SINTELIX

CASE STUDY

IP Australia Patent Backcapture Challenge

IP Australia is the Australian Government agency responsible for administering intellectual property (IP) rights and legislation relating to patents, trademarks, designs and plant breeders' rights.

Australian Government
IP Australia

The Sintelix Workflow

Backcapture Project Outcomes

- **390,000** historical records transformed
- **Fast delivery.** Completed in 6 weeks.
- **Reliable.** 10 x reduction in error rates
- **Accurate.** Field accuracy of 99.7%

The Patent Backcapture Challenge

IP Australia had 390,000 historic patent documents, dating back to 1904, with little or no metadata. It was impossible to search through them effectively. IPA asked Semantic Sciences to extract items of metadata using the Sintelix extraction capabilities so that these records would be accessible to clients.

Many of these documents were only available in hard copy and some of them over 100 years old, in black and white and of moderate quality. Using OCR, these documents were converted into a PDF format, creating new opportunities for storage and analysis.

Project Requirements

Capture/extract bibliographic fields from OCRed patent records and specifications from 1904 to 1979.

Provide IPA with captured/extracted data in a specified structured XML format.

The Backcapture Solution

As shown in the workflow diagram, Sintelix provided a solution to IP Australia's challenges within 2 months by:

- Extracting and transforming existing patent specification documents into 390,000 PDF documents
- Loading those documents into Sintelix
- Normalizing and extracting information from those documents, creating 390,000 xml files
- Placing the metadata back into IP Australia databases in a searchable and easy to analyze format, making records accessible to clients.

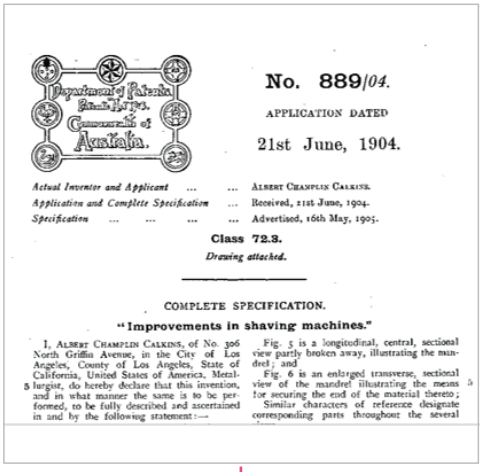
With Sintelix, IP Australia were able to transform a significant amount of data, extracting a large amount of information, including:

- Filing date (lodging or lodged date) of patent specification
- Invention title
- Applicant(s) name
- Inventor(s) name
- Agent's name
- OPI date
- Filing date of basic application/ priority application
- IP Office of priority country
- Priority application number/number assigned to priority application
- Divisional application numbers (parent/child applications).

> "Sintelix provided a solution to IP Australia's challenges within 2 months"
>
> Veena Baht, IP Australia

These examples show the metadata extracted from historic patent specifications:

Example 1.



No. 889/04.

APPLICATION DATED

21st June, 1904.

Actual Inventor and Applicant ... ... ALBERT CHAMPLIN CALKINS.
Application and Complete Specification ... Received, 21st June, 1904.
Specification ... ... Advertised, 16th May, 1905.

Class 72.3.
Drawing attached.

COMPLETE SPECIFICATION.

"Improvements in shaving machines."

I, ALBERT CHAMPLIN CALKINS, of No. 306 North Griffin Avenue, in the City of Los Angeles, County of Los Angeles, State of California, United States of America, Metallurgist, do hereby declare that this invention, and in what manner the same is to be performed, to be fully described and ascertained in and by the following statement:—

Fig. 5 is a longitudinal, central, sectional view partly broken away, illustrating the mandrel; and

Fig. 6 is an enlarged transverse, sectional view of the mandrel illustrating the means for securing the end of the material thereto; Similar characters of reference designate corresponding parts throughout the several

_Filing_Date	1978-01-09
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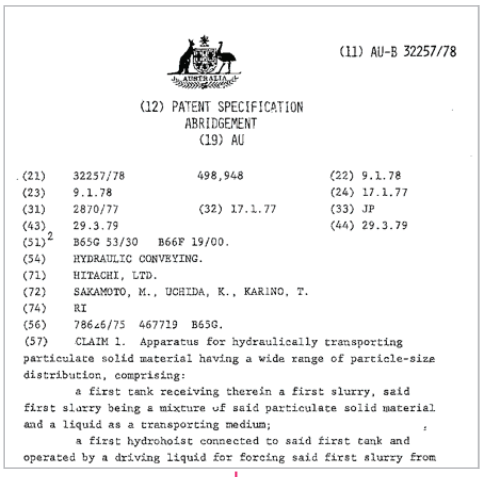
_Title	HYDRAULIC CONVEYING.
_Applicants	HITACHI, LTD.
_Inventors	SAKAMOTO, M., UCHIDA, K., KANNO, T.
_Inventors	<empty>
_Inventors	<empty>
_Agent_Name	RI
_OPI_Date	<empty>

Example 2.



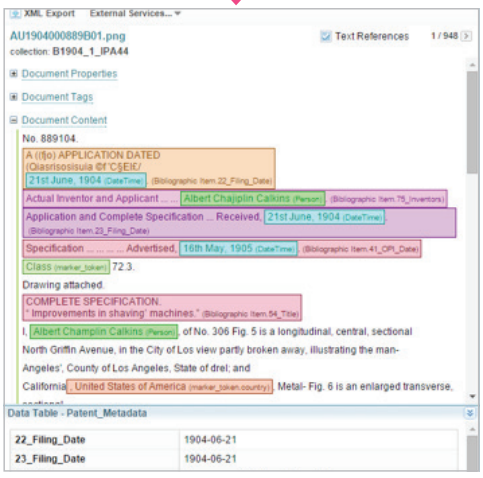
(11) AU-B 32257/78

(12) PATENT SPECIFICATION
ABRIDGEMENT
(19) AU

(21) 32257/78 498,948 (22) 9.1.78
(23) 9.1.78 (24) 17.1.77
(31) 2870/77 (32) 17.1.77 (33) JP
(43) 29.3.79 (44) 29.3.79
(51)[2] B65G 53/30 B66F 19/00.
(54) HYDRAULIC CONVEYING.
(71) HITACHI, LTD.
(72) SAKAMOTO, M., UCHIDA, K., KARINO, T.
(74) RI
(56) 78626/75 467719 B65G.
(57) CLAIM 1. Apparatus for hydraulically transporting particulate solid material having a wide range of particle-size distribution, comprising:

a first tank receiving therein a first slurry, said first slurry being a mixture of said particulate solid material and a liquid as a transporting medium;

a first hydrohoist connected to said first tank and operated by a driving liquid for forcing said first slurry from



22_Filing_Date	1904-06-21
23_Filing_Date	1904-06-21

Backcapture Project Outcomes

With Sintelix, IP Australia were able to successfully extract metadata from 390,000 patent specifications within 6 weeks, meeting the tight deadline and delivering the required level of accuracy.

The letter of recommendation below from IP Australia confims the following project highlights:

- High consistency
- Excellent accuracy
- Rapid execution
- Low cost

> "With Sintelix, IP Australia were able to successfully extract metadata from 390,000 patent specifications within 6 weeks"

Veena Baht, IP Australia

Here are some of the comments from the letter of recommendation:

"The project was organised in two (2) stages: a proof of concept and a main delivery, with a decision gate in between. The results IPA received from the proof of concept were good and achieved within a very short period, so IPA authorised the main project to proceed. Its timelines were tight (6 weeks) and required high accuracy.

Semantic Sciences Research provided IPA with visibility of its progress via online access to progress reports with drill-down to the source and processed data provided from its Sintelix software platform.

Delivered results were excellent. A field accuracy of 99.7% was achieved, which is significantly greater that IPA would expect from human transcription. The project was performed on time and on budget.

IP Australia enjoyed a positive experience of working with Semantic Sciences Research and using Sintelix. The company met our procurement and performance expectations for service providers. We valued Semantic Sciences Research's timeliness, responsiveness and proactivity."

— Veena Bhat, Patent Search Capability Coordinator, IP Australia.

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