Major changes in:
1. Animation engine
2. WiFi subsystem
3. Art-Net, sACN
4. Video Upload
5. New Calibration

Known issues and workarounds
- Some lamps will not update the calibration feature.
  - If Your lamps look odd after the update, please contact us at support@digitalsputnik.com.
- Art-Net/sACN
  - No feedback to UI
  - No known workaround (fix expected by 25.02.2019).
- When uploading a video sometimes not all lamps will update the position
  - Move the lamp or video slightly so the controller would resend the position data
- When changing the video position when global playback is in "Stop" state the video will start playing while other animations remain stopped.
  - No known workaround (fix expected by 25.02.2019).
- All videos might not be in sync right after upload
  - No known workaround (fix expected by 25.02.2019).
- When updating animated shader, all animations will pause until the update is rendered
  - No known workaround will be fixed in the next major release (18.03.2019)
- The early bird units have considerably less video memory available for video upload

Animation Engine

The new version is the 1st step toward the final release software. To make UI simpler to use we have changed all animated shaders into video files. In the current build when using animated shader it will take up 10 seconds to render the necessary video file for playback. This delay will occur every time a parameter is changed. In the next release version of the software, we will be able to have some video parameters rendered in real-time.

Wi-Fi modifications

The new version has major updates for WiFi settings. We have simplified the design with a hardcoded SSID in master mode (the lamp serial number). We added the "Router" mode, and it behaves exactly as adding "_M" in previous releases.
There is a new feature to check the WiFi state in the "Client" mode. Open Your handheld device's Bluetooth list and the lamps in client mode will show up with lamp name->connected SSID to help to debug to the router the lamp is currently connected. If there is an issue with the password it will show "PASS" and if no WiFi is available then "SSID"

The Voyager WiFi will now have 3 modes: **Master / Router / Client**
- **The Master mode** was previously Access Point mode, but with a fixed name and password.
  - The SSID is the lamp's serial number, and the password is "dsputnik"
  - The WiFi led is amber in this mode.
- **The Router mode** is the master mode, but with a name that makes client lamps automatically try to connect to it. The name and password are hardcoded.
  - The SSID is the serial number + "_M" and the password is "dsputnik"
  - The wifi led is blue in this mode.
- **The Client mode**, it is possible to define the router to which the fixture will try to connect to first. The Voyager needs to be set up with SSID and password. If the setup SSID is not found or has an incorrect password, the lamp will try to connect to a different lamp with an SSID consisting of serial number + "_M" and has the default password. If both fail, a new attempt will be made in 15 seconds.
  - The WiFi led is:
    - green in this mode when the connection is established
    - red, if the connection is not yet established or when there is an error.

The WiFi modes can be toggled both through the software and manually, by holding down the program button for 2 seconds. Furthermore, when holding down the program button for 10 seconds, the WiFi will be reset to the previous settings (in cases such as routers dropping the connection, it is possible to reset the WiFi connection without restarting the lamp to the previously set up settings). To reset the Voyager back to master mode, toggle through WiFi modes until you get an Amber led. Then, the lamp will once again be in a standalone master mode.

Art-Net and sACN

To activate ArtNet or sACN, one has to create a DMX stroke on the lamp. Every lamp can be split into up to 64 "pixels". 2ft Voyagers have less controllable pixels, so the extra pixels are clipped (ignored). We support both RGBt (RGB + White Balance) and ITSH coded color values.

- ITSH
  - Intensity (brightness)
    - **Code value 0 : get value from shader settings**
    - Code value 1 : 0%
    - Code value 127: 50%
    - Code value 255: 100%
  - Temperature (Kelvin temperature of the white light)
    - **Code value 0 : get value from shader settings**
    - Code value 1 : 1500K
    - Code value 51 : 3200K
    - Code value 123 : 5600K
    - Code value 255: 10 000K
  - Saturation (0-100% within sRGB colorspace, 100-120% raw led colorspace)
    - **Code value 0 : get value from shader settings**
    - Code value 1 : 0%
    - Code value 106 : 50%
    - Code value 213 : 100%
    - Code value 255 : 120%
  - Hue
    - **Code value 0 : get value from shader settings**
    - Code value 1 : Red
    - Code value 42: Yellow
    - Code value 85: Green
    - Code Value 127: Cyan
    - Code Value 169: Blue
    - Code Value 212: Magenta
    - Code Value 255: Red
- RGBT
  - RGB (color values)
    - **Code value 0 : get value from shader settings**
    - Code value 1 : 0%
    - Code value 127: 50%
    - Code value 255: 100%
  - Temperature (Kelvin temperature of the white light, light is white if all the RGB values are equal)
    - **Code value 0 : get value from shader settings**
    - Code value 1 : 1500K
    - Code value 51 : 3200K
    - Code value 123 : 5600K
    - Code value 255: 10 000K

Channel	ITSH	RGBT
DMX offset + 0	I value of the 1st pixel	R value of the 1st pixel
DMX offset + 1	T value of the 1st pixel	G value of the 1st pixel
DMX offset + 2	S value of the 1st pixel	B value of the 1st pixel
DMX offset + 3	H value of the 1st pixel	T value of the 1st pixel
DMX offset + 4	I value of the 2nd pixel	R value of the 2nd pixel
DMX offset + 5	T value of the 2nd pixel	G value of the 2nd pixel
DMX offset + 6	S value of the 2nd pixel	B value of the 2nd pixel
DMX offset + 7	H value of the 2nd pixel	T value of the 2nd pixel

New Calibration

With the new software, we have partially enabled the final calibration procedure (don't worry, you don't have to ship lamps back to us for that, all the necessary data is already saved in the lamp). The new calibration should give better uniformity over a single fixture and when comparing multiple fixtures. All units should get better saturation control and more uniform yellow colors. Please let us know if anything unexpected happens with the new calibration, either within the Voyager Controller app or by email: support@digitalsputnik.com.

Video upload

There is a new shader called video upload. With this shader, it is possible to upload an h264 mp4 file into the Voyager unit to avoid network issues during playback. It works similarly to the "Video Stream" shader. The ITSH controller will modify the image (brightness, white balance, saturation and hue shift).

The "Load video" will bring up a file selector to select the video file to be uploaded into the fixture. We recommend using max 640x360 and up to 30fps videos. HD video will work just fine but will be slower to process (and might not be working properly in the controller software on lower spect handheld device). Once the video has uploaded, the fixture will process the pixels (slower than realtime) and then will continue looping the video at normal speed.

The "Pull video" button is to be used to 'download' the video file from a Voyager if switching to a different controller device. To adjust the video on the Voyagers, go to the setup menu in the Voyager app and move the video as you would move any image.