Use of MarinLit in a 64-bit Windows or Intel Macintosh OSX operating system

I have previously advised users of MarinLit that this database will not operate within a 64-bit Windows system or on an Intel Macintosh. However, I have a solution to this that some people may find more satisfactory than my previous suggestion that MarinLit be installed on an old PC which still had a 32-bit Windows system installed.

In summary, these are the steps that are required to be taken:

- Download and install the free application VirtualBox from www.virtualbox.com.
- Create a new virtual machine on your 64-bit Windows PC or Intel Macintosh (the Host computer)
- Install a 32-bit version of Windows 7 or XP in the virtual machine
- Create a shared folder for transferring files between the Host computer and the virtual machine
- Install MarinLit and (optionally for a 64-bit Windows Host computer) ChemOffice in the virtual machine.

Here are some more detailed instructions.

Go to VirtualBox.com and download at no cost the application appropriate to the OS that you have on your Host computer. Install VirtualBox and set up a new virtual machine into which you can install a 32-bit version of Windows and then subsequently the MarinLit database. Setting up a virtual machine in a 'virtual disc' with VirtualBox on your Host computer is quite straightforward. When following the installation instructions in VirtualBox for a new virtual machine, allocate between 512 Mb and 1 Gb of memory, and create a virtual disc (.vdi format) with 10–20 Gb of dynamically allocated space. Once set up, you can install a 32-bit Windows system. For this you will need a bootable installer CD for the new Windows setup, and the appropriate Product Key for licensing requirements. Most groups have an old PC which may have been decommissioned but for which they still have the original Product Key for the Windows OS that was installed on that computer. Alternatively a new 32-bit Windows XP or 7 CD with license key can be purchased. Once the new 32-bit Windows is installed in the virtual machine, carry out all the required updates (eg for Windows XP, use Service Packs 2 and 3). (This last step is optional as MarinLit works perfectly well with the original Windows XP). The new Windows can then be disconnected from the local network so that there are no issues with virus invasions.

Communication between the 32-bit Windows virtual machine and the Host computer is through a Shared Folder that you create on your Host computer desktop, and then connect to it using the Settings dialogs of VirtualBox. Restart the virtual machine Windows and go to My Computer, create a shortcut to the Shared Folder that you will see there, and put the shortcut on your virtual machine Windows desktop. With this folder in place, the MarinLit installation package can be copied into the folder and then placed on the desktop of the 32-bit Windows virtual machine, and the normal MarinLit installation process made. If your Host computer is a 64-bit Windows PC then for substructure searching, the **mlitcf8** folder containing a ChemFinder file of all the MarinLit structures can be left on the Host computer for access by your ChemOffice application. Any ChemFinder search result will be saved into the file **tfr.txt** that should be placed in the Shared Folder, and then accessed by the **Recover Results** button in the Search Profile page of MarinLit in the virtual machine. Alternatively, if you have an older version of ChemOffice, you could install this in the virtual machine. Any version of ChemOffice version 8 or later will be OK. This step will

be necessary for Intel Macintosh users, as there is no ChemOffice package available for Intel Macintosh computers.

Text files of search results from MarinLit can of course be placed in the Shared Folder, and then manipulated in your suite of applications in the Host computer.

I have created a virtual machine with Windows XP Pro 32-bit, MarinLit, AntiMarin and ChemOffice version 8, and the disc space required is less than 10 Gb. This was done on an Intel Macintosh, but should be the same for a 64-bit Windows PC.

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