

MAIN SCREEN. Column 1 is Channel 1 output, Column 2 is Channel 2 output, and column 5 is the GAP or Thickness (result). The values below columns 1 & 2 are in Vdc, and column five is in thousandths of an inch (mils). The numbers above columns 3-7 are indicating the nominal (desired) gap reading, or optionally the wand thickness.

Bargrafx Calibration

Chan # Poly. order Starting Value Delta Total Points Sensor Full Scale

Current Voltage

Error in Fit vs. Known

Output (volts) = + Volts + Volts² + Volts³ + Volts⁴

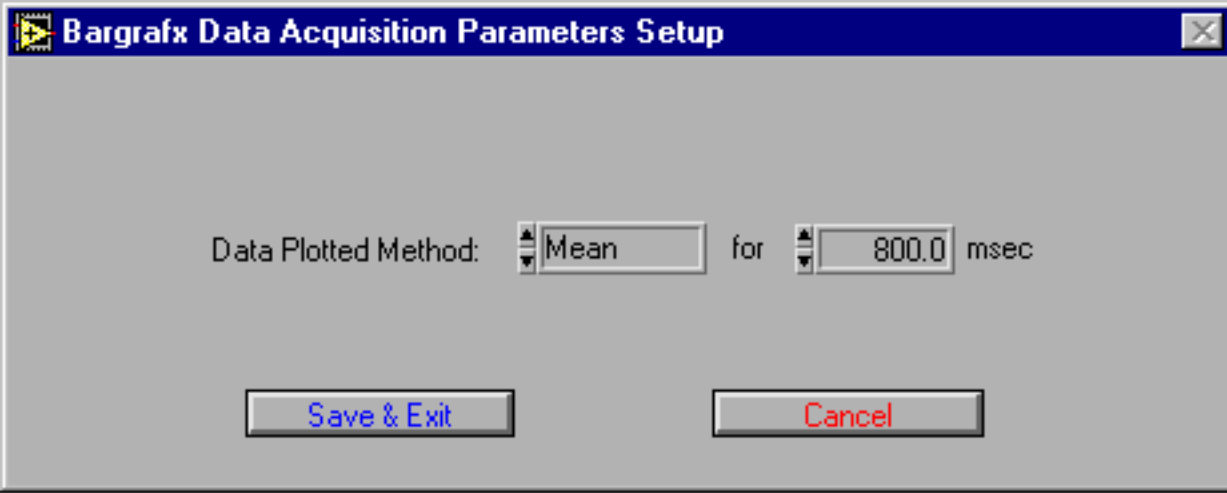
Point	Volts	Known	Predicted	Error	% Rel. Error
1.0000	0.8788	0.5000	0.5206	0.0206	0.4119
2.0000	1.3379	1.0000	0.9771	-0.0229	-0.4579
3.0000	1.8554	1.5000	1.4889	-0.0111	-0.2229
4.0000	2.3804	2.0000	2.0047	0.0047	0.0946
5.0000	2.8895	2.5000	2.5021	0.0021	0.0410
6.0000	3.4115	3.0000	3.0089	0.0089	0.1772

A/D Input

Points acquired

Gap

Calibration Screen. This is where multiple calibrations can be stored, and where linearizing polynomials can be applied.



DATA ACQUISITION PARAMETERS SETUP SCREEN

Bargrafx Equation Editor

EQUATIONS										BARS							
1	9Top	=	{	0.00	+	1.00	[(	1.00	Ch. 0	)	plus	(	1.00	nothing	)	}	01= 16T
2	9Bot	=	{	0.00	+	1.00	[(	1.00	Ch. 1	)	plus	(	1.00	nothing	)	}	02= 16B
3	.009	=	{	8.03	+	1.00	[(	1.00	Ch. 0	)	plus	(	1.00	Ch. 1	)	}	03= .009
4	13T	=	{	0.00	+	1.00	[(	1.00	Ch. 2	)	plus	(	1.00	nothing	)	}	04= .013
5	13B	=	{	0.00	+	1.00	[(	1.00	Ch. 3	)	plus	(	1.00	nothing	)	}	05= .016
6	.013	=	{	12.40	+	1.00	[(	1.00	Ch. 2	)	plus	(	1.00	Ch. 3	)	}	06= .020
7	16T	=	{	0.00	+	1.00	[(	1.00	Ch. 4	)	plus	(	1.00	nothing	)	}	07= .024
8	16B	=	{	0.00	+	1.00	[(	1.00	Ch. 5	)	plus	(	1.00	nothing	)	}	08= .029
9	.016	=	{	16.40	+	1.00	[(	1.00	Ch. 4	)	plus	(	1.00	Ch. 5)	}	
10	20T	=	{	0.00	+	1.00	[(	1.00	Ch. 6	)	plus	(	1.00	nothing)	}	
11	20B	=	{	0.00	+	1.00	[(	1.00	Ch. 7	)	plus	(	1.00	nothing)	}	
12	.020	=	{	20.08	+	1.00	[(	1.00	Ch. 6	)	plus	(	1.00	Ch. 7)	}	
13	24T	=	{	0.00	+	1.00	[(	1.00	Ch. 8	)	plus	(	1.00	nothing)	}	
14	24B	=	{	0.00	+	1.00	[(	1.00	Ch. 9	)	plus	(	1.00	nothing)	}	
15	.024	=	{	24.00	+	1.00	[(	1.00	Ch. 8	)	plus	(	1.00	Ch. 9)	}	
16	29T	=	{	0.00	+	1.00	[(	1.00	Ch. 10	)	plus	(	1.00	nothing)	}	

Editing variables: **1-16** | 17-32 | 33-48 | 49-64 | **Done** | **Cancel**

THE EQUATION EDITOR SCREEN. This is where the actual mathematics can be applied to the acquired data.

Bargrafx Limits Table Editor									
Equation Number	Equation Names	Upper Critical	Upper Warning	Zero Ref	Lower Warning	Lower Critical	Absolute Full Scale	Relative Full Scale	Master Value
1	9Top	4.0000	2.0000	0.0000	-2.0000	-4.0000	5.0000	5.0000	0.0000
2	9Bot	4.0000	2.0000	0.0000	-2.0000	-4.0000	5.0000	5.0000	0.0000
3	.009	14.0000	12.0000	0.0000	0.0000	0.0000	14.0000	14.0000	10.0000
4	13T	4.0000	2.0000	0.0000	-2.0000	-4.0000	5.0000	5.0000	0.0000
5	13B	4.0000	2.0000	0.0000	-2.0000	-4.0000	5.0000	5.0000	0.0000
6	.013	16.0000	14.0000	0.0000	-2.0000	-4.0000	18.0000	18.0000	14.0000
7	16T	4.0000	4.0000	0.0000	-2.0000	-4.0000	5.0000	5.0000	0.0000
8	16B	4.0000	4.0000	0.0000	-2.0000	-4.0000	5.0000	5.0000	0.0000
9	.016	20.0000	18.0000	0.0000	0.0000	0.0000	21.0000	21.0000	16.0000
10	20T	4.0000	4.0000	0.0000	-2.0000	-4.0000	5.0000	5.0000	0.0000
11	20B	4.0000	4.0000	0.0000	-2.0000	-4.0000	5.0000	5.0000	0.0000
12	.020	24.0000	22.0000	0.0000	0.0000	0.0000	25.0000	25.0000	20.0000
13	24T	4.0000	2.0000	0.0000	-2.0000	-4.0000	5.0000	5.0000	0.0000
14	24B	4.0000	2.0000	0.0000	-2.0000	-4.0000	5.0000	5.0000	0.0000
15	.024	28.0000	26.0000	0.0000	0.0000	0.0000	29.0000	29.0000	0.0000
16	29T	4.0000	2.0000	0.0000	-2.0000	-4.0000	5.0000	5.0000	0.0000

Editing variables:

LIMITS TABLE SCREEN. This screen adjusts the meaning of the Bar Graphs on the MAIN SCREEN.