

Hands-on Lab with John Deere Operation Center



John Deere Intelligent Solutions Group

High Level Overview



<https://www.deere.com/en/technology-products/precision-ag-technology/>

Agenda

<https://developer.deere.com/#/documentation>

- **Pulling Data**
 - Field Operation API
- **Contributing Data**
 - Fields / Boundaries
 - Map Layers
 - Notifications
 - Variety

Hands On Demo Setup

1. Download and install Postman
 - <https://www.getpostman.com/downloads/>
2. Get Demo Postman collection and environment
 - Clone → git clone <https://github.com/JohnDeere/DevelopWithDeere2020-GOTOChicago.git>
 - Download → <https://github.com/JohnDeere/DevelopWithDeere2020-GOTOChicago/archive/master.zip>
3. Import Postman Collection
4. Login to <https://myjohndeere.deere.com>

Postman Setup

Go to <https://developer.deere.com/>

The screenshot shows the John Deere developer website. At the top, there is a navigation bar with the John Deere logo, a search bar, and a 'LOG IN' button. Below the navigation bar, there is a sidebar on the left containing links such as 'Getting Started Instructions', 'API Overviews', 'Tutorial Videos', 'Developer Guides' (which is expanded to show 'What's New in 2020', 'OAuth 1 (Deprecated)', 'OAuth 2', 'Required Customer Action (RCA)', 'Operations Center Sharing', 'Postman (OAuth 1)', and 'Postman (OAuth 2)'). The main content area has a title 'Using Postman to call the MyJohnDeere API (OAuth 2)'. It describes Postman as a free desktop app for testing APIs and provides instructions for setting it up. A screenshot of the Postman application interface shows the 'Settings' button highlighted with a yellow box. The footer of the page contains the copyright notice '© 2020, Deere & Co. All rights reserved.'

Using Postman to call the MyJohnDeere API (OAuth 2)

Postman is a free desktop app, which you can use to test your John Deere API calls. We prefer using the Postman client in lieu of the test client for calling APIs while in Sandbox to see and follow REST API responses. The below instructions will provide the initial setup steps to get Postman configured, and obtain an OAuth 2 token.

If you would like information about using Postman with an OAuth 1 token, please reference this [document](#).

1. Download and install Postman on your computer (link above).
2. Open Postman and to turn off the auto redirects, click on Settings at the top, as shown:

The screenshot shows the Postman application window. The top menu bar includes 'File', 'Edit', 'Collection', 'Item', 'Tools', 'Help', and 'Upgrade'. Below the menu bar, there is a toolbar with icons for creating collections, items, and releases. The main interface shows a dark-themed workspace with a 'My Workspace' dropdown and an 'Invite' button. On the right side, there is a sidebar with links for 'Settings' (which is highlighted with a yellow box), 'Release Notes', 'Documentation', and 'Security'. The bottom of the window shows a status bar with 'Version' and 'Build' information.

OAuth 2 Info

Go to <https://developer.deere.com/>

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Search LOG IN

Getting Started Instructions

API Overviews

Tutorial Videos

Developer Guides

What's New in 2020

OAuth 1 (Deprecated)

OAuth 2

Required Customer Action (RCA)

Operations Center Sharing

Postman (OAuth 1)

Authentication (OAuth 2)

The MyJohnDeere API endpoints use three-legged OAuth for authentication. OAuth is an open protocol, and we currently use [OAuth 2](#).

You can also see our [sample code](#) or our Develop With Deere [notebooks](#) for examples of navigating the OAuth 2 authentication flow.

1. Create an Application on Developer.Deere.com

When you [create an application](#), your application will be assigned a Client Key and Client Secret. You will sign all API requests with these credentials.

2. Add a callback URL (Redirect URI) to your application

On the **OAuth Profile** page of your application on Developer.Deere.com (found in the application **Details** section) you will need to define one or any number of Callback URLs (**Redirect URI**). Click the **Add** button to add more than one, and be sure to click **Save** at the bottom of the screen once you have completed.

Additional Resources

- Operation Center Sharing
- Shape Files
- For Advance Users - Go to <https://github.com/JohnDeere>
 - Python Notebook
 - Python3 Client
 - Java Client
 - PHP Client
 - C# Client – OAuth1.0a
 - Ruby Client – OAuth1.0a
 - NodeJS Client – OAuth1.0a

Q & A / Feedback





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