**QuickBooks Integration Guide**

**Overview**

This document outlines the process of integrating with QuickBooks, specifically how authorization and data retrieval work through the console application.

**Authorization Process**

To integrate with QuickBooks, an **authorization code** must be manually retrieved from QuickBooks' Intuit Developer portal. This code is required to obtain the necessary **access token** and **refresh token** for API access.

**Steps to Obtain the Authorization Code**

1. **Log in to QuickBooks Developer Portal**
   * Go to the QuickBooks OAuth Authorization URL (provided by Intuit).
   * Log in using your QuickBooks account.
2. **Select the Company**
   * Choose the **QuickBooks Company ID** you want to integrate with.
3. **Authorize the App**
   * Grant permission to the application to access QuickBooks data.
4. **Copy the Authorization Code**
   * After successful authorization, QuickBooks will redirect you to the provided redirect URI with an **authorization code** in the URL.
   * Extract and **copy** the authorization code.

**Integration with the Console Application**

**Step 1: Configure AppSettings**

Before running the console application, update the configuration in appsettings.json:

* **Company ID** → Enter the Company ID obtained from QuickBooks.
* **Authorization Code** → Paste the retrieved authorization code under the key "code".

**Step 2: Run the Console Application**

* Execute the console application.
* The application will:
  1. **Exchange the authorization code** for an **access token** and a **refresh token**.
  2. **Store the tokens** securely for API calls.
  3. **Retrieve inventory data** from QuickBooks APIs every day at **2 AM**.

**Token Expiry & Renewal**

* **Access Token Expiry**: **1 hour**
* **Refresh Token Expiry**: **101 days**

The application will continue running **daily at 2 AM** to fetch inventory data until the refresh token expires.

**What Happens After 101 Days?**

* If no errors occur, the **refresh token will expire after 101 days**.
* The console application will **terminate** and display a message:

*"Refresh Token expired. Please close this window and update the authorization code in appsettings, then restart the application."*

**Client Action Required**

To continue using the integration:

1. **Manually retrieve a new authorization code** from QuickBooks.
2. **Update the authorization code** in appsettings.json.
3. **Restart the console application** to refresh the tokens.