Research Assessment Program (RAP) Requirements Trace Matrix

Entry #	Para #	Requirement	Type	Use Case
1	3.1	The Research Assessment Program must operate within the Standard Operating Environment (SOE) of University computers, which are a mixture of Dell and Apple products that all run Windows 7 or Windows 8.	SWC	
2	3.1	The information that the system will display is currently all stored in a MySQL database, named the "Employment and Research Database", and this database content and structure cannot be changed.	SWC	
3	3.2	The final system is to be developed using C# and the sources shared with technical staff from Information Technology Resources so that they may maintain it into the future.	SWC	
4	4.1	The system will be used by professional staff from the Office of Research Services as well as senior administrative (academic) staff in the University.	SWC	
5	4.1	Both groups will have access to the same features, so there will be no need to differentiate between users.	SWC	
6	5.1	The Research Assessment Program will consist of two main components: researcher lists (incorporating a researcher detail view) and publications lists (for a given researcher).	D 8, 34	
7	5.1	These may be enhanced by the addition of a report generation function.	D 43	
8	5.1.1	Upon application start up, the user shall be presented with an interactive list of researchers (consisting of both staff and research students), known hereafter as the Researcher List view.	SW	UC8_User_views_ResearcherList
9	5.1.1	This list should display names in the format 'Family Name, Given Name (Title)', as in 'Einstein, Albert (Dr)'.	SWC 8	
10	5.1.2	The employment levels correspond to the following job titles: A, Postdoc; B, Lecturer; C, Senior Lecturer; D, Associate Professor; E, Professor.	SWC 16	
11	5.1.4	The user shall be able to filter the Research List view based on a researcher's employment level or student status.	SWC 8	
12	5.1.4	The user should be able to list all researchers, students only, level A, level B, level C, level D and level E.	SWC 8	
13	5.1.5	It would enhance the system's utility if the user could filter the list by entering part of a researcher's name.	NTH SWC 8	
14	5.1.5	The list contents would be restricted to show only those staff whose given name or family name contains the text entered by the user.	NTH SWC 8	
15	5.1.5	Partial matches that span combinations of given and family name do not need to be supported.	NTH SWC 8	
16	5.1.1.1	When the user selects a name in the list the researcher details view will be displayed.	SW	UC16_User_selects_Researcher
17	5.1.1.1	It will show the following basic details, some of which are only available for staff and others only for students: Name (both); Title (both); School/Unit (both); Campus (both); Email (both); Photo (both); Current Job Title (both); Commenced with institution (both); Commenced current position (both); Tenure (both); Publications (both); 3-year Average (staff); Performance (staff); Supervisions (staff); Degree (students); Supervisor (students).	SWC 16	
18	5.1.1.1	Photo is stored as the URL of an image, but must be presented as an image.	SWC 16	
19	5.1.1.1	Current Job Title is a label derived from their current position's level.	SWC 16	
20	5.1.1.1	Commenced with institution is the start date of their earliest position.	SWC 16	
21	5.1.1.1	Commenced current position is the start date of their current position.	SWC 16	
22	5.1.1.1	Tenure is the time in (fractional) years since the researcher commenced with the institution.	SWC 16	
23	5.1.1.1	3-year Average is the total number of publications in the previous three whole calendar years, divided by three.	SWC 16	
24	5.1.1.1	Supervisions is the number of students the staff member is currently or has previously supervised.	SWC 16	
25	5.1.1.2	The display should have labels for each piece of information, with the values for 3-year average, Performance and Supervisions left blank for students, and the values for Degree and Supervisor left blank for staff.	SWC 16	
26	5.1.1.3	It would enhance the application if the Researcher Details view also includes a table of a staff member's previous positions and those positions' start and end dates (not required for students).	NTH SWC 16	

27	5.1.1.4	When displaying details for a staff member, the Researcher Details view will show that staff member's performance, which is their three-year average for publications divided by the expected number of publications given their employment level, expressed as a percentage with one decimal place shown.	SWC 16	
28	5.1.1.4	The expected number of publications per year for each level is as follows: A, 0.5; B, 1; C, 2; D, 3.2; E, 4.	SWC 16	
29	5.1.1.6	The system could allow the user to expand the number of supervisions displayed to show a list of those students' names.	NTH SW	UC29_User_expands_Supervisions
30	5.1.1.6	This list does not need to be interactive.	SWC 29	
31	5.1.1.6	This function would be accessed via a button or equivalent control.	SWC 29	
32	5.1.2.1	It would enhance the application if the user could display a tabular view of a researcher's cumulative number of publications by year, starting with their earliest year of employment.	NTH SW	UC32_User_views_CumulativeCount
33	5.1.2.2	This will be accessed via a button or equivalent control within the Researcher Details view and may be displayed within the main window or in a new popup window.	SWC 32	
34	5.1.3.1	As part of the Researcher Details view, located below the researcher's primary details, the system shall show an interactive list of that researcher's publications.	SW	UC34_User_views_Publications
35	5.1.3.1	Entries in this list should be formatted with the publication year followed by its title.	SWC 34	
36	5.1.3.1	The list shall initially be sorted from top to bottom with the most recent publications first, based on their year of publication.	SWC 34	
37	5.1.3.1	Publications within the same year shall be sorted alphabetically based on title.	SWC 34	
38	5.1.3.2	It would enhance the utility of the list if the user could invert the sort order to that the oldest publications appear first.	NTH SWC 34	
39	5.1.3.2	It would further enhance the utility of the system if the user could specify a year range to filter the contents of the list.	NTH SWC 34	
40	5.1.3.3	When the user selects a publication in the list the Publication Details view will be displayed.	SW	UC40_User_selects_Publication
41	5.1.3.3	This may either be part of the main window, adjacent to the researcher's details, or in a new window.	SWC 40	
42	5.1.3.3	It will show the following details: DOI; Title; Authors; Publication year; Type (one of 'Conference', 'Journal' or 'Other'); Cite as (this is a single string obtained from the Employment and Researcher Database); Availability date (the date when the publication was first available, which may differ from the publication year); Age (the days elapsed since the publication became available; this can be negative if the availability date is in the future).	SWC 40	
43	5.2.1	It would enhance the system if the user could generate lists of researchers performing well and those performing poorly, based on their publication performance metric.	NTH SW	UC43_User_generates_Report
44	5.2.1	Four reports should be implemented: Poor, those whose performance is at or below 70%; Below Expectations, those whose performance is above 70% and below 110%; Meeting Minimum: those whose performance is at or above 110%; Star Performers: those whose performance is at or above 200%.	SWC 43	
45	5.2.2	These alternative reports may be accessed via menu options or, if a tabbed view is used to organize the various application views, via buttons on dedicated tab.	SWC 43	
46	5.2.2	Reports may be incorporated into the main window (on a separate tab of tabbed view, for instance), or appear in a new window.	SWC 43	
47	5.2.2	The reports do not have to support printing.	SWC 43	
48	5.2.3	All reports have the same format and should be presented in a table or list, with the researcher's performance in the left column and his or her name in the right.	SWC 43	
49	5.2.3	Other details may be included if space allows.	SWC 43	
50	5.2.3	The Poor and Below Expectations reports should be sorted by increasing order of performance, while the other two reports should be sorted by decreasing order of performance.	SWC 43	
51	5.2.4	It would further enhance the system if the user could copy the email addresses of those listed in a report to the clipboard.	NTH SW	UC51_User_copies_ReportEmails
52	5.2.4	This would be accessed via a button located above the report.	SWC 51	