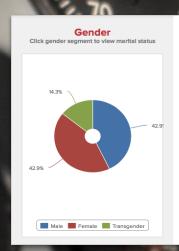


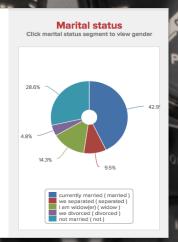
# Magpi Report & Dashboard Guide

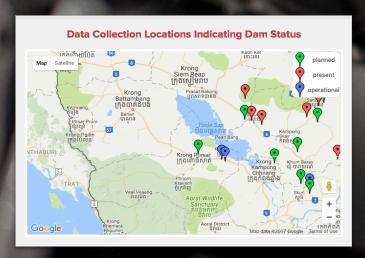
ADF BFO FRQ PAT/LT STE/ALT

How to use Magpi's built-in reporting features, with other web-based tools, to create beautiful and informative <u>real-time</u> dashboards & reports













# Magpi Report and Dashboard Guide

Data Tells A Story	3
Real-Time Data Means Real-Time Reporting	3
Universal Web Means Interactive Data	3
When is a Report a Dashboard?	4
Magpi Reports	5
Collect > Visualize > Understand > Use	6
What is Magpi Reports for?	6
Creating and Editing Reports	8
Creating the Standard Report	8
Creating a New Magpi Report (Enterprise users)	8
Editing the Standard Report	9
What-You-See-Is-What-You-Get (WYSIWYG)	10
Report Element Types	11
Report Layout	17
Embedding External Elements	18
What Does Embedding Mean?	18
What Can I Embed in My Report?	18
How Do I Embed Something?	18
Step-By-Step Video Embed Example	19
Integrating Data, Analysis, & Reports Using Google Sheets & Zapier	20
Magpi Report Capabilities by User Subscription Level	21



# **Data Tells A Story**

Significant changes in the last ten years in the technology available to all of us has altered the methods for "data collection", and the timing. While data used to be collected solely on paper (and still is, in many cases, unfortunately), much has shifted to electronic methods – with the most popular being app-

based data collection using tools like the Magpi Android or iOS app.

Other approaches for electronic data capture include SMS data collection and IVR (interactive voice response), both of which are also tools in the Magpi toolkit.



Magpi Android app

# Real-Time Data Means Real-Time Reporting

Data is changing from something collected on paper and slowly entered into an electronic system for analysis – which might take place months or even years later – to something which is collected electronically and often *immediately* available for analysis.

This instant data makes possible instant analysis, and so the cycle by which data is collected, analyzed, and used – and new data then collected – keeps shortening. Which makes better management, informed by data in

real-time rather than data from a 6-year-old survey, possible for the very first time.

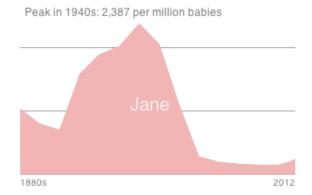
#### **Universal Web Means Interactive Data**

Of course, part of the technological package now commonly available in even the poorest countries is a web browser. Combined with the real-time data, a browser means that reports can now be interactive, allowing users to dive at will into the data shown.

This can be captivating, as we've seen with everything from stocks to even baby names:









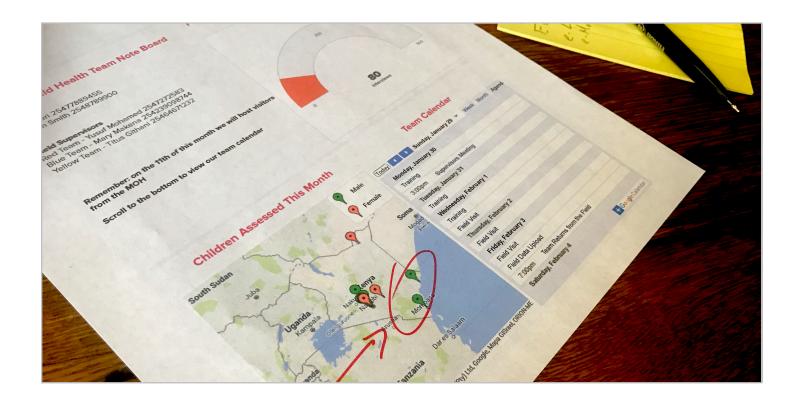
For management purposes, of course, having live data is an incredibly useful tool – in just the same way that having a live view of your speed as you drive is an essential tool for managing your driving.

## When is a Report a Dashboard?

For just this reason, it's become popular to refer to interactive online reports as "dashboards", because they're not tools describing what happened last month or last year: like the dashboard in your car, or an instrument panel in a plane, they are tools for describing what's happening *right now, and* used to manage an ongoing process.



Image: F. Sultana





# **Magpi Reports**

Magpi has been at the forefront of mobile data collection for over a decade, and based on user demand we released the first version of Magpi reports in June 2016 – designed to allow Magpi users to easily and quickly produce secure and interactive online data visualizations.

Each Magpi reports that you create is:

**beautiful** – the built-in formatting looks great on any screen, and is also completely customizable. Need to include your logo? No problem! Match your website colors? Sure!

**flexible** – re-arrange report elements or text in seconds. Want to include video from the field, or a Google spreadsheet, or a SurveyMonkey form? No problem!

**shareable but secure** – share Magpi reports with anyone (they don't have to be a Magpi user), with or without a password

**embeddable** – want to insert all or part of a report into your own website? It's easy.

**printable** – easily print reports to paper or pdf. They're designed to adjust formatting for maximum legibility in any format

It's all as easy as you've come to expect from Magpi. **No programming needed** (remember: this is Magpi!) – but if you know HTML, you'll be able to customize even further.

# Nigeria Vaccination Team Nigeria Vaccination Team

Photo Report Element



# Collect > Visualize > Understand > Use

Reports includes favorites like maps and simple column charts, but with many new options, including histograms, pie and donut charts, grouped and percentage column charts, and more – all designed to help you move from just collecting data to really understanding and using it.

# What is Magpi Reports for?

After releasing Magpi Reports, we quickly discovered that it was helping users to get several jobs done – not just data visualization.

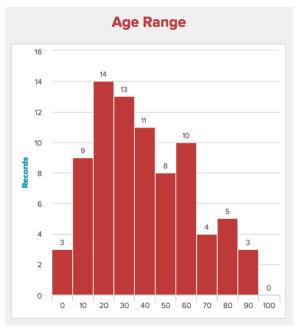
Initially, we thought users would just use Magpi Reports to produce graphs of their Magpi data. But users showed us that they wanted to use it for several functions:

- display graphs and charts created in Magpi from Magpi data
- display graphs and charts created outside of Magpi (e.g. in Google Sheets) from data collected with Magpi or other data tools
- display other information related to the data and/or to the project: photos, videos, slide presentations, calendars, web links, forms, etc.





Because Magpi Reports are primarily designed to be viewed in a web browser, the magic of the internet means that all of these functions can be used in combination. And that means that a Magpi report can be as simple as a single graph:

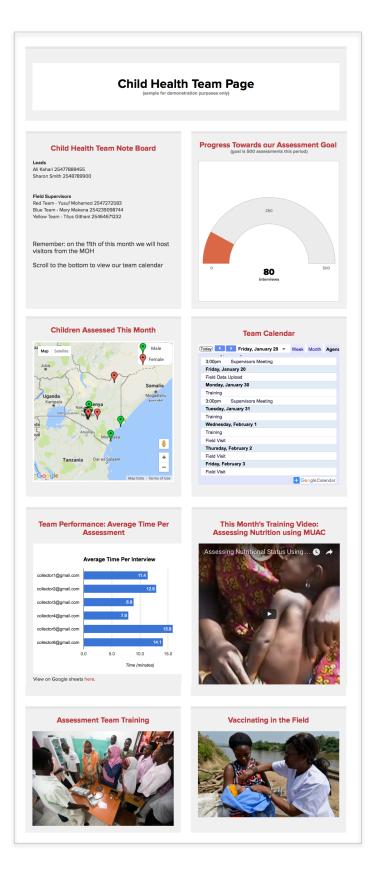


Histogram Report Element

or a complete report including many different components created in Magpi or created elsewhere, as displayed at right in a mock <u>Project Team Page</u> created in Magpi.

And notice that the "Child Health Team Page" includes everything from photos to Magpi map to a Google calendar ("Team Calendar"). All of the elements are "live updating" – meaning that if additional data records are submitted, the graphs will update, if someone changes the calendar at Google Calendar it will update on the report, etc.

Click here for another Magpi sample report.





# **Creating and Editing Reports**

## **Creating the Standard Report**

Pro and Enterprise Magpi subscribers can use our reporting and visualization features. A "standard report" is created automatically for each Pro or Enterprise form that contains data.

To create the standard report for your form:

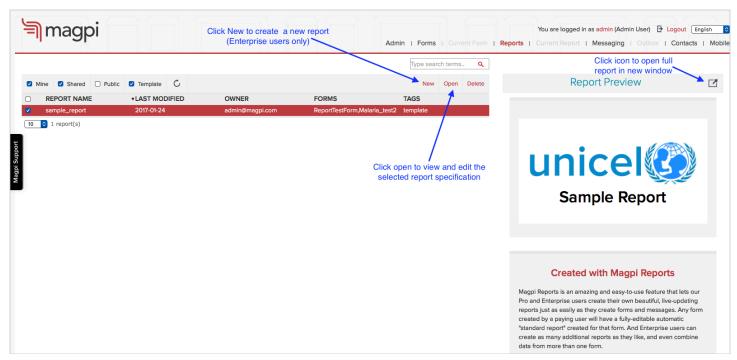
- 1. go to the Forms dashboard
- 2. check that the form contains data
- 3. open the form
- 4. click on the Analysis tab

When you click on the Analysis tab, Magpi will create and display a standard report displaying your data. The standard report can be edited on the Reports dashboard (see below).

# Creating a New Magpi Report (Enterprise users)

Magpi Enterprise users can create an unlimited number of reports from the Reports dashboard, shown below.

The process of creating new reports is designed to be very similar to the process of creating new forms: in the latter you are creating a list of questions (e.g. a multiple choice question, a date question, etc), but in the former you are creating a list of "report elements" (e.g. a frequency table, a map, etc).



Magpi Reports dashboard



To create a new report:

 click on the word Reports in the main Magpi menu to go to the Reports dashboard



2. then begin creating your report by selecting reporting elements from the New Report Element menu (displayed below)

3. as you create and save your new report, you can view the finished product live by clicking the "open in new window" icon at the right of the main report menu

## **Editing the Standard Report**

To edit any report, including the standard reports, click on the Reports link at the top of your screen to go to the Reports dashboard (see image on previous page), where you will see a list of all your reports. You can then open and edit them.

#### Forms Reports Insert Question Menu Insert Report Elements Menu New Question -New Report Element ▼ Label Text External Plain Text Cross Tab Integer Frequency Decimal Horizontal Line Drop Down Map Records Radio Button Map Responses Check Box Records By Time Date Responses By Time GPS List of Records

Side-by-side comparison of the Insert Question menu on the Form Design tab, with the Insert Report Element menu on the Report Design tab

Histogram

Meter

Image

Sub Form

☐ Sub Form List



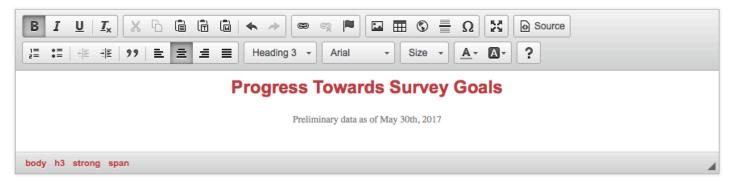
# What-You-See-Is-What-You-Get (WYSIWYG)

Magpi now supports WYSIWYG editing of <u>all</u> report element captions. Every element has a caption (i.e. a text section for the title, etc). So users can change font colors or sizes, attach links, embed videos – all just with menus and no HTML editing.

This makes it easy to get the appearance of your report exactly the way you want it, without the need for hiring programmers (or learning HTML).

Below you can see the same caption being edited with WYSIWYG menus versus HTML source code.

#### Caption



Example of a Magpi report element caption being edited using the WYSIWYG menus

#### Caption



The same Magpi report element caption being edited using the HTML "source" code



# **Report Element Types**

The New Report Element menu contains a variety of text, chart, and other elements. The charting elements are typically restricted to graphing certain types of question data. For example, histograms are used only for continuous numeric data.

Below are the specifications for each element type.

#### Text/HTML

A text element can be used to enter plain text, (or **optionally** to enter HTML code – rather than using the WYSIWYG editing described on the last page).

Read more about HTML.

#### **External**

An external element is used to add an external image by specifying the URL.

If you have an image that is not online (e.g. it is on your hard drive), you will need to upload it to some online location, and obtain a URL, in order to display it in a report.

Learn more about uploading photos and obtaining URLs.



External element



#### Cross Tab: Shows 2 Variables

#### (multiple choice questions)

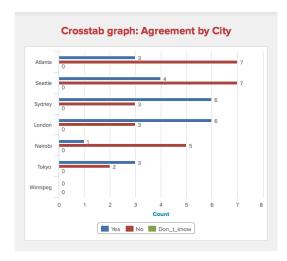
A cross tab (also called a "cross tabulation" or "contingency table"), is an element that shows the responses to two variables at once.

While the term "crosstab" traditionally refers to a table, a Magpi crosstab can be a table or a variety of graphs.

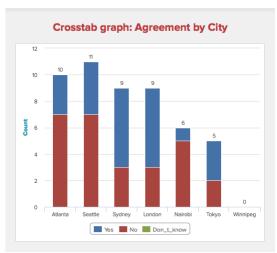
Read more about cross tabs at Wikipedia.

Crosstab: Agreement by City					
х	Yes	No	Don_t_know	Total	
Atlanta	3	7	0	10	
Seattle	4	7	0	11	
Sydney	6	3	0	9	
London	6	3	0	9	
Nairobi	1	5	0	6	
Tokyo	3	2	0	5	
Winnipeg	0	0	0	0	
Total	23	27	0	50	

Cross Tab table



Cross Tab grouped bar graph



Cross Tab stacked column graph



#### Frequency: Shows One Variable

# (SINGLE-SELECT MULTIPLE CHOICE "RADIO BUTTON" OR "DROPDOWN" QUESTIONS)

A frequency element shows the frequency of responses to a single variable (as opposed to the cross tab, which shows two variables).

Frequencies can be shown as a table, or as a variety of graph types. To the right are two ways to show the same frequency data.

#### Frequency with Drilldown

For Frequency report elements, which display the responses to a single multiple choice question, it is possible to include a "drilldown" question. This allows the report viewer to click on a report chart segment and "drill down" to a second variable.

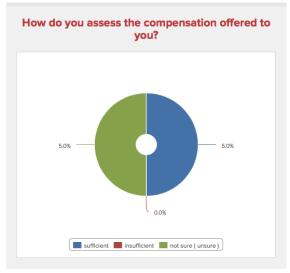
For example, in the chart at right you might specify "Gender" as the drilldown variable when creating the report element. That would allow you to click on the blue bar (representing those who felt compensation was sufficient) and see a gender breakdown of that group.

#### Horizontal Line

A horizontal line is simply used to separate two sections on a report.

How do you assess the compensation offered to you?					
Code	Value	%			
sufficient	1	5.0			
insufficient	0	0.0			
unsure	1	5.0			
Total	2	10.0			

Frequency table



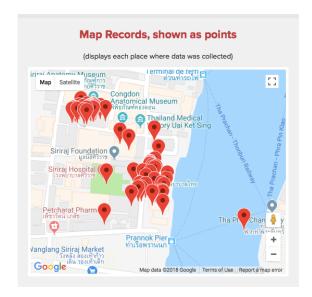
Frequency donut chart

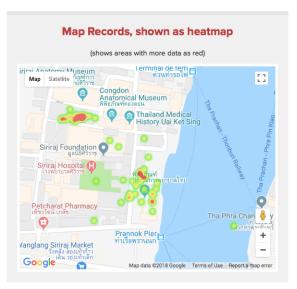


#### Map Records

Map Records shows a map of every collected data record (e.g. every interview). It is only available if the data was collecting using a GPS stamp or GPS question.

Map Records can display the collected data records as pins, or as a heatmap (this option is selected when inserting the Map Records element during report design).

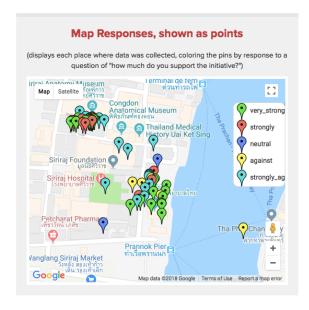


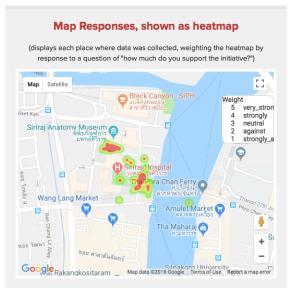


#### Map Responses

# (SINGLE-SELECT MULTIPLE CHOICE "RADIO BUTTON" OR "DROPDOWN" QUESTIONS)

Map Responses takes into account the response to a selected multiple choice question in the data set, and displays the data as either color coded pins on a map, or a heatmap.

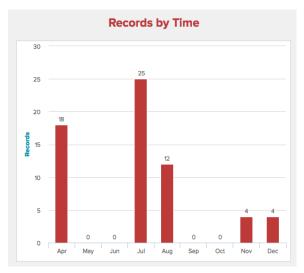






#### Records by Time

Records by Time displays a column graph with time on the X axis, and the number of data records collected on the Y axis.



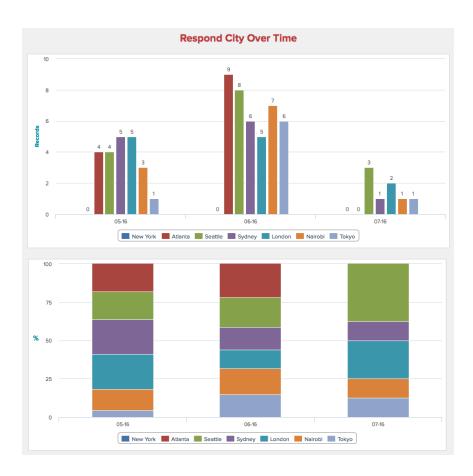
Records by Time

#### Responses by Time

#### (MULTIPLE CHOICE QUESTIONS)

Responses by Time is just like Records by Time (time is on the X axis and number of records on the Y axis) except that it displays multiple columns to represent each possible response to a selected question. There are several ways to display Responses by Time, including as a grouped column chart, a percentage column chart, a line chart, etc.

Below are two ways to display the exact same data as Responses by Time: grouped column and stacked "percent column" (where the stacked column is drawn so that each column adds to 100%.

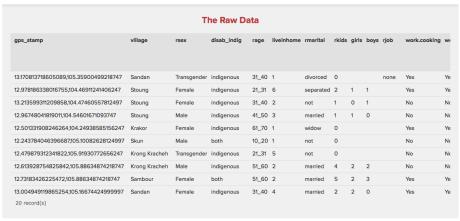


Two ways to view Responses by Time: Grouped Column, and Percent Column



#### List of Records

List of Records allows you to include raw data in a report. You have the option of hiding any sensitive or confidential or other information.

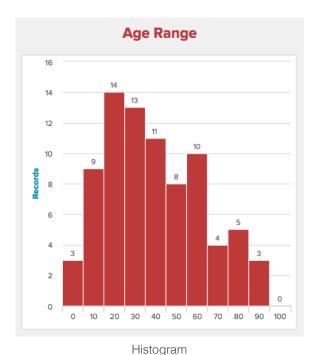


List of Records

#### Histogram

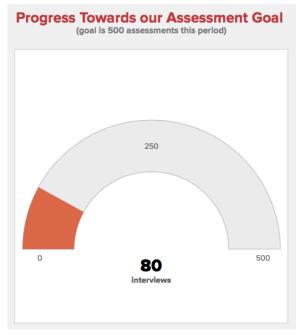
#### (NUMERIC QUESTIONS)

A histogram is a graphical representation of the distribution of numerical data. Read more.



#### Meter

A meter element displays the data records collected, compared with a goal that is either automatically set by Magpi, or set by the report designer.



**Progress Meter** 

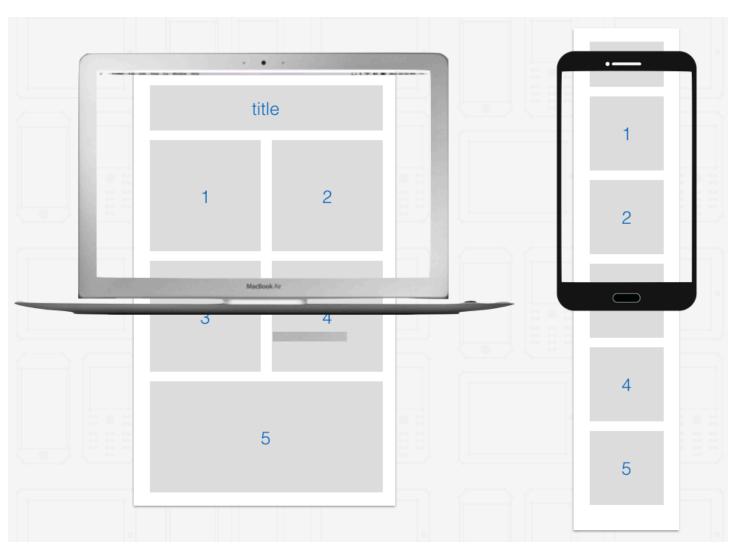
Report and Dashboard Guide



# **Report Layout**

Magpi Reports use a simple framework to organize the different elements. Basically, an element can be either full-width, or half-width.

Importantly, Magpi Reports are "responsive" to the size of the screen they're being viewed on. Below you can see how the same five-element report would look on a laptop screen versus on a smartphone screen. Notice how the side-by-side elements shift in position, and the full-width elements become half-width.



Magpi Reports layout when viewed on wider screen versus narrower screen



# **Embedding External Elements**

## What Does Embedding Mean?

To "embed" means to display the element, while it is still stored on its home website.

A wide variety of external elements can be embedded in a Magpi Report. A good example is the idea of embedding a YouTube video. Perhaps you want to display a video taken during a data collection activity in your Magpi Report about that activity.

Magpi does not provide the capability of uploading and storing videos – largely because sites like YouTube (and Vimeo) already provide that service.

So you would want to upload your video to YouTube, and then "get the embed code" for it – which means copy some HTML code from the video site and paste it into your Magpi report.

Share this video

Link

https://vimeo.com/jselanikio/r

Email

Enter name or email address

Embed

+ Show options

<i frame src="https://player.vimeo.com/video/58915809?
hvline=0&nortrait=0" width="640" haight="360" frameborder="0"

This video will be embedded at 640 pixels wide.
This embedded video will include a text link.

The end result will be that every time your report is opened, the video will be displayed on your report page.

**IMPORTANT:** embedding does <u>not</u> transfer a copy of the embedded item. In the example above, the video continues to be stored at YouTube, and if it is deleted from YouTube, it will no longer appear in your report.

Likewise, if you change the embedded item (e.g. changing some cells in an embedded spreadsheet) they will change in your report also.

Simply put: embedding is a way of displaying things from around the web within your report.

## What Can I Embed in My Report?

Things that you can embed in a Magpi Report include:

- YouTube and Vimeo videos
- Slideshare slide sets free
- Google Calendars, Maps, Charts, and Sheets (spreadsheets) - free
- Microsoft Office365 spreadsheets and charts
- Zoho docs, spreadsheets, and charts free

## **How Do I Embed Something?**

Embedding is very simple and uses something called an "iframe".



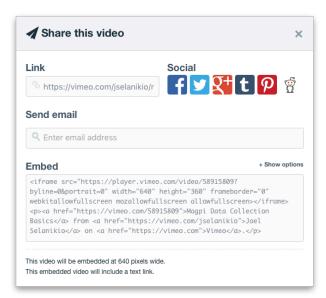
## **Step-By-Step Video Embed Example**

Let's say that you wanted to embed a video from the Vimeo video-sharing website into your Magpi report. You would:

- 1. Find the video on Vimeo. We'll use the example of the <u>Magpi mobile data</u> collection intro video.
- 2. Click the Share button:



3. Vimeo would at this point show you various ways of sharing the video:

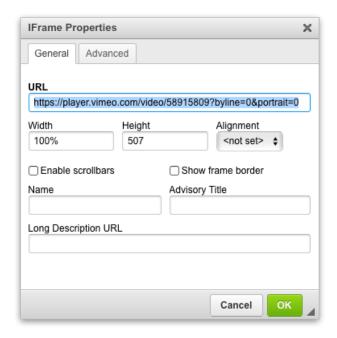


4. Look at the Embed section and you will see a web link (after src="). Copy all the web link information, not including the surrounding quotation marks. For example:

https://player.vimeo.com/video/58915809? byline=0&portrait=0

- 5. Open any report element in a Magpi report.
- 6. Click the little globe icon in the WYSIWYG menu: (it will show "iFrame" if you hover over it).

7. In the "iFrame Properties" dialog that comes up, paste the video URL into the URL field, and click OK:



8. That's it: the video will now appear each time your report is loaded:



Vimeo video embedded in a Magpi Report



# Integrating Data, Analysis, & Reports Using Google Sheets & Zapier

Magpi users can easily transfer incoming data from a Magpi form into any online analytic tool. Such tools include <u>Google Sheets</u>, <u>Microsoft</u> Office365 Excel, Salesforce, Tableau, etc.

Google Sheets offers many capabilities and is free, making it a popular choice.

To move your Magpi data into a Google Sheet, there are two options:

- 1 **manually** manually export the data from the form's data tab in Magpi, then manually import it into Google Sheets (you could even just cut and paste it.
- 2 **automatically** Magpi Enterprise users can use the Magpi API, or the inexpensive <u>Zapier</u> online tool, to set up an automatic link between Magpi and Google Sheets (or other online tools): when new data is uploaded into Magpi,

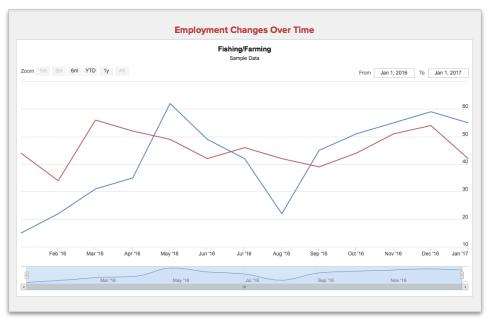
it is then automatically copied to Google Sheets.

Whether you move the data manually or automatically, you can then use Google Sheets much like Excel to clean data, analyze it, produce charts, etc.

On our website, we have a "deep dive" detailing how to

- 1. move data automatically to Google
- 2. develop supervisory stats from the data
- 3. create charts from the stats
- 4. embed the charts in a Magpi report

Google and Zoho are great free tools for creating complex and interactive graphs of your data to place into a Magpi Report. Below is one example of an interactive timeline chart created with Magpi data in Zoho, then embedded in a Magpi Report.



Zoho interactive timeline chart embedded in a Magpi Report



# Magpi Report Capabilities by User Subscription Level

Magpi Reports allows users to create fully-customizable live web reports and dashboards showing their data. These reports can be password-protected, embedded in other websites, printed, shared, and can include embeddable elements from other web tools.

Different Reports functions are available at different subscription levels:

# **All Users**

# Access a Sample Report and Shared Reports

All Magpi users can access an included sample report in order to learn about the functionality, but may not create any reports from their data. All Magpi users can also access any reports that have been shared with them by other users.

## **All Paid Users**

#### **Receive Automatic Reports**

Pro and Enterprise users will find an automatically-generated report for each of their forms that has data in it. These automatic reports are fully-customizable by the user: elements can be deleted, edited, or added according to preference.

# **Enterprise Users**

# Create Unlimited Reports, Combine Data From Multiple Forms

Enterprise users are additionally able to create an unlimited number of extra reports, in addition to the automatically-generated reports. Enterprise users can also combine the data from more than one form in a single report.