

Oracle® Real User Experience Insight

Accelerator for Siebel Guide

Release 5.1 for Linux x86-64

E15349-01

July 2009

Oracle Real User Experience Insight Accelerator for Siebel Guide, Release 5.1 for Linux x86-64

E15349-01

Copyright © 2009 Oracle and/or its affiliates. All rights reserved.

Primary Author: Paul Coghlan

Contributing Author: Robert Brouwer

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this software or related documentation is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notice is applicable:

U.S. GOVERNMENT RIGHTS Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are "commercial computer software" or "commercial technical data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, duplication, disclosure, modification, and adaptation shall be subject to the restrictions and license terms set forth in the applicable Government contract, and, to the extent applicable by the terms of the Government contract, the additional rights set forth in FAR 52.227-19, Commercial Computer Software License (December 2007). Oracle USA, Inc., 500 Oracle Parkway, Redwood City, CA 94065.

This software is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications which may create a risk of personal injury. If you use this software in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure the safe use of this software. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software in dangerous applications.

Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

This software and documentation may provide access to or information on content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

Contents

Preface	v
----------------------	----------

1 Installation and Configuration

1.1	Why Use This Accelerator Package?	1-1
1.2	Overview	1-1
1.3	Installing the Package RPMs	1-2
1.4	Creating and Configuring the Siebel Suite Definition.....	1-2
1.5	Verifying the Cookie Technology	1-4
1.6	Verifying and Evaluating Your Configuration.....	1-4
1.7	Known Limitations	1-5

2 Monitoring and Reporting Considerations

2.1	Hostnames and URL Prefixes	2-1
2.2	Sessions.....	2-2
2.3	Actions and Pages.....	2-2
2.4	Reported Application Names.....	2-2
2.5	Functional Error Recognition.....	2-3
2.6	Data Items	2-3

A Third-Party Licenses

Preface

Oracle Real User Experience Insight (RUEI) provides you with powerful analysis of your network and business infrastructure. You can monitor the real-user experience, define Key Performance Indicators (KPIs) and Service Level Agreements (SLAs), and trigger alert notifications for incidents that violate them.

Audience

This document is intended primarily for the Administrator responsible for maintaining the RUEI installation. It describes how your RUEI installation can be extended to provide specific support for the monitoring of Oracle Siebel applications.

Important

If your monitored Web environment contains Siebel applications, it is *strongly* recommended that you make use of this support. It not only saves time in configuration of your Siebel applications within RUEI, considers the specific characteristics of the different frameworks upon which Siebel applications are built, and makes these applications more compatible, but also ensures that Siebel applications are monitored correctly.

The information provided in this guide is specific to RUEI release 5.1 (or a higher maintenance release). If you upgrade your RUEI installation to a higher version, you will also need to upgrade to the latest version of this package.

The monitoring support provided by this package is designed to support HI applications (such as Callcenter, Sales, Service, Marketing, and PRMManager) for Siebel 7.7. and higher.

Prerequisites

The Administrator should have firm operational knowledge of their organization's network and application environment. In addition, they should have a good understanding of the Siebel architecture. Note that assistance from the Siebel DBA or application specialist may also be required.

Before proceeding with the configuration procedure described in this guide, RUEI should already have been successfully placed within your organization's network, and the Initial Setup Wizard run to provide information about the network infrastructure. The procedure to do this is fully described in the *Oracle Real User Experience Insight Installation Guide*.

Using This Guide

This guide is organized as follows:

- [Chapter 1, "Installation and Configuration"](#) describes how to install and configure the RUEI Siebel Package for the monitoring of Siebel-based applications.
- [Chapter 2, "Monitoring and Reporting Considerations"](#) provides additional information about the Siebel environment relevant to the monitoring of Siebel applications in RUEI.
- [Appendix A, "Third-Party Licenses"](#) contains licensing information about certain third-party products included with RUEI.

Documentation Accessibility

Our goal is to make Oracle products, services, and supporting documentation accessible to all users, including users that are disabled. To that end, our documentation includes features that make information available to users of assistive technology. This documentation is available in HTML format, and contains markup to facilitate access by the disabled community. Accessibility standards will continue to evolve over time, and Oracle is actively engaged with other market-leading technology vendors to address technical obstacles so that our documentation can be accessible to all of our customers. For more information, visit the Oracle Accessibility Program Web site at <http://www.oracle.com/accessibility/>.

Accessibility of Code Examples in Documentation

Screen readers may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, some screen readers may not always read a line of text that consists solely of a bracket or brace.

Accessibility of Links to External Web Sites in Documentation

This documentation may contain links to Web sites of other companies or organizations that Oracle does not own or control. Oracle neither evaluates nor makes any representations regarding the accessibility of these Web sites.

Deaf/Hard of Hearing Access to Oracle Support Services

To reach Oracle Support Services, use a telecommunications relay service (TRS) to call Oracle Support at 1.800.223.1711. An Oracle Support Services engineer will handle technical issues and provide customer support according to the Oracle service request process. Information about TRS is available at <http://www.fcc.gov/cgb/consumerfacts/trs.html>, and a list of phone numbers is available at <http://www.fcc.gov/cgb/dro/trsphonebk.html>.

Related Documents

For more information, see the following documents in the Oracle Real User Experience Insight library:

- *Oracle Real User Experience Insight Installation Guide*
- *Oracle Real User Experience Insight User's Guide*

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
<code>monospace</code>	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Installation and Configuration

This chapter describes the procedure for installing the Siebel accelerator package, and configuring your application definitions within RUEI to enable the accurate monitoring of Siebel-based applications.

1.1 Why Use This Accelerator Package?

This accelerator package for RUEI enables out-of-the-box monitoring of Siebel applications. This monitoring supports user session tracking, the discovery of end-user performance issues, and the identification of Siebel application issues.

This accelerator package automatically discovers all Siebel applications, and translates network objects to business functions. This facilitates the measurement and monitoring of real-user transactions. Individual user actions are automatically matched to the correct screen, applet, or view in order to provide contextual analysis. This state-of-the-art monitoring solution supports the creation of KPIs for critical packaged applications, and the analysis of real-user business transactions.

1.2 Overview

The Siebel monitoring functionality provided with this package supports all out-of-the-box Siebel functionality. Although some level of customization is recognized, support for specific customizations is planned for later versions of this package. Therefore, it is possible that certain Siebel customizations may provide unexpected reporting results within RUEI.

In order to facilitate the correct monitoring of Siebel-based applications by RUEI, you need to do the following:

1. Install the package RPMs on the RUEI Reporter system.
2. Create and configure the Siebel suite(s) required for your Siebel-based applications.
3. Verify the cookie technology used to track user sessions.
4. Verify and evaluate the Siebel suite configuration.

Each of these steps are discussed in more detail in the following sections.

1.3 Installing the Package RPMs

Important: The upgrade of an existing Siebel accelerator package to release 5.1 must be performed at the same time as the upgrade of the RUEI system to version 5.1.

Note it is assumed a working RUEI system has been installed and configured (as described in the *Oracle Real User Experience Insight Installation Guide*), and is fully operational. Install the Oracle Siebel support package on the RUEI reporter system using the following commands as the `root` user:

```
cd /root/RUEI/51
rpm -Uhv ux-suites-sbl-*.x86_64.rpm
```

Note the location of the RPM depends on where you unzipped the package.

1.4 Creating and Configuring the Siebel Suite Definition

Within the RUEI reporter, create and configure the suite definition(s) required for your Siebel-based applications. Do the following:

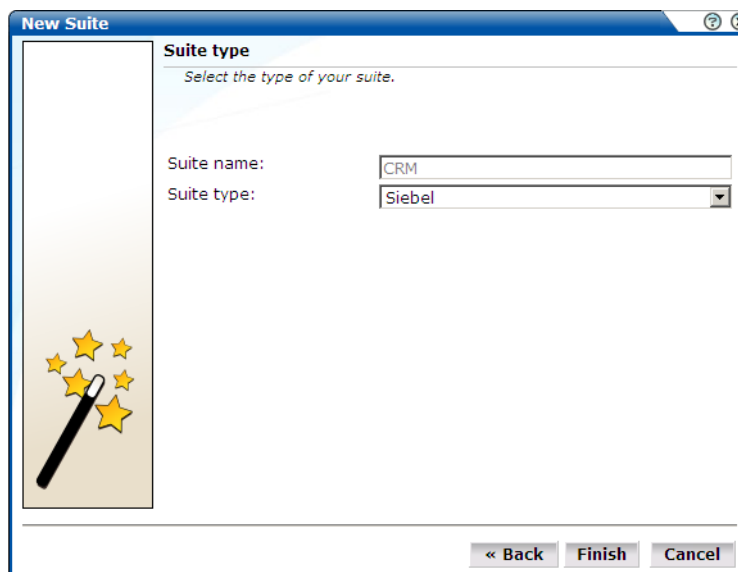
1. Select **Configuration**, then **Applications**, and then **Suites**. Click **New suite**. The dialog shown in [Figure 1–1](#) appears.

Figure 1–1 New Suite Dialog

2. Specify a name for the suite. The name must be unique across suites, services, and applications, and is restricted to a maximum of six characters. Note that the suite cannot be renamed later.
3. Use the remaining fields to specify the scope of the suite. This is defined in terms of partial page URLs. Note that as you enter this information, you can see the effect of your definition through the **Filter preview** column. The use of blank filters is not permitted. All specified characters are interpreted as literals. When ready, click **Next**. The dialog shown in [Figure 1–2](#) appears.

Note: Filters definitions should be mutually exclusive across suites, applications, and services. For example, do not define a suite filtered on the domain "us.oracle.com" and then another suite, application, or service filtered on "us.oracle.com/application_servlet". The use of non-mutually exclusive filter definitions can lead to unpredictable results.

Figure 1–2 Suite Type



4. This dialog allows you to specify the Oracle Enterprise architecture upon which the suite is based. The number of options available in this menu depends on the suite packages currently installed. Select the option **Siebel**. When ready, click **Finish**. The suite definition you have specified is displayed. An example is shown in [Figure 1–3](#).

Figure 1–3 Suite Overview

Suite overview	
<i>Manage the criteria used to identify the pages associated with an application. Note pages not matching any of the defined application criteria will be discarded.</i>	
Name:	SSA_PR
Suite type:	Siebel
Report unclassified pages:	No
Page-loading satisfaction:	4 second(s)
Unique pages identified:	0
Last page identified:	n/a

Identification	Functional errors	Error translations	User ID
Suite identification			
<i>Specify the scope of the suite. This is defined in terms of one or more partial page URL matches. Pages will be assigned to the suite when a defined filter matches a page's URL.</i>			
Find in domain		Find in URL	
global-ebusiness.oraclecorp.com		*	
+ Add new filter »			

1.5 Verifying the Cookie Technology

Within RUEI, session information is based on cookies. Therefore, RUEI needs to know and understand the cookie technology your applications are using. The procedure to configure this, together with the structure of supported cookie technologies, is fully explained in the *Oracle Real User Experience Insight User's Guide*.

Select **Configuration**, then **Applications**, and then **Session tracking**. The currently defined cookie settings are displayed. The Siebel cookie should be available after installing the Siebel package, and is automatically selected for Siebel applications. If it is not already in the list of configured cookie technologies, click **Add new cookie**. The dialog shown in [Figure 1–4](#) appears.

Figure 1–4 Edit Cookie

Note that the selection of the Siebel cookie technology option is equivalent to defining a custom cookie, with the name "_sn". When ready, click **Save**.

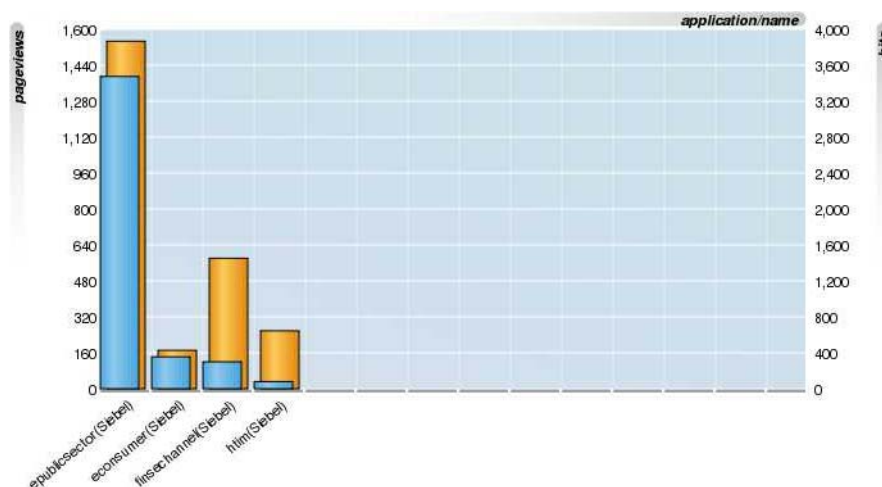
1.6 Verifying and Evaluating Your Configuration

To ensure the quality of the data being collected and reported by RUEI for your Siebel-based applications, it is *strongly* recommended that you verify their reported

details. You should pay particular attention to the number of associated pages detected for the defined suite(s).

Select **Data Browser**, then the All pages group, the Application sub-group, and then the pageviews and hits item. A screen similar to the one shown in [Figure 1–5](#) appears.

Figure 1–5 Application Pageviews.



Click down into each required application and verify that pageviews and hits are recorded correctly.

You can also open an overview of the monitored network traffic by selecting **System**, then **Status**, and then **Data processing**. This provides you with immediate information about hits, pages, and session processing, as well as the system load.

For further information on the user of this and other monitoring facilities, refer to the *Oracle Real User Experience Insight User's Guide*.

1.7 Known Limitations

Currently, RUEI does not work with all Siebel functionality. In particular, the following known limitations exist:

- Due to certain attributes of the Siebel user interface, it is not possible to define transactions based on individual Siebel screen elements. Therefore, transactions must be based on a combination of screen, view, and applet name.
- RUEI attempts to report URLs in a human-readable format. This means the reported URLs, although they appear to be real URLs, cannot always be copied and pasted into the browser address bar. It is not possible to distinguish between the raw format (received by the Web server) and the more readable format (reported by RUEI). This is particularly important in the case of Siebel URLs. Consider the following argument examples that might appear in a Siebel URL, and how they are reported within RUEI:

```
&SWEView=Program Expense Trend Analysis View
&SWEView=Program+Expense+Trend+Analysis+View
```

The first URL probably went over the line as follows:

```
&SWEView=Program%20Expense%20Trend%20Analysis%20View
```

However, the second URL could have gone over the line as either of the following:

```
&SWEView=Program+Expense+Trend+Analysis+View  
&SWEView=Program%2bExpense%2bTrend%2bAnalysis%2bView
```

IF it did not go over the line in the second format, the value may very well have been interpreted incorrectly by the Web server.

Monitoring and Reporting Considerations

This chapter explains how information within Siebel-based applications is captured and reported by RUEI. Information about specific mechanisms or characteristics to be aware of when monitoring Siebel-based applications are also highlighted. It is recommended that you review this information to better understand the reporting of Siebel applications within RUEI.

2.1 Hostnames and URL Prefixes

An Siebel implementation is analyzed by examining all traffic that passes between the Web server and the clients, either visitor browsers or software that accesses the Siebel Enterprise Application Integration (EAI) interface.

This traffic has the following structure:

`http://server:port/application_language/start.swe?parameters`

Table 2–1 explains the above elements.

Table 2–1 Siebel Suite Definitions mapping

Element	Content
<i>http</i>	The protocol used (sometimes HTTPS).
<i>server</i>	The server (host) name used to make the connection.
<i>port</i>	The port used to make the connection.
<i>application</i>	The name of the application (such as sales, eService, callcenter, and so on).
<i>language</i>	The language identifier, such as enu (English), deu (German), and so on.
<i>parameters</i>	<p>The parameters specified to access certain functions. Currently, these are used to identify certain actions, and find business valuable names for these actions. The following parameters are recognized:</p> <ul style="list-style-type: none">■ SWEScreen■ SWEView■ SWEApplet■ SWEMethod■ SWECmd■ SWEExtCmd■ SWEUserName

Figure 2–1 shows an example of how a Siebel application is reported in RUEI.

Figure 2–1 Siebel Application Reporting

application/name	application/page-group	application/page-name	pageviews
epublicsector(Siebel)	Siebel.epublicsector » Application	Siebel.epublicsector » Application » PUB My Applications List » Send SMS » GetQuickPickInfo	104
epublicsector(Siebel)	Siebel.epublicsector » Application	Siebel.epublicsector » Application » PUB My Applications List » BatchCanInvoke	104
epublicsector(Siebel)	Siebel.epublicsector » GetCachedFrame	Siebel.epublicsector » GetCachedFrame » other	52
epublicsector(Siebel)	Siebel.epublicsector » Service Request	Siebel.epublicsector » Service Request » Service Request Default Chart » Service Request List » PositionOnRow	52
epublicsector(Siebel)	Siebel.epublicsector » Application	Siebel.epublicsector » Application » PUB My Applications List » Send SMS » SendWirelessMsg	39
epublicsector(Siebel)	Siebel.epublicsector » HLS Home Screen (HLS)	Siebel.epublicsector » HLS Home Screen (HLS) » HLS Investigative Home Page » BatchCanInvoke	39
epublicsector(Siebel)	Siebel.epublicsector » HLS Home Screen (HLS)	Siebel.epublicsector » HLS Home Screen (HLS) » HLS Investigative Home Page » GetViewLayout	39
epublicsector(Siebel)	Siebel.epublicsector » Service Request	Siebel.epublicsector » Service Request » Service Request Screen Homepage » Recent Record Service Request List » Drilldown	26
epublicsector(Siebel)	Siebel.epublicsector » Application	Siebel.epublicsector » Application » PUB My Applications List » Contact Assoc » GotoNextSet	26
epublicsector(Siebel)	Siebel.epublicsector » Service Request	Siebel.epublicsector » Service Request » Service Request Screen Homepage » Recent Record Service Request List » Drilldown	26

2.2 Sessions

The recognition of individual visitor sessions is based on session cookies. By default, the session cookie used is `_sn`. If this cookie is used not used, it can be removed, and a custom cookie defined with the required name. Note that it is not possible to recognize cookies based on parameters in the URL.

It is *strongly* recommended that you ensure that the cookie name is correctly specified within RUEI to track visitor sessions.

2.3 Actions and Pages

The actions executed by the user are tracked by RUEI. The actions are recognized by their call to the Siebel server (a list of known parameters is used in that call). Looking at one user session, all hits are set in a time-ordered line. The recognized hits are marked as user actions, the others as elements of that action (such as `images/objects/activeX-component` `loading/javascript-library-loading`). The reported loading times per page are the calculated based on the action, and include all elements.

2.4 Reported Application Names

The application names reported in RUEI are based on the following format:

`suite » application » screen » view » applet » action`

The information is based on the parameter information that passes by on the line, and is preserved in the session, as long as it is valid.

2.5 Functional Error Recognition

Siebel errors are recognized as page elements when they start with *SBL-string*, where *string* is an 8-character code. These errors are reported as functional errors. In addition, it is also possible to define strings manually on the page that should be classified as functional errors.

2.6 Data Items

The Siebel-specific data items shown in [Table 2-2](#) are reported in RUEI.

Table 2-2 Siebel-Specific Data Items

Item	Description
sbl-applet	The applet in which the end user was navigating. Applets allow access to the data in order to create, view, and modify.
sbl-cmd	The technical action that the end user was performing (if any).
sbl-module	The Siebel module that the end user was browsing. For example, Callcenter, HR, Marketing, and CRM.
sbl-screen	The screens used within the Suite. A screen is a logical collection of views. It is not a visual construct in itself; rather, it is a collection of views that the menu bar and view bar can display.
sbl-suite	The Siebel suite name, as specified in its configuration definition. This data makes it possible to distinguish between different monitored Siebel suites.
sbl-view	Similar to seen Siebel-Views. A view is a collection of applets which appear on screen at the same time.

Third-Party Licenses

This appendix contains licensing information about certain third-party products included with RUEI 4.5. Unless otherwise specifically noted, all licenses herein are provided for notice purposes only.

The sections in this appendix describe the following third-party licenses:

- [Apache Software License, Version 2.0](#)
- [OpenSSL](#)
- [PHP](#)
- [SpyC](#)
- [Prototype.js](#)
- [W3C](#)
- [JSON](#)
- [PNET](#)
- [Bitstream Vera Font](#)
- [Script.aculo.us](#)
- [PNGQuant.c](#)
- [Rwpng.c/Rwpng.h](#)
- [Java Runtime Environment](#)

Apache Software License, Version 2.0

Apache License

Version 2.0, January 2004

<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. **Definitions.** "License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii)

ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

- You must give any other recipients of the Work or Derivative Works a copy of this License; and
- You must cause any modified files to carry prominent notices stating that You changed the files; and
- You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License. You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the

use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

OpenSSL

This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (<http://www.openssl.org/>).

Copyright © 1998-2007 The OpenSSL Project. All rights reserved.

Copyright © 1995-1998 Eric Young (eyay@cryptsoft.com). All rights reserved.

THIS SOFTWARE IS PROVIDED BY THE OPENSOURCE PROJECT "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE OPENSOURCE PROJECT BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

PHP

Copyright © 1999-2006 The PHP Group. All rights reserved.

This product includes PHP software, freely available from
<http://php.net/software/>.

"THIS SOFTWARE IS PROVIDED BY THE PHP DEVELOPMENT TEAM "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE PHP DEVELOPMENT TEAM BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE."

SpyC

The MIT License

Copyright (c) 2005-2006 Chris Wanstrath

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE."

Prototype.js

Copyright (c) 2005-2007 Sam Stephenson

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

W3C

Copyright © 2008 World Wide Web Consortium, (Massachusetts Institute of Technology, Institut National de Recherche en Informatique et en Automatique, Keio University). All Rights Reserved. <http://www.w3.org/Consortium/Legal/>.

JSON

Copyright (c) 2002 JSON.org

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

The Software shall be used for Good, not Evil.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

PNET

Copyright © 2002, Peter Bozarov All rights reserved.

THIS SOFTWARE IS PROVIDED BY THE AUTHOR "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Bitstream Vera Font

Copyright © 2003 by Bitstream, Inc. All rights reserved. Bitstream Vera is a trademark of Bitstream, Inc.

THIS FONT SOFTWARE IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO ANY WARRANTIES OF MERCHANTABILITY, FITNESS AND NONINFRINGEMENT OF COPYRIGHT, PATENT, TRADEMARK, OR OTHER RIGHT. IN NO EVENT SHALL BITSTREAM OR THE GNOME FOUNDATION BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, INCLUDING GENERAL, SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF THE USE OR

INABILITY TO USE THE FONT SOFTWARE OR FROM OTHER DEALINGS IN THE FONT SOFTWARE.

Script.aculo.us

Copyright (c) 2005 Thomas Fuchs (<http://script.aculo.us>,
<http://mir.aculo.us>)

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

PNGQuant.c

Copyright (c) 1989, 1991 Jef Poskanzer.

Copyright © 1997, 2000, 2002 by Greg Roelofs; based on an idea by Stefan Schneider.

Permission to use, copy, modify and distribute this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation. This software is provided "as is" without express or implied warranty.

Rwpng.c/Rwpng.h

Copyright © 1998-2002

Java Runtime Environment

Oracle is required to provide the following notice as part of the license terms for the Sun JRE that the field of use for the JRE is: (i) general purpose desktop computers, laptops and servers, and (ii) embedded systems (by way of example: embedded applications, cell phones, PDAs, TV devices, digital set top boxes, telematics devices and home gateway devices), provided that the Java Runtime Environment (JRE) is licensed only to run Licensee applications, middleware and database products and the JRE is not licensed to directly run any third party applications. This shall not be understood to prevent third party applications from indirectly and incidentally utilizing the JRE, but only as such is required to enable other Licensee Product functionality.

The complete terms of the Sun Microsystems binary code license agreement are available from http://java.sun.com/j2se/1.5.0/jre-1_5_0_18-license.txt.

