

## Fresco™ Function Deep Dive

(Based on Firmware Version 111 or higher)

Network	Description	Notes
nLight®	Integrate up to 128 nLight devices	<ul style="list-style-type: none"> <li>Fresco communicates to the nLight devices on the 128 global channels</li> <li>Supports nPODMs, nPOD GFX, PowerPacks, dimming packs, occupancy sensors, daylight sensors that support global ADC, nIOs, and nLight Relay Panel</li> <li>Supports Tunable White on nLight with nTune Technology</li> <li>Fresco does not support bridges, gateways, nWi-Fi, Rubik Color Accent or Grayscale, and is not configurable with SensorView</li> <li>SensorView is utilized to update nLight device firmware and the Fresco nLight co-processor firmware</li> <li>Each nLight port supplies 40mA of power for nLight devices</li> <li>nLight devices are discovered automatically when connected to the Fresco</li> <li>Flash to find nLight devices (nLight fixtures and power/dimming packs)</li> <li>Fresco controllers cannot be connected together through the nLight port</li> </ul>
DMX Control — <i>When ordered with DMX option</i>	Built-in single DMX universe	<ul style="list-style-type: none"> <li>Control dynamic LED fixtures</li> <li>RDM (Remote Device Management) compatible fixtures allow remote identification and addressing</li> <li>Supported attributes are intensity, color, and color temperature using the Pathway Connectivity fixture library</li> <li>Max 32 DMX fixtures per station unless utilizing a DMX splitter (DXT product family)</li> <li>DMX/RDM is used to control and configure the Lighting Management Panel (LMP/LMP1)</li> </ul>
Fresco Control Network (FCN)	Connect additional Fresco stations and Fresco accessories via RS-485	<ul style="list-style-type: none"> <li>Max of 24 Fresco stations can be shared on a single RS-485 network</li> <li>Connect Fresco stations using SYA CABLEA4 (all conductors included in single jacket), or equivalent RS-485 approved cable plus a common wire</li> <li>Each Fresco station requires a dedicated power supply (PS10)</li> <li>FCN is NOT yet supported for use between the station and the Lighting Management Panel: use DMX to connect the Fresco touchscreen to the LMP</li> </ul>
Ethernet Network	Network connection for Fresco station communication and programming	<ul style="list-style-type: none"> <li>Ethernet can be used to link multiple Fresco touchscreen stations</li> <li>All system networking features are supported regardless of physical layer (RS-485 vs. Ethernet) used to connect stations</li> <li>Only one Fresco touchscreen per RS-485 network can be connected to Ethernet</li> <li>When connected to access point, enables WiFi connectivity to iPad App (Fresco Mobile)</li> <li>Connect with Fresco Studio for programming and firmware updates</li> <li>Date/time can be set at the station (does not support NTP)</li> </ul>
BACnet/IP	Integration with Building Management Systems (BMS)	<ul style="list-style-type: none"> <li>BMS systems can write and read BACnet points on a Fresco to trigger scenes and set levels for zones, channels, and groups</li> <li>Values from occupancy and daylight sensors can be read by BMS</li> </ul>

## Fresco™ Function Deep Dive

(Based on Firmware Version 111 or higher)

Network	Description	Notes
Bluetooth® Low Energy	Wireless control of the Fresco touchscreen	<ul style="list-style-type: none"> <li>Wireless control using Fresco mobile iPad app downloaded from Apple app Store</li> <li>iPad must be version A1400 or higher which supports Bluetooth Low Energy (model number located on the back of the iPad)</li> </ul>
Lighting Management Panel (LMP)	Modular lighting control panel	<ul style="list-style-type: none"> <li>Phase dimming (forward/reverse), 0-10V, Relay, and DALI module options</li> <li>3 sizes available with or without circuit breakers</li> <li>LMP1 accommodates a single module (LM4A/D or LM2B)</li> <li>All modules are DMX controlled and RDM responders</li> </ul>
Zones	65,000 zones per system	<ul style="list-style-type: none"> <li>All outputs must be assigned to a single zone</li> <li>Zones are global in networked Fresco system</li> <li>All outputs in a zone are always controlled together, even if they are connected to different stations</li> <li>All inputs assigned to control a zone will work in conjunction with each other</li> <li>Zones do not have to be controlled from the station UI: other inputs such as nPODs, sensors, and schedule events can control zones</li> </ul>
Groups	Control multiple zones together	<ul style="list-style-type: none"> <li>Use groups to control multiple zones together</li> <li>Zones can be members of multiple groups</li> <li>Groups are global in networked Fresco system</li> <li>All inputs assigned to control a group will work in conjunction with each other</li> <li>Groups do not have to be controlled from the station UI: other inputs such as nPODs, sensors, and schedule events can control zones</li> </ul>
Channels	36 channels per room	<ul style="list-style-type: none"> <li>Channels are slider controls on the touchscreen UI for lighting and/or shades</li> <li>There is a max combination of 36 lighting/shade channels per Fresco touchscreen</li> <li>Channels can control zones or groups</li> <li>The channel control interface is represented by a choice of slider, on/off toggle, raise/lower, or a shade position elevation</li> <li>An icon below the channel control provides access to control non-intensity attributes: color, color temperature, etc.</li> </ul>
Scenes	36 scenes per room	<ul style="list-style-type: none"> <li>Scenes can control lighting, shades, or both</li> <li>All controllable attributes (e.g. color temperature) can be saved as part of a scene</li> <li>Channels can be included/excluded from a scene</li> <li>More than one scene can be active at the same time if they control different channels</li> <li>Fade times can be set at 1 second to 24 hours</li> <li>Scene can only be setup while in the Administrator or Configure user accounts</li> </ul>
Rooms	Combinable collection of channels and scenes	<ul style="list-style-type: none"> <li>Each system can contain up to 24 rooms</li> <li>Collection of channels and scenes</li> <li>Rooms may be controlled by touchscreen stations, button stations, or both</li> <li>At least one Fresco touchscreen is required per system</li> </ul>

## Fresco™ Function Deep Dive

(Based on Firmware Version 111 or higher)

Network	Description	Notes
Timeclock	Internal astronomical timeclock	<ul style="list-style-type: none"> <li>Updating date/time on one station can automatically update other networked stations</li> <li>Location and daylight savings adjustment are configurable</li> </ul>
Scheduling	Create and edit schedules	<ul style="list-style-type: none"> <li>Up to 100 schedules can be created (daily, weekly, holiday)</li> <li>Events can set zone, group, channel, scene, room link, or enable/disable inputs and input timeouts</li> <li>Each schedule can contain hundreds of events</li> <li>Schedules can be created/edited from the touchscreen or using Fresco Studio</li> </ul>
Daylight Harvesting	Control lighting levels automatically	<ul style="list-style-type: none"> <li>Daylight harvesting is supported using an nLight photocell</li> <li>It can control nLight devices or DMX zones (including LMP/LMP1)</li> <li>Dual zone offset is supported</li> <li>Shades are not controllable with daylighting</li> </ul>
Secured Access	Limit access to system functions	<ul style="list-style-type: none"> <li>3 levels of user access can be configured</li> <li><b>Administrator</b> allows complete system control and configuration as well as setting up user accounts</li> <li><b>Configure</b> allows full system access for control and configuration except user account setup</li> <li><b>Operate</b> requires login/password each time the station is operated</li> <li>Default username is "acuity" and password "1234"</li> </ul>
Partition Control (room link)	Allows standalone rooms to link together	<ul style="list-style-type: none"> <li>Link up to 24 rooms in any combinations</li> <li>The room link configuration is setup using touchscreen or Fresco Studio</li> <li>Room link can be activated using the touchscreen interface, schedule, nPOD, infrared partition sensor, or Fresco AVI</li> </ul>
Shade Control	Control motorized shades	<ul style="list-style-type: none"> <li>Control supported RS-232 controlled shades</li> <li>Requires Fresco AVI for each shade controller</li> <li>Lutron® QS-based shades are supported using the Lutron QSE-CI-NWK-E interface</li> <li>Mechoshade® IQ® motors are supported using the Mecho MNI interface</li> <li>Supports Somfy™ shade integration (requires Somfy Connect™ UAI)</li> </ul>



## Fresco™ Function Deep Dive

(Based on Firmware Version 111 or higher)

Network	Description	Notes
3rd Party Integration	Allow 3rd party systems to control Fresco	<ul style="list-style-type: none"> <li>• Requires Fresco AVI for RS-232 control</li> <li>• Control zones, groups, channels, scenes, and room link</li> <li>• Retrieve status for zones, groups, channels, scenes, and room link</li> <li>• One Fresco AVI is required for each Fresco RS-485 network</li> <li>• One Fresco AVI is recommended for each room</li> <li>• Interface commands for integration are available on the website</li> </ul>
Fresco Studio	PC based configuration software	<ul style="list-style-type: none"> <li>• Allows configuration of all Fresco system settings and programming</li> <li>• Provides firmware update capability</li> <li>• Can be connected single station via USB</li> <li>• Can connect ty Fresco system via Ethernet</li> </ul>

*The Bluetooth® word mark and logos are registered trademarks owned by the Bluetooth SIG, Inc. and any use of such marks by Acuity Brands is under license. Other trademarks and trade names are those of their respective owners.*