

# Niagara Driver for Google Calendar

DR-CS-GCAL-J-N4

Price: \$500



## Description:

The Google Calendar Driver for the Niagara Framework allows you to integrate calendars from Google Calendar with your Niagara application's scheduling. You can use a calendar like an ordinary Boolean Schedule, or add a calendar's events to one or more of your application's existing Boolean, Enum, or Numeric Schedules. Try this driver before you buy with a free 2-hour trial available before purchasing.



## Features:

- ➔ *Connect to your Google Account using an OAuth 2.0 Client ID*
- ➔ *Bring any calendar from Google Calendar into a Niagara application as a Boolean Schedule*
- ➔ *Create Reference Schedules to map a calendar's events to existing Boolean, Enum, or Numeric Schedules*
- ➔ *Choose the default output of any Reference Schedule's events*
- ➔ *Available for Niagara 4.9 and above*
- ➔ *Use with any brand of the Niagara Framework*
- ➔ *Niagara global capacity licensing requires 1 device for each connected Google Account*

**Ready to get started? Contact Cochrane Tech Services today.**

# NIAGARA DRIVER FOR GOOGLE CALENDAR USER GUIDE

Document version 1.0.4

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## Google Account Setup

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### Pre-requisites

1. A Google Account is required

### Enable Google APIs

Google documentation states, “Any application that calls Google APIs needs to enable those APIs in the API Console.”

#### **To enable the appropriate APIs for the Niagara Driver for Google Calendar:**

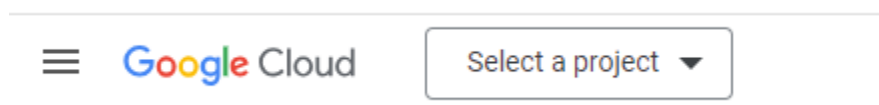
1. Navigate to the API library page: <https://console.developers.google.com/apis/library>
  - a. Log in to your account if needed.
2. Open the Library page in the API console
  - a. Link: <https://console.developers.google.com/apis/library>
3. Search for and select Google Calendar API
  - a. Select Enable.

### Create Authorization Credentials

GCalendar uses the required OAuth 2.0 authentication scheme to access Google APIs. Google documentation states, “Any application that uses OAuth 2.0 to access Google APIs must have authorization credentials that identify the application to Google's OAuth 2.0 server.”

The following steps explain how to create credentials for GCalendar. GCalendar can then use the credentials to access Google Calendar APIs that you have enabled.

1. Open the Credentials page in the API Console.
  - a. Link: <https://console.developers.google.com/apis/credentials>
2. Create a project by clicking the dropdown and selecting “New Project.”



3. Click the “**OAuth consent screen**” tab.
  - a. Select “External” for “User Type.”
  - b. Add a name to the “**Application name**” field. i.e. Niagara or GCalendar
    - i. This name will appear when you authenticate in Niagara with your Google account. It will also appear when Google notifies you when something or someone is trying to access your account.
  - c. Select an email for the “User support email” field.
  - d. Provide an email address to the “Developer contact information” field.
  - e. Click the “Save and Continue.”
  - f. The rest of the steps may be left as the default options.
4. Go back to the “Credentials” tab.
  - a. Click **Create Credentials > OAuth Client ID**.
  - b. Set the application type to “TVs and Limited Input devices.”
  - c. Provide a name.
  - d. This will create a Client Id and a Client Secret, which you will need when you authorize GCalendar with your Google account in Niagara.
5. Navigate back to the “**OAuth consent screen**” tab.
  - a. Under the “Publishing status” click the “Publish App” button.

## Niagara Setup

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### Driver Setup

1. Open the **gCalendar palette**
2. Add a **GCalendarNetwork** object from the palette to your Niagara station's **Drivers**
3. Double click on the **GCalendarNetwork** in your nav tree to open the **Device Manager view**.
4. Click **New** or drag and drop a **GCalendarDevice** object from the palette to add a device.
  - a. Each device is representative of one Google account.

### Authenticate with Google Account

1. Open the **Property Sheet** view of the newly created **Device**.
2. If the email domain is different than “@gmail.com”, modify the Email Domain property to reflect the correct email domain. i.e. @companyXYZ.com
  - a. This is used for parsing calendar data.
3. Copy and paste the **Client Id** and **Client Secret** you received from the “Create Authorization Credentials” step into the **Client Id** and **Client Secret** fields of the property sheet.
4. **Right-click on the device** in the nav tree. Go to **Actions** and choose “**Authorization**”
  - a. You'll get the following pop-up notification:



- b. Follow the prompts for directions
- c. The below image is what the blue triangle is referring to.



If you find that clicking the blue triangle does not bring you to the appropriate webpage, then simply copy the URL and paste it into your browser: <https://www.google.com/device>

- d. During these steps, if you receive a “Google hasn’t verified this app” warning, click **Advanced** and click the “Go to <your Niagara app name> (unsafe)” link to ignore:



#### Google hasn't verified this app

The app is requesting access to sensitive info in your Google Account. Until the developer [redacted] verifies this app with Google, you shouldn't use it.

If you're the developer, submit a verification request to remove this screen. [Learn more](#)

[Hide Advanced](#)

[BACK TO SAFETY](#)

Continue only if you understand the risks and trust the developer

[redacted]

[Go to Niagara Gmail integration \(unsafe\)](#)

5. The “Authentication State” property should go from Not Authenticated, to Waiting for Verification, to Authenticated.
  - a. **Not authenticated** means the driver has not been authorized for use with a Google account.
  - b. **Waiting for Verification** means you have submitted the user code and the driver is waiting for Google to verify the account authorization.
  - c. **Authenticated** means the driver has been authorized via a Google account and you can now discover Google calendars associated with the account.

## Discover & Add Schedules

1. Go into the **Schedule** folder of the device.
2. Click **Discover** to view available calendars/schedules associated with the account.
3. Highlight the desired schedule(s) and **add** it to the database.
  - a. You can rename the schedule object to your desire.
  - b. DO NOT change the calendar id. If you do, the schedule object will not find events associated the with calendar.

## Update Special Events

If you add events manually in Niagara they will NOT sync to the associated Google Calendar. All updates to the actual Google Calendar must be made via Google Calendar.

To update the Niagara schedule object’s special events when the Google Calendar source calendar has changed, do the following:

1. **Right-click** on the schedule object under the devices schedule folder.
2. Click **Actions** and choose **Update**.

## Add Reference Schedules

1. Go into the **Ref Schedule** folder of the device.
2. Click **Discover** to view available calendars associated with the account.
3. Highlight the desired schedule(s) and **Add** it to the database.
  - a. You can rename the schedule object to your desire.
  - b. **DO NOT** change the id of the schedule. If you do, the schedule will not find any events associated with the schedule.
4. Go into the **Property Sheet** of the recently added schedule object.
  - a. In the **Schedule Ord List** property click the **green plus (+) button** to add the schedules that you want to reference this schedule object.
  - b. Choose **Component Chooser** to find the schedule object(s) in your station.
  - c. To **remove** schedules from this property, highlight the schedule and click the **red minus (-) button**.
5. Right click the Reference Schedule, go to **Actions**, and choose **Update**. This will update schedules with the special events of the Reference Schedule.
6. Occupied Value is used for the Enum Schedules and Numeric Schedules, but ignored for Boolean Schedules.
  - a. Enum Schedules must have facets setup to use the occupied value correctly.
  - b. Numeric Schedules use the occupied value to set the output value.