

Gerald's Column *by Gerald Fitton*

My article last month was the first part of a two part article about Object Linking and Embedding (OLE). I shall continue with OLE this month—but first a few words about my Ovation Pro example files.

Backward Incompatibility

On the Archive monthly disc you will find [!OvPro1] and [!OvPro2]. I have created the first of these files with Ovation Pro V 2.46 and the second with V 2.60. The file [!OvPro2] will not Load into version of Ovation Pro prior to V 2.60.

Some of you don't have V 2.60 so this 'Backward Incompatibility' (from V 2.60 to earlier versions) makes it difficult for people like me to include example files which can be read by all. As I see it there are three solutions to this backward incompatibility.

The first is that as a temporary measure, until the situation resolves itself, I shall use V 2.46 for most of the Ovation Pro documents I send to Archive. Two months ago my subject was 'Filters'. Filters allow you to convert files created in one format (such as V 2.60 of Ovation Pro) into an alternative format (such as earlier versions of Ovation Pro). So my second solution is that some clever programmer might create a filter which will convert Ovation Pro V 2.60 format into something which can be read with earlier versions. My third solution is for all of you who want to read my Ovation files to upgrade to V 2.60.

David Pilling has produced his latest version of Ovation Pro on a writable CD of the type known as CD-R. The format of the files on the disc is CD ROM (Mode 1) and, when you first receive it, the CD will contain a single session. The CD is not 'Closed' so David will be able to write new sessions to the CD when Ovation Pro is further upgraded.

If you have a copy of Ovation Pro then an upgrade to V 2.60 costs only £35. For this £35 you will get a compact disc with about 60 Mb of archived goodies (including Ovation Pro). On the CD you will find much more than Ovation Pro V1.26. I must mention that V 1.37 of !SparkFS has been bundled on the CD; this version of !SparkFS will handle archives within archives as well as treating archives as though they are directories. The facility to create zip format archives is almost obligatory for anyone using the Internet and !SparkFS is excellent way of creating and handling zip archives for the Internet.

Recapitulation

In order to get you 'up to speed' with OLE let me summarise last month's article. I concentrated on features which are common to all packages and I described the differences between DrawFile format and what I have called Draw+Data format.

I said "Like most techniques, once you know how to use OLE, you'll find it easy to use. It is a most rewarding technique to learn because you will be able to mix your use of word processor, spreadsheet, graphics and Desk Top Publisher packages to produce better results more efficiently than before!"

Editor and Publisher

Object Linking and Embedding (OLE) is a technique which allows an 'object' from one package to be embedded in another. I called the first package an Editor and the second a Desk Top Publisher. I don't wish to imply that their roles are limited to editing and DTP.

Draw+Data Format

At the heart of the OLE process is a file format which I called Draw+Data format. For an Editor such as Eureka, TableCalc and TableMate to have an OLE facility it must be able to Save in Draw+Data format.

Draw+Data format consists of two sections.

The first section is a DrawFile representation of the Editor file. If the Editor package has a 'Save as DrawFile' option then this first part of the Draw+Data file is exactly the same as the DrawFile which is Saved when 'Save as DrawFile' is selected.

The second section of the file contains data in the format used by the Editor. For example the second part of a Eureka Draw+Data file is in standard Eureka format. This second part is contained within something called 'draw tags'.

Display

Draw+Data files can be loaded into any package which can display DrawFiles.

Of course DTPs such as Impression and Ovation Pro can display Draw+Data files but so can packages such as Fireworkz Pro which do not support OLE. Draw+Data files can be loaded into Fireworkz Pro and the DrawFile part of the Draw+Data file will be displayed.

Draw+Data File Recovery

If the Draw+Data file is embedded (rather than referenced) in the document used for display then, when the (display format) file is Saved, all the information in the Draw+Data object will be Saved as part of that file. As an example, although Fireworkz Pro does not support OLE, any object in Draw+Data format which is embedded in a Fireworkz Pro file will be Saved as part of that Fireworkz Pro file.

Embedded Draw+Data files can be recovered from Fireworkz Pro using the sub menu Extra – Pictures – Save picture... On the monthly disc, within the Fireworkz sub directory, you will find [PicTM]. It has the filetype DrawFile and it will Load into Draw and DrawPlus. However, if you change the filetype to TblMate then you'll find that you can Load it into TableMate! The files [PicEU] and [PicTC] behave similarly.

If the package in which the Draw+Data object is displayed supports the OLE convention (as do both Impression and Ovation Pro—but not Fireworkz Pro) then <Ctrl double click> on the Draw+Data object will recover it and load it into its own Editor package.

As an example if you execute <Ctrl double click> on the frame containing the Eureka table in any of the files [!Imp1], [!Imp2], [!OvPro1] and [!OvPro2] then (if you have it) the Eureka package will Load to the icon bar (unless it is already there) and the Eureka type Draw+Data file will appear in a Eureka window ready for editing. After editing, the usual Save command (for example <F3> will return the Eureka Draw+Data object to the DTP.

Standards

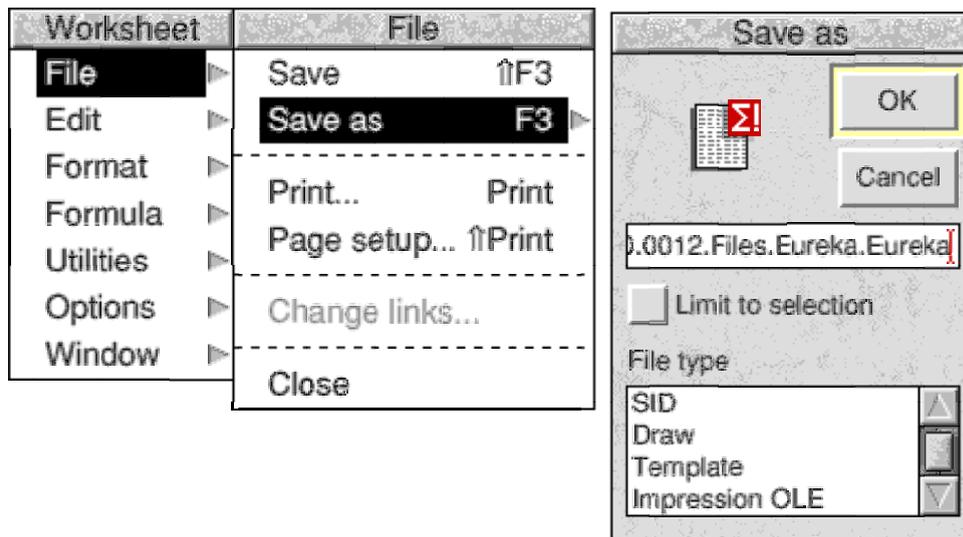
The directory OLESpec on the monthly disc contains all the information I can gather about a standard for OLE. George Buchanan is the author of TableMate, one of the three editing packages which I am using for my examples. It was he who pointed me to this source.

As we shall see, the Draw+Data file formats of Eureka, TableCalc and TableMate behave slightly differently. Ovation Pro and Impression have slightly different facilities. This month I shall describe and illustrate these differences.

Eureka

The subdirectory Eureka (on the Archive disc and elsewhere) contains three files. They are called [Eureka], [Eureka_OLE] and {Eur_Draw}. The file sizes are 2568 bytes, 9972 bytes and 7240 bytes respectively. If you have Eureka then you can double click on [Eureka] and the file will Load into Eureka. This file is in Eureka Data format.

Eureka has a 'Save as' menu (shown in the screenshot below) which allows you to Save in many formats including Normal, Draw and Impression OLE. Normal is the default; Saving in Normal format will Save the 2568 [Eureka] file.



I Saved the [Eureka_OLE], 9972 byte file in Impression OLE format. This is a Draw+Data format file. It will Load into Impression and Ovation Pro; it will Load into Fireworkz Pro. In all three packages the DrawFile representation of the Eureka table is displayed. The Draw+Data format file can be recovered from all three display packages.

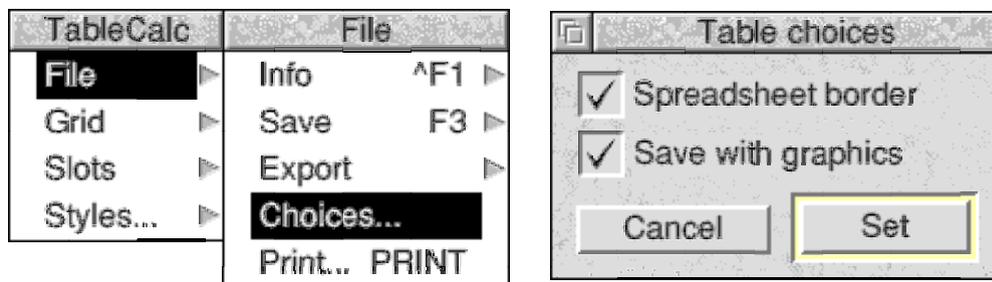
The 7240 byte file called [Eur_Draw] is the result of using Save as – Draw. It can be Loaded into Draw and DrawPlus. In DrawPlus execute Select – All (in Draw you must execute Select – Select all) and you will see that every cell is a separate Draw object.

By the way, $2568 + 7240 = 9808$ and not the 9972 bytes of [Eureka_OLE].

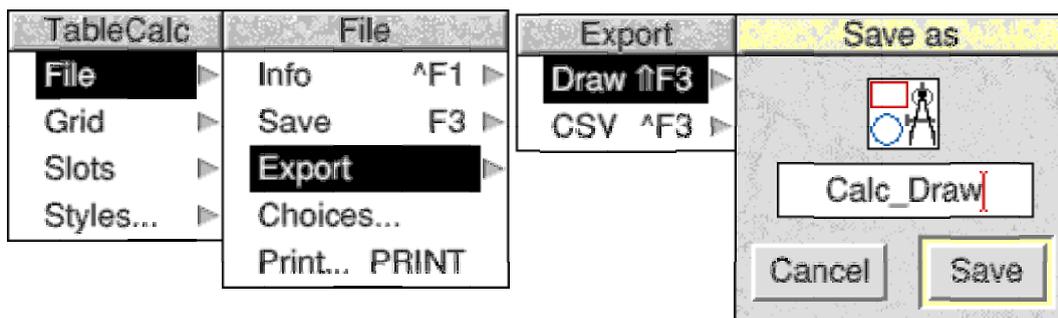
TableCalc

The subdirectory TableCalc contains three files. They are called [TableCalc], [T_Calc_OLE] and {Calc_Draw}. The file sizes are 4132 bytes, 14852 bytes and 10868 bytes respectively. If you have TableCalc then you can double click on [TableCalc] and the file will Load into TableCalc. This file is in TableCalc Data format.

In order to Save in Draw+Data format you need to click on the ‘Save with graphics’ option from the ‘Table choices’ sub menu shown in the screenshot below.



To Save in DrawFile format you need the Draw option from the Export sub menu. As you can see from the screenshot an alternative is <Shift F3>

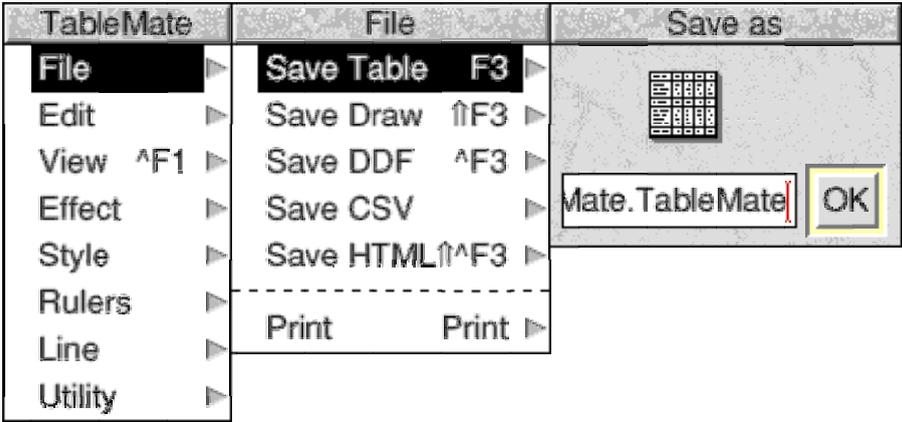


To save you doing the arithmetic $4132 + 10868 = 15000$ which is rather larger than the 14852 bytes of the Draw+Data file.

TableMate

I have version 4.05a of TableMate. I have been unable to find a way of Saving just the TableMate Data; the [TableMate] file in the TableMate directory is in Draw+Data format! Is there a more recent version which allows Saving in Tablemate Data format?

The screenshot below shows the File sub menu with the option to Save as a TableMate table (in Draw+Data format) or in Draw (DrawFile) format. The sizes of the two files, [TableMate] and [Table_Draw] are 18564 bytes and 12952 bytes respectively.

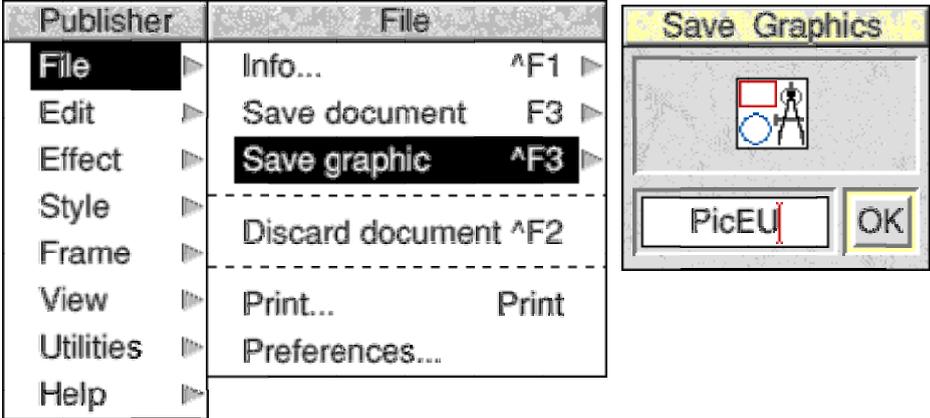


If I have missed a way of Saving in TableMate Data format (without the DrawFile information) then please let me know.

Impression

If you have Impression (Style, Publisher or Publisher+) you will be able to Load the file [!Imp1]. It consists of three graphics which I have embedded in a text frame. From the top downwards they are the three tables from Eureka, TableCalc and TableMate. Although they might appear to be DrawFiles they are Draw+Data format files taken from the Eureka, TableCalc and TableMate directories. By this I mean that I have dragged the files [Eureka_OLE], [T_Calc_OLE] and [TableMate] into the Impression document.

Impression supports the OLE convention of <Ctrl double click>. If you have Eureka and <Ctrl double click> on the Eureka graphic (the one at the top of the Impression page) then Eureka will Load to the icon bar (unless it already there) and the Draw+Data format file will Load into Eureka. You will be able to edit the Eureka Draw+Data file in Eureka. When you have completed your editing you will be able to use the usual Save command, <F3>, to return the edited Draw+Data file to the Impression frame from which it came.



In Impression you can Save your graphics as DrawFiles. The screenshot shows the File sub menu which I have used to Save the file [PicEU] which you'll find in the Impression directory. The size of this file is 9972 bytes. Although the file type is DrawFile the file is actually in Eureka Draw+Data format.

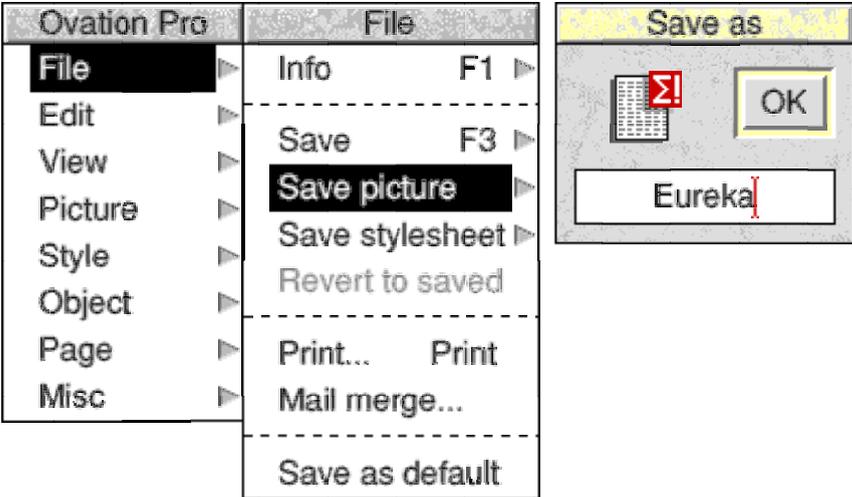
In a similar manner I have Saved the files [PicTC] and [PicTM]. These contain TableCalc and TableMate information in Draw+Data format. The files appear (in the Impression directory) as DrawFiles. The three files I have recovered from Impression, [PicEU], [PicTC] and [PicTM], are identical to the Draw+Data files [Eureka_OLE], [T_Calc_OLE] and [TableMate]. They are the same size and have identical properties—that is not surprising because the files are identical. Only the filetypes are different!

Ovation Pro

In the Ovation directory you will find [!OvPro1] which will Load into V 2.60 and into earlier versions of Ovation Pro.

Ovation Pro supports the <Ctrl double click> convention. If you hold down the <Ctrl> key and double click on the Eureka file then Eureka will Load to the icon bar and the Eureka Draw+Data file will Load into Eureka. After editing the edited Eureka Draw+Data file can be returned to the Ovation Pro document by executing a Save.

Ovation Pro, like Impression, allows you to Save selected objects (text and graphics). The equivalent of the Impression 'Save graphic' command is 'Save picture'.



As you might deduce from the screenshot there is a difference between Impression and Ovation Pro but it is not as much as you might think. The only difference is that Impression allocates the filetype DrawFile and Ovation Pro allocates the 'hidden' filetype to the file as it is Saved.

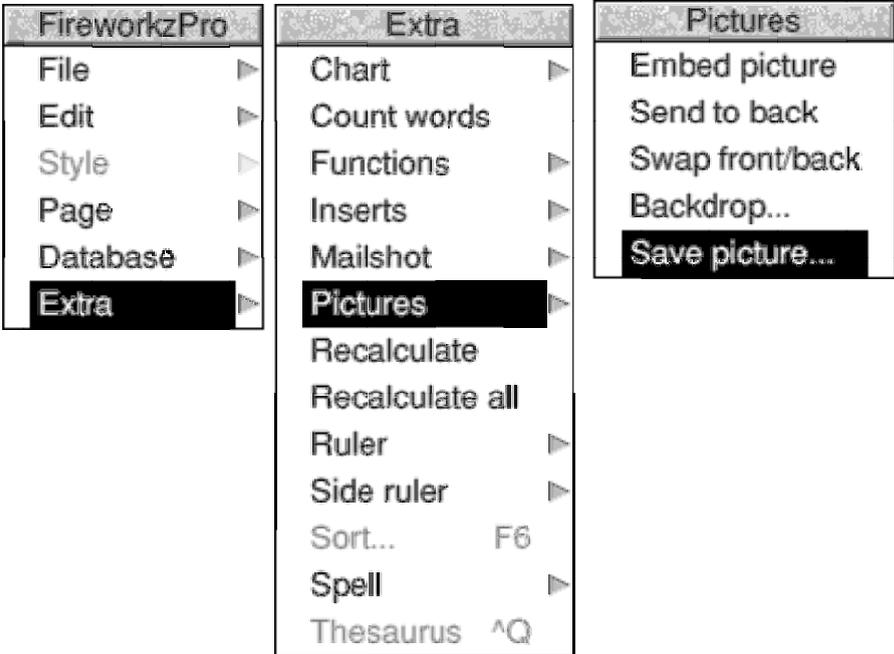
Let me remind you from last month that you can discover the Editor which was used to create a Draw+Data file by Loading the file into !Edit. The file will start with something similar to: Drawé [00] [00] [00] [00] [00] [00] [00] [00] TableMate

Impression allocates a filetype based on the initial Draw whereas Ovation Pro uses the TableMate which appears later in the file.

I have Saved the three tables from Ovation Pro into the Ovation directory as [Eureka_OLE], [T_Calc_OLE] and [TableMate]. These three files are exactly the same size as the [Eureka_OLE], [T_Calc_OLE] and [TableMate] files from the original Eureka, TableCalc and TableMate directories. The three files [PicEU], [PicTC] and [PicTM] in the Impression directory are identical to the files [Eureka_OLE], [T_Calc_OLE] and [TableMate] from the original Eureka, TableCalc and TableMate directories. Only the filetypes are different.

Fireworkz Pro

Fireworkz Pro does not support the <Ctrl double click> convention of OLE but it does have the facility for Saving pictures through the sub menu shown in the screenshot.



In the Fireworkz directory you will find the files [PicEU], [PicTC] and [PicTM] which have been Saved through this sub menu. If you have been following my article up to here (or if you have ‘sussed out’ my file naming convention) then you will have anticipated my next comment. These three files are identical to their counterparts Saved from Impression.

Draw and DrawPlus

The files [PicEU] and [Eureka_OLE] are identical; only the filetypes differ. The file [PicTC] is identical to [T_Calc_OLE] and [PicTM] is identical to [TableMate]. If you change the filetype of [PicEU] to EurSheet then it will behave exactly as the file [Eureka_OLE] because it is an identical file. Similarly [PicTC] can be ‘converted’ into [T_Calc_OLE] and [PicTM] can be converted into [TableMate].

You can reverse these conversions. [Eureka_OLE] can be converted to [PicEU].

The three files [PicEU], [Pic_TC] and [PicTM] Load into Acorn's Draw without any protest but they behave differently when you try to edit the files. The file [PicEU] will not Load into !DrawPlus; [PicTC] will Load into !DrawPlus but signals a message about layers on the way; [PicTM] Loads into !DrawPlus without any messages.

One revealing test is to 'Select all' and then try to Drag the selection. Another is to 'Select all' and then try to 'ungroup' the selection. [PicEU] allows editing in !Draw (it will not Load into [DrawPlus]). [PicTC] allows editing in both !Draw and !DrawPlus. [PicTM] can not be edited in !Draw nor in !DrawPlus. I like the behaviour of [PicTC] best.

The inevitable conclusion is that the Draw+Data format is not a 'unique' standard but that it is something which can be interpreted in at least three different ways.

The author of Vector is Jonathan Marten, the author of DrawPlus. I do not have a copy of Vector so I am unable to describe how the Draw+Data format files behave in Vector. If you have a copy of Vector then perhaps you would let me know how easy or hard it is to edit the DrawFile part of the Draw+Data format file in Vector.

Summary

In order to 'serve' a DTP the Editor package must be able to Save in Draw+Data format.

Draw+Data files can be recovered from packages such as Impression and Ovation Pro using the <Ctrl double click> convention for Loading directly from the DTP into the Editor for editing. These Draw+Data files can be Saved back into the DTP.

Furthermore Draw+Data files can be Loaded into and displayed in packages such as Fireworkz Pro which do not support the <Ctrl double click> convention. The DrawFile part of the Draw+Data format file is displayed. Draw+Data files can be recovered from Fireworkz Pro (and some other non OLE packages) as Draw+Data files but with a DrawFile filetype. If the filetype of the Draw+Data file is changed from DrawFile to that of the Editor package then the file can be edited, Saved in Draw+Data format and returned to the package in which it is displayed (Fireworkz Pro in my example). My comments about Draw+Data files Loaded into Fireworkz Pro are equally applicable to Schema 2.

Comments Please

The principal use for Draw+Data format is to create a document which can be sent to someone else who does not necessarily have the Editor application. Consider the example of a spreadsheet for creating tables which are used in a Desk Top Publisher. The advantage of the Draw+Data format over the simpler Draw format is that the original spreadsheet, complete with formulae etc can be recovered by anyone who has the editor application.

My questions for the month are: "How much more use is the Draw+Data format when compared with the simpler Draw format?" and "Would you like to see Schema and Fireworkz Pro developed to include Save as Draw, Save as Draw+Data, or both?"

Finally

Thanks for your many emails and letters. My address is that of Abacus Training which you will find in the Fact File at the back of Archive. I have had to take the fax machine permanently off line because of the volume of anonymous junk faxes I am receiving.