# Fresco™ Function Deep Dive

(Based on Firmware Version 111 or higher)

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<tr>
<th>Network</th>
<th>Description</th>
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| **nLight®**                  | Integrate up to 128 nLight devices               | • Fresco communicates to the nLight devices on the 128 global channels  
• Supports nPODMs, nPOD GFX, PowerPacks, dimming packs, occupancy sensors, daylight sensors that support global ADC, nIos, and nLight Relay Panel  
• Supports Tunable White on nLight with nTune Technology  
• Fresco does not support bridges, gateways, nWi-Fi, Rubik Color Accent or Grayscale, and is not configurable with SensorView  
• SensorView is utilized to update nLight device firmware and the Fresco nLight co-processor firmware  
• Each nLight port supplies 40mA of power for nLight devices  
• nLight devices are discovered automatically when connected to the Fresco  
• Flash to find nLight devices (nLight fixtures and power/dimming packs)  
• Fresco controllers cannot be connected together through the nLight port |
| **DMX Control**              | Built-in single DMX universe                     | • Control dynamic LED fixtures  
• RDM (Remote Device Management) compatible fixtures allow remote identification and addressing  
• Supported attributes are intensity, color, and color temperature using the Pathway Connectivity fixture library  
• Max 32 DMX fixtures per station unless utilizing a DMX splitter (DXT product family)  
• DMX/RDM is used to control and configure the Lighting Management Panel (LMP/LMP1) |
| **Fresco Control Network**   | Connect additional Fresco stations and accessories via RS-485 | • Max of 24 Fresco stations can be shared on a single RS-485 network  
• Connect Fresco stations using SYA CABLEA4 (all conductors included in single jacket), or equivalent RS-485 approved cable plus a common wire  
• Each Fresco station requires a dedicated power supply (PS10)  
• 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 |
| **Ethernet Network**         | Network connection for Fresco station communication and programming | • Ethernet can be used to link multiple Fresco touchscreen stations  
• All system networking features are supported regardless of physical layer (RS-485 vs. Ethernet) used to connect stations  
• Only one Fresco touchscreen per RS-485 network can be connected to Ethernet  
• When connected to access point, enables WiFi connectivity to iPad App (Fresco Mobile)  
• Connect with Fresco Studio for programming and firmware updates  
• Date/time can be set at the station (does not support NTP) |
| **BACnet/IP**                | Integration with Building Management Systems (BMS) | • BMS systems can write and read BACnet points on a Fresco to trigger scenes and set levels for zones, channels, and groups  
• Values from occupancy and daylight sensors can be read by BMS |
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| Bluetooth® Low Energy | Wireless control of the Fresco touchscreen | - Wireless control using Fresco mobile iPad app downloaded from Apple app Store
- iPad must be version A1400 or higher which supports Bluetooth Low Energy (model number located on the back of the iPad) |
| Lighting Management Panel (LMP) | Modular lighting control panel | - Phase dimming (forward/reverse), 0-10V, Relay, and DALI module options
- 3 sizes available with or without circuit breakers
- LMP1 accommodates a single module (LM4A/D or LM2B)
- All modules are DMX controlled and RDM responders |
| Zones | 65,000 zones per system | - All outputs must be assigned to a single zone
- Zones are global in networked Fresco system
- All outputs in a zone are always controlled together, even if they are connected to different stations
- All inputs assigned to control a zone will work in conjunction with each other
- Zones do not have to be controlled from the station UI: other inputs such as nPODs, sensors, and schedule events can control zones |
| Groups | Control multiple zones together | - Use groups to control multiple zones together
- Zones can be members of multiple groups
- Groups are global in networked Fresco system
- All inputs assigned to control a group will work in conjunction with each other
- Groups do not have to be controlled from the station UI: other inputs such as nPODs, sensors, and schedule events can control zones |
| Channels | 36 channels per room | - Channels are slider controls on the touchscreen UI for lighting and/or shades
- There is a max combination of 36 lighting/shade channels per Fresco touchscreen
- Channels can control zones or groups
- The channel control interface is represented by a choice of slider, on/off toggle, raise/lower, or a shade position elevation
- An icon below the channel control provides access to control non-intensity attributes: color, color temperature, etc. |
| Scenes | 36 scenes per room | - Scenes can control lighting, shades, or both
- All controllable attributes (e.g. color temperature) can be saved as part of a scene
- Channels can be included/excluded from a scene
- More than one scene can be active at the same time if they control different channels
- Fade times can be set at 1 second to 24 hours
- Scene can only be setup while in the Administrator or Configure user accounts |
| Rooms | Combinable collection of channels and scenes | - Each system can contain up to 24 rooms
- Collection of channels and scenes
- Rooms may be controlled by touchscreen stations, button stations, or both
- At least one Fresco touchscreen is required per system |
### Timeclock
- Internal astronomical timeclock
- Updating date/time on one station can automatically update other networked stations
- Location and daylight savings adjustment are configurable

### Scheduling
- Create and edit schedules
- Up to 100 schedules can be created (daily, weekly, holiday)
- Events can set zone, group, channel, scene, room link, or enable/disable inputs and input timeouts
- Each schedule can contain hundreds of events
- Schedules can be created/edited from the touchscreen or using Fresco Studio

### Daylight Harvesting
- Control lighting levels automatically
- Daylight harvesting is supported using an nLight photocell
- It can control nLight devices or DMX zones (including LMP/LMP1)
- Dual zone offset is supported
- Shades are not controllable with daylighting

### Secured Access
- Limit access to system functions
- 3 levels of user access can be configured
- **Administrator** allows complete system control and configuration as well as setting up user accounts
- **Configure** allows full system access for control and configuration except user account setup
- **Operate** requires login/password each time the station is operated
- Default username is "acuity" and password "1234"

### Partition Control (room link)
- Allows standalone rooms to link together
- Link up to 24 rooms in any combinations
- The room link configuration is setup using touchscreen or Fresco Studio
- Room link can be activated using the touchscreen interface, schedule, nPOD, infrared partition sensor, or Fresco AVI

### Shade Control
- Control motorized shades
- Control supported RS-232 controlled shades
- Requires Fresco AVI for each shade controller
- Lutron® QS-based shades are supported using the Lutron QSE-CI-NWK-E interface
- Mechoshade® IQ® motors are supported using the Mecho MNI interface
- Supports Somfy™ shade integration (requires Somfy Connect™ UAI)
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<td>3rd Party Integration</td>
<td>Allow 3rd party systems to control Fresco</td>
<td>• Requires Fresco AVI for RS-232 control</td>
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<tr>
<td></td>
<td></td>
<td>• Control zones, groups, channels, scenes, and room link</td>
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<td></td>
<td></td>
<td>• Retrieve status for zones, groups, channels, scenes, and room link</td>
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<td></td>
<td></td>
<td>• One Fresco AVI is required for each Fresco RS-485 network</td>
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<td></td>
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<td>• One Fresco AVI is recommended for each room</td>
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<td>• Interface commands for integration are available on the website</td>
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<tr>
<td>Fresco Studio</td>
<td>PC based configuration software</td>
<td>• Allows configuration of all Fresco system settings and programming</td>
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<td></td>
<td>• Provides firmware update capability</td>
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<td></td>
<td></td>
<td>• Can be connected single station via USB</td>
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<td>• Can connect to Fresco system via Ethernet</td>
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