IC-CAP 2004 Features
Graphics-based, fully automated **PlotOptimizer** for improving the fit in an unlimited number of plots, for any model parameter, with a few mouse clicks, applying automated optimization or manual tuning.

- multiranges per plot
- easy param.select
- store, recall and undo param.values

Agilent Techn
New System Variables

to use case sensitive model parameters in accordance to the conventions in the design kits
SIM_USE_UPPER_CASE_PARAMS (all simulators)
SIM_USE_LOWER_CASE_PARAMS (all simulators)
HPEESOF_SIM_USE_MIXED_CASE_PARAMS (for ADS)

Enhanced Toolkits

- BSIM3 & BSIM4 Updated User Interface
- Motorola LDMOS model ADS-sdd example

New Instrument Drivers

- Agilent DC Analyzer E5270A
- Agilent PNA network analyzers (PNA series) up to 110GHz (E8362B, E8363B, E8364B and N5250A)
- Agilent CV Analyzers 4991A, 4294A

Improved Optimizer Interface

- New user interface for Parameters tab and Options tab
- Optimizers can now remember current parameter values at the push of a button for later recall.
- Any optimization yielding undesirable results can be 'undone' to reset the parameters to their preoptimization values

simultaneous AC/DC simulations
with the ADS simulation link

Full Support of Spectre Netlist Syntax
More Optimizers

Agilent Technologies
New Data Display

Modeling Result of a diode

measured Mon, Sept. 15, 2003
New IC-CAP PEL Functionalities

- ACCESS *ALL* ENTRY FIELDS IN A MODEL FILE WITH PEL
  "SetTableFieldValue"
  Objects: inputs, outputs, transforms, plots
  Expects 2 arguments, the first is the field to set, the 2nd is the value to set it to.
  Valid for Program, Optimize, and all other functions.
  EXAMPLE:
  define functionality 'Optimize' for a Transform:
  ICCAP_FUNC("/Model/DUT/Setup", "SetTableFieldValue", "Function", "Optimize")
  define entry 'id.m' for Plot entry field 'Y Data 1':
  ICCAP_FUNC("/Model/DUT/Setup/Plot","SetTableFieldValue", "Y Data 1", "id.m")

- CREATE A USER VARIABLE AND SET ITS VALUE
  "CreateVariableTableValue"
  Objects: /, model, DUT, Setup Variables
  Expects 1 argument, the name of the variable to add.
  If variable already exists, no action is taken, otherwise, the new variable is added at the end of the table.

  "SetVariableTableValue"
  Objects: /, model, DUT, Setup Variables
  This is the missing analog to USERC_set_param_quiet for variables.
  EXAMPLE:
  ICCAP_FUNC("/Model/DUT/Setup", "CreateVariableTableValue", "TEMP")
  ICCAP_FUNC("/Model/DUT/Setup", "SetVariableTableValue", "TEMP", "27")
- EVALUATE ALL ENTRY FIELDS BY PEL

lookup_xxxxx
lookup_table_val(     <obj>,<fieldname>,[errorStr])
lookup_table_val_eval(<obj>,<fieldname>,[errorStr])

lookup_instr_table_val(     <obj>,<fieldname>,[errorStr])
lookup_instr_table_val_eval(<obj>,<fieldname>,[errorStr])

=obj> is the input/output that refers to an instrument options table,
    or an input/output/plot/transform for the non-instruments form.
<fieldname> is the field in the instrument options table field to look up
[errorStr] is optional, and useful in Macros.

EXAMPLE:
\[x=lookup_table_val("/diode_basics/DC/forward/va","Compliance")\]
    - this returns the entered compliance value.
    - if it was a Variable, it returns the Variable name
\[x=lookup_table_val_eval("/diode_basics/DC/forward/va","Compliance")\]
    - this returns the value of the Variable entered in the Compliance Field of Input 'va'.

NOTE:  there are 2 flavors of this feature, with and without _eval tacked on the end.
The difference is that 'lookup_val' will return I_COMPL if I_COMPL is a variable in Field 'Compliance',
and 'lookup_val_eval' will return 100m (presuming I_COMPL evaluates to 100m).
Same for the lookup_instr_table_val form.