



BUSINESS
GUIDES

Dictionary of Computer and Internet Terms

Eighth Edition



-
- More than 2500 key terms defined and explained, many with helpful illustrations and tables
 - A major revision covering the latest developments and systems, including Windows 2000, XP, .NET, MacOS, Linux, and much more
 - Programming examples in Java, C, Pascal, HTML, JavaScript, and other languages
 - Includes new media, digital photography and audio, Internet culture and humor
-

Douglas Downing, Ph.D., Michael Covington, Ph.D., and
Melody Mauldin Covington

Dictionary of Computer and Internet Terms

Eighth Edition

Douglas A. Downing, Ph.D.
*School of Business and Economics
Seattle Pacific University*

Michael A. Covington, Ph.D.
*Artificial Intelligence Center
The University of Georgia*

Melody Mauldin Covington
*Covington Innovations
Athens, Georgia*

*With the assistance of
Catherine Anne Covington*



ABOUT THE AUTHORS

Douglas Downing teaches economics and quantitative methods and is undergraduate program director for the School of Business and Economics at Seattle Pacific University. He is the author of several books in both Barron's Easy Way and Business Review series. He is also the author of *Java Programming the Easy Way* and *Dictionary of Mathematics Terms*, published by Barron's Educational Series, Inc. He holds the Ph.D. degree in economics from Yale University.

Michael Covington is Associate Director of the Artificial Intelligence Center at the University of Georgia. He is the author of several books and over 250 magazine articles. He holds the Ph.D. degree in linguistics from Yale University.

Melody Mauldin Covington is a graphic designer living in Athens, Georgia. She is the author of *Dictionary of Desktop Publishing* (published by Barron's).

Catherine Anne Covington is a student and web designer in Athens, Georgia.

© Copyright 2003, 2000, 1998, 1996, 1995, 1992, 1989, and 1986
by Barron's Educational Series, Inc.

All rights reserved.

No part of this book may be reproduced in any form, by photostat, microfilm, xerography, or any other means, or incorporated into any information retrieval system, electronic or mechanical, without the written permission of the copyright owner.

All inquiries should be addressed to:
Barron's Educational Series, Inc.
250 Wireless Boulevard
Hauppauge, New York 11788
<http://www.barronseduc.com>

Library of Congress Catalog Card No. 2002033231

International Standard Book No. 0-7641-2166-9

Library of Congress Cataloging-in-Publication Data

Downing, Douglas.

Dictionary of computer and Internet terms / Douglas A. Downing,
Michael A. Covington, Melody Mauldin Covington.—8th ed.
p. cm.

First-4th eds. published under title: Dictionary of computer terms.
ISBN 0-7641-2166-9

1. Computers—Dictionaries. 2. Internet Dictionaries. I. Covington,
Michael A., 1957– II. Covington, Melody Mauldin. III. Downing, Douglas.
Dictionary of computer terms. IV. Title.

QA76.15 .D667 2002
004'.03—dc21

2002033231

PRINTED IN CANADA

98765

3. In FORTRAN, the **FORMAT** statement specifies the form in which data items, especially numbers, are to be read or written. *See* FORTRAN; PRINTF.
4. In a spreadsheet, the format of a cell determines the appearance of the output (how many digits are displayed, whether there is a dollar sign, etc.).

formatting the special codes in a document that indicate italics, underlining, boldface, and the like. Formatting information is lost when a file is saved as ASCII text.

form factor the size and shape of a piece of equipment or material. Diskette drive form factors include *half-height* and *full-height*. Motherboard form factors include AT (like the original PC AT), "Baby AT" (a smaller board that mounts in the same case), and ATX (a newer type of motherboard introduced by Intel and others in 1996).

form feed the character code (ASCII decimal 12, Ctrl-L) that causes a printer to eject the current sheet of paper and start a new one. *Compare* LF (line feed).

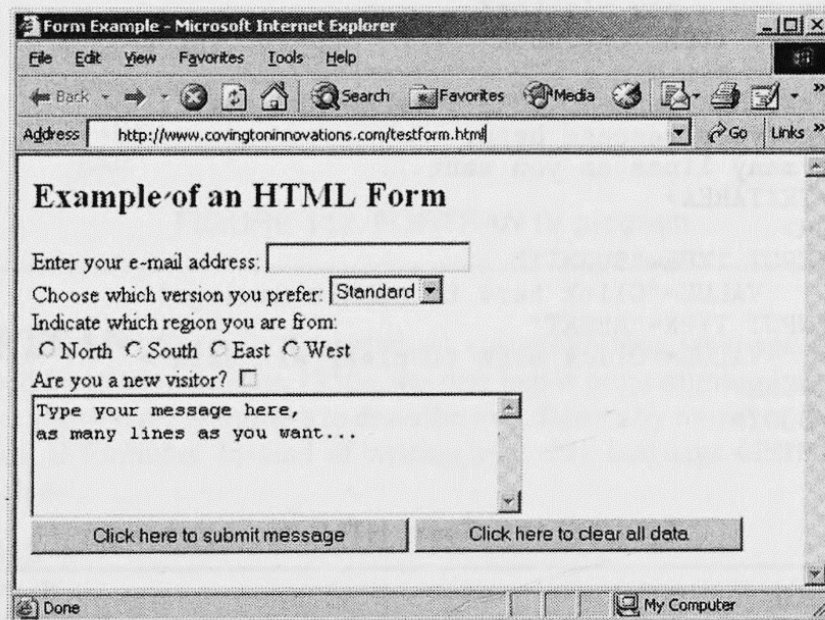
The image shows a screenshot of a Microsoft Internet Explorer browser window. The title bar reads "Form Example - Microsoft Internet Explorer". The address bar shows the URL "http://www.covingtoninnovations.com/testform.html". The main content area displays a form titled "Example of an HTML Form". The form contains the following elements: a text input field for "Enter your e-mail address:", a dropdown menu for "Choose which version you prefer:" with "Standard" selected, radio buttons for "Indicate which region you are from:" with options "North", "South", "East", and "West", a checkbox for "Are you a new visitor?", and a multi-line text area for "Type your message here, as many lines as you want...". At the bottom of the form are two buttons: "Click here to submit message" and "Click here to clear all data". The browser's status bar at the bottom shows "Done" and "My Computer".

FIGURE 110. Form, HTML (as displayed on screen)

form, HTML a web page that allows users to enter data, which can then be sent back to the server. Here is an example of the HTML code for a form where users can enter an e-mail address into a text field, use a list box to select either the deluxe, special, or standard version; use radio buttons to indicate which region they are from; use a check box to indicate whether they are a first-time visitor or not; and enter a brief message into a text area.

```
<HTML>
<HEAD>
<TITLE>Form Example</TITLE>
</HEAD>
<BODY>
<H2>Example of an HTML Form</H2>
<FORM METHOD=POST ACTION="MAILTO:yourcompany@xyz.com">
Enter your e-mail address:
<INPUT TYPE="TEXT" NAME="EMAIL" WIDTH=25>
<BR>
Choose which version you prefer:
<SELECT NAME="VERSION">
<OPTION SELECTED> Standard
<OPTION> Special
<OPTION> Deluxe
</SELECT>
<BR>
Indicate which region you are from:<BR>
<INPUT NAME="REGION" TYPE="RADIO" VALUE="North">North
<INPUT NAME="REGION" TYPE="RADIO" VALUE="South">South
<INPUT NAME="REGION" TYPE="RADIO" VALUE="East">East
<INPUT NAME="REGION" TYPE="RADIO" VALUE="West">West
<BR>
Are you a new visitor?
<INPUT TYPE="CHECKBOX" NAME="NEWVIS" VALUE="yes">
<BR>
<TEXTAREA COLS=40 ROWS=5 NAME="MESSAGETEXT">
Type your message here,
as many lines as you want...
</TEXTAREA>
<BR>
<INPUT TYPE="SUBMIT"
      VALUE="Click here to submit message">
<INPUT TYPE="RESET"
      VALUE="Click here to clear all data">
</FORM>
</BODY>
</HTML>
```

FIGURE 111. Form, HTML (source code)

The ACTION command of this form will simply e-mail the result of the form to the specified address. It is also possible to specify a CGI script as the ACTION. This script needs to be specially written to process the results of the form once they are sent back to the server. The text that is not enclosed by < > are labels; see Figure 110, which shows how this form appears on the screen. Each element of the form needs to have a name by which it is identified to the server; in this example, the names are EMAIL, VERSION, NEWVISITOR, REGION, and MESSAGETEXT. Finally, the form has a submit button for the user to click when ready to send the information, and a reset button to clear

information if desired.

For another example of an HTML form, see JAVASCRIPT.

FORTH a programming language invented by Charles Moore around 1970. FORTH is noted for requiring few machine resources and giving very rapid execution.

In FORTH, programmers define their own statements in terms of simpler statements. FORTH is a *threaded interpretive language*, meaning that a program is represented in the computer as a list of addresses of subroutines, each of which is composed of addresses of other subroutines, and so on until the primitive operations of the language are reached. Because it has little to do except read addresses and jump to them, a FORTH interpreter can run very fast; in fact, there is little difference between an interpreter and a compiler for FORTH.

```

C FORTRAN IV program to
C find sum of integers 1-100
      INTEGER I, SUM
      SUM=0
      DO 1 I=1, 100
1     SUM = SUM + I
      WRITE (6,2) SUM
2     FORMAT(1X,I5)
      STOP
      END

```

FIGURE 112. FORTRAN IV program

FORTRAN (**Formula Translation**) a programming language developed by IBM in the late 1950s, the first major programming language that allowed programmers to describe calculations by means of mathematical formulas. Instead of writing assembly language instructions such as

```

LOAD A
ADD B
MULTIPLY C
STORE D

```

the FORTRAN programmer writes

$$D = (A+B)*C$$

where * is the symbol for multiplication. Almost all subsequent programming languages have adopted this useful feature.

FORTRAN has existed in several versions, of which the most important are FORTRAN IV (USASI Standard FORTRAN, 1966) and