

Exhibit 32

CERTIFICATION OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of ZiLOG, Inc. on Form 10-Q for the quarterly period ended December 26, 2009 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), Darin Billerbeck, as Chief Executive Officer of ZiLOG, certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to his knowledge that the Report fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934 and that information contained in the Report fairly presents in all material respects the financial condition and results of operations of ZiLOG, Inc.

Date: February 5, 2010

/s/ Darin G. Billerbeck  
Darin G. Billerbeck  
President, Chief Executive Officer and Director

In connection with the Quarterly Report of ZiLOG, Inc. on Form 10-Q for the quarterly period ended December 26, 2009 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), Perry J. Grace, as Chief Financial Officer of ZiLOG, certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to his knowledge that the Report fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934 and that information contained in the Report fairly presents in all material respects the financial condition and results of operations of ZiLOG, Inc.

Date: February 5, 2010

/s/ Perry J. Grace  
Perry J. Grace  
Executive Vice President and Chief Financial Officer