Offline Programming

CONTENTS

Offline programming involves three stages as described in the following diagram.

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┌──────────────┐      ┌──────────────┐      ┌──────────────┐
│   Create     │ ───► │ Verify offline│ ───► │   Sync All   │
│ offline plan │      │     plan     │      │              │
└──────────────┘      └──────────────┘      └──────────────┘
```
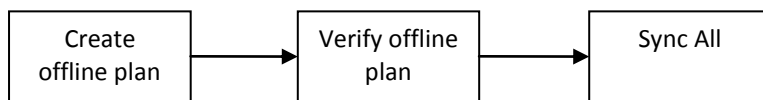
CREATING OFFLINE PLAN

The first stage of offline programming is creating your offline plan. An offline plan includes a full programming of the controllers and devices (ECG/ECD).

CREATING A NEW CONTROLLER

To create a new offline controller, click on 'Tools > Create OFFLINE Controller' from the main toolbar. User will be prompted to provide the basic settings for the new controller.


Once the basic settings have been entered, please click on 'Create New' button. If the settings provided are valid, user will get a notification at the bottom toolbar and the new controller is automatically created in the tree view.

NOTE: Controller Id is essential since this will be used later in the verification stage as the criterion to match an offline controller with the actual one.

CONFIGURING AN OFFLINE PLAN

User can configure an offline controller in the same way they configure an actual controller, including the configuration of inputs, outputs, holidays, etc.
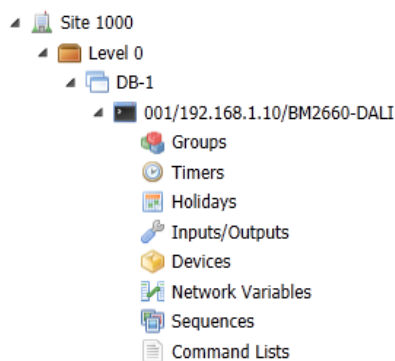
CREATING A NEW DEVICE (ECG/ECD)

To create an offline device, click on 'Create New' button from the device list of a controller.

User will be prompted to provide the basic settings of the new device.

The new device will be displayed in the device list with a yellow icon to indicate that this is an offline device. User can configure the offline devices in the same way they configure an actual device, including ballast settings configuration, grouping, and copy-paste (for ECD).

	Address	Type	Description	Location	Version
⚠	PA00	Fluorescent			0.0
⚠	PA01	Fluorescent			0.0
⚠	PA02	Fluorescent			0.0
⚠	PA03	Fluorescent			0.0
⚠	PA04	Fluorescent			0.0
⚠	PA10	Emergency			0.0

VERIFYING OFFLINE PLAN

Once the offline plan is ready, user can bring it to the actual site. Essentially the verification process is needed to confirm and match the offline plan with the actual network condition. Once the verification process is completed, user can initiate DALIBuildings to download all configurations to controllers and devices.

VERIFYING OFFLINE CONTROLLER(S)

To start the process of verifying controllers, click on 'Discover > All Controllers' from the main toolbar. While discovering controllers, DALIBuildings will try to match their Controller Id with the ones which are in the offline plan. Once the discovery process is completed, user will be prompted to confirm the offline plan.

By confirming, user acknowledges DALIBuildings to download the basic controller settings (IP Address, Location, etc) into the actual controller. Note that at this point, the controller configuration (inputs, outputs, holidays, etc) has not been downloaded.

### MANUAL VERIFICATION OF OFFLINE CONTROLLER(S)

There are some scenarios where DALIBuildings will be unable to match the offline plan with the actual controllers. For example:

- when the actual ControllerId is changed from the original plan or
- if the controller is brand new (thus having the default factory settings ControllerId)

Then user need to perform verification by manually selecting the offline controller. This manual verification process can be started after discovering the online controllers by clicking the 'Map OFFLINE Controllers' button.
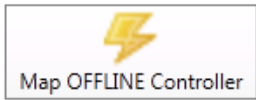
Then a prompt dialog with a list of eligible OFFLINE controller will be displayed.
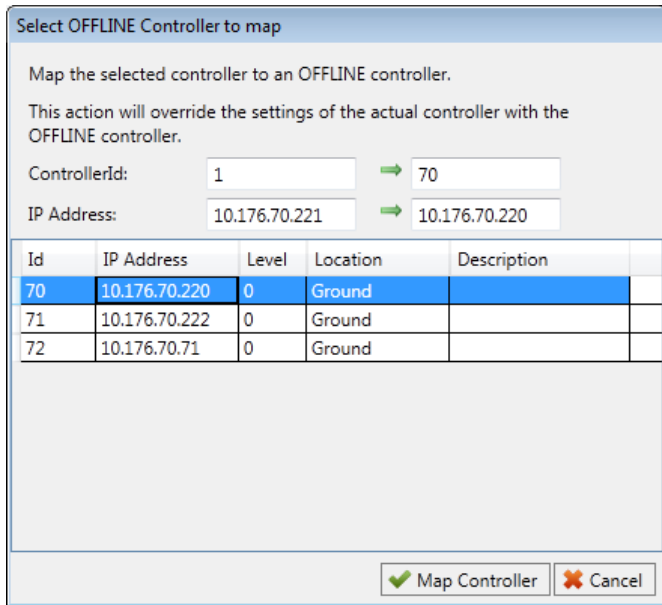

Select the appropriate OFFLINE controller and click on 'Map Controller'. By doing this, DALIBuildings will download the basic controller settings (IP Address, Location, etc) into the actual controller. In this example the controller with ControllerId 1 will have ControllerId 70 and IP Address set to 10.176.70.220.

VERIFYING OFFLINE DEVICE(S)

In the same way that offline controllers need to be verified, offline devices need to be verified as well. The verification process of offline devices will depend on the addressing state of the actual devices, whether they are unaddressed or already addressed.

Verifying new unaddressed devices

If the actual devices have not been addressed, user can start the usual addressing process by clicking on the 'Find New' button from the device list. While addressing the devices, DALIBuildings will try to match them as close as possible to the offline plan.
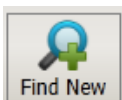
For example user provided an offline plan with the following configuration:

Line	Address	DeviceType
A	1	Fluorescent
A	2	Fluorescent
A	3	Fluorescent
A	4	Fluorescent
A	5	Fluorescent

A	30	Emergency

When addressing the new devices, DALIBuildings will recognise the offline plan and address them accordingly. So if the first unaddressed device it found is an Emergency, it will give address '30' to that device. Any device it found that does not fit the offline plan will be given the lowest possible address which is not used in the offline plan.

After the addressing process has been completed, DALIBuildings will list the new devices it has found. If the status is 'CONFIGURED', it means this device matches a device from the offline plan.

Address	Type	☑ Save to DB?	
1	Fluorescent	CONFIGURED	
2	Fluorescent	CONFIGURED	
3	Fluorescent	CONFIGURED	
4	Fluorescent	CONFIGURED	
5	Fluorescent	CONFIGURED	
30	Emergency	CONFIGURED	

Verifying addressed devices

If the actual devices have been addressed, user can verify the offline plan by clicking on the 'Verify' button from the device list. DALIBuildings will go through each of the offline devices and check if there is an actual device matching the same address and device type as specified.

An offline device has to match the same address and device type to be considered as 'verified'. DALIBuildings will display the actual findings in the device list (ie. if an offline device turns out to have a different device type).

⚠	PA00	Fluorescent			0.0	Created OFFLINE
	PA01	Fluorescent			0.0	OFF
	PA02	Fluorescent			0.0	OFF
	PA03	Fluorescent			0.0	OFF
	PA04	Fluorescent			0.0	OFF
⚠	PA05	Emergency			0.0	Type mismatch. Actual: Fluorescent.

SYNCING OFFLINE PLAN

The last step involved downloading the controllers' configuration (inputs, outputs, holidays, etc) and devices configuration to the actual controllers and devices.

Once the controllers and devices have been verified, user can click on 'Sync' or 'Sync All' from the tree view.
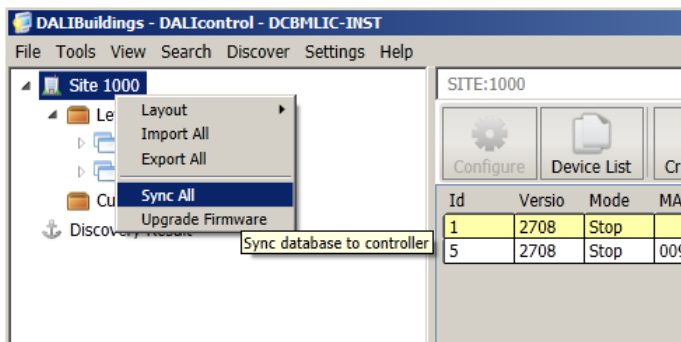
To download all configurations, please check all options.

Sync Site 1000

Please specify the settings to sync Site 1000.

Sync item
- ☑ Controller
- ☑ ECD (Control Device)
- ☑ ECG (Control Gear)

DALI line
- ☑ Line A
- ☑ Line B

[✔ Sync] [✖ Cancel]

User will be presented with the queue list of controllers to be synced.

[⬆ Move Up] [⬇ Move Down] [✖ Cancel All] [✖ Cancel Selected] [◆ Clear] [⚠ View Failed Device(s)]

Id	IP Address	Sync	Line	Progress	
5	10.176.70.225	All	LineA + LineB	[███]	Syncing Group 'GA01'
1	192.168.1.10	All	LineA + LineB		