

MEDIASHOW INSTRUCTIONS

UPDATED 02-28-14

ABOUT MEDIASHOW

MEDIASHOW is a software application that uses a button-box motif to trigger the display of various media file types to a display window. It was developed for running portable planetarium shows but can be used in a variety of settings. It comes in several versions:

MEDIASHOW

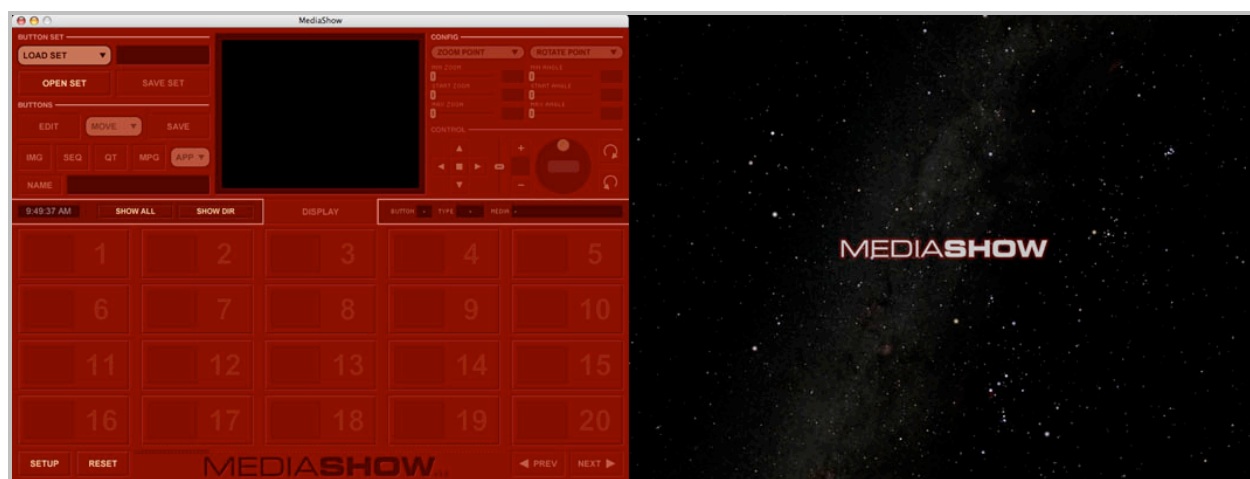
a full windowed application version best used in setups with 2 video outputs

MEDIASHOW-Mirror

a slimmer version with a 1400 x 60 pixel strip interface for single display and mirror projection setups

COMPUTER SETUP

1. Install QuickTime 7 if you don't have it already (<http://www.apple.com/quicktime/>). The "Pro" version is not necessary, unless you want to create your own movies from fisheye stills.
2. You may want to disable virus protection software temporarily as it may cause problems with the install.
3. **MEDIASHOW** works best with a 2-display setup – one for the projector and one for the control window. If your machine has two video cards, put your projector on the fastest card. If your video card supports dual displays, use one for the projector and one for the control window.



WINDOWS USERS: Right-click on your desktop, select "Properties" then "Settings". Choose "extend your Windows desktop" onto both monitors. Set both monitors to 1024x768 resolution.

If you only have a single video card, or are running from a laptop, we have single display versions called **MEDIASHOW-Mirror** (developed for use with a mirror projection system). The "Mirror" versions of **MEDIASHOW** have full playback capability but have limited buttonset creation features. For the single display versions, use the "D" keystroke to toggle between showing the control window or the display window. All playback functions can be controlled by the keyboard (see end of document) so you can run your show without visitors seeing your commands, even with a single monitor!

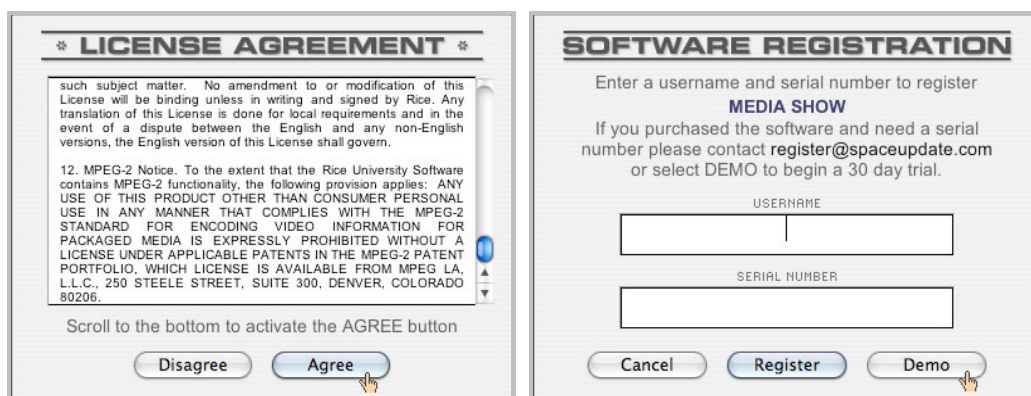
4. Switching between MediaShow and Stellarium:
 - a. If you do not want to use Stellarium, it is easiest if the primary display is the command window. **MEDIASHOW** will then open onto the primary display, and the projector will be the secondary display. However, Stellarium only opens on the primary display. In that case:
 - b. If you want to switch rapidly between Stellarium and **MEDIASHOW**, you need to set the primary display to be your projector, and your secondary display to be the command window. Arrange the display geometry so that the secondary display is on the left to match these instructions. Drag the menu bar to the secondary display so that any operating system interactions are located there on the command display and not the projector.

5. An MPEG-2 decoder is needed to show movies from many planetarium producers:
 WINDOWS: purchase from Elecard (<http://www.elecard.com/products/mpeg2player.shtml>). This is not necessary with the latest versions of XP-Pro.
 MAC: purchase the MPEG-2 plugin from Apple (<http://www.apple.com/quicktime/mpeg2/>). For e-Planetarium system purchasers, this has been preinstalled for you.

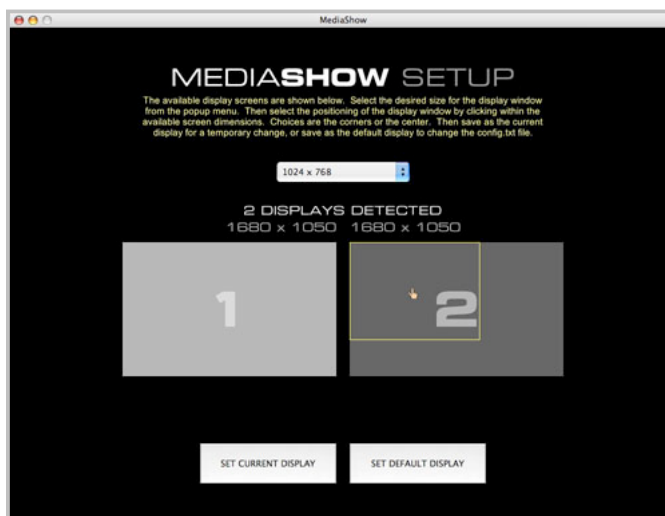
Fast processors, fast hard drives, and powerful video cards are critical for smooth operation! Buy the best computer you can! We recommend ONLY Mac's or Intel processors, 3Ghz or better, 1 Gig memory. (AMD processors have not performed well in our tests).

INSTALLATION

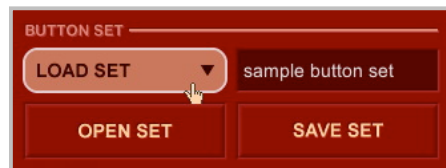
1. INSTALL: Copy the MEDIASHOW folder into your computer's Applications folder. Be careful not to overwrite a previous install if it contains "media" and "buttonsets" folders you do not want to lose. If you are downloading a new version from the web and you have a previous version installed, move the "media" and "buttonsets" folders from your old version to replace the empty ones in the downloaded version.



2. REGISTER: Launch the MEDIASHOW application. MEDIASHOW will ask you to confirm the licensing agreement. Scroll down to the bottom of the license text to make the "agree" button live. It will then ask you for a registration code. Select "DEMO" for a 30-day trial. If you want to continue using MEDIASHOW (or if you want to use it for a public display) you must purchase and register MEDIASHOW. Contact register@spaceupdate.com to register.
3. SETUP: Configure the display window via the "SETUP" button. MEDIASHOW will detect how many display devices you have connected and show you options for setting the display window. Select which monitor shows the display, and the size of the display window. Then save your settings as either the new default, or save them to use only in the current session. The first time you launch MEDIASHOW (or if you change your monitor configurations) it may show an alert message about the configuration file being invalid. When you change the settings and "SAVE AS DEFAULT" that message will go away.

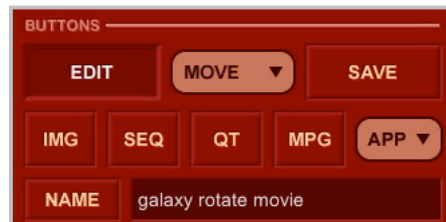


4. **LOAD (or CREATE) BUTTONSET:** Load a new button set and begin editing buttons. A sample button set with demo movies in the media folder is provided. Select "sample button set" from the "LOAD SET" menu, or choose "NEW" from the menu to create a new set. For system purchasers, everything is fully loaded for you. Be sure to save your changes with the "SAVE SET" button if you create a new button set or edit an old one. Each button set has 5 pages of 20 buttons each (In the LITE version there are 20 pages of 5 buttons each). There is no limit on the number of button sets you may create.



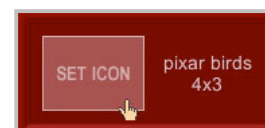
5. **CREATE BUTTONS:** Select "EDIT" (not available in MEDIASHOW-Mirror) and then select a button to edit, or simply click on a button while holding down the option/alt key to begin editing its properties. Then select from the 5 media types (In MEDIASHOW-Mirror, Alt/Option-click an empty button to access a popup menu of choices):

IMG = image;
 QT = QuickTime movie;
 MPEG = mpeg movie;
 SEQ = image sequence from a folder of images;
 (not available in MEDIASHOW-Mirror)
 APP = external application *
 (not available in MEDIASHOW-Mirror)



When you select a type, it will bring up a dialog box so you can select the media file. It is helpful to consolidate all your media files in the "media" folder, but it is not necessary. The full version of MEDIASHOW allows you to configure the display of your media files via the many options for each media type. Images can have location, zoom, and rotation preset, as well as limits on zoom and rotate. The zoom location center can also be set for images (zoom from the center of the image, or from the center or edges of the screen). Image sequences can have times set to display each image. MEDIASHOW-Mirror can assign media to a button but cannot access the config preset options. A movie can have a start and stop time programmed, and a time step for stepping quickly through the movie. **[TIP: You can more accurately set the start or end times by adjusting the main playback controls to the desired time/frame and then clicking on the Start or End time numerical display. That time will then immediately be set to the current playback time of the main controls.]** See the section on MEDIA CONFIG OPTIONS for details on all the possible settings you can control.

SET THE ICON: You can also set the icon for the button by clicking on the icon graphic inside the button. A movie button's icon can be set to a particular frame image by first advancing the movie to that frame and then clicking on the icon graphic.



NAME THE BUTTON: Click on "NAME" to give the button a name.

MOVE THE BUTTON: Buttons can be deleted or moved on the button page by using the "MOVE" popup menu. Control+MOVE allows moving a button to any page. The MOVE option swaps the button with its destination. Option+MOVE changes the function to COPY and creates a duplicate at the selected new button on the button page. Control+Option+MOVE allows copying the button to any empty button on any button page.

* Select "APP" to use a button to launch an external application. To run Stellarium from Windows, you cannot launch the application directly and must instead point the button to the provided "startstellarium.cmd" file. Use MEDIASHOW to launch that file, which will in turn start Stellarium. Quit Stellarium by command-Q and the MEDIASHOW control window will return. All e-planetarium purchasers will have preloaded the special config file we provide to give the best Stellarium for your projection system, and a sample button to launch it.

Buttons may be edited, moved, renamed or deleted. If you move a buttonset to a new machine, a button may need to be re-edited if it cannot find its media file. That's why it's helpful to keep all media in the MEDIA folder. **NOTE:** Please be sure to SAVE changes to your buttons and SAVE changes to your button set as you edit.

6. **SETTING AUTOPLAY:** If you select a button (QT, MPEG, or SEQ) that is set to "autoplay", it will automatically begin playing when the button is pressed. If the next button in sequence is also set to "autoplay", that button will automatically play after the first has completed. Using this method you can script your own show! (only movies and "slide sequences" can auto-play... for a single image, it will display until you select your next button choice).
7. **QUITTING:** Close the window or hit ESC (also, control-Q for WIN and command-Q for MAC).

CREATE YOUR OWN CONTENT: It's easy to create your own dome content using a digital fisheye camera. Crop and scale to 1024x768, use "QuickTime™ Pro" to make a movie from an image sequence, add your own music, and go! Inexpensive and fun! Fisheye movies from a Hi-Def camcorder also work – import cheaply by using iMovie HD, or use a movie editor like Adobe After Effects to embed a movie inside a movie. The sky is the limit!

MEDIA TYPES

By default the software looks in the "media" folder for media files, but they can be located anywhere on your computer.

- IMG: image files (jpeg, gif, bmp, pict, png)
- QT: QuickTime™ movie files (.mov, .avi)
- MPEG: mpeg movie files (mpeg-1, mpeg-2, mpeg-4)
- SEQ: folder containing a sequence of image files (FULL version only)
- APP: assign a button to launch an external application (FULL version only)
 - MAC: Menu choices are the ".app" packages in the "Applications" folder, or you can manually locate any Carbon application on the hard drive.
 - WIN: Menu choices are the ".exe" files in the "Program Files" folder, or you can manually locate any file on the hard drive.

Some applications (like Stellarium) cannot be launched directly on Windows. They require pointing a **MEDIASHOW** button to a .cmd or .bat script file that instructs the OS to launch the application (a sample one is included, but it may need to be edited to reflect the location of Stellarium on your system). Note: if you launch Stellarium from inside **MEDIASHOW**, we suggest quitting Stellarium (control-Q) before you return to **MEDIASHOW**. Both running at the same time can make the movies play slowly or jerkily. Stellarium will ONLY launch onto the "default screen"; that's why we suggest making the projector the default screen.

SPLASH SCREEN

The splash screen (the screen that shows on the projector when a media item isn't being played) can be easily changed from its default to any image you wish. Simply place any image named "splash.jpg" in the "graphics" folder before starting the **MEDIASHOW** application. The software will then use that image and stretch it to fill the display window.

MEDIA CONFIG OPTIONS

Buttons set to display images, image sequences, and QuickTime or MPEG movies can be configured in many ways to display just how you want them to. After editing a button, the playback controls available in the Control area of the MEDIASHOW window are limited by the config settings you have made.



IMG : CONFIG

- ZOOM POINT** : Sets the point on the screen that the zooming of the image is locked to. Options are...
 These 3 options maximize the image on the screen. Rotation and zooming are disabled.
fit to screen = locks the image to the screen center and zooms to fit to full screen
fill screen X = locks the image to the screen center and zooms to fill screen horizontally
fill screen Y = locks the image to the screen center and zooms to fill screen vertically
 The remaining options all full zooming, nudging and rotation of the image
image center = locks the center of zooming to the center of the image
screen left = locks the center of zooming to the left edge of the screen
screen right = locks the center of zooming to the right edge of the screen
screen top = locks the center of zooming to the top edge of the screen
screen bottom = locks the center of zooming to the bottom edge of the screen
- ROTATE POINT** : Sets the point on the screen about which the image can be rotated. Options are...
image center = locks the center of rotation to the center of the image
screen center = locks the center of rotation to the center of the screen
- MIN ZOOM** : Sets the minimum zoom allowed for the image
- START ZOOM** : Sets the initial zoom of the image
- MAX ZOOM** : Sets the maximum zoom allowed for the image
- MIN ROTATE** : Sets the minimum rotation angle allowed for the image
- START ROTATE** : Sets the initial rotation angle of the image
- MAX ROTATE** : Sets the maximum rotation angle allowed for the image

IMG : CONTROL

- NUDGE** : 4 arrow buttons that will nudge the image in all directions. The central button restores the image back to the screen center
- ZOOM** : The slider controls the current zoom of the image limited by the config settings. The buttons also control the zoom of the image but with finer control. Click the button to zoom the image by $\pm 10\%$. Control-click the button to zoom the image by $\pm 1\%$. Click the zoom value to get a popup menu for quick access to "fit to screen %", "fill screen X or Y %" and "full size (100%)".
- ROTATE** : The rotate wheel control can be dragged to set the current image rotation. The small directional arrows indicate the configured rotation limits. The buttons also control the image rotation but with finer detail. Click the buttons to rotate the image by $\pm 1^\circ$. Control-click the buttons to rotate the image by $\pm 0.1^\circ$.

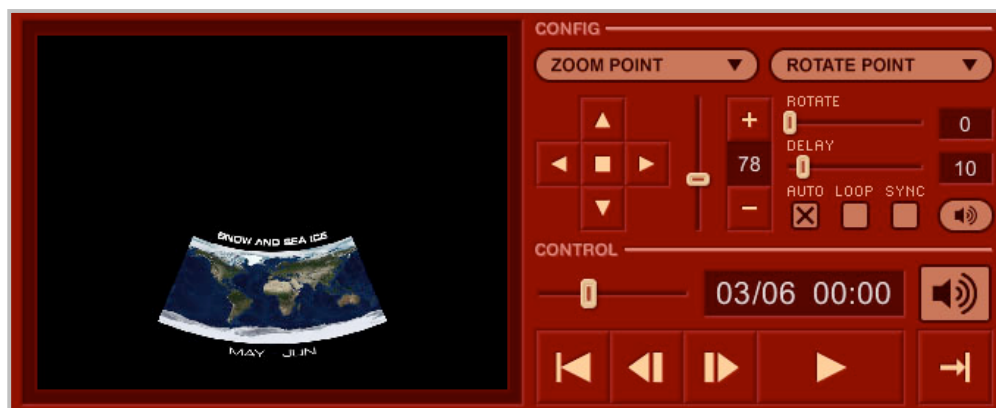


QT / MPEG : CONFIG

- START CLIP** : Sets the start time of the movie clip. The output is shown in minutes and seconds (MM:SS) and by frame number. Clicking on this time display will set the value to the time displayed by the main Control slider.
- END CLIP** : Sets the end time of the movie clip. The output is shown in minutes and seconds (MM:SS) and by frame number. Clicking on this time display will set the value to the time displayed by the main Control slider.
- FRAME/TIME SKIP** : Sets the number of frames (QT) or amount of time (MPEG) the movie will skip when using the forward advance and backward advance control buttons.
- ZOOM** : Sets the zoom percentage of the movie in the display window. 10% is the minimum allowed, and 100% shows the movie full-screen depending on the aspect ratio. Clicking the buttons changes the zoom $\pm 10\%$. Control-click the buttons to change the zoom $\pm 1\%$.
- BUMP** : Sets the percentage the movie is bumped up from the bottom of the display towards the center of the screen. 0% locks the bottom edge of the movie to the bottom of the screen. 100% centers the movie on the screen. Clicking the buttons changes the bump $\pm 10\%$. Control-click the buttons to change the bump $\pm 1\%$.
- BG FILE** : Sets a background image to display behind the movie. This feature is useful when you wish to show a movie smaller than full-screen and frame it with a background graphic. Place the background image in the **MEDIASHOW** media folder for it to be available in this popup menu.
- AUTO** : Sets the movie is to auto-play when its button is selected.
- LOOP** : Sets the movie to loop. Looping can also be manually controlled in playback using the Control loop button.
- AUDIO** : Sets the volume of the movie audio. Volume can also be manually controlled in playback using the Control volume button.

QT / MPEG : CONTROL

- SLIDER** : Use the slider to manually set the time/frame of the playback.
- TIME** : This is the display of the current time and frame of the movie. Click this display to temporarily disable the updating of the time during playback to potentially improve performance.
- AUDIO** : Manually control the audio volume using the audio popup menu. Does not change the saved config setting for the button.
- PLAYBACK** : Use these buttons to manually control the playback of the movie. The self-explanatory buttons are... REWIND | STEP BACK | STEP FORWARD | PLAY/PAUSE.
- LOOP** : Manually control the looping of the movie during playback. Does not change the saved config setting for the button.

**SEQ : CONFIG**

ZOOM POINT : Sets the point on the screen that the zooming of the image is locked to. Options are...
 These 3 options maximize the image on the screen. Rotation and zooming are disabled.
 fit to screen = locks the image to the screen center and zooms to fit to full screen
 fill screen X = locks the image to the screen center and zooms to fill screen horizontally
 fill screen Y = locks the image to the screen center and zooms to fill screen vertically
 The remaining options all full zooming, nudging and rotation of the image
 image center = locks the center of zooming to the center of the image
 screen left = locks the center of zooming to the left edge of the screen
 screen right = locks the center of zooming to the right edge of the screen
 screen top = locks the center of zooming to the top edge of the screen
 screen bottom = locks the center of zooming to the bottom edge of the screen

ROTATE POINT : Sets the point on the screen about which the image can be rotated. Options are...
 image center = locks the center of rotation to the center of the image
 screen center = locks the center of rotation to the center of the screen

NUDGE : Sets the nudge of the sequence images in all directions using the 4 arrow buttons. The central button will restore the image back to the screen center

ZOOM : Sets the zoom of the sequence images. The buttons also control the zoom but with finer control. Click the button to zoom the image by $\pm 10\%$. Control-click the button to zoom the image by $\pm 1\%$.

ROTATE : Slider sets the rotation of the sequence images around the rotate point.

DELAY : Slider sets delay time between sequence images during playback. This slider is disabled if SYNC is enabled.

AUTO : Sets the image sequence to auto-play when its button is selected.

LOOP : Sets the image sequence to loop. Looping can also be manually controlled in playback using the Control loop button.

SYNC : Sets the image sequence to sync. Delay times between images are automatically set based on the length of the audio file selected.

AUDIO : Popup menu allows selection of an audio file to be played along with the sequence. Place the audio file in the MEDIASHOW "media/audio" folder for it to be available in this menu.

SEQ : CONTROL

SLIDER : Use the slider to manually set the sequence image number of the playback.

TIME : This is the display of the current image number and delay time of the sequence.

AUDIO : Manually control the audio volume using the audio popup menu.

PLAYBACK : Use these buttons to manually control the playback of the sequence. The self-explanatory buttons are... REWIND | STEP BACK | STEP FORWARD | PLAY/PAUSE

LOOP : Manually control the looping of the image sequence during playback. Does not change the saved config setting for the button.

MEDIASHOW Keyboard Shortcuts

option/alt clicking a button activates EDIT options for that button

D = toggle display screen to foreground or background

control+ D = toggle output from control screen to display screen

N = next loaded button

B = previous loaded button

K = toggle kiosk mode which covers the controls

1,2,3,4,5,6,7,8,9,0 = directly select buttons 1-10 on current button page

control + 1,2,3,4,5,6,7,8,9,0 = directly select buttons 11-20 on current button page

MOVE

control + MOVE: swap button with any button on ANY button page

option + MOVE: COPY button to empty button location on current button page

control + option + MOVE: COPY button to empty button location on ANY button page

IMAGE

→ (right arrow) = rotate image right/clockwise by 1° step

← (left arrow) = rotate image left/counter-clockwise by 1° step

↑ (up arrow) = zoom image in by 1% step

↓ (down arrow) = zoom image out by 1% step

control + → (right arrow) = continuously rotate image right/clockwise by 0.1°

control + ← (left arrow) = continuously rotate image left/counter-clockwise by 0.1°

control + ↑ (up arrow) = continuously zoom image in by 1%

control + ↓ (down arrow) = continuously zoom image out by 1%

"." = stop rotation and zoom

control + shift + → (right arrow) = nudge image right

control + shift + ← (left arrow) = nudge image left

control + shift + ↑ (up arrow) = nudge image up

control + shift + ↓ (down arrow) = nudge image down

shift + → (right arrow) = set screen right as zoom point

shift + ← (left arrow) = set screen left as zoom point

shift + ↑ (up arrow) = set screen top as zoom point

shift + ↓ (down arrow) = set screen bottom as zoom point

C = set screen center as zoom point (and rotate point)

I = set image center as rotate point

S = set screen center as rotate point

R = reset image nudge, rotate and zoom to button setting

F = set image to fill screen (zooms to fit image completely on screen preserving aspect ratio)

SEQUENCE

spacebar = play/pause sequence

→ (right arrow) = next image in sequence

← (left arrow) = previous image in sequence

MOVIE (QT or MPEG)

spacebar = play/pause movie

→ (right arrow) = jump forward by frame skip setting

← (left arrow) = jump backward by frame skip setting

control + → (right arrow) = jump to end of movie

control + ← (left arrow) = rewind movie

L = toggle loop on/off

A = toggle audio on/off

F1 - F10 = set volume level from 1 to 10

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