MX-Snapshot in AVL-MXE

With the 'MX-Snapshot' program found in the 'MX-Tools' of AVL-MXE you can create an ISO image of your system that you can boot with a USB key and run as a LiveISO or install to another computer. This powerful part of MX Linux is what makes AVL-MXE possible and in turn you can add or remove programs and make changes to your installed system and make a bootable ISO of your customized version of AVL-MXE. There are a few important items to be aware of before using MX-Snapshot in AVL-MXE:

I. If you are going to make a customized version of AVL-MXE to share with other people to download and use you must first remove the licensed Demo-versions of software using the AVL-MXE Assistant. These demos are specially licensed to be distributed in AVL-MXE only and you will be violating these licenses if you re-distribute them.
II. If you are going to create and share your own version of AVL-MXE with other people you must give it a different name and indicate that it is a different project derived from AVL-MXE to prevent confusion for potential Users.
III. AVL-MXE features a special full-preempt RT Kernel and this Kernel interacts with MX-Snapshot in a way which requires Snapshot to work differently on AVL-MXE than it does on MX Linux or a system with a regular or low-latency Kernel. This can affect the proper generation of important md5 'checksum' files that are calculated to verify the integrity of certain files that are a vital part of the ISO build.
IV. MX-Snapshot when used with the RT Preempt Kernel in AVL-MXE requires writing the ISO creation files to a temporary location in the /tmp folder of the filesystem for the checksum calculations to work as intended and this requires that you have sufficient system RAM to operate your system and accommodate the ISO files for the size of your ISO. As a very rough suggestion if your custom ISO is roughly the size of AVL-MXE (3.5Gb) then you would probably require about 8Gb of RAM to have reasonable headroom to operate your system and create the ISO files in /tmp.

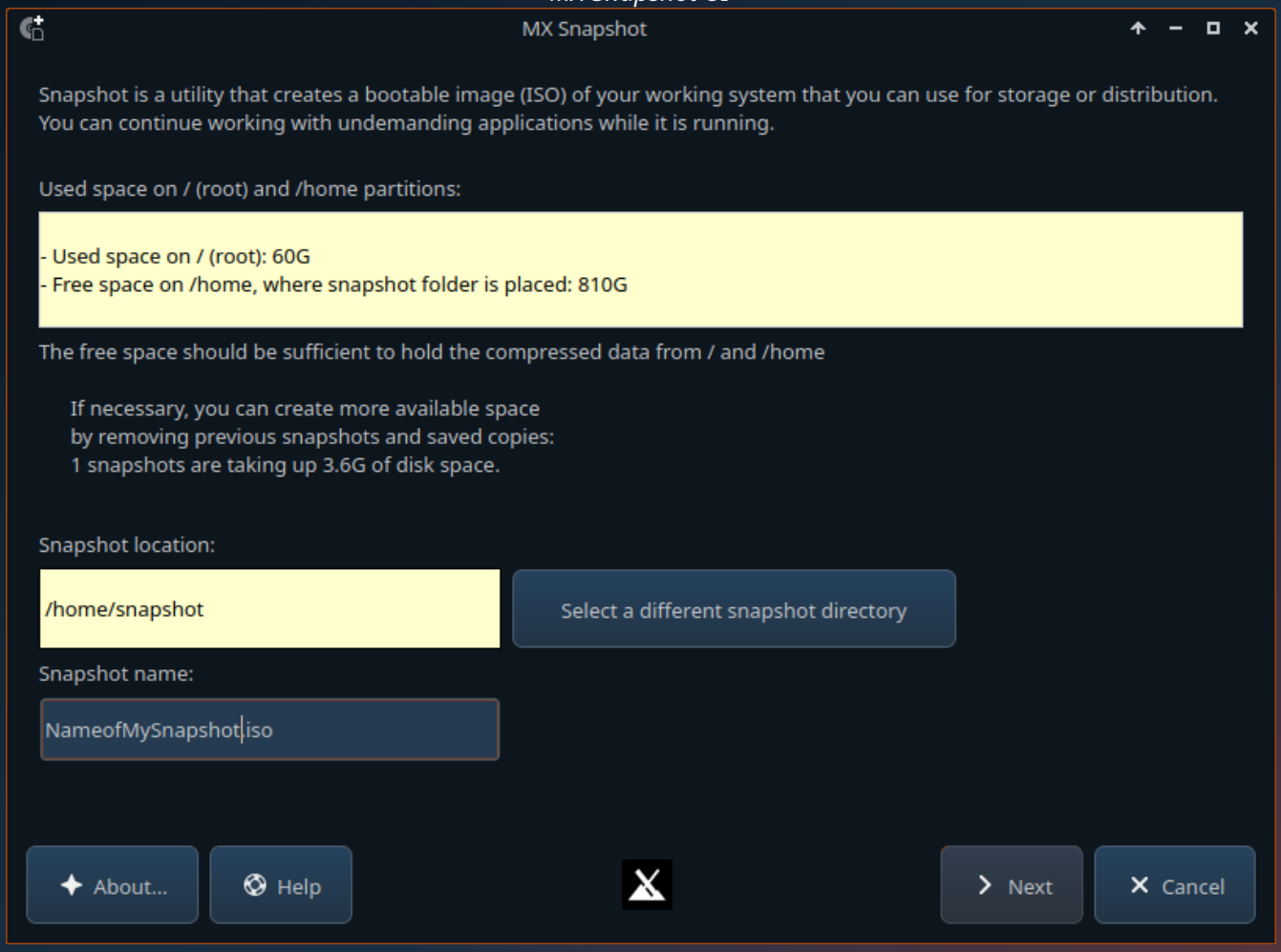
Normally you would simply launch MX-Snapshot from the MX Tools or the Whisker Menu but because we need to put MX-Snapshot into a special mode for it to work with the custom Kernel we need to launch it from a terminal with a special command that will launch it as Root and tell it to operate in 'preempt' mode.

So in a regular Terminal enter this command:

```
mx-pkexec mx-snapshot --preempt
```

At this point you will be prompted for your Root Password and once entered it will open MX-Snapshot which will give you an option to choose where the ISO and related md5 and SHA512 files will be placed. The default is /home/snapshot/. You can also choose what you want the name for your custom ISO to be. With the '--preempt' switch MX-Snapshot will automatically run checks and determine if you have sufficient RAM to place the ISO build files in /tmp, if you do not have sufficient RAM MX-Snapshot will fall back to running in it's default mode. Be aware that running MX-Snapshot in default mode with the RT Kernel may not generate correct md5 checksums and your ISO will potentially fail to boot so having sufficient RAM is a key element in successfully creating ISO files in the case AVL-MXE specifically. MX Linux on it's own or AVL-MXE with an optional non-RT Kernel installed will not have this constraint and will not require the '--preempt' command switch.

MX-Snapshot UI



From here the MX-Snapshot options are as normal, you can select to create an ISO for your own use with your Data and Network configuration preserved or you can choose to make a more generic ISO without your Settings and Data that you can safely share with other people. By selecting the checkboxes for various items you can blend the choices for what you want to preserve from you setup and pass along what you want to exclude from your ISO. Advanced users can also exclude further items in the Filesystem but you should be cautious and familiar with what you are selecting for exclusion. You can also select the type of compression to use which will determine the size of your final ISO, 'xz' gives the most compression and therefore the smallest potential ISO size at the cost of slower performance on the Live booted system. Once you have made your choices click 'Next' to continue, confirm and create your ISO.

MX-Snapshot Settings