Patent Information Retrieval APIs Handbook

Ver. 1.4

Information Technology and Patent Information

Management Office, General Coordination Division,

Policy Planning and Coordination Department,

Japan Patent Office (JPO)

Revision History

Ver.1.4	Modified the descriptions of the following points changed in this edition. ● Modified the associated descriptions along with the establishment of Patent Information Retrieval APIs Support Center ● Remove FAQs (incorporated into FAQ of API Information Website
Ver.1.3	Add explanation of the following API added in this edition. ● Design and trademark APIs ● One Portal Dossier,API ● Patent J-PlatPat Fixed Address API ● Patent PCT National Phase Application Number API
Ver.1.2	Add explanation of the following point added in this edition ● Access limit about users that provide patent information

Index

Article 1. Introduction

The Patent Information Retrieval APIs allow you to mechanically retrieve part of the JPO's patent information provided by the J-PlatPat, patent information standardized data and IP5 offices' (EPO, JPO, KIPO, CNIPA and USPTO) patent dossier information provided by the One Portal Dossier (OPD). Using our APIs, users can mechanically retrieve status information of patent, design, trademark applications and status information of IP5 offices' applications provided by the OPD, and refer to and/or enter data through them when preparing documents to be submitted to the Japan Patent Office (JPO).

We hope that the use of the Patent Information Retrieval APIs will reduce workload in handling patent information as well as increase opportunities to use patent information.

Article 2. Information Provided by our APIs

(1) Types of APIs

The Scope of information provided by the Patent Information Retrieval APIs is any information related to patents, designs, trademarks and OPD but not to utility models.

There are fourteen types of patent APIs available: one of them is to retrieve status information in JSON format, and another is to retrieve procedural documents in XML format(Patent) or HTM format(design and trademark), There are eleven types of design and trademark APIs, and six types of OPD APIs (OPD-API). In order to ensure stable operation of our APIs services, the APIs are configured with access limits. Outlines of available APIs and their daily access limits are shown below in Tables 1 through 4. Please refer to the specifications of the Patent Information Retrieval APIs and of the XML Tag Structures for more details.

Table 1: Patent API Types and Daily Access Limits (no./day)

	API types	Outlines	Access limits
1	Patent Status Information	Retrieve the list of status information based on application nos.	400
2	Simplified Patent Status Information	Simplified version of 1 (without priority information and classification information)	400
3	Divisional Patent Application Information	Retrieve divisional application information based on application nos.	30
4	Patent Priority Basic Application Information	Retrieve priority basic application information based on application nos.	30
5	Patent Applicants' Names/Corporate Names	Retrieve applicants' names/corporate names based on applicants' codes	200
6	Patent Applicants' Codes	Retrieve applicant codes based on applicants' names/corporate names	200
7	Patent Reference to Nos.	Retrieve cross-reference list of application, publication, and registration nos.	50

8	Patent Application Documents	Retrieve physical files of patent applications based on application nos.	100
9	Mailed Patent Documents	Retrieve physical files of patent applications based on application nos.	100
10	Notices of Reasons for Refusal (Patent)	Retrieve notices of reasons for refusal based on application nos.	100
11	Information on Cited Documents (Patent)	Retrieve information on documents citing reasons for refusal based on application nos.	50
12	Registered Patent Information	Retrieve registered information based on application nos.	200
13	Patent J-PlatPat Fixed Address	Retrieve J-PlatPat Fixed address	200
14	Patent PCT National Phase Application Number	Retrieve national phase application number from international application number or international publication number	200

Table 2: Design API Types and Daily Limits (no./day)

	API types	Outlines	Access Limits
1	Design Status Information	Retrieve the list of status information based on application nos.	400
2	Simplified Design Status Information	Simplified version of 1 (without priority information and original application information)	400
3	Design Priority Basic Information	Retrieve the priority basic information based on application nos.	30
4	Design Applicants' names/Corporate names	Retrieve applicants' names/corporate names based on applicants' codes	200
5	Design Applicants' Codes	Retrieve applicant codes based on applicants' names/corporate names	200
6	Design Reference to Nos.	Retrieve cross-reference list of application, registration, and international registration nos.	50
7	Design Application Documents	Retrieve physical files of applications based on application nos.	100
8	Mailed Design Documents	Retrieve physical files of applications based on application nos.	100
9	Notices of Reasons for Refusal (Design)	Retrieve information on documents citing reasons for refusal based on application nos.	100
10	Registered Design Information	Retrieve registered information based on application nos.	200
11	Design J-PlatPat Fixed Address	Retrieve J-PlatPat Fixed address	200

Table 3: Trademark API Types and Daily Limits (no./day)

	API types	Outlines	Access Limits

1	Trademark Status Information	Retrieve the list of status information based on application nos.	400
2	Simplified Trademark Status Information	Simplified version of 1 (without priority information and original application information)	400
3	Trademark Priority Basic Information	Retrieve the priority basic information based on application nos.	30
4	Trademark Applicants' names/Corporate names	Retrieve applicants' names/corporate names based on applicants' codes	200
5	Trademark Applicants' codes	Retrieve applicant codes based on applicants' names/corporate names	200
6	Trademark Reference Nos.	Retrieve cross-reference list of application, and registration nos.	50
7	Trademark Application Documents	Retrieve physical files of applications based on application nos.	100
8	Mailed Trademark Documents	Retrieve physical files of applications based on application nos.	100
9	Notices of Reasons for Refusal (Trademark)	Retrieve information on documents citing reasons for refusal based on application nos.	100
10	Registered Trademark Information	Retrieve registered information based on application nos.	200
11	Trademark J-PlatPat Fixed Address	Retrieve J-PlatPat Fixed address	200

Table 4: OPD-API Types and Daily Limits (no./day)

	API types	Outlines	Access Limits
1	OPD Family Information	Retrieve patent family information based on IP5 offices' application, publication or registration nos. （※1）	100
2	OPD Family List Information	Retrieve patent family information based on IP5 offices' application, publication or registration nos. （※2）	300
3	OPD Document List	Retrieve document list based on IP5 offices' application nos.	300
4	OPD Citation and Classification	Retrieve citation and classification list based on IP5 offices' application nos.	100
5	OPD Document Contents	Retrieve document contents based on IP5 offices' application nos.	100
6	OPD JP Document Contents	Retrieve JP document contents based on JPO's application nos.	100

（※1) filing date, application nos, publication nos and registration nos
（※2) filing date, application nos, publication nos, registration nos, publication date and registration date

API types, file formats as well as access limits, however, may be altered in the future.

(2) The Scope of our Accumulated Information

The Patent Information Retrieval APIs provide you with the following scope of information:

➢ Information related to patent applications filed from July 2003 when JPO started to accept electronic filings of international standards (XML format).

➢ Information related to design and trademark applications filed from January 2001 when JPO extended the scope of electronic filings (the actual documents that have been received or created after January 2019 in accordance with the scope of search possible by J-PlatPat).

*Even if you can retrieve some information related to applications filed before the above-mentioned duration through some of the APIs, please note that such information may be incomplete.

The scope of the information provided by IP5 offices except for JPO is decided by each office's operation.

(3) Updates of our Accumulated Information

Our accumulated information that our APIs refer to is updated every day. A certain procedure at JPO on the day will be reflected to our accumulated data on the next day in principle. For example, if a notice of reasons for refusal is issued today, it will be so recorded in our accumulated data tomorrow, and so the APIs will be able to retrieve the updated information from tomorrow.

The frequency of updates of the information provided by IP5 offices except for JPO is decided by each office's operation.

Article 3. Terms of Use

(1) Available Time

Patent Information Retrieval APIs are available 24 hours a day every day in principle.

However, you may not be able to use them temporarily due to our server maintenance and the like. JPO will notify the users about server maintenances and other unavailable occasions beforehand by email or on the API Information Retrieval website.

(2) User Registration

Those who wish to use the Patent Information Retrieval APIs are required to register with us after giving consent to the Terms of Use. We accept registrations of corporate and individual users who submit us their registration forms 1 through 4 (Exhibit 1 through 4), respectively. We issue IDs and passwords to the users who have completed registration procedures. As stipulated in Item 1 of Article 3, users, both individual and corporate, are not allowed to hold more than one ID; and users are not allowed to handover their

IDs to any third parties. Please note that there is a possibility that new registrations would be closed when API users are exceeded predetermined number. Especially, regarding OPD-API, we will inform you of the recruitment status on the JPO website

（https://www.jpo.go.jp/e/system/laws/koho/internet/api-patent_info.html）．

Corporate bodies (as business corporations and patent attorney offices) are the assumed main users of our APIs, and therefore the daily access limit of each API is configured so as to meet their expected demand. On the other hand, depending on the scale of business, some large corporate users may find the daily access limits less than enough. Corporate users wishing to use our APIs more than their access limits with rational reasons may request increased daily access limits up to the ceiling, or the double of their regular daily access limits.

However, we may be obliged to re-adjust such increased access limits in case of problems caused on API operations due to excessive access.

Corporate users that provide patent information (hereinafter referred to as "Information Provider(s)") may be allowed to increase their access to our APIs to retrieve physical files (8-10 of Table 1, and 7-9 of Table 2 and 3) to five-times more of the regular access limits if all of the conditions, A) through C), are met. Information Providers may consult the person in charge at JPO (hereinafater referred to as the "person in charge of Patent Information Retrieval APIs" together with the person in charge of Patent Information Retrieval APIs Support Center) about their access limits during registration procedures：

A) To offer information provision services using their own database using JPO patent information bulk data download services;

B) to add patent information retrieval API functions to their own information provision services as mentioned above and to avoid access concentration to patent information retrieval API by a cache function, and

C) To always comply with the Article 4 (1) of the Terms of Use (Provision of Usage Information).

Please note that easing access limits of OPD-API (Table 4) is not accepted.

Corporate users may allow one or more of their staff to operate our APIs using the only ID and password issued to them by JPO (More than one person of the corporate users are allowed to access our APIs simultaneously using the same ID and password).

On the other hand, individuals operating their own businesses and/or doing research are the assumed API individual users. Special attention should be paid to the fact that individuals already registered as individual users are not allowed to register themselves as corporate users at the same time. In case such an individual user of dual registration is discovered, not only such individuals but also the corporate users that allowed such individuals to use their accounts may be restricted of our API uses.

<Registration Procedures>

1．Filling out a Registration Form

Those who wish to register as users for APIs listed in Tables 1 through 3 are requested to fill out either Registration Form 1 (Exhibit 1) or 2 (Exhibit 2). Those who wish to register as users for OPD-API listed in Table 4 are requested to fill out either Registration Form 3 (Exhibit 3) or 4 (Exhibit 4). Listed below are the points we would like you to pay special attention to.

➢ Consent to the Terms of Use

Only those who give consent to the Terms of Use can be allowed to use our APIs. After reading through the Terms of Use, please mark the checkbox to give consent to them.

➢ Contact Information

Please write your contact email address and phone number. JPO will contact you via email most of the time. You are required to inform JPO promptly of any changes to your contact information.

In case we lose contact with you, your user registration may be cancelled in accordance with Article 8 of the Terms of Use.

➢ Purposes of Uses

The purposes of uses of the Patent Information Retrieval APIs are listed in the Article 6 of Terms of Use. Please describe your purposes of uses (in relation to your businesses) as specific as possible. Even though your purposes of uses of APIs go beyond what's written on your registration form, you don't have to apply for such changes of purposes as far as you comply with the Terms of Use.

➢ IDs

JPO shall issue an ID and password to those who wish to use our APIs. We may cater to your requests of your ID strings. Each ID, however, should satisfy the following conditions:

(a)two or more out of the following three used：①numbers, ②alphabets (small letters only), ③signs ['-' (hyphen), '_' (underbar), and '.' (dot)];

(b)8 to 15 digits in total; and

(c)no personal information included.

Please clearly differentiate each confusing letters and symbols such as '0' (zero) and 'O' ('O' as in 'Osaka').

If the ID strings you request don't satisfy all the above-mentioned conditions, the person in charge of Patent Information Retrieval APIs may ask your opinion before finally deciding your ID.

➢ Contact Persons (Corporate Users)

Please appoint someone whom the person in charge of Patent Information Retrieval APIs can get in touch with all the time as your contact person(s). You

can register maximum of three contact persons in order to secure contact with us at all times: You can register one email address and phone number per each contact person.

Meanwhile, please register personal email addresses but not corporate email addresses for general use nor mailing lists.

➤ Requests to Change Daily Access Limits (Corporate Users)

If you wish to change the daily access limits of APIs, please write the API type(s) and rational reasons. For instance, filling 300 applications by your own corporation or your attorney agents per year is generally recognized as a rational reason. Also please refer to the identification numbers and types of APIs shown in the Table 1 through 3 of (1) of Article 2 of this handbook (Please write '1' for 'status information' for example). You can request maximum of three types of APIs in principle.

If you are an Information Provider and wish to change your access limits, please include the following information: your bulk data download service ID and type(s) of your information provision services using our bulk download services.

2．Submission of Registration Forms

Those of who wish to use our APIs should register with us by sending a registration form either via email or postal mail to the person in charge of Patent Information Retrieval APIs as follows.

＜Registration Forms to be Addressed to＞

Regarding APIs listed in Tables 1 through 3

Information Technology and Patent Information Management Office, General Coordination Division, Policy Planning and Coordination Department, Japan Patent Office
 ① Email address: PA0630@jpo.go.jp
 ② Postal address: 3-4-3 Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, JAPAN

Regarding OPD-API listed in Table 4

International Information Technology Affairs Section, Information Technology and Patent Information Management Office, General Coordination Division, Policy Planning and Coordination Department, Japan Patent Office
 ① Email address: PA0I00@jpo.go.jp
 ② Postal address: 3-4-3 Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, JAPAN

You may need a photocopy of your registration form as your identification when you need some procedures as to change part of your registration information in the future. Therefore, please keep its photocopy with you.

3．Confirmation of Users' IDs

The person in charge of Patent Information Retrieval APIs will contact the person(s) in charge of corporate users and individual users written on the registration forms for their identifications in order to prevent fraudulent user registrations. Those who don't respond to the person in charge of Patent Information Retrieval APIs properly will not be registered as users.

4．Registration at JPO

Based on the information written on the registration forms, the person in charge of Patent Information Retrieval APIs will issue IDs and passwords to users. We may need about a week before issuance of an ID and password.

After user registration procedures, the person in charge of Patent Information Retrieval APIs will send IDs, passwords and available time of APIs to users via email or the like.

(3) Preparations for Users

1．Systems

Patent Information Retrieval APIs are designed to be utilized by linking to users' systems. API users should understand API mechanisms, authentication method with ID and password, characteristics of retrievable data, utilization of data in order to maximize our APIs.

Please refer to the specifications of APIs explained in the specifications of the Patent Information Retrieval APIs and of XML Tag Structures. The person in charge of Patent Information Retrieval APIs will entertain questions regarding API specifications and access failures but not programing questions from users. Useful information as usage and specifications of the Patent Information Retrieval APIs is concentrated in our API Information Provision Website (URL: https://ip-data.jpo.go.jp/pages/top_e.html).

2．Usage Policies

Authentication procedure using ID and password is essential in order to use our APIs. Users are expected to safekeep their IDs and passwords by themselves. Even if some users carelessly leak their IDs and/or passwords to any third parties and suffer loss due to fraudulent access by such third parties; JPO would never accept any liability.

As explained above, each API is configured to a certain daily access limit. The number of accesses is counted when you receive a reply in response to your access request to the API. The daily counting starts at 0:00 am by each ID. Even though you haven't accessed 100% of daily limits, the counting is reset at

midnight every day. API's reply to your access request will be an error after exceeding daily access limits.

At corporate users more than one staff may use their registered APIs. And these staff can use the same set of ID and password issued to them by JPO to log into our API system simultaneously. However, the daily access is counted by each ID, and you won't be able to use our APIs after exceeding the daily access limits until the next day. Please coordinate the use of APIs within each organization.

When there are excessive accesses concentrated on certain APIs in a short period of time, an error is replied. Therefore, the users who access to APIs listed in Tables 1 through 3, please adjust the total number of accesses per minute to 10 or less mechanically (or by program manipulation). The users who access to OPD-API listed in Table 4, please adjust the total number of accesses per minute to 5 or less. Please let the person in charge of Patent Information Retrieval APIs know if you can access our APIs during nighttime or on holidays when there's smaller demand so as to disperse accesses.

In case the person in charge of Patent Information Retrieval APIs discovers any suspicious behaviors in accessing our APIs, the staff will inquire such users about their uses.

The users who have violated Article 8 of the Terms of Use shall be subject to penalties as cancelation of their user registrations.

3. Authentications

Users should be authenticated using their IDs and passwords so as to obtain access tokens before accessing to our APIs. Please refer to Exhibit 5 for further details.

(4) Change of User Information

The users that need to change their initial user information after they start using our APIs are advised to contact the person in charge of Patent Information Retrieval APIs. Please inform the person in charge of Patent Information Retrieval APIs immediately especially when you change your contact information (email address and phone number). Those of who are in charge of corporate users created as a result of mergers and acquisitions are advised to contact the person in charge of Patent Information Retrieval APIs immediately so as to change your corporate information with us.

If users contact the person in charge of Patent Information Retrieval APIs about the user information change, the person in charge of Patent Information Retrieval APIs will confirm their identity by their names, phone numbers, and email addresses. The person in charge of Patent Information Retrieval APIs may

request their identity confirmation documents (as a photocopy of the registration form) if necessary.

Followings are important points for you to pay attention to when handling user information:

➢ IDs and passwords

More than one set of ID and password shall not be granted to one user. When users request to change their IDs and/or passwords, their former IDs and/or passwords will be deleted as soon as their new IDs and/or passwords are issued. JPO shall not answer any questions regarding your former IDs and/or passwords.

When you decide to change your ID and/or password, or you have forgotten your ID and/or password but wish to continue using our APIs without changing them, please contact the person in charge of Patent Information Retrieval APIs for advice. The person in charge of Patent Information Retrieval APIs may be able to inform you with your ID and/or password again after confirming your identity.

➢ Users and Contact Persons

For privacy protection, only the updated information about individual users and contact persons of corporate users shall be registered. JPO shall not answer any questions about former users and contact persons.

➢ Changes of Daily Access Limits

The users who hadn't requested to increase the daily access limits upon user registration may request JPO to increase the daily access limits in the future. Please contact the person in charge of Patent Information Retrieval APIs referring to the type(s) of API(s).

Article 4. Privacy Policy

Our API system automatically collects information related to APIs such as IP addresses of users and API types they used. Users (both corporate and individual) are required to submit their individual information to JPO.

JPO will utilize such information submitted by users for smooth operation and improvement of the systems, and as reference information for planning and designing of future patent information policy. Except for such cases as when JPO is requested for information disclosure based on laws and regulations, or there are fraudulent accesses, assaults and other illegal activities and/or other special circumstances; JPO shall not utilize and/or provide any of the information collected to any third parties for purposes other than those stated above. However, information aggregated and processed so as not to reveal any users' private information may be disclosed.

JPO shall take necessary measures for proper maintenance of the collected information so as to avoid leakage, loss and/or damage of it.

Article 5. Inquiries

Users may make an inquiry to the following according to their needs regarding our API uses. Corporate users can contact through their contact persons

registered at JPO. Depending on your inquiries we may need a few days before responding to your inquiries from Patent Information Retrieval APIs Support Center, etc.

For access failure inquiries, please describe the specifics (especially your client used as API test tools, details of your requests or our responses).

<Office in Charge>

(1) General Inquiry (other than Application for User Registration, etc. mentionedbelow (2))

Patent Information Retrieval APIs Support Center

Email address: contact@ip-data-support.jpo.go.jp

(2) Application for User Registration, etc.

Regarding APIs listed in Tables 1 through 3

Patent Information Research and Policy Planning Section, Information Technology and Patent Information Management Office, General Coordination Division, Policy Planning and Coordination Department, Japan Patent Office
Email address: PA0630@jpo.go.jp Phone number: 03-3581-1101 (ext. 2361)
Phone inquiries are accepted between 9:00am and 5:30pm when JPO is open.

Regarding OPD-API listed in Table 4

International Information Technology Affairs Section, Information Technology and Patent Information Management Office, General Coordination Division, Policy Planning and Coordination Department, Japan Patent Office
Email address: PA0I00@jpo.go.jp Phone number: 03-3581-1101 (ext. 2505)
Phone inquiries are accepted between 9:00am and 5:30pm when JPO is open.

Exhibit 1

Patent Information Retrieval API　User Registration Form（Corporate Users）

Please refer to <Filling out a Registration Form> in (2) of Article 3 of the Patent Information Retrieval API Handbook.

Application Date	(month) (date), (year)	
Consent to Terms of Use	☐　Yes, I consent. *Please check the box for consent.	
Corporate Information	Address	
	Corporate name	
Person in charge 1	Section/department	
	Job title	
	Name	
	Email address	
	Phone number	
Person in charge 2 (if any)	Section/department	
	Job title	
	Name	
	Email address	
	Phone number	
Person in charge3 (if any)	Section/department	
	Job title	
	Name	
	Email address	
	Phone number	
Purposes of Uses		
Desirable ID (if any) *Required to meet conditions (a), (b), and (c)		
Increased daily access limits	☐Yes ☐No *Please check one of them. Rational reasons for access increase: ・ API nos. you wish to increase access limits: ・ *Please indicate 1) your ID for patent information bulk data download services and 2) type(s) of information provision services if you are an Information Provider using the above services. ・Your Patent Information Bulk Download Service ID: ・URL to your Information Provision Services:	

Exhibit 2

Patent Information Retrieval API　User Registration Form（Individual Users）

Please refer to <Filling out a Registration Form> in (2) of Article 3 of the Patent Information Retrieval API Handbook.

Application Date	(month) (date), (year)	
Consent to Terms of Use	☐　Yes, I consent. *Please check the box for consent.	
User information	Address	
	Name	
	Email address	
	Phone number	
Purposes of Uses		
Confirmation	Please indicate that you use your account for yourself but not for any corporate bodies. ☐　I confirmed the above. *Please check the box for confirmation.	
Desirable ID (if any) *Required to meet conditions (a), (b), and (c)		

Exhibit 3

OPD-API　User Registration Form（Corporate Users）

Please refer to <Filling out a Registration Form> in (2) of Article 3 of the Patent Information Retrieval API Handbook.

Application Date	(month) (date), (year)	
Consent to Terms of Use	☐　Yes, I consent. *Please check the box for consent.	
Corporate Information	Address	
	Corporate name	
Person in charge 1	Section/department	
	Job title	
	Name	
	Email address	
	Phone number	
Person in charge 2 (if any)	Section/department	
	Job title	
	Name	
	Email address	
	Phone number	
Person in charge3 (if any)	Section/department	
	Job title	
	Name	
	Email address	
	Phone number	
Purposes of Uses		
Desirable ID (if any) *Required to meet conditions (a), (b), and (c)		

Exhibit 4

OPD-API　User Registration Form（Individual Users）

Please refer to <Filling out a Registration Form> in (2) of Article 3 of the Patent Information Retrieval API Handbook.

Application Date	(month) (date), (year)	
Consent to Terms of Use	☐　Yes, I consent. *Please check the box for consent.	
User information	Address	
	Name	
	Email address	
	Phone number	
Purposes of Uses		
Confirmation	Please indicate that you use your account for yourself but not for any corporate bodies. ☐　I confirmed the above. *Please check the box for confirmation.	
Desirable ID (if any) *Required to meet conditions (a), (b), and (c)		

Exhibit 5

Authentication Procedures

Please follow the procedures below to use our APIs after receiving an access token and also authentication using your ID and password.

（１）Receiving an Access Token

Users are requested to visit the Token Generation URL given by JPO after registration in order to receive an access token. http method in this case shall be as POST while Keys and Values of http request Header and Body shall be specified as below.

Key	Value	Specified Location
Host	https://ip-data.jpo.go.jp	Header
Content-Type	application/x-www-form-urlencoded	Header
grant_type	password	Body
username	ID issued by JPO	Body
password	Password issued by JPO	Body

Please note that IDs and passwords should be encoded before transmission.

＜Sample of receiving an access token using curl command＞

```
curl -X POST -H "Content-Type: application/x-www-form-urlencoded" --data-urlencode "grant_type=password" --data-urlencode "username=■■■" --data-urlencode "password=▲▲▲（not encoded）" https://ip-data.jpo.go.jp/(Token Acquisition Path)
```

Once authentication succeeds data in Json format will be returned to the user, in which an access token ("access_token") and refresh token ("refresh_token") are included.

<Image when an access token is received>

```
1  POST /( a part of Token Acquisition Path after HOST    ) HTTP/1.1
2  Host: https://ip-data.jpo.go.jp
3  Content-Type: application/x-www-form-urlencoded
4
5  grant_type=password&username=api_user1&password=api_user1
                                          ID              Password
```

```
1 ▾ {
2      "access_token": "evJhbGciOiJSUzI1NiIsInR5cCIgOiAi$
3      "expires_in":3600,                  Access token
4      "refresh_expires_in":28800 ,
5      "refresh_token": "eyJhbGciOiJIUzI1NiIsInR5cCIgOiAi
6      "token_type": "bearer",
                                            Refresh token
```

*The access token expires "expires_in" (in seconds), and the refresh token expires "refresh_expires_in" (in seconds).

（2）Access to APIs

Same access token can be used for all the APIs. http method of Patent Information Retrieval API shall be GET, and Header for http request shall be the Key and Value specified as below.

Key	Value	Specified Location
Host	https://ip-data.jpo.go.jp	Header
Authorization	Bearer + single byte space ＋ access token returned	Header

<Image when an access token is received>

```
 1   GET /api/patent/v1/app_progress/2016045210 HTTP/1.1
 2   Host: https://ip-data.jpo.go.jp
 3   Authorization: Bearer eyJhbGciOiJSUzI1NiIsInR5cCIgOiAiSldUIiwi
        k5BdUhmajNsTktFckVXcUFRT0tXcWRVc0NVIn0
        .eyJleHAiOjE2MzIyODA3MDIsImlhdCI6MTYzMjI4MDEwMiwianRpIjoiO
        ljZWMxYTA1YTVhIiwiaXNzIjoiaHR0cHM6Ly9kMWloeHFjeW9jGNwZC5j
        y9hcGlfYXV0aCIsImF1ZCI6ImFjY291bnQiLCJzdWIiOiJiZWFjYWUyNi0
        YjIiLCJ0eXAiOiJCZWFyZXIiLCJhenAiOiJhcGlfY2xpZW50Iiwic2Vzc2l
```

Authorization: Bearer_Access token （input " "(single byte space) between Bearer and Access token）

（3）Reissuance of an access token

　An access token becomes null one hour after its issuance for security reasons. One hour after the time when an access token is received, you can receive another access token without transmitting your ID and password again but with a refresh token returned upon the access token is received.

　Please access to the above-mentioned URL, Header and Body for http request shall be the Key and Value specified below.

Key	Value	Specified Location
Host	https://ip-data.jpo.go.jp	Header
Content-Type	application/x-www-form-urlencoded	Header
grant_type	refresh_token	Body
refresh_token	Refresh token returned at the time of a token acquisition	Body

　Once the procedure succeeds a new access token and refresh token will be returned to the user. After the refresh token becomes null, please receive an access token with your ID and password following (1) procedures.

<Image when an access token is received>

```
1   POST /( a part of Token Acquisition Path after HOST    ) HTTP/1.1
2   Host: https://ip-data.jpo.go.jp
3   Content-Type: application/x-www-form-urlencoded
4
5   grant_type=refresh_token&refresh_token
        =eyJhbGciOiJIUzI1NiIsInR5cCIgOiAiSldUIiwia2lkIiA6ICI5NjliMjBmZ
        RhZDk1N2YifQ.eyJleHAiOjE2MzIyODE5MDIsImlhdCI6MTYzMjI4MDEwMiwia
        FmLTg2MmYtODhmZGE4OGQxMDQxIiwiaXNzIjoiaHR0cHM6Ly9kMWloeHFjeW9j
```

Refresh token