

CVC Suite (Current-Voltage-Characterisation Suite) is a modular-based Software Application, which is developed specially for testing integrated devices. The Software is build-up as a modular system and provides the opportunity of incremental expansion.

The following modules are included in the Software package and can be combined optionally with one another:

RUN TIME ENGINE
EDITOR
REPORTING TOOL

PATTERN EDITOR
PIN EDITOR
WAFERMAP

Center of the application CVC Suite is the RUN TIME ENGINE (RTE). According to the application die other modules can be connected with the RTE. Basic components of the software are the EDITOR, the REPORTING TOOL and the DATABASE. The DATABASE (based on Microsoft SQL Server) is the central storage space for all data and can be edited with all common database-tools.

The CVC Suite is compatible to MS WINDOWS 2000 resp. WINDOWS XP. The requirements for the needed measuring instruments depend on the application. In principle the modules can be distributed on several computers. The internal communication is done by TCP/IP.

The following characteristics of the Software demonstrate the advantages:

The way of communication between the software components (via TCP/IP) as well as the modular design of the system make possible customizations and upgrades.

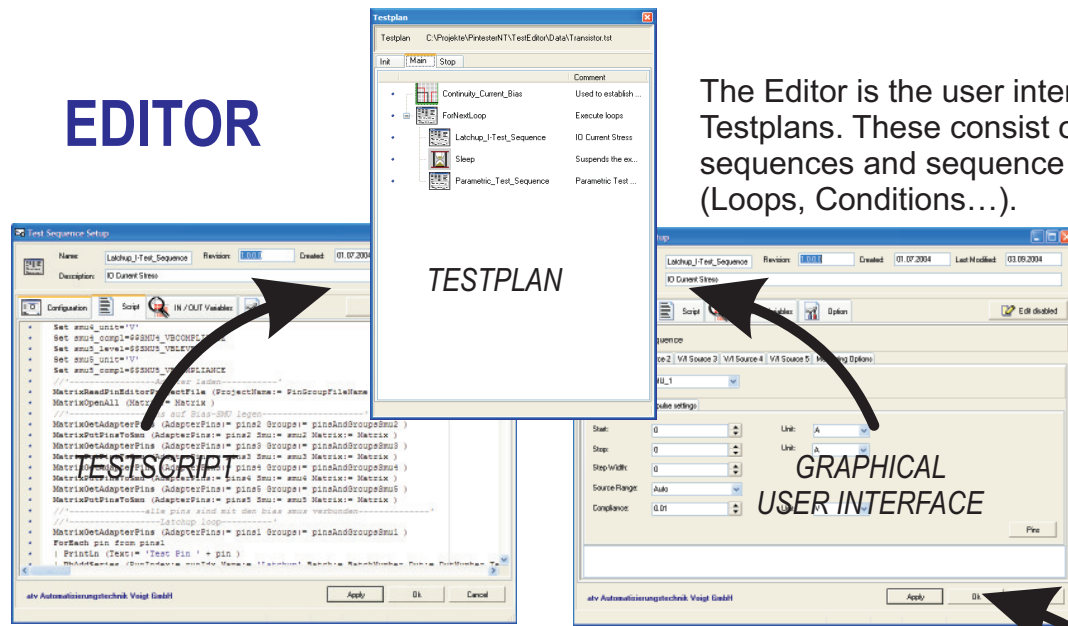
The software provides an open platform for customized upgrades.

A central storage space for all data is given by the database.

The results of executed tests can be used as parameters for following tests.

The Software is independent from hardware manufacturers because of supporting of common hardware protocols e.g. GPIB, RS232 and Ethernet.

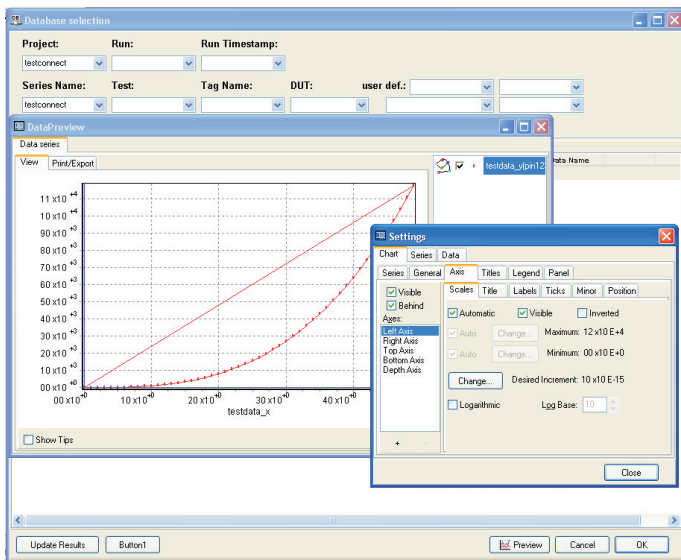
EDITOR



The Editor is the user interface to creating Testplans. These consist of different test sequences and sequence defining elements (Loops, Conditions...).

A test sequence is a combination of a graphical user interface and a test procedure in terms of a configurable scripts. The functional range of the test sequence is defined in the testscript.

REPORTING



RUN TIME ENGINE

PIN EDITOR

1	2	3	4	5	6	7	8	9	10	11	12
11	12	13	14	15	16	17	18	19	20	21	22
21	22	23	24	25	26	27	28	29	30	31	32
31	32	33	34	35	36	37	38	39	40	41	42
41	42	43	44	45	46	47	48	49	50	51	52
51	52	53	54	55	56	57	58	59	60	61	62
61	62	63	64	65	66	67	68	69	70	71	72
71	72	73	74	75	76	77	78	79	80	81	82
81	82	83	84	85	86	87	88	89	90	91	92
91	92	93	94	95	96	97	98	99	100	101	102
101	102	103	104	105	106	107	108	109	110	111	112
111	112	113	114	115	116	117	118	119	120	121	122
121	122	123	124	125	126	127	128	129	130	131	132

The measured data are evaluated and presented in the Reporting Tool. The data are read-out and shown according to user-specific requests. For editing the evaluation the following free positioning graphic elements exist: e.g. Text, Graphs and Lines.

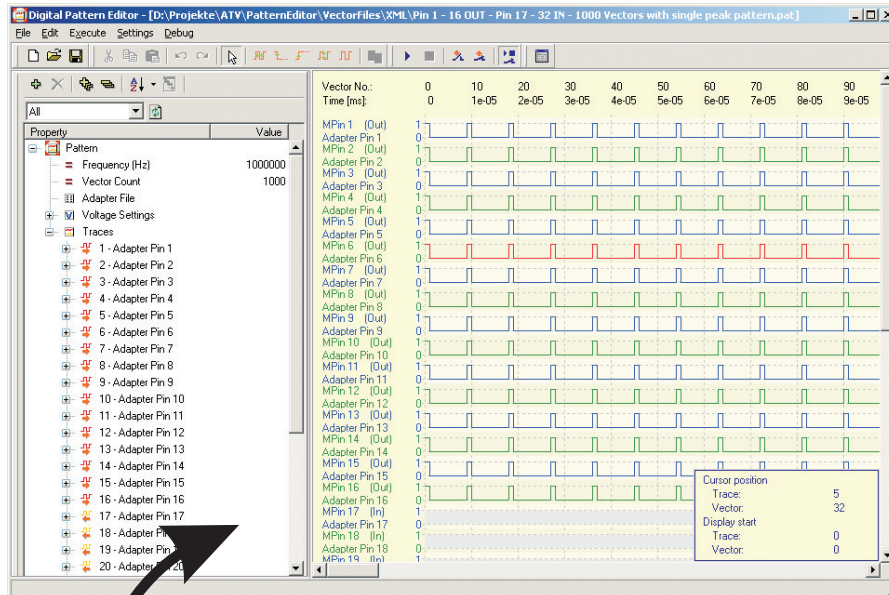
Designed presentations of data can be stored as masks and can be reused. Mathematical functions for rework of the measuring data are available in the Reporting Tool as well as in the RTE. Comparisons e.g. Golden device characteristic curves can be defined in the measurement setup. The mathematical handling take place immediately after the measurement in the RTE.

The allocation of measuring instruments to certain pins is necessary for testing integrated devices with a matrix. With the help of the Pin Editors defined pingroups are allocated to names.

The allocation of the pingroups to the matrix configuration is based on a scramble file especially generated for the testadapter.

PATTERN EDITOR

The Pattern Editor realises the generation of digitale Pattern for verifying the ICs resp. for read-out.



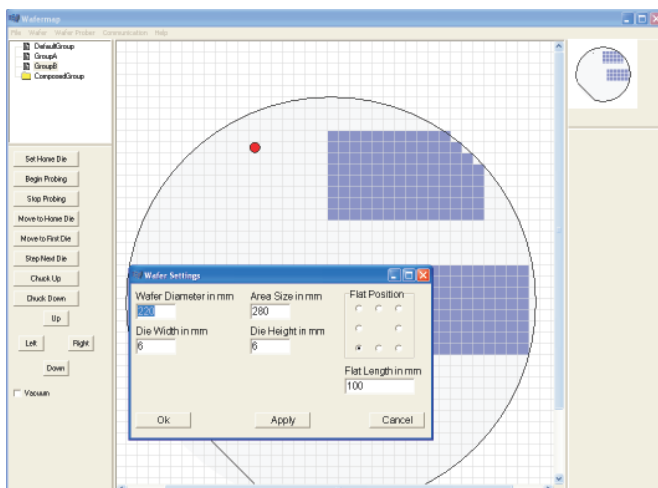
The digital channels (Number depends on stage of expansion of the Tester) are set up on signal output resp. read-out with the help of the Pattern Generator. The output signal can be varied in regard to voltage configuration and frequency.

The data of the channels, which are programmed for read-out, are recorded synchronized to output and are shown at the end of the Pattern output.

RUN TIME ENGINE

MEASUREMENT SYSTEM

WAFERMAP



That program module simplify the installation and the control of Probersystems. The Die-groups can be defined with the help of the Wafermap. For these defined groups test sequences can be created and executed..

The Probercontrol is realized by the Wafermap.



The hardware of the measuring instruments supports the following interface standards: GPIB, RS232 and Ethernet. In principle every measuring instrument, which are programmable by one of the above-named interfaces, can be connected with the RTE. Device libraries exist, which can be supplement on request. A Trigger controller is provided for the synchronisation of the measuring instruments.