



ACCESS ANALYTIC

**Is This The Right Version?
A Guide to Better Version Control**

White Paper

Welcome

Thank you for reading this invaluable white paper.

It summarises the many years of experience we've had in working with leading companies who continue to search for improvement in the relevance and quality of information they use to make decisions.

The principles outlined apply to almost any business department where information is collated, re-organised and presented to aid the decision making process.

In the pages that follow, you'll find details of how to maintain appropriate version control for stand alone and linked files.

We encourage you to share this white paper with your colleagues and pass it on to anyone you know who may benefit from understanding how their everyday tasks can be made easier.

By following a few guidelines and learning some simple techniques you may save yourself a lot of avoidable re-work.

Never again be unsettled by the question "Is this the right version?"

"Men of ill judgment oft ignore the good that lies within their hands, till they have lost it."

- Sophocles

"Much good work is lost for the lack of a little more."

- Edward Harriman

About the Author:

Wyn Hopkins is a Senior Business Analyst at Access Analytic.

Wyn gained his Chartered Accountant qualification at PricewaterhouseCoopers in the UK in 2000.

Wyn is a certified Excel Expert, skilled in financial analysis, strategic financial modelling, management reporting and forecasting

He has extensive Business Analyst experience in FTSE 100 financial services companies (HBOS and Barclays in the UK) as well as a range of industries in Perth and Sydney.



Contents

WELCOME	2
CONTENTS	3
WHAT IS A VERSION?	4
WHAT IS VERSION CONTROL?	5
RECOMMENDATIONS	6
1: Numbering Convention	6
2: File Names v Folder Names	7
3: Documenting Changes	9
4: Highlighting Version Numbers	10
5: Version Overkill	12
SUMMARY	12
CONTACT ACCESS ANALYTIC	13
ABOUT ACCESS ANALYTIC	14
KEY STAFF	14
ADDITIONAL RESOURCES	16

What is a Version?

Two events generate the need to create a version of a file:

- Saving Backups
- Issuing / Publishing files

Backups

When a file with complex calculations is being developed, it should be regularly backed up, ideally in a different folder with an amended filename.

Why?

Either a mistake or new information about how a calculation works might require you to return to a previous correct version.

How regularly should I create versions?

Before starting the next change to a file ask yourself “would I want to have to do those last changes over again?” If the answer is “definitely not” then create a backup version. This is your “Version Trigger”.

The risk, of course, is that your next changes cause an error which you cannot easily undo. If you didn't take a backup version you will have to redo everything.

Issued Files

Whenever a file is issued or made available to a 3rd party it should be saved with a new version number. Only by doing this can you and users know that the version they are looking at is the correct one and that all users are referring to the same file and information.



Have a sub-folder called “Backup” in whichever folder your file is in.

When saving a backup a common approach would be to use FILE, SAVE AS then renaming the file, closing it and then re-opening the original.

A quicker way to try is select FILE, OPEN, then find the file, hold CONTROL and click & drag the file down the screen slightly, this creates a copy which can then be quickly renamed (see further on for naming conventions). Your original file is still Open in Excel.

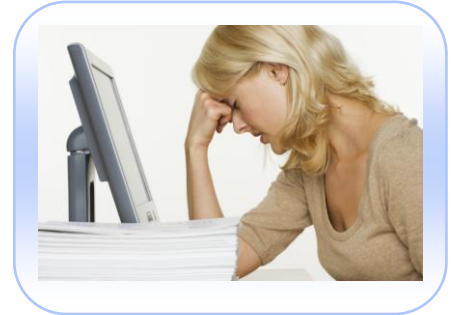
When issuing multiple versions of a file, save the issued versions in an “Issued” folder.

What is Version Control?

Version Control is a way of tracking changes to your files over time.

Why do you care?

- Clear understanding for all readers that they have the latest version.
- When mistakes are made you can return to previous correct versions.
- Assists explanation of variances between versions.
- Remembering your own changes.
 - *Ask yourself if you will remember what changes you just made in 2 weeks time? The answer would be probably not, so documenting your changes and referring to them when returning to a file can be very beneficial.*



"Mistakes are a fact of life. It is the response to error that counts."

- Nikki Giovanni

Version Control, like an insurance policy, is an expense (of time and effort) that hopefully is never required.

You've probably got the beginnings of a version control system without realising it with files named like these;

- 2006 Budget Oct2006.xls
- 2007 Budget Mar2007.xls
- MarketingForecastv3 (14.01.2008).doc
- logo-old.jpg

Many version control packages exist in the market but basic version control can be achieved through 3 techniques:

- **File / Folder Numbering**
- **Documenting Changes**
- **Highlighting Version Numbers**

Recommendations

1: Numbering Convention

Numbers

The simplest way to track versions of files is to add a number to the file name.

It may be useful to use a decimal point to indicate the difference between a major change / issued version and minor changes / backup versions.

Issued file or a major change

v1.0, v2.0, v3.0 etc

Minor changes or backups

v3.1, v3.2, v3.3 etc

Dates

Using the date that a file is updated is also a useful approach. For best results the format of YY MM DD should be used as this ensures that when using File - Open the most recent file is the one at the bottom of the list.

(see illustration opposite)

Combination

Where there are ongoing structural changes (i.e. changes to formulae) and data changes (i.e. changes to inputs and assumptions) then a combination of date and numbers can be used.

e.g **090114** Forecast **v3.0**.xls
 Data *Structure*

The date at the start relates to data changes and the number at the end relates to structural alterations.

SIDE POINT:

The need to use a zero before the single digits e.g. 01, 02 ..., 08, 09, 10, 11 etc is no longer necessary for the file to be sorted correctly in windows explorer.

1, 2..., 8, 9, 10, 11 used to end up being sorted as: 1, 10, 11, 2..., 8, 9, but this is no longer the case in Windows XP and Vista.

Which approach allows you to see the most recent version more easily?

DD MM YY

YY MM DD

Name
Forecast 311208.xls
Forecast 301208.xls
Forecast 291208.xls
Forecast 040209.xls
Forecast 030109.xls
Forecast 020109.xls
Forecast 010109.xls

Name
Forecast 081228.xls
Forecast 081229.xls
Forecast 081230.xls
Forecast 090101.xls
Forecast 090102.xls
Forecast 090103.xls
Forecast 090204.xls

2: File Names v Folder Names

Utilise Folders

Renaming a file isn't necessarily the best option when saving new versions. It may be a better option to rename a folder.

There are 3 main occasions where using a folder approach to version control may be better.

1. Where a file is linked to other files
2. Where 3rd parties have a shortcut to a file on the network.
3. Where a file is accessed by multiple users and it must be clear which is the current version.

In any of the above scenarios the act of changing the file name from say Budget 2008.xls to Budget 2008 v1.0.xls could cause issues. Links would no longer work and confusion may result.

Rather than change the file name, keep that consistent and change the folder that old versions are kept in.

The following "Live" Folder approach is one I've used a number of times and has served me well in the past.

The folder names aren't really that important, rather the principal of how they fit together is the key.



Where there are files linked to other files, changing file names will cause these links to break

The “Live” Folder Approach

This requires a bit of thought when initially setting up, but then it should really help you manage your versions.

Let’s use the illustration of a file called “Consolidated Budget.xls” which has linked files in a “Source Data” folder.

The key is the folder combination of “**Live**” within “**Current**”, coupled with a folder called “**Previous Versions**”.

- *A “Current” folder is useful when the file will require new versions on an annual or monthly basis.*

Backups

Backups and versions can be easily and quickly created by using CTRL + drag + drop to copy the “Live” folder into the Previous Versions folder. Then rename this replica folder from “Live” to a version number e.g. 2009.02 081203

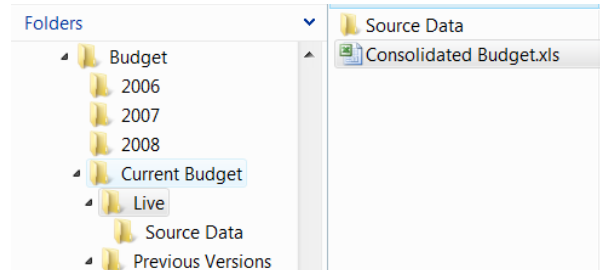
This approach should maintain the integrity of links between files within the original or replica “Live” folders.

Capture the Version

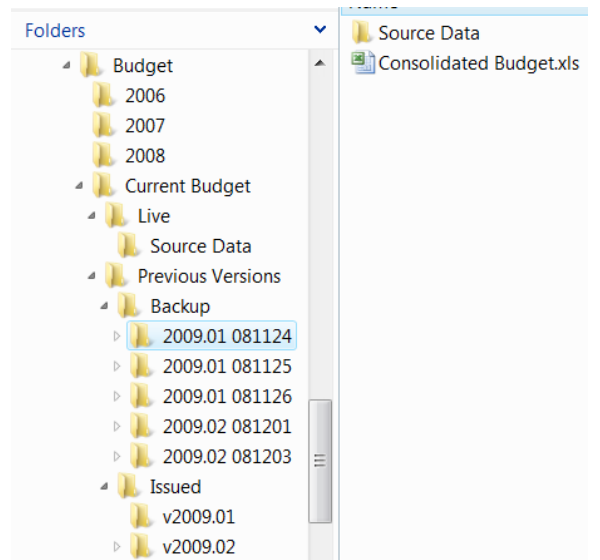
The potential downside to this approach is that anyone with a printout or a copy of the original file on their own PC will not be able to easily tell which version they are looking at.

To counteract this, a Version Page and latest version number should be maintained within the file itself. This leads us into the section on “Documenting Changes”.

The file in the Live Folder is always the latest version.



Hold CTRL while moving a folder with the mouse to create a copy.



Backups can be easily restored by dragging and dropping the required folder back to the “Current” folder, then changing the name back to “Live”.

3: Documenting Changes

The last thing you want to do once you've made changes to a file is then to have to type up what those changes were.

This is a thankless tiresome task and of no immediate value, but it is crucial.

So why bother?

Like an insurance policy, hopefully you'll never need to use it, BUT, it is this information that would be essential should an error arise and a previous version needs to be restored.

This documentation process can also be used to act as a change control / approval process.

How?

It would be best to have a sheet named Version Control or Change Log within the file itself.

Alternatively, where that approach is not an option, a separate version control file could be saved in the same folder as the main file.



Where a file is issued to multiple parties then it can be helpful to maintain a separate log of the version sent to each person. Then when a new version comes along you have a ready made listing for re-issuing your files.

Example of a version control page

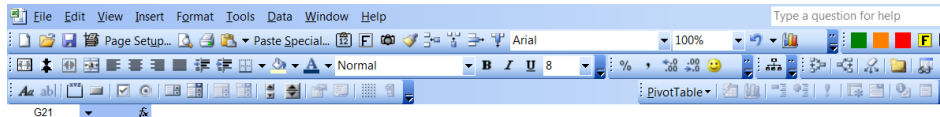
New Version	Date	Description of Change(s)	Changed by	Authorised by	Reviewed by	Documentation Updated?
2009.01	081121	Initial Setup 1st Draft	A Smith	R Willis	R Willis	Depending on the nature of the change, the file's documentation may need to be updated.
2009.02	081201	Changes to Calculation of A, revised assumptions on B	A Smith	R Willis	R Willis	Yes
2009.02	081206	Interest Rate Assumption changed	A Smith	R Willis	R Willis	NA
2009.03	081221	New Submission from Department X Methodology changed to R78 from straight line.	A Smith	R Willis	R Willis	NA

4: Highlighting Version Numbers

Along with a version control sheet the version number should be clearly displayed to the user on each sheet that will be viewed or printed.

Here are some examples:

Cover Sheet



Consolidated Budget

2009

Version:

2009.03

Issue Date:

21/01/2009

Prepared by:

A Jones
ajones@abc.com
Tel: 08 1234 5678



Sheet Titles

	A4					
	A	B	C	D	E	F
1	Consolidated Budget					
2	Profit and Loss					
3	Version 2009.03					
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						

Headers and Footers

As an alternative to capturing the version within the printed sheet area you could include the version in the header or footer.

It would be useful if the printed headers or footers could be linked to a cell containing the version number. The bad news is that this isn't a built in function in Excel. The good news is the following VBA code will do the job nicely.

Open the file you want to add this code to, Press ALT+F11 then Copy and paste this code into the "ThisWorkbook" section of the VBA code.

Go back to your file and use Range Naming to name a cell **refVersion** and type the version number in this cell.

Then, whenever you select Print or Print Preview, this code is triggered.

Some simple VBA code can be used to automatically update headers or footers with contents from a cell in the spreadsheet.

The code below can easily be amended from Footers to Headers, or to use input boxes / defined cells for both left and right footers

Useful VBA Code

```
Private Sub Workbook_BeforePrint(Cancel As Boolean)
```

'For this to work you must have a cell named refVersion in your worksheet

```
Dim refFooterLeft as String  
Dim refFooterRight as String
```

```
Application.calculate
```

```
refFooterLeft = InputBox("Enter Left Footer") 'example using input  
refFooterRight = [refVersion] 'example using value in [NAMED CELL]
```

```
For Each Sheet In Worksheets
```

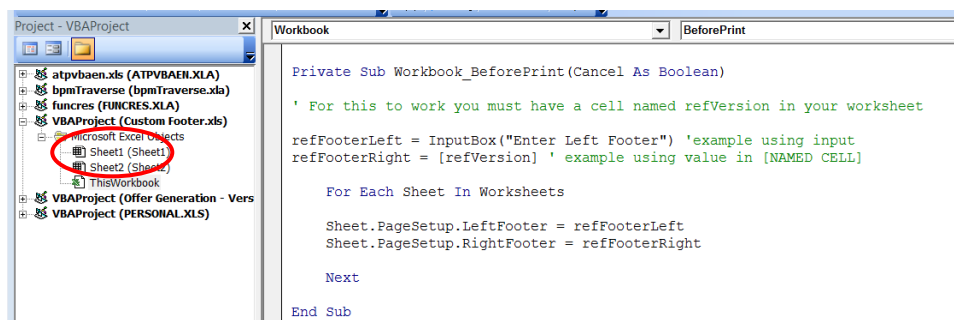
```
Sheet.PageSetup.LeftFooter = refFooterLeft
```

```
Sheet.PageSetup.RightFooter = refFooterRight
```

```
Next
```

```
End Sub
```

Screenshot view



5: Version Overkill

How often to create versions?

Setting up versions can be initially time consuming, and documenting changes is certainly a chore.

It can, however, save you a lot of re-work and stress if the worst happens. It also engenders confidence in users when they see clearly documented version control being used.



When to delete versions?

Given the size of most hard drives and network data storage facilities these days, there's unlikely to be any limiting factor on the number of backups and versions you can keep.

From a practical point of view all "issued" versions should be kept, while backup versions should be purged regularly once their "insurance" value becomes meaningless. In other words if the file is not going to be of help if an error is spotted or change is required then get rid of it.

You don't have a crystal ball to see when disaster might strike. So take backup versions regularly when working on a file. At least backup at the middle of day, end of day and any significant changes in between

Sensitive / Restricted Documents

Where files are of a sensitive nature (e.g. complex forecasting models / business plans) you might consider adding a special identifying number to a certain hidden cell in each file issued (and logging this). This might sound a bit "cloak and dagger" but should that file end up with unauthorised users then it would be easy to identify the source.



Summary

By adopting a consistent and logical numbering system, documenting your changes and highlighting the version number, you should be fully prepared for the unexpected.

Investing time now will save a lot of time later.

Contact Access Analytic

Consulting

If you're considering the advantages of using independent, experienced Consultants to assist you improve your reporting and analysis capabilities, contact Wyn Hopkins at Access Analytic.

We have many years of experience in providing independent help and objective advice about financial modelling, reporting, and spreadsheet development to businesses of all sizes and industries.

So why not use our expertise and leverage our Consultants' experience to ensure you are getting the best information for your business.

Contact Wyn Hopkins to arrange a confidential discussion of your needs and transform your reporting process!

Training

We provide a range of training courses specifically for accounting and finance staff.

Courses include Advanced Excel, VBA programming and Financial Modelling.

Details at www.accessanalytic.com.au/training

Access Analytic

Ground Floor, Unit 110/131 Adelaide Tce
East Perth, Western Australia 6004

PO Box 6284
East Perth Western Australia 6892

Phone +61 8 6210 8500

Web www.accessanalytic.com.au
E-mail info@accessanalytic.com.au

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About Access Analytic

Access Analytic provides financial modelling, management reporting, and business analysis for companies that need to make decisions with confidence.

Our key skill is the ability to bridge the gap between business and information technology, thereby providing value through our understanding of both areas.

We add value by translating complex business issues into Excel-based models, systems, procedures, and processes.

Key Staff

Jeff Robson, Principal Business Analyst
BCom (Accounting & Information Systems), CISA, AICPA, A
Fin, Masters (Applied Finance) - Current, MS Excel Expert

Jeff holds a Certified Information Systems Auditor from the Information Systems Audit and Control Association.

He has 10 years experience with Microsoft Excel, 6 years experience in Information Systems Audit, and worked for 4 years in external audit at a Chartered Accounting firm.

He has been involved in many Excel development projects for clients around the world including sophisticated spreadsheet modelling, spreadsheet auditing and review, and advanced macro programming.

Jeff holds a Bachelor of Commerce degree from Curtin University with a double major in Accounting and Information Systems, and he is a Microsoft Certified Excel Expert.



Neale Blackwood, Senior Business Analyst
CPA, B.Bus (Accounting)

Neale is a CPA with over 15 years experience in accounting, budgeting, management reporting, and developing spreadsheet applications.

Neale has extensive experience across a broad range of industries including mining, education, property, forestry, government, and construction.

Neale is a regular contributor to the CPA magazine regarding spreadsheets and related subjects, and writes a monthly column for this publication.

He is also a sought-after speaker and trainer regarding the use of Excel, particularly by accountants.



Wyn Hopkins, Senior Business Analyst
B.Sc. (Hons) Accounting & Financial Management, CA, Excel Expert

Wyn gained his Chartered Accountant qualification at PricewaterhouseCoopers in the UK in 2000.

He has extensive Business Analyst experience in FTSE 100 financial services companies (HBOS and Barclays in the UK) as well as GESB in Perth and telecommunications companies industry in Australia.

Wyn is skilled in financial analysis, strategic financial modelling, management reporting and forecasting, and value-based management techniques.



Rachel Gregory, Senior Business Analyst
BCom (Finance & International Business), MPA, Excel Expert

Rachel previously worked as a Senior Accountant in the Business Recovery and Insolvency division of an International Chartered Accounting firm.

Rachel then moved to commerce, working with an international energy company as a Business Analyst.

Rachel brings a high level of expertise in financial modelling, budgeting/forecasting and management reporting. She is also an experienced and energetic communicator who specialises in training and presentations.



Additional Resources

Area	Resources
Financial Modelling and Management Reporting	<p>We provide Excel-based financial modelling, management reporting, and business analysis services to help businesses make decisions with confidence.</p> <p>To see how we could help your business, call us on +61 8 6210 8500 or visit http://www.accessanalytic.com.au</p>
Excel Mentoring	<p>Personalised mentoring in your office, using your files, solving your issues.</p> <p>http://www.accessanalytic.com.au/services_mentor.php</p>
Training Courses	<p>We provide high-powered training in Financial Modelling, VBA and advanced Excel for accounting and finance professionals throughout the Asia-Pacific region.</p> <p>For more information, visit http://www.accessanalytic.com.au/training</p>

Control+Z Undo

Control+Y (or F4) Redo / Repeat

Control+Shift+8 Select Data Region

Control+Arrow Next/End of Series

Ctrl+Page Up/Down Move through tabs

F4 (while editing a cell) Toggle \$ Ref

Alt+Enter (while entering text) Starts text on new line within a cell

F3 Paste Range Name


Control+F3 Name Cell Range

F5 Go To (Range)

Alt+F11 Visual Basic

Shift+F3 Insert Function

Ctrl+Shift+F3 Define Range Name

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08 6210 8500