

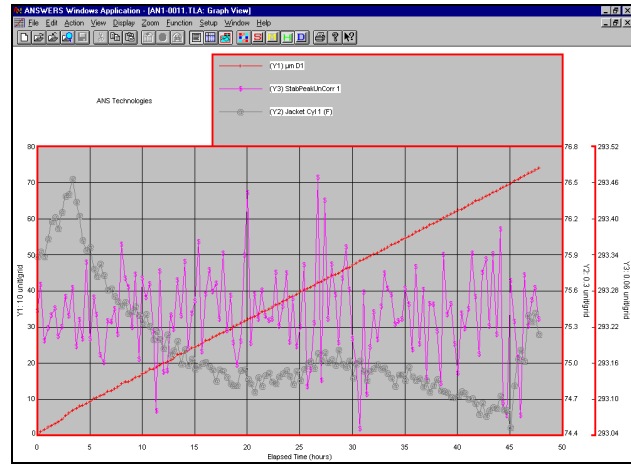
ANSWERS Integrated SLA Software Package

ANSWERS Data Acquisition & Analysis Software Package

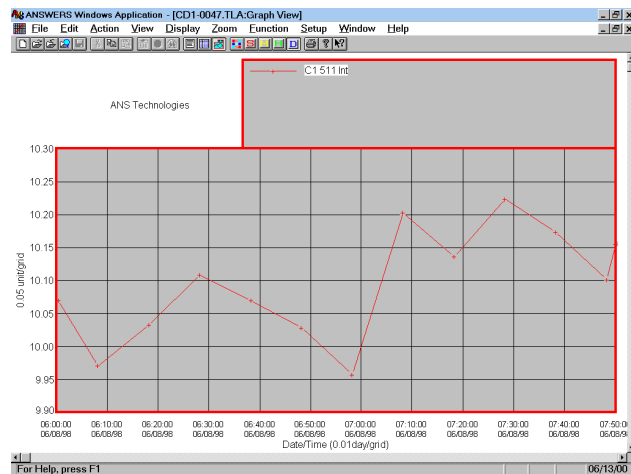
- Performs a multitude of control and analysis functions for SLA experiments.
- ANSWERS controls up to 4 detectors, and controls the transfer of the spectral data from each MCA at the end of each counting interval.
- For each data point, ANSWERS independently stores and analyses the spectrum from each detector in real time and displays the results in terms of wear or corrosion. The analysis is specific to the detector in question.

DATE/TIME	ELAPSED T	SPC#	RESETS	µm D1	cps D1	µm D2	cps D2	StabPeakCorr
Profile Name	Source	No Profile U	Source	Na22 Source	No Profile U	No Profile U	No Profile U	No Profile U
10:15:06	2002/03/26	0000000000	bct	0.0000	0.00	0.0000	110.57	0.00
10:17:59	2002/03/26	0000000000	nra	0.0000	17276.04	1.3389	7.56	193.66
10:19:21	2002/03/26	0000000000		15.2320	17012.89	4.8660	20.00	193.64
10:20:22	2002/03/26	0000010010	2	29.2376	16770.33	7.4005	30.45	193.65
10:21:23	2002/03/26	0000020020	3	36.4837	16645.74	10.5673	43.43	193.65
10:22:24	2002/03/26	0000030030	4	55.7792	16312.39	16.3375	67.15	193.66
10:23:25	2002/03/26	0000040040	5	70.7396	16053.34	26.8237	110.25	193.66
10:25:11	2002/03/26	0000050050	6	92.1192	15694.60	26.8237	0.00	193.66
10:26:12	2002/03/26	0000060060	7	112.7208	15328.67	29.2608	10.02	193.67
10:27:13	2002/03/26	0000070070	8	137.3032	14903.98	32.3265	25.06	193.65
10:28:14	2002/03/26	0000080080	9	157.1004	14561.96	37.9566	45.00	193.66
10:29:16	2002/03/26	0000090090	10	170.9288	14323.06	46.8675	82.38	193.65
10:30:17	2002/03/26	0000100100	11	200.2833	13815.93	67.7629	168.27	193.66
10:31:18	2002/03/26	0000110110	12	214.6194	13569.26	77.6094	209.74	193.66
10:32:43	2002/03/26	0000130220	13	210.6184	13361.52	107.4655	331.45	193.13
10:33:44	2002/03/26	0000140230	14	235.2589	13141.77	150.8296	509.69	193.13
10:34:45	2002/03/26	0000150240	15	254.6650	12933.03	190.3015	704.01	193.12
10:35:46	2002/03/26	0000160250	16	277.2932	12694.25	252.1479	926.13	193.13
10:36:47	2002/03/26	0000170260	17	298.2405	12471.24	287.0089	1069.41	193.13
10:37:49	2002/03/26	0000180280	18	315.3624	12288.35	330.3448	1247.53	193.12
10:38:50	2002/03/26	0000190290	19	332.1098	12110.15	387.5382	1482.61	193.12
10:40:16	2002/03/26	0000200550	20	332.1098	16083.05	387.5382	0.00	190.67
10:41:18	2002/03/26	0000210570	21	349.4120	15866.20	391.3013	15.47	190.67
10:42:19	2002/03/26	0000220580	22	353.1250	15576.79	391.4797	16.20	190.67
10:43:20	2002/03/26	0000230590	23	351.9567	15604.92	391.6825	17.03	190.66
10:44:21	2002/03/26	0000240600	24	351.8719	15606.36	392.4449	20.17	190.67
10:45:22	2002/03/26	0000250610	25	349.9468	15655.68	392.1286	19.87	190.67
10:46:23	2002/03/26	0000260620	26	355.6903	15515.01	393.0288	22.57	190.66
10:47:24	2002/03/26	0000270630	27	395.6027	14553.92	399.1114	47.57	190.67
10:48:25	2002/03/26	0000280640	28	419.8071	13971.08	411.7266	99.42	190.66
10:49:27	2002/03/26	0000290650	29	453.6038	13157.25	426.2557	159.14	190.67

- An analysis (a series), according to a specific set of parameters, is a single number or data point for each counting interval.
- Up to 100 series may be analysed at the end of each interval. Thus the data set comprises a matrix of rows and columns, where each column is a series, and each row is a counting interval.
- The series data is continually updated which allows the user to monitor on-line the evolution of wear or corrosion from a number of components simultaneously.



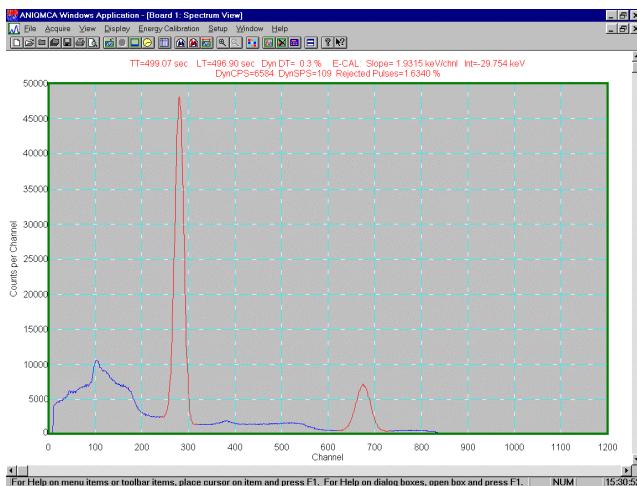
- ANSWERS is also equipped to control, analyse & create series from our ANIQIO board. This data would normally include operating parameters of the machine itself, such as temperatures, pressures or speeds.
- In addition to the analysed data set, the individual raw spectra are stored. This permits the user to perform an automatic re-analysis of the gamma data after the fact to define new or modified series.
- ANSWERS also includes an automatic gain stabilization system, a series combination system, an on-line wear rate generator, as well as numerous graphical display controls & features.



ANIQMCA Acquisition & Analysis Software

ANIQMCA Acquisition & Analysis Software

- ANIQMCA is designed to acquire spectral data in single periods, and display the spectrum in graphical mode.
- It controls and downloads data from the ANIQMCA14 Modules.
- ANIQMCA allows the user to open a number of documents, limited only by the memory of the PC. Each document is a histogram with an array size of either 1024, 2048 or 4096 channels. Each channel contains an integer from 0 to 2^{32} .
- The user may create on-line documents, one for each board. Such documents may be used to acquire live data.
- The data may be saved on disk in an MCA file, which may be read as an off-line document and analysed.



- The data may be viewed graphically in the Spectrum View. There is a header that displays calibration information.

- Automatic and manual scaling features are available.
- The user may set up to ten Regions-of-Interest (ROIs) on the spectrum, used both to calibrate the energy, and to perform analysis of a photopeak contained therein.
- The Data View displays a table of the raw data, with columns for Channel Number, Energy and Counts, as well as ROI data.
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Chnl	Energy	Counts	ROI#	From: Chn1No=	Energy=	To: Chn1No=	Energy=	Peak: Chn1No=	Energy=	Int: Counts=	CPS=	Area: Counts=	CPS=
0	0.0	0	1	0	26.0	0	26.0	0	26.0	0	0	0	0
1	1.0	0	1	0	26.0	0	26.0	0	26.0	0	0	0	0
2	2.0	0	1	0	26.0	0	26.0	0	26.0	0	0	0	0
3	3.0	0	1	0	26.0	0	26.0	0	26.0	0	0	0	0
4	4.0	0	1	0	26.0	0	26.0	0	26.0	0	0	0	0
5	5.0	0	1	0	26.0	0	26.0	0	26.0	0	0	0	0
6	6.0	0	2	6	791.0	0	791.0	0	791.0	0	0	0	0
7	7.0	0	2	6	791.0	0	791.0	0	791.0	0	0	0	0
8	8.0	0	2	6	791.0	0	791.0	0	791.0	0	0	0	0
9	9.0	0	2	6	791.0	0	791.0	0	791.0	0	0	0	0
10	10.0	0	2	6	791.0	0	791.0	0	791.0	0	0	0	0
11	11.0	0	2	6	791.0	0	791.0	0	791.0	0	0	0	0
12	12.0	0	2	6	791.0	0	791.0	0	791.0	0	0	0	0
13	13.0	0	2	6	791.0	0	791.0	0	791.0	0	0	0	0
14	14.0	1	2	6	791.0	0	791.0	0	791.0	0	0	0	0
15	15.0	0	2	6	791.0	0	791.0	0	791.0	0	0	0	0
16	16.0	0	2	6	791.0	0	791.0	0	791.0	0	0	0	0
17	17.0	4	2	6	791.0	0	791.0	0	791.0	0	0	0	0
18	18.0	27	2	6	791.0	0	791.0	0	791.0	0	0	0	0
19	19.0	76	2	6	791.0	0	791.0	0	791.0	0	0	0	0
20	20.0	56	2	6	791.0	0	791.0	0	791.0	0	0	0	0
21	21.0	73	2	6	791.0	0	791.0	0	791.0	0	0	0	0
22	22.0	79	2	6	791.0	0	791.0	0	791.0	0	0	0	0
23	23.0	65	2	6	791.0	0	791.0	0	791.0	0	0	0	0
24	24.0	66	2	6	791.0	0	791.0	0	791.0	0	0	0	0
25	25.0	56	2	6	791.0	0	791.0	0	791.0	0	0	0	0
26	26.0	71	2	6	791.0	0	791.0	0	791.0	0	0	0	0

- ANIQMCA is also used to define, save and transmit certain parameters and to the ANIQMCA14 Spectroscopy Module. The parameters are sent to the board's memory, and control how the input voltage pulses are analysed.

ANSWERS and ANIQMCA are both developments of ANIQ R&D Inc., the R&D partner of ANS Technologies Inc.

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