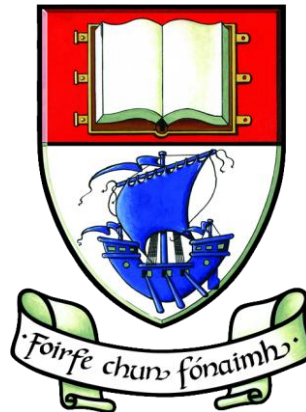


# LiveLabs Pivot A Future Direction for Library Search?

David Kane

Systems Librarian

Waterford Institute of Technology

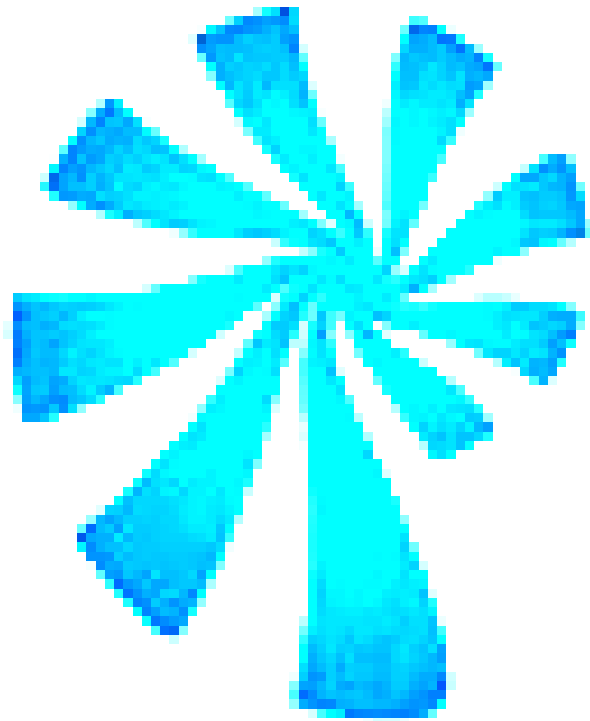


Waterford Institute *of* Technology

INSTITIÚID TEICNEOLAÍOCHTA PHORT LAIRGE

**The Library Building**





# Microsoft® Live Labs™ Pivot™



# What Is Pivot?

Designed to:

*“interact with massive amounts of data in ways that are powerful, informative, and fun.”*

*-Microsoft Live Labs*

It is a way of:

*“making sense out of mountains of data”*

*-MIT Technology Review*



# Searching in Pivot

- Drill-down to specific data – **OUT**
- Swimming in a *sea* of data – **IN**



# Faceted Information

- `<Item Id="2" Img="#2" Name="Arcta" Href="beast-quest/A`
  - `<Description>Tom must free the magical beasts of Ava`
    - `land from destruction? </Description>`
    - `<Facets>`
      - `<Facet Name="Title">`
        - `<String Value="Arcta the Mountain Giant" />`
        - `</Facet>`
        - `<Facet Name="Number">`
          - `<String Value="3" />`
          - `</Facet>`
          - `<Facet Name="Series">`
            - `<String Value="1: Beast Quest" />`
            - `</Facet>`
        - `</Facets>`
      - `</Item>`



# Example

- Using the Pivot Viewer application (you need to download this from [getpivot.com](http://getpivot.com))

<http://content.getpivot.com/Collections/bingnewcars/bingnewcars.cxml>

A good rounded example of a *fixed* collection, which demonstrates the strengths of Pivot.



# Deep Zoom Image Format





# Pivot as a Data Analysis Tool

- Downloaded Data about our 5,000 most popular books from our library system.
- Created a pivot collection via Excel.

The screenshot shows the Microsoft Excel interface with the 'Pivot Collections' ribbon selected. The ribbon includes options like 'New Collection Start', 'Import Images', 'Filter Panel', 'Info Panel', 'Keyword Filtering', 'Choose Image', 'Insert', 'Delete', 'Quick Preview', and 'Publish Collection'. A dialog box titled 'Publishing Pivot Collection' is open, displaying 'Writing item xml 28 of 5056' and a progress bar. The background shows a spreadsheet with a column for 'Image Location' containing file paths.

	Image Location
3361	C:\Users\dkane\Desktop\COLOURS_DEMAN
3362	C:\Users\dkane\Desktop\COLOURS_DEMAN
3363	C:\Users\dkane\Desktop\COLOURS_DEMAN
3364	C:\Users\dkane\Desktop\COLOURS_DEMAN
3365	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg

Home Insert Page Layout Formulas Data Review View Acrobat Pivot Collections Team Design

Filter Panel  
 Info Panel  
 Keyword Filtering  
 Category Properties

Choose Image  
 Insert  
 Delete  
 Cells

Quick Preview  
 Publish Collection  
 Publishing

Online Assistance  
 Pivot Collection Community  
 Help

A3370      fx      =CONCATENATE("C:\Users\dkane\Desktop\COLOURS\_DEMAND\", P3370)

	Image Location	Preview	Name	Href	CAT Date	UPDATED Date	Revisions	CIRCS	D
361	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				20/06/2003	09/07/2010	4	15	
362	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				28/04/2006	05/08/2010	4	15	
363	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				02/05/2006	05/08/2010	4	15	
364	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				20/06/2003	19/07/2010	4	60	
365	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				05/07/2007	05/08/2010	4	15	
366	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				26/07/2007	05/08/2010	4	15	
367	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				02/08/2007	09/06/2009	4	15	
368	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				23/08/2007	12/10/2009	4	15	
369	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				20/06/2003	26/03/2009	3	15	
370	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				20/06/2003	23/03/2009	3	15	
371	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				20/06/2003	23/03/2009	3	30	
372	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				20/06/2003	23/03/2009	3	15	
373	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				20/06/2003	23/03/2009	3	15	
374	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				20/06/2003	23/03/2009	3	15	
375	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				20/06/2003	26/03/2009	3	45	
376	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				20/06/2003	23/03/2009	3	15	
377	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				20/06/2003	23/03/2009	3	15	
378	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				20/06/2003	23/03/2009	3	15	
379	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				20/06/2003	23/03/2009	3	15	
380	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				20/06/2003	23/03/2009	3	15	
381	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				20/06/2003	23/03/2009	3	15	
382	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				20/06/2003	23/03/2009	3	15	
383	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				20/06/2003	23/03/2009	3	15	
384	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				20/06/2003	23/03/2009	3	15	
385	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				20/06/2003	23/03/2009	3	30	
386	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				20/06/2003	24/03/2009	3	15	
387	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				20/06/2003	24/03/2009	3	15	
388	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				20/06/2003	23/03/2009	3	15	
389	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				12/12/2005	05/08/2010	3	15	
390	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				20/06/2003	10/11/2009	3	15	
391	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				20/06/2003	10/11/2009	3	15	
392	C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg				05/07/2004	23/03/2009	2	15	

Publishing Pivot Collection

Writing item xml 1778 of 5056

Cancel

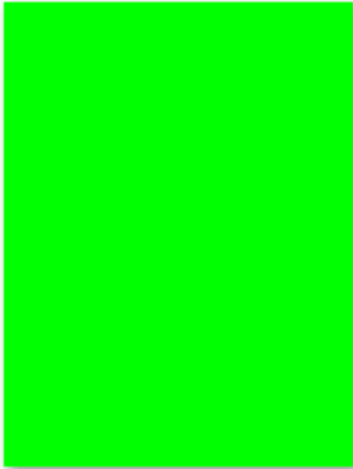


# Pivot As A Data Analysis Tool

- Can See Hidden Relationships in Data **Very Quickly**
- Can isolate individual data points rapidly and link in to them
- Library Example: Top 5,000 books in our collection. <http://library.wit.ie/pivot/>
- Using a range of colour-coded images adds an extra dimension (see next slide)



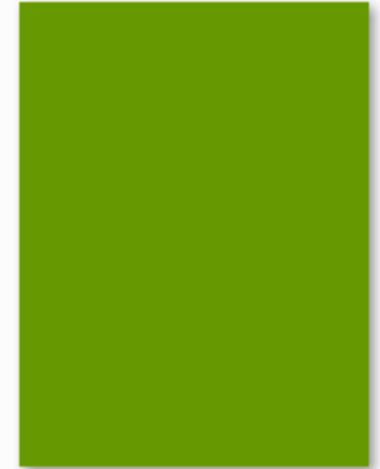
# Pivot as a Data Analysis Tool



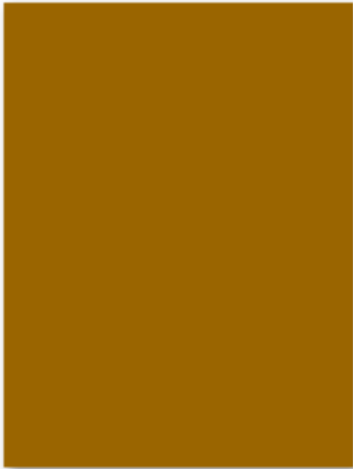
0



50



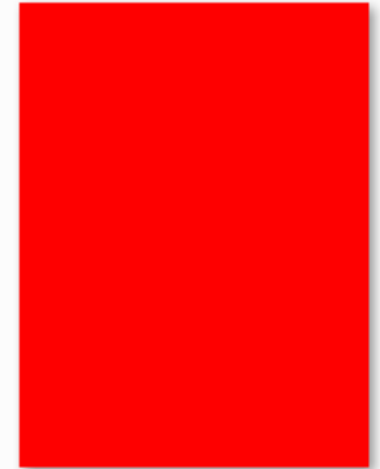
100



150



200



250



# Managing Data With Pivot

See:

<http://davidkane.net/?p=411>

# Worth a Mention...

## Google Refine



The screenshot displays the Google Refine interface with a table of 11 bibliographic records. The interface includes a sidebar on the left with 'Explore data...' instructions and 'Browse by' options for 'rows' and 'records'. The table has columns for RECORD #(BIBLIO), TITLE, AUTHOR, CAT DATE, UPDATED(BIBLIO), REVISIONS(BIBLIO), YTD CIRC, DEMAND, #ITEMS, LOCATION, totaloverdue, and CLASS #(BIBLIO). The records are numbered 1 through 11 and include titles such as 'Fream's principles of food and agriculture', 'Browning fantasy for five instruments', 'Calculus for physics', 'Earth, the living planet', 'Structure of matter', 'Symphony no. 7', 'Un ballo in maschera', 'British stoneflies', 'Progressive dictation', 'Mechanical technology', and 'Essentials of statistics'.

RECORD #(BIBLIO)	TITLE	AUTHOR	CAT DATE	UPDATED(BIBLIO)	REVISIONS(BIBLIO)	YTD CIRC	DEMAND	#ITEMS	LOCATION	totaloverdue	CLASS #(BIBLIO)
1. b10000021	Fream's principles of food and agriculture / edited by Colin R. W. Spedding.	Fream, William, 1854-1906.	20/06/2003	02/03/2009	4	0	0	1	wet	0	630
2. b10000057	Browning fantasy for five instruments.	Woodcock, Clement.	20/06/2003	01/10/2003	3	0	0	1	csc	0	787.4
3. b10000069	Calculus for physics / Richard Dalven.	Dalven, Richard.	20/06/2003	01/10/2003	3	0	0	1	wet	0	530.1
4. b10000070	Earth, the living planet / Michael J. Bradshaw.	Bradshaw, Michael John.	20/06/2003	28/02/2009	4	0	0	1	wet	0	551.1
5. b10000082	Structure of matter. Teachers guide / Advanced Physics Project for Independent Learning.	Advanced Physics Project for Independent Learning.	20/06/2003	28/02/2009	4	0	0	1	wet	0	530.4
6. b10000094	Symphony no. 7.	Bruckner, Anton, 1824-1896.	20/06/2003	01/10/2003	4	0	0	1	csc	0	RECO
7. b10000100	Un ballo in maschera.	Verdi, Giuseppe, 1813-1901.	20/06/2003	01/10/2003	4	0	0	1	csc	0	RECO
8. b10000136	British stoneflies.	Hynes, H B N.	20/06/2003	28/02/2009	3	0	0	1	wet	0	595.7
9. b10000148	Progressive dictation.	Zoubek, Charles E.	20/06/2003	01/10/2003	2	0	0	1	wet	0	653.1
10. b10000181	Mechanical technology : a two year course / G.D. Redford, J.G. Rimmer, D. Therrington.	Redford, G. D.	20/06/2003	02/03/2009	3	1	0.33	3	wet	0	621.#
11. b10000173	Essentials of statistics in	Greensted, C. S.	20/06/2003	28/02/2009	3	3	1	1	wet	0	519



REVISIONS(BIBLIO)

YTDCIRC

DEMAND

#ITEMS

totaloverdue

CLASS #(BIBLIO)

See: <https://code.google.com/p/google-refine/>



# Microsoft Tools Used

- Microsoft PivotViewer
- Pivot Collection tool for Excel
- Microsoft Visual Studio 2010 (For Silverlight)

Install these prerequisites

- [Silverlight 4 Tools for Visual Studio 2010](#)
- [Silverlight 4 Toolkit \(released April 2010\)](#)

*Microsoft V.Studio Express can  
be downloaded for free.*





# A Pivot Catalogue?

See:

<http://davidkane.net/?p=411>



TM

Microsoft®  
**Silverlight™**

Beta 2

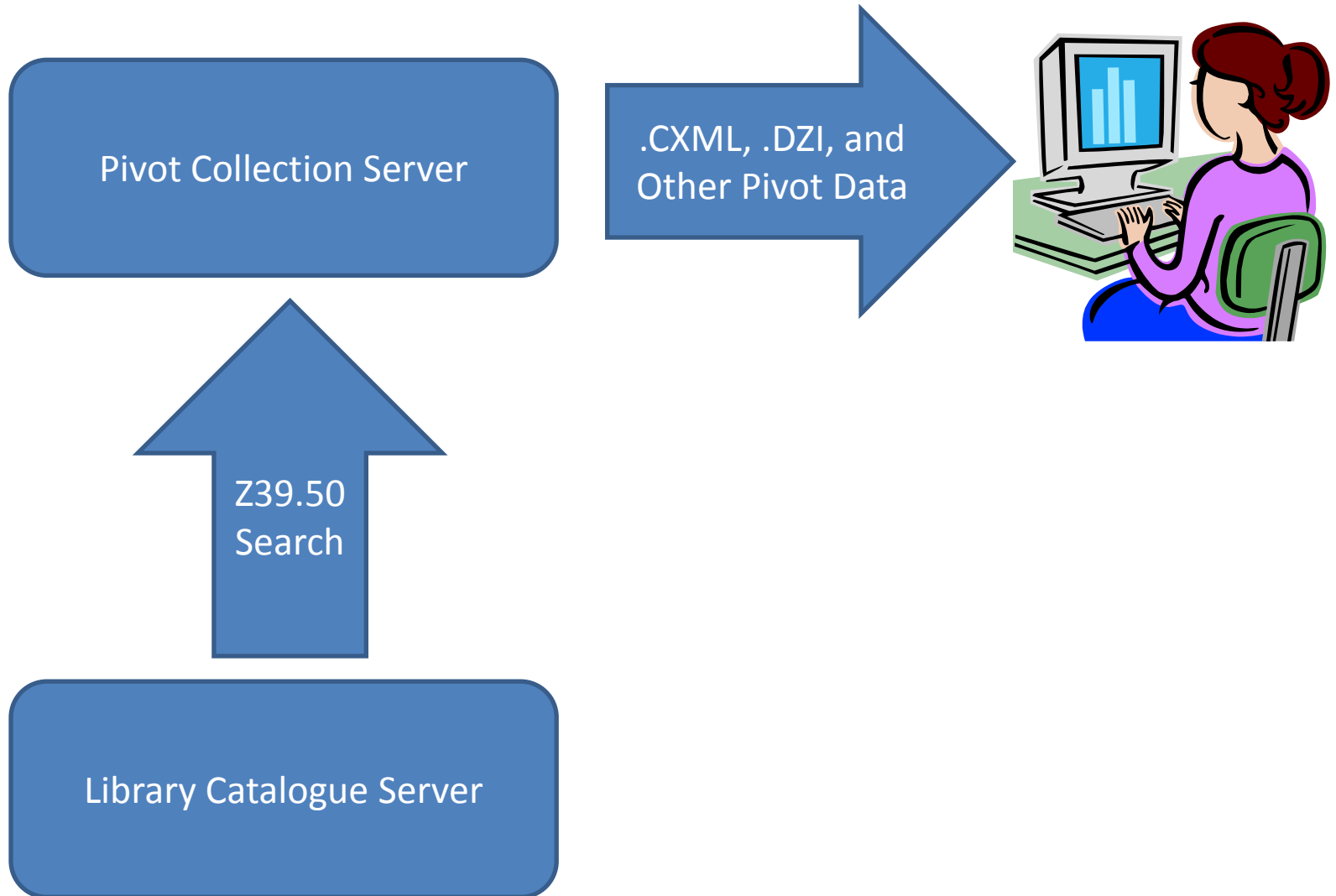


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as described in Help/About.  
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# A Dynamic Library Catalogue





# Software Used:

- PHP Deepzoom (Nicolas Fabre)
- ImageMagick
- PHP/Yaz (IndexData.dk)
- On Ubuntu Linux



# Finally:

The **easiest way to get started** is to download the following tools from [getpivot.com](http://getpivot.com):

- 1, PivotViewer Browser
- 2, Excel add-on for making collections



# Thank You

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*Ireland*

**dkane@wit.ie**



# Online Resources 1

Start with: <http://getpivot.com/>

For Silverlight:

<http://timheuer.com/blog/archive/2010/07/09/data-visualization-with-silverlight-and-pivot-viewer-quickstart.aspx>

And,

<http://blog.timmykokke.com/archive/2010/08/27/handling-pivotviewer-events.aspx>





# Online Resources 2

PHP Yaz:

<http://www.php.net/manual/en/function.yaz-search.php>

PHP DeepZoom:

<http://github.com/nfabre/deepzoom.php>