

In addition you can use parenthesis to group conditions:

```
SELECT * FROM orders WHERE (payed=1 AND payment="Pre-Pay") OR
(payment="Cash-on-delivery")
```

ORDER BY clause

With this clause you can sort the data. The clause is specified as follows:

```
ORDER BY field [direction] [, field [direction]]
```

The direction is either ascending (ASC) or descending (DESC). The order in which fields appear in the statement determines the order in which the sort is performed.

For example:

```
SELECT * FROM products ORDER BY brand, price ASC
```

This will sort all products by brand and then by price. The lowest price comes first, the highest price comes last. By default the direction is descending.

Examples

Select all data from a table called "products":

```
SELECT * FROM products
```

Select only products that have the field brand set to "Acmee":

```
SELECT * FROM products WHERE brand="Acmee"
```

Select **article_nr** and stock for products that are in stock and sort them by article number:

```
SELECT article_nr, stock FROM products WHERE stock>0 ORDER BY article_nr
```

Joining tables

It is also possible to select data from 2 or more tables at once. This is particularly useful if the tables have a relation.

For example, we have a list of people in the contacts table. Each of these contacts works for a company, stored in the companies table. We could get a list of contacts and the name of their company using the following statement:

```
SELECT contacts.*, companies.name AS company
FROM contacts, companies WHERE comapnies.id = contacts.company_id
```

This is the same as:

```
SELECT contacts.*, companies.name AS company FROM contacts
INNER JOIN companies ON comapnies.id = contacts.company_id
```


NOTE

The AS keyword is used to assign a name to a column in the query result. Use this to provide more descriptive names for columns or to prevent 2 columns from having the same name.

The JOIN keyword is used to explicitly specify how to combine two tables to a set of results.

The NULL value

NULL is a special value that indicates no value has been assigned to a field. If you assign a NULL value to a

PDF form field the field will remain empty.

Nesting SELECT statements

Some databases, like Microsoft SQL Server, allow nested SELECT statemens, also known as sub-selects.

For example:

```
SELECT
contacts.*,
orders = ( SELECT COUNT(*) FROM orders
WHERE orders.contact_id = contacts.id )
FROM contacts
```

This statement will select all contacts and show how many orders they have placed.


NOTE

The COUNT(*) function is a so called Aggregate function. In this example COUNT(*) will count thenumber of records.

Calculating summaries

Aggregate functions return a single value based on data in a set of records. You can use them to calculate summary values for a set of data.

- **COUNT(*)**
  Count the number of rows in a set of records
- **COUNT(subscribed)**
  Count the number of rows where **subscribed** not is NULL
- **SUM(items_sold)**
  Summarize the values in **items_sold**
- **AVG(temperature)**
  Calculate the average value in **temperature**
- **MAX(age)**
  Determine the maximum value in **age**
- **MIN(count)**
  Determine the minimum value in **count**

Predicates

Predicates are used in the WHERE clause. The most straight forward predicate is =. This predicate is true when two values match exactly. Below is a list common to most databases. Check your database documentation for more details.

- **<>**
  Not equal
- **<**
  Less than
- **>**
  More than
- **<=**
  Less than or equal to
- **>=**
  More than or equal to
- **=**
  Equal to
- **BETWEEN 1 AND 10**
  Test if a value is between two values
- **IN**
  Test if a value is in a set of values. The set of values is usually a subquery
- **EXISTS**
  Test if there is one or more rows in a subquery
- **IS NULL**
  Equals a NULL value
- **IS NOT NULL**
  Is not a NULL value
- **LIKE**
  Match text to a pattern. % matches any character

Further reading

Here is a list of books and websites that you may find useful:

- T-SQL reference (SQLServer) - http://msdn.microsoft.com/library/en-us/tsqlref/ts_tsqlcon_6lyk.asp
- SQL Pocket Guide - Jonathan Gennick, O'Reilly, 2004, ISBN 0-596-00512-1
- MySQL Manual - http://dev.mysql.com/doc/

For additional information or support on this or other TallApplications products, contact info@tallapplications.com.

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