Tool User Manual

This manual has been written to help people to help people to navigate the Capacity Planning Tool and to understand how its calculations are constructed. This manual is not intended for circulation to all users of the tool; rather, the aim is that this tool will enable anyone who needs to customise the calculations the tool uses, or gain a more thorough understanding of how the Tool works.

Introduction to the Tool

The Tool is an Excel spread sheet. It uses information input by the user to estimate total Digital Archiving storage needs. The Tool consists of eleven tabs. These are:

- Introduction
- Input_tab_one
- Selected functions
- Input_tab_two
- Overall_results
- Results_by_function
- Input_lists
- Calculation_lists
- Retention_schedules
- Input_database
- Results_charts

Of these, only five are visible to the user of the tool. They are:

- Introduction
- Input_tab_one
- Input_tab_two
- Overall_results
- Results_by_function

The other tabs are hidden from sight from the normal user. To access them, you should right-click on the tab ribbon, and click “unhide” from the list that appears.

This manual will explain the function of each of the tabs in turn. Tabs which are invisible to the user when they first open the Tool are highlighted in red.

Introduction

This tab provides an overview to the user about how to navigate the tool and how to provide the information the tool requires in order to make its calculations. It also includes a macro button, located at cell **C17**. This button, which is called **Clear Tool**, performs the function of clearing any information that has been previously input by a user into **input_tab_one** and **input_tab_two**. The name of the macro, which can be found in the macro management tool, is **clear_results.**

Input_tab_one

In this tab, users input the following information:

- Name of local authority
- Year tool updated
- Functions to be incorporated into the calculation

The information provided must be selected by a drop-down list that appears when the user clicks on an answer cell (see appendix one: drop-down lists).

When the user has entered all the relevant information, the tool requests that they activate a macro, which is located at cell **B39.** The function of this macro is to make **Input_tab_two** easier for the user to navigate. It does this by reading the functions that the user has chosen to incorporate into the tool calculations. It then creates a section for each of these functions in **Input_tab_two.** It hides any cells that are not being used, to prevent users being confused by hundreds of rows that are not related to a specific function.

Selected_functions

This tab is normally hidden from users. It consists of a pivot table which is refreshed when the user activates the macro in **input_tab_one.** When this happens, the pivot table refreshes with the functions that have been selected by the user. **Input_tab_two** is then updated to include the functions that are listed in this pivot table.

Input_tab_two

In this tab, users input the following information about each function they have selected:

- Percentage of records to be incorporated into the digital archive
- Year of migration onto content management system
- Volume of records on content management system
- Number of backup copies held on content management system
- Volume of records outwith content management system
- Number of backup copies held outwith content management system
- Number of backup copies to be incorporated into the digital archive
- Information about any backup copies which will be saved as different file types to the master copy. This question is aimed at, for example, users who have high resolution TIF documents and they want access copies to be saved as Jpegs
- Information about upcoming digitisation projects (if relevant)
- Annual volume of paper record accrual (if the user is unable to provide information about digital records held)

Aside from information about volume of records held, the information provided must be selected by a drop-down list that appears when the user clicks on an answer cell (see appendix one: drop-down lists). It is particularly important for the user to input the volume of records the user intends to preserve; otherwise, the Tool will assume that the user wishes to save 0% of records.

Section 1.1.1. provides users with a guide to the volume of records that users might expect to preserve, which is calculated on a function-by-function level. The percentages provided have been arrived at through an audit conducted at Glasgow City Council. They are intended to be used as guidance only and are not prescriptive.

Overall_results

This tab shows the estimated digital storage needs. The table and graph will be blank unless the user has input information into **input_tab_one** and **input_tab_two.** Storage needs are broken down into annual storage needs and the user can choose

which unit to view their results in (megabytes, terabytes, etc.). The functions displayed will be the functions selected for inclusion by the user.

The Tool takes the overall storage needs calculated using the information input by the user, and estimates annual accrual rates. The annual rate of accrual is an estimate taken from the **total** digital storage calculations made by the tool. The tool uses this annual estimate to extrapolate forward three years to calculate storage needs in three years' time. The decision was made to show annual increase in storage needs because it was felt that this would make it easier for users to advocate for the resourcing of digital archival storage, using easy to understand visual aids. The user can do what they wish with these figures; if they prefer, they can simply use the figure for total digital storage needs to date (see the table; specifically cell **E65**).

Results_By_Function

This tab allows users to conduct a more in-depth analysis on digital storage needs on a function by function level. This can help users to better understand their results; for example, it can help them to understand unexpectedly large storage estimates.

Input_lists

This tab is normally hidden from users. It consists of the lists that are used to create the drop-down lists used throughout the Tool. Take care when making changes to these lists, as this may result in some Vlookup functions not working properly. Also, if new additions are added to existing lists then they may not be added to the drop-down lists unless the range of the drop-down lists are altered (see **Appendix one: Drop-down lists).** Take special care when adding or deleting columns in this sheet as this may results in drop-down list malfunction.

Calculation_lists

This tab is normally hidden from users. It consists of the lists that the tool uses to make calculations using the Vlookup formula. More information about the Vlookup function can be found here:

https://support.office.com/en-us/article/VLOOKUP-function-0BBC8083-26FE-4963-8AB8-93A18AD188A1

You may need to change some of the information in these lists if you want to successfully make changes to the drop-down lists that are applied throughout the

tool. The figures provided in these tools are used by the tool to calculate storage needs for a range of different scenarios, such as how file compression affects file size (see table compressed_files_conversion, in columns **Y-AA**). All tables have a title at the top which provides a brief explanation of their function. Conversion rates have been calculated either by audits of records held at NRS or other records offices; or by applying best practice guidelines from organisations such as The National Archives.

Retention_Schedules

This tab is normally hidden from users. It consists of the list used to populate section 1.1.1 in **input_tab_two.** It functions through the use of the Vlookup function. More information about the Vlookup function can be found here:

https://support.office.com/en-us/article/VLOOKUP-function-0BBC8083-26FE-4963-8AB8-93A18AD188A1

Input_database

This tab is normally hidden from users. **It is where the Tool calculations for digital storage needs can be found.** Rows 1-31 are active. The first four rows contain information about what information is held in each column. Rows 5-31 provide calculations on a function by function basis, depending on what functions have been incorporated into the calculation by the user. The sheet is divided into several sections:

- **Columns A-CG:** This is linked to the information provided by the user in **input_tab_one** and **input_tab_two**. Each column is linked to the answer to a question that the user had to answer. Each row refers to a different function, which is defined by the user. If you follow the links in column B, for example, you will see that each cell is linked to the question 1.1.2 in **input_tab_two.**
- **Columns CH-CO:** When the user provides information about the volume of digital records held within their organisation, the tool allows them to select the unit of their choice (for example, terabytes, megabytes etc.). To ensure that the tool is working with like for like volumes, this section normalises all the information that the user has provided about digital volumes into kilobytes. It does this by applying a Vlookup function. More information about the Vlookup function can be found here:

https://support.office.com/en-us/article/VLOOKUP-function-0BBC8083-26FE-4963-8AB8-93A18AD188A1

- **The remaining columns** are formulas used to calculate total storage needs. Use the descriptions in **row 2** to find the element of the calculation you are looking for. Often cells will link to the tables in **Calculations_lists**, which is how ratios are calculated (for example, to calculate the difference to file size of creating low-resolution backup copies). The final calculations are in **columns GC-GH.**

Results_charts

This tab is normally hidden from users. It consists of several tables, which hold the volume requirements for different units of measurements (megabytes, terabytes, etc.).

Appendix

Appendix One: Drop-down lists

A large part of the functionality of the Tool relies on users selecting responses from a drop-down list. This enables calculations to be made using the Vlookup formula. More information about the Vlookup formula can be found here:

https://support.office.com/en-us/article/VLOOKUP-function-0BBC8083-26FE-4963-8AB8-93A18AD188A1

If you wish to view or change the drop-down list that appears in a cell, click on that particular cell and then in the menu ribbon at the top of the spread sheet, click on **Data → Data Validation.** Note that if you change the options that a user can select

from in a drop-down list, that you may also need to adjust other calculations in the tool which rely on this information to perform Vlookup calculations.