Multiscan 3B Help File.

MultiScan 3 B is an application for ham radio Slow Scan TV (SSTV) communications. It is build to run on Mac OS X 10.6 or later versions.

MultiScan 3B can transmit and receive pictures in the following formats (modes):
Robot black and white modes: 8s, 12s, 24s and 36 s
Robot Color: 12s, 24s, 36s and 72s
Socttie: 1,2,3,4, DX and DX2
Martin: 1,2,3,4, HQ1 and HQ2
PD Modes: 50s, 90s, 120s, 160s, 180s, 240 and 290s
P Modes: P3, P5 and P7
AVT Modes: 24s , 90s,94s,188s in color and 125s in black and white (all modes can be send/received in regular, narrow, QRM and narrow+QRM modes)

Before operating SSTV some preferences need to be set.
Click on MultiScan 3B in menu and select Preferences… This will open Preferences window.

FIrst tab is Audio where you select Audio Input and Audio Output devices. For each device you can select Right or Left channel, for almost all interfaces with the exception of IC7200 transceiver it will be left channel. For audio devices that support the function you can set Output volume level.

Second tab is SSTV:

AutoSlant Correction if enabled will attempt to correct slanted picture. When Dynamic correction is selected it will do it while picture is being received, otherwise after reception is completed. AutoSlant correction is not perfect, it often fails when signal is noisy and especially in presence of strong QRM/QRN.

 Detect start tone when enabled will set program to wait for 1900Hz tone before it attempts to decode VIS code. All modern SSTV programs (to the best of my knowledge) transmit start tone, so it is best to leave this setting enabled.

Clear RX View for New Picture when enabled will set program to erase picture in the receive view when new picture reception begins. Otherwise it will paint new picture over the old one. Set it to your liking.

PTT selector. Program does not directly control transceiver PTT. The following interfaces are supported: CocoaPTT (use this setting if you use serial port for PTT control. You will need to download and install CocoaPTT program). If you use microKeyer, digiKeyer or cwKeyer, you will need to install µH Router application. Select None for interface that supports VOX operation.

Log Program. MultiScan can send OSO information to Aether or MacLoggerDX if either is installed on your computer.

Auto Save Options. If you want received pictures to be saved automatically you need to set some options. To save to a folder click choose and select folder from the Save Panel that will be displayed. After folder is selected you can enable Save to Folder. You can also email pictures or send them to iPhoto (SSTV album will be created in iPhoto). You may also want to select preferred picture format (JPEG is a default).

Transmitter Options.
Enable Tx Preview. If enabled when you click on Transmit button, the image in transmit view will be displayed in an actual mode resolution when it is transmitted. Otherwise it will be displayed in full resolution.

Display Header. If enabled will display header at the top 8/16 or 32 lines (depending on the mode) of the transmitting image in the modes that support it.

Display Callsign will add your call sign to the transmit view.

Transmit CW ID, will send your call sign and K after the image finished transmitted in a Morse code.

Display Text will allow to enter custom text in the transmit view.

Display Time Stamp will add timestamp to the transmitted picture.

Info Tab.

Enter your call sign, name, city and state (if in US) or country. Your location is used to retrieve the weather information if you choose to display it in the transmit header. Also when metric units are selected temperature will be displayed in Centigrades.

You can customize elements displayed on the transmit view using next tabs in the preferences.
TX Header. Here you can enter the text to be displayed in the header, select its color, font and header type.
Display background, will display selected header type background if enabled, otherwise text will be drawn over the image without any background.
Dsplay Time if enabled will show time (UTC) in the left of the header.
Display Weather will show weather icon and temperature in the right side of the header.

Callsign tab is used to customize the display of your call sign.
Replay tab to select the size and rotation of replay image.
QSO table is used to customize QSO table.

Main Menu

Under FIle Menu:

Save Received Image will bring up Save Dialog and image from receive view will be saved in the selected location..
Open Image will bring Open dialog and selected image will be displayed in transmit view.
Open RTF File will bring Open dialog and selected file will be loaded as custom text and added to transmit view.
Save RTF file will bring Save dialog and will save custom text from transmit view to the file in selected location.
Add Image to iPhoto will add image in the received window to iPhoto library.
eMail image will open the default email program and insert received image as an attachment.
Capture Video will open camera view where you will see live image. If you click on Freeze button it will load snapshot to the transmit view.

Under Edit Menu:
Clear RX View will replace image in the receive view with a black background.

Tx Display menu allow you to add or remove elements to/from transmit view.

Format menu is used when editing text in transmit view.

In addition to the preferences and main menu there is a couple of contextual menus in the transmit view associated with displayed call sign and timestamp. If you hold control key and left click on either call sign or timestamp you can make some changes to their appearance. For call sign you can alter it size, for timestamp you can select format, color and change size.
Both call sign and timestamp can be dragged and place anywhere in the transmit view.

Toolbar provides both some shortcuts to the menu and also some additional functionality. Shortcuts are Open Image, Open RTF, Capture Video, iPhoto, eMail and Save Image.

From toolbar you can also add overlays to the transmit view. There are 7 predefined overlays:CQ1, CQ2,RSV1,RSV2,To Call and 73 1 and 73 2. You can change color of the overlay text, font and justification.

On the left size of the toolbar is Slant slider which allow you to manually adjust received image if it is slanted.

In addition to loading image from menu or tool bar you can simply drag and drop images from any folder or even from the websites.

As a convenience for loading images program provides and image browser below transmit view.
You will need to assign folders from which images will be displayed in the image browser. To do that click on plus button under the image browser, it will bring up Open dialog from where you can select a folder. Folder name will be added to the pop up button below image browser for quick selection of the added folder. If you want to remove the folder simply select it with pop up button and click minus button. When images displayed in the image browser, double click on image you want to open and it will be loaded to transmit view, or you can drag image from image browser and drop on a transmit view.

Next to minus button is **Tx Preview**. You can click on it to see how your transmitted picture will look like at the receiving end (if there are no QRM/QRN and signal is fairly strong).

Call and RSV text fields are used to input call sign of the the station you are working with and the signal report. If you have Aether or MacLoggerDX as your logging programs you can click on Log button and it will log QSO information.

On the right of Log button are two pop up buttons to select mode and "submode" to be used for transmitting. When you are receiving picture and the program was able to decode the VIS code your transmit mode will be selected automatically to be the same as received.
H.Sync button can be used to try to synchronize image if all other means failed. This switch the receiver in horizontal sync detection mode. Works very poorly in Scottie modes, because sync pulse there inside the line, not at the end of it as in any other mode.

Over the mode selector are Transmit, Receive and Stand By buttons. Normally program will be in Stand By mode and waiting for the VIS code. If code is successfully decoded it will switch to Receive mode and start receiving image. If code was not decoded it will stay in Stand By mode. At this point if you hear SSTV signal you can click on Receive button to force receive mode. Program will the attempt to determine which mode it is receiving by measureng the length of the line. It works in most cases with the exception of AVT modes that don't have any horizontal synchronization information.
If program were unable to detect the mode you can try to switch manually between modes until you see the picture.

There is a display under receive view that shows either spectrum, waterfall or scope of received signal dependng of its mode selection (buttons below).

You can select the bandwidth of Bandpass and Video filters using pop up buttons at the bottom left of the window. It may be useful under noisy band condition, but as any filter it degrades the resolution of the picture.