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ABSTRACT: This new version of the Patent Examination Research Dataset (PatEx) is based on data that the Office of the Chief Economist downloaded from Patent Examination Data System (PEDS) on April 26, 2020. We parsed the XML and organized the data into the familiar PatEx data files, following the organization of the Public PAIR portal. However, there are some minor differences between the new PatEx release and the previous ones. This is the main rationale behind the new technical documentation for this release and we advise users to read the relevant sections to better acclimate themselves to the new data.

JEL: O3, L1, L2, G2, G3

Keywords: Patents, Patent Examination, Intellectual Property, Innovation

Introduction

In December of 2015, the Office of the Chief Economist (OCE) at the US Patent and Trademark Office (USPTO) released data on publicly viewable patent applications that was only available through the USPTO's Public PAIR portal. The resulting product, known as the Patent Examination Research Dataset (PatEx), has been updated three times, the most recent update coming at the end of 2018. The purpose of the PatEx releases has been to improve the access to data from Public PAIR for researchers and policy makers. For more information on the initial releases of PatEx, we refer the reader to the documentation available at the Social Science Research Network website, which can be accessed through the following URL: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2702637.

In parallel with OCE's efforts to provide access to patent examination data through PatEx, the USPTO has built a website that allows individuals to download Public PAIR data by either selecting certain application attributes (date of filing, name of assignee, technology area, etc.) or by way of a bulk download of all publicly viewable patent applications. This product is known as the Patent Examination Data System (PEDS) and, over the years, it has expanded to include information from all but one of the different tabs that one can find in the Public PAIR portal. The only tab that is not included is the "Image File Wrapper" tab. The data in PEDS are updated daily and can be downloaded in either XML of JSON format. However, working with the downloaded data is not easy and requires a good understanding of both (1) how the XML or JSON data are structured and (2) how the Public PAIR data are organized. This can cause access issues for researchers without the requisite data skills. Given this issue, PatEx plays an important role in expanding research on patent examination.

This new version of PatEx is based on data that OCE downloaded from PEDS on April 26, 2020. We parsed the XML and organized the data into the familiar PatEx data files, which are based on the organization of the Public PAIR portal. This new technical documentation highlights minor differences between the new PatEx release and the previous ones. We advise users to read each of the following sections to better acclimate themselves to the new data.

The remainder of this technical documentation is broken out into the following sections.

- Section A: Description of the Application Data Tab Release
- Section B: Description of the Transaction History Data Tab Release
- Section C: Description of the Continuity Data Tab Release
- Section D: Description of the Foreign Priority Data Tab Release
- Section E: Description of the Patent Term Adjustment and Extension Data Tabs Release
- Section F: Description of the Address and Attorney/Agent Data Tab Release

Section A: Description of the Application Data Tab Release

A.1 Data Files Included in this Release

This data release consists of two data files, which together provide all of the information that a user would be able to glean from the "Application Data" tab on the USPTO's Public PAIR portal as of April 26, 2020. The first data file is called **application_data** and it includes bibliographic information on each patent application included in the new PatEx release. There are 15,494,295 observations in this data file, with each observation representing a unique patent application. The variables included in this file are described in more detail below. They provide information on such fields as application number, filing date, application type, the identity of the examiner, the group art unit of the examiner, the U.S. classification and sub classification of the underlying invention, current application status, and patent number if the application had been issued as a patent, among others. See Table A-1 for a list and brief description of all the variables included in the **application_data** file.

The second data file is called **all_inventors** and includes the names and locations of all inventors listed on the front page of each application in PatEx, if such information exists for an application. There are 29,233,628 observations in this data file. Each observation represents an application/inventor pair and there are 11,561,768 unique patent applications represented in these data. There can be multiple observations for a given application. For each application/inventor pair, the file includes information on the name and location of the inventor, as well as a variable, *inventor_rank*, which provides information on whether the inventor is the first-named inventor. The rank for the first-named inventor is 1, the rank for the second-named inventor is 2, and so on. See Table A-2 for a list and brief description of all variables included in the **all_inventors** file.

A.2 Variables Included in application_data

Application Number

Each application received by the USPTO is given a unique application number. The USPTO uses the number to keep track of the application while it is being processed and examined. For the user, the most important use of the application number is as a key variable. One can link information from the other PatEx files to the applications provided in the **application_data** by using the *application_number* variable.

The application number is comprised of two parts. For all applications not filed under the patent cooperation treaty (PCT), the first two digits indicate the application's series number. Series numbers 2 through 16 give a rough indication of the order in which the UPSTO received nonprovisional utility and plant applications. For example, Series 6 applications generally were received before Series 7 applications,

which were generally received before Series 8 applications, etc. Roughly 60 percent of the applications in the 2020 PatEx data release (and over 80 percent of all non-PCT applications) are from series 6 through 16. Fewer than 1 percent of the applications present in the data are from prior series (see Table A-3).

PCT applications can be identified as those with applications that start with the three character string "PCT." These PCT applications account for 27 percent of all applications included in the 2020 PatEx data. This is a much larger number of PCT filings than have been included in previous PatEx releases and is due to the switch to using the Patent Examination Data System (PEDS) data. As we will see, for most of the PCT filings no data are provided beyond the WIPO publication number and WIPO publication date.

The remaining applications are from special series (i.e. series that do not include regular nonprovisional utility or plant patent applications). Since the early 1990s, all applications for design patents have been identified using series 29 (3.5 percent of the total sample of applications). Published international design applications satisfying the requirements under the Hague Agreement for international registration and designating the United States are assigned an application number by the USPTO using series 35 (9,353 applications in the 2020 PatEx release). Provisional applications have been identified using series 60, 61, and 62 (9 percent of all applications). Reexaminations of patent applications have been given series numbers 90, 95, and 96 (roughly one-tenth of 1 percent of all applications captured in the 2020 PatEx release).

Filing Date

For most applications, the filing date is the date on which USPTO received the application.[1] For PCT applications, the filing date is the date of USPTO's receipt of 35 U.S.C. 371c requirements. More than 99 percent of the applications in **application_data** have a filing date of 1910 or later. However, as in previous PatEx releases, there is very poor coverage for applications that were received prior to 1981 and more limited coverage for applications received between the late 1970s and the year 2000 due to the fact that there was no pre-grant publication of applications filed prior to November 29, 2000. Even for applications filed after this date, coverage is not 100-percent due to the fact that not all applications become publicly-viewable.[2]

The filing date variable (*filing_date*) is formatted as a numeric variable, which is equal to the difference between the filing date and the first day of January 1960. For instance, if an application was received on 10 January 1960, then the date variable would be equal to 9. For dates prior to 1 January 1960, the date variable takes on negative values. In the Stata version of the data set, the %td display format is embedded, so that the dates display with the following format: ddmmmyyyy. For example, when *filing_date* is equal to 12,500, it displays in Stata as "23mar1994."

[1] There are some exceptions to this. See http://www.uspto.gov/patents-getting-started/patent-basics/types-patent-applications/nonprovisional-utility-patent for more details.

[2] See Graham, S.. A. Marco, and R. Miller (2015). The USPTO Patent Examination Research Dataset: A Window on the Process of Patent Examination. USPTO Economic Working Paper 2015-4.

Application Type

Previous releases of the PatEx data provided two different variables (*invention_subject_matter* and *application_type*) to identify application type. For the 2020 release, these two variables are combined into one variable called *application_invention_type*. For provisional, re-examination, re-issue, and PCT applications, the invention subject matter is not provided. Each nonprovisional application is identified by its invention subject matter: utility, design, or plant.

In Table A-4 we provide a cross-tabulation of the application type and filing date variables. Although a filing date is missing for over 3.2 million observation in application_data, almost all of these observations (over 98 percent) concern published PCT applications (see the top row). Less than 1 percent of the utility, design, plan, and re-issue applications are missing a filing date. Application type is missing for a very small number of observation (fewer than 5,000 out of over 15 million). Considering the totals in the final row, the vast majority of non-PCT applications are nonprovisional utility applications (81 percent), followed by provisional applications (12 percent) and design applications (5.6 percent).

Examiner and Examiner Art Unit

In the new PatEx release, we provide the full name of the examiner (*examiner_full_name*) as well as the group art unit of the examiner (*examiner_art_unit*). Note that we no longer provide a numeric examiner identifier, as the identifier is not available from PEDS nor in the Public PAIR portal. It should also be noted that, for applications pending on the day that we downloaded the data from PEDS, April 26, 2020, the examiner of record is the examiner assigned to the application as of that date. For disposed applications, the examiner is the examiner who was assigned to the application at the time of disposal.

The variable *examiner_art_unit* is a string variable indicating the group art unit to which the examiner of record was assigned as of the last office action recorded for the application in question. Group art units are designated as four digit numbers. The first two digits indicate the technology center (TC) to which the group art unit belongs. The designations for the TCs have changed over the years, but currently there are eight such TCs for examining regular utility applications.

- 1600 – Biotechnology
- 1700 – Chemical and Materials Engineering
- 2100 – Computer Architecture, Software, and Information Security
- 2400 – Computer Networks, Multiplex Communication, Video Distribution and Security
- 2600 – Communications
- 2800 – Semiconductors, Electrical and Optical Systems and Components
- 3600 – Transportation, Construction, Electronic Commerce, Agriculture, National Security and License & Review
- 3700 – Mechanical Engineering, Manufacturing, Products

The TC 2900 is set aside for the examination of design patent application. There are a few instances where the *group art unit* variable is populated with identifiers for USPTO business units, in which patent examination does not take place. This is because examiners sometimes switch to other business units between the time that an application is allowed and the time that it is issued as a patent. Because the

examiner_art_unit variable for issued patents is based on the business unit to which the examiner of record was assigned at time of issue, it can occasionally reflect a business (or art) unit that was not the one to which the application was assigned for examination. In addition, examiners sometimes continue working on a limited number of pending applications on their dockets after being assigned to a different business unit.

Classification Codes

When the USPTO processes new patent applications, they assign the application into one general technology class and into one or more subclasses. Classification of new applications assists in (1) the assignment of the applications to the most relevant art units and (2) the searches for relevant prior art during patent examination. Each class and subclass is identified by a code. The class and subclass codes for each application are provided in *uspc_class* and *uspc_subclass*. As an example, consider the patented case (patent number 8,000,000) illustrated in Figure A-1. Here, the class code is 607 and the subclass code is 54. This class/subclass pair is defined as follows.

- Class 607 - Surgery: light, thermal, and electrical application
    - Subclass 54 - Producing visual effects by stimulation

Note that the codes included in this PatEX data release are US Patent Classification codes rather the newer Cooperative Patent Classification (CPC) codes, which are presently being adopted by USPTO.

Confirmation and Attorney Docket Numbers

The confirmation number (*confirm_number*) is a four-digit number that the USPTO uses to ensure that any papers filed by the applicant (or applicant's attorney) are assigned to the right file. This is not a unique identifier and should not be used as such. As with previous releases, it is included in the PatEx data because it is available on Public PAIR.

When a patent attorney files an application, there is usually an internal tracking number assigned by the law firm for ease of reference. That is the docket number (*atty_docket_number*) that appears in Public PAIR. The USPTO takes this information from the transmittal form or Application Data Sheet (ADS) filed with the application. More than 95 percent of the applications in Public PAIR filed since 1998 have a value for this variable.

Application Status

The application status variable (*appl_status_desc*) is a string variable, which describes the status of the patent application as of April 26, 2020. Table A-5 lists the 13 most common application status descriptions. By far, the most common application status (42 percent of all non-missing cases) is that of a patented case. The other two most common codes are "Patent Expired Due to Nonpayment of Maintenance Fees Under 37 CFR 1.362" and "Abandoned – Failure to Respond to an Office Action." These account for 17 and 14 percent of non-missing cases, respectively.

The *appl_status_date* variable indicates the date that the application entered its most recent status. The formatting is the same as for the filing date variable in that it is a numeric variable, which is equal to

the difference between the status date and the first day of January 1960. Because several older patented cases were added to the underlying data system in September 2001, many of these applications have a most recent status date of sometime during the week of September 19, 2001, even though they had been issued as patents far earlier. The problem is that when using the status date variable it appears that USPTO issued over 750,000 patents in September of 2001. Therefore, for determining the date of patent grant, we recommend using the patent issue date (described below) in lieu of the status date variable.

File Location

The *file_location* variable in PatEx provides the current site of the official file. There are several locations possible, but 98 percent of all applications are either stored electronically or at the file repository (Franconia), which is in Springfield, Virginia. In PatEx, the location variable takes one of the following four distinct values, reflecting the fact that most files are located at one of these two locations.

- ELECTRONIC
- FILE REPOSITORY (FRANCONIA)
- MISSING
- OTHER

The *file_location_date* variable indicates the date on which the file first arrived at its present location. The formatting is the same as for the other date variables in that it is a numeric variable, which is equal to the difference (in days) between the status date and the first day of January 1960.

Pre-Grant Publication Information

Since 2001, most applications to the USPTO have been published prior to grant within 18 months of filing. Exceptions to this rule are cases in which (1) applicants have requested that an application not be published prior to grant, (2) an application is deemed un-publishable for national security reasons, or (3) an application has been abandoned prior to the end of the 18-month period after filing. For applications that have been made public by the USPTO, the following two variables are provided.

- *earliest_pgpub_number* – This variable provides the earliest pre-grant publication number assigned by the USPTO for the application.
- *earliest_pgpub_date* – The variable provides the earliest pre-grant publication date for the application. The formatting is the same as for the other date variables in that it is a numeric variable, which is equal to the difference (in days) between the status date and the first day of January 1960.

PCT applications become publicly viewable because they are published internationally by the World Intellectual Property Office (WIPO). For these applications, WIPO publication numbers (*wipo_pub_number)* and publication dates (*wipo_pub_date)* are available in this PatEx update.

Patent Grant Variables

For applications that have resulted in granted patents as of April 26, 2020, we include two patent grant variables.

- *patent_number* – This variable is populated for applications that resulted in an issued patent. Patent numbers are assigned sequentially based on date of issue.
- *patent_issue_date* – This variable is generally populated for applications that resulted in an issued patent. It indicates the day on which the patent was issued, and should not be confused with the date on which the underlying claims were allowed. There can be a lag of several weeks between allowance of claims and patent issue. The formatting is the same as for the other date variables in that it is a numeric variable equal to the difference (in days) between the status date and the first day of January 1960.

Other Variables

There are a few other variables included in **application_data**. First, *invention_title* is a string variable, which provides the title of the invention, as would be found on the Public PAIR portal. The *small_entity_indicator* variable can take on three values: UNDISCOUNTED, SMALL, or MICRO. A small entity is typically a nonprofit organization or a company with fewer than 500 employees. Small entity status typically entitles the applicant to a 50 percent discount on most fee payments to USPTO. To qualify as a micro entity an applicant must meet the following additional criteria:

1. Qualify as a USPTO-defined small entity,
2. Not be named on more than four previously filed applications,
3. Not have a gross income more than three times the median household income from the previous year, and
4. Not be under any obligation to assign, grant, or convey a license or other ownership to another entity that does not meet the micro entity requirements above.

Micro entity status entitles the applicant to a 75 percent discount on most fee payments to USPTO. Note that an applicant's entity status can change during the patent examination process or after patent grant. The entity status in PatEx does not reflect the applicant's entity status at time of filing (or grant) but rather reflects the entity status of the applicant as of April 26, 2020. Table A-6 illustrates the distribution of the entity size variable and illustrates that the variable is missing for very few observations. Almost all of the missing values are for the majority of PCT applications that only include information regarding WIPO publication.

Finally, the variable *aia_first_to_file* indicates an application that is to be judged under the first-inventor-to-file rules as laid out in the America Invents Act (AIA). This provision did not come into effect until March 2013.

Checking for Missing Values

Table A-7 considers the existence of missing values for selected variable in application_data.

- The *examiner_full_name* variable has a valid entry for 95 percent of nonprovisional applications, while it is missing for 88 percent of PCT applications and almost all provisional applications. These missing values make sense given that relatively few PCT applications are examined at the USPTO.
- The results are similar for the *examiner_art_unit*, *uspc_class*, uspc_subclass, and *application_status_desc* vaqriables, where each has very few missing values (generally less than 1 percent) for nonprovisional, re-examination, and re-issue applications.

- The *earliest_pgpub_number* variable generally has valid values only for nonprovisional applications. There are a significant number of missing values (roughly 40 percent of nonprovisional applications), but this is due to the fact that applications filed before late November 2000 were not published prior to grant and that even since that time, a limited number of applications were not published.
- The *wipo_pub_number* variable is only valid for PCT applications. Among the PCT applications, the variable has a missing value roughly 20 percent of the time.
- The *patent_number* follows a reasonable pattern. Only applications that have been granted as patents have a valid value. The number of missing values for the re-exam/re-issue category is because re-examinations result in a re-examination certificate rather than a patent grant.

A.3 Variables Included in all_inventors

The **all_inventors** file includes information on the names and locations of the inventors for most of the applications included in the **application_data** file. The variable, *application_number*, can be used to link information regarding the inventors to specific applications. The data regarding the inventor names are straightforward. The *inventor_rank* variable indicates the order of the inventors as listed on the original application and can be used to determine the first-named inventor.

One can determine the location (country or U.S. state) of each inventor by using the *inventor_country_code* and *inventor_region_code* variables. The *inventor_country_code* variable is coded using the ISO 3166 format. See Table A-8 for a list of countries with the most mentions in the **all_inventors** file. Note that the *inventor_country_code* is missing for roughly 6 percent of the observations. An examination of values of the *inventor_region_code* variable indicates that almost all of these observations are observations for US-based inventors, as the value of the *inventor_region_code* variable in almost all of these cases indicates an address in a US state.

For domestic (US) applications, one can use the *inventor_region_code* variable to determine state of residence. States are coded using standard US Postal Service 2-digit state abbreviations. The data here are not perfect; there are apparent coding errors. USPTO does not to clean these data. Researchers should use their own chosen algorithms for cleaning the data to suit their needs. However, we do provide a couple of examples of how one can use the inventor location variables.

1. Suppose we want to create a subset of all applications where the first-named inventor is from Japan. We would use the *all_inventors* file and keep all records where *inventor_rank* equals 1 and where *inventor_country_code* equals "JP", which is the ISO 3166 code for Japan. We could then link the resulting file with the **application_data** file for further analysis.
2. Suppose we want to create a subset of all applications where any inventor is from California. Here we would use the **all_inventors** file and keep all records where *inventor_country_code* equals "US" or is blank and where *inventor_region_code* equals "CA." We would probably also want to look at all of the *inventor_region_code* values to be certain that there were not others that could indicate California as state of residence, but using "CA" would capture almost all of the cases. Please note that in this case there might well be multiple records for a single application. Again, using

application_number, the resulting file could be linked with the **application_data** file for further analysis.

Recently, there has been an interest among academics and policymakers in the growth of inventor collaboration. It is relatively straightforward to count the number of inventors listed on a particular application. In Table A-9, we provide counts for the numbers of applications with different numbers of inventors. In Figure A-2, we illustrate how the average number of inventors on non-provisional utility patent applications has evolved since the year 2001.

Table A-1: List of variables included in application_data

Variable Name	Description	Type	Formatting
application_number	Application number	str17	%-20s
filing_date	Filing or 371[c] date	float	%td
application_invention_type	Application type/subject matter	str14	%14s
examiner_full_name	Examiner's full name	strL	%-20s
examiner_art_unit	Group art unit	str5	%-12s
uspc_class	Invention U.S. classification	str3	%-3s
uspc_subclass	Invention U.S. subclassification	str6	%-6s
confirm_number	Confirmation number	str4	%-20s
atty_docket_number	Attorney docket number	str48	%-20s
appl_status_desc	Application status	strL	%-20s
appl_status_date	Status date	float	%td
file_location	Location (where file is currently)	strL	%-20s
file_location_date	Location date	float	%td
earliest_pgpub_number	Earliest publication number	str15	%15s
earliest_pgpub_date	Earliest publication date	float	%td
wipo_pub_number	WIPO publication number	str110	%10s
wipo_pub_date	WIPO publication date	float	%td
patent_number	Patent number	str8	%-20s
patent_issue_date	Issue date of patent	float	%td
invention_title	Title of the invention	strL	%-20s
small_entity_indicator	Entity status	str12	%-20s
aia_first_to_file	AIA (First inventor to file)	str5	%-20s

Table A-2: List of variables included in all_inventors

Variable Name	Description	Type	Formatting
application_number	Application number	str17	%17s
inventor_name_first	Inventor's given name	strL	%9s
inventor_name_middle	Inventor's middle name	strL	%9s
inventor_name_last	Inventor's family name	strL	%9s
inventor_rank	Inventor rank within application	int	%10.0g
inventor_city_name	City of residence	strL	%9s
inventor_region_code	Region (state) of residence	str3	%9s
inventor_country_code	Country of residence code (ISO 3166)	str2	%9s

Table A-3: Counts of PatEx applications by series number

Series	Frequency	Percent	Cumulative Percent
2	56	0.0	0.0
3	176	0.0	0.0
4	4,209	0.0	0.0
5	86,465	0.6	0.6
6	661,462	4.3	4.9
7	742,803	4.8	9.7
8	797,809	5.2	14.8
9	843,181	5.4	20.2
10	953,967	6.2	26.4
11	944,858	6.1	32.5
12	954,473	6.2	38.7
13	955,348	6.2	44.8
14	954,080	6.2	51.0
15	944,148	6.1	57.1
16	509,014	3.3	60.4
29	534,657	3.5	63.8
35	9,353	0.1	63.9
58	4	0.0	63.9
59	103	0.0	63.9
60	533,946	3.5	67.3
61	491,070	3.2	70.5
62	377,859	2.4	72.9
71	1	0.0	72.9
90	14,532	0.1	73.0
93	2	0.0	73.0
95	2,087	0.0	73.0
96	290	0.0	73.0
97	2	0.0	73.0
PCT	4,178,340	27.0	100.0
Total	15,494,295		

Table A-4: Cross-tabulation of filing year and application/invention type

Year	Utility	Design	Plant	Re-Exam	Re-Issue	PCT	Provisional	Missing	Total
Missing	52,602	51	1	553	154	3,185,841	651	1,696	3,241,561
<1980	118024	8530	165	0	917	1	0	2,883	130,520
1980	70,716	5,054	203	0	440	0	0	0	76,413
1981	72,105	4,858	178	134	497	0	0	0	77,772
1982	73,985	5,270	213	177	471	0	0	0	80,116
1983	71,381	5,575	305	173	280	0	0	0	77,714
1984	78,370	6,066	249	217	326	0	0	0	85,228
1985	84,623	6,593	267	229	325	0	0	0	92,037
1986	89,646	6,435	304	219	209	0	0	0	96,813
1987	96,630	7,056	425	261	283	1	0	1	104,657
1988	106,202	7,542	365	274	470	0	0	0	114,853
1989	114,692	7,751	369	236	553	3	0	0	123,604
1990	120,206	8,568	417	322	537	4	0	0	130,054
1991	123,019	8,726	416	308	623	12	0	0	133,104
1992	128,709	8,959	318	375	593	39	0	0	138,993
1993	135,212	9,551	355	371	641	535	0	0	146,665
1994	149,184	11,207	435	384	688	9,019	0	0	170,917
1995	167,247	12,031	438	421	649	16,763	4,784	0	202,333
1996	158,983	12,637	635	401	623	20,563	12,538	0	206,380
1997	181,531	13,666	623	383	579	24,009	18,476	0	239,267
1998	182,497	14,391	589	328	610	27,643	23,406	2	249,466
1999	197,484	15,155	645	391	684	30,825	30,765	3	275,952
2000	218,323	15,931	651	295	846	32,113	46,605	1	314,765
2001	269,355	15,745	1,008	279	891	36,885	47,337	0	371,500
2002	274,968	17,398	1,030	338	939	41,249	50,583	3	386,508
2003	279,215	18,885	934	419	927	41,695	51,499	0	393,574
2004	295,785	19,892	1,178	493	908	44,196	56,592	0	419,044
2005	311,928	21,201	1,250	554	931	47,856	62,039	0	445,759

Table A-4: Cross-tabulation of filing year and application/invention type (continued)

Year	Utility	Design	Plant	Re-Exam	Re-Issue	PCT	Provisional	Missing	Total
2006	326,053	20,694	1,104	565	1,002	52,636	67,005	0	469,059
2007	335,642	21,981	953	777	877	55,486	69,235	0	484,951
2008	329,439	21,758	1,134	852	770	52,556	68,074	1	474,584
2009	304,213	21,102	917	843	650	46,347	66,144	0	440,216
2010	324,081	23,709	951	1,016	648	45,640	70,752	0	466,797
2011	342,159	24,891	1,094	1,097	709	49,681	74,613	0	494,244
2012	364,728	26,576	1,100	1,253	836	51,311	80,279	0	526,083
2013	384,950	29,161	1,333	374	775	56,622	91,788	0	565,003
2014	397,164	29,001	1,023	342	983	60,164	85,231	0	573,908
2015	396,930	31,081	1,115	296	918	54,378	84,600	0	569,318
2016	396,678	33,273	1,153	256	777	50,865	84,221	0	567,223
2017	403,978	32,727	1,030	232	710	33,166	83,255	0	555,098
2018	380,149	22,189	986	214	719	8,107	68,675	0	481,039
2019	278,083	5,004	348	207	777	2,124	3,726	0	290,269
2020	10,487	177	0	81	194	4	2	0	10,945
Total	9,197,356	638,048	28,207	16,940	27,939	4,178,340	1,402,875	4,590	15,494,295

Table A-5: Common application statuses

Status	Frequency
Patented Case	4,965,166
Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	2,021,311
Abandoned -- Failure to Respond to an Office Action	1,636,999
Provisional Application Expired	1,180,806
RO PROCESSING COMPLETED-PLACED IN STORAGE	799,182
Docketed New Case - Ready for Examination	232,111
Abandoned -- File-Wrapper-Continuation Parent Application	158,221
PCT - International Search Report Mailed to IB	146,973
Non Final Action Mailed	137,636
Abandoned -- Failure to Pay Issue Fee	72,966
Response to Non-Final Office Action Entered and Forwarded to Examiner	70,315
Final Rejection Mailed	66,596
Notice of Allowance Mailed -- Application Received in Office of Publications	65,625
Other Statuses	349,912
Missing	3,590,476
Total	15,494,295

Table A-6: Cross-tabulation of application/invention type and entity status

	Entity Status				
Application/Invention	Missing	MICRO	SMALL	UNDISCOUNTED	Total
Missing	861	1	3	3,723	4,588
Design	2	16,513	288,363	333,170	638,048
N/A	0	0	1	1	2
PCT	3,183,784	4,366	60,897	929,293	4,178,340
Plant	0	79	13,071	15,057	28,207
Provisional	439	31,220	631,859	739,357	1,402,875
Re-Examination	13	44	1,171	15,712	16,940
Re-Issue	2	163	6,274	21,500	27,939
Utility	24	113,874	2,161,545	6,921,913	9,197,356
Total	3,185,125	166,260	3,163,184	8,979,726	15,494,295

Table A-7: Checking for missing values (selected variables)

	Non-provisional	Re-exam/Re-issue	PCT	Provisional	Missing	Total
Examiner Name						
Valid	9,403,487	41,215	484,094	497	47	9,929,340
Missing	460,124	3,664	3,694,246	1,402,378	4,543	5,564,955
Group Art Unit						
Valid	9,800,612	44,400	906,625	1,308	186	10,753,131
Missing	62,999	479	3,271,715	1,401,567	4,404	4,741,164
USPC Class						
Valid	9,808,214	44,469	906,493	1,302	1,977	10,762,455
Missing	55,397	410	3,271,847	1,401,573	2,613	4,731,840
USPC Subclass						
Valid	9,799,654	43,538	864,364	1,070	1,966	10,710,592
Missing	63,957	1,341	3,313,976	1,401,805	2,624	4,783,703
Application Status						
Valid	9,687,287	44,728	985,199	1,182,856	3,739	11,903,809
Missing	176,314	151	3,193,141	220,019	851	3,590,476
Earliest Publication Number						
Valid	6,034,997	3	0	3	3	6,035,006
Missing	3,828,614	44,876	4,178,340	1,402,072	4,587	9,458,489
WiPO Publication Number						
Valid	0	0	3,368,291	0	0	3,368,291
Missing	9,863,611	44,879	810,049	1,402,875	4,590	12,126,004
Patent Number						
Valid	7,049,342	17,380	0	0	3,134	7,069,856
Missing	2,814,269	27,499	4,178,340	1,402,875	1,456	8,424,439

Table A-8: Countries with the most mentions in the all_inventors file

Country	Country Code	Frequency
United States	US	14,141,292
Japan	JP	4,530,027
Germany	DE	1,624,815
South Korea	KR	1,236,629
Taiwan	TW	784,345
China	CN	646,911
Canada	CA	617,167
United Kingdom	GB	616,252
France	FR	567,995
Israel	IL	288,991
Italy	IT	238,793
Netherlands	NL	236,914
Switzerland	CH	231,444
India	IN	229,019
Sweden	SE	206,013
Missing		1,787,306

Table A-9: Distribution of number of inventors on applications

Number of inventors	Frequency	Percent	Cumulative Percent
1	4,266,418	36.9	36.9
2	2,811,089	24.3	61.2
3	1,917,174	16.6	77.8
4	1,171,692	10.1	87.9
5	628,623	5.4	93.4
6	335,513	2.9	96.3
7	178,666	1.6	97.8
8	99,504	0.9	98.7
9	55,977	0.5	99.2
10	33,981	0.3	99.5
More than 10	63,131	0.5	100
Total	11,561,768		

Figure A-1: Application Data Tab for Patent Number 8,000,000

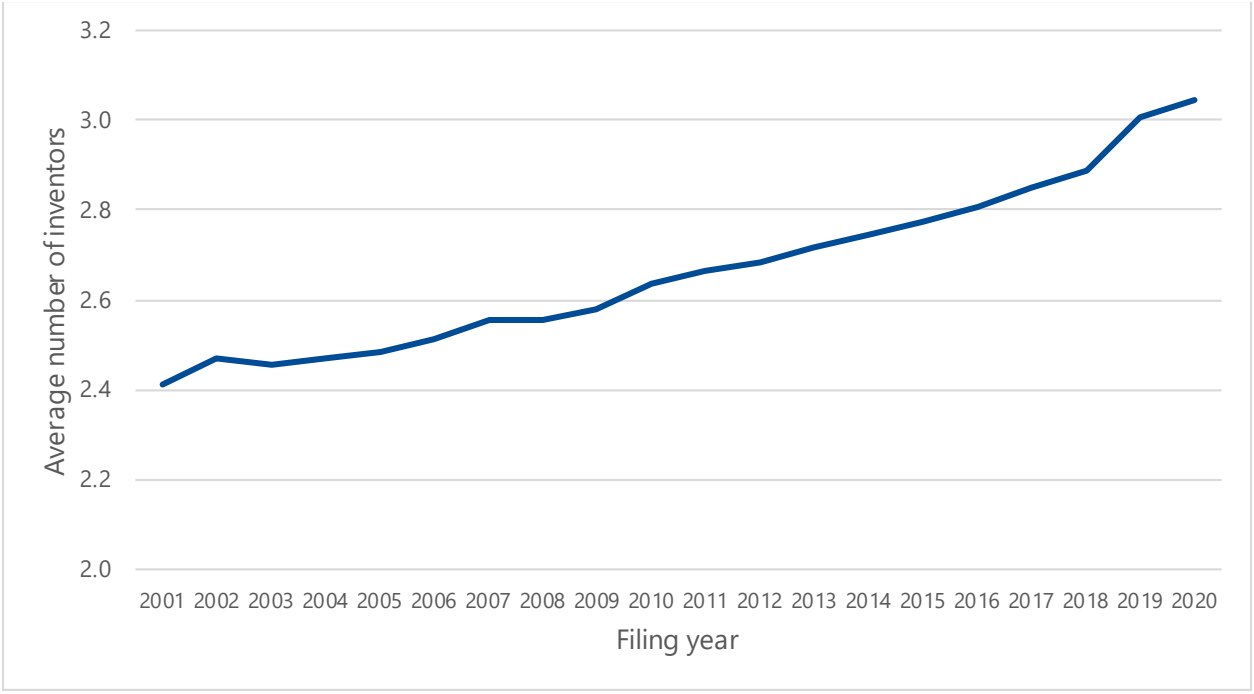
11/874,690 VISUAL PROSTHESIS

Select New Case | Application Data | Transaction History | Image File Wrapper | Patent Term Adjustments | Continuity Data | Fees | Published Documents | Address & Attorney/Agent | Assignments | Display References

Bibliographic Data

Application Number:	11/874,690	Correspondence Address Customer Number:	28284
Filing or 371 (c) Date:	10-18-2007	Status:	Patented Case
Application Type:	Utility	Status Date:	07-27-2011
Examiner Name:	BEHRINGER, LUTHER G	Location:	ELECTRONIC
Group Art Unit:	3766	Location Date:	-
Confirmation Number:	3005	Earliest Publication No:	US 2008-0262568 A1
Attorney Docket Number:	S438-USA	Earliest Publication Date:	10-23-2008
Class / Subclass:	607/054	Patent Number:	8,000,000
First Named Inventor:	Robert J. Greenberg , Los Angeles, CA (US) all Inventors	Issue Date of Patent:	08-16-2011
First Named Applicant:	-	International Registration Number (Hague):	-
Entity Status:	Small	International Registration Publication Date:	-
AIA (First Inventor to File):	No		

Figure A-2: Evolution of inventor team size on utility patent applications since 2001



Source: Author's calculations using PatEx all_inventors and application_data files.

Section B: Description of the Transaction History Data Tab Release

B.1 Data Files Included in this Release

This data release consists of two data files that, after matching with the **application_data** file, provide all of the information that an analyst would be able to glean from the "Transaction History" tab on the USPTO's Public PAIR website on April 26, 2020. The first data file is called **transactions** and it includes information on all of the pre-examination and examination events tracked in PatEx. Each observation represents one event. The information includes a code identifying the type of event, the date on which the event occurred, and an identifier for the subject application. Unlike in previous PatEx releases, it *does not* include information on how the status of each examination changed over time as various events were recorded. The transactions data set includes 409,938,642 observations covering 11,976,719 unique applications.

The second data file is called **event_codes** and it includes short descriptions of the event codes used in the transactions data file. The descriptions can be linked to **transactions** using the *event_code* variable. There are 2,129 unique event codes represented in this data file. The variables included in the two data files can be found in Table B-1, while Figure B-1 provides an illustrative example of the "Transaction History" tab for application number 12/415,706.

B.2 Variables Included in transactions

At first glance, the transactions data set appears quite simple. It includes only three variables. As with most of the other data sets included in the PatEx data release, the data set includes a variable, *application_number*, which identifies the subject application. As a key variable, it can be used to link information from the transactions history data to more general information on the applications as well as continuity and patent term adjustment information. The second variable, *event_code*, identifies the type of transaction. It can be linked to the **event_codes** file to retrieve the short transaction descriptions found in the "Transaction History" tab. Table B-2 presents the most common events.[3] Table B-3 presents the event codes for Office actions, Table B-4 presents event codes for applicant amendment filings, and Table B-5 presents event codes that describe the ex parte appeals process.

The variable *recorded_date* indicates the date that each transaction occurred and corresponds to the "Date" column on the "Transaction History" tab. The recorded date is formatted as a numeric variable,

[3] See Table B-2 from the original 2014 PatEx documentation (found here), for more details regarding these events.

which is set equal to the difference between the filing date and the first day of January 1960. For instance, if an application was received on 10 January 1960, then the date variable would be equal to 9. For dates prior to 1 January 1960, the date variable takes on negative values. In the Stata version of the data set, the %td display format is embedded, so that the dates display with the following format: ddmmmyyyy.

Table B-1: List of variables included in the Transaction History data files

Variable name	Description	Type	Formatting
transactions			
application_number	Application number	str17	%-20s
event_code	Code identifying type of transaction	str8	%-8s
recorded_date	Date of the transaction	float	%td
event_codes			
event_code	Code identifying type of transaction	str8	%-8s
event_description	Description of transaction	strL	%-20s

Table B-2: List of the most common event codes

event_code	event_description	Frequency
DOCK	Case Docketed to Examiner in GAU	21,092,657
FWDX	Date Forwarded to Examiner	16,665,433
EML_NTR	Email Notification	14,902,789
WIDS	Information Disclosure Statement (IDS) Filed	14,051,436
IDSC	Information Disclosure Statement considered	10,414,340
CTNF	Non-Final Rejection	10,366,579
MCTNF	Mail Non-Final Rejection	10,357,559
EML_NTF	Email Notification	10,210,887
M844	Information Disclosure Statement (IDS) Filed	10,048,931
ELC_RVW	Electronic Review	9,841,778
IEXX	Initial Exam Team nn	9,682,334
A...	Response after Non-Final Action	9,316,773
OIPE	Application Dispatched from OIPE	8,605,803
SCAN	IFW Scan & PACR Auto Security Review	8,405,052
COMP	Application Is Now Complete	7,877,918
MN/=.	Mail Notice of Allowance	7,467,439
N/=.	Notice of Allowance Data Verification Completed	7,441,598
N084	Issue Fee Payment Verified	7,118,488
L194	Cleared by OIPE CSR	6,738,272
PGM/	Recordation of Patent Grant Mailed	6,655,593
WPIR	Issue Notification Mailed	6,397,041
XT/G	Request for Extension of Time - Granted	5,293,528
FLRCPT.O	Filing Receipt	5,266,123
PILS	Application Is Considered Ready for Issue	5,138,516
IFEE	Issue Fee Payment Received	4,738,611
PG-ISSUE	PG-Pub Issue Notification	4,659,789
D1935	Dispatch to FDC	4,618,632
MCTFR	Mail Final Rejection (PTOL - 326)	4,569,961
CTFR	Final Rejection	4,558,557
PTAC	Patent Issue Date Used in PTA Calculation	4,361,268
RCAP	Reference capture on IDS	4,110,990
PGPC	Sent to Classification Contractor	3,647,719
C.AD	Correspondence Address Change	3,275,337

Table B-2: List of the most common event codes (continued)

event_code	event_description	Frequency
EIDS.	Electronic Information Disclosure Statement	3,269,956
BIG.	ENTITY STATUS SET TO UNDISCOUNTED (INITIAL DEFAULT SETTING OR STATUS CHANGE)	3,213,436
PA..	Change in Power of Attorney (May Include Associate POA)	3,030,032
A.PE	Preliminary Amendment	2,812,756
R1021	Receipt into Pubs	2,723,971
CCRDY	Application ready for PDX access by participating foreign offices	2,667,461
RQPR	Request for Foreign Priority (Priority Papers May Be Included)	2,666,713
A.NE	Response after Final Action	2,631,909
APPERMS	Applicants have given acceptable permission for participating foreign	2,384,354
BRCE	Workflow - Request for RCE - Begin	2,326,960
ABN9	Disposal for a RCE / CPA / R129	2,304,489
RCEX	Request for Continued Examination (RCE)	2,296,154
EX.A	Examiner's Amendment Communication	2,255,164
TSSCOMP	IFW TSS Processing by Tech Center Complete	2,249,918
PTA.RFE	Patent Term Adjustment - Ready for Examination	2,102,794
EXP.	Expire Patent	2,055,827

Table B-3: Event Codes for Office Actions

Event Code	Description	Details
CTNF	Non-Final Rejection	Following the search of prior art, an office action to applicant includes a rejection of one or more claims and does not close out prosecution, and the Examiner receives a non- final rejection count.
MCTNF	Mail Non-Final Rejection	Indicates that the Office mailed a non-final rejection to the applicant.
N/=.	Notice of Allowance Data Verification Completed	Indicates that 1 or more claims in the application have been allowed.
MN/=.	Mail Notice of Allowance	Indicates that applicant has been mailed a notice of allowance.
CTFR	Final Rejection	Any second or any subsequent actions on the merits from the Examiner is made final (i.e. final rejection), except where the Examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims nor based on information submitted in a timely filed information disclosure.
MCTFR	Mail Final Rejection (PTOL - 326)	Indicates that a final rejection has been mailed in the application. This typically follows a response (A...) to a non-final rejection (MCTNF), though it is possible in rare circumstances for a final rejection to occur without a non-final rejection having occurred (see MPEP 706.07(b) regarding first action final rejections). A final rejection closes prosecution in an application where at least one of the claims has been found by the examiner to be unpatentable.
CTRS	Restriction/Election Requirement	Restriction is a generic term that includes the practice of requiring an election between distinct inventions, for example, election between combination and subcombination inventions, and the practice relating to an election between independent inventions, for example, an election of species. An Examiner may make a restriction requirement when an application may properly support separate patents.
MCTRS	Mail Restriction Requirement	A restriction requirement and/or election of species has been mailed to the applicant. This requires the applicant to elect an invention and/or species. If the application contains claims to multiple independent or distinct inventions and examination of these multiple inventions would be burdensome, the examiner may require the applicant to elect an invention to be examined.

Table B-4: Selected Event Codes for Amendment Filings by Applicants

Event Code	Description	Details
A...	Response after Non-Final Action	Amendment filed by the applicant in response to a non-final office action issued by the Examiner based on the merits of the application. Document may be included in AS FILED.
A.I.	Informal or Non-Responsive Amendment after Examiner Action	Amendment filed by the applicant in response to an Examiner action wherein the Examiner determines the amendment is a bonafide but incomplete attempt to provide a complete response. In such an instance, the Examiner gives the applicant one month from the date of mailing of a letter of non-responsiveness to complete the reply.
A.LA	Untimely (Late) Amendment Filed	When applicant files an amendment after the expiration of the statutory period, the application is abandoned and the remedy is a petition to revive it. The late or untimely amendment is endorsed on the file wrapper, but not formally entered.
A.NA	Amendment after Notice of Allowance (Rule 312)	When applicant files an amendment after the Notice of Allowance has been mailed but before the issue fee is paid, the amendment is not entered automatically. It may only be entered upon recommendation of a Primary Examiner. It will not be entered if it requires additional search or more than cursory review.
A.NE	Response after Final Action	Amendment provided by the applicant after the Examiner closes prosecution with a final rejection. Amendment is not automatically entered by the Examiner. It will not be entered if it requires additional search or more than cursory review.
A.NQ	Amendment Crossed in Mail	When an amendment is filed on or before the mailing date of the regular Office action, but reaches the Examiner later, the amendment is considered to have crossed the Office action in the mail. The amendment that crossed in the mail usually requires the Examiner to prepare a supplemental action that includes a new period for response.
A.PE	Preliminary Amendment	A preliminary amendment has been filed in the application. A preliminary amendment is an amendment that is received in the Office on or before the mail date of the first Office action. If present on the filing date of the application, it is treated as part of the original disclosure of the application.

Table B-4: Selected Event Codes for Amendment Filings by Applicants

Event Code	Description	Details
A.QU	Response after Ex Parte Quayle Action	An Ex parte Quayle action is an Office action noting that all claims are allowable and the application is in condition for allowance except as to matters of form such as correction of the specification or a new oath. An Ex parte Quayle action closes prosecution on the merits. A proper response from the applicant to an Ex parte Quayle action is limited to correcting these matters of form.

Table B-5: Selected Event Codes for the Appeals Process

Event Code	Description	Details
N/AP	Notice of Appeal Filed	Applicant filed a Notice of Appeal. After two rejections from the Examiner, applicant may file a Notice of Appeal noting that applicant (now appellant) is appealing the Examiner's decision. The appeal is to be decided upon by an administrative patent judge from the Patent Board within the USPTO. The judge weighs the evidence in the Appeal Brief and in an Examiner's Answer to reach a decision.
AP.B	Appeal Brief Filed	After two rejections from the Examiner, applicant (now appellant) may file an Appeal Brief of the Examiner's decision. The appeal is to be decided upon by an administrative patent judge from the Patent Board within the USPTO. The judge weighs the evidence in the Appeal Brief and in an Examiner's Answer to reach a decision.
AP/A	Amendment/Argument after Notice of Appeal	An amendment may be filed at any time after final rejection, but before the jurisdiction of the case has passed to the Patent Board. However, after the Notice of Appeal has been filed by applicant, any amendment or argument filed by applicant is not normally entered unless the paper presented clearly places the application in condition for allowance.
AP_DK_M	Docketing Notice Mailed to Appellant	A docketing notice is sent to the appellant letting the appellant know that the application on appeal has been received at the Patent Board. The notice provides the appeal number and the date the appeal brief, reply brief (if any) and the request for hearing (if any) were filed.
APAR	Administrator Remand to the Examiner by BPAI	The Patent Board has the authority to remand a case to the Examiner when it deems necessary. For example, the Board may remand a case for a fuller description of the claimed invention, for further search, for preparation by the Examiner of a Supplemental Examiner's Answer in response to a reply brief, or to consider affidavits or declarations from the appellant.
APBD	Notice -- Defective Appeal Brief	An appellant's brief must be responsive to every ground of rejection stated by the Examiner. If the appeal brief fails to address any such ground, the Examiner sends the appellant a notice of a defective brief and gives the appellant time to correct the defect.

Table B-5: Selected Event Codes for the Appeals Process

Event Code	Description	Details
APCH	Confirmation of Hearing by Appellant	Appellant may request an oral hearing before the Patent Board. In response to that request, a notice of the hearing stating the date, time and docket is forwarded to the appellant by the Board. The appellant must send a confirmation within a stated time period confirming that appellant will attend.
APD1	Dec on Reconsideration - Denied	Appellant may request a rehearing before the Patent Board if the Board affirms the Examiner in whole or in part. The Board may decide that there are no new issues to reconsider and deny the request.
APD2	Dec on Reconsideration - Granted	Appellant may request a rehearing before the Patent Board if the Board affirms the Examiner in whole or in part. The Board may decide that there are issues that need to be reconsidered and grant the request.
APD3	Dec on Reconsideration - Granted in Part	Appellant may request a rehearing before the Patent Board if the Board affirms the Examiner in whole or in part. The Board may decide that there are some issues that need to be considered and other issues that do not need to be reconsidered and grant the request in part.
APDA	BPAI Decision - Examiner Affirmed	The Patent Board reaches a decision in response to an appeal brief filed by the appellant specifying alleged errors in the Examiner's rejection and an Examiner's Answer prepared by the Examiner restating the rejection and responding to appellant's arguments. The Board is comprised of administrative patent judges within the USPTO who reach a decision to affirm reverse, or affirm in part the decision of the Examiner. In this instance, the Examiner is affirmed in full without explanation.
APDP	BPAI Decision - Examiner Affirmed in Part	The Patent Board reaches a decision in response to an appeal brief filed by the appellant specifying alleged errors in the Examiner's rejection and an Examiner's Answer prepared by the Examiner restating the rejection and responding to appellant's arguments. The Board is comprised of administrative patent judges within the USPTO who reach a decision to affirm reverse, or affirm in part the decision of the Examiner. In this instance, the Examiner is affirmed in part.

Table B-5: Selected Event Codes for the Appeals Process

Event Code	Description	Details
APDR	BPAI Decision - Examiner Reversed	The Patent Board reaches a decision in response to an appeal brief filed by the appellant specifying alleged errors in the Examiner's rejection and an Examiner's Answer prepared by the Examiner restating the rejection and responding to appellant's arguments. The Board is comprised of administrative patent judges within the USPTO who reach a decision to affirm reverse, or affirm in part the decision of the Examiner. In this instance, the Examiner is reversed in full.
APDS	Appeal Dismissed	An Appeal to the Patent Board is dismissed if the brief from the appellant is not filed on time or if the brief is not compliant, for example by not arguing a ground of rejection involving all of the appealed claims or by not including all of the portions required of an appeal brief by 37 CFR 1.192. When an appeal is dismissed, all claims not allowed are withdrawn. If no claims are allowed, the case is abandoned. If some claims are allowed, the application is passed to issue.
APDT	BPAI Decision/Order under 41.50(d)	The Patent Board reaches a decision in response to an appeal brief filed by the appellant specifying alleged errors in the Examiner's rejection and an Examiner's Answer prepared by the Examiner restating the rejection and responding to appellant's arguments. The Board is comprised of administrative patent judges within the USPTO who reach a decision. That decision may be to require appellant to clarify the record under 37CFR 1.196 (d). The clarification may include explaining the applicability of particular case law not previously identified as relevant to the appeal or explaining the applicability of particular references not previously of record.
APE2	2nd or Subsequent Examiner's Answer to Appeal Brief	An Examiner's Answer is prepared by the Examiner restating the rejection and responding to appellant's arguments as stated in appellant's appeal brief to the Patent Board. If the appellant files a reply brief, the Board may remand the application to the Examiner for the express purpose of having the Examiner prepare a Supplemental Examiner's Answer to respond to the Reply Brief.

Table B-5: Selected Event Codes for the Appeals Process

Event Code	Description	Details
APEA	Examiner's Answer to Appeal Brief	An Examiner's Answer is prepared by the Examiner restating the rejection and responding to appellant's arguments as stated in appellant's appeal brief to the Patent Board.
APND	Notice -- Defective Notice of Appeal	A Notice is sent to the appellant of a defective Notice of Appeal if the Notice was not filed on time, or the fee was unpaid, or if none of the claims have been twice rejected.
APNH	Notification of Appeal Hearing	Appellant may request an oral hearing before the Patent Board. In response to that request, a notice of the hearing stating the date, time and docket is forwarded to the appellant by the Board and confirmation of the appellant's attendance is required.
APNR	Advisory on Non-Entry of Reply Brief	In response to an Examiner's Answer prepared by the Examiner following appellant's appeal brief to the Patent Board, appellant has a right to file a reply brief within two months of the mailing date of the Examiner's Answer. If the reply brief contains an amendment or evidence, or other formal defect, however, it is not considered to be a reply brief and is not entitled to entry. If a reply brief of this nature is submitted, a notice of non-entry of reply brief will be sent to appellant informing the appellant of non-entry of the reply brief.
APOH	Request for Oral Hearing	Appellant may request an oral hearing before the Patent Board. In response to that request, a notice of the hearing stating the date, time and docket is forwarded to the appellant by the Board.
APPD	Hearing Postponement Denied	Appellant may request an oral hearing before the Patent Board. In response to that request, a notice of the hearing stating the date, time and docket is forwarded to the appellant by the Board. The appellant must send a confirmation within a stated time period confirming that appellant will attend. If appellant cannot attend at the designated time, appellant may request a postponement of the hearing. Such a request will not be granted will not be granted in the absence of convincing reasons in support of the requested change.

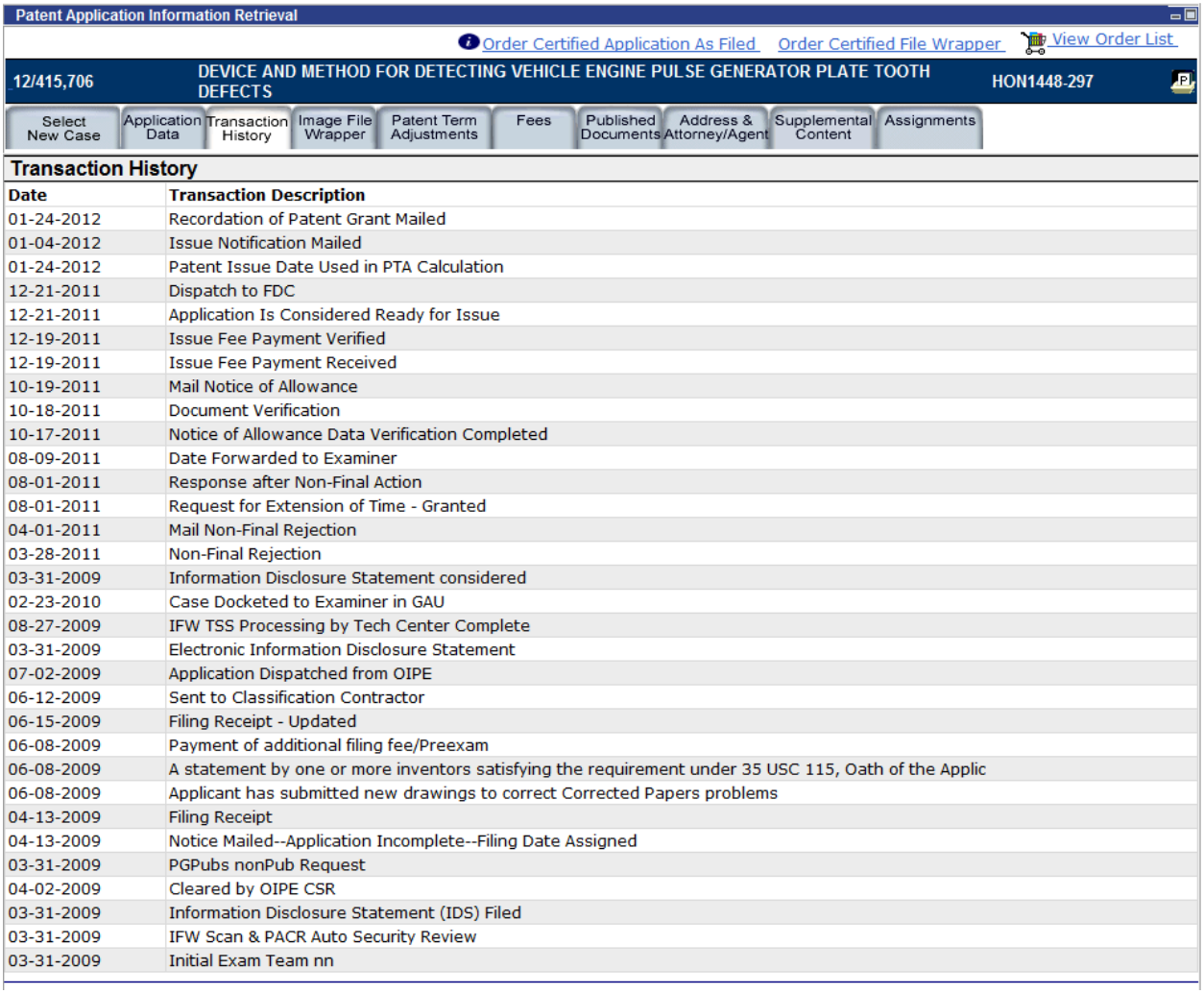
Table B-5: Selected Event Codes for the Appeals Process

Event Code	Description	Details
APPG	Hearing Postponement Granted	Appellant may request an oral hearing before the Patent Board. In response to that request, a notice of the hearing stating the date, time and docket is forwarded to the appellant by the Board. The appellant must send a confirmation within a stated time period confirming that appellant will attend. If appellant cannot attend at the designated time, appellant may request a postponement of the hearing. Such a request may be granted if it does not unduly delay a decision in the case or place undue burden on the Board.
APPH	Postponement of Oral Hearing Request	Appellant may request an oral hearing before the Patent Board In response to that request, a notice of the hearing stating the date, time and docket is forwarded to the appellant by the Board. The appellant must send a confirmation within a stated time confirming that appellant will attend. If appellant cannot attend at the designated time, appellant may request a postponement of the hearing. Such a request may be granted if it does not unduly delay a decision in the case or place undue burden on the Board.
APPR	Panel Remand to the Examiner by BPAI	The Patent Board may remand a case to the examiner when it deems it necessary. For example, the Board may remand for a fuller description of the claimed invention, for a further explanation of the pertinence of the references, for further search where it feels that the most pertinent art has not been cited, or to consider an amendment, affidavit, or declaration. The Board may also remand an application to the examiner to prepare a supplemental examiner's Answer in response to a reply brief.
APRB	Reply Brief Filed	In response to an Examiner's Answer prepared by the Examiner following appellant's appeal brief to the Patent Board, appellant has a right to file a reply brief within two months of the mailing date of the Examiner's Answer.

Table B-5: Selected Event Codes for the Appeals Process

Event Code	Description	Details
APRD	Order Returning Undocketed Appeal to the Examiner	An order returning an undocketed appeal to the Examiner is sent by the Patent Board if upon review, the Board determines that the application is not ready for docketing. Reasons for the returning the case may be that there was no appropriate indication that an appeal conference had been held, or that an Information Disclosure Statement had been considered, or that an amendment approved for entry by the Examiner had been entered, or that certain references relied upon by the Examiner were scanned in their entirety into IFW.
APWH	Waiver of Hearing by Appellant	Appellant may request an oral hearing before the Patent Board. In response to that request, a notice of the hearing stating the date, time and docket is forwarded to the appellant by the Board. The appellant must send a confirmation within a stated time period confirming that appellant will attend. If appellant no longer can or wishes to attend the scheduled hearing, appellant should inform the Board of a waiver of hearing at the earliest possible opportunity.

Figure B-1: Transaction History tab for application number 12/415,706



Patent Application Information Retrieval

Order Certified Application As Filed | Order Certified File Wrapper | View Order List

12/415,706 | DEVICE AND METHOD FOR DETECTING VEHICLE ENGINE PULSE GENERATOR PLATE TOOTH DEFECTS | HON1448-297

Select New Case | Application Data | Transaction History | Image File Wrapper | Patent Term Adjustments | Fees | Published Documents | Address & Attorney/Agent | Supplemental Content | Assignments

Transaction History

Date	Transaction Description
01-24-2012	Recordation of Patent Grant Mailed
01-04-2012	Issue Notification Mailed
01-24-2012	Patent Issue Date Used in PTA Calculation
12-21-2011	Dispatch to FDC
12-21-2011	Application Is Considered Ready for Issue
12-19-2011	Issue Fee Payment Verified
12-19-2011	Issue Fee Payment Received
10-19-2011	Mail Notice of Allowance
10-18-2011	Document Verification
10-17-2011	Notice of Allowance Data Verification Completed
08-09-2011	Date Forwarded to Examiner
08-01-2011	Response after Non-Final Action
08-01-2011	Request for Extension of Time - Granted
04-01-2011	Mail Non-Final Rejection
03-28-2011	Non-Final Rejection
03-31-2009	Information Disclosure Statement considered
02-23-2010	Case Docketed to Examiner in GAU
08-27-2009	IFW TSS Processing by Tech Center Complete
03-31-2009	Electronic Information Disclosure Statement
07-02-2009	Application Dispatched from OIPE
06-12-2009	Sent to Classification Contractor
06-15-2009	Filing Receipt - Updated
06-08-2009	Payment of additional filing fee/Preexam
06-08-2009	A statement by one or more inventors satisfying the requirement under 35 USC 115, Oath of the Applic
06-08-2009	Applicant has submitted new drawings to correct Corrected Papers problems
04-13-2009	Filing Receipt
04-13-2009	Notice Mailed--Application Incomplete--Filing Date Assigned
03-31-2009	PGPubs nonPub Request
04-02-2009	Cleared by OIPE CSR
03-31-2009	Information Disclosure Statement (IDS) Filed
03-31-2009	IFW Scan & PACR Auto Security Review
03-31-2009	Initial Exam Team nn

Section C: Description of the Continuity Data Tab Release

C.1 Data Files Included in this Release

This data release consists of two data files that, after matching with the **application_data** file, provide all of the information that an analyst would be able to glean from the "Continuity Data" tab on the USPTO's Public PAIR website as of April 26, 2020. An example of the "Continuity Data" tab is presented in Figure C-1. Note that the tab is broken out into two panels. The top panel presents information on the parents of the application. Parents are previous applications from which the current application of interest claims benefit. As is illustrated in Figure C-1, a given application can have more than one parent. For example, in this case the regular nonprovisional utility application 12/756,288 claims the benefit of the previous regular nonprovisional application 12/350,654, which itself claims the benefit of the previous regular nonprovisional application 11/757,967, and so on until you reach the oldest parent application (08/124,392) which was originally filed in 1993. The bottom panel presents information on the children of application. In our example, we see that one application (13/406,038) claims the benefit of application 12/756,288. In a sense, however, this child application is really claiming the benefit of the original application 08/124,392, as seen in Figure C-2, which shows the continuity data tab for that application. Note also that the applications found in the continuity data tab for 10/000,240 are not the only applications that claim benefit from 08/124,392. We will return to this example after we discuss how the data sets are structured.

The two data files provided in this release correspond to the two panels on the "Continuity Data" tab for each application that has either parents or children. The first data file is named **continuity_parents** and it contains information on the application numbers and filing dates of all previous applications from which a subject application claims benefit. If an application has multiple parents, then the file will include multiple observations for that application. This data file includes 9,447,966 observations on 5,478,293 unique subject applications. See Table C-1 for a list of the variables included in **continuity_parents**.

The second data file is **continuity_children** and it contains similar information for all subsequent applications that claim benefit of a given subject application. As was the case with the **continuity_parents** file, the **continuity_children** file includes multiple observations for those applications that have multiple children. This data file includes 8,091,070 observations on 3,741,285 unique subject applications. See Table C-2 for a list of the variables included in **continuity_children**. In the next section, we describe the variables in more detail.

C.2 Variables Included in the Two Data Files

The variable *application_number* is common to both the **continuity_parents** and **continuity_children** data sets. This variable identifies the application that has at least one parent (or child) and can be used to

link information contained in either of these two data sets back to the various other data sets that are included in the greater PatEx Research Dataset release.

The variable *parent_application_number* is available only in the **continuity_parents** data file and it identifies an application as a parent of the subject application (identified using the *application_number* variable). The variable *child_application_number* is available only in the **continuity_children** data set and it identifies an application as a child of the subject application (again, identified using the *application_number* variable).

The variable *parent_filing_date* is available only in the **continuity_parents** data set. It provides the filing date of the application identified using the *parent_application_number* variable. Likewise, the variable *child_filing_date* is available only in the **continuity_children** data set. It provides the filing date of the application identified using the *child_application_number* variable. Each filing date variable is formatted as a numeric variable, which is set equal to the difference between the filing date and the first day of January 1960. For instance, if an application was received on 10 January 1960, then the date variable would be equal to 9. For dates prior to 1 January 1960, the date variable takes on negative values. In the Stata version of the data set, the %td display format is embedded, so that the dates display with the following format: ddmmmyyyy. For example, when *parent_filing_date* is equal to 12,500, it displays in Stata as "23mar1994."

In a departure from earlier PatEx releases, the final variable, *continuation_type*, is available only in the **continuity_parents** file. To understand the *continuation_type* variable, it is best to consider our previous example of application number 12/756,288 as illustrated in Figure C-1. In Figure C-3, we re-produce the information from the Public PAIR portal as it is in PatEx. The first line in Figure C-3 matched up with Figure C-1 in that the subject application (12/756,288) is a continuation of its immediate parent application (12/350,654). Again referring to the Public PAIR Continuity tab in Figure C-1, we see that the second line indicates that application 12/350,654 is a continuation of application 11/757,967. Note that the subject application is not a continuation of 11/757,967. Likewise, the fifth line in Figure C-1 indicates that application 09/478,325 is a continuation-in-part (CIP) of application 08/368,378. The final line of Figure C-3 indicates that application 08/368,378 is a continuation-in-part of application 08/124,392. The thing to remember is that an understanding of the continuity tab is important in interpreting the *continuation_type* variable.

Table C-3 provides counts for the *continuation_type* variable. The most common continuation type (36 percent of the observation) is not technically a continuation, but rather a claiming of the benefit of a provisional application. Regular continuations make up roughly 27 percent of the observations, while national stage entries of PCT applications under Sect 371 account for nearly 16 percent. Continuations-in-part and divisionals together account for 20 percent of the observations.

Table C-4 provides counts for the continuation type associated with each subject application's immediate parent. We define the immediate parent as the parent with the most recent application filing date.[4] For instance, when considering our on-going example, we would consider application number

[4] For this exercise, we drop roughly 58,000 observations where the parent filing date is blank.

12/350,654 to be the immediate parent of subject application 12/756,288. The most common continuation type between applications and their immediate parents is the regular continuation (32 percent), followed by claims of the benefit of a provisional application (26 percent) and national stage entries (23 percent). Continuations-in-part and divisional continuations together account for 19 percent of these continuations.

Table C-1: List of variables included in continuity_parents

Variable Name	Description	Type	Formatting
application_number	Application number	str17	%-20s
parent_application_number	Application number of parent	str17	%-17s
parent_filing_date	Filing date of parent application	float	%td
continuation_type	Type of relationship between applications	str3	%9s

Table C-2: List of variables included in continuity_children

Variable Name	Description	Type	Formatting
application_number	Application number	str17	%-20s
chilf_application_number	Application number of child	str14	%-14s
child_filing_date	Filing date of child application	float	%td

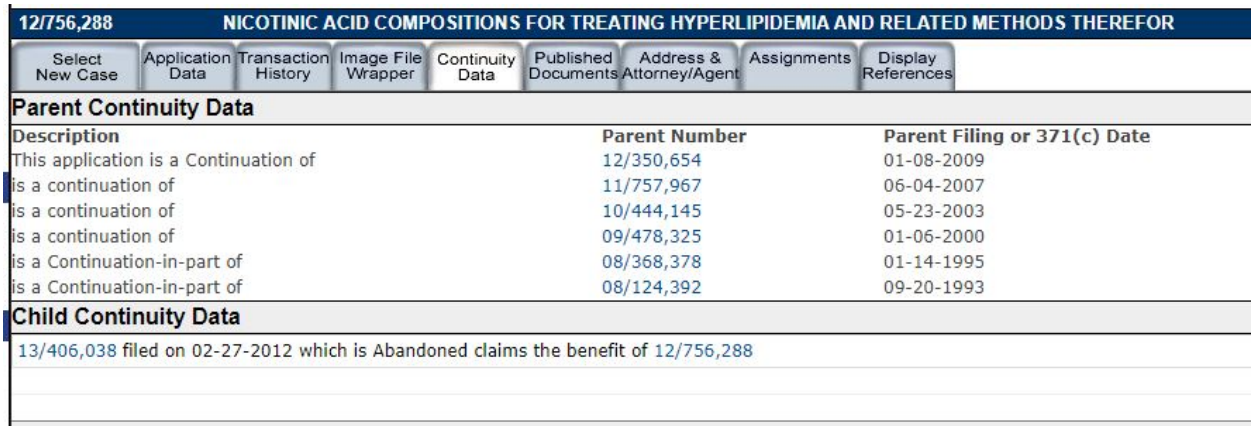
Table C-3: Counts of observations by *continuation_type* in the continuity_parents file

Value	Description	Frequency	Percent
PRO	Claims the benefit of a provisional application	3,435,147	36.4
CON	Continuation	2,608,225	27.6
NST	National stage entry	1,481,337	15.7
CIP	Continuation in part	1,073,019	11.4
DIV	Divisional continuation	801,800	8.5
REI	Re-issue	29,792	0.3
REX	Re-Examination	16,576	0.2
?	Not data	1,635	0.0
SER	Supplemental examination	230	0.0
SUB	Substitute application	205	0.0
Total		9,447,966	

Table C-4: Counts of observations by *continuation_type* for observations on immediate parents

Value	Description	Frequency	Percent
CON	Continuation	1,751,911	32.0
PRO	Claims the benefit of a provisional application	1,428,829	26.1
NST	National stage entry	1,290,533	23.6
DIV	Divisional continuation	568,104	10.4
CIP	Continuation in part	399,551	7.3
REI	Re-issue	22,204	0.4
REX	Re-Examination	15,810	0.3
?	Not data	999	0.0
SER	Supplemental examination	230	0.0
SUB	Substitute application	122	0.0
		5,478,293	

Figure C-1: The continuity data tab for application 12/756,288



12/756,288 NICOTINIC ACID COMPOSITIONS FOR TREATING HYPERLIPIDEMIA AND RELATED METHODS THEREFOR

Select New Case | Application Data | Transaction History | Image File Wrapper | Continuity Data | Published Documents | Address & Attorney/Agent | Assignments | Display References

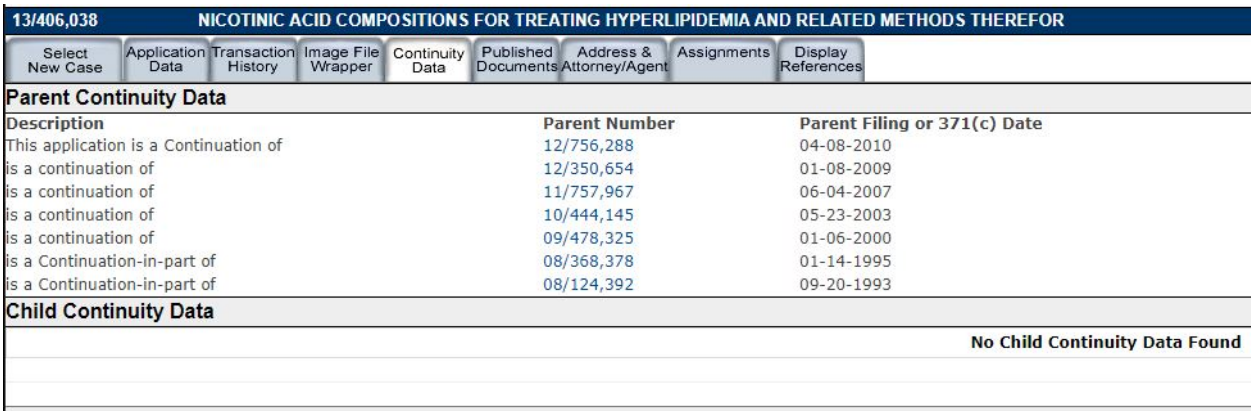
Parent Continuity Data

Description	Parent Number	Parent Filing or 371(c) Date
This application is a Continuation of	12/350,654	01-08-2009
is a continuation of	11/757,967	06-04-2007
is a continuation of	10/444,145	05-23-2003
is a continuation of	09/478,325	01-06-2000
is a Continuation-in-part of	08/368,378	01-14-1995
is a Continuation-in-part of	08/124,392	09-20-1993

Child Continuity Data

13/406,038 filed on 02-27-2012 which is Abandoned claims the benefit of 12/756,288

Figure C-2: The continuity data tab for application 13/406,038



13/406,038 NICOTINIC ACID COMPOSITIONS FOR TREATING HYPERLIPIDEMIA AND RELATED METHODS THEREFOR

Select New Case | Application Data | Transaction History | Image File Wrapper | Continuity Data | Published Documents | Address & Attorney/Agent | Assignments | Display References

Parent Continuity Data

Description	Parent Number	Parent Filing or 371(c) Date
This application is a Continuation of	12/756,288	04-08-2010
is a continuation of	12/350,654	01-08-2009
is a continuation of	11/757,967	06-04-2007
is a continuation of	10/444,145	05-23-2003
is a continuation of	09/478,325	01-06-2000
is a Continuation-in-part of	08/368,378	01-14-1995
is a Continuation-in-part of	08/124,392	09-20-1993

Child Continuity Data

No Child Continuity Data Found

Figure C-3: Data for subject application 12/756,288 from the continuity_parents file

application_number	parent_applicat~r	parent_fil~e	continuati~e
12756288	12350654	08jan2009	CON
12756288	11757967	04jun2007	CON
12756288	10444145	23may2003	CON
12756288	09478325	06jan2000	CON
12756288	08368378	14jan1995	CIP
12756288	08124392	20sep1993	CIP

Section D: Description of the Foreign Priority Data Tab Release

D.1 Data File Included in this Release

All of the information that a user would be able to glean from the "Foreign Priority" tab on PTO's Public PAIR website as of April 26, 2020, is available from the **foreign_priority** data file. This information includes the application number of the subject application, an identifier for the non-US application from which the subject application is claiming priority, the filing date of the non-US application, and the country in which the non-US application was filed. There are 4,830,178 observations on 3,826,422 unique subject applications. An example of the "Foreign Priority" tab is presented in Figure D-1. It shows the "Foreign Priority" tab for application number 10/530,456 which was filed with the USPTO in April of 2005. The application claims priority from a previous filing with the Japanese Patent Office (JPO) from October of 2002. See Table D-1 for a list of the variables included in the **foreign_priority** data file.

D.2 Variables Included in the Data File

The **foreign_priority** data file includes five variables. The variable *application_number* identifies the subject application which is claiming priority from a foreign application and can be used to link information contained in either of these two data files back to the various other data files that are included in the greater PatEx Research Dataset release.

The variable *foreign_parent_id* identifies the non-US application from which the subject application is claiming priority. The variable *foreign_parent_date* gives the date on which the non-US, parent application was originally filed in the foreign jurisdiction. It is formatted as a numeric variable, which is set equal to the difference between the filing date and the first day of January 1960. For instance, if an application was received on 10 January 1960, then the date variable would be equal to 9. For dates prior to 1 January 1960, the date variable takes on negative values. In the Stata version of the data set, the %td display format is embedded, so that the dates display with the following format: ddmmmyyyy. For example, when *foreign_parent_date* is equal to 12,500, it displays in Stata as "23mar1994." The variable *parent_country* identifies the jurisdiction in which the non-US, parent application was filed.

In Table D-2, we present the most common jurisdictions of original parent filings for non-US, parent applications. Not surprisingly, we find that countries such as Japan, Germany, South Korea, and the United Kingdom are the most common jurisdictions.

Curiously, the United States ranks ninth. Patent Cooperation Treaty (PCT) applications make up roughly 90 percent of the foreign parents coded with the United States as the jurisdiction of original filing. Such applications that do not designate the United States for possible national stage entry are treated as

foreign applications and they should not be coded as being US applications. It is likely that most of these cases amount to either coding errors or errors made by applicants when filing their applications. We have also found cases where applicants have claimed foreign priority to regular US applications and where this has been corrected in the published patent, but not in the underlying Public PAIR data.

In addition to this, we have found the following pattern when examining the Public PAIR website. There are many cases where a PCT filing claims the benefit of a previous US application and this appears in the Continuity data for the PCT filing. Then a new regular application is filed as a national stage entry of the PCT filing. The PCT filing appears in the Continuity data for the new regular application while the original US application appears in the foreign priority data for this new regular application. Technically, the original US application should appear as one of the parents of the new application. In other words, it should appear in **continuity_parents**, not in **foreign_priority**. We suggest that users proceed with caution when considering applications claiming foreign priority to the United States and make adjustments as necessary.

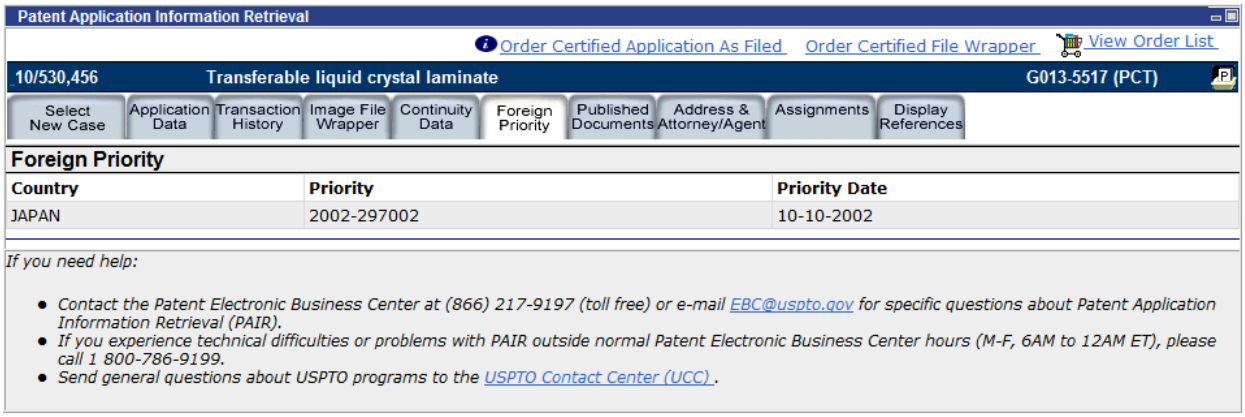
Table D-1: List of variables included in foreign_priority

Variable	Description	Type	Formatting
application_number	Application number	str17	%-20s
foreign_parent_id	Non-US parent identifier	str23	%-17s
foreign_parent_date	Original filing date of the non-US parent	float	%td
parent_country	Country of non-US parent	strL	%-20s

Table D-2: Most common jurisdictions of non-US parent applications

Country/Jurisdiction	Frequency
JAPAN	2,173,388
GERMANY	515,073
REPUBLIC OF KOREA	437,290
UNITED KINGDOM	264,933
EUROPEAN PATENT OFFICE (EPO)	264,738
CHINA	214,654
FRANCE	180,668
TAIWAN	130,666
UNITED STATES OF AMERICA	93,555
ITALY	67,360
AUSTRALIA	62,805
SWEDEN	50,190
EUROPEAN UNION INTELLECTUAL PROPERTY OFFICE (EUIPO)	44,208
SWITZERLAND	37,253
CANADA	32,642
INDIA	31,126
NETHERLANDS	27,542
DENMARK	23,507
FINLAND	23,474
ISRAEL	23,106

Figure D-1: "Foreign Priority" tab for application number 10/530,456



Section E: Description of the Patent Term Adjustment and Extension Data Tabs Release

E.1 Data Files Included in this Release

This data release consists of three data files. The first, called **pat_term_adj**, provides all of the information that a user would be able to glean from the "Patent Term Adjustment History" section of the "Patent Term Adjustments" tab and the "Patent Term Extension History" section of the "Patent Term Extension History" tab on Public PAIR on April 26, 2020. The information includes the application number of the subject application, the transaction history of the subject application complete with transaction dates, the length of any delays for which the USPTO was responsible, and the lengths of any delays for which the applicant was responsible. It also includes a variable, which identifies each observation as being pulled from a "Patent Term Adjustments" tab or a "Patent Term Extension History" tab. The data file includes 212,987,812 observations on 4,320,072 unique patent applications. See Table E-1 for a list of the variables included in the **pat_term_adj** data set.

As an example, Figure E-1 shows the "Patent Term Adjustment" tab for application number 12/536,965, which was filed with the USPTO in August of 2009. The top portion of the tab includes calculations for the total patent term adjustment. These calculations are included in the **pta_summary** file (see Tables E-2 and E-3 for the variables included in the **pta_summary** and analogous **pte_summary** files). The bottom portion of the tab includes the history of delays in the prosecution of the application. These delays are used in the calculations in the top portion of the tab. Given the structure of the tab, there will usually be multiple entries in the data set for each application. One can interpret the data presented in Figure E-1 as follows.

- The examiner was late in mailing out the restriction requirement on July 29, 2011, which caused 296 days of delay for which the USPTO was responsible.
- Later in the prosecution, there was a delay of 55 days on the part of the applicant regarding the completion of drawings.

To determine the patent term adjustment in the top portion of the tab, the delays for which the applicant is responsible are subtracted from the non-overlapping delays for which the USPTO is responsible. Thus, the total patent term is adjusted (or extended) by 241 days (the 296 days of USPTO delay minus the 55 days of applicant delay).

E.2 Variables Included in pat_term_adj

The variables included in the **pat_term_adj** data file allow the user to mimic the "Patent Term Adjustment History" and "Patent Term Extension History" panels. The variable *application_number*

identifies the subject application and can be used to link information from this data file to the other data files included in the PatEx Research Dataset release.

The variable *pta_sequence_number* corresponds to the values in the "Number" column in the "Patent Term Adjustment History" panel. The *pta_sequence_number* is always blank for cases from the "Patent Term Extension History" tab, as this tab does not include the "Number" column. The variable *pta_event_date* provides the date on which each transaction occurred and corresponds to the values from the "Date" column in the "Patent Term Adjustment History" and "Patent Term Extension History" panels. This variable is formatted as a numeric variable, which is set equal to the difference between the filing date and the first day of January 1960. For instance, if an application was received on 10 January 1960, then the date variable would be equal to 9. For dates prior to 1 January 1960, the date variable takes on negative values. In the Stata version of the data set, the %td display format is embedded, so that the dates display with the following format: ddmmmyyyy. For example, when *pta_event_date* is equal to 12,500, it displays in Stata as "23mar1994."

The variable *pta_event_desc* corresponds to the "Contents Description" column. The next two variables describe any delays in the patent prosecution process related to each event. The first variable, *applicant_delay_duration*, indicates the length of any delay that was caused by the applicant, while the next variable. *uspto_delay_duration*, indicates the length of any delay that was caused by the USPTO. A value of greater than zero indicates that there was a delay.

The next variable, *start_pta_sequence_number*, indicates which prior event generated a due date for the event that was eventually delayed. For instance, patent term adjustment will typically be triggered if a first action is not completed within 14 months of an application filing. Thus, if the first action is delayed, the *start_pta_sequence_number* variable will typically indicate that the prior event that generated the due date for the first action was the initial application filing. This is illustrated in Figure E-1, where the first action (the restriction requirement) was delayed. The sequence number in the "Start" column (0.5) is the original sequence number from the "Number" column for the application filing date. Like the *pta_sequence_number*, this variable is not populated for the patent term extension history observations, since it is not included in the "Patent Term Extension History" panel.

The final variable, *term_extension_indicator*, is a variable that identifies observations that were pulled from the "Patent Term Extension History" tab rather than the "Patent Term Adjustments" tab. For observations related to a patent term extension history, the variable is set equal to one. It is set equal to zero for observations related to patent term adjustment histories.

E.3 Variables Included in pta_summary

Like all of the other files in PatEx, the **pta_summary** file includes the *application_number* variable, which one can use to link the information found in the file to information found in the other PatEx files. The other variables in the **pta_summary** file correspond with the information included in the top panel of the "Patent Term Adjustments" tab. The pto_delay_a, pto_delay_b and pto_delay_c variables refer to USPTO-caused delays that fall into three categories:

- Type "A" Delays: These are the most common delays and typically include delays in the mailing of office actions. More technically they refer to PTO delays pursuant to 35 U.S.C. § 154(b)(1)(A)(i)-(iv) and the implementing regulations 37 CFR 1.702(a) & 37 CFR 1.703(a).
- Type "B" Delays: These delays are caused by the failure of a patent to issue within three years of the filing date of the application in the United States under section 111(a) or, in the case of an international application, the date of national stage entry under section 371.75
- Type "C" Delays: These delays are typically caused by interference proceedings, secrecy orders, and successful appeals before the PTAB (or BPAI). For instance, if an appeal before the PTAB takes two years and is successful, those two years of delay are awarded to the applicant as a patent term adjustment.

The variable *overlap_pto_delay* captures any Type A delay that may overlap with either of the other types of delay. It is important to record this as the portion of a Type A delay that overlaps with either a Type B or Type C delay is not counted when calculating the patent term adjustment. The next variable, *nonoverlap_pto_delay*, is equal to the total sum of USPTO delays subtracting out the overlapping USPTO delay. The *pto_manual_adjustment* variable captures any final patent term adjustment that was added or subtracted by USPTO prior to patent issue. Such adjustments can also be made after patent grant in response to a petition from the patent holder.

The *applicant_delay* variable provides the total delay in prosecution caused by the applicant. It is then subtracted from any non-overlapping USPTO delay to arrive at the final patent term adjustment, which is captured in the *patent_term_adjustment* variable.

E.4 Variables Included in pte_summary

Like all of the other files in PatEx, the **pte_summary** file includes the *application_number* variable, which one can use to link the information found in the file to information found in the other PatEx files. The other variables in the **pte_summary** file correspond with the information included in the top panel of the "Patent Term Extension History" tab.

The *pto_adjustment* variable is similar to the manual adjustment variable in the **pta_summary** file. USPTO and applicant (correction) delays are captured by the *pto_delay* and *applicant_delay* variables, respectively. The final patent term extension granted by USPTO is captured by the *patent_term_extension* variable.

Table E-1: List of variables included in pat_term_adj

Variable Name	Description	Type	Formatting
application_number	Application Number	str17	%-20s
pta_sequence_number	The sequence number for the prosecution event	float	%9.0g
pta_event_date	The date of the prosecution event	float	%td
pta_event_desc	Description of the prosecution event	strL	%-20s
uspto_delay_duration	Length (in days) of the delay in prosecution if caused by USPTO	int	%8.0f
applicant_delay_duration	Length (in days) of the delay in prosecution if caused by the applicant	int	%8.0f
start_pta_sequence_number	Identifier for the event that triggered the due date for the delayed event	float	%9.0g
term_extension_indicator	Indicates whether the observation is for a patent term extension instead of adjustment	float	%9.0g

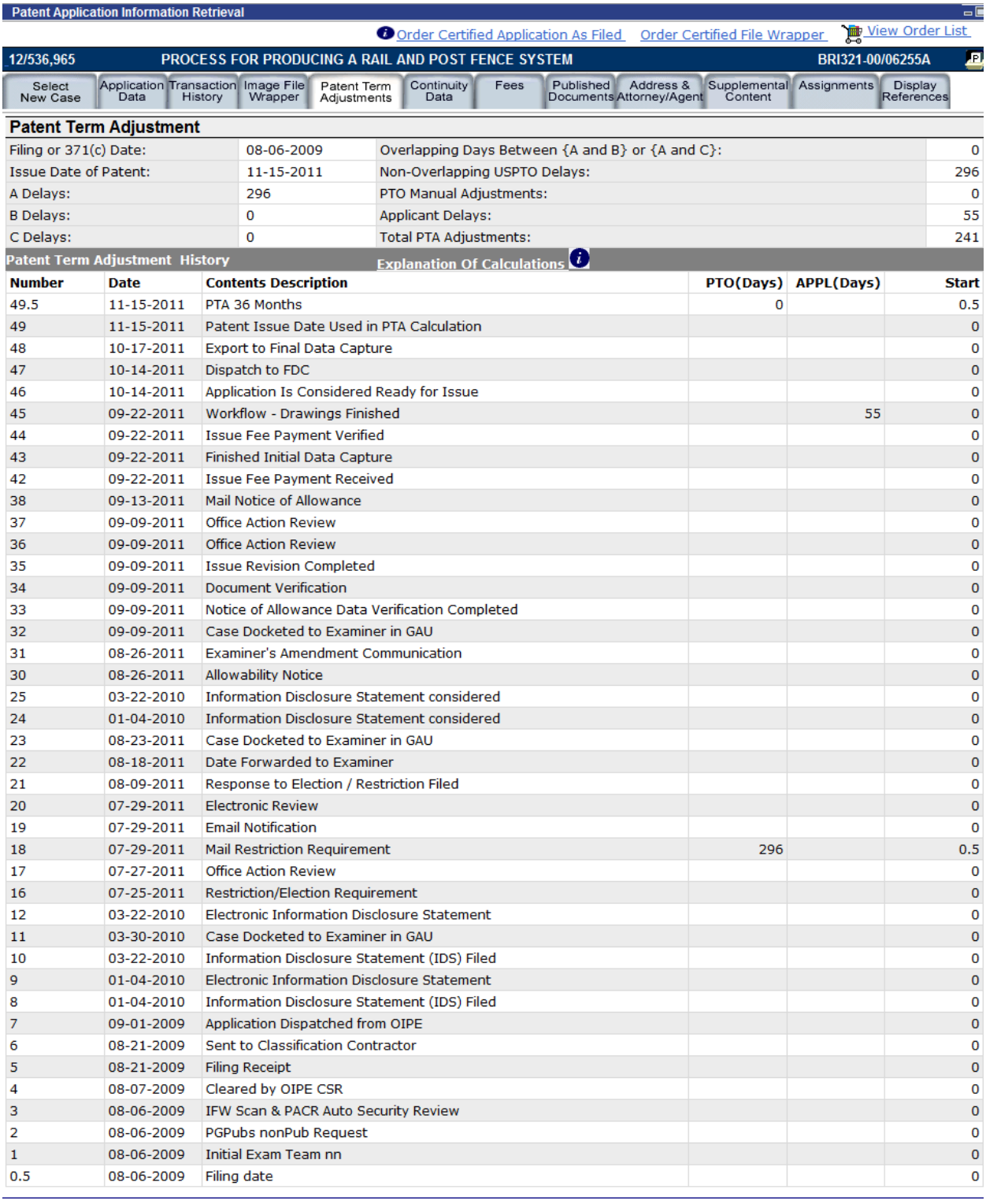
Table E-2: List of variables included in pta_summary

Variable Name	Description	Type	Formatting
application_number	Application Number	str17	%-20s
pto_delay_a	Type A USPTO delay	int	%8.0f
pto_delay_b	Type B USPTO delay	int	%8.0f
pto_delay_c	Type C USPTO delay	int	%8.0f
overlap_pto_delay	Type A delay that overlaps Type B or Type C delay	int	%8.0f
nonoverlap_pto_delay	Total USPTO delay accounting for overlap	int	%8.0f
pto_manual_adjustment	Adjustments to patent term made prior to issue	int	%8.0f
applicant_delay	Total applicant-caused delay	int	%8.0f
patent_term_adjustment	Total patent term adjustment	int	%8.0f

Table E-3: List of variables included in pte_summary

Variable Name	Description	Type	Formatting
application_number	Application Number	str17	%-20s
pto_adjustment	Adjustment to extension made prior to issue	int	%8.0f
pto_delay	Total USPTO delay	int	%8.0f
applicant_delay	Total applicant delay	int	%8.0f
patent_term_extension	Total patent term extension	int	%8.0f

Figure E-1: "Patent Tem Adjustment" tab for application number 12/536,965



Patent Application Information Retrieval

Order Certified Application As Filed | Order Certified File Wrapper | View Order List

12/536,965 PROCESS FOR PRODUCING A RAIL AND POST FENCE SYSTEM BRI321-00/06255A

Select New Case | Application Data | Transaction History | Image File Wrapper | Patent Term Adjustments | Continuity Data | Fees | Published Documents | Address & Attorney/Agent | Supplemental Content | Assignments | Display References

Patent Term Adjustment

Filing or 371(c) Date:	08-06-2009	Overlapping Days Between {A and B} or {A and C}:	0
Issue Date of Patent:	11-15-2011	Non-Overlapping USPTO Delays:	296
A Delays:	296	PTO Manual Adjustments:	0
B Delays:	0	Applicant Delays:	55
C Delays:	0	Total PTA Adjustments:	241

Patent Term Adjustment History Explanation Of Calculations

Number	Date	Contents Description	PTO(Days)	APPL(Days)	Start
49.5	11-15-2011	PTA 36 Months	0		0.5
49	11-15-2011	Patent Issue Date Used in PTA Calculation			0
48	10-17-2011	Export to Final Data Capture			0
47	10-14-2011	Dispatch to FDC			0
46	10-14-2011	Application Is Considered Ready for Issue			0
45	09-22-2011	Workflow - Drawings Finished		55	0
44	09-22-2011	Issue Fee Payment Verified			0
43	09-22-2011	Finished Initial Data Capture			0
42	09-22-2011	Issue Fee Payment Received			0
38	09-13-2011	Mail Notice of Allowance			0
37	09-09-2011	Office Action Review			0
36	09-09-2011	Office Action Review			0
35	09-09-2011	Issue Revision Completed			0
34	09-09-2011	Document Verification			0
33	09-09-2011	Notice of Allowance Data Verification Completed			0
32	09-09-2011	Case Docketed to Examiner in GAU			0
31	08-26-2011	Examiner's Amendment Communication			0
30	08-26-2011	Allowability Notice			0
25	03-22-2010	Information Disclosure Statement considered			0
24	01-04-2010	Information Disclosure Statement considered			0
23	08-23-2011	Case Docketed to Examiner in GAU			0
22	08-18-2011	Date Forwarded to Examiner			0
21	08-09-2011	Response to Election / Restriction Filed			0
20	07-29-2011	Electronic Review			0
19	07-29-2011	Email Notification			0
18	07-29-2011	Mail Restriction Requirement	296		0.5
17	07-27-2011	Office Action Review			0
16	07-25-2011	Restriction/Election Requirement			0
12	03-22-2010	Electronic Information Disclosure Statement			0
11	03-30-2010	Case Docketed to Examiner in GAU			0
10	03-22-2010	Information Disclosure Statement (IDS) Filed			0
9	01-04-2010	Electronic Information Disclosure Statement			0
8	01-04-2010	Information Disclosure Statement (IDS) Filed			0
7	09-01-2009	Application Dispatched from OIPE			0
6	08-21-2009	Sent to Classification Contractor			0
5	08-21-2009	Filing Receipt			0
4	08-07-2009	Cleared by OIPE CSR			0
3	08-06-2009	IFW Scan & PACR Auto Security Review			0
2	08-06-2009	PGPubs nonPub Request			0
1	08-06-2009	Initial Exam Team nn			0
0.5	08-06-2009	Filing date			0

Section F: Description of the Address and Attorney/Agent Data Tab Release

F.1 Data Files Included in this Release

This data release consists of two files that provide the information that an analyst would be able to obtain from the "Address & Attorney/Agent" tab on the USPTO's Public PAIR website as of April 26,2020. An example of the "Address & Attorney/Agent" tab is presented in Figure F-1. Note that the tab is broken out into two panels. The top panel presents information on the latest correspondence address for the application along with the customer number. The bottom panel presents information on the attorneys and patent agents associated with the customer number listed in the top panel. The information includes each attorney's or agent's name and registration and telephone numbers. In our example, we see that there are two individual's associated with the application.

The two data sets provided in this release correspond to the two panels on the "Address & Attorney/Agent" tab for each application for which the information is available. The first data set is named **correspondence_address** and it contains information from the top panel. The **correspondence_address** file has one observation for each of the applications included in the **application_data** file. The file can be linked to other files in the PatEx dataset using the *application_number* variable.

The second data set is **attorney_agent** and it contains the information available in the bottom panel. The **attorney_agent** file has 224,145,534 observations on 10,391,923 unique patent applications. This file can also be linked to other files in the PatEx dataset using the *application_number* variable. Depending on the number of attorney or agents associated with each application, the data set can contain multiple observations per *application_number*.

F.2 Variables Included in correspondence_address

The **correspondence_address** data file contains 10 variables, as illustrated in Table F-1. In addition to the *application_number* variable, there are other variables that are longer string variables and are fairly self-explanatory. The name of the entity, with which USPTO is meant to correspond, is given one line of text. In most, but not all, cases the entity is a law firm or the legal department of a commercial enterprise. The next three variables – *correspondence_street_line_1*, *correspondence_street_line_2*, and *correspondence_street_line_3* – describe the street address of the correspondent. The *correspondence_city* and *correspondence_postal_code* variables are also self-explanatory.

Determining the location (country or U.S. state) of each correspondence address can be done using the *correspondence_country_code* and *correspondence_region_code* variables. The *correspondence_country_code* variable is coded using the ISO 3166 format. For US and Canadian

addresses, the *correspondence_region_code* variable can be used to determine state or province. States and Canadian provinces are coded using standard US Postal Service 2-digit abbreviations. The final variable is *customer_number*, which can be used to uniquely identify the correspondent. This variable has a valid value for nearly 5.6 million of the 8.7 million observations in the *correspondence_address* data file.

F.3 Variables Included in attorney_agent

Table F-2 provides a list of the variables included in **attorney_agent**. There can be multiple observations for each application included. The variables associated with the practitioners' names are self-explanatory. The atty*_registration_number* variable provides the registration number at the USPTO for each of the practitioners. The *atty_practice_category* variable provides information on the type of practitioner. Among the non-missing practitioner observations, 82 percent are attorneys and 18 percent are agents.

Table F-1: List of Variables Included in correspondence_address

Variable Name	Description	Type	Formatting
application_number	Application Number	str17	%-20s
correspondence_name	Entity Name	strL	%-20s
correspondence_street_line_1	Street address Part 1	strL	%-20s
correspondence_street_line_2	Street address Part 2	strL	%-20s
correspondence_street_line_3	Street address Part 3	strL	%-20s
correspondence_city	Name of city	strL	%-20s
correspondence_postal_code	Postal code	str20	%-20s
correspondence_region_code	Region (State)	str4	%-20s
correspondence_country_code	Country code (ISO 3166)	str4	%-20s
customer_number	Customer number	long	%12.0f

Table F-2: List of Variables Included in attorney_agent

Variable Name	Description	Type	Formatting
application_number	Application number	Str14	%-14s
atty_name_last	Family name of attorney/agent	strL	%-20s
atty_name_first	Given name of attorney/agent	strL	%-20s
atty_name_middle	Middle name of attorney/agent	strL	%-20s
atty_name_suffix	Any suffix (Jr., II, III, etc.)	strL	%-4s
atty_phone_number	Phone/contact number	str20	%-20s
atty_registration_number	Registration number with USPTO	str5	%-5s
atty_practice_category	Type of practitioner	str8	%-8s

Figure F-1: The Address and Attorney/Agent Tab for Application 11/874.690