

A Case of VBA Application in Transaction Processing

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Abstract. Plenty of transactional work is continual, odd and time-consuming. Using the VBA technique can simplify the work procedure and liberate the workforce. A case of fetching required information from Word files and filling into the sheet of an Excel file is discussed. A general method of using embedded VBA codes and a mapping table is proved to be efficient, easy to implement and meet the demand.

Introduction

There is some transactional work which is no technical difficulty but time-consuming and odd in our daily work [1]. Using proper tools and methods, these affairs can be completed in a short while and the error can be decreasing to zero with a very little additional work [2,3]. A lot of successful cases using VBA to solve the odd and time-consuming routine affairs is reported [4,5,6]. Using embedded VBA program in Word or Excel documents [7,8], plenty of odd affairs work come to be easy which liberate the operators and improve the efficiency [9]. An association is newly built. The membership should be audit. A hundred of application lists are applied. Each applicant submits a form in a Word file. The information of the applicants should be summarized together as a new sheet. Using embedded VBA in an Excel file and programming a little additional code to open each Word file and fetch the information from the table and summarize as a new Excel file [10].

Affair Description

In order to be a membership of the association, the applicants are demanded to fill a form which includes personal information and other technique specialty. Each applicant should submit the information in a Word file. Hundreds of applicant's files have been received and should be summarized together.

Transaction Processing with VBA

Each item is saved in the table cell of a Word file. Locate the position of the required cell in the table. Establish a mapping table between the demanded information and the location in the Word-file's table. Dynamically modify the mapping table to get different cells' contents.

Personal Information. Each applicant fill the form which will be saved as a Word file. A part of applicant's information is shown in Table 1.

Mapping Table. In order to summarize the applicants' information, the Word files of the applicants should be traversal accessed. Fetch the required information from the file and fill into the sheet of the Excel file.

Establish a mapping table between the required information and the cell's location in the Word file. Modify the mapping table to get different information. An example of the mapping table is shown in Table 2.

VBA Implement. In an Excel file using the embedded VBA codes to implement the traversal access of the Word files, fetch the required information form the table of the Word files and fill the sheet.

Table 1 Part of personal information

Name		Gender		Date of Birth	
Political Affiliation		Race		Current Professional	
Professional Title		Duty		Diploma	
Graduate School				Professional	
Work Unit				Department	
Address				Post Code	
Office Phone		Fax		Mobile Phone	
Email		Service Year		ID Code	
unit character					
Language					
Technical Expertise					
.....					

Table 2 an example of the mapping table

No.	Item	Row	Column
1	Name	1	2
2	Gender	1	4
3	Current Professional	2	6
4	Duty	3	4
5	Diploma	2	6
6	Graduate School	4	2
7	Work Unit	5	2
8	Address	6	2
9	Post Code	6	4
10	Fax	7	4
11	Mobile Phone	7	6
12	Email	8	2
13	Technical Expertise	12	1
14	Date of Birth	1	6
15	Political Affiliation	2	2
16	Race	2	4
17	Professional	4	4
18	Department	5	4
19	Office Phone	7	2
.....

Preparation. The preparation function includes getting the path of the Word files and the save-as Excel file, the save-as Excel name and the mapping table etc. Part programming codes are list as below.

Worksheets(mainSheet). Activate

```

docPath =Range("B2").Value
xlsPath = Range("B3").Value
xlsName =Range("B4").Value
itemNos = .Range("C9").Value
For i = 1 To itemNos
    zb(i, 0) = .Range("B" & CStr(10 + i)).Value
    zb(i, 1) = .Range("C" & CStr(10 + i)).Value
    zb(i, 2) = .Range("D" & CStr(10 + i)).Value
Next i

```

Traversal Accessing of the Word Files. Before opening the Word files it is necessary to search the path and get the file names of the Word files. Part programming codes are list as below.

```

Set Fso = CreateObject("scripting.filesystemobject")
For Each f In Fso.GetFolder(p).Files
    s = f
    s = Right(s, 5)
    If InStr(s, "doc") > 0 Then
        docNos = docNos + 1
        docName(docNos) = f
    End If
Next

```

Fetching the Required Information from Word Table. Open each Word file, get the required information from the file and fill the correspondent cell in the sheet based on the mapping table. Part programming codes are list as below.

```

Set wdApp = CreateObject("Word.Application")
wdApp.Visible = True
With wdApp
    For docFileNos = 1 To docNos
        .Documents.Open Filename:=docName(docFileNos), revert:=False
        .ActiveDocument.SaveAs Filename:="t$empp.doc "
        With .ActiveDocument.tables(1)
            For items = 1 To itemNos
                rowNoInWordTable = Int(Val(zb(items, 1)))
                columnNoInWordTable = Int(Val(zb(items, 2)))
                .Cell(rowNoInWordTable, columnNoInWordTable).Select
                itemStr(items) = wdApp.Selection.Text
            Next items
        End With
        .ActiveDocument.Close SaveChanges:=wdDoNotSaveChanges
        With Workbooks(ThisXslFileName).Worksheets(summarySheet)
            For i = 1 To itemNos
                .Cells(docFileNos, 1).Value = itemStr(i)
            Next i
        End With
    Next docFileNos
End With
wdApp.Quit
Set wdApp = Nothing
Sheets(summarySheet).Copy
ActiveWorkbook.SaveAsFilename:=summaryXlsFileFullName,_
    FileFormat:=xlOpenXMLWorkbook, CreateBackup:=False
ActiveWindow.Close
Workbooks(ThisXslFileName).Activate

```

Worksheets(summarySheet).Activate

Conclusion

Summarizing personal information from lots of files is continual and time-consuming. Using a little additional VBA codes simplify the work procedure and liberate the workforce [11]. The mapping table provides an easy method to get different cells from the Word file. The method discussed here has met the demand and is proved to be efficient and easy to implement.

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