# **Changes and Enhancements**

## **Changes and Enhancements for All Operating Environments**

This chapter describes the features of the SAS Macro Language that have been implemented or enhanced since Release 6.12. If you use SAS software in an OS/390, CMS, or OpenVMS VAX environment, then also see "Additional Changes and Enhancements for OS/390, CMS, and OpenVMS VAX" on page viii.

*Note:* Information about changes and enhancements that were implemented in Version 8 is preceded by **V8**. All other changes and enhancements described in this section were implemented in Version 7. In other words, if your site upgraded directly from Version 6 to Version 8, then all of the changes and enhancements described here are new to you. If you upgraded from Version 7 to Version 8, then only the items preceded by **V8** are new to you.  $\triangle$ 

## **Automatic Macro Variables**

The following automatic macro variables are available in all operating environments.

#### **SYSCC**

contains the current condition code that SAS returns to your operating environment (the operating environment condition code).

#### SYSCHARWIDTH

contains the character width value.

#### SYSDATE9

contains a SAS date value in DATE9. format, which displays a 2-digit date, the first three letters of the month name, and a 4-digit year.

### **SYSDMG**

contains a return code that reflects an action taken on a damaged data set.

#### SYSPROCESSID

contains the process ID of the current SAS process.

#### **SYSPROCESSNAME**

contains the process name of the current SAS process.

#### **SYSSTARTID**

contains the identification number that was generated by the last STARTSAS statement.

#### SYSSTARTNAME

contains the process name that was generated by the last STARTSAS statement.

#### **SYSUSERID**

contains the user ID or login of the current SAS process.

For more information, see SAS Macro Language: Reference.

## **Macro Statements**

%PUT

**V8** In Version 8, the %PUT statement has been enhanced. It displays text in different colors to generate messages that look like SAS-generated ERROR, NOTE, and WARNING messages.

#### **V8** %SYSLPUT

In Version 8, this new macro statement creates a new macro variable or modifies the value of an existing macro variable on a remote host or server.

## Additional Changes and Enhancements for OS/390, CMS, and OpenVMS VΔX

For OS/390 (MVS), CMS, and OpenVMS VAX, the last changes and enhancements to the SAS Macro Language were made in the 6.09 Enhanced Release. Some changes and enhancements that were implemented for other operating environments in the 6.10, 6.11, and 6.12 releases were not implemented for OS/390, CMS, and OpenVMS VAX. This section describes those additional features.

## **Macro Statement**

The following new macro statement invokes a SAS CALL routine: **%SYSCALL** 

## **Macro Functions**

The following macro functions are new:

#### %SYSEVALF

evaluates arithmetic and logical expressions using floating-point arithmetic.

## %SYSFUNC and %QSYSFUNC

execute SAS functions or user-written functions.

The correct bibliographic citation for this manual is as follows: SAS Institute Inc., SAS Macro Language: Reference, Version 8, Cary, NC: SAS Institute Inc., 1999. 310 pages.

## SAS Macro Language: Reference, Version 8

Copyright  $^{\scriptsize \odot}$  1999 by SAS Institute Inc., Cary, NC, USA.

1-58025-522-1

All rights reserved. Printed in the United States of America. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, by any form or by any means, electronic, mechanical, photocopying, or otherwise, without the prior written permission of the publisher, SAS Institute, Inc.

**U.S. Government Restricted Rights Notice.** Use, duplication, or disclosure of the software by the government is subject to restrictions as set forth in FAR 52.227–19 Commercial Computer Software-Restricted Rights (June 1987).

SAS Institute Inc., SAS Campus Drive, Cary, North Carolina 27513.

1st printing, October 1999

 $SAS^{\circledast}$  and all other SAS Institute Inc. product or service names are registered trademarks or trademarks of SAS Institute Inc. in the USA and other countries.  $^{\circledast}$  indicates USA registration.

 $\text{OS/2}^{\tiny{\textcircled{\$}}}$  is a registered trademark or trademark of International Business Machines Corporation.

Other brand and product names are registered trademarks or trademarks of their respective companies.

The Institute is a private company devoted to the support and further development of its software and related services.