

# CloudTurbine to Google Sheets Demo

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This documents an on-line interface to CloudTurbine via the Google Docs spreadsheet interface. The Figure below shows a browser display of CloudTurbine accelerometer data.

The interface is semi-automatic in that it fetches a table of channels from given CT data source, and graphs the first several in a chart with automatic parameter legend. Other chart labels and format are manually set. Key elements of this demo include CTserver table mode flag, and a custom Google Sheets script.

## *CloudTurbine CTserver HTML table mode flag*

The CTserver “dt=H” flag returns data from all source channels in HTML table format suitable for importing to spreadsheets. Sample URL:

<http://cloudturbine.net/CT/Demo/AndroidAccel/?dt=H&d=20>

The Google Sheets “ImportHTML()” method is used to fetch tabular data from the given URL. MS Excel spreadsheets can similarly import table via a “Web Query”.

## *Custom Google Sheets script*

The CTupdate.gs is a custom script to update a table of spreadsheet cells via CTserver URL, source, and duration fields. Script source:

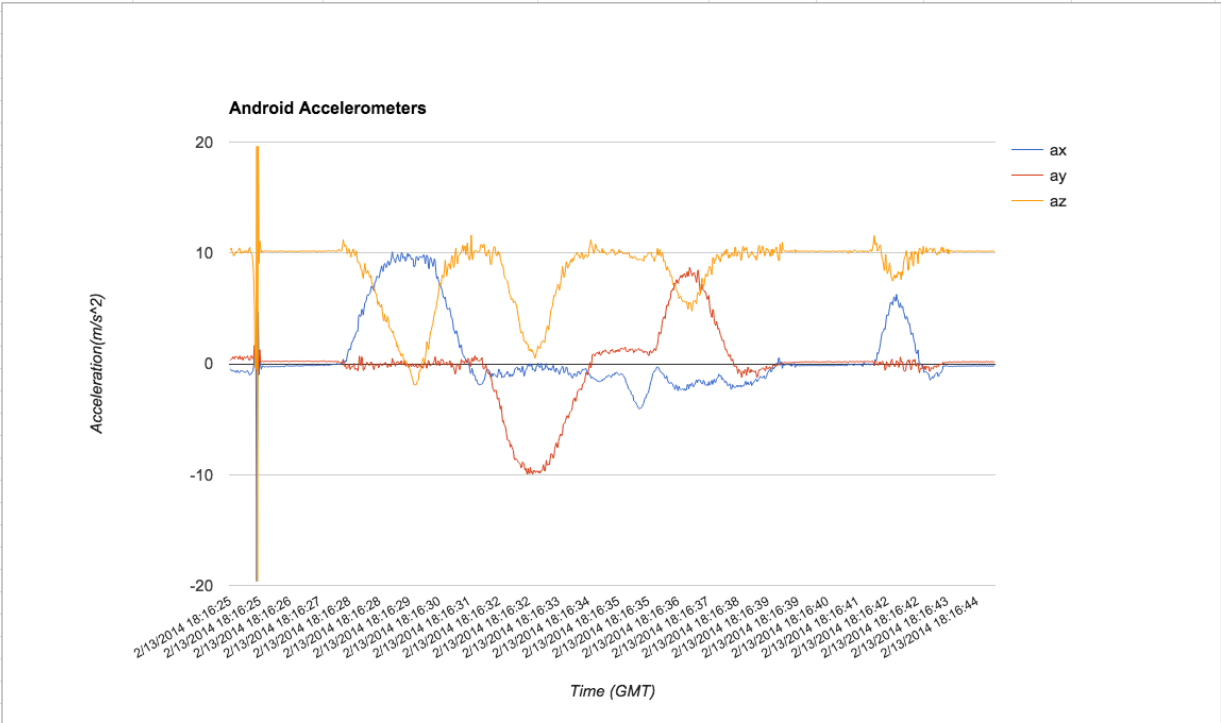
```
function CTupdate() {
  var sn = SpreadsheetApp.getActiveSpreadsheet().getSheetByName("Sheet1");

  var URL = sn.getRange("C1").getValue();
  var src = sn.getRange("C2").getValue();
  var dur = sn.getRange("C3").getValue();

  var A = sn.getRange("B39"); // CTurl cell being watched by ImportHTML()
  A.setValue("http://" + URL + "/CT/" + src + "?dt=H&d=" + dur);
}

function onEdit(e) {
  CTupdate();
}
```

Refresh	ServerAddr	cloudturbine.net
	Source	Demo/AndroidAccel
	Duration	20



CT URL: <http://cloudturbine.net/CT/Demo/AndroidAccel/?dt=H&d=20>

Time	ax	ay	az
2/13/2014 18:16:25	-0.50774413	0.36045045	10.305769
2/13/2014 18:16:25	-0.50774413	0.36045045	10.305769
2/13/2014 18:16:25	-0.63108766	0.4179309	10.453063
2/13/2014 18:16:25	-0.6622229	0.43349853	10.0698595
2/13/2014 18:16:25	-0.5652246	0.64066774	9.953701
2/13/2014 18:16:25	-0.63587767	0.4921765	9.704619
2/13/2014 18:16:25	-0.7244934	0.43349853	9.818382
2/13/2014 18:16:25	-0.6502478	0.6706055	10.000404
2/13/2014 18:16:25	-0.80472654	0.62989014	10.15608
2/13/2014 18:16:25	-0.6251001	0.66821045	10.006302