Getting Started with the Total Expert API

Table of Contents

Testing and Review Process	1
Moving to Production	2
Rate Limiting	2
Authentication	2
Token Expiration	2
Authorization Code Authentication	2
Client Credentials	2
Frequently Used API Endpoints	3
Contacts	3
Contact Ownership	3
Contact Deduplication and Minimum Fields	3
Contact Groups	3
Custom Fields	4
Surveys	4
Advantages of using the surveys endpoint	4
Insights	4
Advantages of Insights	4
Insight Structure	5

Welcome to the Total Expert Developer Portal; we're excited to have you as an integration partner!

This document outlines the integration process: testing environments, validation, and API authentication. You will also find information and reference material about the API's most frequently used endpoints.

Testing and Review Process

Once you have access to the Developer Portal, Total Expert will supply test organizations to the integration partner so all aspects of the integration can be validated in a controlled environment. This environment is on Total Expert's production environment but is stripped down, and its main purpose is to allow our partners to test and validate their API calls before moving to a customer's instance of Total Expert.

Moving to Production

After we have validated your API calls and data access within a test organization, and after reciving authorization from a mutual customer to grant you access, we will issue you credentials to interact with their instance of Total Expert. In this environment, the integration should be tested with one of our mutual customers to ensure that the integration goals have been met.

After testing with a mutual customer, we will work together to make sure we have all of the documentation, marketing materials, and best practices captured for your new integration, ensuring that your integration will be successful with more customers.

Rate Limiting

Our production environment has a rate limit of 1000 requests per minute, and two token requests per hour. Our rate limiting is based on source IP address and not based on client. If the rate limit is exceeded, you will receive an HTTP 429 response.

Authentication

The Total Expert API uses OAuth 2.0 to authorize and authenticate requests to the API. Fetch a token with a POST request to the token endpoint:

```
https://public.totalexpert.net/v1/token
```

You can obtain a token by supplying client credentials or an authorization code. Once you have the token for your client, you will use it in the Authorization header of subsequent requests.

Token Expiration

Tokens are valid for **1 hour**. Total Expert recommends using a token until you receive an "invalid token" error response, which indicates the token has expired.

Total Expert also supports a refresh token which is valid for up to two weeks. More details on refresh tokens can be found in the <u>Total Expert API documentation</u>.

Authorization Code Authentication

While Total Expert supports both Client Credential and Authorization Code access to our API, we recommend using a typical user-level OAuth flow to retrieve an Authorization Code. With this set up, you need just one set of API credentials to manage integrations across multiple mutual customers of Total Expert.

Details on this flow can be found in this document and more information can be found in our API_documentation.

Client Credentials

When authenticating with Client Credentials, you will receive a set of credentials for each Total Expert customer (organization) looking to integrate with your platform. All of these credential sets are available to you through the Developer Portal.

You'll notice when looking at our documentation that many of the objects can be interacted with "As Admin" or "As User". When using client credentials, you'll be making requests "As Admin".

More details on this process can be found in our <u>API documentation</u>.

Frequently Used API Endpoints

The three most commonly used API endpoints by our integration partners are Contacts, Surveys, and Insights. Below you will find a high-level description of each of them, along with details on when to use them.

Contacts

Contacts in the Total Expert platform represent individuals conducting business with Total Expert customers; the simplest example of a contact is someone applying for a mortgage through a Total Expert customer organization.

Each contact has a set of standard fields that can be set through the API along with some additional details; see the <u>Contacts section</u> of the API documentation for a complete list of supported fields. If your integration requires fields that are not supported within the contact object, the integration can also use the Custom Fields or Survey endpoints to associate those fields with a contact. More information about these endpoints, their applied functions, and best practices of usage can be found in later sections of this document.

Contact Ownership

Each contact within Total Expert is owned by a specific user. If interacting with the API as a user, no ownership specification is required when interacting with the API (the system auto-assigns the user as owner). If interacting with the API as an administrator, an owner will need to be specified.

Owners can be identified by using their Total Expert user ID, their email address, their Total Expert username, or an external ID associated with the user. More details on the call and formatting can be found within the <u>Total Expert</u> <u>API documentation</u>.

Contact Deduplication and Minimum Fields

New Total Expert contacts (submitted either via the API or the platform itself) undergo deduplication to reduce the number of duplicate contacts added to the system. Deduplication is done on a per-user basis and not organization wide.

Details on our deduplication process and the minimum number of fields required for creating a contact can be found in our deduplication documentation in the Developer Portal.

Contact Groups

Contact groups are a way to organize contacts within Total Expert. Our customers often create groups like "Prospects", "Active Customers", and "Agents" to help them market appropriately to each group.

Each customer can have their own set of groups as well as what we call "Required Groups" which you must include when creating contacts via the API. It's a good idea to talk with customers to make sure you have accounted for any variations they might prefer when using groups within Total Expert.

For full documentation on Contact Groups, please visit our API documentation.

Custom Fields

Total Expert has the ability to create custom fields for customers to use in their instances today. If your integration requires the use of Custom Fields, we will collaborate on what those custom fields should be and include the creation of them as part of the onboarding process of mutual customers. This allows the integration to be scalable and repeatable.

While scoping the integration, work closely with your Technical Integrations Manager regarding best practices whether a custom field makes the most sense for your integration, and aligning on what the syntax of that custom field should be. Typically, the custom field would include your organization's name as part of the syntax.

Custom Fields are avialable for Contact and Loan objects with Total Expert. These fields may be configured to be viewed or edited by the Total Expert user, as well as given a different display name. For full documentation on Custom Fields, please visit our <u>API documentation</u>.

Surveys

Surveys are a flexible data structure that allow integrations to store additional details around a contact that aren't supported by the standard contact field set. For example, if a contact is interested in a refinance opportunity and supplied information about their property location, value, and existing mortgage, you can store this information in a survey response and associate it with that contact.

Advantages of using the surveys endpoint

There are a few advantages to using the surveys endpoint:

- Multiple survey structures can be created for an organization for different purposes. You can have one for refinance, auto loan interest, or any other data you wish to collect from your contacts.
- A contact can submit multiple surveys and new submissions will show up in the survey response area in the platform, rather than overwriting old data. This makes it easy to keep track of different interactions with the contact.
- Contact survey responses can be used to trigger marketing automation and can also be used as different conditions within the journey.

Full details on creating surveys and survey responses can be found here in our API documentation.

Insights

With the Total Expert Insights API, you can provide insights from events occurring within your platform which can be leveraged to drive marketing automation in Total Expert. For example, a user downloading your mobile app could trigger an insight via our API called "Mobile App Downloaded" which would then trigger marketing automation that sends an email about all the features within the mobile app.

Advantages of Insights

- Insights can be used to trigger a marketing automation flow within Total Expert.
- Insights can be used to create a custom Focused View of contacts within Total Expert.

Insight Structure

To begin using insights through the API, you will need to coordinate with our team to create new insight types specific to your integration. Once these insight types are created, they can be used to create insights associated with any contact within TE (that you have access to).

Our standard naming convention for insight types is to prefix them with the integration partner's name. For example: "Lending Software: Loan application submitted".

When submitting an insight for a contact, you are able to provide a description within the insight that will show up within the Total Expert platform. That area is freeform text and will not be formatted within Total Expert, but is available to provide additional context around an insight.

For full documentation on Insights, please visit our API Documentation.