East SIG Report – June 2024

After welcoming members to the June meeting of East SIG, host Frank Maher outlined the nights agenda below:

Presentation 1: **A Beginners Guide to Copilot in Windows** by Frank Maher
Presentation 2: **Spartan Clips** by Peter Carpenter
Presentation 3: **How I use Total Commander** by Peter Carpenter
Presentation 4: **Beyond Windows 10** by Peter Carpenter
Presentation 5: **Living with Lists** by Dave Botherway

A Beginners Guide to Copilot in Windows
by Frank Maher

To begin this presentation, Frank Maher played a YouTube video titled "Copilot in Windows (Beginners Guide) 2024" by Brett In Tech. Copilot is Microsoft's AI-powered search tool.

Figure 1 – Copilot in Windows (Beginners Guide), YouTube banner

The video starts by outlining the free version of Copilot, which appears to be available only for Windows 11 users. There are two ways to activate Copilot in Windows: by using a button on the taskbar or the shortcut *Windows key + C*, which also closes Copilot.

If you have an active window open, the default setting for Copilot will open it as an overlay, blocking a portion of the other window. Clicking a button on the top right of the window changes it to side-by-side mode, so it no longer overlaps the other window.

You can use Copilot to ask almost anything by typing it into the text box. In addition to typing a query, you can also use your voice if you have a microphone. The response will be in both text and voice. To use voice input, select the microphone icon inside the text box to start and stop your query.

When Copilot completes a query, it suggests possible related questions that might help you get a more in-depth response. You can use Copilot's suggestions or ask your own follow-up questions by typing them into the text box or using your voice. To copy a response, select the copy icon located below it and paste it wherever you need it.

You can use Copilot to change some of Windows' settings. This was demonstrated by asking "Turn on dark mode." You need to confirm by clicking "Yes," and dark mode is then turned on. You can also use Copilot to open programs and apps installed on your computer, such as Microsoft Word, Excel, File Explorer, and many others. This was demonstrated by opening Notepad and confirming "Yes."

Copilot offers three conversation styles to help tailor the AI response needed. These are:

- "*More creative*" is for responses that are more innovative and imaginative, such as creating songs, jokes, short stories, and images.
- "*More precise*" is for responses that prioritise accuracy, such as software coding.
- "*More balanced*" is the default conversation style for Copilot. It balances creativity and precision.

For Windows 10 and 11 users, Copilot is available in the Microsoft Edge browser. To open Copilot in Edge, click on the Copilot icon at the top right of the browser window.
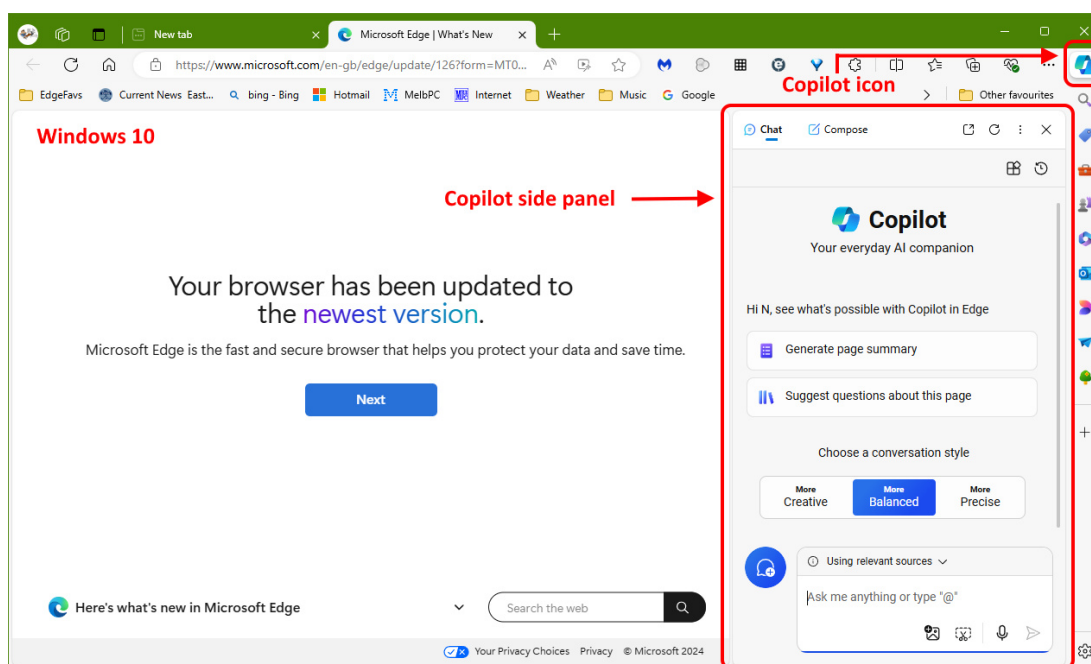

Figure 2 – Copilot in Windows 10 Edge browser

Copilot opens on the right and offers more specialised "Copilot GPTs" options:

- "*Designer*" is for creating images.
- "*Vacation Planner*" is for planning travel.
- "*Cooking assistant*" is for finding and creating meals.
- "*Fitness trainer*" is for helping to create an exercise plan.

Plug-ins: Copilot for Windows has plug-in support that, when enabled, will provide extra functionality and additional experiences. To enable plug-ins, select the icon in the upper right. Search is enabled by default. There aren't many to choose from, and only three can be enabled at any time.

Text limit: For complex queries, there's a text input limit of up to 18,000 characters.

Summaries: Copilot will summarise or provide key points of an open article in Microsoft Edge when you press the "Summarise the page in Microsoft Edge" icon. You can ask a question in the text box pertaining to the article.

Images: Copilot can analyse images and screenshots as well. To do this, you can select the upload image icon at the bottom. The easiest way is to drag and drop the image from your computer into the Copilot chat box. When Copilot has finished analysing the image or screenshot, it'll let you ask follow-up questions.

SpartanClips Clipboard Manager

by Peter Carpenter

Introduction

SpartanClips is a clipboard manager that helps Windows users utilise the clipboard more efficiently by overcoming the limitations of the Windows extended clipboard (*Windows Key + V*). It is often referred to as the Swiss army knife of clipboard managers due to its many unique features.

SpartanClips, developed by M8 Software, is part of the Spartan Clipboard Manager series. The earliest recorded mention of Spartan multi-clipboard software dates back to around 2014. Over the years, it has evolved significantly, incorporating features such as the ability to save clips permanently, take and edit screenshots, and encrypt sensitive information.

According to an internet post, the developer John Turnbull ceased active development in May 2019 due to health issues, and all four editions of the software were made free to use (Reference: https://alternativeto.net/software/spartan-multi-clipboard/about/). The developer's website no longer exists, but the software was renamed and can be downloaded as Spartan Multi Clipboard from the free software website https://www.apponic.com/s/spartan/, where the renamed version was first released on 21 June 2019.

Figure 3 – About Spartan window

Overview

Spartan Multi Clipboard is a useful app that serves as a multi-clipboard, organiser, and text/image editor. It can perform basic tasks like cut, copy, and paste, and offers additional features like a year planner, graphics editor, and image browser.

The version Peter demonstrated is the same as can be downloaded from the Apponic.com website. However, the version I downloaded from that website is labelled as a Demo, and when loaded and run, displays "*Evaluation – Uses remaining 300*". There does not appear to be any payment request for the software, so it is uncertain what happens when the evaluation reaches zero. Peter has provided an alternative download option, which is outlined at the end of this report.

Spartan is quite versatile. It can contain text and graphics, and react to website addresses, email addresses, and phone numbers, which will be outlined later in this report. You can create clips that automatically include the system date and time. It also allows you to encrypt sensitive clips such as passwords and credit card details.

The configuration options are numerous, but Peter has adopted the 'keep it simple' mantra and left it mostly on the default settings. It is one of those programs that he finds so useful that he runs it on all his computers.

To capture clips, Spartan needs to be running when Windows starts up, or can be run manually and then left minimised in the system tray. Startup configurations can be set from the main menu under *Options*. It is not necessary to save the "sheets", as Spartan calls them, as the software does this automatically.

The User Interface

The user interface, shown in Figure 4, resembles an Excel spreadsheet that stores everything that has been copied to the clipboard. A second smaller preview window displays the clip and can be moved by holding down the Control key to a convenient screen location. Peter has the main Spartan window located on a second screen, with the preview window opening for convenience on his main working screen.
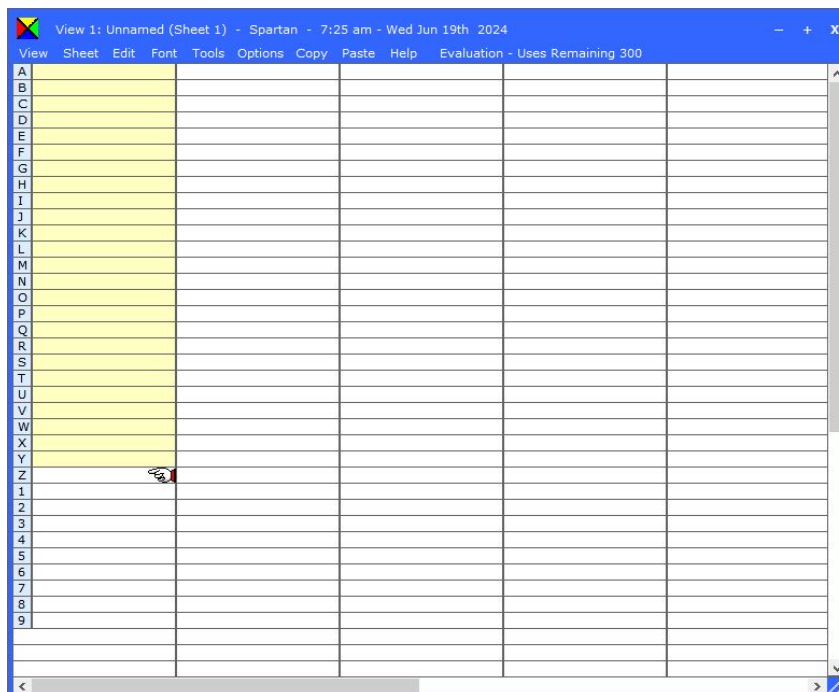

Figure 4 – Fresh install of Spartan Multi Clipboard

The Yellow Area - Clipboard

The yellow column comprises 25 cells that is a rolling list similar to the Windows extended clipboard. When an item is copied it is added at the top of the yellow column and the bottom item drops off. Each time you cut or copy, Spartan will capture the clip, save it to disk, and display a default name for it in one of these cells.

The White Area - Sheets

If an item is to be kept, it can be moved or copied from the yellow area to the white cell of a "Sheet" for permanent storage. "Sheets" are for saving groups of clipboard items for repeated use. They are then saved as are all items within Spartan as all saving is automatic. The matrix of cells in the worksheet is 9 columns by 62 rows, and there are 20 white "Sheets" available to use. You can change the current "Sheet" in use from the top menu titled Sheet. Refer Figure 7.

Items can be moved or copied to the white area using conventional Windows cut or copy commands or by dragging with a mouse. When dragging, hold down the left mouse button to move the clip, or drag with the right mouse button down to copy the clip. Both methods can be used to rearrange clips within the permanent white area.

Preview Window

As you move the mouse over saved clips, you can see them in the preview window. If the clip is a graphic, you see a thumbnail. Once you have clips permanently saved in the white area, you can arrange them by dragging, sort them alphabetically, give them titles, and highlight them with colour so that all your information is organised and easy to find.
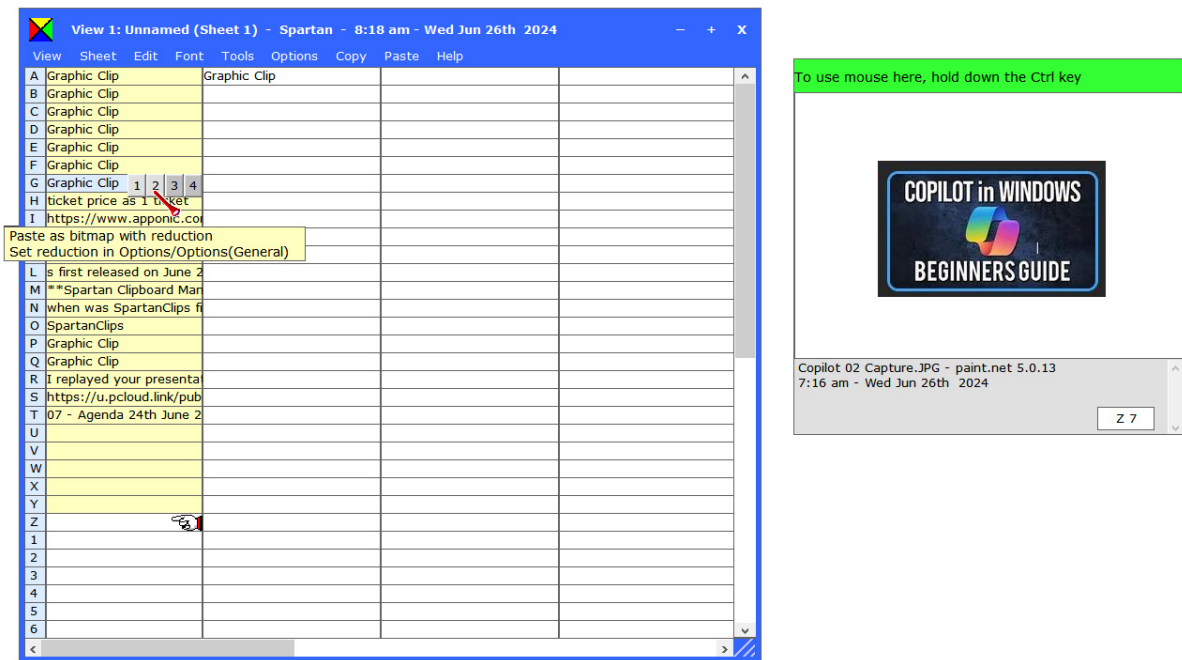
Figure 5 - Graphic clip 2 selected and displayed in Preview window.

When you hover the mouse over a clip, a small button appears next to it, allowing for easy access to various functions. The preview window will then display the clip's contents. Depending on the type of clip, different buttons or icons will appear beside the selected item, as follows:

- If the clip is text, click on the clip's icon and Spartan pastes the text into the document that has focus.
- For pictures or images, four small numbered buttons appear, that let you use different paste methods.
- If the clip is a folder, a button labelled *Open* appears, and File Explorer opens at that folder.
- If the clip is a web address, a *Net* button appears when you hover the mouse over it. Clicking the Net button takes you to that website.
- Similarly, if the clip is a link to a program, a *Run* button appears, and clicking it starts the program.
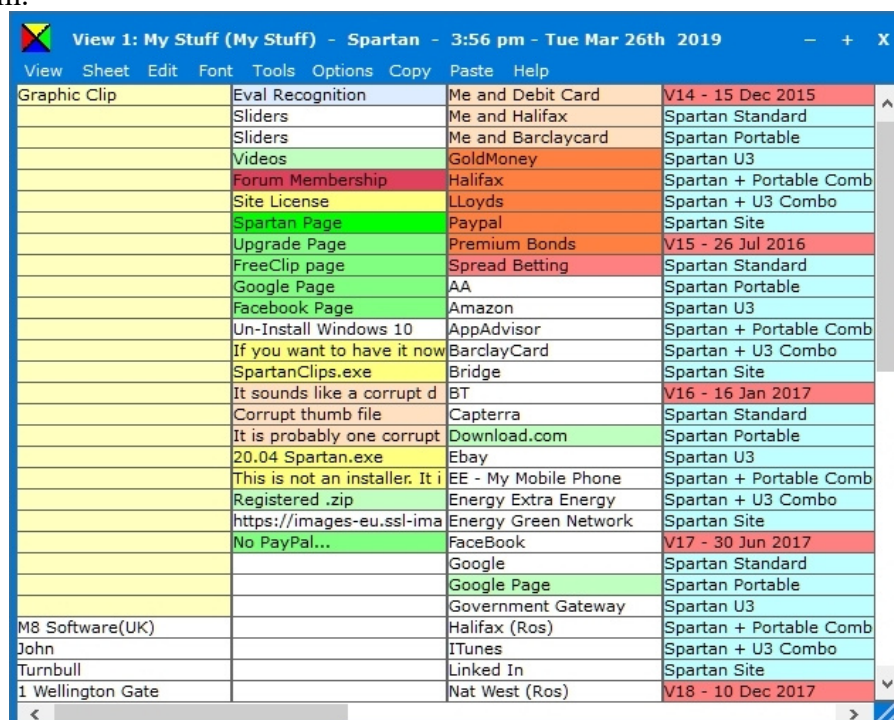
Figure 6 – Sample clipboard from the developer's website
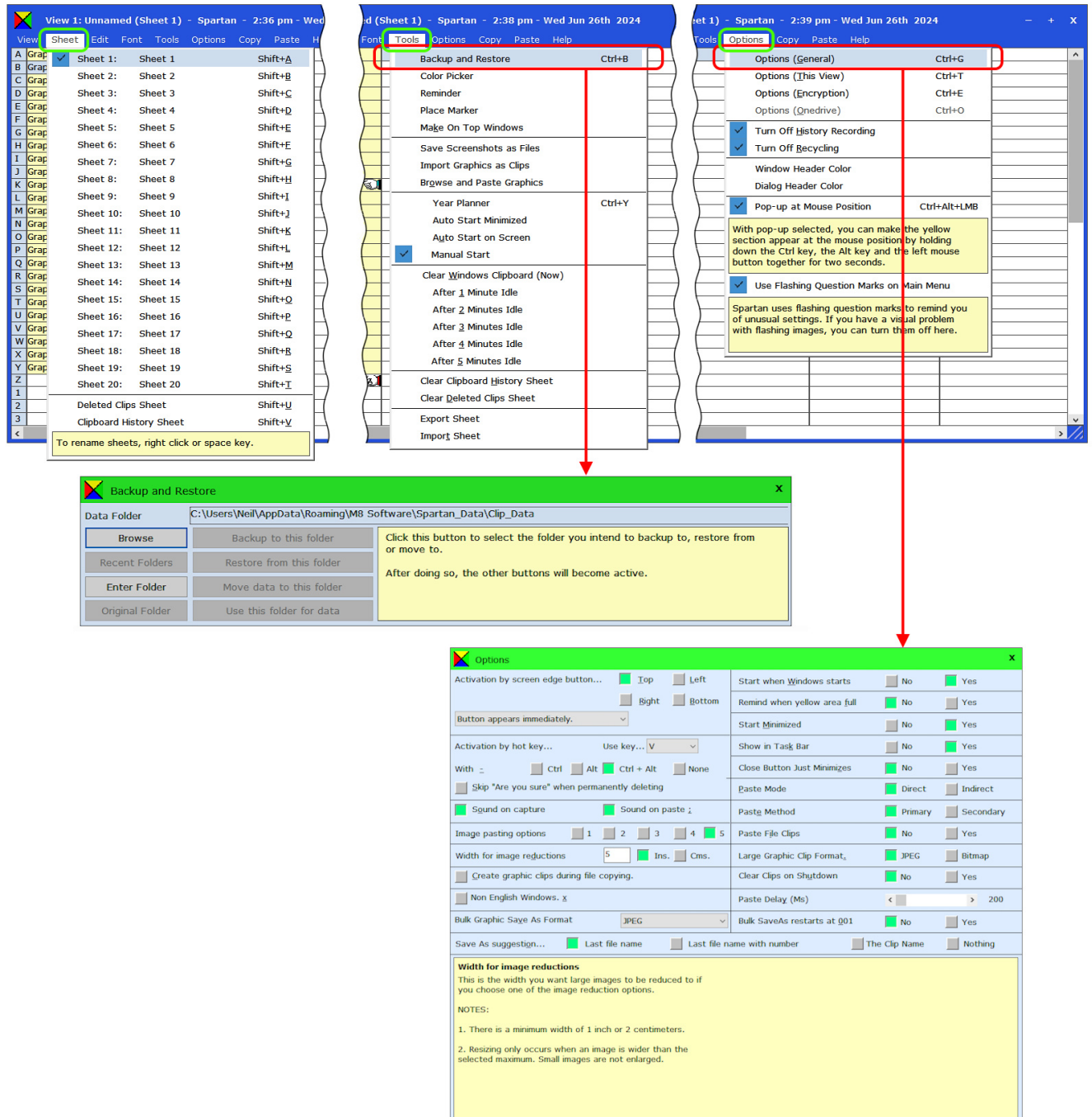
Figure 7 – Spartan Sheets, Tools & Options menus

Additional Features

Spartan Multi Clipboard is a versatile tool that goes beyond just saving text and images. Below are some of its additional features:

- *Screenshot Capture and Editing*:
  Spartan can take screenshots and includes a built-in editor for modifying them.
- *Graphics Editor*:
  Apart from editing screenshots, the graphics editor can be used for other image editing tasks.
- *Picture Browser*:
  This feature allows you to browse and manage images stored in the clipboard.

- *Year Planner*:
  A tool for planning and scheduling, integrated into the clipboard manager.
- Automation Scripts:
  Spartan allows you to create scripts to automate repetitive actions on your computer.
- *Encrypted Clips*:
  You can encrypt sensitive information, such as passwords and credit card details, to ensure security.
- *Permanent Clip Storage*:
  Clips can be saved permanently, meaning they are retained even after the system is restarted.
- *Preview Window*:
  A small preview window shows the contents of a clip when you hover over it.
- *Organisational Features*:
  Spartan lets you sort clips alphabetically, give them titles, and highlight them with colours for better organisation.
- *Automatic Date and Time Inclusion*:
  Clips can be created that automatically include the system date and time.
- *Interaction with URLs and Email Addresses*:
  Spartan recognises web addresses, email addresses, and phone numbers, enabling quick actions such as opening a browser or email client.
- *Multiple Sheets*:
  The clipboard manager can store clips in multiple sheets, each with a 9x62 grid, and there are 20 sheets available for use.
- *Clipboard History*:
  Spartan keeps a history of clipboard items, allowing you to retrieve previously copied items easily.

These features make Spartan Multi Clipboard a comprehensive tool for managing clipboard content, enhancing productivity, and ensuring efficient data handling on your computer.

Tutorials
Excellent videos from the developer can be viewed on YouTube. The best one to start with is titled "Clipboard Manager" at https://www.youtube.com/watch?v=NZJuOYAcfpw.

Summary
In summary, Spartan is a feature-rich application that allows many new operations with the clipboard. Not only is Spartan a clipboard manager; it offers a range of additional features that set it apart from other clipboard tools. However, the program stores everything copied and saved to the clipboard, which may eventually account for a large portion of your disk space. It appears dated in its appearance, but it is a fine program that is definitely worth trying.

Additional download website
As noted at the beginning of Peter's presentation, the program he demonstrated was SpartanClips, a program he first obtained from the "Giveaway of the Day" website at https://www.giveawayoftheday.com.

Peter supplied the following reference where the free program can be downloaded:
https://u.pcloud.link/publink/show?code=XZSQ5S0ZGYYgIrbEpSBlkkhWv4gzLhA3HqBV.

Living with Lists
by Dave Botherway

The final presentation, "Living with Lists," explores the significant role lists play in our everyday lives and the many reasons we rely on them. While the topic may initially appear straightforward, Dave Botherway's enlightening insights reveals the variety and benefits of using lists.

What is a list?
Dave's definition of a list is based on the Oxford Dictionary definition as "a set of data having common attribute / s shown consecutively, typically one below the other."

Dave presented two examples of common lists in Figure 23. The first list is a contact directory which comprises Direct attributes, i.e. Unit number, Name and Phone number. The second list is a Shopping List having implied attributes.

Unit	Name	Phone
1	JOHNS David	4101
2	POTTS Jill	4102
3	TURNER Warwick / Nancy	4103
4	ROBERTSON Chris	4104
5	JACOBS Brian / BROOKS Jane	4105
6	WALSH Freda	4106
7	HOOPER John	4107
8	EVANS Bev	4108
9	WHITE Bruce	4109

Eggs
Milk
Bananas
Ice Cream
Floor Polish
Tomatoes
Sausages
Bread

Figure 23 – Lists with direct and implied attributes

Shopping lists
Pre digital Shopping Lists often comprised:

- Shopping lists written on paper and attached to a fridge door with a magnet.
- Items added as they occurred, in no particular order
- For convenience items may be added in groups (Bakery, Fruit &Veg., Diary, Meat, etc).

Digital age Shopping lists might comprise:
- Windows NotePad might be used with entries easily re-sequenced and printed
- Online ordering – Supermarkets now keep track of their client's product choices so can make online ordering easy as you simply place a tick besides previous items you want again.

Spreadsheets
A spreadsheet is an electronic document in which data is arranged in the rows and columns of a grid and can be manipulated and used in calculations.

Wikipedia definition of a spreadsheet is, "A spreadsheet is a computer application for computation, organization, analysis and storage of data in tabular form. Spreadsheets were developed as computerised analogs of paper accounting worksheets. The program operates on data entered in cells of a table."

The most popular examples of current spreadsheets are:
- Microsoft Office Excel – Excel can be purchased singularly or more commonly with Microsoft Office at prices above $150+
- Libre Office - LibreOffice is a free suite of Open-source programs similar to MS Office and includes a spreadsheet called Calc. Calc can save data in the same format as Excel.
- iSpreadsheet is for Apple users for iPhone and iPad
- Google Sheets is a cloud based spreadsheet.

Adapting the Community Village's Phone List to Spreadsheet format

The phone/unit directory displayed in Figure 23 was likely prepared using the table function in Microsoft Word. This list includes multiple attributes (columns), such as Unit, Name, and Phone Numbers, and entries (rows) for individual units. Transitioning this list to a spreadsheet format, such as Excel, would enhance data manipulation, allow for sorting and filtering on column entries, and facilitate the addition of extra columns and rows allowing many additional functions.

At the village where Dave now resides, he met Helen at a function and later needed to identify her. The centre's phone list, as seen in Figure 24, was inadequate for easy identification due to its format. Dave felt the centre's phone directory could be improved and utilised Excel for this purpose.

Converting the directory to Excel proved somewhat problematic due to various anomalies in the current data, necessitating some manual adjustments. These anomalies, illustrated in Figure 24, included:
- The directory contained over 200 entries (rows).
- Surname and First Name were combined in one column, requiring separation into two distinct columns.
- Excel struggled with splitting fields when multiple people resided in the same unit. These entries were inconsistently formatted using blank characters and slashes (/), highlighted in yellow in Figure 24.
- Entries with multiple surnames, such as "ST CLAIR," had to be manually corrected.

Unit	Name	Phone		Unit	SURNAME	First Name
1	JOHNS David	4101		28	COLLINS	Graeme
2	POTTS Jill	4102		74	POWELL	Graham
3	TURNER Warwick / Nancy	4103		43	GORMAN	Harold
4	ROBERTSON Chris	4104		108	KULCHA	Heidi
5	JACOBS Brian / BROOKS Jane	4105		323	ANDERS	Helen
6	WALSH Freda	4106		39	COOPER	Helen
7	HOOPER John	4107		239	HOPE	Helen
8	EVANS Bev	4108		309	HOY	Helen
9	WHITE Bruce	4109		20	MOSS	Helen
x		4110		67	NORTON	Helen
21	HALL Christine/David	4121		61	WESSON	Helen
x				257	CHANNING	Iris
32	BUCKLEY John /Margaret	4132		44	BROOKS	Jack
x				60	RIDING	Jenny
45	ST CLAIR Tony	4145		263	BROWNING	Jim

Figure 24 - Original and Updated directory

Despite these anomalies, Excel provided the necessary tools to reformat the centre's directory into a more user-friendly format. Dave sorted the data by first name and was then able to view a list of all residents named Helen using Excel's Search function or by using Data → Filter from the menu, revealing that there were seven Helens.

Comparison lists

Comparison lists are invaluable when assessing different items on a one-to-one basis. Dave provided an example involving the comparison of electric vehicles. In this scenario, he used a spreadsheet with different vehicle models represented as columns and vehicle features and characteristics as rows. Dave identified key features he wanted to compare and listed these on individual rows. This setup enabled a straightforward, side-by-side comparison of the vehicles.

For further analysis and evaluation, it is essential to include a rating for each feature. This rating reflects the importance of each feature to the user. By incorporating this data into the spreadsheet, the evaluation becomes more powerful. When the rating is multiplied by the score of each feature, a final evaluation can be determined. This method is a standard technique in decision analysis for evaluating multiple proposals.

Comparison list - EVs

Feature	Tesla	PoleStar	Volvo	BYD
Model	3 - LR	Mod 2	EX 30	Atto-3 ER
Drive Away Price	$60,127	$68,501	$59,990 ?	$52,864
Range (kms)	513	532	540	480
Towing Capacity (kg)	750	1,500	$1,600	750
Availability (weeks)	3 w (now)	6 w	8 w	Now
Dimensions (metres)	4.7 x 1.90	4.6 x 1.98	4.2 x 1.84	4.6 x 1.87
Drive Type - AWD ?	Rear WD	Rear WD	Rear WD	Front WD
0-100 kph (seconds)	6.1	4.2	5.3	7.2
Warranty - Vehicle	4 years/80,000	3 years/60,000	5 years/ UL	5 years/150,000
Warranty – Battery, 70%	8 years/100,000	8 years/160,000	8 years/100,000	8 years/160,000

Figure 25 – Comparison list for comparable Electric Vehicles

EV Evaluation

Feature	Rating	Tesla	Score	Total	PoleStar	Score	Total	Volvo
Model		3 - LR			Mod 2			EX 30
Drive Test	5		3	15	4			4
Drive Away Price	4	$60,127	4	16	$68,501			$59,990 ?
Range (kms)	4	513	2	8	532			540
Towing Capacity (kg)	3	750	3	9	1,500			$1,600
Availability (weeks)	3	3 w (now)	2	6	6 w			8 w
Dimensions (metres)	2	4.7 x 1.90	2	4	4.6 x 1.98			4.2 x 1.84
Drive Type - AWD ?	2	Rear WD	2	4	Rear WD			Rear WD
0-100 kph (seconds)	1	6.1	3	3	4.2			5.3
Warranty - Vehicle	2	4 years/80,000	2	4	3 years/60,000			5 years/ UL
Warranty – Battery, 70%	3	8 years/100,000	2	6	8 years/160,000			8 years/100,000

Figure 26 – Evaluation List for EV's

Diary Lists

Many members would be familiar with the paper monthly calendar planner shown in Figure 25. For a shared calendar like the one shown, Dave found a better option in a simple electronic organiser called Cozi.
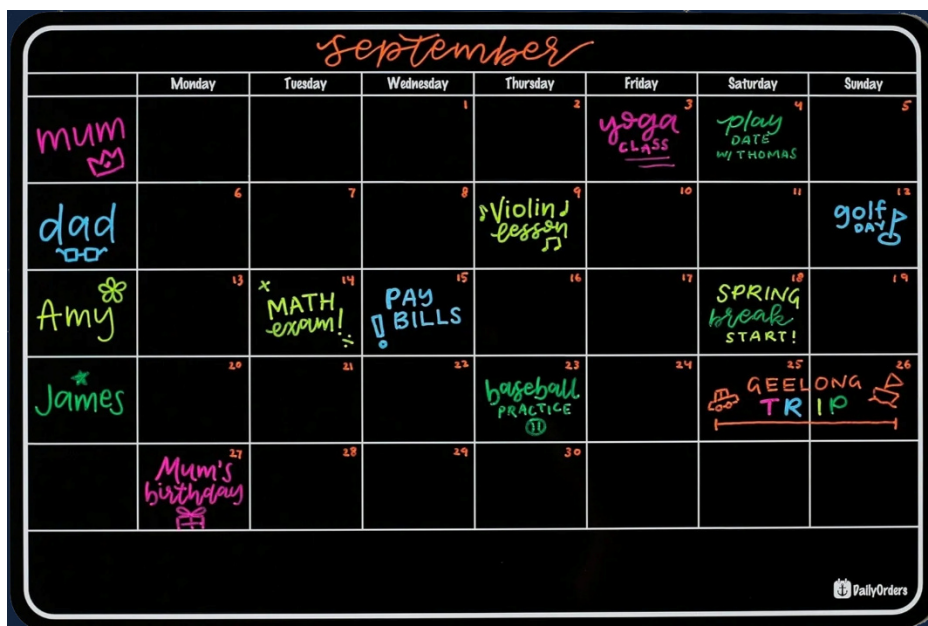

Figure 27 – Monthly Planner (Diary Lists)

Cozi is an efficient and user-friendly electronic organiser designed to keep your family's schedule in perfect arrangement. Its features are summarised below:

Summary of Cozi's features:
- Track everyone's activities in one shared place.
- Use colour codes to quickly see who is involved.
- Manages various events like school, practice schedules, appointments, and vacations.
- Keep everyone updated with automatic notifications and agenda emails.
- Share grocery lists, to-dos, recipes, and more.
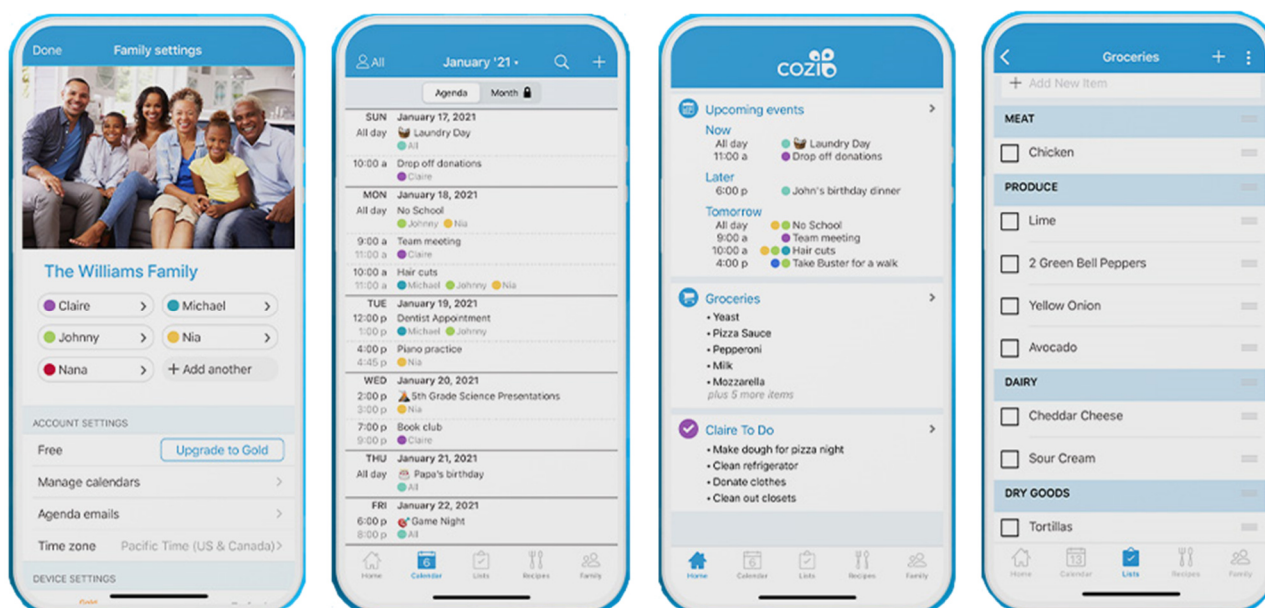- Accessible from any mobile device or computer.

Figure 28 – Cozi's, sample screens for organizing shared group activities

To-Do Lists

Using To Do lists helps you stay organized and focused by breaking down tasks into manageable steps, ensuring you don't forget important tasks. They can boost productivity and reduce stress by providing a clear overview of what needs to be done.

Microsoft To Do in Windows 11 is a task management app that helps you stay organized by allowing you to create, manage, and prioritize your tasks across multiple devices. It integrates seamlessly with other Microsoft services like Outlook, making it easy to keep track of your to-dos and deadlines. A version of To Do is available for Windows 10 users from the Microsoft Store, however the Windows 11 version has been cleaned up, and is much easier to use according to Dave.
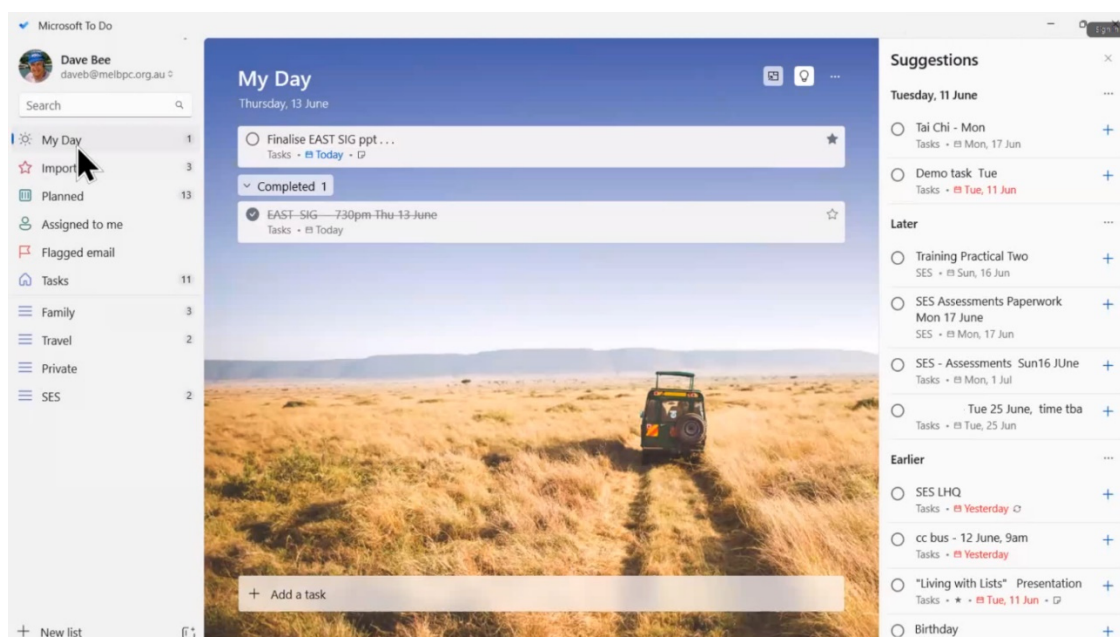

Figure 29 - Dave's Microsoft To Do in Windows 11

Microsoft To Do - is a straightforward and intelligent to-do list application that helps you manage all your tasks in one place. It features:

Smart Daily Planner - Set yourself up for success with the "My Day" feature, which offers intelligent and personalised suggestions to update your daily or weekly to-do list. With both a Microsoft To Do desktop app and a mobile app available, it is easy to stay on task throughout the day.

Manage Your To-Do List Online - This truly cross-platform task management app ensures you can access your task list and stay organised whether you're at home using the desktop app or on the go with the mobile app.

Sharing Made Easy - Sharing an online to-do list can help keep you connected with friends, family, and colleagues, making collaboration simple and efficient.

Make Managing Tasks Easier - Break tasks down into simple steps, add due dates, and set reminders for your daily checklist to keep you on track.

Reminders and Notifications - Microsoft To Do sends out reminders to ensure you never miss a task. It also offers a core version available for Windows 10, making it accessible to users of previous versions.

Integration and Compatibility - Easily integrate with other Microsoft 365 applications, enhancing productivity by syncing tasks across Outlook, Teams, and more.

Microsoft To Do is designed to make task management easy, efficient, and accessible, no matter where you are.

Planning a Trip with Spreadsheets

A very practical use of spreadsheets is for planning a trip. Dave provided details of a trip he was organising from Melbourne to Darwin, travelling along the coast in a clockwise direction.

As Dave was towing a caravan, ensuring fuel stops were available was crucial. He knew his vehicle's fuel capacity and planned for an average fuel consumption of around 20 litres per 100km, giving him a range of about 400km. Dave needed to be cautious about potential headwinds, which could increase his fuel consumption to 24 litres per 100km. His preference was to use Shell petrol due to his Shell card. The spreadsheet was also used to record distances between locations, noting when Shell fuel was not available.

The first segment of his planned route from Melbourne to Adelaide is 748 kilometres, with a midway point around Ararat or Nhill. Fuelling was not an issue on this leg. The spreadsheet continued this detailed approach all the way to Darwin, including dates, planned stops, and points of interest.

AU " Big-Trip " Planning - Version ONE	Midway Shell Petrol	Explore Days	--- Nights ---		Kms	Travel Days	-------- Visits ----------	Possible Dates	June	Reverse Dates
Home	Ararat, Nhill				**748**	1		17-Jun	17=Sun	4-Sep
Adelaide	na	2	3	B4	305	0.5	. rest	20-Jun		1-Sep
Port Augusta	Kyancutta	0.5	1	B4	468	1		21-Jun		31-Aug
Ceduna	Nullarbor, +?	1	2	B4	485	1	. rest	23-Jun		29-Aug
Eucla	Madura, +?	0	1	X	348	0.5	EyreBird Centre, NoGas-378	24-Jun		28-Aug
Caiguna	Norseman	0.5	1	X	531	1	*** NoGas-557	25-Jun		27-Aug
Kalgoolie	Yellowdin	1	2	B4	397	1	. rest, Gold Mines etc	27-Jun		25-Aug
Hyden	Lake Grace	0	1	X	325	0.5	WaveRock	28-Jun		24-Aug
Albany	na	1.5	2	B4	359	0.5	Walpole NP (Valley of Giants)	30-Jun	July	22-Aug
Margaret River	na	2.5	3	B4	350	1	. rest	3-Jul	3=Tue	19-Aug
		9.0	16		4,316	8.0	Car Check ? ?	NB. WA School Hols= 7-22 July		
Perth	Badgingara	3	4	B4	518	1	via Nambung NP, Cervantes	7-Jul		15-Aug
Geraldton	Wannoo	0	1	B4	406	1	via Gregory, Kalbarri NP	8-Jul	8=Sun	14-Aug
Shark Bay	na	1	2	B4	279	0.5	+Monkey Mia (2*75k, no van)	10-Jul		12-Aug
Carnarvon	na	0.5	1	B4	369	1	via Coral Bay	11-Jul		11-Aug
Exmouth - gas ?	NS,Nanutarra	1	2	x	576	1	Ningaloo Reef, NoGas	13-Jul		9-Aug
Tom Price	na	2	3	X	238	0.5	. rest, Karajini NP, Railway Rd	16-Jul		6-Aug
Karratha	na	0.5	1	B4	261	0.5	Railway Road ?	17-Jul		5-Aug
Port Hedland	Sandfire	0.5	1	B4	613	1	80 mile Beach . .	18-Jul		4-Aug

Figure 30 – Trip Planning

Features of Dave's Trip Planning Spreadsheet

- *Midway Points*: Identified towns for refuelling stops when necessary.
- *Travel and Exploration Days*: Clearly distinguished in a column labelled Visits.
- *Accommodation*: Noted, with a preference for Big4 caravan parks due to group discounts.
- *Fuel Alerts*: Where distances exceed 400km, Dave used bold text on those sections to indicate the need for extra fuel.
- *Fuel Supply Notes*: Some outback stations have unreliable petrol supplies but ample diesel fuel.

This method of planning highlights the benefits of using a spreadsheet to organise a trip, track points of interest, and manage logistics before departure.

Recording Expenses with Spreadsheets

Another excellent use of spreadsheets is to track travel expenses. Dave illustrated this with a recent trip to New Zealand. He used columns to record the number of nights at each location, accommodation costs, and meal expenses etc. Spreadsheets make it easy to tally up the overall cost of the trip. By having sub-totals at the bottom of the list, Dave could quickly see the total costs for accommodation, meals, transportation, and other expenses.

Expenses		Nights	Cost	How Paid	Meals	Restaurant	Cars	Other Exp	Notes
Chch	Southern Comfort	4	744	NZ-CC	115	Vicarage	358	68	Tram
					157	Commi	20	32	Museum
					115	Carlton		98	Antarctic Museum
					80	Edgeware		43	Duty Free Stores
Napier	Harbour View	4	797	Bkg.Com	104	East Pier	1,077	196	Gannets - Viator/Ln
					111	Milk & Honey	44	96	Groceries
					76	Sri Tai		89	ChurchRd Wines
								10	Museum
Gisborne	Ocean Beach	1	235	Bkg.Com	95	Lone Star		345	Gifts
Tauranga	Anchorage	4	990	NZ-CC	135	Osteria	93	34	Groceries
					174	Saltwater	6		* $6 = Tolls
					54	Side Track Bfast			
					28	Misc Dairy ?			
AKL	Bavaria	2	410	NZ-CC	127	Red Shed	14	88	All Blacks Entry
					65	Basil Thai	86	162	All Blacks Goods
					124	Tasca		198	Travel Presents
					27	Airport Meal		125	DFS (cc=50, +Cash)
					300	Cash Estimate		2,258	Air Fares etc
Totals			3,176		1,887		1,698	3,842	10,603

Figure 31 – Trip Planning & Analysis

Using spreadsheets for both trip planning and expense tracking provides a clear, organised approach that ensures all aspects of travel are well-managed and accounted for.

Summary
• Lists become very important as we age and our memory starts to fade
• PC / Tablet / Phone methods are good as they allow printout and a recorded history of events
• Many digital tools are available, such as NotePad, Spreadsheets and Microsoft To Do.
• Sharing information with others is available using paper Calendars or online with Cozi
• Spreadsheets are really just a glorified list and ideal for sorting, comparing, planning and analysis.
• There are many tools available, but many don't use them.

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