



HM Revenue  
& Customs

# Bulk Import Routines.

6<sup>th</sup> May 2021

# Situation

- Data required from payroll / timekeeping systems.  
Invariably the back end database is unknown or 'hidden' from the users and access to this will cost money.
- Standard reports are available and the only 'cost' is time.  
So consequently we receive a lot of data from standard reports and if there has been limited interaction with the employer the default formats of the report output is either .PDF or .XLS(X).



# So what does that mean?



# An example....

- Hotel chain – 60+ hotels, 6 years, weekly / monthly payrolls.

Standard payroll report run – export to .XLSX

$60 * 6 * 2 = 720$  files (minimum).

Worst case scenario received to date - 591,000 files.

- So at 30 seconds to import each file, if they are 'ready'.

6 hours or 4,925 Hours!



# Solution – Macros (example1).

- If you do decide to import 'raw' Excel files.
- Excel invariable imports the same type of data held across multiple files in different ways (dependant on the first few rows of data that it sees).
- This macro reads all of the files imported and their fields and field types and will highlight where there are differences.
- NMW Field List Macro....

BANK_HOLIDAY	Character	0	<a href="#">3</a>
BANK_HOLIDAY	Numeric	0	<a href="#">5</a>
BANK_HOLIDAY	Numeric	2	<a href="#">5</a>
B_FORWARD	Character	0	<a href="#">11</a>
B_FORWARD	Numeric	0	<a href="#">29</a>



# Solution – Macros (example 2).

- Other solutions to Excel import issues.
- Inconsistent worksheet names, as the IDEA import requires the name of the worksheet to be imported if this is inconsistent then not all sheets will be imported.
- The macro (excelImportwithsheetchange) will find any .xlsx files held in the working directory, change the sheet name to 'Sheet1' and then import it.
- 
- InputDirectory = Client.WorkingDirectory()
- InputFile = Dir(client.workingdirectory & "\*.xlsx")
- 
- This uses the 'DIR' command to look for all .xlsx files within the working directory.



# Solution – Macros (examples 2 cont. / 3).

- Set oBook = excel.Workbooks.Open("C:\\_full\_Path....\" & InputFile)
- oBook.Sheets(1).Name = "Sheet1"
- To 'fix' the file– export each .XLSX file to .TXT (ready for a Report Reader import)
- The macro (openexcel), similar end logic, different start methodology.
- Uses the DOS DIR command.



# Solution – Macros (example 3).

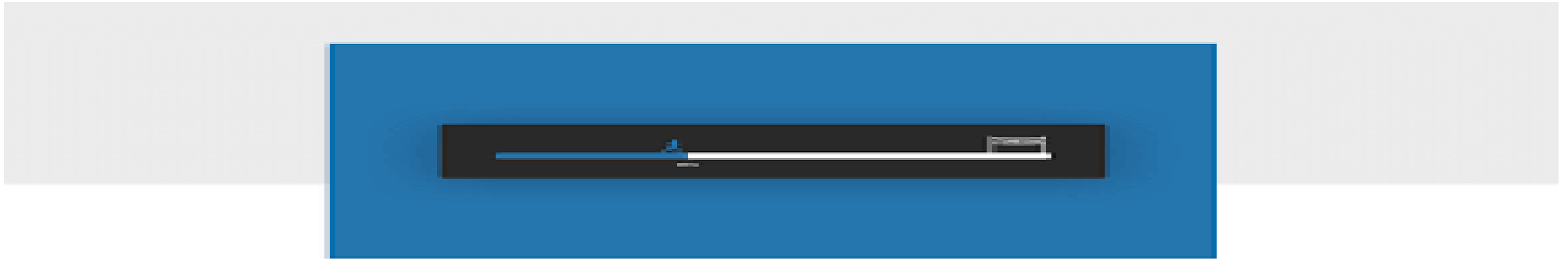
- Uses the DOS DIR command.
- The 'CMD' command opens the DOS window in 'Windows'.
- Navigate to the root directory for the data and then use the command
- `DIR /s *.XLSX > dir.txt`
- This creates the text file in the root directory, which can then be imported into IDEA (Report Reader) and the filenames and file directories can be selected.
- Export the resultant file into a '.DEL' format and remove the speech marks.





# Solution – Macros (example 3).

- Demonstration
- DOS CMD
- Macro run



## Thank you

- HM Revenue & Customs
- Ian Maxted
- Lynx House  
Cosham  
PO6 3XA
- 03000 544597.
- [ian.maxted@hmrc.gov.uk](mailto:ian.maxted@hmrc.gov.uk)

