



# Installation Instructions and Release Notes

WebObjects 3.1 Patch 1

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 Apple Computer, Inc.

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# Introduction

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This document describes Apple's Patch 1 for WebObjects 3.1. This patch set includes fixes that address the Year 2000 compliance issue (century rollover). Apple recommends that all users of WebObjects 3.1 install this patch set. These Release Notes also document the issues found in Enterprise Objects Framework (EOF).

## What This Patch Covers

This patch consists of patch binaries for Solaris, Windows NT, and HP-UX platforms, plus descriptions of additional steps required for full compliance on developer installations for all platforms. This patch affects the development and deployment versions of WebObjects 3.1 on Windows NT, Solaris, and HP-UX. No WebObjects patch is required for users of WebObjects 3.1 on OPENSTEP 4.2 for Mach; however, you must have OPENSTEP 4.2 for Mach Patch 4 or later installed on your OPENSTEP system. WebObjects users on OPENSTEP for Mach should also read sections 3 and 4 of this document; these sections describe some manual steps you should take to avoid some Year 2000-related problems.

Apple has tested WebObjects 3.1 with Patch 1 installed and has determined based on the results that the software meets Apple's standards of Year 2000 compliance\*. This includes the use of the database adaptors included with EOF, when used through EOF. It has been determined that the direct use of client library API, custom SQL statements, or other use of the database adaptors or software other than through the EOF APIs may produce results that do not meet Apple's standard of Year 2000 compliance.

*\* For Apple, Year 2000 compliance means that the software does not produce errors processing date data in connection with the year change from December 31, 1999 to January 1, 2000, when using accurate date data in accordance with its documentation, provided all other products used with it properly exchange date data with the Enterprise Software product.*

## What Is Not Covered

### Third Party Software Applications

WebObjects 3.1 is designed to support certain third-party products, including but not limited to databases, web servers and HTML editors. Apple has not tested the Year 2000 status of these products and will not guarantee or provide support for them.

### Operating System Software

WebObjects 3.1 can be used under OPENSTEP for Mach, Windows NT, Solaris, and HP-UX. Because WebObjects depends on the underlying operating system for some time and date information, Apple cannot guarantee the operation of WebObjects after December 31, 1999 unless the underlying operating system is free of Year 2000 problems. Please contact your operating system vendor regarding the Year 2000 status of your system. WebObjects installations running on OPENSTEP 4.2 for Mach systems must have OPENSTEP 4.2 for Mach Patch 4 or a later patch version installed on their system for Year 2000 compliance.

## About this Document

This document is divided into the following sections:

- Section 1: Installation Notes and Instructions
- Section 2: Issues - WebObjects 3.1 Patch 1
- Section 3: Issues - WebObjects Examples (all platforms)
- Section 4: Issues - Enterprise Objects Framework

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## Section 1: Installation Notes and Instructions

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If you use Enterprise Objects Framework on your system, it should be installed before you install this patch. This patch includes fixes in system components that were originally installed by EOF.

Please read the appropriate section below for details on downloading and installing the patch.

### Installation instructions - OPENSTEP for Mach

WebObjects users on OPENSTEP 4.2 for Mach must install OPENSTEP 4.2 for Mach Patch 4 on their system to avoid Year 2000 problems. If you received a WebObjects Patch 4 CD, this patch and its documentation should be included on the CD. Otherwise, you can download the patch from Apple's web site. For details visit:

<http://til.info.apple.com/techinfo.nsf/artnum/n70033>

Mach users do not need to download or install any additional binary patches for WebObjects. However, WebObjects developers on Mach should read sections 4 and 5 of this document carefully. There are manual steps you must take to avoid some century issues.

### Installation instructions - Windows NT 4.0

The patch installer for WebObjects 3.1 Patch 1 for Windows NT is named WO31Patch1Installer.exe (CD version) or WO\_31\_Patch1.exe (compressed web version). If you download the patch from the internet, you must then run the executable to uncompress the patch installer, WO31Patch1Installer.exe, and release notes. Be sure to read the release notes carefully before installing this patch.

To install this patch on a Windows NT 4 system, perform the following steps:

1. Log in as a user with Administrator privileges.

2. Make sure that there are no WebObjects, OPENSTEP or EOF applications running.
3. Double-click on the patch installer, WO31Patch1Installer.exe, to start the install process.
4. A screen will appear with some information about this patch. After you have read it, click “Next” to continue.
5. The license agreement for this patch will appear. To agree to the license and continue the installation, click “Yes”.
6. The patch will now be installed on your system and you will be asked if you want to reboot. Select “Yes, I want to restart my computer now” to reboot your Windows NT system. The WinZip self-extractor will automatically quit and remove the temporary installation in about 20 seconds.
7. For WebObjects developer installations, review sections 3 and 4 of this document. There are manual steps you must take to avoid some century issues.

## Installation instructions - OPENSTEP Enterprise for Solaris and HP-UX

The patch installer for WebObjects 3.1 Patch 1for Solaris is named WO31SolarisPatch1.TAR.Z. For HP-UX, the patch is named WO31HPUXPatch1.TAR.Z. Be sure to read the release notes carefully before installing this patch.

To install this patch on a Solaris or HP-UX system, perform the following steps:

1. Log in as root. If you’re not sure how to log in as root, see your system administrator.
2. Make sure that there are no WebObjects, OPENSTEP or EOF applications running.
3. Change to the directory containing the patch and the patch installer, “patcher.sh”.

4. At a shell prompt, type:

```
patcher.sh -install WO31SolarisPatch1.TAR.Z
```

or

```
patcher.sh -install WO31HPUXPatch1.TAR.Z
```

For more information on using the “patcher.sh” program, type the following at the command prompt:

```
patcher.sh -help
```

5. Reboot your Unix system





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## Section 2: Issues - WebObjects 3.1 Patch 1

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This section details all issues addressed in WebObjects 3.1 Patch 1 and in previous patches for WebObjects. Please see sections 3 and 4 as well for details on some manual steps you may need to take to avoid some Year 2000 problems.

### Issues addressed in WebObjects 3.1 Patch 1

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#### **“tar” and “gnutar” commands didn’t accept dates later than 1999**

Apple reference #2342167, 2342424, 2342425

**Problem:** The “gnutar” and “tar” commands have an option to only write files newer than a given date. The versions of “gnutar” and “tar” provided with WebObjects 3.1 didn’t accept dates past the end of 1999, nor did they accept a four-digit year format for the date argument.

**Resolution:** The “gnutar” and “tar” commands have been changed to correctly handle two- and four-digit year arguments to the -N option, and to process all dates in the valid UNIX range (1970-2068).

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#### **NSDateFormatter interpreted year “00” as “Current Year”**

Apple reference #2278598

**Problem:** NSDateFormatter interpreted year “0” or “00” as “current year”, rather than “2000”, which was inconsistent with the interpretation of two-digit years in UNIX and not Year 2000 compliant.

**Resolution:** NSDateFormatter now interprets “0” or “00” year values as “2000”.

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#### **Date formatter handled two digit year inappropriately**

Apple reference #2290369

**Problem:** NSDateFormatter treated any two-digit year as a 20th century year.

**Resolution:** NSDateFormatter now treats two-digit year values less than 30 as 21st century years.

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**NSAPI adaptor did not support current Netscape versions**

Apple reference # 2391481

**Problem:** The NSAPI adaptor which shipped with WebObjects 3.1 did not support recent versions of Netscape web servers.

**Resolution:** This patch includes an updated version of the NSAPI adaptor which supports NSAPI 3, used in more recent Netscape servers.

## Issues addressed in other WebObjects patches

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**Missing header files in WebObjects 3.1**

Apple reference # 2391474

**Problem:** Certain header files, required to subclass the WOAdaptor and WODefaultAdaptor classes, were missing from WebObjects 3.1.

**Resolution:** These header files are installed by the current patch.

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## Section 3: Issues - WebObjects Examples

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In addition to the problems addressed in WebObjects 3.1 Patch 1, some examples shipped with WebObjects 3.1 Developer use time and date objects in ways which are not consistent with Apple's recommended coding practice. This section contains instructions on how to change the WebObjects examples to avoid this problem.

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**CyberWind\_J example uses java.util.Date API in non-Y2K-compliant manner**  
Apple reference #2348777, 2350204

**Problem:** The Japanese version of the WebObjects Cyberwind example displays dates with a two-digit year format in two places. This is non-preferred coding practice.

**Resolution:** Customers who need for this example to be Y2K compliant can achieve this by making the following changes in the example source and recompiling.

Change “%y” in the date format string to “%Y” in the following locations:

{WODOCUMENTROOT}/WebObjects/Examples/WebScript/  
CyberWind\_J/CyberWind\_J.woaApplication.wos, line 57

{WODOCUMENTROOT}/WebObjects/Examples/WebScript/  
CyberWind\_J/Footer.wo/Footer.wos, line 23

### **WOJavaExamples use java.util.Date API in non-Y2K-compliant manner**

Apple reference #2348779, 2351772

**Problem:** The WebObjects Java examples “ComponentEditorJava” and “FdfJava” call `java.util.Date.getYear()` in several places, without correcting for the fact that the value returned by this method is “years since 1900”. The result is two-digit years through 1999, and three-digit years thereafter, which is not Y2K compliant.

**Resolution:** Customers who need for these two examples to be Y2K compliant may achieve this by making the following modifications in the example source and recompiling.

Add 1900 to the value returned by `java.util.Date.getYear()` in the following locations:

{WODOCUMENTROOT}/WebObjects/Examples/Java/  
ComponentEditorJava/CommonJava/ComponentNode.java, line 59

Change:

```
return name()+"|"+d.getMonth()+"/"+d.getDate()+"/  
"+d.getYear()+"|"+file().length();
```

To:

```
return name()+"|"+d.getMonth()+"/"+d.getDate()+"/  
"+(d.getYear()+1900)+"|"+file().length();
```

{WODOCUMENTROOT}/WebObjects/Examples/Java/FdfJava/  
TenFortyEZ.java, line 115

Change:

```
return " "+d.getMonth()+"/"+d.getDate()+"/"+d.getYear();
```

To:

```
return " "+d.getMonth()+"/"+d.getDate()+"/"+(d.getYear()+1900);
```

### WebObjects' DynamicElements example uses java.util.Date

#### API in non-Y2K-compliant manner

Apple reference #2384444, 2351773

**Problem:** The WebObjects DynamicElements example calls `java.util.Date.getYear()` in one place without correcting for the fact that the value returned by this method is “years since 1900”. The result is two-digit years through 1999, and three-digit years thereafter, which is not Y2K compliant.

**Resolution:** Customers who need for this example to be Y2K compliant may achieve this by making the following modifications in the example source and recompiling.

Add 1900 to the value returned by `java.util.Date.getYear()` in the following location:

```
{WODOCUMENTROOT}/WebObjects/Examples/WebScript/  
DynamicElements.woa/JavaScriptEx1.wo/JavaScriptEx1.wos
```

Change:

```
document.write("Calculated on: \", today.getMonth()+1,  
\"/\",today.getDate(),\"/\",today.getYear());
```

To:

```
document.write("Calculated on: \", today.getMonth()+1,  
\"/\",today.getDate(),\"/\",today.getYear()+1900);
```

#### Example data contains two-digit year values

Apple reference 2384449, 2350203

**Problem:** The WebObjects `EmployeeBook` and `EmployeeBookJava` examples' Department contains date values with two-digit years, which is not preferred practice.

**Resolution:** Customers can edit the Department data to use a four-digit year format. The two files which need to be modified are:

```
{WODOCUMENTROOT}/WebObjects/Examples/Java/  
EmployeeBookJava/Departments.array
```

```
{WODOCUMENTROOT}/WebObjects/Examples/WebScript/  
EmployeeBook/Departments.array
```

For example, the following data:

```
{ name = "Administration"; location = "Hillside 1"; employees = (  
    { employeeID = 126; departmentName = "Administration";  
    departmentLocation = "Hillside 1"; lastName = "Seng"; firstName =  
    "Paul"; eMail = "Paul_Seng@NTeX.COM"; phoneNumber = "415-320-7249";  
    address = "4876 High Road"; city = "Half Moon Bay"; state = "CA"; zip  
    = "94171"; title = "Designer"; hireDate = "02-JUL-88"; salary  
    = 5000.00; },
```

should be changed to:

```
{ name = "Administration"; location = "Hillside 1"; employees = (  
    { employeeID = 126; departmentName = "Administration";  
    departmentLocation = "Hillside 1"; lastName = "Seng"; firstName =  
    "Paul"; eMail = "Paul_Seng@NTeX.COM"; phoneNumber = "415-320-7249";  
    address = "4876 High Road"; city = "Half Moon Bay"; state = "CA"; zip  
    = "94171"; title = "Designer"; hireDate = "02-JUL-1988"; salary  
    = 5000.00; },
```

The data may be modified manually using any text editor, or by the use of “sed”, as demonstrated below:

```
mv Departments.array Departments.array.bak
```

```
sed 's/[0-9][0-9]\-[A-Z][A-Z][A-Z]\-/&19/g' Departments.array.bak >  
Departments.array
```

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## Section 4: Issues - Enterprise Objects Framework

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This section discusses century issues in Apple's Enterprise Objects Framework.

Apple is not aware of any century problems with Enterprise Objects Framework versions 1.1, 1.2, 2.1, or 2.2 which would affect development or deployment of EOF applications. However, some examples shipped with these versions of EOF use two-digit year formatting, which is not consistent with Apple's recommended coding practice. Instructions on how to change the EOF examples to avoid this problem can be found in Apple's Tech Info Library. For EOF 1.1 and 1.2, please see TIL article 70084, at:

<http://til.info.apple.com/techinfo.nsf/artnum/n70084>

For EOF 2.1 and 2.2, please see TIL article 70085, at:

<http://til.info.apple.com/techinfo.nsf/artnum/n70085>

OPENSTEP and EOF share many components; in order to ensure that EOF is Year 2000 compliant, you must install the appropriate OPENSTEP or OPENSTEP Enterprise patch on your system, following the install order given in section 1 of this document.

