

THE HUMBLE & MIGHTY

SHAREPOINT URL QUERY STRING

?author=Patrick%20Doran

OR

DAD ALWAYS SAID

USE THE RIGHT WEB PART

FOR THE RIGHT JOB



FIG 1.
WHEN YOU PICK THE
WRONG TOOL IN
SHAREPOINT



YOUR PRESENTER: PATRICK DORAN

• 15 Years as a Front-end Developer & UX Designer

• 6 Years in **SharePoint**, 2007, 2010 & 2013 & Online

• At work, builds public facing SharePoint sites



YOUR PRESENTER: PATRICK DORAN

Where I'm at:

• Twitter: @SwearPointJS

LinkedIn: linkedin.com/in/patrickdoran

And: patrickdoran.com

This presentation:

And: github.com/patd



HOW MUCH DO YOU SHAREPOINT?

- ★ What a list/library is and what metadata columns are
- ★ Web parts: Putting them on a page
- ★ Calculated column?
- ★ A little HTML?



WHY ARE YOU HERE?

Because not everything is a

React-WebPack-SharePoint-Framework-Hybrid-Azure-Framework.js Full Trust Solution

Continuous-Integration AWS Powered solution for THE CLOUD™

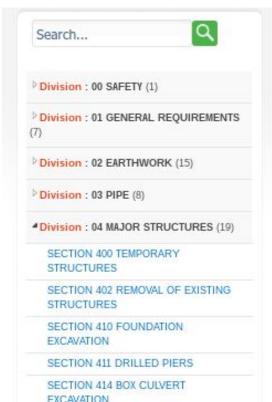
WHY ARE YOU HERE?

Sometimes all you have is talent/time for web parts.

This is OK.



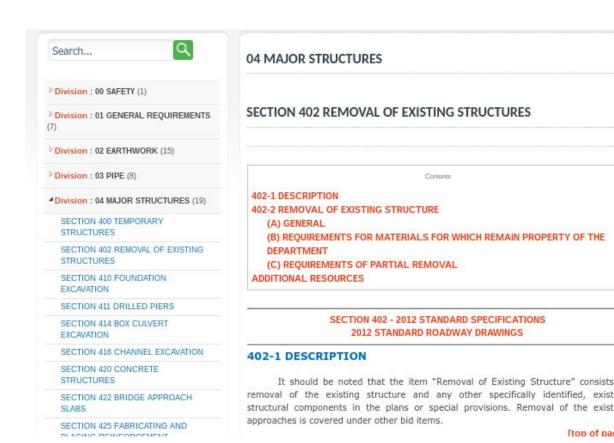
WHERE WE ENDED UP



04 MAJOR STRUCTURES SECTION 402 REMOVAL OF EXISTING STRUCTURES Contents 402-1 DESCRIPTION 402-2 REMOVAL OF EXISTING STRUCTURE (A) GENERAL (B) REQUIREMENTS FOR MATERIALS FOR WHICH REMAIN PROPERTY OF THE DEPARTMENT (C) REQUIREMENTS OF PARTIAL REMOVAL ADDITIONAL RESOURCES SECTION 402 - 2012 STANDARD SPECIFICATIONS 2012 STANDARD ROADWAY DRAWINGS

WHERE WE ENDED UP

- ★ All out of the box web parts
- ★ Content approval on list items



WHATIS.ASPX?QUERY STRING

★ Hangs on to the end of the URL, after the file name:

/Query-Strings-Are-Awesome.aspx?you=areToo

★ Usually ?key=value

MORE THAN ONE WAY TO FILTER WITH QUERY STRINGS

```
★ Question mark is always first one ?=
```

★ Ampersand are the rest (can be multiple) &=

```
page.aspx?game=thrones&winter=coming&knowsnothing=jonsnow
```

WHATIS.ASPX?QUERY STRING&K=SEARCHTOO



2: Query String Demo: Multiple Filters on a Single List

Filter Web Parts (Year and Team Name), and is connected to the Baseball List View

WHAT CAN A SHAREPOINT QUERY STRING DO FOR ME?

★ Share a link to a filtered view

★ Bookmark search results

★ Filter 50 web parts on a single page!



WHAT CAN A SHAREPOINT QUERY STRING DO FOR ME?

★ Show your users just what they want by leveraging SharePoint metadata and Search.

★ Create a knowledge base with a single list and 1 page (we'll do this today)

★ Maybe Make a dashboard with just web parts (if we have time)

BUT WHAT ABOUT JAVASCRIPT?

```
function getQueryVariable(variable)
       var query = window location search substring(1);
       var vars = query.split("&");
       for (var i=0;i<vars.length;i++) {
               var pair = vars[i].split("=");
               if(pair[0] == variable){return pair[1];}
       return(false);
```

QUERY STRING URL WORSHIP

★ Web parts can be loyal to the Query String

★ When the query string changes its teachings, so do its followers





Fig 1. Web Parts be like

1. Built in

[Search, List/Library]



2. Query String [URL] Web Part
 [For web parts on a page]



1. Built in
 [Search, List/Library]

2. Query String [URL] Web Part
 [For web parts on a page]

3. Content Query Web Part
 [For not-tables of content]



1. Built in
 [Search, List/Library]

2. Query String [URL] Web Part [For web parts on a page]

3. Content Query Web Part
 [For not-tables of content]

4. Mixed all together [Some of each]



BUT MAYBE NOT CONTENT SEARCH WEB PARTS

#SORRY



FYI:

THERE'S QUERY STRINGS WITH DATA VIEW WEB PARTS IN SHAREPOINT DESIGNER, TOO.





1. HAND-TYPED BUILT-IN FILTERING

2 KINDS

- 1) Search
- List/Library View

Change the **k=** value

http://www.cityoflondon.gov.uk/searc
h/results.aspx?k=Parks

http://www.cityoflondon.gov.uk/searc
h/results.aspx?k=Recreation

BUILT IN: SEARCH

BUILT IN SHAREPOINT SEARCH QUERY STRINGS IN ACTION!

```
k= Search term
results.aspx?k=Parks
```

k= Multiple Terms

results.aspx?k=Parks%20Recreation

u= Restrict by domain

results.aspx?k=Parks&u=https://cityoflondon.gov.uk



A regular old list:

https://connect.ncdot.gov/Lists/CDR

Example: Filtered by Division col

https://connect.ncdot.gov/Lists/CDR?
FilterField1=Division&FilterValue1=0
6

BUILT IN: LIST/LIBRARY

WHAT'S THIS ?FILTERFIELD]=DIVISION&FILTERVALUE]=06

2 things to do here:

★ Specify the **field** to filter on

?FILTERFIELD1=DIVISION

★ Specify the **value** to filter on

&FILTERVALUE]=06

Filter 2 (or more) things

https://connect.ncdot.gov/Lists/CDR?FilterField1=Division&FilterValue1=06&F
ilterField2=County&FilterValue2=Columbus

Filter all (list view) web parts on a page!

https://patrickdoran.sharepoint.com/query-strings/Pages/Query-Strings-One-F
ilter-Many-Web-Parts.aspx?FilterField1=Name1&FilterValue1=Boston%20Red%20So
x

Sort on a field!

https://patrickdoran.sharepoint.com/query-strings/Lists/Baseball/Baseball.a
spx?SortField=yearID&SortDir=Asc

BUILT IN SHAREPOINT QUERY STRINGS IN ACTION!

Demo 0

BUILT IN: PROS

★ Fast to set up.

★ Bookmarkable.

★ No web parts needed

★ Works w/anonymous permissions

★ List/Library: Up to 10!



BUILT IN: CONS



★ Must know internal field name of column (Though this is good, too)

★ URL is weird to read

★ Only one sort field

★ Not permanent, unless you bookmark it or add it as a link

INTERNAL FIELD NAMES

Columns

A column stores information about each item in the list. The following columns are currently available in this list:

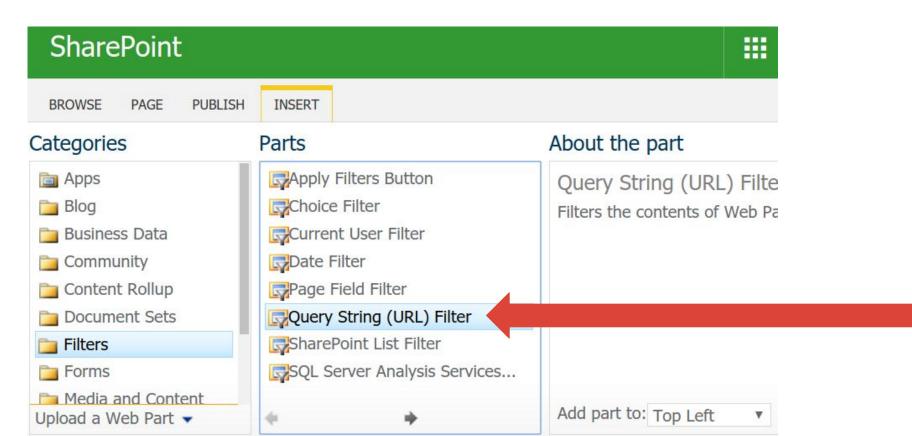
Column (click to edit)	Туре	Required
Year	Choice	✓
Team Name	Choice	✓
Park	Choice	✓

- ★ First name the field has when you create a column.
- ★ SharePoint controls this. Tricky to change after it's made.
- ★ Hover over the column name in list settings to find it

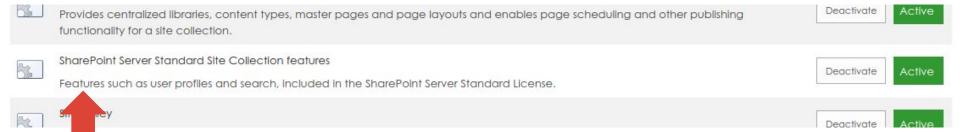


2. QUERY STRING (URL) WEB PART

USE THIS WEB PART: QUERY STRING (URL) FILTER



ENABLE IT IF IT'S NOT THERE



If you don't see the web parts, activate Standard Site Collection Features

WHAT'S IT LOOK LIKE?





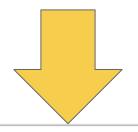
https://patrickdoran.sharepoint.com/query-strings/Pages/Query-String-Demo.aspx

OWSE PAGE PUBLISH

+ new item

Year	Team Name	TeamCode	Park	Attendance
2015	Arizona Diamondbacks	ARI	Chase Field	2,080,145
2015	Atlanta Braves	ATL	Turner Field	2,001,392
2015	Baltimore Orioles	BAL	Oriole Park at Camden Yards	2,281,202
2015	Boston Red Sox	BOS	Fenway Park II	2,880,694
2015	Chicago Cubs	CHN	Wrigley Field	2,959,812
2015	Chicago White Sox	CHA	U.S. Cellular Field	1,755,810
2015	Cincinnati Reds	CIN	Great American Ball Park	2,419,506

WHAT'S IT LOOK LIKE?



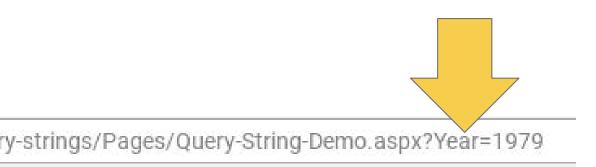
https://patrickdoran.sharepoint.com/query-strings/Pages/Query-String-Demo.aspx?Year=1979

ROWSE PAGE **PUBLISH**

(n	e	N	it	e	m
		_			_	

	Year 🕎	Team Name	TeamCode	Park	Attendance
	1979	Atlanta Braves	ATL	Atlanta-Fulton County Stadium	769,465
١	1979	Baltimore Orioles	BAL	Memorial Stadium	1,681,009
	1979	Boston Red Sox	BOS	Fenway Park II	2,353,114
	1979	California Angels	CAL	Anaheim Stadium	2,523,575
	1979	Chicago Cubs	CHN	Wrigley Field	1,648,587
	1979	Chicago White Sox	CHA	Comiskey Park	1,280,702
	1979	Cincinnati Reds	CIN	Riverfront Stadium	2,356,933

MORE CONTROL



★ Pick Your query string key, like

?Year=

?Cheese=

Attendance

on County Stadium 769,465

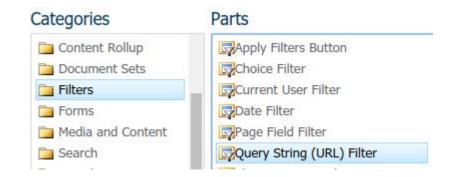
1,681,009

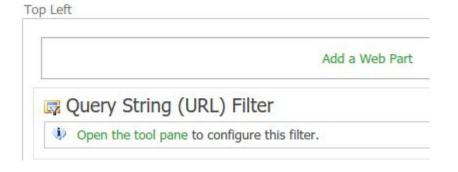
adium

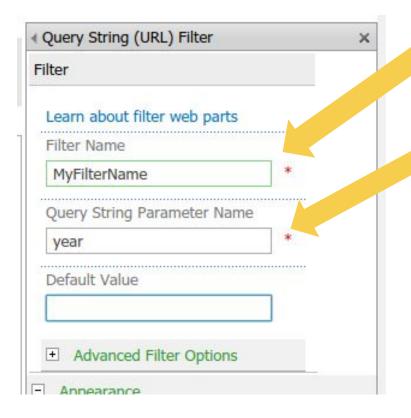
DEMO 1

O1. Add Query String (URL) Filter web part.

02. Click 'Open the tool pane' to configure



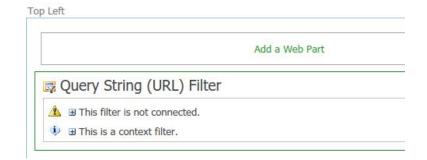




Configure

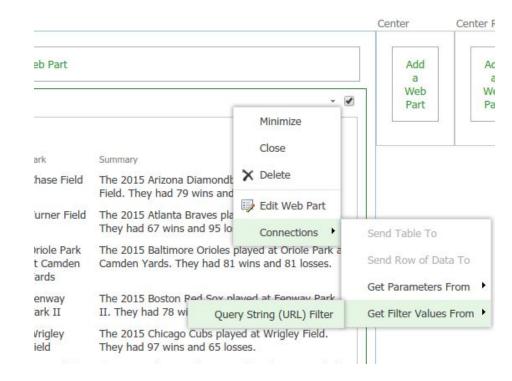
Filter Name = Just to help
you remember.

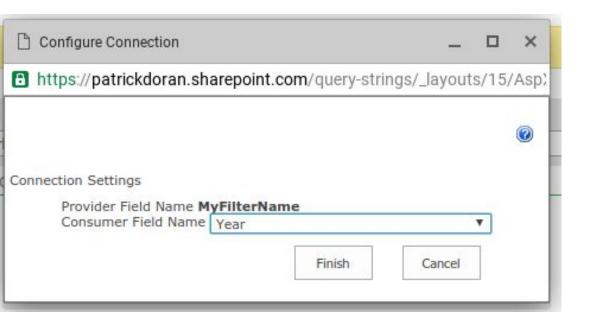
Query String Parameter
Name = What's in the URL,
like: page.aspx?year=2013



03. In List View Web Part,
edit, pick Connections
and then Get Filter
Values From and finally
Query String (URL)
Filter

You're telling this web part to obey the Query string web part





Specify Column

What list column should your Query String URL filter on? In this case, Year.

Pro Tip: Your browser's
 popup blocker will
 block this popup
 window.

O4. Confirm and Test.

Query String URL Filter

web part will list any
other web parts it's

connected to.

Now try your ?year= query
string!



DEMO 1 REVIEW

- 01. SharePoint List* with useful column (Year)
- 02. Added List View Web Part
- 03. Added Query String [URL] Filter Web Part
- 04. Connected them!
- 05. Changed URL = updated list view on this page

* Libraries work too!

DEMO 2: MULTIPLE VALUES

DEMO 2: MULTIPLE VALUES REVIEW

- 01. List View Web Part
- 02. Added Query String Web Part, connected to Year Column
- 03. Added **2nd** Query String Web Part, connected to **Team**Name Column
- 04. Changed URL query string values for both Year and Team
 Name = updated list view on this page

DEMO3: ONE FILTER, MANY WEBPARTS

The beginning of a Dashboard....

DEMO3: ONE FILTER, MANY WEBPARTS: REVIEW

- 01. Added **5** List View Web Parts (all from the same list, but can be many)
- 02. Single Query String (URL) Filter Web Part Connected to all the web parts on the page
- 03. Changed URL Query string = all web parts respond

QUERY STRING (URL) WEB PART: PROS

- ★ Name your own query key. ?this=awesome
- ★ Use Multiple filters to filter multiple web parts.
- ★ Sorting configured in views
- ★ Can be mixed w/Content Query Web Parts



QUERY STRING (URL) WEB PART: CONS



- ★ One+ extra web part on a page per query string.
- ★ Soooo much configuring
- ★ Can't use SharePoint **ID** column to filter
- ★ List view Web Parts look like list view web parts



3. CONTENT QUERY WEB PART'S QUERY STRING FILTER

CQWP: WHY NOT USE LIST VIEW WEB PARTS?

- ★ List View Web Parts look like List View Web Parts.
- ★ Weigh a lot of KB
- ★ Depending on your site's styling, Content Query Web Part might look better.

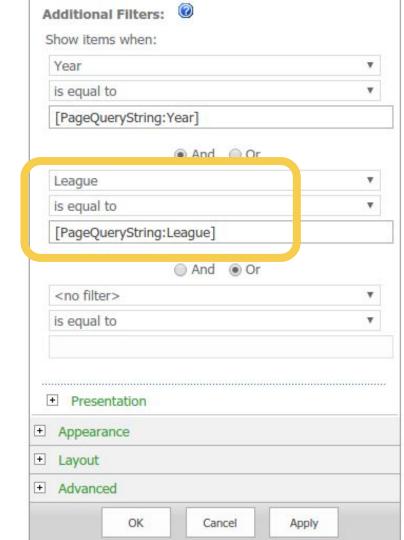
* Content Search web parts work this way too, but harder to configure.

CONTENT QUERY CONFIGURE

In CQWP, under Additional
Filters, use this:

[PageQueryString:x]

(Where **x** is your query string key, like *Year*)



DEMO 4: CONTENT QUERY WEB PARTS

DEMO 4: CONTENT QUERY WEB PARTS REVIEW

- O1. Added a Content Query Web Part to page and configured it to reference our list
- 02. No extra web parts. Query string functionality configured in CQWP itself.
- 03. URL query string works the same as our other examples.

CONTENT QUERY WEB PART QUERY STRING: PROS

- ★ Name your own query key. ?this=awesome
- ★ Combine Multiple filters to multiple web parts.
- ★ Can be mixed with List View query-string filtered web parts, and share query strings
- ★ No extra web parts needed!

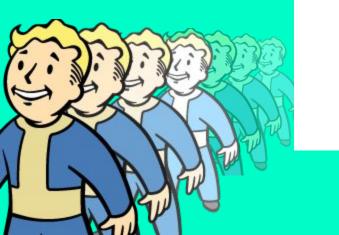


CONTENT QUERY WEB PART QUERY STRING: CONS



- ★ Syntax is a little weird
- ★ CQWPs have only a few formatting options w/out CSS+XSLT
- ★ Can't re-sort without editing web part

4. ALL TOGETHER NOW



ALL TOGETHER NOW

- ★ Add List View Web Parts
- ★ Add Query String (URL) Filter Web Parts
- ★ Add Content Query Web Parts
- ★ Use the same ?key=value URL filtering!

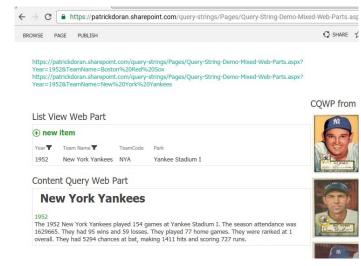


DEMO 5: QUERY STRING ALL THE THINGS

DEMO 5: QUERY STRING ALL THE THINGS REVIEW

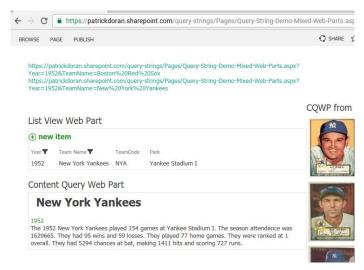
- 01. 1 List and 1 library, same Metadata columns (Year and Team Name)
- 02. Add 2 CQWPs and 2 LVWPs
- 03. Add Query String Web Part each for *Year* and *Team Name*.
- 04. Configure!

SPRUCE IT UP A BIT

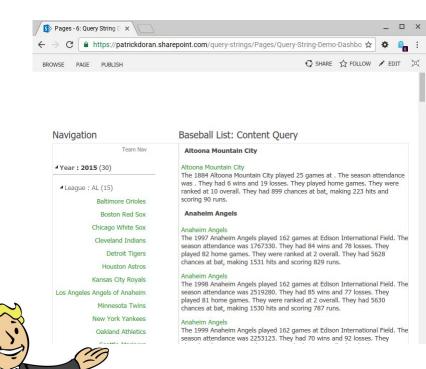




SPRUCE IT UP A BIT + NAVIGATION







SAME LIST

- + GROUP BY WEB PART
- + [CALCULATED COLUMN]
- = AUTOMATIC NAVIGATION

Navigation

Team Nav

Year: 2015 (30)

Year: 2014 (30)

Year: 2013 (30)

Year: 2012 (30)

4 Year: 2011 (30)

▲ League: AL (14)

Baltimore Orioles

Boston Red Sox Chicago White Sox

Cleveland Indians

Detroit Tigers

Kansas City Royals

Los Angeles Angels of Anaheim

Minnesota Twins

New York Yankees

FIGURE OUT THINGS FIRST

1. What's your Query String URL setup?

(Map out columns for ?key=value, or ?key=value&key2=valueX)

2. What Column is the link name text in?

(Does the link say 'Arizona Diamondbacks' or '1999' ?)

MAKE YOUR CALCULATED COLUMN

- **★** Concatenate!
- ★ Data type must be **number** to render as HTML link
- ★ Can use most columns, but not ID
- ★ Be patient when clicking [Ok]

Name and Type

Type a name for this column.

Column name:

Team Nav

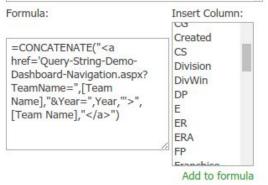
The type of information in this column is: Calculated (calculation based on other columns)

Additional Column Settings

Specify detailed options for the type of information you selected.

Description:

Calculated Column, based on Query-String-Demo-Dashboard-Navigation.aspx query string page



The data type returned from this formula is:

- Single line of text
- Number (1, 1.0, 100)

MAKE YOUR CALCULATED COLUMN

Example Syntax:

```
=CONCATENATE("<a
href='pageName.aspx?TeamName=",[Team
Name],"&Year=",Year,"'>",[Team Name],"</a>")
```

MAKE YOUR CALCULATED COLUMN

Minnesota Twins

New York Yankees

windirenti / wigeto

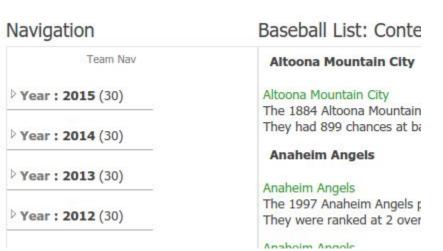
The 2002 Anaheim Angels played 162 games at Edison International Field. The season at They were ranked at 2 overall. They had 5678 chances at bat, making 1603 hits and score

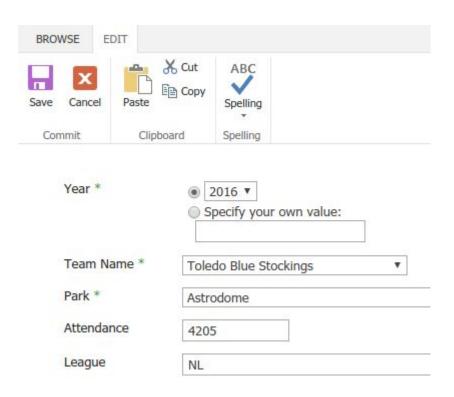
Anahaim Angole

https://patrickdoran.sharepoint.com/query-strings/Pages/Query-String-Demo-Dashboard-Navigat<mark>i</mark>on.aspx?TeamName=Minnesota Twins&Year=2011

- ★ Save your new calculated column
- ★ Add the column to the view
- ★ Self-updating clickable link!

SIT BACK, LET CONTRIBUTORS DO THEIR THING





SIT BACK, LET CONTRIBUTORS DO THEIR THING

+ new item

Base	eball	All Items	Dashboard Su	mmary ···	78	Find	an item		
Edit	Year	League	Team Name	TeamCode	Divisi	on	Rank	Games	1
	2016	NL	Toledo Blue Stockings	ALT			1	33	
	2015	NL	Arizona Diamondbacks	ARI	W		3	162	
	2015	NL	Atlanta Braves	ATL	E		4	162	

Navigation	Baseball List: Content Quer			
Team Nav	Altoona Mountain City			
4 Year : 2016 (1)	Altoona Mountain City The 1884 Altoona Mountain City played			
▲ League: NL (1)	were ranked at 10 overall. They had 89			
Toledo Blue Stockings	Anaheim Angels			
> Year: 2015 (30)	Anaheim Angels The 1997 Anaheim Angels played 162			

SIT BACK, LET CONTRIBUTORS DO THEIR THING

Navigation

Team Nav

4 Year: 2016 (1)

▲ League: NL (1)

Toledo Blue Stockings

Year: 2015 (30)

Baseball List: Content Quer

Altoona Mountain City

Altoona Mountain City
The 1884 Altoona Mountain City played
were ranked at 10 overall. They had 89

Anaheim Angels

Anaheim Angels
The 1997 Anaheim Anahei

Navigation

Baseball List: Content Query

Toledo Blue Stockings

Toledo Blue Stockings

Team Nav

4 Year: 2016 (1)

4 League: NL (1)

Toledo Blue Stockings

The 2016 Toledo Blue Stockings played 33 games at Astrogames. They were ranked at 1 overall. They had chances

Basehall Card List View Web Part

RECAP

1. Built in
 [Search, List/Library]

2. Query String [URL] Web Part
 [For web parts on a page]

3. Content Query Web Part
 [For not-tables of content]

4. Mixed all together [Some of each]

Query String-based techinques we covered

BONUS: JAVASCRIPT QUERY STRING URL!

Web parts for some stuff, JavaScript to add some styling/context



YOU KNOW JS AND YOU LIKE CHROME DEV TOOLS?

What are my Query Strings?

console.log(window.location.search)

> console.log(window.location.search)

?TeamName=Boston%20Red%20Sox&Year=2015

ASSUMES YOU JS AND YOU LIKE CHROME DEV TOOLS

What are the values of my Query Strings?

```
function getQueryVariable(variable) {
  var query = window.location.search.substring(1);
  var vars = query.split("&");
  for (var i=0;i<vars.length;i++) {
    var pair = vars[i].split("=");
    if (pair[0] == variable) {
      return pair[1];
    }
}
alert('Query Variable ' + variable + ' not found');
```

```
> function getQueryVariable(variable) {
    var query = window.location.search.substring(1);
    var vars = query.split("&");
    for (var i=0;i<vars.length;i++) {
        var pair = vars[i].split("=");
        if(pair[0] == variable){return pair[1];}
    }
    return(false);
}

<pre>
    undefined
> getQueryVariable("Year")
```

https://patrick	<u>kdoran.sharepoint.</u>	com/query-str	ings/Pages/Que	<u>ry-String-Demo-Java</u>
<u>script.aspx</u>				

https://patrickdoran.sharepoint.com/query-strings/Pages/Query-String-Demo-Java

script.aspx?FilterField1=Name1&FilterValue1=Boston%20Red%20Sox

```
// Function at gets the value of a query string key-value pair.
// expects the key to be passed to it.
var getQueryVariable = function(variable) {
    var query = window.location.search.substring(1);
    var vars = query.split("&");
    for (var i=0;i<vars.length;i++) {</pre>
        var pair = vars[i].split("=");
        if(pair[0] == variable){return pair[1];}
    }
```

return(false);