ELECTRONICS 2000 Volume 2

Complete File Listing

2732/2764 EPROM emulator
PATH: \ELECV2\UTILS\EPROMEMU
2732/2764 EPROM emulator.

555 DEMONSTRATOR
PATH: \ELECV2\HARDWARE\555DEM
The intent of the program is to be a tool to supplement the user in understanding the 555 integrated circuit. 555 DEMONSTRATOR will provide basic information on the operation that the user can use alone or with additional material. This application uses standard resistor values and standard capacitor values. The resistor values are for carbon, 5% tolerance, resistors. The capacitor values are for various voltage ratings and various materials. Not all values are available for all ratings.

555 Timer Oscillator
PATH: \ELECV2\HARDWARE\555TMR
555 Timer Oscillator

6800 emulator for DOS
PATH: \ELECV2\HARDWARE\68EM10
6800 emulator for DOS, includes a realtime O/S

A-FILTER
PATH: \ELECV2\CALCULAT\AFILTER
This program calculates the resistor and capacitor values for various op-amp active filters The filters covered are 1. Low pass, 1st order 2. High pass, 1st order 3. Low pass, 2nd order,equal component value Sallen-Key 4. High pass, 2nd order,equal component value Sallen-Key 5. Low pass, 3rd order,equal component value Sallen-Key 6. High pass, 3rd order,equal component value Sallen-Key 7. Low pass, 4th order,equal component value Sallen-Key 8. High pass, 4th order,equal component value Sallen-Key Calculations will simultaneously include 7 response curves for each filter greater than 1st order); Best delay, Compromise, Flattest, Slight dips 1db dips, 2db dips and 3db dips. These filter configurations can be cascaded to make bandpass filters.

ACana v4.1
PATH: \ELECV2\MISC\AC_ANA
ACana is a small signal analysis program for IBM pcs/clones etc. It determines the ac responce of a circuit described by nodal connections. Uses the Gauss-Jordan algorithm to solve an addmittance matrix, This is generally considered slower than the usual LU method but is much more accurate especially at higher frequencys. Active devices are kept on text files so you can put your favorite components directly on without difficulty.

ACIRAN V1.4 FOR WINDOWS
PATH: \ELECV2\CIRCUITS\ACIRAN
AC Circuit Analysis System

ACS - general purpose circuit simulator
PATH: \ELECV2\CIRCUITS\ACS021MS
ACS is a general purpose circuit simulator. It performs nonlinear dc and transient analyses, fourier analysis, and ac analysis linearized at an operating point. It is fully interactive and command driven. It can also be run in batch mode or as a server The output is produced as it simulates. Spice compatible models for the MOSFET (level 1,2,3) and diode are included in this release Since it is fully interactive, it is possible to make changes and re-simulate quickly. The interactive design makes it well suited to the typical iterative design process used it optimizing a circuit design. It is also well suited to undergraduate teaching where Spice in batch mode can be quite intimidating. This version, while still officially in beta test, should be stable enough for basic undergraduate teaching and courses in MOS design, but not for bipolar design In batch mode it is mostly Spice compatible, so it is often possible to use the same file for both ACS and Spice The analog simulation is based on traditional nodal analysis with iteration by Newton's method and LU decomposition. An event queue and incremental matrix update speed up the solution for large circuits (at some expense for small circuits.

ADC
PATH: \ELECV2\DESIGN\ADDA10
This archive describes how to build and use a simple low cost analog I/O extension board for IBM`s. It utilizes the 8-bit AD7569 IC containing a 500 KHz analog-to-digital converter (ADC) and a 1 MHz digital-to-analog converter (DAC). The card can for example be used to sample sound with the ADC and play it back through the DAC in real time, possibly after some `on-the-fly` digital signal processing.

AIMSpice
PATH: \ELECV2\CIRCUITS\AIMSPICE
AIMSpice

AMPLIFIE
PATH: \ELECV2\CIRCUITS\AMP
This program analyses four different types of class A amplifier circuits 1. Field effect transistor circuit 2. Bipolar Junction transistor circuit 3. Emitter follower circuit 4. Valve circuit

AMPLIFIER SIMULATION PROGRAM v4
PATH: \ELECV2\DESIGN\ASP_VER4
This program designs single stage common emitter or common source transistor amplifiers used for narrow band weak signal service. Many combinations of design are easily obtained by use of different Automatic or Interactive Design Routines. The main goal of this program is to provide functional amplifiers for Radio Communications.

AMSCAD
PATH: \ELECV2\CAD\AMSCAD1
AMSCAD, is an integrated software package of our popular Schematic Capture, PCB LayOut and Autorouter. This demonstration package lets you examine the features of our CAD/CAE system in a nutshell .

ANADIGI
PATH: \ELECV2\MISC\AN_DIG
This is an analog to digital converter which uses your game port as sensor inputs. Up to four (4) analog sensors can be attached. Readings can be obtained via a batch file as errorlevel, values stored in a file, displayed on screen etc. A simple Basic program can access the interrupt value or typing any key can read the sensors and store the sensor reading values in memory to be retrieved later etc, etc. Readings may be stored to a file, along with date/time. Many variations exist in the foreground modes (not memory resident) and in the background modes (memory resident).

ANALYSIS v4.0
PATH: \ELECV2\HARDWARE\ANALYS
If you need to locate patterns in complicated data sets, you may be interested in a program called ANALYSIS. ANALYSIS is a time series analysis package which can be used to perform Fast Fourier Transforms (FFT), wavelet analysis, coherence analysis, Wigner-Ville analysis, digital filtering of data sets, autocorrelations, crosscorrelations, moments and distribution analysis, and produces both 2 and 3-dimensional graphics including rotations. The graphic routines in ANALYSIS are capable of producing publication quality graphics and include an option for exporting graphic displays into PostScript files. ANALYSIS can be used with virtually any kind of data providing the file is in single column format (ASCII). It is very simple to use, with on- screen help and detailed descriptions of every function supported.

Ares & Isis
PATH: \ELECV2\DESIGN\P4
ARES is Labcenter`s high performance PCB design system offering the same user interface as ISIS and full netlist based integration with it. Using ISIS and ARES together you are guaranteed to produce a PCB layout which matches the schematic exactly and the use of a netlist in PCB design also saves you from worrying about the details of IC pin numbering when laying out the board. In addition, a netlist is a more or less essential where autorouting is to be used.

ASTATER.EXE - AHDL State Machine Generator
PATH: \ELECV2\UTILS\ASTATER
ASTATER.EXE is a utility for generating an ABEL file for state machines It will generate a file template that will fit your requirements of number of inputs number of outputs maximum number of relevant conditions per state number of flip flops state names After generation of the state machine file you will have to make a few changes to the file with your text editor. This utility can save time and let you concentrate on the logic of the machine an not on the syntax. The program is simpler to use then some fancy graphical state machine generators that are on the market which are also expensive.

Audio3.0
PATH: \ELECV2\MISC\AUDIO
Audio3.0 is a program which allows you to simulate various types of parametric equalizers and elecronic crossovers. This program may also be

used to determine the various Q`s, gains, and center frequencies necessary to tune an audio system. A spectra file, generated by a variety of real time or spectrum analyzers may be input, plotted, and equalized on screen. The input data may also be smoothed via a curve fit algorithm. A known reference system response may also be input to eliminate certain unknowns in the measurement process, such as microphone response. Or the microphone response alone may be input to offset its response. The resulting plot can also be printed.

AutoCAD-PCB
PATH: \ELECV2\CAD\ACADPCB
Software Tools for Executing Electronic Designs Using AutoCAD(R).

BASEBAND TUTORIAL
PATH: \ELECV2\TUTORS\BBTUTSHW
BASEBAND TUTORIAL VGA version A visual guide to the basics of Baseband signals: NRZ Code RZ Code AMI Code Bi-Ternary Code Multi-Level Baseband Code Bi-Phase Code Clock Recovery Data Regeneration Characteristics of an Eye Diagram.

Basic Electronics
PATH: \ELECV2\TUTORS\BASICE
Basic Electronics offers the first four lessons in a 42 lesson curriculum covering AC and DC electronics. The lessons are in HTML format allowing for offline study through a Web browser. Go online to complete tests and assignments or interact with the instructor. There are 18 lessons on DC and 24 lessons on AC subjects at a cost of $25/lesson. There is no credit for the course and accreditation info regarding the instructor. This program has not yet been reviewed.

bCAD 2.0H
PATH: \ELECV2\CAD\BCAD20
bCAD 2.0 is fully functional 2D draufting, 3D modelling and rendering middle/low price package.

BoardMaker/BoardRouter/BoardCapture
PATH: \ELECV2\MISC\BMDEMO10
BoardMaker/BoardRouter/BoardCapture.

Bondit v2.2
PATH: \ELECV2\TUTORS\BONDIT22
Bondit - Win\Educate Practice with Lewis formulas and 3-dimensional structures of molecular compounds which follow the octet rule Molecules can be made, viewed, and copied to any Windows application.

BOOLTUT
PATH: \ELECV2\TUTORS\BOOLT17
This course covers the basics of boolean logic.

BULBS v2.1 Bulb String Voltage Calculator
PATH: \ELECV2\CALCULAT\BULBS21
BULBS v2.1 Bulb String Voltage Calculator BULBS was written to help determine the proper voltage size of the bulbs in the mini bulbs strings

used for Xmas lights and other mini bulb assemblies. With BULBS you can find the proper voltage bulb for your mini string fast and easy.

Burr Brown Filter Pro
PATH: \ELECV2\DESIGN\BBFPRO
Burr Brown Filter Pro - This program allows you to design filters - Uses Burr Brown Components but is well worth using!

BusBar Calculations
PATH: \ELECV2\CALCULAT\BUSBARCL
Busbar Calculations is a scientific tool that will enable users to find ratings based on expected surface temperatures. You enter dimensions and ambient temperture for copper or aluminum busbars to determine capacity and dissipation rates. Power factor calculations provide capacitor data for maintaining constant power output. A conversion utility handles area, length, volume and mass translations between British and metric units. Electrical engineers will find this a useful tool. The shareware functions for ten nonconsecutive user days, then you must register.

C Sources for Spice 2g6
PATH: \ELECV2\HARDWARE\DSPICE0S
C Sources for Spice 2g6. Req. DJGPP & F2C_LIB0

CableGUi!
PATH: \ELECV2\SCHEMATI\CABLEGUI
CableGUi! is a database of information for common computer and electrical cable assemblies. A three-paned display window shows input connector, terminal connector, and wiring schematic for most cable applications. Choose from an expandable picklist of cable types, then view the display. There`s a brief readme file, and online help describes the assignment of function keys for the program. The program windows can`t be resized, so displays are cut off at some monitor resolutions..

CAD-3D 2.3
PATH: \ELECV2\CAD\CAD-3D
Cad-3d is a program for drawing 3D scene consisting of simple geometric objects (cube,sphere,torus,...). You can do basic graphic transformations (rotation,translation,...) and see color or wireframe models of scene.

CamView
PATH: \ELECV2\UTILS\CVIEW150
CNC control file viewing utility

CAPCAD
PATH: \ELECV2\DESIGN\CPCAD
Calculate complex impedance, S-parameters, equivalent lumped series inductance and Q-factor for di-caps, gap-caps, border caps and multilayer capacitors. Vary the parameters of di-caps, gap-caps, and border caps and view the performance changes. Vary the capacitance, dielectric material, and mounting method of multilayer capacitors and view the performance changes. Store tabular S-parameters, impedance or Q-factor versus frequency to a data file. Import data files generated by CAPCAD into your engineering CAD program to give accurate simulations of your designs.

CARMS - Markov Modeling and Reliability Analysis for MS-DOS and MS-Windows
PATH: \ELECV2\MISC\CARMS11D
Fault-tolerant system design requires a special class of engineering methods and tools. For example, the technique of Markov modeling plays a significant role in system reliability analysis. To further assist in model construction and automatic evaluation, combining Markov modeling and computer-aided techniques would be a great help to the designer. Thus, we have developed a Markov modeling tool called CARMS for the Microsoft DOS and Windows operating environments to provide extensive fault-tolerant design support CARMS (computer-aided rate modeling and simulation) is a modeling and evaluation tool designed to solve a wide range of stochastic time dependent, prediction-oriented problems. In particular, it excels as a general purpose tool suitable for reliability, maintainability, and availability prediction. Some of the interactive features we have incorporated in CARMS include Vector-based graphics for constructing transition diagrams Transition matrix with a spreadsheet-style data input screen Symbolic algebra for simplifying problems Graphical display of results as a function of time Generation of reports to printer, plotter, or file Choice of numerical routines for solving a range of problems Export graphics to clipboard (MS-Windows version only Standard help with context sensitivity (MS-Windows has hypertext help A dynamic link library interface (MS-Windows version only Expert-system front end which automates model construction.

CCICAP v4.22
PATH: \ELECV2\CIRCUITS\CCICAP
CCICAP is a powerful, easy to use linear circuit analysis pro gram. The program can be used to study a wide range of circuit behavior. CICAP includes passive circuit elements such as resistors, capacitors, and inductors as well as controlled ele ments such as voltage to current converters and ideal operational amplifiers. There are built in models for bipolar junction transistors, field effect transistors, and operational amplifi ers Four digital elements are included to allow the analysis of digital filters and other digital systems in the frequency do main The user of CCICAP can specify voltmeters and ammeters at any point in the circuit so that circuit operation can be easily monitored. In addition, user specified calculated relationships among inputs and outputs can be obtained. Output is produced to a printable ASCII file specified by the user, and optionally to binary data files CCICAP provides both frequency and time domain analysis capabilities.

CIRCAD
PATH: \ELECV2\CIRCUITS\CIRCD
A graphical circuit designer and autorouter.

Circuit
PATH: \ELECV2\CIRCUITS\CRCUIT10
v1.0) Circuit Setting up circuits to illustrate ohms`law and resistors in series and parallel can be tedious and expensive Usually lab groups are very large due to the unavailability of equipment. This program allows the student to create complex series, parallel, and combination circuits with up to 19 resistors. The relationship between resistance potential difference, and current can be inferred by the student by trying

different combinations of resistors A lab which accomplishes this task is included with the registered copy.

Circuit Search database
PATH: \ELECV2\REF\CCTS9404
The Circuit Search database consists of a collection of references to more than 15,000 papers and articles containing schematics of practical electronic circuits. A source of over 350 English-language scientific and technical journals and maga zines provides a complete interdisciplinary reference source Circuit Search is particularly useful to designers including engineers, scientists, educators and consultants. Circuitry with applications ranging from agriculture to astronomy, medicine to microcomputers, is referenced. Analog, digital, interface, RF and other categories of electronics are covered in this reference source Circuit Search`s intent is to provide you with brief references to a wide range of circuit applications, not large abstracts relating to any specific field.

Circuit Shop
PATH: \ELECV2\CIRCUITS\CIRCSHOP
Circuit Shop is a detailed program that will help you to learn about and create electronic circuits. It provides tutorials on Ohm`s law, series circuits, parallel circuits, and power and energy. These tutorials consists of theory, examples, and demonstrations. You can also construct simple electronic circuits utilizing the analog device drawing toolkit and the paint toolkit, which allows you to add text, lines, ovals, and rectangles to be used as circuit annotations. These circuits can then be analyzed by the program. The schematics can be saved, reloaded, or sent to the printer. Two sample circuits are included. If you`d like to learn more about circuits and how they work, Circuit Shop is a good resource. You`ll need an electronics background to use it properly.

CircuitMaker for Windows
PATH: \ELECV2\CIRCUITS\CMDEMO
CircuitMaker for Windows - is a demo of powerful circuit design and simulation package. Features include analog/digital/mixed mode simulation SPICE import/export, complete PCB support, complete device and pin labeling capabilities, and much more.

CIRCUITS version 1.2
PATH: \ELECV2\CIRCUITS\CIRCUIT
CIRCUITS version 1.2

Coil.exe
PATH: \ELECV2\CALCULAT\COIL
This program computes the electrical self inductance of various shapes and sizes of air core coils.

Computer Oscilloscope Plans
PATH: \ELECV2\CALCULAT\SCOPE
"""The circuit described below will convert an analog signal into an 8 bit digital signal which is then sent to the parallel port of the computer. The signal must be within the range of 0 to 5 volts. 8 selectable inputs are possible. The A-D converter used is the ADC0809

chip made by Texas Instruments Alright, this """"scope"""" (if you can even call it that) isn`t terribly complex. It doesn`t run very fast. I think the max frequency is under 1Khz. Resolution is 8 bit so that gives you data to the closest 0.02 volts. HEY what do you expect for a scope built for less than $20? I`ve found the """"scope most useful for debugging amplifier circuits (you can display input in one color and output in another) but it can be used for almost anything."""

COMPUTERIZED ELECTRICAL DEVICES
PATH: \ELECV2\MISC\COT_1
This is a simple and resident program. It controls any external electrical device with neither special card nor windows but a simple electronic circuit is necessary. Type or power of the external device does not cause a problem. It works safety from 1 Volt to thousands volts. A simple lamp, frigidare, ventilation motors, lathe turner, stove or any heater can be connected to the computer. Original package includes the electronic diagram of a very simple circuit and a short TSR program activates the serial port.

CPU chip info
PATH: \ELECV2\HARDWARE\CHIP005
Learn about various computer cpu chips.

DANCAD3D, Wire frame, CAD, animation, and drawing program.
PATH: \ELECV2\CAD\DANCAD2B
DANCAD3D, Wire frame, CAD, animation, and drawing program.

DANMOVIE.COM v1.10
PATH: \ELECV2\CAD\DANMOVIE
DANMOVIE works with DANCAD 3D to animate screens saved as pixel bit maps. DANCAD 3D can print out or plot the drawings at very high resolution (greater than 4 million pixels) if you like the way the animation looks using DANMOVIE.

DAUBWAVE - wavelet analysis program.
PATH: \ELECV2\UTILS\DAUBWAVE
The purpose of this program is to perform wavelet based operations on a data set. It should be useful in learning orthogonal wavelet analysis as well as data analysis using orthogonal wavelets. This program uses orthogonal wavelet analysis based on Daubechies` derived coefficients.

DC
PATH: \ELECV2\CAD\DRAFTC
DC is an impressively fast object based graphics tool which uses floating point mathematics to record the size, shape and position of objects you design. An object is a basic element like a Line, a Circle, a Box, or even more complex shapes like many sided Polygons triangles, pentagons etc) and Bezier Curves. By choosing a mixture of these elements you can create amazingly detailed drawings impressive graphics, or conceptual schematics.

DC CAD - Electronic Board Design
PATH: \ELECV2\CAD\DCCAD

DC CAD combines the ease and versatility of a pixel-oriented drawing program with the specialized tools and funtions of a CAD program to give you an uncommon level of control in creating schematics and double-side board layouts.

DC CIRCUIT ANALYSIS v1.4
PATH: \ELECV2\CIRCUITS\DCCKT14
DC CIRCUIT ANALYSIS, v1.4 <ASP>, March 1995 This program can create and evaluate computer circuits. The documentation functions as a tutorial on computer circuits. The program requires a 286 or later, EGA or VGA graphics adapter and a color monitor. It can run in 300 KB of RAM. A mouse is recommended and a math coprocessor will speed up calculations. Neither mouse or math coprocessor is required. From Arthur Tanzella, $15.00 (US)→

DC Circuits Training
PATH: \ELECV2\TUTORS\DCCHAL
DC Circuits Training has 13 exercises to help you learn or teach electricity or electronics. Covering series, parallel, and combinational resistive direct-current circuits, it uses random component values to create new exercises. As an added challenge, you must supply answers within a given tolerance.There`s good online help available, and the sound effects and visual reward gimmicks typical of educational software are tastefully done. Instant scoring and a built-in calculator and calendar round out an interesting and useful program.

DC1.ZIP v1.01 Intro to DC electronics
PATH: \ELECV2\TUTORS\DC101
DC1.ZIP v1.01 Intro to DC electronics Educational software. Module 1 of 17 available. Covers basic atomic makeup of the atom, and its function in the generation of electrical voltage and current. Concepts like electro-static effects, polarity current flow, ions, conductors and insulators are covered in depth. Basic batteries and voltage sources are also discussed. Includes order form for menu driven 17 Module course.

DCSOLVE
PATH: \ELECV2\TUTORS\DCSOLVE
This program was written for anyone interested in learning the basics of DC CIRCUITS THEORY. The program functions as a tutor by providing practice problems with appropriate equations and answers The included QB 4.5 source code is an example of a beginning programmer as I was several years ago.

DesertSofts Resistance Calculator
PATH: \ELECV2\CALCULAT\RESIST
DesertSoft`s Resistance Calculator! for Windows `95.

DESIGN CENTER - SYSTEM 3
PATH: \ELECV2\DESIGN\SP53WN_1
The Design Center - System 3 Evaluation version includes Schematics, PSpice, Probe, the Stimulus Editor, and Parts programs.

DesignWorks Lite
PATH: \ELECV2\CIRCUITS\DWORKLTE

DesignWorks Lite is a professional quality, single-sheet electronic circuit design environment. The intuitive interface makes the complete circuit layout process -- including integrated part, path, and bus referencing -- easy and straightforward. You can save, edit, print, and export the DesignWorks industry-compatible file forma

DeskPocket Reference v1.0
PATH: \ELECV2\REF\POCKETRF
DeskPocket Reference v1.0 is a Windows Hypertext Reference system which puts a wealth of information on your Desktop. This program contains Conversion Factors, Area Codes, Decimal Equivalents, Steam Tables Metric Prefixes, Specific Gravity of Gases Useful Formula`s, Safety Signs, Pipe Size Thickness Tables, Greek & Roman Mythology Chill Factors, Roman Numerals, U.S Presidents, Birthstone Information, Zodiac Signs, Super Bowl Stats, Wedding Anniversary Information, Pipe Flange Dimensions, Heat Index Table, Payment Interest Tables.

DESPACK
PATH: \ELECV2\HARDWARE\DESPACK
HP-CMCD semiconductor S-Data.

DIG
PATH: \ELECV2\HARDWARE\DIG13
DIG amplifies and modifies sound files.

Digital Architech
PATH: \ELECV2\CIRCUITS\DIGITAL
A circuit simulation program. Electrical Engineers have been waiting for the time when digital circuit design and simulation was quick, easy and informative. The current explosion of desktop PC power combined with an intuitive graphical interface (Microsoft WindowsTM) has allowed us to create the best PC based digital circuit simulation program which exists today.

Digital Challenge v2.10
PATH: \ELECV2\TUTORS\DIGTAL21
Digital Challenge v2.10 <ASP> (ESC) A training software system for teaching and learning electronics and computer hardware theory. Consist of 10 exercises which are automatically graded on-line. Some exercises have context sensitive help. Each use of an exercise has random parameters selected for problems. Suitable for use in high school college, and technical institutes.

Digital Design Laboratory
PATH: \ELECV2\HARDWARE\DIGSIM
DigSim A digital logic simulator.

Digital Filter Design
PATH: \ELECV2\MISC\FILTER
This software package can be used to quickly find both the unit sample and the frequency response(FFT) of a digital filter given the roots of its transfer function, G(z). The package can also find the reponse of the filter to a unit step or unit ramp input.

Digital Signal Processing Laboratory
PATH: \ELECV2\TUTORS\DSPLAB
Digital Signal Processing Laboratory Created to familiarize students with the some of the concepts of digital signal processing. It allows the user to load or create a signal and to examine the effects of basic processes upon it. This software package is equipped with a user-friendly graphical user interface (GUI) which facilitates its use Win 3.1.

Digital Simulator 1.1
PATH: \ELECV2\HARDWARE\DS16_W~1
Digital Simulator 1.1

Digital to Analog Converters and Analog to Digital Converters FAQ
PATH: \ELECV2\MISC\A2D2AFAQ
Digital to Analog Converters and Analog to Digital Converters FAQ

Digital Volt Ohm Meter Simulation
PATH: \ELECV2\HARDWARE\DVSM
Digital Volt Ohm Meter Simulation

Digital Works 95
PATH: \ELECV2\CIRCUITS\DIGWORK
Digital Works 95 is a freeware graphical design program that lets you create digital logic circuits and analyze their behavior. Circuits can be composed of simple gates and flip-flops. Tri-state logic can be used to construct systems with buses, plus there are mechanisms for detecting race conditions and bus contention. One of the program`s best features is its ability to create macros. This means you can convert a circuit into a logic element, then use the new logic element as a building block in the construction of more-complex circuits. The complex circuit can also be converted into a new logic element, and so on. With this feature, you can create a hierarchy of digital objects, with each new level hiding the complexity of its implementation. Examples of macros include counters, shift registers, and data registers -- you can even make integrated circuits. Digital Works 95 features an easy-to-use interface with toolbars, a template editor, and a logic history window. Several sample files are included.

DLA For Windows 3.x
PATH: \ELECV2\DESIGN\DLA_WIN
The DLA For Windows converts your PC into a full functioning Hardware Logic Analyser. It was designed to provide a cheap and effect way of analysing digital electronic circuits using the standard IBM PC. It has a maximum internal sample rate of 6.00 MHz (external 10MHz), 8 input channels, fully programmable trigger on any combination of 4 input channels, voltage over protection on all inputs makes it suitable for RS232 and other higher voltage environments. It is ideal for anyone interested in digital electronics.

DLANET
PATH: \ELECV2\CIRCUITS\DLANT
Polynomial and Circuit Analysis Program

DRAFT Choice v2.15

PATH: \ELECV2\CAD\DRAFT
Ver 2.15 of DRAFT Choice, the Best Shareware CAD package. Brand new interface with On Screen Icons. Multiple Attach Points, 256 Layers, Multiple Views, Bezier/Complex Spline curves, Warp/Tween, Multilevel Undos Parallel & Perpendicular modes, PCX & WPG file support, PSP & Plotter output, Multiline macros, External Line/Fill/Hatch patterns.

Drive and Controller Guide, Version 4.3
PATH: \ELECV2\HARDWARE\THEREF43
Drive and Controller Guide, Version 4.3 Directory of Hard Drives, Floppies, Optical Drives and Controllers by F. Robert Falbo A Great Technical Reference Guide, and it`s still Free.

DROEGE
PATH: \ELECV2\CAD\DRGE
"DROEGE is a general purpose Computer Aided Design (CAD) program for the manual layout of printed circuit boards. The free version can normally handle circuits of about twenty chip equivalents, although an included demonstration file squeezes in a 200 square inch board with over 1000 components. FEATURES * 65000 by 65000 point layout area. Normally 65"" by 65"" to one mil precision but scale can be arbitrary. * Twelve Layers. * Three colors can be assigned to any of the twelve layers. * Fifteen Line Widths. * Very powerful symbol concept. A symbol can be as simple as pads on several layers, an IC layout, or a complete memory. Symbols can call symbols to level 20. Symbols can be rotated. * Objects supported are lines, pads, symbols, labels, and arcs. * Fifteen viewing screens allow redraw to any preset part of the layout and to any scale. * Sixteen arrays allow quick changes between levels, line sizes, and colors. * Any layout grid is allowed and it can be changed during use. * Stitch function allows fast switching between layers with automatic insertion of vias. * Symbols can be saved as libraries. Symbol libraries can be merged. * Complete job parameters are saved with the job so that the exact working setup can be restored when work is continued. * About 60 pages of documentation including several demonstration circuit boards and a step by step tutor program. ADDITIONAL FEATURES OF THE PURCHASED VERSION ($100.00) * EGA support gives 3.5x the the number of working pixcells as the CGA. * 16 Colors"

Dynamo
PATH: \ELECV2\DESIGN\DYNAMO
"Dynamo is an analog simulation program intended to assist you in analyzing complex dynamic systems. It`s designed to be used for mechanical, electrical, or similar systems that can sometimes require mathematical simulations. It will permit the designer to use a computer to study the resulting responses when modeling real-world components and interactions, instead of constructing actual physical models of the system. It uses a ""brute force"" approach to complex dynamic systems, simulated mathematically, where the complexity and/or nonlinearity of the problems can present obstacles. Dynamo also allows a variety of ""what if"" scenarios to be applied to these problems. Program operation is reasonably straightforward, and documentation is provided, but prior understanding of the subject matter or an engineering background is required. Although a free version is available for registration, the full version requires payment of a registration fee."

DYZA_D
PATH: \ELECV2\SCHEMATI\CIRCAN10
"""This program is one of the family of """"autonavigation programs""""". It is intended to be a tool as a screw driver is. So you need not to read any manual. The only thing you have to do is to number nodes in the schematic diagram of the circuit being analyzed. The lowest number is 1, no number must be missed nor doubled The circuit can obtain these elements R - resistor (a pair of nodes and value C - capacitor (a pair of nodes and value L - inductor (a pair of nodes and value of induction and resistance E - voltage source (9 types - saw, rect., sinus, noise etc M - mutual induction (value of the mutual induction and position of both inductors D - diode (a pair of nodes O - op. amplifier (two input nodes, output and reference nodes and two supply voltages T - transistor (3 nodes and type - PNP, NPN, NMOS, PMOS I - current source controlled by voltage (a pair of nodes, nodes for control voltage and value."""

ECOORD
PATH: \ELECV2\CIRCUITS\ECOORD
The Elite Software ECOORD Program aids in the selective coordination of fuses and circuit breakers by providing an instantaneous review of their time-current curves in a proposed electrical protection system. Besides revealing curve overlaps, ECOORD can also analyze the melting and clearing I2T value of every fuse and determine if any time-current overlaps exist that cannot be seen on a plot. ECOORD is supplied with a library of over 700 protection devices from numerous manufacturers. Thousands of additional devices can be easily added. All types of fuses and breakers can be analyzed as well as motor starting, transformer, and cable damage curves. Many devices also have special switch settings that allow for curve adjustments. Curves can be quickly viewed in combination on the computer screen, or drawn on a printer or plotter. Up to 24 drawings, each with up to 10 curves and a one-line diagram can be plotted per project. Each curve can be assigned its own label, hatch pattern, and color. Other advanced features include the ability to plot on K&E graph paper and create AutoCAD DXF files.

EditPCB v2.0
PATH: \ELECV2\CIRCUITS\EDITPCB
EditPCB Intro is a user-supported printed-circuit board (PCB) design package. It was developed to provide a low cost and professional method of designing PCBs and distributing these designs to others via floppies or BBSs.

EditSCH v2.0
PATH: \ELECV2\SCHEMATI\EDITSCH
EditSCH is a user-supported schematic capture package. It was developed to provide a low cost and professional method of creating schematics and distributing these designs to others via floppies or BBSs. EditSCH is compatible with EditPCB, a PCB layout design package, also distributed by Softronix.

EDRAWW32
PATH: \ELECV2\CAD\EDRAW32
Electronics drawing CAD

EDWin v.1.30
PATH: \ELECV2\DESIGN\EDW130D1
Electronics Design for Windows

EE - Design & Analysis Software for EE Students and Professionals
PATH: \ELECV2\DESIGN\EE11
Electrical Engineering design & analysis prog.

EE Designer III
PATH: \ELECV2\DESIGN\ED3B2752
EE Designer III/Basic EDA for PCB creation

EEDRAW - Electrical Engineering Drawings (ver 2.4)
PATH: \ELECV2\DESIGN\EEDRAW24
EEDraw is a simple parametric drawing program, specifically designed for EE Electrical Engineering) type of drawing. The program fully allows new parametric types, through library mechanisms, and in fact all the EE types are defined this way This library mechanism is extremely useful in defining new types and can be used for other applications other than EE.

EEPOWER
PATH: \ELECV2\MISC\EEPOWER
EEPOWER is a set of programs that will perform fault, loadflow and motor acceleration analyses for a five bus three phase 60 Hz power system. The three programs use the same input model file of the power system. The same equipment library files are also used by the three programs. This five bus version of EEPOWER software has been placed in the public domain for free distribution.

EETools
PATH: \ELECV2\CALCULAT\EETOOLS
EETools is a calculation and graphing tool for electrical engineers to calculate power factor improvements, costs for incremental improvements, and repayment periods to amortize those costs. You enter data in a self-explanatory form, then either print a report or generate a graph. Although EETools lists multiple factors, there is no help file or documentation to explain the use of these factors or their interrelationships. Moreover, some field names in the interface are truncated and others are misspelled. When you see errors in titles, you tend to mistrust the output calculations.

EIRP Chart
PATH: \ELECV2\CALCULAT\EIRP10
EIRP Chart for Windows, in it`s simplest terms, is an electronics calculator that consolidates both Ohm`s and Watt`s laws into one easy to use interface. The formulas, familiar to professionals in the field, allow you to calculate the unknown electrical properties of a circuit. Let`s say you had a light bulb with a resistance of 3 ohms connected to a 12VDC battery and you wanted to know the current draw of the circuit. Using Ohm`s Law, the answer would be 4 Amps. What if you wanted to know the power consummed by the device? (in this case, a light bulb). Using Watt`s Law, the answer would be 48 Watts. Using EIRP Chart, all you have to know is two of the properties and the program will calculate the

others for you. You do need to have a basic understanding of Electricity or Electronics however. This program, while a great learning aid to students, will not teach you Basic Electricity or Electronics.

EIRP Chart for Windows
PATH: \ELECV2\CALCULAT\WINEIRP
EIRP Chart for Windows - is an electronics calculator that consolidates both Ohm`s and Watt`s laws into one easy to use interface. The formulas, familiar to professionals in the field, allow you to calculate the unknown electrical properties of a circuit.

ELCAD Electronics Circuits CAD v1.10
PATH: \ELECV2\CIRCUITS\ELCAD11
A program that draws the circuit used and then queries the user for knowns. It then computes unknowns: resistors, capacitors, inductors, transistor circuits, PUTS, unijunctions, AC, DC, heatsinks, phase angles, transformers, 555 timers and more. Displays formulas used, on simpler circuits. Very user friendly. Registration $26.00

Electical FOrmulas
PATH: \ELECV2\TUTORS\FORM
Electical FOrmulas

ELECTRC Version 9.1
PATH: \ELECV2\CALCULAT\ELECTRC9
ELECTRC9 is designed to perform most common electrical contracting and engineering calculations : * Support of the new 1993 Temperature Limitation requirements. * Device, junction and pull box calcs. * Conduit fill calculations. * Cost to operate various loads at different kwh charges. * Lighting calculations based on zonal cavity method. * Motor conductor, overcurrent and overload calculations. * Wire and conduit sizing based on allowable voltage drop. * Calculate: Amps when hp, pf, and efficiency are known Amps when va and pf are known Va when volts, amps, and pf are known Hp when volts, amps, pf and efficiency are known * Quick reference tables for: Grounding electrode & equipment ground conductor sizes Underground cover requirements KW to ampere tables Transformer Kva to ampere tables Device, pull & junction box size and capacity Standard fuse & breaker ratings Wire ampacity table New terminal temp rating requirements - NEC 110-14(c) * Voltage drop calcs. * Power factor correction. * All functions operate with `what-if` capability. You can quickly and easily change only the data you wish to, without having to start a new calculation and re-enter all the required data. Results are calculated and displayed as you make each change.

ELECTRC9 9.2
PATH: \ELECV2\CALCULAT\ELC9
ELECTRC9 9.2 By Robert J. La Capra is designed to perform most common electrical contracting and engineering calculations. It is useful to anyone in the electrical industry - electrical maintenance personnel, lighting system designers, architects, contractors engineers, etc. All functions in ELECTRC9 conform to the 1993 National Electrical Code.

ELECTRIC: V1.5 Electrical Ref.
PATH: \ELECV2\REF\SASW

Your Electrical Reference Source is a Window`s Help file covering residential electrical wiring. Written with the DIYer in mind. Complete with diagrams, this file was written based on the 1993 National Electric Code and personal experience in the electrical construction field.
Note: to run enter 1SASW.HLP Doc: READ1ST.WRI

Electrical and Electronic Formulas version 3
PATH: \ELECV2\TUTORS\EEF
This program contains a collection of basic electrical and electronic formulas, which can be found in any electrical engineering handbook The software was developed, in an effort, to alleviate the necessity of looking up individual formulas each time they are needed. This software includes the most commonly used electrical and electronic formulas The software was complied to include the use of a math coprocessor if one is present. The coprocessor will be emulated if one is not found in your system.

Electrical Engineering Reference
PATH: \ELECV2\REF\EEREF15
EE Ref has been created to provide an extremely convenient source of commonly needed information in the routine execution of day-to-day engineering tasks. Without attempting to provide every possible bit of information for a particular discipline, EE Ref presents a mix of supplementary data including conversions, formulas, and references on mathematics, physics, components, electrical, and mechanical entities. The Microsoft Windows format makes for easy access from within any other program that you might be working in. Selecting Always On Top from within the Help menu results in EE Ref remaining the top level window - meaning that it stays on top of any other program. In that way it doesn`t keep disappearing behind your document whenever you click the mouse inside your document.

Electrical symbols for AutoCAD
PATH: \ELECV2\CAD\ELEBLKS
Electrical symbols for AutoCAD

ELECTRO MAGNETIC PULSES
PATH: \ELECV2\CIRCUITS\EMP
Imagine a very bright flash in the sky! No one is hurt. But, your transistor radio stops playing, your car won`t start, the telephone doesn`t ring, lights stay off, and we find ourselves in the stone age! THE developement of modern high-tech semiconductor devices have paralleled unsettled relations between the nations of the world with resulting technol- ogical advances affecting the lives of every citizen of North America. Com- munications have been made faster, automobiles more fuel-efficient and maintenance-free, TV sets, video-tape recorders, and virtually every other piece of electronics equipment have been improved by the advent of the semiconductor and its high-tech advancements. The relationship between nuclear weapons and the recent electronics advances may seem unclear, but a nuclear attack on the North American continent could make that relationship glaringly apparent. ALL nuclear explosions produce electromagnetic pulses (EMP`s) and the ensuing induced voltages and currents produced in conductors ( wires and cables ) are comparable in strength to the strongest of lightning bolts. EMP`s may

reach 3 million volts and 10,000 amperes for a total of 30-billion watts of energy. The largest commercial radio stations in the U.S. and Canada radiate 50,000 watts, or approximately one-millionth that much power! The major difference between EMP`s and lightning is that EMP`s are induced simultaneously over an entire wide area, while lightning occurs at a single location. Significance of the Problem ------------ -- --- ------- THREE ten-megaton thermonuclear weapons detonated 250 miles (400 kilometers) above the United States or Canada would produce EMP`s strong enough to knock out the entire electrical power grid of North America including the entire civilian-telephone network, and just about every broadcast station. Virtually every piece of unprotected electronic equipment in the country -- radios, TV sets, computers, electronic controls in homes, office build- ings, factories, cars, airplanes, and instruments in hospitals -- would be damaged, if not destroyed. The pulses would also damage or destroy large portions of the military command`s control and communication (C3) system. A chain reaction could be set in motion at nuclear power plants, due to elec- tromagnetic pulses. Although it is a point that is frequently disputed, the possibility exists that reactor core meltdowns might occur as a result of EMP`s. The meltdowns would be a by-product of electronic control system failure. The control systems are used to monitor and control the processes at the plants. The EMP`s could cause the system to fail and result in partial or complete loss of control over vital functions, causing subsequent melt- downs. We know that those nuclear plants are designed to be fail safe, but has anyone considered the possibility of every circuit breaker in a plant failing at the same instant? Characteristics of EMP`s --------------- -- ----- AT an altitude of 250 miles, the gamma rays produced in the first few nano- seconds (billionths-of-a-second) of a nuclear explosion can travel hundreds of kilometers before colliding with electrons in atmospheric molecules. That kind of collision may take place in a region 2,000 miles in diameter and 6-miles thick. Electrons are accelerated by those collisions, a phen- omenon referred to as the Compton effect; and upon reaching the earth`s magnetic field, they set up electromagnetic pulses that radiate downward toward earth (Fig.1). Due to the extremely large area of collision, vast amounts of ground area are exposed to electromagnetic fields with strengths up to 50,000-volts per meter. The ground area exposed to electromagnetic pulses could cover the entire continental United States and most of Canada by one nuclear blast; if not, certainly large regions such as New England would be electrically and electronically devastated.

Electron
PATH: \ELECV2\MISC\ELECTRON
Electron - is an electronics electrical program to assist the technician, electrician or engineer.

Electronic Calculation Program
PATH: \ELECV2\CALCULAT\ELECCALC
Electronic Calculation Program is a Windows program that performs several RF and one amateur radio calculation. Calculates values to conjugately match a transistor using either S or Y parameters, plus several other calculations using S or Y parameters. Will also calculate Butterworth filter component values using either a known attenuation or number of circuit elements.

ELECTRONIC CIRCUIT DESIGNER
PATH: \ELECV2\CIRCUITS\ECD
"""Through interactive programming technique Electronic Circuit Designer takes much of the tedium out of designing the more common electronic circuits. The 62 programs that comprise Electronic Circuit Designer help the design engineer or technician play """"What if?"""" with the design. He can quickly substitute component values change parameters and design specifications, and immediately see the effects. Electronic Circuit Designer will free the technician to concentrate on the circuit design instead of studying reference tables and books of equations and entering numbers into a calculator."""

Electronic ToolBox v2
PATH: \ELECV2\CALCULAT\ELECTOOL
Electronic ToolBox is a CAE tool designed with electronic hobbyist in mind. It is designed to help in the tedious and time consuming chore of calculating circuit design parameters. It is also an indispensable reference tool complete with on screen tables FEATURES Automatic calculation of resistor color codes Ohm`s Law calculations 555 timer circuit design calculations Op-Amp circuit design calculations Filter circuit design calculations Full power supply design calculations Handy reference tables.

Electronic Utility Programs
PATH: \ELECV2\CALCULAT\UTILITY
"""ATTEN.EXE A Resistive PI and T Network Program to calculate the resistance and wattage values of the elements of an attenuator for user specified input/output loads BBMATCH.EXE A program to calculate broadbanded, low VSWR matching L, C elements for Series or Parallel resistive or reactive loads FILTER.EXE Simple program to calculate LowPass or HighPass LC filters per user specifed """"N"""" elements, Filter Type, Source/Load impedance, etc COMPRESS.EXE Calculates approximate Compression point of a transistor per output load, voltage swing, staturation, current, etc."""

Electronics
PATH: \ELECV2\HARDWARE\ELECSIM
This program is a Windows-based electronic simulator. It includes transient, DC, and AC analysis. The demo version is full featured with the exception that it limits saving and printing circuits to those with less than 5 components.

Electronics Basic Calculations
PATH: \ELECV2\CALCULAT\ELECALL
Findval is a simple menu driven program for finding the values of resistors and capacitors from the sometimes cryptic codes on them the Resistor section allows you to find the value of a resistor from the color code including components with Silver and Gold multiplier Bands. You will get a screen with the highest, nominal, and lowest allowable value according to the tolerance band selected You may also give Findval a resistance 10 ohms or greater and a tolerance and Findval will tell you the color code for that resistance The Capacitor Section of Findval is for the conversion of codes often found on Disk type capacitors (ie: 240K

= 24pF +/-10 Ohmslaw is a basic calculator for finding resistance (R current (I), voltage (E), and power (watts). The power section allows you to calculate power by either I^2*R formula, or the I*E*Efficiency(%) (FCC indirect method) formula for Radio SWR is a calculator for finding the Standing Wave Ratio from measured foward and reflected power (in watts Wavelen is a calculator for finding whole, half, and quarter wavelength in Meters, Feet, and Inches, from a Radio Frequency entered in Megahertz. This should be useful to those designing antennas to find the length of wire to use in any common unit of measurement All of the programs are menu driven and self-explanatory and easy to use, Just follow the prompts and you got it.

ELECTRONICS CALCULATIONS PROGRAMS
PATH: \ELECV2\TUTORS\ELECTRO
The files in this archive are to assist the struggling Electronics student. Some of the modules still have bugs in them and this is only a prototype so please don`t use the results for take home exams without checking them first.Other parts of the program are as yet unfinished (something I may or may not ever get around to). If however I find that there is an interest out there for this type of program I will do my best to complete it, just let me know of your ideas or suggestions by E-mail. I realize that there are no software packages that cater to the needs of electronics students so perhaps there are enough of us to make this worthwhile.

Electronics Circuits CAD
PATH: \ELECV2\CAD\ELCD11
Electronics Circuits CAD

Electronics Tutor
PATH: \ELECV2\TUTORS\ELETUTOR
Electronics Tutor.

ELECTRONICS WORKBENCH
PATH: \ELECV2\TUTORS\EWBDEMO1
ELECTRONICS WORKBENCH is a powerful software tool that enables you to easily build and test simulated analog and digital circuits. The traces on the on-screen instruments are the same as you`d get on real equipment. It`s easy to use and ideal for learning about electronics, experimenting and prototyping circuits.

EMCFiltr
PATH: \ELECV2\SCHEMATI\EMCFILT2
This `EMCFiltr` software is a dedicated EMC Suppression Filter Simulator. It is unique in two ways:- Requires no schematic drawing or Net-List entry. It uniquely makes allowance for Frequency dependant variables implicit in practical Capacitors and Inductors, providing simplest possible, realistic Real Life simulations. The required Frequency dependant variables are calculated automatically from data stored in the program.

Engineering assistant for windows
PATH: \ELECV2\MISC\ENG-ASST
Engineering assistant for windows.

Engineering Equation Solver
PATH: \ELECV2\CALCULAT\EESZIP
EES The Engineering Equation Solver.

ETCAI ELECTRONICS TRAINING SYSTEM v1.25
PATH: \ELECV2\TUTORS\ETCAI125
ETCAI ELECTRONICS TRAINING SYSTEM v1.25<ASP ESC) 31 exercises to help you learn or teach electricity or electronics. Features random problem generation, extensive graphics context sensitive help, and instant scoring Supports mouse, EGA, VGA, and Hercules Suitable for use in high school, college, and trade school. By C. E. Ormon. $45.00 single copy, site licenses available at reduced prices.

EZPLACE v3.10
PATH: \ELECV2\CIRCUITS\EZPLAC
EZPLACE is a program designed to allow ANYONE to enter parts, placements and geometries of existing or custom Wire Wrap boards and Printed Circuit Boards (PCBs). EZPLACE has several purposes: o Simplify entry and reduce errors inherent in placing parts on pre-pinned wire wrap boards. o Allow users to place components where THEY want them. The data created by this program allows Leading Edge to deliver to the user a Wire Wrapped assembly or PCB. The user should: o Specify a board geometry or template o Specify board outlines and keep-out areas o Create special parts o Place parts where desired o Send the data to Leading Edge

EZTIME v96
PATH: \ELECV2\DESIGN\EZTIME96
EZTIME v96 <ASP> (ESC) An easy to use design program for the popular 555 timer. Educators and engineers can use EZTIME to quickly explore many designs in a short time. EZTIME instantly displays oscillator circuit parameters in both graphical and numeric form. Uses a simple graphical interface 19.00 for single users and $79.00 for site licenses. Registered users receive a bonus program.

FAISYN - filter synthesis
PATH: \ELECV2\CIRCUITS\FAISYN21
FAISYN is a low cost, effective alternative to expensive commer cial filter synthesis packages. The program has been used successfully to design countless lumped element filters and diplexers from 10`s of KHz to 1.5GHz and is the result of many years experience in filter design. Many designers know that filter design is often an iterative process. In the old days a lot of tedious number grinding was required to arrive at an optimal solution. FAISYN eases the burden by allowing the designer to quickly synthesize a variety of circuits that can be simulated and compared using your favorite circuit simulator (FAISYN currently supports PSPICE-TM Microsim MMICAD-TM Optotek and TOUCHSTONE-TM HP EESOF circuit formats.

Fastcad
PATH: \ELECV2\CAD\FASTCAD
Experience professional-quality design and drafting capabilities at warp speed, with FastCAD 32. This highly efficient CAD application features a rich, industry-enabled command set available via menu tree and tooltip-

equipped 3D button arrays. Precision drawing functions include complete line, curve, spline, and path conventions. You can easily invoke mirror representations or isolate and edit the properties (including color) of any drawing component. FastCAD project management also makes quick work of mundane take-off chores. You can stack multiple documents, fetch drawing statistics and distances, create and import parts or custom symbols, and assign keyboard macros using a built-in editing window. This well-documented trial version includes a sample electrical symbol library. DOS and 16-bit Windows versions are also available.

FFTDSP
PATH: \ELECV2\HARDWARE\FFT32
FFTDSP is a Digital Signal Processing (DSP) program which can detect very weak signals from a Radio Receiver using realtime Fast Fourier Transforms (FFT). Amplitude levels for each FFT frequency are converted to color and displayed as a continuous spectrograph. The resulting screen simultaneously shows the output of 640, 2 Hz wide filters between approximately 300 and 1500 hertz. Each horizontal line represents the output of all 640 filters during a 0.5 second period. Over time, as each line is added to the screen, the eye can begin to see weak signals emerge from the darker background. These weak signals may not be audible during a short listening period.

Filter Development Kit
PATH: \ELECV2\MISC\FDK
Simple filter development system

Filter V1.1
PATH: \ELECV2\SCHEMATI\FILTER11
Filter V1.1 Provides some basic background for those who are investigating the principles of electronics, and filters in particular, for the first time, or to provide a review for those who studied it sometime ago. Potential problems are covered to make it easier to get what you want. Aids those who need a good bandpass filter design for some audio application, and would like the computer to generate a schematic, and compute values. Helps those who need a filter, to choose components that will perform as desired, or at least to help make a sensible compromise. This includes guidelines and suggestions as to the operational amplifier choices available.

FilterCAD
PATH: \ELECV2\DESIGN\FILTCAD
Design your own capacitive filters

FILTRY v 1.20
PATH: \ELECV2\SCHEMATI\FILTRY20
"""FILTRY v 1.20 Nearly everytime you construct a new piece of equipment you have to design some filter. It`s exactly the same for me Now there are several ways to solve this problem: to look in catalogues and handbooks to ask a colleague, etc. The quickest way however, is to say your computer: """I need an active low-pass filter with no more than 0.32 dB up to 3.25 kHz and with more than 22 dB attenuation at 4.06 kHz.""". """And should it be Tchebychev or Butterworth ?""", it replies Butterworth!""", you answer. The schematic diagram then appears

on the screen instantaneously. It would be nice, wouldn`t it ? But it IS nice! This program is in your hands."""

FLASH CAD
PATH: \ELECV2\CAD\FLASHCAD
FLASH! CAD a full featured 2D,3D,Anim S W EASY to learn.VERY FAST.Instant ZOOM & PAN Complete docs. Anim tutorials teach in 20hrs Bi-directional DXF compatible w Autocad.Laser HPGL data & Plotter support.800 633-6564 No menu trees to memorize. No typing. 27 text fonts. Auto dimensioning, area & perim.

FlowDraw Plus v1.00
PATH: \ELECV2\SCHEMATI\FDPLUS
FlowDraw Plus v1.00 ASP DOS diagramming program draws & prints flowcharts diagrams schematics. Mouse-driven graphical interface just point & click to draw. Six font sizes for text. Three levels of zoom Automatic line drawing Interactive tutorial. Includes symbol libraries for flowcharts, computers electronics. You can create symbols libraries. Requires fast 386 or better Most printers supported.

Flydemo
PATH: \ELECV2\DESIGN\FLYDEMO
Flyback / switching power supply design.

FOILS
PATH: \ELECV2\DESIGN\FOILS
"This program is based on my program BOAT for the design of stripper canoes. I received the algorithm for construction of the NACA foils from Nick Schade, in the form of some Pascal code, and have incorporated that into this program. The program is freeware: it may be freely distributed, and no charge shall be made for the program save for a reasonable nominal fee for handling and the cost of materials. s All the program does is allow you to create images of these foils, one at a time , of any desired size, and print those images, full size, on your printer. The printing should be able to be done on almost any printer capable of printing graphics, but I have been able to test the printing only on an Epson-(semi)compatible 9-pin dot-matrix printer and a HP DeskJet 500. n If you have suggestions for improvements, or if you find bugs, write or e-mail to me at the addresses above. ^L The program needs a mouse to run. Also it requires at least EGA or VGA graphics. It runs from DOS; it doesn`t need Windows. (Windows slows programs down.) It could probably be run from a floppy disk, but it would be painfully slow -- it should be installed on a hard disk. The ""standard"" version of the program, the one archived at an FTP site, will run on an 8086 or higher CPU, with no numeric coprocessor (`87 chip). If you have an 80286 or higher CPU, I can provide either ""real mode"" or ""protected mode"" versions that take advantage of it. Real mode uses only the standard 640K of memory, and protected mode uses extended memory. Also, if you have a numeric coprocessor I can provide a version that uses it, and will therefore run faster than the no-coprocessor version. If you have a 486: the 486SX does not include a coprocessor but the 486DX and 486DX2 processors do have built-in coprocessors. ‹ In text mode, the screen is 80 characters by 25 lines; in graphics, 640 by 480 pixels."

Formula Bank
PATH: \ELECV2\CALCULAT\FORMBANK
Formula Bank of common electronic calculations and conversions.

Frequency Chart v1.1
PATH: \ELECV2\MISC\FREG1
Frequency Chart v1.1

FREQUENCY RESPONSE PLOTTING PROGRAM
PATH: \ELECV2\TUTORS\FREQRESP
This program is intended for students and engineers who need a convenient frequency response plotting program that accepts input in the form of poles and zeros.

Function Plotter version 4.10
PATH: \ELECV2\MISC\FCNPLT41
Rectangular/polar/data online function plotter

FUSE
PATH: \ELECV2\MISC\FUSE
This program will calculate the inrush and damage currents for transformers. To properly protect (fuse) the primary, select a fuse that has clearing times between the inrush curve (green) and the damage curve (red).

Fuse Models
PATH: \ELECV2\MISC\INTUFUZE
Fuse Models

Fuzzy Logic SC
PATH: \ELECV2\CALCULAT\FUZZYSC
Fuzzy Logic SC is a simple software tool that helps you to develope and test your applications in the field of Fuzzy Logic Control Engineering. It also acts as OLE Automation Server and therefore you can use it in your data acquisition or control engineering application as a program module that performs on-line calculations based on data you entered when building Fuzzy Logic SC application and temporary signal values. See Fuzzy Logic SC help for more details. Setup disk contains sample application SAMPLE.FLD described in help. Setup program does not copy SAMPLE.FLD on your hard disk when installing Fuzzy Logic SC files.

GammaCAD v2.01
PATH: \ELECV2\CAD\GAMMACAD
GammaCAD v2.01 Full featured CAD program for Windows 3.1 or later. Use it to design an addition to your house, create a circuit diagram, graphs, charts, maps, landscaping and much more. Features include: symbol libraries, DXF import export, layers, grids element snaps, dimensioning, architectural numbers (ft in), multi-level undo. Creates scaled printouts plots with automatic page setup. On-line tutorials and examples.

GC-PREVUE
PATH: \ELECV2\CAD\GCPVU
"Today`s PCB CAD systems are rapidly growing in power and sophistication. Unfortunately, that power often does not apply to the next step in the

PCB fabrication process: photoplot data. Any PCB designer will happily relate horror stories involving expensive and time-consuming mistakes made at the photoplot service bureau due to misunderstandings involving the photoplot data. These misunderstandings occur for several reasons. For one, many CAD users don`t really understand the photoplotting environment, so they can`t really check the data before sending it out to be plotted. For another, the data is by its very nature incomplete and requires more information to be sent along with it (the ""Aperture List""). This information can easily be lost or mistranscribed by the photoplot vendor. Further, the data itself is often in a nonstandard format, or even wrong - a surprising number of high-quality PCB CAD packages have photoplotter output troubles. GC-PREVUE addresses these problems by looking at your CAD output just like a photoplotter does, then allowing you to inspect it in a WYSIWYG fashion on your PC`s graphics screen. As you use GC- PREVUE, you will come to better understand the photoplotting process and will be better able to avoid plotting problems, thereby saving time, money and hassles."

GraphiCode Aperture List Conversion Utilities Disk
PATH: \ELECV2\CAD\GCAPTCNV
Contains a number of converters to take your CAD system`s ASCII aperture list description and convert it to GraphiCode`s .APR format for use with GC-PREVUE, GC-PREDITOR, GC-CAM, or any other GraphiCode product (including OEM products.

Grids
PATH: \ELECV2\DESIGN\GRIDS
Grids was designed as a simple vectorial drawing software as there are not a lot on Windows. Its principal functions is dedicated to schemes drawing, thus you can generate libraries with symbols which can be easily used (many symbols are provided with Grids). Because of its design, it can be run very quickly in an easy way. Indeed, the documents created with Grids can be managed like folders, each folio can be composed of several pages. It can be used for networks schemes, for electrical schemes, for databases conception, flood charts, etc.

Guitar effects schematics
PATH: \ELECV2\SCHEMATI\GUITAR
These files represent an up to date archive of Guitar effects schematics. They were drawn in Xfig and output as PostScript in the hope that other people might enjoy building thier own effects as much as I do.

HAMTRON1
PATH: \ELECV2\MISC\HAMTRON1
HamTron1 is a potpourri of programs for the IBM PC computer related to electronics and amateur radio.

HCMOS PHASE-LOCKED LOOP DESIGN
PATH: \ELECV2\CALCULAT\PLL
This program enables you to design a complete HCMOS-based PLL including peripheral components. It`s for use with Philips` 74HC/HCT4046A and 7046A HCMOS circuits, but it can also be used to evaluate and modify existing designs, for example with the HEF4046. Besides giving you an approximation of a loop`s complete dynamic behaviour, the program can

generate a Bode plot to check loop stability. All calculations are done with equations which are derived for high- gain loops and most of them can be found in literature, e.g. in `Phaselock techniques`, Wiley, New York, 1979, Mr.Floyd Gardner and in `Phase-locked loops`, McGraw-Hill, New-York, 1984, Mr. Roland Best. By eliminating much of the calculation drudgery of PLL design, the program invites you to experiment but will still reduce design time. This program is tailored to the Philips 74HC/HCT4046A and 74HC/HCT7046A devices and does not garantee that other brands of `4046 will respond as calculated by this program. The program runs on every PC-DOS or MS-DOS compatible PC with a colour or monochrome monitor. To benefit from all the features of the program, a graphics card and/or an EPSON or IBM compatible printer is needed, but these are not essential. The following graphic cards or compatibles are supported : - CGA - EGA - HERCULES - VGA - PC3270

I C D A T A B O O K V1.3
PATH: \ELECV2\REF\ICDATABK
This program was made for the purpose of cataloging IC`s for easy reference. The program is not that hard to use. Once you become familar with the one-key commands, you`ll have no trouble. I have provided about 43 chips already. Most of them are common gates. Others include flip-flops, counters 555 timer chip, and more. The program allows you to enter data about an IC and then be able to call it up any time in the future.

I2C bus monitor
PATH: \ELECV2\MISC\I2C181
This is an I2C bus monitor program to study and explore the I2C (Inter Integrated Circuit) bus. It comes with the full ASM source, (A86 v4.02 format) including some neat and lightningfast Windowing routines.

IBP Ohm Tools
PATH: \ELECV2\CALCULAT\IBPOHM
IBP Ohm tools (V2.2) This program is a simple windows based program to do electrical and geomety calculations. The functions that can be performed include: Ohms Law (E=IR) Capacitive Reactance Inductive Reactance Resonance Decibels in input and output levels for both power and current and voltage. Circle area and circumfrance Right angle functions - can be used for vertor analysis wave length Time between two dates There is a $10 Charge to register the program. The unregisterd version can only do one function each time the program is run. Any comments on this program would be greatly appreciated. Ian B. Pirie PO Box 371 Swarthmore, PA 19081 (610) 690-5603 IBP@Juno.com To install the program copy the files to your hard disk and add the program to you windows program manager. If you already have CMDIALOG.VBX, COMMDLG.DLL and THREED.VBX in your windows or windows/system directory you will not need these files. Requires VBRUN300.DLL.IBP Ohm tools (V2.2) This program is a simple windows based program to do electrical and geomety calculations. The functions that can be performed include: Ohms Law (E=IR) Capacitive Reactance Inductive Reactance Resonance Decibels in input and output levels for both power and current and voltage. Circle area and circumfrance Right angle functions - can be used for vertor analysis wave length Time between two dates There is a $10 Charge to register the program. The unregisterd version can only do one function each time the program is run. Any comments on this program would be greatly appreciated. Ian B. Pirie PO

Box 371 Swarthmore, PA 19081 (610) 690-5603 IBP@Juno.com To install the program copy the files to your hard disk and add the program to you windows program manager. If you already have CMDIALOG.VBX, COMMDLG.DLL and THREED.VBX in your windows or windows/system directory you will not need these files. Requires VBRUN300.DLL.

ICAP4
PATH: \ELECV2\MISC\ICAP4DEM
INTUSOFT`s ICAP4 SPICE Demo Kit.

Induct
PATH: \ELECV2\CIRCUITS\INDUCT30
Calculates coil strap and wire inductance.

INTERACTIVE ENGINEERING MANUAL V3.12
PATH: \ELECV2\REF\SCI312
INTERACTIVE ENGINEERING MANUAL V3.12 <ASP Interactive Engineering Manual For Scientists and Engineers. Topics interpolation, integration, series, standard deviation, least squares regression, optics lens, mirror, surveying, physics, chemistry electricity and financial topics. Includes versatile spread/calculator Engineering PCSCC, INC.

KeL-fil
PATH: \ELECV2\MISC\KELFILT
This program was created to assist the engineer in the selection of a standard K & L Microwave dielectric resonator bandpass filter.

LASI CAD
PATH: \ELECV2\CAD\LASI515A
LASI CAD

Learn Ohm`s law
PATH: \ELECV2\TUTORS\ELECLERN
Learn Ohm`s law

LENA
PATH: \ELECV2\CIRCUITS\LENA
LENA (Linear Electronic Network Analysis) is a program for analyzing electronic circuits` frequency domain in voltage response to stimuli and in impedance in any of a maximum of 56 nodes. Each circuit model may contain up to 204 branches. Input/output is in clear electronic terms, a minimum of computer jargon, and includes scaling letters and value names. LENA provides tabulation or graph simulation on screen or with a printer. Branch types include single components, L or C with Q, dependent current sources, and macromodels of transformers, transmission lines, bipolar transistors and operational amplifiers. Extensive error- checking is done with clear-language error messages. On-line Help screens are available for Main commands and circuit types. LENA is directly compatible with LINEA (released August 1993) except lacking the repetitive waveform stimulus as generated by WAVESPEC (released concurrently with LINEA).

Lighting, Electrical, and Voltage Drop Calculators
PATH: \ELECV2\CALCULAT\LTCALULA

This package contains three separate programs. The Lighting Calculator lets you set room parameters and lighting conditions using the Room Cavity Ration technique. Quickly see the impact of changing the number or intensity of lights on the overall illumination. The Electrical Calculator lets you adjust amperage and voltage to set power requirements. The third module, the Voltage Drop Calculator, lets you determine the effect of varying conductors over varying lengths. The interface on all three is straightforward, with scroll buttons to set the quantities and immediate calculations. A setup routine will install the package, or you can simply run each module by clicking on the executable..

LineSim
PATH: \ELECV2\DESIGN\LINESIM
PC board designer and line simulator.

LMS V-3.55
PATH: \ELECV2\MISC\LMSDEMO
LMS V-3.55 Demo LMS is a complete full-range measurement tool which provides the most cost-effective and accurate electrical and acoustical measurements available. The system includes a vast array of features and processing capabilities that isunparalleled at any price. This demo will introduce you to the incredible potential of the state of the art in affordable computer-based analyzers for electro-acoustic systems.

Logic Analyser
PATH: \ELECV2\CIRCUITS\LOGICANA
Logic Analyzer lets you create circuits and test them. You create your design by dragging and dropping gates from the tool box, then dragging connectors to the terminals. Error detection advises you if necessary connections are not complete. The logic analyzer provides a circuit summary. This is beta software, and does not have supporting help or documentation. The toolbox has only a limited number of components for circuit creation.

LOGIC CIRCUIT ANALYSIS, v1.1
PATH: \ELECV2\CIRCUITS\LOGIC
LOGIC CIRCUIT ANALYSIS, v1.1 <ASP>, March 1995 This program can create and evaluate logic circuits. The documentation functions as a tutorial to learn about logic and digital computers. The program requires a 286 or later, EGA or VGA graphics adapter and a color monitor.

LOGIC v1.0
PATH: \ELECV2\CIRCUITS\LOGIC10
LOGIC v1.0 is 4-channel PC-based logic analyser program. It uses one standard LPT port. Default port is LPT1. Other ports (e.g., LPT2 and LPT3) may be selected, if available, through command line argument as follows: >logic - for LPT1 (default) >logic 1 - for LPT1 >logic 2 - for LPT2 >logic 3 - for LPT3 No special interface circuit is needed. TTL compatible logic signal lines (CH#0 to CH#3) may be connected directly to the LPT port. The common ground of the logic signal source should be connected to the LPT port common ground lines. The recommended pin connections are shown below: Channel DB-25 pin no Name ------- ---------- -- ---- CH #0 15 ERROR CH #1 13 SELECT CH #2 12 PAPER EMPTY CH #3 10

ACKNOWLEDGE Common 18 to 25 GROUND One optional post-trigger output line is available for generating a programmable TTL level stimulus for testing and analysing electro-mechanical relays and contactors operations timings (e.g., make and break times). Proper interface/amplifier circuit is necessary to energise the device under test from this output line. The pin connection of the output line is given below: Stimulus DB-25 pin no Name -------- ------------ ---- Post-trigger output 2 DATA 0 Different sampling options are available depending on the type and speed of the processor. These are tabulated below: Sampling interval Recommended processor ----------------- ---------------------- 40 microsec AT-386 and above 200 microsec AT-286 and above 1 millisec any processor 5 millisec any processor No of samples to be captured is programmable with a maximum size of 10000 per channel. Trigger conditions are programmable as shown below: 1. HI level of any channel 2. LO level of any channel 3. Don`t care Pre-trigger data size may be selected as % of total no of samples from 0% to 100%. Pre-trigger and post-trigger captured waveforms are displayed in BW graphics. One optional cursor is available for the study of timings of the captured waveforms.

Logisym
PATH: \ELECV2\CIRCUITS\LOGISY30
Logisym is a digital logic simulator, intended to assist you in understanding, debugging, and verifying, the operations of combinational and sequential digital logic circuits The simulator utilizes a `unit delay` model, and very accurately represents the operations of circuits built from the basic logic functions, providing a timing diagram of the trace output, much like a 16 trace ocilloscope The device library internal to logisym includes the following functions: AND, OR, NAND, NOR, (up to 8 input); XOR, NOT, BUFFER an RS flipflop (cross coupled NAND), a positive edge triggered D type flipflop, and a positive edge triggered JK flipflop Up to 650 logic devices may be defined, and 16 points may be observed during a simulation Logisym provides 26 different signals or `clocks` to be used as inputs to the circuit(s) being simulated. These are: A variable frequency eight bit up/down counter, a variable frequency four bit ring counter, a variable rate random data generator, and eight bits of data controlled by way of the function keys on the keyboard. Fixed high and low logic levels are also available as tiepoints for unused inputs.

LoKon V2.0
PATH: \ELECV2\CIRCUITS\LOKON2B2
LoKon V2.0 beta2: Construction and Simulation of digital circuits Construction and Simulation of digital circuits. Contextsensitive help (600 KByte) and menues More than 100 elements (gates, flipflops ...), oscillator ROM/RAM, PLA. Oscilloscope Comfortable creation of own elements Now you can create macro elements.

MAC
PATH: \ELECV2\MISC\MAC12G
The MAC program is a Monitoring And Control program running under the MS Windows environment. It requires an Analogue to Digital (A/D) board, for example an Analogue Devices RTI-800 board or similar. The program displays and stores data from monitoring and controling devices attached to Laboratory Equipment, Test Rigs, Experimental Prototypes, etc.

Master Converter (16-bit)
PATH: \ELECV2\CALCULAT\MC16_16
Master Converter (16-bit) can quickly and easily convert to and from 266 different units in 21 categories. Categories include length, area, volume, time, speed, mass density, force, pressure, energy, power flow dynamic viscosity, kinematic viscosity temperature, conductivity, thermal conductivity, angle, light, and more.

Master Converter (32-bit)
PATH: \ELECV2\CALCULAT\MC32_16
Master Converter (32-bit) can quickly and easily convert to and from 266 different units in 21 categories. Categories include length, area, volume, time, speed, mass density, force, pressure, energy, power flow dynamic viscosity, kinematic viscosity temperature, conductivity, thermal conductivity, angle, light, and more.

Mathematics Plotting Package
PATH: \ELECV2\MISC\MPP
Mathematics Plotting Package

MAXIM FILTER DESIGN
PATH: \ELECV2\DESIGN\MAXIM1
MAXIM FILTER DESIGN SOFTWARE

MC6801 ICE
PATH: \ELECV2\HARDWARE\MC6801R5
Version 3.2 of MC6801 ICE .. Mouse Support Larger Shell, Bug fixes.

MC68701-ICE REV 2.0
PATH: \ELECV2\SCHEMATI\MC6801R3
Updates for the 6801 emulator. Bug fixes and a few new options. Also schematics in EPSON format.

MC68HC11 MicroController multitask eXecutive
PATH: \ELECV2\HARDWARE\MCX11V15
MC68HC11 MicroController multitask eXecutive

MegaCalc
PATH: \ELECV2\CALCULAT\MEGACALC
Scientific calculator with many Trig, Calculus, EE and Financial functions.

Meter Challenge v2.00
PATH: \ELECV2\TUTORS\METERCH
Meter Challenge v2.00 ASP (ESC) Helps you teach or learn the use of ohmmeters and voltmeters in troubleshooting electronic circuits. Each program run is a new adventure requiring your skill to solve a realistic problem. The program generates thousands of varied situations which require more than rote theory. This program sets technical training on a space opera stage to add interest and purpose to serious training.

MetriCon
PATH: \ELECV2\REF\METRIC50

This software (MetriCon) is intended to give some quidance in applying the International System of Units, also referred to as the modernized metric system. It is intended to serve one purpose and that is to enable the user to convert nearly any unit to the standard SI (metric). As a side benefit, MetriCon will also make conversions from metric to Imperial unit and, for that matter, from one Imperial unit to another or from one metric unit to another. This system was devel- oped and is maintained by the General Conference on Weights and Measures (acronym - CGPM, which comes from the French name Conference Generale des Poids et Mesures). The name International System of Units and the accepted abbreviation SI were adopted by the Eleventh CGPM in 1960. This software is intended to aid in the conversion from non-SI to SI units and vice versa. This version of MetriCon is capable of making over 30,000 different conversions.

MICECAT
PATH: \ELECV2\MISC\MICECAT
MIcrowave Components Electronic CATalogue

MicFFT v1.0
PATH: \ELECV2\MISC\MIC_FFT
MicFFT is a program that allows PCs equipped with 8-bit analog to digital converters (ADCs) on sound cards to perform spectral analysis on pulse-code modulated (PCM) signals. With operation similar to octave spectrum analyzers found on certain audio equalizers, MicFFT can be used to view the frequency components of musical and vocal signals, as well as a number of other types of signals that can be input thru the ADC.

Micro-Cap V
PATH: \ELECV2\CALCULAT\MICROCAP
Micro-Cap V program. It is a full working version and a highly capable product in its own right. It is provided free to schools and universities and to prospective purchasers of the professional product Circuits are limited to 50 components and 100 equations (nodes + inductors + sources Speed optimization is not included, so analysis run times vary from the same for small circuits to three times longer for the largest circuits, relative to the Professional Version.

MicroCAD
PATH: \ELECV2\CAD\MCAD
MicroCAD is a sophisticated, but easy to use drawing program. Each icon`s function is displayed at the top of the screen as the cursor passes over it. It has fast object drawing speeds and 3D object rotations. Other features include export in DXF format, 3-D and 2-D exports, auto dimensioning, OS 2 support, and more.

MicroSim Design Center Evaluation Version
PATH: \ELECV2\DESIGN\SP53WN_2
MicroSim Design Center Evaluation Version

MicroSim DesignLab
PATH: \ELECV2\DESIGN\71DLABE
The MicroSim DesignLab Windows evaluation version also includes evaluation versions of MicroSim PSpice Optimizer and MicroSim PCBoards

MIDI connector box for the Soundblaster card
PATH: \ELECV2\DESIGN\MIDI
MIDI connector box for the Soundblaster card.

MONARCH Digital Signal Processing
PATH: \ELECV2\HARDWARE\DSP_MON
MONARCH Digital Signal Processing working demo - full featured DSP toolkit, Very many features.

Motorola 68HC11 MicroController simulator
PATH: \ELECV2\HARDWARE\SIM68102
Motorola 68HC11 MicroController simulator

Motorola Data Disk and Cross Reference
PATH: \ELECV2\REF\MOTOROLA
Motorola Data Disk and Cross Reference.

MOTOROLA IMPEDANCE MATCHING PROGRAM
PATH: \ELECV2\CIRCUITS\MMP
Motorola`s Impedance Matching Program (programmed using the Microsoft(R) C Professional Development System, Version 6.0) is a specialized form of CAD specifically developed for RF power amplifier circuit design. It provides a simple environment for entering and analyzing impedance matching circuitry. Commercially available programs include a multitude of circuit elements and provide numerous analytical capabilities. However, MIMP focuses only on impedance transformations. This is typical of most RF power amplifier design problems; since, data sheets for RF devices present only large signal impedances; representing a single combination of frequency, voltage, power level and power dissipation. These impedances must generally be transformed to another set of impedances (50W or the input/output impedance of another device). To do this, MIMP includes a standard library of passive circuit elements; including various combinations of capacitors, inductors and transmission lines in both series and shunt configurations. It also contains a unique, distributed capacitance element that models a capacitor distributed along a transmission line. The real nucleus of MIMP is its computer aided SMITH(TM)(2) Chart. It is uncommon for CAD programs to incorporate the benefits of manipulating actual impedance transformations on a Smith Chart. If commercially available programs were used for merely impedance matching, a typical final result of a computer run would be: S11 vs. frequency. To supplement this, many RF designers still keep a SMITH Chart, compass, straight edge and pencil handy so they can pictorially represent each circuit component`s contribution to the total transformation. MIMP`s Smith Chart facility provides this service ... electronically. It also displays each circuit element`s contribution to the total impedance transformations. Simply stated, it is an electronic form of a standard, printed SMITH Chart. Some of the unique features of the SMITH CHART DISPLAY SCREEN include: a) The SMITH Chart can be instantly `re-normalized` to any characteristic impedance. All impedances (with interconnecting arcs) are automatically recalculated and redisplayed. b) There is an option for overlaying constant Return Loss circles for any complex source impedance; independent of the normalized characteristic impedance. (Most programs constrain the use of constant

return loss circles to the center of the SMITH Chart.) c) Multiple transmission line transformations (each with different characteristic impedances) are displayed simultaneously and in exact graphical relationships to each other; independent of the SMITH Chart`s normalized impedance. (Drawing transmission line transformations by hand requires an iterative denormalize/renormalize/replot/redraw procedure.) d) A tabular impedance display is provided to view the impedance at any `node`. e) Constant `Q` arcs can be added to the SMITH Chart. f) Real time changes in the impedance transformation are displayed while individual circuit elements are tuned. This utility is provided to perform manual circuit optimization. A scalar display of Input Return Loss is updated simultaneously as an additional tool for optimization. RF engineers, who choose to use Motorola`s RF Power Transistors in their designs, can access the auxiliary database. Included with MIMP are the input and output impedances for many of the RF power devices contained in Motorola`s RF Data Book.

MOTOROLA parts catalog
PATH: \ELECV2\CALCULAT\MOT2Q92
MOTOROLA - Complete parts catalog 1992 version.

Motorola semiconductor reference
PATH: \ELECV2\REF\MOTORO90
Motorola semiconductor reference

Mr Lees Electric Calculator 1.0
PATH: \ELECV2\CALCULAT\ELECT1
Mr Lee`s Electric Calculator 1.0 helps you read and calculate your electricity usage on a day to day basis.

MULTI CONVERSIONS 1.2
PATH: \ELECV2\CALCULAT\MCONV12
The ultimate conversion utility. Will do multiple conversions all at once. Converts length, area, volume, weight, time and more Additional conversions available with the registered version including roman numerals power, energy computer base numbers frequency, xrays, plane angles electronics conversions, acceleration pressure, etc Create or edit your own conversion table Plus, comes with a built in calculator. A must download! MULTI CONVERSIONS 1.2 by J.A Marrero.

NORTHCAD - 3 D v4.2
PATH: \ELECV2\CAD\NCAD3D42
N O R T H C A D - 3 D v4.2.

National Semiconductor LM12454/8 Design Kit
PATH: \ELECV2\DESIGN\LM12454
National Semiconductor LM12454/8 Design Kit

NETWORK
PATH: \ELECV2\CIRCUITS\NETWORK
NETWORK is an electronic circuit analysis program for ladder networks. It will provide a tabular output of Insertion Loss, Return Loss, Phase, VSWR, Reflection Coefficient, and Real and Imaginary Input Impedances. There is a high- resolution plotting capability for each of these

parameters. Various filters or impedance matching networks may be quickly analyzed and plotted. These circuit files may then be saved or loaded from disk. NETWORK requires at least 256K of RAM and a CGA, EGA, or Hercules Graphics Card. The VGA may be used in CGA or EGA modes.

NETWORK.BAS
PATH: \ELECV2\CIRCUITS\NETWORK1
AC ELECTRONIC CIRCUIT ANALYSIS PROGRAM

NOVA
PATH: \ELECV2\CIRCUITS\NVA
"NOVA is a program that can be used to analyze most linear (AC) circuits. It can calculate voltage, phase, and delay at any circuit point (node) at any frequencies. Most (AC) circuit analysis programs can only give useful results for low frequencies (below 10 Mhz). NOVA can do this but it can also be used for RF and microwave circuits. Microwave circuits require the analysis be done in terms of S-parameters, rather then AC voltages. NOVA does AC, time domain, and S-parameter analysis. Components at RF, have parasitic reactances that have a significant effect on the performance. Programs that have ""ideal"" components give only a theoretical analysis. To get real world results, at high frequencies, you need a program that has accurate component models. With full screen editing, nodal circuit notation, and single key stroke commands, NOVA is easier to use and easier to learn that any other circuit analysis program. This version has S-parameter (data) devices. Virtually any Rf device: transistors, fiber optic links, cables, filters, amplifiers, equalizers, etc. can be characterized by S-parameter data files. These data devices behave in the circuit exactly like the real device models. For example: if you have a transistor characterized by S-parameter data and put a resistor in the emitter or from collector to base, you will see the response and impedance of the circuit change just as you would with the regular transistor model. If one characterizes a RF cable as S-parameter data, puts it in the circuit and then puts a mismatch on the end of the cable, one will see a reflection from the S-paramerter transmission line model. In other words, the S-parameter data model acts quite suprisingly like a real device. The data format of S-parameter files that NOVA can read is similar to the S- parameter files of the major circuit analysis programs but not identical. It is relatively easy to convert these files to the NOVA format. There are hundreds of RF device files available from many sources. This version of NOVA has circuit tweaking while in the graph mode. You may find it extremely useful. Vary a component and watch the response, return loss, and delay change. With the co-processor version circuits can be tuned in virtually ""real"" time. With a 16 Mhz, 386SX machine, SUPER NOVA will calculate and plot, a 200 point graph, of S21, S11 and group delay, in 2 seconds."

NOVADEMO
PATH: \ELECV2\CIRCUITS\NOVA
"""RF circuits analysis program for the IBM compatible computer. The disk you received has: a small working version of NOVA""""", a library of components, and files of sample RF and audio circuits NOVADEMO""""" is limited to 10 nodes, but otherwise is functionally the same as NOVA-87""""". Math coprocessor is required. NOVA has all the following important features 1) Full screen circuit editing 2) Nodal circuit

notation 3) Fast analysis 4) Excellent graphics 5) Time domain analysis 6) Circuit Optimization 7) Circuit tweaking 8) Two port S-parameter devices 9) Ease of use."""

NTSC REFERENCE PROGRAM VER 1.2
PATH: \ELECV2\REF\NTSCREF
Complete reference guide on the NTSC television standard.

NTUMIN LOGIC MINIMIZATION
PATH: \ELECV2\MISC\NTUMIN10
Logic minimization program.

NUTMEG32 + SPICE32
PATH: \ELECV2\CIRCUITS\SPICE4
NUTMEG32 + SPICE32 = circuit simulation programs for WIN NT and WIN 3.1

Ohms law Calculator 1.10
PATH: \ELECV2\CALCULAT\OL110
Ohm`s law Calculator 1.10 calculates voltage current, resistance and power good for electronics techs students hobbyists engineers.

Ohms Law for Windows
PATH: \ELECV2\CALCULAT\OL4WIN
Welcome to the Ohm`s Law Calculator for Windows. This program is based on the original Ohm`s Law Calculator (DOS version) I wrote several years ago This program was designed to be used by anyone with an interest in electronic or electrical design (students, hobbiests, technicians, engineers etc.). This program works by appling the two basic equasions (I=E/R and P=IE). When given two known values (I&E, I&R, I&P, E&R, E&P, or P&R) the computer calculates the two unknown properties.

Operational Amplifier
PATH: \ELECV2\HARDWARE\W-OPAMP
Operational Amplifier

Operational Amplifier Program
PATH: \ELECV2\HARDWARE\WINOPAMP
Operational Amplifier Program

OrCAD/SDT III schematic editor and library editor
PATH: \ELECV2\SCHEMATI\ORCAD
OrCAD/SDT III schematic editor and library editor.

OSCILLOSCOPE TUTORIAL
PATH: \ELECV2\TUTORS\SCSHWV16
OSCILLOSCOPE TUTORIAL VGA version A visual guide to the basic controls and measuring techniques of an Oscilloscope.

P C - E C A P v3.00
PATH: \ELECV2\CIRCUITS\PCECAP
PC-ECAP is an easy to use AC circuit analysis program which analyzes circuits consisting of resistors, capacitors inductors, transformers, transmission lines, transistors both bipolar and FET`s), operational amplifiers and transconductance amplifiers Totally integrated in one

package, it contains a full screen text editor for preparing analysis input, an electronic circuit analyzer that calculates your circuit`s frequency and transient response, a high resolution display plotter that supports all common graphics adapters and a high resolution plotter compatible with most printers.

P/C-SILOS
PATH: \ELECV2\DESIGN\PC_SILOS
P/C-SILOS is a powerful interactive logic simulation program that is a compatible subset of the SILOS logic and fault simulation program designed for large workstations and main- frames. The standard version of P/C-SILOS is capable of an- alyzing logic networks with up to 5000 gates and requires 640K of memory.

PADS PCB
PATH: \ELECV2\DESIGN\PADSPCB
With the PADS-Logic shareware package, you can create schematics, make plots, produce net lists, define library parts... all of the functions of PADS-Logic. With the PADS-PCB shareware package, you can automatically place your design, autoroute it, create photoplot outputs and N/C drill files... all of the functions of PADS-PCB. All drawings, library parts, and layouts you create can be read directly by the commercial versions of PADS- Logic and PADS-PCB, so every minute spent with this shareware is real work!

PADSLINK & PADSLINK PLUS
PATH: \ELECV2\DESIGN\PADSLINK
Padslink and Padslink PLUS are programs of Precision Design that provide an excellent means of translating graphical information from PADS-PCB or PADS-2000 to a DXF file and from DXF to the PADS world.

Panel 3.0 for Windows
PATH: \ELECV2\REF\PANEL
Panel 3.0 for Windows is a complete database system for electricians. It stores circuit directory and panelboard information. Custom circuit directory inserts can be printed and placed in the cover of the circuit breaker panel or panelboard assembly. Each report is a customized representation of the specific panel information. Neat and orderly circuit directories lead to professionalism and efficiency. From Electrical Design Software.

Parallel port 8-bit DAC circuits
PATH: \ELECV2\SCHEMATI\DACS
Parallel port 8-bit DAC circuits for IBM PC and compatibles Circuits work with sound programs which support parallel port dac. Such programs are Scream Tracker, ModPlayer, ModEdit and many other. There are also available free Windows drivers There are two DAC circuit and one active low-pass filter circuit schematic in this packet. Schematics are in .GIF picture format.

PC Components Test
PATH: \ELECV2\HARDWARE\PCTESTV1
Learn about the components of the Computer in the PC Components Test while learning how to troubleshoot and make minor repairs on a typical

IBM and compatible computer.Type REPAIR to run the troubleshooting test and type COMP to run the components test.

PC-Draft-CAD version 3.03
PATH: \ELECV2\CAD\PCDCAD33
Full featured Computer Aided Drafting.

PC-ECAP
PATH: \ELECV2\CIRCUITS\CIRCANAL
PC-ECAP is an easy to use AC circuit analysis program which analyzes circuits consisting of resistors, capacitors, inductors, transformers, transistors (both bipolar and FET`s), operational amplifiers and transconductance amplifiers.

PC-RESON v1.00
PATH: \ELECV2\CIRCUITS\PCRESON
"""RESON is a enhanced AC circuit-analysis program modeled loosely on SPICE. """"Enhanced"""" means that beyond solving for voltages and currents, RESON computes circulating and dissipated energy, and allows for material properties and geometry. RESON also has additional output functions and formats All of RESON`s input and output files are standard ASCII, and can be created and read by most computer systems. Input files look similar to SPICE input files. Input files contain statements and comments which describe the circuit and the analysis to be performed. (Since the program currently does AC analysis only SPICE-like statements for DC or transient analysis are not included). Output files have quote-delimited strings and comma delimited numeric fields, so that they may be easily imported into spreadsheet programs (such as Lotus 123, or Borland`s Quattro All user I/O and data management is performed by routines written by John Priller, while the computation and analysis engine was written by John Vincent. Please direct questions pertaining to RESON to the appropriate individual."""

PC-SCHEMATIC
PATH: \ELECV2\SCHEMATI\PCSCHEMA
PC- SCHEMATIC allows the user to create drawings, to save them to disk, and to print them using an inexpensive 9 pin IBM compatible printer. Two size drawings are allowed: a small one that is 8.5 by 11 or a larger one that is 8.5 by 14 inches. Both sizes are printed sideways.

PC-TECH: INTRODUCTION TO ELECTRICITY AND ELECTRONICS
PATH: \ELECV2\TUTORS\PCTECH
The PC-TECH: INTRODUCTION TO ELECTRICITY AND ELECTRONICS is a computer based training program designed to introduce non-technical personnel and individuals with no background in electricity/electronics to basic electrical/electronic concepts, systems/components, and diagnostic procedures. Although the subject matter is slanted toward automotive applications, it is universal in nature and useful in developing an understanding of all electrical/electronic systems.

PCAAD 2.1 Personal Computer Aided Antenna Design
PATH: \ELECV2\DESIGN\PCAAD21

PCAAD 2.1 is a DOS software package for the analysis and design of antennas including wire antennas, horn antennas, arrays, and microstrip antennas.

PCB development tool
PATH: \ELECV2\CIRCUITS\PIA20
PCB development tool, 386+Win3.1 or better.

PCC and MATCHC
PATH: \ELECV2\CALCULAT\TCHVUTIL
PCC and MATCHC is a couple of utilities to calculate various capacitor variables from the command line and to match transformer impedance to a corresponding capacitor.

PcGenerator 1.43
PATH: \ELECV2\DESIGN\PG143
PcGenerator [PG] uses the Adlib(compatible) synthesizer which is standard on almost any Soundcard,to turn your PC into a low frequency signal generator the Soundblaster (compatible) A/D converter is used to do measurements in combination with the generator PG has all features of a full blown Sine signal generator and more frequency range from 0.5.......25000 Hz precise frequency adjustment in 7 ranges lots of sweep options burst with selectable on/off times output level attenuation in 0.75 dB steps graphical representation of frequency characteristics measurements mouse cursor measurements scope function graphs can be printed user friendly GUI clearly readable 7-segment displays 7-segment displays sizeable from small to full screen all functions selectable with mouse and keyboard measurements can be saved and loaded graphs can be exported as PCX`s.

PCPAIR V1.0
PATH: \ELECV2\HARDWARE\PCPAIRV1
PCPAIR V1.0 Get ready to learn how to service and upgrade your computer and save yourself lots of money. To play this program,just type START or BEGIN to run.You must install this tutor to your Hard Drive and you will need at least 640k RAM. TA..TA.. AND ENJOY.

PCROUTE v2.210
PATH: \ELECV2\CIRCUITS\PCROUTE2
PCROUTE is a computer aided design program for printed circuit boards. It contains board layout routines that should be quite for most purposes. It also contains a full featured autorouter that averages around a 93% completion rate. It also supports three of the more popular printers for its output.

PCTRACE v5.0
PATH: \ELECV2\CAD\PCTRACE
PCTRACE is a computer aided design program for printed circuit boards. It contains programs that can take the designer from a schematic, to a board layout, to computer control of the machines needed to make high quality circuit boards. The program should be quite adequate for most purposes. This program is not meant for IBM`s use to design the next PS/2 motherboard. It is intended for the late-night engineer to build home projects. It contains a full featured autorouter that averages a 93

completion rate on low density boards and 70% on higher density boards. It also supports most popular printers for its output PCTRACE is the general name given to all the programs that make up this system. For example, PCTRACE includes SCAD, RPRINT and PCTRACE itself Key features include 1. Autorouting 2. Graphic interactive routing 3. Board layout functions 4. Flexible pinouts for devices 5. 2X and 1X output for use in making PC boards 6. Disk functions built into the software 7. Sophisticated component and connection entry systems 8. General statistics 9. Up to 300 components and 1800 connections 10. Mouse support in the interactive router 11. Variable pad and trace sizes 12. Single and double sided boards 13. Manual placement of traces 14. CGA, EGA, and VGA graphics support to display the board. CGA:80x25 EGA:80x43 VGA:80x60 15. Gerber, DXF, and Autocad Script file output 16. Actual size silkscreen creation 17. Error handling for critical errors 18. Schematic Capture for a complete cad system 19. The authors continued support.

Philips/Fluke ScopeMeter 97
PATH: \ELECV2\MISC\SM97_10X
Philips/Fluke ScopeMeter 97 setup/data utils

Phillips Components
PATH: \ELECV2\REF\PHILLIPS
Phillips Components.

PIC16C84 programmer design
PATH: \ELECV2\MISC\PIC84V04
PIC16C84 programmer design.

PLL loop filter calculations
PATH: \ELECV2\CALCULAT\LOOPFILT
PLL loop filter calculations

PLOTTER v8.1
PATH: \ELECV2\MISC\PLOTTER
PLOTTER v8.1 - A data plotting and analysis program for MS-DOS computers (ideal for researchers in all disciplines). Uses ASCII data files. Includes a Full Screen Data Editor, Least Squares Curve Fitting, Fast Fourier Transforms and Digital Filtering. Plot screens can be sent to a printer, or saved to disk in PCX format. Requires CGA, EGA or VGA monitor. Mouse support included. On-line instructions. Shareware. $25 US→

Power Factor
PATH: \ELECV2\CALCULAT\PFACTOR
Power Factor Used in laboratories for electrical testing You enter the voltage/freq. you are applying to the circuit, the current you need and the power factor you require, and it calculates the resistor and reactance/inductor that is required. $1.00 registration fee.

POWER v1.00
PATH: \ELECV2\DESIGN\PWR100
POWER v1.00 <ASP> - Calculates required IC power, maintains database of IC electrical parameters. Includes tutorial demos. Designed for Electronics Engineers. User-friendly, fully windowized text-graphics user interface; Merges two input files (or two databases) into one, permitting

data-sharing among users without compromising data integrity or redundancies. Shareware. -AV by Author, Michael D. O`Connor.

Probe9
PATH: \ELECV2\UTILS\PROBE9
Probe9 is a stable frequency counter accurate to 5 significant digits Range = 0 - 30MHz Input sensitivity >100 mV Probe 9 connects to the PC serial port By using the crystal oscilator already present on your PC serial card and software calibration, the Probes` external circuitry is kept to a minimum.

Programmable Logic Explorer
PATH: \ELECV2\SCHEMATI\PLDXPLOR
Programmable Logic Explorer - contains the schematics and software for building a complete programmable logic design station for under $60. The explorer is a small PC board that connects to your PC through a printer port and allows you to learn about and experiment with programmable logic.

PROTEL AUTOTRAX v1.56
PATH: \ELECV2\MISC\AUTOTRAX
PROTEL AUTOTRAX v1.56

Protel Easytrax Freeware version 2.06
PATH: \ELECV2\CIRCUITS\EASYTR
Software for producing printed circuit board (PCB) artwork. It is a fully-featured system which runs on the IBM-PC/XT/AT and PS/2 series and close compatibles.

Protel For Windows V1.02
PATH: \ELECV2\DESIGN\PROTELW
It is a full featured PCB design program with auto routing/placement, etc with all features enabled except saving work. It requires windows 3.0 or 3.1 running in standard mode or enhanced mode with a reasonable amount of memory ie above 2 megabytes.

ProtoCAD 3D Ver. 1.1
PATH: \ELECV2\CAD\PCAD3D
ProtoCAD 3D Ver. 1.1.

PSpice - analog circuit simulator
PATH: \ELECV2\CALCULAT\PSPICE
calculates the voltages and currents of a circuit under a variety of different circumstances, such as DC, AC, and in time. The program SPICE was developed at the University of California at Berkeley in the early 1970`s and has become a de facto standard in the area of analog simulation. The input and output of PSpice conform to that standard. Also, PSpice has many extensions which give it a wide applicability.

Pspice models for Comlinear amplifiers
PATH: \ELECV2\HARDWARE\CLCSPICE
Pspice models for Comlinear amplifiers.

Qcad

PATH: \ELECV2\CAD\QCAD32
Qcad is a printed-circuit-board design tool. It allows you to quickly design circuit boards up to 32x32 inches, with up to 1000 elements in one to six signal layers. You select components from drop-down picklists, then place them with a mouse click. Automated features provide for optimum placing, automatic wire routing, and automatic signal data input. The program offers summary information in the display header to quickly determine locations and connections. Sample data and help are included, although the help is poorly written and many program-specific terms are not defined. Designers and engineers with a knowledge of circuit-board design requirements may find this tool useful, but it`s no place for amateurs.

QFLD40
PATH: \ELECV2\DESIGN\QFLD40
Super Student version of EM field (electrostatic / electromagnetic) analysis and simulation design program DEMO for Windows 3.x, 95 & NT

Quick Circuit
PATH: \ELECV2\CIRCUITS\QCKT
Quick Circuit is a collection of routines typically used everyday in quick circuit design and analysis plus, some fun and information functions. Including: 555 Timer Design 74ls123 RC Network Design NTSC Time Calling Amplifier Design (Differential, Inverting, Noninverting) Metric Converter dB Calculator Matching RC, LC, Resistor / Voltage Dividers Hex, Decimal, Binary Converter Plus Viewer for BMP, ICO, RLE, WMF files .Wav File Player

Quickroute 4.0 Release 4
PATH: \ELECV2\DESIGN\QR40_404
Quickroute 4 is an integrated electronic design system for professional engineers, hobbyists and education. It combines schematic design and capture, mixed mode (analgue and digital) simulation, and PCB design with autorouting and CADCAM support. Quickroute 4 includes advanced features like multiple schematic sheets, net-list import/export, DXF, SPICE and WMF file support, engineering change (automatic updating of a PCB from a schematic) and Gerber import/viewing. This version of Quickroute 4 is full featured with support for designs of up to 40 pins. Freeware.

RADIO
PATH: \ELECV2\DESIGN\RADIO_S
This program will teach you how to trouble shoot an AM Radio using a Block Diagram with an Oscilloscope. There is a TUTOR. There is on line help in the form of Helpful Hints. Designed to help you find problems in the quickest way. Reference readings are also available.

RASCAL 2.1
PATH: \ELECV2\MISC\RASCAL21
RASCAL is a program for interactive design of reflector antennas.

RCalc III
PATH: \ELECV2\CALCULAT\RCALC313
RCalc III provides a convenient means of evaluating wireless control systems given a few basic system parameters. RCalc III is the result of

three years of day-to-day use, testing, and validation by several RF and systems engineers. After the RF transmitter and receiver capabilities are entered, the user may estimate communications range performance, determine allowable path loss, calculate antenna factor, or determine which system parameters need to be improved to meet a specific communications range goal. RCalc III will base these calculations on either ideal propagation or, optionally, use a lossy propagation model to account for real-world non-idealities. In addition, a utility is provided to calculate dB losses due to impedance mismatch, and a maximum transmitter power lookup utility is provided to assist with meeting US and Canadian EMC regulations. The registered copy of RCalc III will allow the user to evaluate system performance given the constraints of operating under the many different foreign EMC regulations: maximum transmitter output power and allowable frequencies are provided for many countries. The list of supported countries will be updated periodically and distributed free to registered owners who purchase diskettes. The serial number and registration code is valid for all future releases of RCalc III.

RCC v2.5 Resistor Color Code
PATH: \ELECV2\CALCULAT\RCC25
RCC v2.5 Resistor Color Code From TC Electronics: Just match the colors to get a fast easy readout of coded values on resistors or input the values to get the colors for resistors. Calculates total ohms value on parallel & series connected resistors. Calculates usable tolerance range.

ResCode
PATH: \ELECV2\MISC\RSCODE
ResCode is a resistor color code decoder program. Or in simpler terms you may identify the value in ohms of a resistor based upon the color bands that are marked upon it. This program allows you to `dial` in the colored bands and receive the value that they represent.

Rescon
PATH: \ELECV2\UTILS\RESCON
If you like to dabble in electronics, but can never remember the color codes, then Rescon is for you. Rescon converts four- and five-band resistors. Using the drop-down picklists, select the wire colors in the order in which they appear. Click on the Convert button, and it instantly provides the ohm value and the tolerance level. You need to have an idea of what you`re doing with the resistors, since the documentation is limited to how the program works; it doesn`t provide any electronics information. Rescon is a handy utility for hobbyists.

Residential Electric Reports
PATH: \ELECV2\CALCULAT\DWELCALC
Residential Electric Reports 1.0: Facilitates electrical code calculations for residences. 1. Required service size for single dwelling. 2. Electric energy cost for single rate, dual rate, or off-peak rates. 3. Create and print custom panel directories. Reports can be sent to the screen, a file, or a printer. Includes on-line help with NEC references. Shareware ($39) from Electrical Design Software.

Resistor Colour Code Converter

PATH: \ELECV2\UTILS\RESCOLOR
Resistor Colour Code Converter could be a valuable tool for hobbyists, engineers, technicians, or anyone else who works with electronics. To use this low-cost 32-bit utility, pick either Four Band Resistor or Five Band Resistor by clicking the appropriate radio button. Then, select the color for each band from the drop-down selection boxes. (Check the Help file for an explanation if you`re unsure about reading resistor color codes.) Click the Convert button, and your chosen colors (or a message if you`ve omitted any fields) will be displayed in the Selected Colours box. The resistor`s value and tolerance will also be displayed in their respective boxes.

RESISTOR FINDER for WINDOWS
PATH: \ELECV2\MISC\RESISTOR
RESISTOR FINDER for WINDOWS

Resistor Series/Parallel
PATH: \ELECV2\MISC\WINRES2
Resistor Series/Parallel

Resolve
PATH: \ELECV2\REF\RES16SW
Resolve this shareware version contains a partial listing of the manufacturer`s cross reference. And contains 1,444 repair procedures on 129 models. The full release contains 2,069 repair procedures on 305 models and has added cross reference data manufacturer identification by fcc number and much more useful information as well as an updated operating system.

RF SPECIALTIES TECHNICAL PROGRAMS
PATH: \ELECV2\CALCULAT\RFS1
This is specifically designed for radio broadcast engineers. Bundled into one program are many different sub-programs of general use to the engineer. These will allow you to: * Calculate the E.R.P. of an FM station. * Display and print the vertical radiation pattern of an FM antenna. * Calculate the distance to the null of an FM antenna. * Calculate VSWR, or print a VSWR table. * Calculate path attenuation and fresnel zone clearance of a 950 mHz S.T.L. * Calculate and print a report of intermodulation products between a table of frequencies. * Calculate the size of a parcel of land needed to hold a guyed tower of given dimensions, and place the tower within the plot. * Calculate the distance and bearing between two geographic coordin- ates, or calculate the destination coordinates when source coordinates and a distance and bearing are known. * Perform conversions from English to Metric units In addition, an Electronics Math program is included. It allows the user to work with: * Ohms Law calculations. * Series/parallel resistor, capacitor or inductor networks. * R/C or R/L time constants. * Series or Parallel L/C circuits, resonant or non-resonant. * Series resistor voltage dividers * Transformer voltage, current and impedance calculations. * Decibel conversions. * Frequency to wavelength conversions, in both English and Metric units.

RF tools
PATH: \ELECV2\CALCULAT\RFTOOLS

RF tools - public-domain software for the amateur radio service file description ABIAS active PNP bias technique for common emitter NPN bipolars BIAS resistive bias technique for common emitter NPN bipolars COIL air wound solenoid inductor design DTF double tune filter calculations GAMMA polar input of refl.coef. gives matching topologies IMRTT intermodulation 3rd order using two-tone technique SNF system noise figure calculations SPAD series/parallel and resonant frequency calculations.

RF Workbench v4.0
PATH: \ELECV2\DESIGN\RFWB40
RF Workbench is the Barterware version of TxRx Designer, a highly successful effort that was sold commercially for many years. An extensive user`s manual was available for TxRx Designer that doubled as a tutorial on RF system design.

RFAmp
PATH: \ELECV2\DESIGN\RFAMP
RFAmp - lets you design small signal RF amplifiers using S-parameters. It can create a design using transistor data files. Requires EGA or better.

RFC v1.6
PATH: \ELECV2\CALCULAT\RFC
Impedance calculation and adjustment - Giorgio Fontana.

Rijswijk 68HC11 Simulator
PATH: \ELECV2\HARDWARE\THR11306
Rijswijk 68HC11 Simulator

RVal v1.01
PATH: \ELECV2\REF\RVAL101
RVal v1.01 for Windows 3.x & 95 The Electrical/Electronic Engineer`s solution to finding the best resistor values for the job. Do you need a particular ratio or difference? Do you need an exact value? Forgotten the values in the E96 range? RVal will find pairs of preferred values that will do the job you want. You can find the nearest, or all within a given tolerance, or just print out the list of values in a range. E6, E12, E24 and E96 ranges are supported. Requires VBrun300.dll (not supplied).

SCH-DRAW
PATH: \ELECV2\SCHEMATI\SCH-DRAW
SCH-DRAW is a simple MS-DOS schematic drawing program for electronic circuits using standard keyboard characters. Symbols include resistors capacitors, inductors, diodes, transistors, operational amplifiers and IC boxes without labels. Symbols are selected from a top line tool-bar and positioned with the mouse pointer. They may then be interconnected moved, or erased by mouse operations and the entire schematic page adjusted with Ctrl-keys. Text and component details are entered from the keyboard. Completed schematics are saved in a text file which can be directly e-mailed or posted on bulletin boards or reloaded into the program for modification. Schematic size is limited to one 24 by 75 character page.

SchemaCAD
PATH: \ELECV2\CAD\SCHM96

SchemaCAD A powerful, intelligent CAD software to draw schematics of hydraulic pneumatic, control and electrical circuit It is TRADE oriented so you don`t draw, but you build circuits from components. You can design new components, scale, rotate, flip change color. You can print PART LIST and PURCHASING ORDER. Can export and import DXF files. Can print A, B, C, D and E size paper SchemaCAD is a DOS application.

Schematic Plus
PATH: \ELECV2\DESIGN\SCH051
Schematic Plus is a schematic editor for use in generating reports. Although it was designed for electronics, there are many other uses such as flowchart type drawings.

Schematic Symbols Program
PATH: \ELECV2\SCHEMATI\WINSYMB1
Schematic Symbols Program

SchematiCAD
PATH: \ELECV2\CAD\SCHEMD04
SchematiCAD is a schematic drawing program.

SchematicMaster
PATH: \ELECV2\SCHEMATI\SMASTER
A CAD Schematic Drafting Utility.

Schematics at your Fingertips
PATH: \ELECV2\SCHEMATI\W1RIL
Schematics at your Fingertips. (Created on Windows Paintbrush) Please feel free to modify these files to suit your specific needs and in the spirit of Amateur Radio share the files with others who are interested.

SCHEVAL
PATH: \ELECV2\SCHEMATI\TANGO130
Tango-Schematic Evaluation Package.

SCRL Semiconductor Cross-Reference Library V5.9
PATH: \ELECV2\REF\SCRL
SCRL Semiconductor Cross-Reference Library V 5.9 Cross reference semiconductor devices to suitable subsitutes, Search by device number(full or partial) or description. Lead and configuration drawings, Over 48 thousand devices listed.

SEMICONDUCTOR CROSS
PATH: \ELECV2\REF\SEMID1
SEMICONDUCTOR CROSS REFERENCE

Semiconductor Cross-Reference Library
PATH: \ELECV2\REF\SCRL4_2
SCRL Semiconductor Cross-Reference Library V 4.2 Cross reference semiconductor devices to suitable subsitutes, Search by device number(full or partial) or description. Lead and configuration drawings, Over 47 tousand devices listed.

Sensor Guide

PATH: \ELECV2\REF\SENSORGD

SIMetrix
PATH: \ELECV2\SCHEMATI\SIMX11
SIMetrix is a SPICE based analog simulator, schematic editor and waveform analyser all integrated in one executable.

SIMIC logic verification simulator
PATH: \ELECV2\REF\SIM120BN
SIMIC User Guide.

SIMSLAW
PATH: \ELECV2\TUTORS\SIMSLAW
SIMSLAW IS A SIMPLE WAY OF CALCULATING THE 12 FORMULAS OF OHMS LAW AND WATTS LAW.

Single Channel Cathode Ray Oscilloscope Simulator
PATH: \ELECV2\MISC\CRO
Simulates a single channel Cathode Ray Oscilloscope with a colourful, uncluttered display. Timebase, Horizontal Shift and Level controls are displayed on-screen and may be adjusted with mouse clicks on Option Radio) buttons and Slider bars. The more complicated controls such as coupling and trigger level are added onto the screen in three stages so as not to overwhelm the student initially.

Smith Charts
PATH: \ELECV2\MISC\SCHRT
Smith Charts with stability and noise circles.

Speaker Box Design
PATH: \ELECV2\DESIGN\SPEAKER
Ever wanted to build your own loudspeakers? Check out Speaker Box Design. This program can help you to design closed box, vented box, passive radiator, and bandpass speaker systems. It will also assist in the design of passive and active crossover networks as well as the coil design used in passive networks. A simple pushbutton interface takes you to the different areas, where you can make your calculations. Input Qts (ratio of reactance and resistance), VAS (volume), and resonant frequency, and the program will return values of necessary enclosure volume, speaker response, and vent dimensions. Complete design features (such as bandpass and crossover implementation) are offered, with schematics for building the components. Several features are disabled in this evaluation edition. A 16-bit version is also available. This program has not yet been reviewed.

Spice 2g6 circuit simulator
PATH: \ELECV2\CIRCUITS\DSPICE0B
Spice 2g6 circuit simulator. This version requires a 386 AND 387 math coprocessor. It does not work on D.J.Delorie`s 387 emulator. However because it uses D.J.Delorie`s go32 dos extender, it can use up to 128 Mega bytes of RAM, or do swapping.

Spice TR3e2bl
PATH: \ELECV2\CIRCUITS\SPICE

Spice TR3e2bl is a 32-bit shareware version of SPICE 3e2 for use on a 386 or 486 PC with 4 MB of RAM. Spice (Simulator Program with Integrated Circuit Emphasis) is a general- purpose circuit simulation program for non- linear DC, non-linear transient, and linear AC analysis. Also requires VGA display for graphics & Postscript printer (for hardcopy output). Math coprocessor recommended. Shareware ($45) from Howard LeFevre.

Spice32 / Nutmeg32 for Windows NT
PATH: \ELECV2\CIRCUITS\USPI91
Spice32 / Nutmeg32 is a general-purpose circuit simulation program for nonlinear dc, nonlinear transient, and ac analyses. Circuits may contain resistors, capacitors, inductors, mutual inductors, independent voltage and current sources, four types of dependent sources, lossless and lossy transmission lines, two switches, uniform distributed RC lines, and the five most common semiconductor devices: diodes, BJTs, JFETs, MESFETs, and MOSFETs. The Berkeley SPICE3 version is based directly on SPICE 2G.6. While SPICE3 is being developed to include new features, it continues to support those capabilities and models that remain in extensive use in the SPICE3 program. SPICE3 has built-in models for the semiconductor devices, and the user need specify only the per model parameter values. The model for the BJT is based on the integral-charge model of Gummel-Poon; however, if the Gummel-Poon parameters are not specified, the model reduces to the simpler model. In either case, effects, ohmic resistance, and a output conductance may be included. The diode model can be used for either junction diodes or Schottky barrier diodes. The JFET model is based on the FET model of Shichman and Hodges. Six MOSFET models are implemented: MOS1 is described by a square-law I-V characteristic, MOS2 is an analytical model, MOS3 is a semi-empirical model; MOS6 is a simple analytic model, accurate in the short channel region; MOS4 and MOS5 are the BSIM (Berkeley Short -channel IGFET) and BSIM2. MOS3, and MOS4 include second-order effects such as channel length modulation, subthreshold scattering-limited velocity saturation, small-size effects, and charge-controlled capacitances.

SQW v2
PATH: \ELECV2\MISC\SQW_2
SQW v2 - A simple Square Wave generator with a simple PC alone.

Sspice - Symbolic SPICE - Circuit Analyzer and Approximator
PATH: \ELECV2\CIRCUITS\SSPICE10
Sspice is a Symbolic SPICE circuit analyzer and approximator. Input files are in the SPICE format and the program performs a symbolic AC analysis Symbolic determinants are sorted with the additional option of numeric evaluation and even symbolic approximation. Besides accepting many of the standard SPICE definitions, Sspice also offers a variety of low and high frequency symbolic transistor models as well as some linear ICs. Menu options are available for evaluating 2nd order active RC circuits. These include identifying and solving filter formulas and approximating pole shift due to finite op-amp gain-bandwidth-product.

Students` QuickField
PATH: \ELECV2\CALCULAT\QFLD34A

Students` QuickField(TM), formerly known as ELCUT, is minimum cost shareware for field simulation. It solves plane and axisymmetric problems of electrostatics, nonlinear DC magnetics, AC magnetics, current flow, nonlinear heat transfer, stress analysis and coupled problems. QuickField enables you to perform field calculations and obtain various electro-mechanical design parameters in an extremely efficient and intuitive way. After an hour of playing with QuickField, you`ll be able to solve rather complicated problem in minutes.

Study DC circuits. Win 32 95 NT
PATH: \ELECV2\TUTORS\DCTRAIN
Study DC circuits. Win 32 95 NT

SWAP (SIne WAve Practice)
PATH: \ELECV2\TUTORS\SCOPESWP
SWAP (SIne WAve Practice) is a simple program designed to teach beginning students how to determine sine wave amplitude and freqency on an oscilloscope. It presents sine waves of random frequency and amplitude, and requires that students determine the frequency, the peak-to-peak amplitude, and the RMS amplitude. Req: MS DOS, IBM compatible computer, CGA or VGA monitor.

Switching Power supply design
PATH: \ELECV2\DESIGN\SWTCHPS
Switching Power supply design made simple.

SWRADIO 3.51
PATH: \ELECV2\SCHEMATI\SWRADI
SWRADIO 3.51 Build a sensitive shortwave receiver for less than $5. Complete info including schematics and parts sources. Also other info of interest to Shortwave Listeners such as freq. band descriptions pirate radio, how 2 on QSL cards, & a complete reading list. $2 to register.

SYMBOL LIBRARIES FOR BOOCH, BUHR, AND DATA FLOW DIAGRAMS 1.0
PATH: \ELECV2\MISC\BBDSLIB
SYMBOL LIBRARIES FOR BOOCH, BUHR, AND DATA FLOW DIAGRAMS 1.0

SYSAN - SYStems ANalysis for linear control systems
PATH: \ELECV2\CALCULAT\SYSAN01
SYSAN - SYStems ANalysis for linear control systems is a mainly educational program for electrical, mechanical and chemical engineering students that take a control engineering course The program strictly follows the manner of which calculations are presented in the various textbooks. When a response in the time domain is calculated, you will be confronted with this response in the form of the Laplace transformation, a formula, a table and a graph. You will recognise all the hand calculations you would have to make if you had tackled the problem by hand. With the aid of SYSAN however you get the results without undue effort, so that you can concentrate on the control problem.

Tadplace
PATH: \ELECV2\MISC\TADPLC
A placement files creator for PADS2000

TECHNICIANS GUIDE TO PC HARD DISK SUBSYSTEMS
PATH: \ELECV2\UTILS\HDTECH01
TECHNICIANS` GUIDE TO PC HARD DISK SUBSYSTEMS. This booklet (now electronic) is published as a service of Data Recovery Labs Its purpose is to provide the fundamental knowledge of concepts and terminology that is necessary to deal with the complexities of hard disk subsystems. It is not a technical reference guide and should not replace original documentation made available by manufacturers.

TESLA Design Utility
PATH: \ELECV2\DESIGN\TESLAC2
Utility for designing TESLA coils. Many options.

Tester v2.0 for Win3.1 and Win95
PATH: \ELECV2\TUTORS\TESTER2
"""The Tester v2.0 for Win3.1 and Win95 allows you to create """"electronic flashcards. Such options as randomizing the flashcard order and retesting the questions you get wrong allow you to study any kind of information, such as vocabulary, quickly and efficiently."""

TextModeCad
PATH: \ELECV2\CAD\TMC101
A CAD system within a text mode environment. Dynamically create, edit, copy, move, save, restore and print blocks of text defined by row/col coordinates of diagonally opposite corners of the block using mouse or keyin. Worksheet concept consisting of segment of existing file or new file. Build organization charts, bar charts, graphs, work schedules ruled tables and output data files, menus, user interfaces and other items adaptable to construction by text blocks rather than lines. Draw vertical as well as horizontal lines using graphic characters or any one of other 256 characters.

The Circuit Board Thermometer
PATH: \ELECV2\CIRCUITS\THERM
The Circuit Board Thermometer.

THE FORMULA BANK
PATH: \ELECV2\CALCULAT\FB
The FORMULA BANK is a program that takes many of the more commonly used electronic calculations and unit to unit conversions and puts them into a menu driven system that requires the user to simply enter data and read answers.

Time Crafter
PATH: \ELECV2\CIRCUITS\TIMCRFTR
Time Crafter is a timing diagram documentation tool. A timing diagram is used by engineers and technicians to document the way a circuit or system operates or should operate. This type of documentation is crucial to good design and debugging but up to now one could only use paper and pencil (with a good eraser) or an expensive CAD package costing $1000 or more to produce these diagrams on a PC.

Tiny Digital Circuit Analysis
PATH: \ELECV2\CIRCUITS\TDCA

Tiny Digital Circuit Analysis (TDCA) is a shareware program that allows a student or engineer to simulate a small digital circuit design. This program allows one to enter a digital circuit design by entering each device type and its connections. Then the circuit can be evaluated with entered inputs. The circuit can also be graphically displayed with all of its cir- cuit/device input/output values displayed. This graphic display is very helpful for finding race conditions and observing inter- nal circuit states.

TinyCAD version 1.26
PATH: \ELECV2\CAD\TINYCAD
TinyCAD version 1.26 An entry level circuit design program. Req: Windows 95 Windows NT Windows 3.1 or 3.11 on a 386 or better and Win32s.

TOROID
PATH: \ELECV2\DESIGN\TOR-DEMO
Excellant professional level toroid core inductor design program DEMO for Windows 3.x, 95 & NT

Toroid core inductor design
PATH: \ELECV2\DESIGN\IRONDEMO
Novice level Toroid core inductor design program DEMO for Windows 3.x, 95 & NT

Transformer
PATH: \ELECV2\MISC\TRANSFM
Transformer Program

Transistor Substitution Database 2.0
PATH: \ELECV2\DESIGN\TSD201
The purpose of the program: Transistor Substitution Database 2.0, `TSD2` is a designed to be a tool for electronic hobbyists and enthusiasts that provide a quick and easy cross-reference for replacement transistors. This version of TSD will run in the Microsoft Windows 3.x and above environment, where the earlier version was DOS only.

Transmission Line Analysis Program
PATH: \ELECV2\MISC\TRANALV2
Transmission Line Analysis Program

Transtek
PATH: \ELECV2\CAD\TRANSTEK
CAD and Transtech parts selector guides for dielectric resonators.

Trigger
PATH: \ELECV2\UTILS\TRIGGER
Trigger - is an engineering utility for solving geometric math problems. This is particularly useful for tool and gage design, with solutions provided for right or oblique triangles, ball error, radial drops, plane to point distance, and sphere to cone offset WINDOWS.

Triode Amplifier Program v2
PATH: \ELECV2\MISC\TAP_VER2

"""This program provides for Grounded Grid, Cathode Drive simulation of High Power Amplifiers using Triode tubes per the design criterias defined by the User. Use of this Software program is on a """"as is only and no claims to performance of designs used in user circuits and equipment is made."""

Trouble
PATH: \ELECV2\DESIGN\TROUBLE
This program will teach you how to trouble shoot an RC-Coupled amplifier With Feedback using an Oscilloscope. There is on line help in the form of Helpful Hints. Designed to help you find problems in the quickest way. Reference readings are also available. I wrote the original program in 1980 while teaching at Great Lakes Ill. for the NAVY. This program has been used by thousands of students, learning to be Electronic Technicians for the NAVY. The program has also been purchased by 5 Junior collages around the county and many private individuals. The only problem that I have ever found is that students in the LAB, real world, did not do it the same way that the program teaches?

Tunekit 2.0 for Windows
PATH: \ELECV2\CIRCUITS\TUNEKIT2
RF/IF Bandpass filter circuit & coil design program

Tuning
PATH: \ELECV2\CIRCUITS\TUNING
Stub & L/C matching circuit design program

TXLine Version 1.1
PATH: \ELECV2\MISC\TXLINE
Very complete transmission line evaluation program for Windows 3.x, 95 & NT

U.S. Electrical code database
PATH: \ELECV2\CALCULAT\ELCODE1
U.S. Electrical code database

UNIVERSAL CONVERTER
PATH: \ELECV2\CALCULAT\UC20
Over 600 different conversions with many unusual calculations.

Vaccum Tube cross reference
PATH: \ELECV2\REF\TDB3
TDB3.ZIP A Vaccum Tube cross reference program. The user is allowed to update, add delete, edit and print the tube data they select of the whole data file.

VIPEC
PATH: \ELECV2\MISC\VIPEC
VIPEC is a program which allows the user to analyze high-frequency, linear, electrical networks. Analysis is performed in the frequency domain, and the results are presented to the user in the form of 2-port parameters (S,Y or Z). It can also be used to compute input or output impedances admittances and amplifier stability factors Linvill & Stern). VIPEC supports various lumped elements (capasitors resistors ect as well

as distributed elements like transmission lines and coupled transmission lines. This Shareware version is not limited in any way. It supports up to 50 nodes and 500 points per frequency sweep It also allows you to save your results to disk.

VOICE DIGITIZER CIRCUIT
PATH: \ELECV2\CIRCUITS\DIGITIZE
VOICE DIGITIZER CIRCUIT.

WATTS v2.1 Stereo Wattage Calculator
PATH: \ELECV2\CALCULAT\WATTS21
WATTS v2.1 Stereo Wattage Calculator. WATTS was written to aid the electronics technician in finding the output wattage of an audio amp or stereo quickly and efficiently. This program will display the output RMS wattage at a glance. You should find the programs interface simple and easy to use. Speeds service work and hobby construction.

Wavy
PATH: \ELECV2\TUTORS\WAVY
Wavy is an educational Windows program. It is designed to aid students to visualize the effect of the superimposition of SINE waves.

WinMetric
PATH: \ELECV2\REF\WINMET30
WinMetric - is a scientific reference tool for scientists, engineers and other technical professionals. It provides a unit converter, periodic table of the elements, a database of equations and physical constants/prop- erties, tables for thermodynamic and transport properties of steam and air, and more. Requires WIN31, 4MB RAM, VGA, and a mouse.

WXFAX v2.0
PATH: \ELECV2\MISC\WXFAX
Weather Facsimile Database Programme for radio-listening and weather-amateurs. WXFAX contains information of all WEATHER Facsimile Stations around the world which are operational on Longwave and Shortwave.

XFILL utility
PATH: \ELECV2\UTILS\XFILL10
"""The XFILL utility was written to fill in the white space areas on PCB artwork leaving a gap (approx .05""") around any existing black areas. This produces a crude ground plane on the PCB and also minimises the the amount of copper which needs to be etched off (it also looks better XFILL was written to work with a PCB cad program called EAGLE (CadSoft) and requires that the program be configured for a LaserJet printer and the o/p saved to a file. XFILL then produces a second file which can be printed."""

XFUNC 2.1
PATH: \ELECV2\CIRCUITS\XFUNC21
XFUNC 2.1 is a IBM PC program for DOS. It is an aid to Electronics Engineer who calculates transfer functions using symbolic algebra. The purpose of the program XFUNC is to compute the frequency domain transfer function of a circuit in symbolic format, given a circuit description netlist in linear model. In addition to this basic feature, the program

provides various extras, which will be discussed in the following sections. Electronic Engineers, Research Scientists, or Mathematician will find XFUNC most useful. Most circuit analysis software such as SPICE on the market today only give numerical frequency response solution to a given circuit. But it is sometimes necessary to find out the frequency response with respect to various circuit parameters, and to choose component values to optimize the performance. The most direct and proven way to achieve these is to generate the mathematical transfer function description of the circuit. XFUNC saves the Engineer`s time and tedious efforts to generate the symbolic mathematical transfer function. Another important feature of XFUNC as compared to most other circuit analysis software is its ability to use state-space averaging technique to analysis a switching circuit. Although SPICE based programs can calculate transient response, they do not provide frequency response solution to a switching circuit. It should be noted that because XFUNC is symbolic based, it is not designed to handle large circuits. For most analog circuit analysis, it is best to break up a large circuit into small blocks to analyze each block. In addition to circuit analysis, XFUNC can be used as a simple tools for symbolic algebra. Besides addition, multiplication, etc, it can be used as a symbolic matrix simplifier and solver. It also generates plots for the results.

YOLIN
PATH: \ELECV2\DESIGN\YOLIN36
design program for Windows 3.x, 95 & NT

Your Electrical Reference Source
PATH: \ELECV2\REF\SOURCE
Your Electrical Reference Source: Written with the DIYer in mind. The entire text is based on sections from the National Electric Code, 1993 edition, and my personal experience in the electrical construction field. Commercial and industrial applications are not covered as this is a guide for the homeowner. REQ: MS Windows 3.0 or 3.1. Also, a VGA, SVGA, or XVGA or other high resolution monitor is recommended, as is a mouse.

Z80 CP/M and Z-System emulator
PATH: \ELECV2\HARDWARE\MYZ80103
Simeon Cran`s Z80 CP/M and Z-System emulator