



Work done for

RMIT University - School of Media and Communication

Summary

With dozens of teachers and tens of thousands of assessments to be completed the manual task of assessment consumed vast amounts of staff time in repetitive work. A web-based solution would have been far too slow to use. This Excel application is incredibly quick, is easy to maintain, is robust, cost a small fraction to build compared to alternatives and was developed in little time.

Price range of work done

A\$10,000-20,000
(US\$10,000-20,000).

Video



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The video is mp4 format.

Rapid course assessment



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RMIT is a global university of technology and design and Australia's largest tertiary institution. The University enjoys an international reputation for excellence in practical education and outcome-oriented research.

RMIT is a leader in technology, design, global business, communication, global communities, health solutions and urban-sustainable futures.

RMIT has three campuses in Melbourne, Australia, and two in Vietnam. The University's student population of 74,000 includes 30,000 international students, of whom more than 17,000 are taught offshore (almost 6,000 at RMIT Vietnam).

Website <http://www.ableowl.com>

Email info@ableowl.com

Phone Australia + (61) 3 8400 4580
+ (61) 2 8038 5084
New Zealand + (64) 7 854 9276



Excel custom applications, presenter-led courses, webinars, Knowledge Base, publications, training, add-ins, video courses and topics, hotline and standards.

Rapid course assessment

With so many student assessments to complete, the computer application needs to be quick.

The School of Media and Communication has thousands of VET student assessments to do each year

VET programs in the School of Media and Communication at RMIT University, Melbourne has thousands of assessments to complete each year. For the dozens of teachers, the task of creating assessments and maintaining copies of assessment outcomes is a longwinded one.

The application needs to be quick, intuitive, robust and easy to administer

The requirements for the computer application are that:

- (a) It be quick so as to reduce the large amount of manpower needed.
- (b) It be intuitive and easy to use so that new teachers can rapidly get up to speed.
- (c) It be robust from data corruption. It is important that the assessments be correct. The application needs to check that entries are valid, not missed and not corrupt in other ways.
- (d) Application updates be easily administered to the many dozens of teachers.

A web-based application would be far too slow

The first requirement ruled out web-based systems with their slow screen response. Furthermore, teachers often do the assessments at home where the quality of internet connections are variable.

Excel is quick and when properly structured, provides a robust, maintainable solution

The solution chosen was an automated Excel application. The benefits are:

- (a) Operation is very fast.
- (b) Excel is familiar to all and, so, users quickly learn how to use.
- (c) Excel is available on MacIntosh and PC, of which teachers use both.
- (d) The use of dialog boxes for data entry ensures data integrity.
- (e) Having only one Excel file in which the data is held separately makes the administering of application updates simple.
- (f) Development cost is much lower than for alternatives.
- (g) A variety of changes can be done in-house without recourse to the developer.

Assessments are in the form of a rubric matrix

The assessments are in the form of a matrix called a rubric. Figure 2 is an example. Down the left-hand side are the criteria and across are the levels achieved.

There is just one Excel file, which saves data to text files

The application has just one Excel file, AARubricGenerator.xlsm. There is no data stored in the file. Instead, when the user clicks a save button, the application saves the data to a text file. The diagram below represents the file structure.

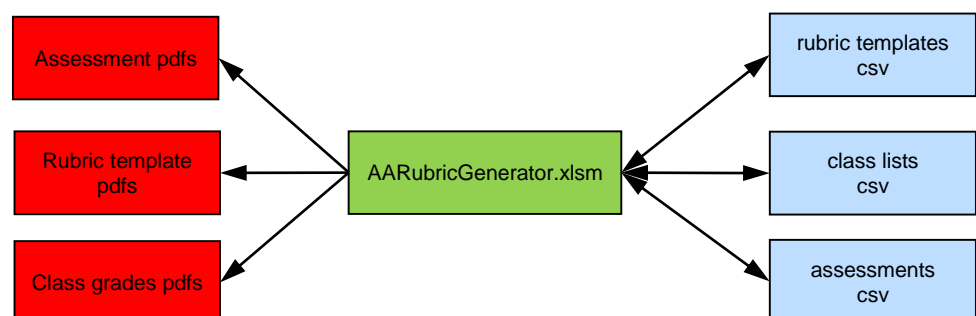


Figure 1 – File structure

Text files are extremely fast to save and open and are very small

There are text files for each master rubric, for the list of students in a class and for each student. The text files are a type known as Comma Separated Variable. Text files are extremely fast to save and open. They are also small in comparison to Excel files.

Assessment		School of Media and Communication		RMIT UNIVERSITY	
3053921 Thompson, Lucy		18-May-2013 10:30 a.m.			
Number	Criteria	Not satisfactory	Satisfactory	Developed	Advanced
Program	CUF50207 - Diploma of Interactive Digital Media				
Unit	CUFANM402A - Create digital visual effects				
Summative	1 of 1				
Assessor	E12345-Paul Oulton				
This grade	NYC				
Final grade	NYC				
1	Concept - Research material: As many web links as you like. Strictly 1 page research images. Concept development in visual diary: 5 pages of brainstorm, thumbnails, layout and development			Appropriate research material. A good number of visual diary sketches. Evidence of a well developed concept	
2	Design - Fully realised visual diary designs and frame layouts. Minimum 15 frame storyboard (2 secs per frame). Considered use of colour, style and composition				Innovative designs laid out in visual diary. Excellent storyboard. Exceptional design ideas. Exemplary aesthetic skill. Innovative use of style, colour or composition
3	Build - After FX PAL Widescreen Square pixel format. All media assets (you may use any kind) must be your own, new work for this assessment. Apply animation, media management and render techniques covered in Lynda.com tutorials to achieve seamless, high quality animated composites		Correct dimensions/format/colour mode/compression. Developed appropriate, new assets for this project. Assets and asset management at a competent standard. Animation and editing / compositing at a competent standard		
4	Finish - All files and layers CLEARLY NAMED (student no, full name and group). Server submissions checked to ensure non-corruption. DO NOT SUBMIT MEDIA FILES!!	Poorly presented work. Unnamed files or layers. Poor digital asset management. Submitted original media. Poor design workflow			
5	Submission - Timely submission. Rendered Quicktime movie and AEP project file submitted to the IDM dropbox. All research / concept work saved to your assignment journal on Blackboard. Signed and dated cover sheet submitted through the assignment on Blackboard	DNS or late without extension. Submission does not meet all criteria of the assignment. No coversheet. The work is not of an acceptable standard			
Comments					

Figure 2 – Student assessment rubric

The reports get created as PDF files

The application also outputs PDF reports, which can be emailed to students and others.

When the user opens AARubricGenerator.xlsm, the Welcome sheet is on display.

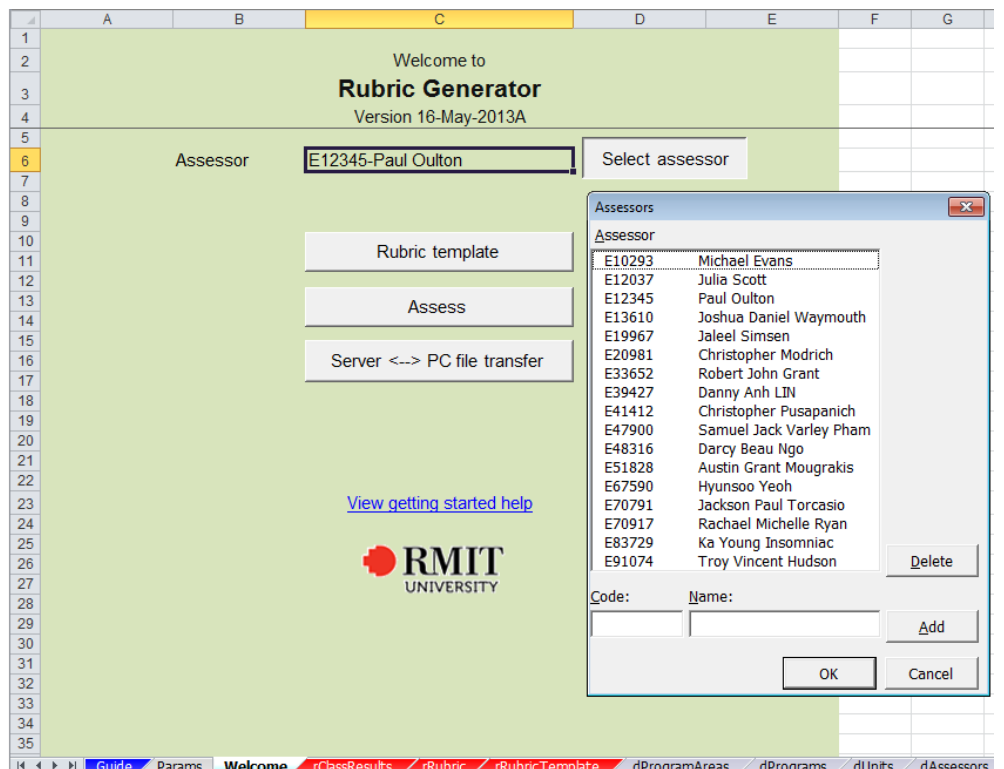


Figure 3 – The sheet from which to operate the application

The first time that a teacher opens the workbook, he or she needs to select himself or herself as the assessor.

Set up a rubric via a dialog box

Next, a rubric must be set up for a course. To do that, click the Rubric template button, and a dialog box appears.

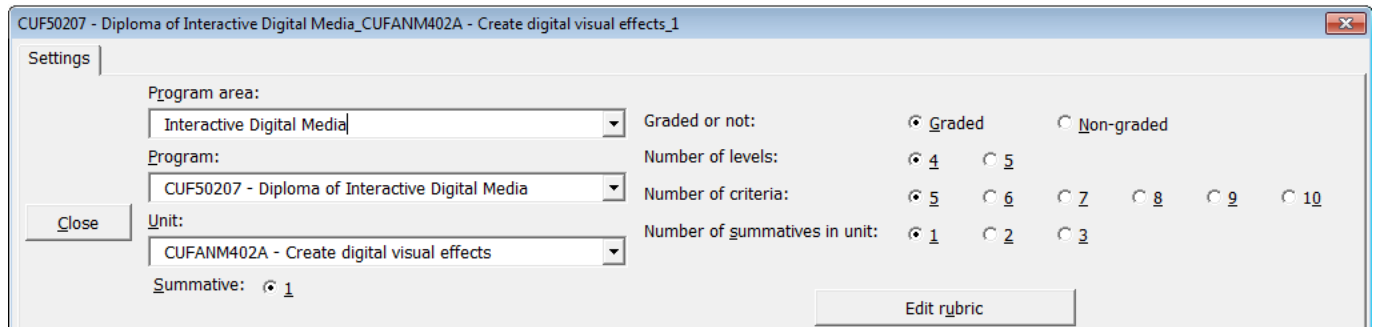


Figure 4 – Set-up parameters of a rubric

Courses divide into program areas, programs, units and a further subdivision called a summative. A course can have 5 to 10 criteria and 4 or 5 levels, There are a couple of other choices too. With those parameters set, click the *Edit rubric* button. A dialog box of the rubric matrix appears where the user enters text into dialog box cells.

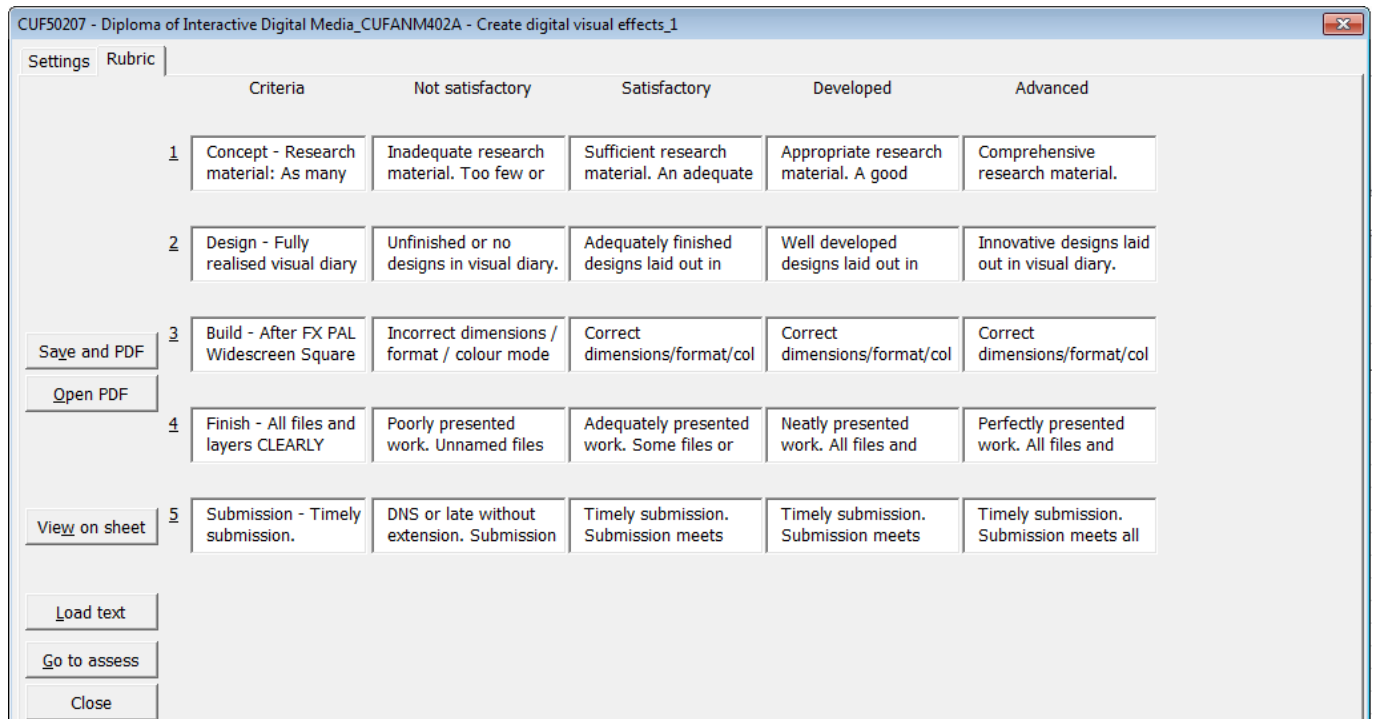


Figure 5 – Enter text of rubric matrix

Optionally, load the class list from an Excel sheet

With the matrix set up, the user can then create the individual student assessments. Figure 6 shows a dialog box with a class list loaded. The user can load the class list from an Excel sheet or can input students' names individually.

Enter data rapidly with the use of a few keys

Figure 7 shows the dialog box for inputting the levels achieved. The user can click the level achieved for each criteria, though a keyboard method is faster. Start by typing a letter for the first criteria, for example, A for advanced. Then, type a letter for the second criteria, say, S, for satisfactory. Continue in that way, typing letters for the level attained, for the following criteria.

Finally, enter any comment. Keyboard shortcuts can also be used to save (Alt+v) and move to the next student (Alt+x).

CUF50207 - Diploma of Interactive Digital Media_CUFANM402A - Create digital visual effects_1

Settings | Rubric

Program area: Interactive Digital Media

Program: CUF50207 - Diploma of Interactive Digital Media

Unit: CUFANM402A - Create digital visual effects

Graded or not: Graded Non-graded

Number of levels: 4 5

Number of criteria: 5 6 7 8

Number of summatives in unit: 1 2 3

Summative: 1

Grade by summative

Class list:	1	2	3	Final grade
3053921 Lucy Thompson	NYC			NYC
3187367 Matthew Archer	NYC			NYC
3252834 Joel Fivebarrels	CC			CC
3270865 Jie Di Natale	NYC			NYC
3288731 Hyunsoo Chandler	NYC			NYC
3298624 Tzu-Chao Fairbairn	NYC			NYC
3299481 Jayden Douglas J Farout				
3307357 Parthin Irvine				
3315903 Ka Young Jovanovski				
3329062 Mengyang Knox				
3331881 Iyoram Smeddings				
3332488 Anh Moses				
3336075 Carly Moshtarikhah				
3344894 Kim Norton				
3347720 Victoria Oliver				
3348194 Yury Pythagoras				
3348800 Remi Yunus				
3357694 Phurich Antipavlov				
3367880 Matthew Ronhnn				

Buttons: Assess, Add students from iPasteSheet, Insert/Edit, Delete

Figure 6 – Class list for a course

CUF50207 - Diploma of Interactive Digital Media_CUFANM402A - Create digital visual effects_1_3053921_Thompson, Lucy

Settings | Rubric

Student: Thompson, Lucy

Assessor: E12345-Paul Oulton

Assessment date: 18-May-2013 10:30

Criteria	Not satisfactory	Satisfactory	Developed	Advanced
1 Concept - Research material: As many	<input type="radio"/> N	<input type="radio"/> S	<input checked="" type="radio"/> All satisfactory	<input type="radio"/> A
2 Design - Fully realised visual diary	<input type="radio"/> N	<input type="radio"/> S	<input type="radio"/> D	<input checked="" type="radio"/> A
3 Build - After FX PAL Widescreen Square	<input type="radio"/> N	<input checked="" type="radio"/> S	<input type="radio"/> D	<input type="radio"/> A
4 Finish - All files and layers CLEARLY	<input checked="" type="radio"/> N	<input type="radio"/> S	<input type="radio"/> D	<input type="radio"/> A
5 Submission - Timely submission.	<input checked="" type="radio"/> N	<input type="radio"/> S	<input type="radio"/> D	<input type="radio"/> A

Buttons: Save and PDF, Open PDF, Next, Previous, View on sheet, Go to Rubric, Close

Grading: This grade: NYC, Final grade: NYC

Comment: Good progress has been made.

Figure 7 – Input assessment levels

The application operates as fast as the user can type and, so, productivity is high.

The user can easily copy files from laptop to server location

Finally, the user will need to copy data files from his or her laptop to the server location. The steps to do that are simple enough: (1) On the Welcome sheet, click the *Server <-> PC file transfer* button. A dialog box appears as shown below.

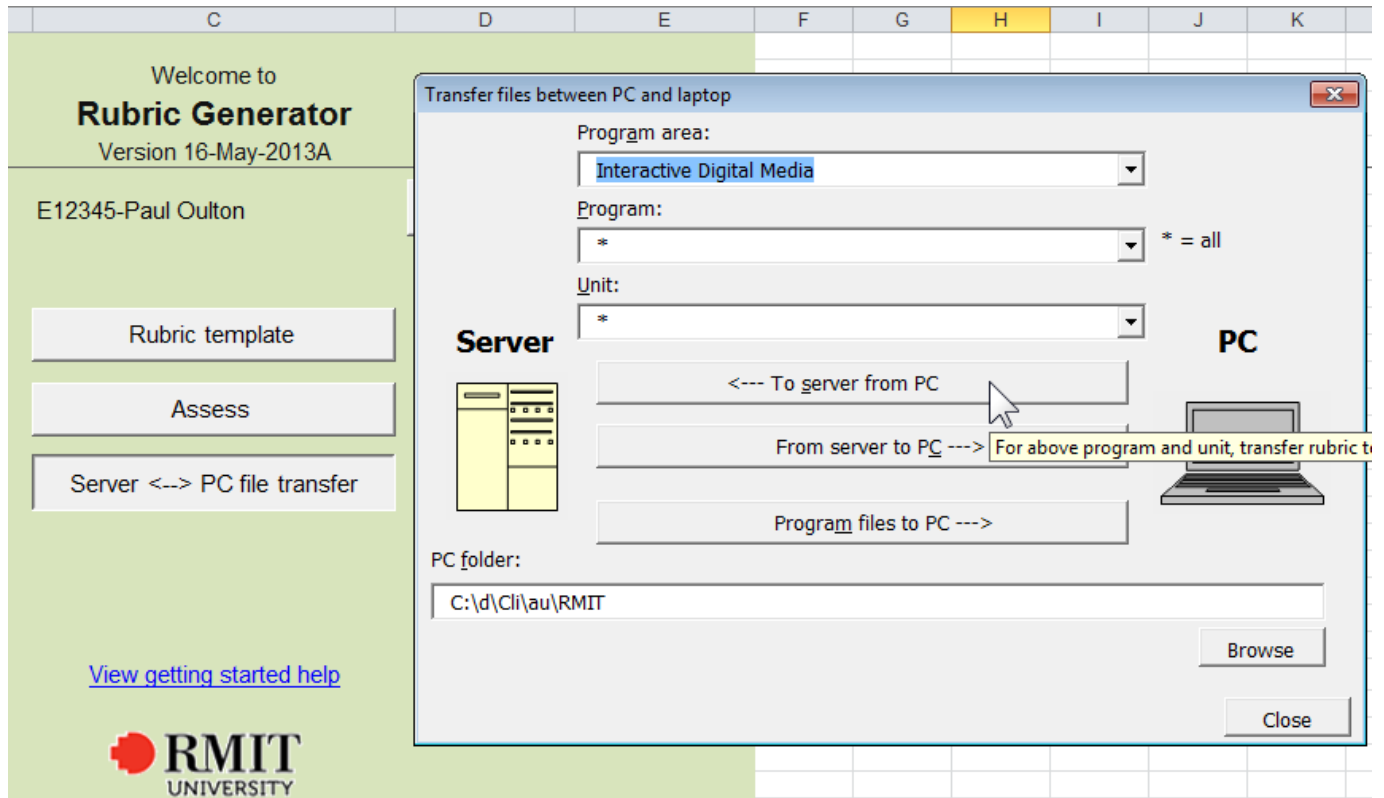


Figure 8 – Copy files between server and laptop

(2) Select the Program area, Program and Unit to copy. Note that * above indicates all. (3) Click the <-- To server from PC button.

There's a similar procedure to copy files from the server to the laptop.

There's also a button to copy the file AARubricGenerator.xlsm from the server to the laptop. That makes it easy for the user to update to the latest version of the application.

"The product was developed and reviewed – online. The continued support and responsiveness by AbleOwl to any issues has been incredibly quick."

Glenn Blair, Director of VET Programs at RMIT, says "Previously we had an Excel application that was restrictive in its capability and it required redevelopment. Staff required more flexibility in the rubric, this new application is simpler and offers many additional functions, which further supports the requirements of assessors in a VET environment. The development process with AbleOwl was all conducted via online meetings. The product was developed and reviewed - online. The continued support and responsiveness by AbleOwl to any issues has been incredibly quick."

"The new software saves considerable amounts of time"

"The new software will save considerable amounts of time and will ensure a consistent approach to assessment within the School. The automatic saving of the PDF documents provides us with critical documents in an environment which is highly regulated."