

11-1-2003

End Matter

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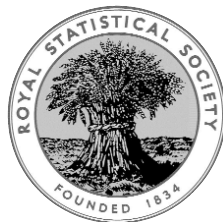
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Royal Statistical Society

Edited by Helen Joyce

Significance is a new quarterly magazine for anyone interested in statistics and the analysis and interpretation of data. It aims to communicate and demonstrate, in an entertaining and thought-provoking way, the practical use of statistics in all walks of life and to show how statistics benefit society.

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PASS 2002

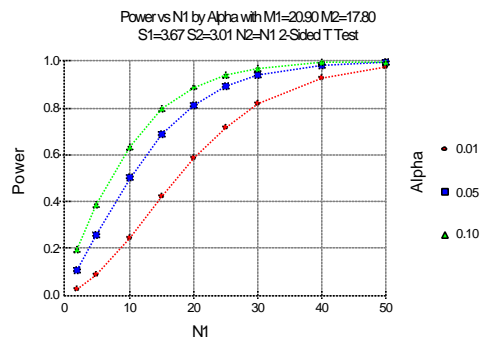
Power Analysis and Sample Size Software from NCSS

PASS performs power analysis and calculates sample sizes. Use it before you begin a study to calculate an appropriate sample size (it meets the requirements of government agencies that want technical justification of the sample size you have used). Use it after a study to determine if your sample size was large enough. *PASS* calculates the sample sizes necessary to perform all of the statistical tests listed below.

A power analysis usually involves several "what if" questions. *PASS* lets you solve for power, sample size, effect size, and alpha level. It automatically creates appropriate tables and charts of the results.

PASS is accurate. It has been extensively verified using books and reference articles. Proof of the accuracy of each procedure is included in the extensive documentation.

PASS is a standalone system. Although it is integrated with *NCSS*, you do not have to own *NCSS* to run it. You can use it with any statistical software you want.



PASS comes with two manuals that contain tutorials, examples, annotated output, references, formulas, verification, and complete instructions on each procedure. And, if you cannot find an answer in the manual, our free technical support staff (which includes a PhD statistician) is available.

System Requirements

PASS runs on Windows 95/98/ME/NT/2000/XP with at least 32 megs of RAM and 30 megs of hard disk space.

PASS sells for as little as **\$449.95**.

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No other program calculates sample sizes and power for as many different statistical procedures as does *PASS*.

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Choose *PASS*. It's more comprehensive, easier-to-use, accurate, and less expensive than any other sample size program on the market.

Trial Copy Available

You can try out *PASS* by downloading it from our website. This trial copy is good for 30 days. We are sure you will agree that it is the easiest and most comprehensive power analysis and sample size program available.

Analysis of Variance

Factorial AOV
Fixed Effects AOV
Geisser-Greenhouse
MANOVA*
Multiple Comparisons*
One-Way AOV
Planned Comparisons
Randomized Block AOV
New Repeated Measures AOV*

Regression / Correlation

Correlations (one or two)
Cox Regression*
Logistic Regression
Multiple Regression
Poisson Regression*
Intraclass Correlation
Linear Regression

Proportions

Chi-Square Test
Confidence Interval
Equivalence of McNemar*
Equivalence of Proportions
Fisher's Exact Test
Group Sequential Proportions
Matched Case-Control
McNemar Test
Odds Ratio Estimator
One-Stage Designs*
Proportions - 1 or 2
Two Stage Designs (Simon's)
Three-Stage Designs*

Miscellaneous Tests

Exponential Means - 1 or 2*
ROC Curves - 1 or 2*
Variances - 1 or 2

T Tests

Cluster Randomization
Confidence Intervals
Equivalence T Tests
Hotelling's T-Squared*
Group Sequential T Tests
Mann-Whitney Test
One-Sample T-Tests
Paired T-Tests
Standard Deviation Estimator
Two-Sample T-Tests
Wilcoxon Test

Survival Analysis

Cox Regression*
Logrank Survival - Simple
Logrank Survival - Advanced*
Group Sequential - Survival
Post-Marketing Surveillance
ROC Curves - 1 or 2*

Group Sequential Tests

Alpha Spending Functions
Lan-DeMets Approach
Means
Proportions
Survival Curves

Equivalence

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Proportions
Correlated Proportions*

Miscellaneous Features

Automatic Graphics
Finite Population Corrections
Solves for any parameter
Text Summary
Unequal N's

*New in *PASS* 2002

PASS 2002 adds power analysis and sample size to your statistical toolbox

WHAT'S NEW IN PASS 2002?

Thirteen new procedures have been added to *PASS* as well as a new home-base window and a new Guide Me facility.

MANY NEW PROCEDURES

The new procedures include a new multi-factor repeated measures program that includes multivariate tests, Cox proportional hazards regression, Poisson regression, MANOVA, equivalence testing when proportions are correlated, multiple comparisons, ROC curves, and Hotelling's T-squared.

TEXT STATEMENTS

The text output translates the numeric output into easy-to-understand sentences. These statements may be transferred directly into your grant proposals and reports.

GRAPHICS

The creation of charts and graphs is easy in *PASS*. These charts are easily transferred into other programs such as MS PowerPoint and MS Word.

NEW USER'S GUIDE II

A new, 250-page manual describes each new procedure in detail. Each chapter contains explanations, formulas, examples, and accuracy verification.

The complete manual is stored in PDF format on the CD so that you can read and printout your own copy.

GUIDE ME

The new *Guide Me* facility makes it easy for first time users to enter parameter values. The program literally steps you through those options that are necessary for the sample size calculation.

NEW HOME BASE

A new home base window has been added just for *PASS* users. This window helps you select the appropriate program module.

COX REGRESSION

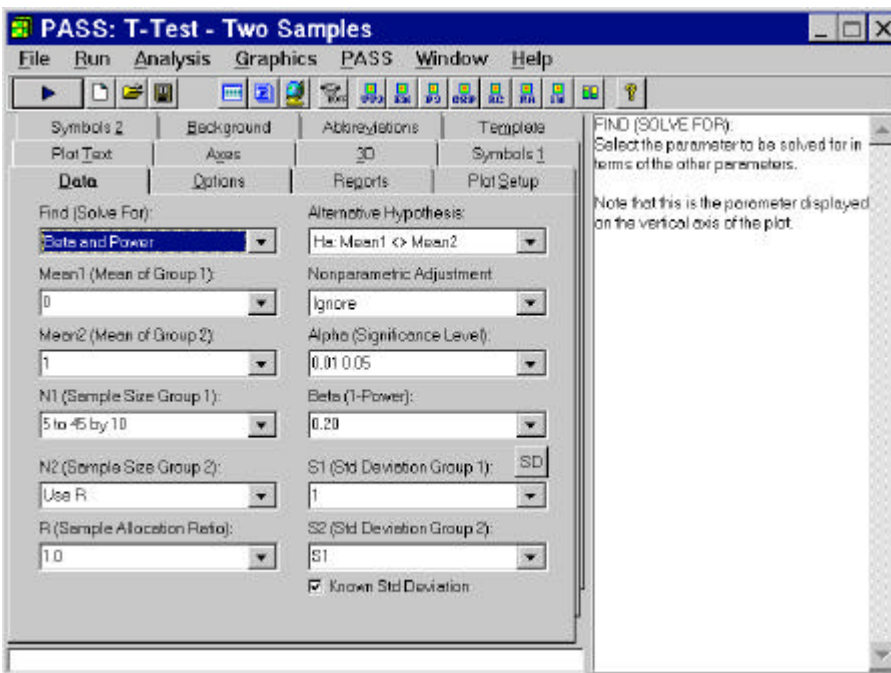
A new Cox regression procedure has been added to perform power analysis and sample size calculation for this important statistical technique.

REPEATED MEASURES

A new repeated-measures analysis module has been added that lets you analyze designs with up to three grouping factors and up to three repeated factors. The analysis includes both the univariate F test and three common multivariate tests including Wilks Lambda.

RECENT REVIEW

In a recent review, 17 of 19 reviewers selected *PASS* as the program they would recommend to their colleagues.



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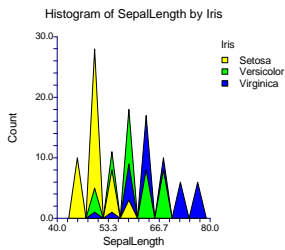
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Announcing NCSS 2004 Seventeen New Procedures

NCSS 2004 is a new edition of our popular statistical **NCSS** package that adds seventeen new procedures.

New Procedures

Two Independent Proportions
Two Correlated Proportions
One-Sample Binary Diagnostic Tests
Two-Sample Binary Diagnostic Tests
Paired-Sample Binary Diagnostic Tests
Cluster Sample Binary Diagnostic Tests
Meta-Analysis of Proportions
Meta-Analysis of Correlated Proportions
Meta-Analysis of Means
Meta-Analysis of Hazard Ratios
Curve Fitting
Tolerance Intervals
Comparative Histograms
ROC Curves
Elapsed Time Calculator
T-Test from Means and SD's
Hybrid Appraisal (Feedback) Model

Documentation

The printed, 330-page manual, called *NCSS User's Guide V*, is available for \$29.95. An electronic (pdf) version of the manual is included on the distribution CD and in the Help system.

Two Proportions

Several new exact and asymptotic techniques were added for hypothesis testing (null, noninferiority, equivalence) and calculating confidence intervals for the difference, ratio, and odds ratio. Designs may be independent or paired. Methods include: Farrington & Manning, Gart & Nam, Conditional & Unconditional Exact, Wilson's Score, Miettinen & Nurminen, and Chen.

Meta-Analysis

Procedures for combining studies measuring paired proportions, means, independent proportions, and hazard ratios are available. Plots include the forest plot, radial plot, and L'Abbe plot. Both fixed and random effects models are available for combining the results.

Curve Fitting

This procedure combines several of our curve fitting programs into one module. It adds many new models such as Michaelis-Menten. It analyzes curves from several groups. It compares fitted models across groups using computer-intensive randomization tests. It computes bootstrap confidence intervals.

Tolerance Intervals

This procedure calculates one and two sided tolerance intervals using both distribution-free (nonparametric) methods and normal distribution (parametric) methods. Tolerance intervals are bounds between which a given percentage of a population falls.

Comparative Histogram

This procedure displays a comparative histogram created by interspersing or overlaying the individual histograms of two or more groups or variables. This allows the direct comparison of the distributions of several groups.

Random Number Generator

Matsumoto's Mersenne Twister random number generator (cycle length > 10**6000) has been implemented.

Binary Diagnostic Tests

Four new procedures provide the specialized analysis necessary for diagnostic testing with binary outcome data. These provide appropriate specificity and sensitivity output. Four experimental designs can be analyzed including independent or paired groups, comparison with a gold standard, and cluster randomized.

ROC Curves

This procedure generates both binormal and empirical (nonparametric) ROC curves. It computes comparative measures such as the whole, and partial, area under the ROC curve. It provides statistical tests comparing the AUC's and partial AUC's for paired and independent sample designs.

Hybrid (Feedback) Model

This new edition of our hybrid appraisal model fitting program includes several new optimization methods for calibrating parameters including a new genetic algorithm. Model specification is easier. Binary variables are automatically generated from class variables.

Statistical Innovations Products

Through a *special arrangement* with Statistical Innovations (S.I.), NCSS customers will receive \$100 discounts on:

Latent GOLD[®] - latent class modeling

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Approximate shipping--depends on which manuals are ordered (U.S: \$10 ground, \$18 2-day, or \$33 overnight) (Canada \$24) (All other countries \$10) (Add \$5 U.S. or \$40 International for any S.I. product)..... \$ _____

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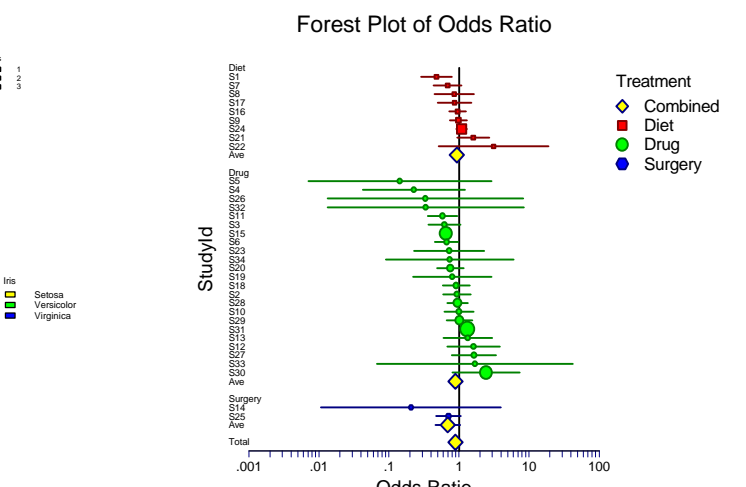
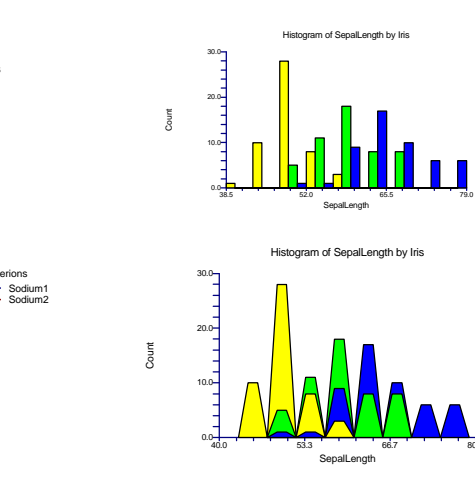
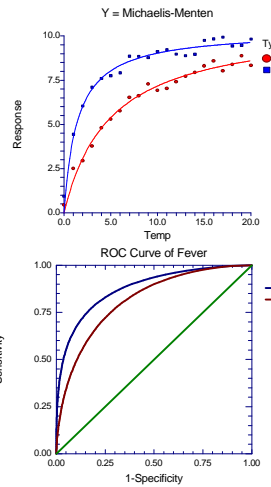
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Statistical and Graphics Procedures Available in NCSS 2004

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| <p>Analysis of Variance / T-Tests</p> <ul style="list-style-type: none"> Analysis of Covariance Analysis of Variance Barlett Variance Test Crossover Design Analysis Factorial Design Analysis Friedman Test Geiser-Greenhouse Correction General Linear Models Mann-Whitney Test MANOVA Multiple Comparison Tests One-Way ANOVA Paired T-Tests Power Calculations Repeated Measures ANOVA T-Tests – One or Two Groups T-Tests – From Means & SD's Wilcoxon Test <p>Time Series Analysis</p> <ul style="list-style-type: none"> ARIMA / Box - Jenkins Decomposition Exponential Smoothing Harmonic Analysis Holt - Winters Seasonal Analysis Spectral Analysis Trend Analysis <p>*New Edition in 2004</p> | <p>Plots / Graphs</p> <ul style="list-style-type: none"> Bar Charts Box Plots Contour Plot Dot Plots Error Bar Charts Histograms Histograms: Combined* Percentile Plots Pie Charts Probability Plots ROC Curves* Scatter Plots Scatter Plot Matrix Surface Plots Violin Plots <p>Experimental Designs</p> <ul style="list-style-type: none"> Balanced Inc. Block Box-Behnken Central Composite D-Optimal Designs Fractional Factorial Latin Squares Plackett-Burman Response Surface Screening Taguchi | <p>Regression / Correlation</p> <ul style="list-style-type: none"> All-Possible Search Canonical Correlation Correlation Matrices Cox Regression Kendall's Tau Correlation Linear Regression Logistic Regression Multiple Regression Nonlinear Regression PC Regression Poisson Regression Response-Surface Ridge Regression Robust Regression Stepwise Regression Spearman Correlation Variable Selection <p>Quality Control</p> <ul style="list-style-type: none"> Xbar-R Chart C, P, NP, U Charts Capability Analysis Cusum, EWMA Chart Individuals Chart Moving Average Chart Pareto Chart R & R Studies | <p>Survival / Reliability</p> <ul style="list-style-type: none"> Accelerated Life Tests Cox Regression Cumulative Incidence Exponential Fitting Extreme-Value Fitting Hazard Rates Kaplan-Meier Curves Life-Table Analysis Lognormal Fitting Log-Rank Tests Probit Analysis Proportional-Hazards Reliability Analysis Survival Distributions Time Calculator* Weibull Analysis <p>Multivariate Analysis</p> <ul style="list-style-type: none"> Cluster Analysis Correspondence Analysis Discriminant Analysis Factor Analysis Hottelling's T-Squared Item Analysis Item Response Analysis Loglinear Models MANOVA Multi-Way Tables Multidimensional Scaling Principal Components | <p>Curve Fitting</p> <ul style="list-style-type: none"> Bootstrap C.I.'s* Built-In Models Group Fitting and Testing* Model Searching Nonlinear Regression Randomization Tests* Ratio of Polynomials User-Specified Models <p>Miscellaneous</p> <ul style="list-style-type: none"> Area Under Curve Bootstrapping Chi-Square Test Confidence Limits Cross Tabulation Data Screening Fisher's Exact Test Frequency Distributions Mantel-Haenszel Test Nonparametric Tests Normality Tests Probability Calculator Proportion Tests Randomization Tests Tables of Means, Etc. Trimmed Means Univariate Statistics | <p>Meta-Analysis*</p> <ul style="list-style-type: none"> Independent Proportions* Correlated Proportions* Hazard Ratios* Means* <p>Binary Diagnostic Tests*</p> <ul style="list-style-type: none"> One Sample* Two Samples* Paired Samples* Clustered Samples* <p>Proportions</p> <ul style="list-style-type: none"> Tolerance Intervals* Two Independent* Two Correlated* Exact Tests* Exact Confidence Intervals* Farrington-Manning* Fisher Exact Test Gart-Nam* Method McNemar Test Miettinen-Nurminen* Wilson's Score* Method Equivalence Tests* Noninferiority Tests* <p>Mass Appraisal</p> <ul style="list-style-type: none"> Comparables Reports Hybrid (Feedback) Model* Nonlinear Regression Sales Ratios |
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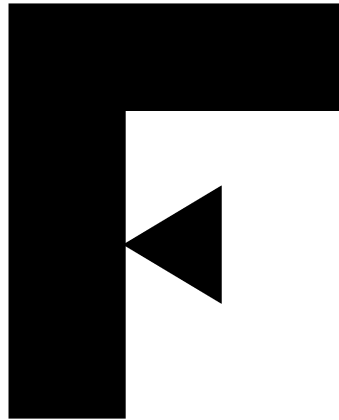
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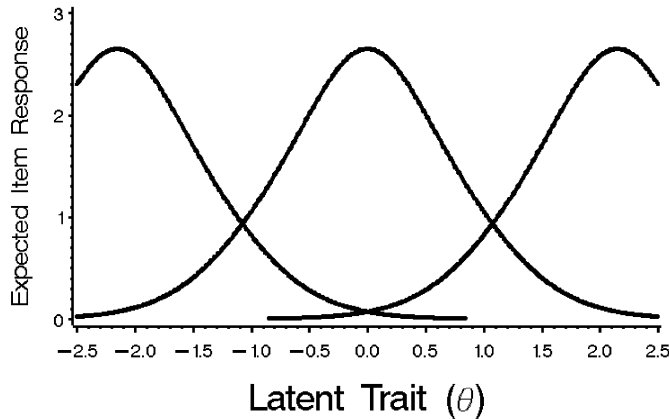
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Are you involved in Data Modeling or Data Mining?

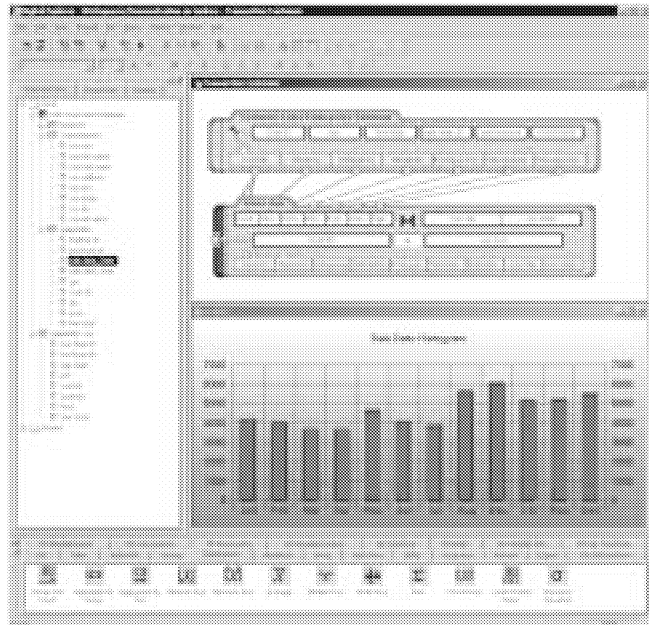
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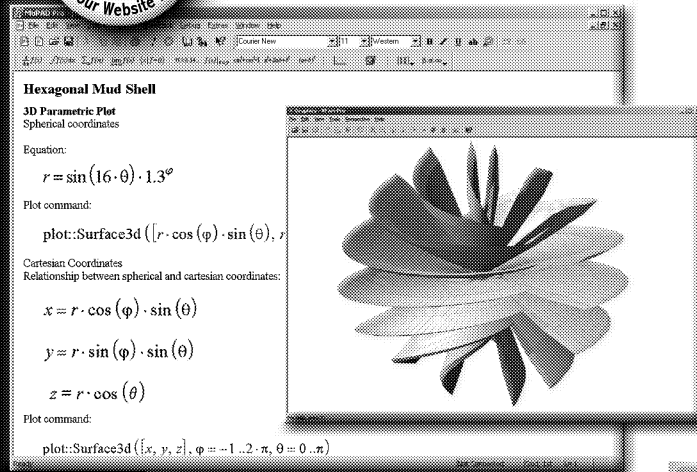
- Frequency Distributions
- Categorical Variable Profile
- Continuous Variable Profile
- Histograms
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- Find and Split Out Outliers
- Binning
- Correlation Matrix
- Cross-Tabs
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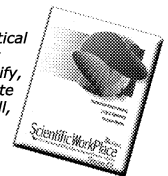
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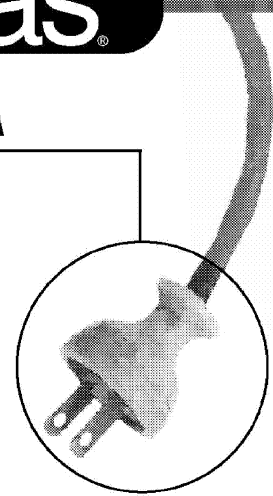
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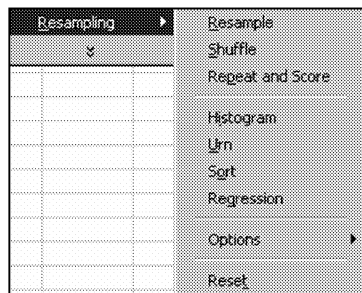
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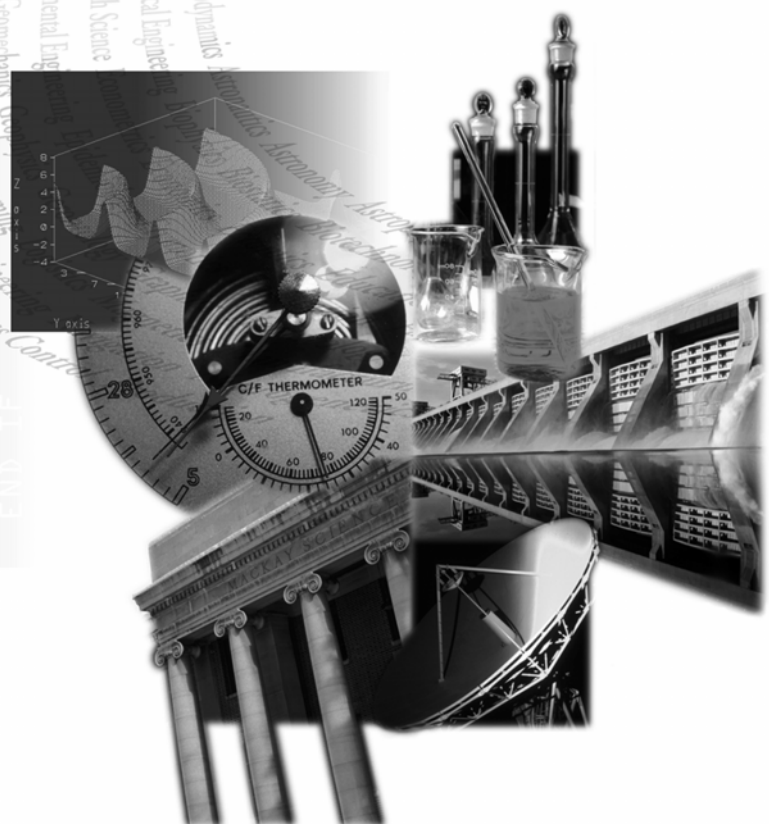
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IF ( .NOT. PRESENT
  NULLIFY ( p%coef
ELSE
  m = UBOUND(v,i)
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END IF
END IF
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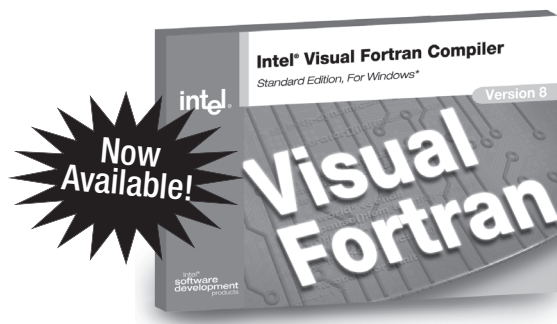


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