



# Swinburne A-Z Databases

URL: [www.swinburne.edu.au/library/search/databases/](http://www.swinburne.edu.au/library/search/databases/)

Code: [https://github.com/justinkelly/az\\_databases](https://github.com/justinkelly/az_databases)

Twitter: [@\\_justin\\_kelly](https://twitter.com/_justin_kelly)

Slides: [http://bit.ly/anzreg\\_az](http://bit.ly/anzreg_az)



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[http://bit.ly/anzreg\\_az](http://bit.ly/anzreg_az)

# Inspiration - UTS

[http://www.lib.uts.edu.au/databases/search\\_databases.py](http://www.lib.uts.edu.au/databases/search_databases.py)

UTS: Library Catalogue Articles Databases

Find Databases Search for a database... Search Search titles only

A - Z DATABASES  
A B C D E F G H I J K L M N O  
P Q R S T U V W X Y Z

SUBJECT  
Architecture  
Built Environment  
Top Built Environment Databases (6)  
Construction (14)  
Planning (12)  
Project Management (10)  
Property Development (14)  
Property Economics (13)  
ALL (30)  
Business  
Communication

**Built Environment - Top Built Environment Databases**

**Building Code of Australia Illustrated**  
Description The Hendry Group, a licensee of the Australian Building Code  
Database

**INFORMIT Complete**  
Description Informit is the leading dedicated source of authoritative research  
Database

**ProQuest Business**  
Description Provides access to 18 business-related ProQuest databases  
Database

**RP Data Property Information**  
Description RP Data provides property based data for NSW, including current  
Database

**Science Direct (Elsevier)**

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**KNOW ING**

- Category and sub-category
- Number of database per category/sub

Not open source

About to be rewritten from scratch

Separate datastore

# Footnotes

## Examples of other AZ Database system

- Swinburnes previous AZ (static html)  
[http://web.archive.org/web/20140923101818/http://www.swinburne.edu.au/lib/database/databaselist\\_a.htm](http://web.archive.org/web/20140923101818/http://www.swinburne.edu.au/lib/database/databaselist_a.htm)
- UTS (custom python app) [http://www.lib.uts.edu.au/databases/search\\_databases.py](http://www.lib.uts.edu.au/databases/search_databases.py)
- Deakin (custom php app) <http://www.deakin.edu.au/library/a-z/databases.php>
- Monash (libguides) <http://guides.lib.monash.edu/subject-databases>
- Harvard (ExLibris Metalib) <http://e-research.lib.harvard.edu/V?func=find-db-1>
- Princeton (Solr and Drupal) <http://library.princeton.edu/research/databases>



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# History

- Library/subject guides have gone rouge
- Databases are a libraries most expensive resources - Why are they hidden away in hard to use systems??
- No acceptable AZ database solution from ExLibris
- All data to be stored in Alma
- Modern system that allows for search, filtering by subject and sub-subject
- Stop the duplication of work involved in updating, adding and maintaining the existing A-Z



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No acceptable AZ database solution from ExLibris

Each institution using own solution to solve the same problem

Either Metalib, LibGuides or homebrew

## **Motivation:**

Swinburne had been using a largely unchanged collection of static HTML pages to list our available databases by A-Z for almost 20 years.

This very basically served its purpose but issues with

- inconsistent data,
- double handling (saved in html and also in the library system),
- no dynamic content or filters by area or subject,

- and no real search.

Following a survey of other University library AZ systems (refer links below) we decided to create a new AZ system similar to UTSs but based 100% on the ExLibris Alma APIs and released as open-source.

### **Goals:**

Modern system that allows for search, filtering by subject and sub-subject

Stop the duplication of work involved in updating, adding and maintaining the existing A-Z

All data to be stored in Alma

Map categories to Swinburne study areas

Forget trying to make a guide pre unit - change to often - age to quickly

Alma is the content management system

# Inspiration - Deakin

<http://www.deakin.edu.au/library/a-z/databases>

## Deakin University Library

### A-Z Databases

0-9 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Or search by title and description... Choose a subject (optional) Search

Title	Description
<b>Gale CenGage</b> Also known as Thomson Gale, CenGage, Infotrac	Gale CenGage is the searching interface for these databases: Computer Database, Expanded Academic ASAP, Health Reference Center Academic, LegalTrac, Academic Onefile, Agriculture Collection, Criminal Justice Collection, General Business File ASAP, Environmental Studies and Policy Collection.
<b>License and access information</b>	
<b>Authorized users</b> <ul style="list-style-type: none"><li>- Deakin Students</li><li>- Deakin Staff</li><li>- Remote Deakin users</li><li>- MIBT members</li><li>- Alumni members</li><li>- Walk-in users</li><li>- Community members</li></ul>	<b>Allowed</b> <ul style="list-style-type: none"><li>- Downloading of limited portions</li><li>- Printing of a single copy of an article/chapter</li><li>- Saving a single copy of an article/chapter for personal use</li><li>- Including an article/chapter in on-line course material</li><li>- Including an article/chapter in print course material</li><li>- Use for MIBT/MIBTI</li><li>- Including an article/chapter in off-line course material e.g. CD ROM</li><li>- Including an article/chapter in on-line course material</li><li>- Creating a link</li></ul>

#### Popular databases

- > EBSCOHost databases
- > Emerald
- > Expanded Academic ASAP
- > Gale CenGage
- > Informit plus text
- > Newbank
- > ProQuest Central
- > ScienceDirect
- > Scopus
- > Taylor and Francis online journals
- > Web of Science

- > Report a problem with a database
- > View the latest Trial Databases



[http://bit.ly/anzreg\\_az](http://bit.ly/anzreg_az)

#### License and access information

- Simply show database user limitations

#### Permanent links

#### Separate datastore

# The Problem

Find Databases Help x

Name:  Contains  Type:

Publisher:  Category:

Keywords:  Sub-category:

Include restricted databases

All Databases Databases results(0) My Databases(0)

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z #

<input type="checkbox"/> OAlster	Show Info
<input type="checkbox"/> OAPEN : online library and publication platform (No access)	Show Info
<input type="checkbox"/> Observatory on Borderless Higher Education (No access)	Show Info
<input type="checkbox"/> OCCUP-HEALTHandSAFETYnetBASE (No access)	Show Info
<input type="checkbox"/> OEB : online Egyptological bibliography (No access)	Show Info
<input type="checkbox"/> OECD iLibrary (No access)	Show Info
<input type="checkbox"/> OMNDIST (Informit) (No access)	Show Info
<input type="checkbox"/> OMNRES (Informit) (No access)	Show Info



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No acceptable AZ database solution from ExLibris

Each institution using own solution to solve the same problem

Either Metalib, LibGuides or homebrew

Metalib in Primo

- Legacy
- Confusing
- Old
- Not aligned with universities existing category and subcategory structure
- Not mobile friendly

# The Problem

> Library > Databases

Databases: T

A B C D E F G H I J K L M N O P R S T U V W Y Z

**TAXABS - Australian Taxation Abstracts** (informit)

Covers taxation law, and other areas of interest such as child support, accounting and superannuation.

**Taylor & Francis - InformaWorld**

Full text for over 1000 scholarly research journals published by Taylor & Francis.

**TechXtra**

TechXtra is a free service which can help you find articles, books, the best websites, the latest industry news, job announcements, technical reports, technical data, full text eprints, the latest research, thesis & dissertations, teaching and learning resources and more, in engineering, mathematics and computing.

**TELECOMMUNICATION SnetBASE**

Collection of CRC Press handbooks on telecommunications.

**Tests in Print (EBSCOhost)**

See **Mental Measurements Yearbook with Tests in Print**

*Limit of 1 simultaneous user*

Tests in Print (TIP) is a comprehensive bibliography to all known commercially available tests that are currently in print in the English language. TIP provides vital information to users including test purpose, test publisher, in-print status, price, test acronym, intended test population, administration times, publication date(s), and test author(s).

**Thomson Legal (Westlaw AU)**

Access to subscribed publications published by Thomson Reuters.

Thomson Gale >>> see **Gale Databases**

**Thomson Hospitality & Tourism SnetBASE**

With content from over 500 industry journals, this collection provides coverage of both the historical and current state of affairs in the hospitality and tourism field.

**Trove (National Library of Australia)**

Trove is a discovery service focused on Australian and Australians. If you are researching in the fields of the social sciences, literature, local or family history, or need inspiration for your school assignment, then this is the tool for you. Connecting Australian and New Zealand universities: [Search all Australian theses](#) or [Search all digital Australian theses](#)

**TVNews (Informit)**

Australian television news, current affairs and selected documentaries from the free-to-air networks with links to the digitised video content in a compressed format.



[http://bit.ly/anzreg\\_az](http://bit.ly/anzreg_az)

- Simple - it worked
- Static
  - issues with alternate titles
  - how to file with common different titles
  - is Trove under T or N or both



# The Problem

## CRC Press and CRCnetBASE

CRCnetBASE is made up of over 8000 online books that span over 40 disciplines. In addition to e-books Press, CRCnetBASE also includes online references from Auerbach and Chapman & Hall.

- SciTechNetbase
- ENGnetBASE - engineering
  - Limited to 10 concurrent users.*
  - CivilEngineeringBASE - civil engineering
  - ElectricalEngineeringBASE - electrical engineering
  - MechanicalEngineeringBASE - mechanical engineering
  - TELECOMMUNICATIONSnetBASE - telecommunications



[http://bit.ly/anzreg\\_az](http://bit.ly/anzreg_az)

## **Problem:**

not dynamic - hard to handle parent/child database relations, same title under multiple letters or name

trying to do category and subcategory with static pages very hard

# Tools - Server - PHP

Laravel - PHP Framework

<https://laravel.com/>

<https://laravel.com/docs/5.0>



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[http://bit.ly/anzreg\\_az](http://bit.ly/anzreg_az)

# Tools - Server - OAI

## PHPOAIPMH

<https://github.com/caseyamcl/phpoaipmh>

### PHPOAIPMH

#### A PHP OAI-PMH harvester client library

release **v2.4** license **MIT** build **passing** downloads **2k** code quality **9.38**

This library provides an interface to harvest OAI-PMH metadata from any OAI 2.0 compliant endpoint.

##### Features:

- PSR-0 thru PSR-2 Compliant
- Composer-compatible
- Unit-tested
- Prefers Guzzle for HTTP transport layer, but can fall back to cURL
- Easy-to-use iterator that hides all the HTTP junk necessary to get paginated records



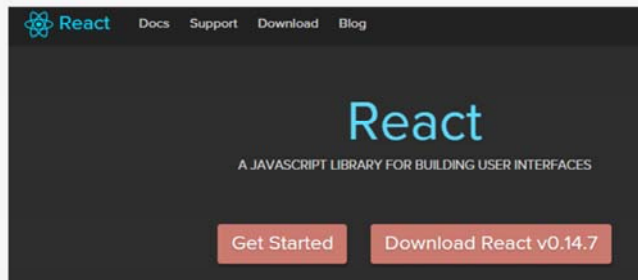
[http://bit.ly/anzreg\\_az](http://bit.ly/anzreg_az)

OAI very well supported in PHP - many libraries to choose fine

PHPOAIPMH worked the best and easiest to setup - and documented

# Tools - Client - ReactJS

Javascript user interface  
<https://facebook.github.io/react/>



[http://bit.ly/anzreg\\_az](http://bit.ly/anzreg_az)

ReactJS from Facebook - Primo 5 New UI using Angular from Google

# Data cleanup and MARC

Title (245a : 245b)	Alternative title (246a)	New Title/alt-title	Keep (246 1X)	Delete	Move to 740 (246 3X)	Move to 245b
	Advantage			Y		
	Market line advantage				Y	
	Datamonitor360			Y		
ScienceDirect	Science direct				Y	
	Elsevier science direct	Y				
Taylor & Francis Online.	Taylor and Francis				Y	
	Informaworld			Y		
SAI Global Standards online premium	Standards online Australia.				Y	
	Australian standards.	Y				
ProQuest criminal justice	Criminal Justice (ProQuest)					
	ProQuest criminal justice periodicals index			Y		
	Criminal justice periodicals index			Y		
	Criminal justice periodicals			Y		
	CJPI			Y		
	Criminal justice			Y		
Canadian Newsstand complete	Canadian newsstand			Y		
	Canadian news stand				Y	
	ProQuest Canadian newsstand			Y		
VicFlora : flora of Victoria.	Vic Flora				Y	
	Flora of Victoria				Y	
	Census of the vascular plants of Victoria				Y	

[https://github.com/justinkelly/az\\_databases#marc-fields](https://github.com/justinkelly/az_databases#marc-fields)



[http://bit.ly/anzreg\\_az](http://bit.ly/anzreg_az)

## Data cleanup

- Export all database to excel
- Redo all descriptions
- Cleanup - delete n add titles and alt titles - which display and which are only searchable
- Assign each database to a category and sub-category (if appropriate ) multiple is OK
- Manually update the MARC records based on the spreadsheets

## New workflows

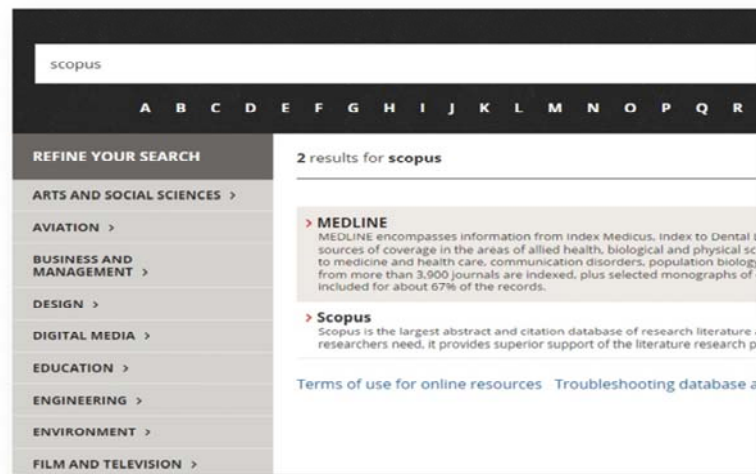
- Once a new database comes on board - subscription notifies the AZ business owner/liasons
- business owner created description and assigns category mapping
- cataloguer updates the MARC record
- 

## MARC

- 245a = Title
- 246a = Alt title that will display in the list under its first letter and searchable
- 740 = An alt title that will be searchable - but will NOT display in the list under its letter

- 260a and b = place of publication and publisher
- 960a = subject - can be multiple
  - This field defines that top level category the database will be listed in - such as 'Engineering'
- 960b = sub-subject - got to think about this - Swinburne defined list (A-Z Subject mapping)
  - This field defines that second level (sub-category) the database will be listed in - such as 'Electrical'
- 650a = sub subject - can be multiple - Library of Congress headings - controlled by the cataloguers
- 520a = description
- 500a = user limit notes
- 362a = time span
- 917a = URL

# Search



<https://www.swinburne.edu.au/library/search/databases/#/search/scopus>



[http://bit.ly/anzreg\\_az](http://bit.ly/anzreg_az)

A search for ebscohost in AZ Databases, returns all 42 ebscohost databases in Alma note:

a general search searches the

- url,
- title,
- description,
- alt title and other marc fields refer link and screenshot below

<http://www.swinburne.edu.au/library/search/databases/#/search/ebscohost>

# Title Search

title: ebscohost

A B C D E F G H I J K L M N O P Q

REFINE YOUR SEARCH

ARTS AND SOCIAL SCIENCES >

AVIATION >

BUSINESS AND MANAGEMENT >

2 results for title: ebscohost

> ebook Collection (EBSCOhost)  
Search and view the full text of eBooks.

> EBSCOhost  
An online reference system accessible via the Internet. It offers access

<https://www.swinburne.edu.au/library/search/databases/#/search/title%3Aebscohost>

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title: "ebscohost"

A B C D E F G H I J K L M N O P Q R S

REFINE YOUR SEARCH

ARTS AND SOCIAL SCIENCES >

AVIATION >


BUSINESS AND MANAGEMENT >

1 results for title: "ebscohost"

> EBSCOhost  
An online reference system accessible via the Internet. It offers access to full information providers, including: MasterFILE elite, Academic search fullTEXT Funk & Wagnalls new world encyclopedia, EBSCO animals, and Primary search

<https://www.swinburne.edu.au/library/search/databases/#/search/title%3A%20%22ebscohost%22>

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## Title

By adding title: to the start of the search query we can limit to a title search for ebscohost, this returns the 2 database with ebscohost in the title refer link and screenshot

below <https://www.swinburne.edu.au/library/search/databases/#/search/title%3Aebscohost>

## Exact

By putting quotes around the search term we can limit to an exact title search, this returns just 1 result - which is the main ebscohost database refer link and screenshot

below <https://www.swinburne.edu.au/library/search/databases/#/search/title%3A%20%22ebscohost%22>



# Category and sub-category

## Databases

The screenshot shows a library search interface. At the top, there is a search bar with the text "Search for a database..." and a red "SEARCH" button. Below the search bar is a navigation bar with letters A through Z. The main content area displays "4 results for Design > Digital media". On the left, there is a "REFINE YOUR SEARCH" sidebar with categories like "ARTS AND SOCIAL SCIENCES", "AVIATION", "BUSINESS AND MANAGEMENT", "DESIGN", "DIGITAL MEDIA", "EDUCATION", and "ENGINEERING". The "DESIGN" category is expanded to show "Digital media" with sub-items "Industrial design" and "Interior architecture". The "DIGITAL MEDIA" category is also expanded. The search results list four databases: "EBL ebook library", "Google scholar", "ProQuest central", and "Swinburne Commons". Each result includes a brief description of the database's content. At the bottom of the screenshot, there are four URLs: <https://www.swinburne.edu.au/library/search/databases/#/area/engineering>, <https://www.swinburne.edu.au/library/search/databases/#/area/engineering/subject/mechanical>, <https://www.swinburne.edu.au/library/search/databases/#/letter/G>, and [http://bit.ly/anzreg\\_az](http://bit.ly/anzreg_az). A red "KNOW ING" logo is visible in the bottom right corner of the screenshot.

Category and sub-category

Some database are in all categories and subcategories

Letters

<https://www.swinburne.edu.au/library/search/databases/#/letter/G>

# Server API

- Categories
  - [https://www.swinburne.edu.au/lib/tools/az\\_server/public/AZArea](https://www.swinburne.edu.au/lib/tools/az_server/public/AZArea)
- Letter
  - [https://www.swinburne.edu.au/lib/tools/az\\_server/public/database/az/H](https://www.swinburne.edu.au/lib/tools/az_server/public/database/az/H)
- Search
  - [https://www.swinburne.edu.au/lib/tools/az\\_server/public/database/search/water](https://www.swinburne.edu.au/lib/tools/az_server/public/database/search/water)
- Category
  - [https://www.swinburne.edu.au/lib/tools/az\\_server/public/database/area/arts-and-social-sciences](https://www.swinburne.edu.au/lib/tools/az_server/public/database/area/arts-and-social-sciences)
- Category and sub-category
  - [https://www.swinburne.edu.au/lib/tools/az\\_server/public/database/area/arts-and-social-sciences/subject/community-health-and-welfare](https://www.swinburne.edu.au/lib/tools/az_server/public/database/area/arts-and-social-sciences/subject/community-health-and-welfare)



Laravel (PHP) + MySQL app that provides the data API for the client

# Server - OAI import & code

## Import - MARC fields

[https://github.com/justinkelly/az\\_databases/blob/master/server/app/Http/Controllers/ImportController.php](https://github.com/justinkelly/az_databases/blob/master/server/app/Http/Controllers/ImportController.php)

## Alt title import

[https://github.com/justinkelly/az\\_databases/blob/master/server/app/Http/Controllers/ImportController.php#L123](https://github.com/justinkelly/az_databases/blob/master/server/app/Http/Controllers/ImportController.php#L123)

## Database design

[https://github.com/justinkelly/az\\_databases/blob/master/server/database/migrations/2015\\_05\\_27\\_031409\\_create\\_projects\\_and\\_tasks\\_tables.php](https://github.com/justinkelly/az_databases/blob/master/server/database/migrations/2015_05_27_031409_create_projects_and_tasks_tables.php)

## Search

[https://github.com/justinkelly/az\\_databases/blob/master/server/app/Http/Controllers/AZDatabaseController.php#L1](https://github.com/justinkelly/az_databases/blob/master/server/app/Http/Controllers/AZDatabaseController.php#L1)



# Alma configuration & API

- MARC
- API choice
- Publishing job



## MARC

- done in accordance with our expert cataloguer John Butera
- as standard as possible
- and using unused fields for new areas (category & sub-category) etc.

## API

- Alma provides an OAI feed based on a publishing jobs
- OAI is probably the simplest API available for listing of records
  - and many libraries already exist for OAI

## ALMA

- To enable the API in Alma
  - first create a set for your databases
  - create a publishing job based on this set that exports to OAI
  - setup the appropriate schedule
- Normally an API is 'live' or dynamic
- With the OAI API in Alma the feed is not live - its updated based on the publishing job/schedule
- If a new database is added in Alma and it needs to be in AZ before the next publishing job is run
  - You have to manually run the publishing job and the corresponding import job in AZ

# Lessons learnt

AZ Database has half the views of Primo - but triple of total time spent - refer below

Page	Page Views	Avg. Time on Page	Total Duration
Library Homepage	77,990	0:00:46	996:32:20
Primo	29,739	0:01:08	561:44:12
Library search page	20,511	0:00:58	330:27:18
AZ Databases	15,276	0:07:08	1816:08:48



OAI API is not live

AZ databases affects everyone in the library

Any change to AZ database requires consultation with most areas of the library

Best time to implement a new AZ is along side a library website upgrade

# Questions



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