

Hameg Digital Scope to SciLab

Published in 2006.

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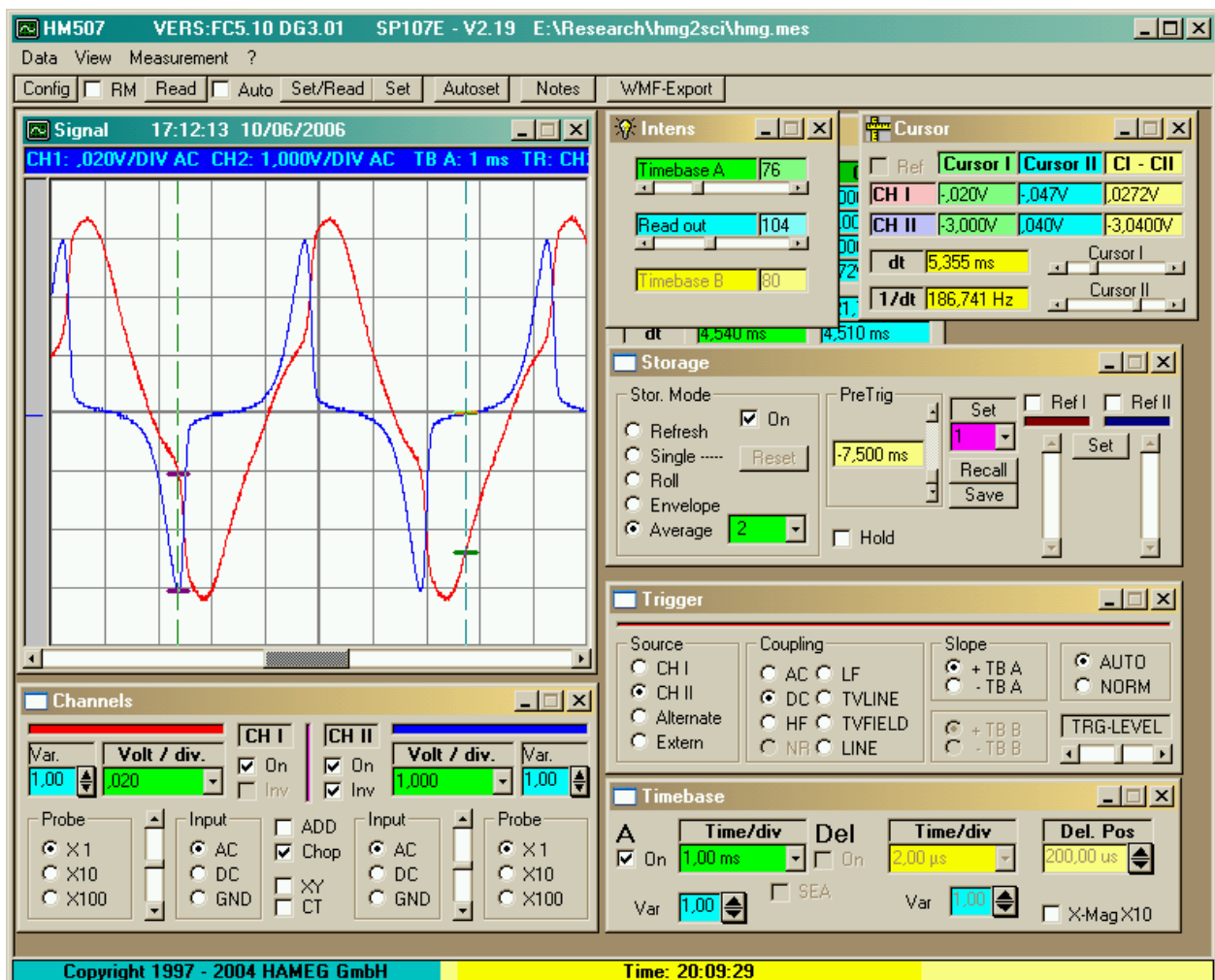
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http://www.tinet.org/~sje/index_en.htm

Introduction.

In this document I will describe you a method to load the sampled data from a Hameg digital scope, HM507 in this case, to SciLab. Where we can use the sampled data with all SciLab functions.

In SP107E.

The software SP107E, is supplied by Hameg and included in the Digital Scope. This software will let us obtain the sampled data from our digital scope to our Computer, sampled data that will save in a *.tab file, that can be read by SciLab.



To do that, go to Data – Save and select file type Table (*.tab), and write file name including the .tab extension.

This *.tab file, is a text file that have the format:

```
Time in s      CH I in Volt CH II in Volt
0,E+0  5,20E-02      -2,40E-01
5,E-5  5,20E-02      -2,80E-01
1,E-4  4,40E-02      -2,80E-01
```

Now we can go to SciLab, and read the sampled data.

In SciLab.

A simple SciLab file, that I have named loag_hmg.sci, can read the *.tab files generated by SP107E, show the data using the SciLab plot() function and save the data in SciLab bynari format to reuse it when required by any SciLab application that we can create.

```
// Load Sampled data from Hameg Digital Scope HM507 - SP107E
//
// Copyright © by Sebastian Jordi Estadella
//
// This procedure let us load sampled data from a Hameg digital scope,
// to use it with the SciLab functions.
//
// To do this we will use the supplied software SP107E. Software that let us
// save the sampled data in *.tab format, format that we can read in SciLab
// using this procedure.

clear

// Read *.tab files.

tab=mgetl('hmg.tab'); // Load *.tab file.
tbp=strsubst(tab,',','.'); // Change , by .
mputl(tbp,'tmp.tbp'); // Write in the new format.
[data,txt]=fscanfMat('tmp.tbp'); // Load the new format.
time=data(:,1); // Partition of data.
Ch1=data(:,2);
Ch2=data(:,3);

// Now we have load the sampled data, and we can use it as
// we ca use other SciLab matrix data.

scf(0)
clf()
plot(time,Ch1,time,Ch2)
xtitle('From SP107E','time [s]','Ch1 [V]','Ch2 [V]')
legend('Ch1','Ch2')

// And we can save it in bynari SciLab format.

save('hmg.dat',time,Ch1,Ch2)

// Format that we can load again using the SciLab Load function.

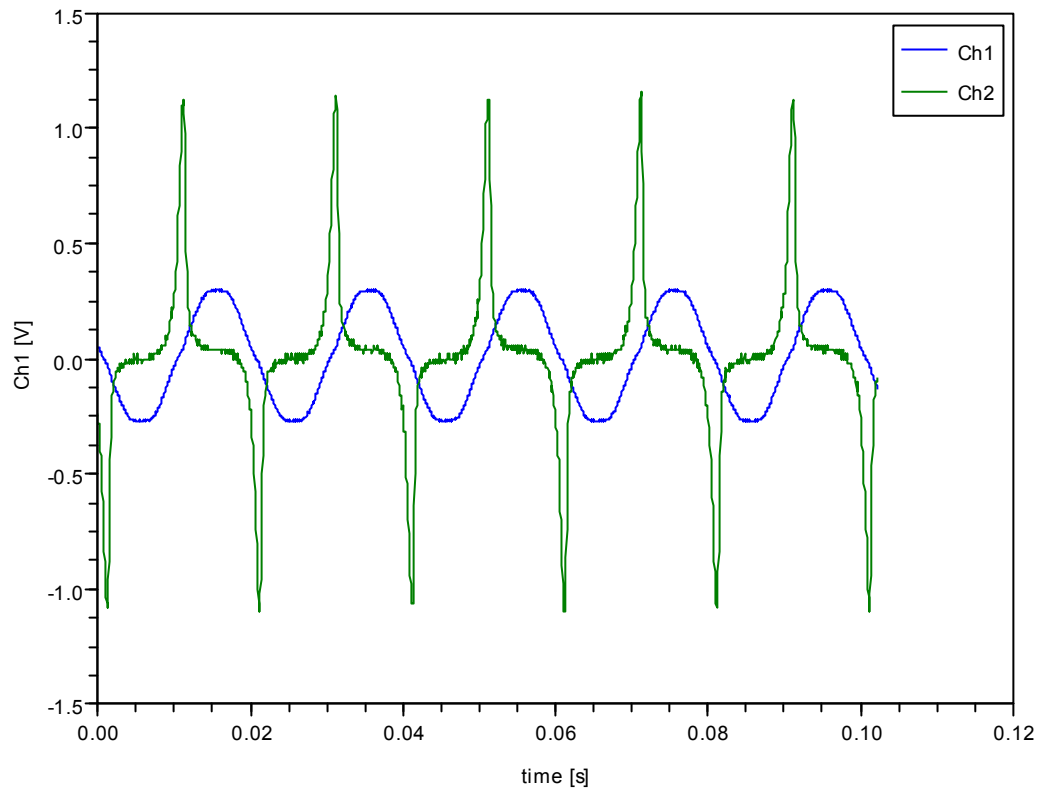
//clear

load('hmg.dat','time','Ch1','Ch2')

// And we Hill use it as another SciLab matrix.

scf(1)
clf()
plot(time,Ch1,time,Ch2)
xtitle('From SP107E to SciLab','time [s]','Ch1 [V]','Ch2 [V]')
legend('Ch1','Ch2')
```

From SP107E



Now we have the sampled data in SciLab format, we can use it with other SciLab functions for analysis and manipulation. Create X-Y plots, calculating RMS values, power, etc ...