



Technical Note: Sun Java System Access Manager Localization Guide



Sun Microsystems, Inc.
4150 Network Circle
Santa Clara, CA 95054
U.S.A.

Part No: 820-2238-10
June 25, 2007

Copyright 2007 Sun Microsystems, Inc. 4150 Network Circle, Santa Clara, CA 95054 U.S.A. All rights reserved.

Sun Microsystems, Inc. has intellectual property rights relating to technology embodied in the product that is described in this document. In particular, and without limitation, these intellectual property rights may include one or more U.S. patents or pending patent applications in the U.S. and in other countries.

U.S. Government Rights – Commercial software. Government users are subject to the Sun Microsystems, Inc. standard license agreement and applicable provisions of the FAR and its supplements.

This distribution may include materials developed by third parties.

Parts of the product may be derived from Berkeley BSD systems, licensed from the University of California. UNIX is a registered trademark in the U.S. and other countries, exclusively licensed through X/Open Company, Ltd.

Sun, Sun Microsystems, the Sun logo, the Solaris logo, the Java Coffee Cup logo, docs.sun.com, Java, and Solaris are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. and other countries. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. in the U.S. and other countries. Products bearing SPARC trademarks are based upon an architecture developed by Sun Microsystems, Inc.

The OPEN LOOK and Sun™ Graphical User Interface was developed by Sun Microsystems, Inc. for its users and licensees. Sun acknowledges the pioneering efforts of Xerox in researching and developing the concept of visual or graphical user interfaces for the computer industry. Sun holds a non-exclusive license from Xerox to the Xerox Graphical User Interface, which license also covers Sun's licensees who implement OPEN LOOK GUIs and otherwise comply with Sun's written license agreements.

Products covered by and information contained in this publication are controlled by U.S. Export Control laws and may be subject to the export or import laws in other countries. Nuclear, missile, chemical or biological weapons or nuclear maritime end uses or end users, whether direct or indirect, are strictly prohibited. Export or reexport to countries subject to U.S. embargo or to entities identified on U.S. export exclusion lists, including, but not limited to, the denied persons and specially designated nationals lists is strictly prohibited.

DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

Copyright 2007 Sun Microsystems, Inc. 4150 Network Circle, Santa Clara, CA 95054 U.S.A. Tous droits réservés.

Sun Microsystems, Inc. détient les droits de propriété intellectuelle relatifs à la technologie incorporée dans le produit qui est décrit dans ce document. En particulier, et ce sans limitation, ces droits de propriété intellectuelle peuvent inclure un ou plusieurs brevets américains ou des applications de brevet en attente aux États-Unis et dans d'autres pays.

Cette distribution peut comprendre des composants développés par des tierces personnes.

Certains composants de ce produit peuvent être dérivés du logiciel Berkeley BSD, licenciés par l'Université de Californie. UNIX est une marque déposée aux États-Unis et dans d'autres pays; elle est licenciée exclusivement par X/Open Company, Ltd.

Sun, Sun Microsystems, le logo Sun, le logo Solaris, le logo Java Coffee Cup, docs.sun.com, Java et Solaris sont des marques de fabrique ou des marques déposées de Sun Microsystems, Inc. aux États-Unis et dans d'autres pays. Toutes les marques SPARC sont utilisées sous licence et sont des marques de fabrique ou des marques déposées de SPARC International, Inc. aux États-Unis et dans d'autres pays. Les produits portant les marques SPARC sont basés sur une architecture développée par Sun Microsystems, Inc.

L'interface d'utilisation graphique OPEN LOOK et Sun a été développée par Sun Microsystems, Inc. pour ses utilisateurs et licenciés. Sun reconnaît les efforts de pionniers de Xerox pour la recherche et le développement du concept des interfaces d'utilisation visuelle ou graphique pour l'industrie de l'informatique. Sun détient une licence non exclusive de Xerox sur l'interface d'utilisation graphique Xerox, cette licence couvrant également les licenciés de Sun qui mettent en place l'interface d'utilisation graphique OPEN LOOK et qui, en outre, se conforment aux licences écrites de Sun.

Les produits qui font l'objet de cette publication et les informations qu'il contient sont régis par la législation américaine en matière de contrôle des exportations et peuvent être soumis au droit d'autres pays dans le domaine des exportations et importations. Les utilisations finales, ou utilisateurs finaux, pour des armes nucléaires, des missiles, des armes chimiques ou biologiques ou pour le nucléaire maritime, directement ou indirectement, sont strictement interdites. Les exportations ou réexportations vers des pays sous embargo des États-Unis, ou vers des entités figurant sur les listes d'exclusion d'exportation américaines, y compris, mais de manière non exclusive, la liste de personnes qui font objet d'un ordre de ne pas participer, d'une façon directe ou indirecte, aux exportations des produits ou des services qui sont régis par la législation américaine en matière de contrôle des exportations et la liste de ressortissants spécifiquement désignés, sont rigoureusement interdites.

LA DOCUMENTATION EST FOURNIE "EN L'ETAT" ET TOUTES AUTRES CONDITIONS, DECLARATIONS ET GARANTIES EXPRESSES OU TACITES SONT FORMELLEMENT EXCLUES, DANS LA MESURE AUTORISEE PAR LA LOI APPLICABLE, Y COMPRIS NOTAMMENT TOUTE GARANTIE IMPLICITE RELATIVE A LA QUALITE MARCHANDE, A L'APTITUDE A UNE UTILISATION PARTICULIERE OU A L'ABSENCE DE CONTREFACON.

Technical Note: Sun Java System Access Manager Localization Guide

This document describes the organization of localized Sun Java™ System Access Manager (Access Manager) software resource files. It also explains how to add a new language to the list of languages supported by Access Manager and how to customize an existing language's resource files.

This document covers the following topics:

- “Introduction” on page 3
- “Customizing the Localization of Access Manager: One Pager Overview” on page 4
- “Organization of Software Resource Files ” on page 5
- “Adding New Language Support” on page 9
- “Customizing the Localization” on page 13
- “Hands-on Lab Format” on page 18
- “Revision History” on page 24
- “Accessing Sun Resources Online” on page 24

Introduction

Access Manager is currently localized in seven languages: French, German, Japanese, Korean, Spanish, Traditional Chinese, and Simplified Chinese. Localizing the administration browser interface in a yet to be supported language can become an issue, as can customizing an already supported language. Access Manager administrators need to know which files store localized messages, where the files are located, and how to add a new language to Access Manager.

This document explains how to organize Access Manager software resource files, add support for a new language, and customize existing software resources. Information about file organization is accurate up to and including Sun Java System Access Manager 7.1. Full usability of this document relies on the accessibility of the Sun Virtual Lab. This document contains sufficient information to customize localization in case the Sun Virtual Lab is unreachable.

Customizing the Localization of Access Manager: One Pager Overview

This section shows how Access Manager files are organized. It also shows the basic steps involved in adding new language support and customizing the Access Manager localization resource files.

Organization of Access Manager Resource Files

- Java properties files
 - Browser interface messages
 - Located under *AM_INS/locale/*
 - Java properties naming convention: *amservice_locale*
- XML files
 - Authentication service login notice
 - Located under *AM_INS/web-src/services/config/auth/default_locale*
 - XML naming convention: *service.xml*

Adding New Language Support

- Modify the iPlanetG11NSettings service
- Add L10n resources for the created language
 - Java properties files
 - XML files
- Apply the changes

Customizing Existing Messages

- Log in to the Sun Virtual Lab
- Modify resources according to context
- Apply the changes

Organization of Software Resource Files

This section describes how files that contain Access Manager software messages are organized. Access Manager software messages are stored in three file formats:

- Java properties
- XML
- MO

Software messages displayed in the Administration Console (using a browser) are stored in these two formats:

- Java properties
- XML

Software messages displayed in the command-line interface (using a terminal window) are stored in the MO files format.

The next three subsections describe the organization of these three software message formats.

Java Properties Files

Java properties files are resource files that contain most of the software messages to be displayed in the Access Manager Administration Console. Java properties files should be saved in escaped Unicode format. Otherwise, multibyte characters are likely to be incorrectly displayed. To ensure the correct format of Java properties files, after each change, run the `native2ascii` binary as follows: `native2ascii filename`

For more information about the `native2ascii` binary, go to <http://java.sun.com/j2se/1.4.2/docs/tooldocs/solaris/native2ascii.html>.

Java properties files are located under `AM_INS/locale`.

Each of the seven supported languages contains 70 Java properties files. The Access Manager Java properties files naming convention is as follows: `amfunctionality_locale.properties`

Note – This document uses a Dutch (nl) version of Access Manager as an example language.

Java properties files for the Dutch version of Access Manager are under `AM_INS/locale`.

The following Java properties are for Dutch language:

- `amAdminConsole_nl.properties`
- `amAdminModuleMsgs_nl.properties`
- `amAgent_nl.properties`

- amAuthAD_nl.properties
- amAuthAnonymous_nl.properties
- amAuthApplication_nl.properties
- amAuthCert_nl.properties
- amAuthConfig_nl.properties
- amAuthContext_nl.properties
- amAuthContextLocal_nl.properties
- amAuthDataStore_nl.properties
- amAuthenticationDomainConfig_nl.properties
- amAuth_nl.properties
- amAuthHTTPBasic_nl.properties
- amAuthJDBC_nl.properties
- amAuthLDAP_nl.properties
- amAuthMembership_nl.properties
- amAuthMSISDN_nl.properties
- amAuthnSvc_nl.properties
- amAuthNT_nl.properties
- amAuthRadius_nl.properties
- amAuthSafeWord_nl.properties
- amAuthSAML_nl.properties
- amAuthSecureID_nl.properties
- amAuthUI_nl.properties
- amAuthUnix_nl.properties
- amAuthWindowsDesktopSSO_nl.properties
- amBinarySecurityToken_nl.properties
- amClientData_nl.properties
- amClientDetection_nl.properties
- amCommonUtils_nl.properties
- amConfigurator_nl.properties
- amConsole_nl.properties
- amDelegation_nl.properties
- amDisco_nl.properties
- amEncryption_nl.properties
- amEntrySpecific_nl.properties
- amFederation_nl.properties
- amG11NSettings_nl.properties
- amIdRepo_nl.properties
- amIdRepoService_nl.properties
- amInteraction_nl.properties
- amLDAPv3Repo_nl.properties
- amLibertyDSTService_nl.properties
- amLibertyPersonalProfile_nl.properties
- amLibertySecurity_nl.properties
- amLogging_nl.properties

- amMeta_nl.properties
- amNaming_nl.properties
- amPasswordReset_nl.properties
- amPasswordResetModuleMsgs_nl.properties
- amPlatform_nl.properties
- amPll_nl.properties
- amPolicyConfig_nl.properties
- amPolicy_nl.properties
- amProfile_nl.properties
- amProviderConfig_nl.properties
- amSAML_nl.properties
- amSDK_nl.properties
- amSecurity_nl.properties
- amSession_nl.properties
- amSOABinding_nl.properties
- amSSOProvider_nl.properties
- amUser_nl.properties
- amUtilsMsgs_nl.properties
- amValidation_nl.properties
- amWebAgent_nl.properties
- amWSSecurity_nl.properties
- amWSSProvider_nl.properties

XML Files

Access Manager XML files contain software messages to be displayed in the Administration Console. These XML files are used by the authentication service to display the localized authentication (login) screen based on a particular module type. Save XML files under UTF-8 encoding after each modification. To ensure that an XML file is saved under UTF-8 encoding, the Solaris binary `iconv` can be used as follows: `iconv -f current-file-encoding -t UTF-8 filename`

For more information about the `iconv` binary, go to http://docsun.cso.uiuc.edu/sun_docs/C/solaris_9/SUNWaman/hman1/iconv.1.html.

Access Manager XML files are located under this directory:
`AM_INS/web-src/services/config/auth/default_locale/`

For example, the location of the XML files for the Dutch version of Access Manager is the `AM_INS/web-src/services/config/auth/default_nl/` directory.

The following XML files are for the Dutch version of Access Manager:

- AD.xml
- Anonymous.xml

- Application.xml
- Cert.xml
- DataStore.xml
- HTTPBasic.xml
- JDBC.xml
- LDAP.xml
- Membership.xml
- MSISDN.xml
- NT.xml
- RADIUS.xml
- SafeWord.xml
- SAML.xml
- SecurID.xml
- Unix.xml
- WindowsDesktopSSO.xml

MO Files

MO files are resource files that contain software messages to be displayed in the Access Manager CLI. MO files are commonly generated from PO files. MO files are located under *AM_INS/locale/locale.UTF-8/LC_MESSAGES/*

Generate MO files in UTF-8 encoding by doing the following:

- Adding a charset specification within a PO file that contain localized messages
- Generating the MO file from that PO file using the `msgfmt` utility

The `msgfmt` utility is delivered as part of the `gettext` package. For more information about this package, go to <http://www.gnu.org/software/gettext/>.

For example, the location of the MO files for the Dutch version of Access Manager is the *AM_INS/locale/nl.UTF-8/LC_MESSAGES/* directory.

The MO files for the Dutch version of Access Manager are as follows:

- `am_auth_unix_keys.mo`
- `amhasetup.mo`
- `amsfoconfig.mo`
- `backup_restore.mo`
- `dpscripts.mo`

For instructions on how to generate an MO file under UTF-8 encoding, see “[Hands-on Lab Format](#)” on page 18.

Adding New Language Support

Access Manager is an internationalized application that facilitates support for new languages apart from the seven default languages. Administrators can add new language support to Access Manager without having to change the source code.

The process can be divided into two parts:

- Adding a new language to the supported language list
- Adding localization resources for a newly supported language

Adding a New Language to the Supported Language List

Adding a new language to the Access Manager supported language list means that the `iPlanetG11NSettings` service must be modified as shown in the following examples.

Create two new files and store them in a temporary location.

EXAMPLE 1 `setServiceRevision.xml` File

```
<?xml version="1.0" encoding="UTF-8"?>

<!DOCTYPE Requests PUBLIC "-//iPlanet//Sun Java System Access Manager 7.1 Admin
CLI DTD//EN" "jar://com/iplanet/am/admin/cli/amAdmin.dtd">

<!-- apply this file by: amadmin -u admin-user -w admin-pwd -t filename.xml -->

<Requests>

<SchemaRootNodeRequests serviceName="iPlanetG11NSettings">

<SetServiceRevisionNumber number="new-revision-number" />

</SchemaRootNodeRequests>

</Requests>
```

Note – *filename*— Name of the file in which XML content will be stored, `setServiceRevision.xml` in this example.

new-revision-number — Add 10 to the existing revision number. The default value is 0.

To update the `iPlanetG11NSettings` service, run the `amadmin` utility as mentioned in [Example 1](#).

EXAMPLE 2 amG11nSettings_mod.xml File

```
<?xml version="1.0" encoding="UTF-8"?>

<!DOCTYPE Requests PUBLIC "-//iPlanet//Sun Java System Access Manager 7.1 Admin
CLI DTD//EN" "jar://com/iplanet/am/admin/cli/amAdmin.dtd">

<!-- apply this file by: amadmin -u admin-user -w admin-pwd -t filename.xml -->

<Requests>

<SchemaRequests serviceName="iPlanetG11NSettings" SchemaType="Global">

<AddDefaultValues>

<AttributeValuePair>

<Attribute name="sun-identity-g11n-settings-locale-charset-mapping"/>

<Value>locale|charset=charset-list</Value>

</AttributeValuePair>

</AddDefaultValues>

</SchemaRequests>

</Requests>
```

Note – *filename* — Name of the file in which XML content will be stored, amG11nSettings_mod.xml in this example.

locale — Standard ISO language value supported by the browser, for example, nl, ja, or fr.

charset-list — Semicolon-separated list of supported character sets for the language specified by *locale*, for example, UTF-8;Shift_JIS;EUC-JP.

To update the iPlanetG11NSettings service, run the amadmin utility as mentioned in [Example 2](#).

After the iPlanetG11NSettings service is updated, Access Manager supports the new specified language. To finalize support of the added language, you must add software message resources to this language.

For instructions on how to add a new language to the Access Manager supported language list, see “[Hands-on Lab Format](#)” on page 18.

Adding Localization Resources for a Newly Supported Language

This section describes how to add and customize files that contain Access Manager Console authentication interface messages. It then explains how to add and customize the Access Manager Console user interface messages. Access Manager detects the client language that uses information in the HTTP request from the browser. Hence, to add L10n resources for a new language, the only requirement is to follow the Access Manager file name conventions and directory organization.

Localizing Authentication Interface Files

When providing authentication interfaces for localized environments, a separate directory for each language that contains customized XML files must be created. For each language, a subdirectory structure similar to the Access Manager information tree must also be created. The subdirectory starts from the authentication interface base directory, that is, `AM_INS/web-src/services/config/auth/default_locale/`

The first directory structure is needed to receive the new authentication interface file. This directory structure is then populated with existing interface files. Finally, these files are customized.

For instructions on how to localize authentication interface files for a new language, see [“Hands-on Lab Format” on page 18](#).

The following procedures explain what must be done to localize authentication interface files.

▼ To Create a Subdirectory Structure for the `AMRoot` Realm and All Its Sub-realms

- 1 Open a terminal window (if necessary) on a system where Access Manager is installed.
- 2 Navigate to the authentication interface base directory.
- 3 Create a subdirectory structure.
- 4 Change to the created subdirectory.

▼ To Populate the Created Subdirectory With Desired Interface Files

- 1 Copy the default `Login.jsp` file to the current directory.
- 2 Copy the default `Logout.jsp` file to the current directory.

- 3 Copy the default LDAP.xml file to the current directory.

▼ To Customize Previously Copied Files

- 1 Open the files in a text editor.
- 2 Insert the new strings.
- 3 Save the files.

Localizing the Access Manager Administration Console

To add language support to the Access Manager Administration Console, a new Java properties file for the desired module must be created. For example:

EXAMPLE 3 Adding Language Support for the Policy Module for the Dutch Language

1. Change to the *AM_INS/locale* directory.
2. Copy the *amPolicy.properties* file to a new *amPolicy_nl.properties* file.
3. Modify the created *amPolicy_nl.properties* file.
4. Save the file.
5. Restart the web container.

Another example is the customization of the copyright notice displayed at the bottom of the Access Manager Administration Console Login page.

EXAMPLE 4 Customizing the Copyright Notice

1. Change to the *AM_INS/locale* directory.
2. Copy the *amAuthUI.properties* file to a new *amAuthUI_nl.properties* file.
3. Modify the *copyright.notice* key in the created *amAuthUI_nl.properties* file.
4. Save the file.
5. Restart the web container.

After adding support for a new locale to Access Manager, newly added language software resources must be customized as described in the following section.

Customizing the Localization

This section explains how to customize Access Manager software resource messages.

To provide a fine granularity of information, this section introduces a new concept for helping administrators to customize Access Manager localization. This concept binds together usage of the following:

- Information provided in this section
- An externally accessible instance of Access Manager

Sun Virtual Lab

The Sun Microsystems Globalization organization has deployed Sun Java Enterprise System Release 5 in the Sun Virtual Lab. External users can freely access an up and running instance of Sun Java Enterprise System Release 5 applications through a browser. To log in to Sun Java System Access Manager 7.1 deployed in the Sun Virtual Lab, enter the following URL into your favorite browser:

- Sun Java System Access Manager Administration Console Version 7.0 (legacy mode):
<http://sears.sunvirtuallab.com:32110/amserver/UI/Login?org=bookshop>
- Sun Java System Access Manager Administration Console Version 6.3 (legacy mode):
<http://sears.sunvirtuallab.com:32110/amconsole>

To log to the bookshop organization, type the user name and password as follows:

- User Name: locadmin
- User Password: locadmin

Working With the Sun Virtual Lab

Instances that have been deployed in the Sun Virtual Lab have been modified for the Dutch language. Those instances for this language contain customized software resource files. Java properties files and XML files have been modified in a particular way to help administrators willing to customize the Access Manager GUI. The following subsections explain the modifications made to the software resource files. To see these changes, your browser language setting must be set to the Dutch (nl) language.

Java Properties Files in the Sun Virtual Lab

Major changes in resources were made to the Java properties. Indeed, these files are responsible for displaying almost all messages from the Access Manager Administration Console.

Java properties files are usually based on a key=value system. The key is used as a unique reference to display the value in the user interface. The key is identical in all properties files, regardless of the language setting. The value (which is actually a message displayed in the GUI) is different depending on the language setting.

In the Sun Virtual Lab, almost all occurrences of the value have been replaced by key itself. Java properties for the Dutch (nl) language are now based on a key=key system. Hence, when accessing an instance of Access Manager deployed in the Sun Virtual Lab, the GUI will display key titles instead of key values. A number has also been inserted before each key. For example, the Login button key in the `amConsole_nl.properties` resources file stored in the Sun Virtual Lab is `buttonnew=[33]button.new`.

Using the following mapping table, it is possible to locate the resource file in which a key is located. Using the Login button example, it is easy to locate the resource properties key in the system and to customize it.

- The key used for displaying Login button is “buttonnew”.
- The “buttonnew” key is stored in file [33].
- File [33] is `amConsole_nl.properties`
- All Java properties files are located under `AM_INS/locale`.

TABLE 1 Properties Files Mapping Table for the Dutch (nl) Language

File ID	File Name	File ID	File Name
[2]	<code>amAdminConsole_nl.properties</code>	[36]	<code>amEncryption_nl.properties</code>
[3]	<code>amAdminModuleMsgs_nl.properties</code>	[37]	<code>amEntrySpecific_nl.properties</code>
[4]	<code>amAgent_nl.properties</code>	[38]	<code>amFederation_nl.properties</code>
[5]	<code>amAuthAD_nl.properties</code>	[39]	<code>amG11NSettings_nl.properties</code>
[6]	<code>amAuthAnonymous_nl.properties</code>	[40]	<code>amIdRepo_nl.properties</code>
[7]	<code>amAuthApplication_nl.properties</code>	[41]	<code>amIdRepoService_nl.properties</code>
[8]	<code>amAuthCert_nl.properties</code>	[42]	<code>amInteraction_nl.properties</code>
[9]	<code>amAuthConfig_nl.properties</code>	[43]	<code>amLDAPv3Repo_nl.properties</code>
[10]	<code>amAuthContext_nl.properties</code>	[44]	<code>amLibertyDSTService_nl.properties</code>
[11]	<code>amAuthContextLocal_nl.properties</code>	[45]	<code>amLibertyPersonalProfile_nl.properties</code>
[12]	<code>amAuthenticationDomainConfig_nl.properties</code>	[46]	<code>amLibertySecurity_nl.properties</code>
[13]	<code>amAuth_nl.properties</code>	[47]	<code>amLogging_nl.properties</code>
[14]	<code>amAuthHTTPBasic_nl.properties</code>	[48]	<code>amMeta_nl.properties</code>

TABLE 1 Properties Files Mapping Table for the Dutch (nl) Language (Continued)

File ID	File Name	File ID	File Name
[15]	amAuthJDBC_nl.properties	[49]	amNaming_nl.properties
[16]	amAuthLDAP_nl.properties	[50]	amPasswordReset_nl.properties
[17]	amAuthMembership_nl.properties	[51]	amPasswordResetModuleMsgs_nl.properties
[18]	amAuthMSISDN_nl.properties	[52]	amPlatform_nl.properties
[19]	amAuthnSvc_nl.properties	[53]	amPll_nl.properties
[20]	amAuthNT_nl.properties	[54]	amPolicyConfig_nl.properties
[21]	amAuthRadius_nl.properties	[55]	amPolicy_nl.properties
[22]	amAuthSafeWord_nl.properties	[57]	amProviderConfig_nl.properties
[23]	amAuthSAML_nl.properties	[58]	amSAML_nl.properties
[24]	amAuthSecureID_nl.properties	[59]	amSDK_nl.properties
[25]	amAuthUI_nl.properties	[60]	amSecurity_nl.properties
[26]	amAuthUnix_nl.properties	[61]	amSession_nl.properties
[27]	amAuthWindowsDesktopSSO_nl.properties	[62]	amSOABinding_nl.properties
[28]	amBinarySecurityToken_nl.properties	[63]	amSSOProvider_nl.properties
[29]	amClientData_nl.properties	[64]	amUser_nl.properties
[30]	amClientDetection_nl.properties	[65]	amUtilsMsgs_nl.properties
[31]	amCommonUtils_nl.properties	[66]	amValidation_nl.properties
[32]	amConfigurator_nl.properties	[67]	amWebAgent_nl.properties
[33]	amConsole_nl.properties	[68]	amWSSecurity_nl.properties
[34]	amDelegation_nl.properties	[69]	amWSSProvider_nl.properties
[35]	amDisco_nl.properties		

Note – The original English message can be retrieved by accessing an Access Manager instance with the language browser setting set to English.

The original English value for each key is available in all Java properties files as a comment above each key line.

To find out how to locate Java properties files, see “[Java Properties Files](#)” on page 5.

The `amAdminCLI.properties` file has not been customized.

The `amConsole.properties` file contains a number of keys that must not be customized:

- `schemaType.global`
- `schemaType.organization`
- `schemaType.dynamic`
- `schemaType.user`
- `blank.header`
- `entityDescriptor.profile.sectionHeader`
- `contactperson.profile`

The `amConsole.properties` file contains values for time zones. Because those values must not be changed, the list of time zones has been kept as the default.

XML Files in the Sun Virtual Lab

In XML files, messages have been replaced by the name of the file that contains the message, followed by the line number where this message is located in the file. See the following example for more information.

EXAMPLE 5 Customized `DataStore.xml` File Stored in the Sun Virtual Lab

```
<ModuleProperties moduleName="DataStore" version="1.0" >
<Callbacks length="2" order="1" timeout="120"
header="AM_INS/web-src/services/config/auth/example_nl/bookshop/DataStore.xml:14"
>
<NameCallback>
<Prompt>AM_INS/web-src/services/config/auth/example_nl/bookshop/DataStore.xml:15
</Prompt>
</NameCallback>
<PasswordCallback echoPassword="false" >
<Prompt>AM_INS/web-src/services/config/auth/example_nl/bookshop/DataStore.xml:17
</Prompt>
```


EXAMPLE 5 Customized DataStore.xml File Stored in the Sun Virtual Lab (Continued)

```
</PasswordCallback>
</Callbacks>
</ModuleProperties>
```

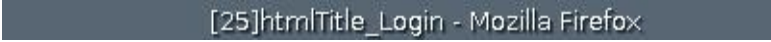
Practical Example: Access Manager Administration Console Login Page in the Sun Virtual Lab

When accessing the Access Manager Administration Console installed in the Sun Virtual Lab through a browser with its language setting set to English (en), administrators can see the default Access Manager login page. When the browser's language setting is set to Dutch (nl), the customized login page of the Access Manager Administration Console is displayed.

Note – To fully understand the following example information, go to <http://sears.sunvirtuallab.com:32110/amserver/UI/Login>.

The following components are localized:

- The browser page title string now displays its resource key:



[25]htmlTitle_Login - Mozilla Firefox

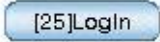
To customize the browser page title, open Java properties file [25] or `amAuthUI_nl.properties` (see [Table 1](#)) and change the value of the key titled “htmlTitle_Login”.

- The Authentication Method, User Name, and Password display the location to the XML file containing these strings and the line number of these strings, for example:

AM_INS/web-src/services/config/auth/sunvirtuallab_nl/bookshop/LDAP.xml line 17 (User Name:)

To customize the User Name string, open the file titled `LDAP.xml` located under `AM_INS/web-src/services/config/auth/sunvirtuallab_nl/bookshop/` and navigate to line 17.

- The Login button string now displays its resource string key:



[25]Login

To customize the Login button string, open Java properties file [25] or `amAuthUI_nl.properties` (see [Table 1](#)) and change the value of the key titled “Login”.

Hands-on Lab Format

The procedures in the following sections provide a practical summary of all procedures discussed in this document:

- Adding a new language to the supported language list
- Adding localization resources for a newly supported language
- Applying and testing changes

These procedures add the Dutch language to Access Manager. Nevertheless, any other language supported by a browser can be added to Access Manager. An example at the end of this section shows how to generate an MO file within UTF-8 encoding.

Adding a New Language to the Supported Language List

▼ To Create the `setServiceRevision.xml` File

- 1 Open a terminal window on the server where an instance of Access Manager is installed (if necessary).
- 2 As superuser create a temporary directory to store the XML files used to add support for a new language.

```
# mkdir -p /export/am_xml_tmp
```

- 3 Change to the temporary created directory.

```
# cd /export/am_xml_tmp/
```

- 4 Create the `setServiceRevision.xml` file.

- 5 Open the empty created file with a text editor and insert the following lines:

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE Requests PUBLIC "-//iPlanet//Sun Java System Access Manager 7.1 Admin
CLI DTD//EN" "jar://com/iplanet/am/admin/cli/amAdmin.dtd">
<!-- apply this file by: amadmin -u admin-user -w admin-pwd -t filename.xml -->
<Requests>
<SchemaRootNodeRequests serviceName="iPlanetG11NSettings">
<SetServiceRevisionNumber number="10" />
</SchemaRootNodeRequests>
```

```
</Requests>
```

- 6 Save the changes.

▼ To Apply Changes to the Access Manager Administration Console With the `amadmin` Tool

- 1 Change to the Access Manager `bin` directory.

```
# cd AM_BIN/
```

- 2 Run the `amadmin` tool as follows:

```
# ./amadmin -u admin-user -w admin-pwd -t \  
/export/am_xml/tmp/setServiceRevision.xml
```

▼ To Create the `amG11nSettings_mod.xml` File

- 1 Open a terminal window on the server where an instance of Access Manager is installed (if necessary).

- 2 Change to the temporary created directory.

```
# cd /export/am_xml_tmp/
```

- 3 Create the `amG11nSettings_mod.xml` file.

- 4 Open the empty created file with a text editor and insert the following lines:

```
<?xml version="1.0" encoding="UTF-8"?>  
  
<!DOCTYPE Requests PUBLIC "-//iPlanet//Sun Java System Access Manager 7.1 Admin  
CLI DTD//EN" "jar://com/iplanet/am/admin/cli/amAdmin.dtd">  
  
<!-- apply this file by: amadmin -u admin-user -w admin-pwd -t filename.xml -->  
  
<Requests>  
  
<SchemaRequests serviceName="iPlanetG11NSettings" SchemaType="Global">  
  
<AddDefaultValues>  
  
<AttributeValuePair>  
  
<Attribute name="sun-identity-g11n-settings-locale-charset-mapping"/>  
<Value>n|charset=UTF-8</Value>  
</AttributeValuePair>  
</AddDefaultValues>
```

```
</SchemaRequests>
```

```
</Requests>
```

- 5 Save the changes.

▼ To Apply Changes to the Access Manager Administration Console With the `amadmin` Tool

- 1 Change to the Access Manager `bin` directory.

```
# cd AM_BIN/
```

- 2 Run the `amadmin` tool as follows:

```
# ./amadmin -u admin-user -w admin-pwd -t \  
/export/am_xml/tmp/amG11nSettings_mod.xml
```

Adding Localization Resources for a Newly Supported Language

The following information pertains to the example procedures in this section:

- A default top-level organization called `example` exists.
- The default top-level organization `example` has a sub-realm called `bookshop`. The sub-realm `bookshop` has been created through the Access Manager Administration Console.
- The L10n resources for the Dutch (`nL`) language are added to sub-realm `bookshop` by doing the following:
 - Localizing the `Login.jsp` file
 - Localizing the `Logout.jsp` file
 - Localizing the `LDAP.xml` file
- The changes are applied by doing the following:
 - Redeploying the customized Access Manager instance
 - Restarting the web container where Access Manager is deployed

▼ To Prepare the Directory Structure

- 1 Open a terminal window on the server where an instance of Access Manager is installed (if necessary).
- 2 As superuser change to the authentication interface templates base directory.

```
# cd AM_INS/web-src/services/config/auth
```

- 3 **Create a directory for the top-level organization.**
`# mkdir -p example`
- 4 **Copy the contents of the default directory to a new directory for the bookshop sub-realm.**
`# cp -rp default example/bookshop`
- 5 **Create a directory to contain the Dutch localization of the bookshop sub-realm.**
`# mkdir -p example_nl/bookshop`
- 6 **Copy the default authentication interface templates for the bookshop sub-realm to this new directory.**
`# cp -rp example/bookshop/* example_nl/bookshop`

▼ To Add Localizing Authentication Interface Files

- 1 **Change to the created localization directory.**
`# cd example_nl/bookshop`
- 2 **Open the Login.jsp file in a text editor.**
- 3 **Navigate to the line that contains this string:**
`<body class="LogBdy" onload="placeCursor...>`
- 4 **Below this line, insert the following single line:**
`<h5>Welcome to a Dutch Bookshop organization.
</h5>`
- 5 **Save the changes.**
- 6 **Open the Logout.jsp file in a text editor.**
- 7 **Navigate to the line that contains this string:**
`<body class="LogBdy">`
- 8 **Below this line, insert the following single line:**
`<h5>Thank you for visiting our Dutch Bookshop organization.
</h5>`
- 9 **Saves the changes.**
- 10 **Open the LDAP.xml file in a text editor.**

11 Navigate to the line that contains this string:

```
<Callbacks length="2" order="1" timeout="120" header="This server uses LDAP Authentication" >
```

12 Replace this line with the following single line:

```
<Callbacks length="2" order="1" timeout="120" header="This Dutch server uses LDAP Authentication" >
```

13 Save the changes.

Applying and Testing Changes

▼ To Redeploy an Access Manager Instance

1 Open a terminal window on the server where an instance of Access Manager is installed (if necessary).

2 As superuser change to the Access Manager bin directory.

```
# cd AM_BIN/
```

3 Copy the `amsamplesilent` file to a new file titled `amsilentredeploy`.

4 Open the `amsilentredeploy` file in a text editor.

5 Customize the `amsilentredeploy` file with the environment details where the Access Manager instance is deployed.

6 Save the changes to the new `amsilentredeploy` file.

7 Run the `amconfig` tool.

```
# ./amconfig -s ./amsilentredeploy
```

8 Restart the web container in which the Access Manager instance is currently deployed.

▼ To Test Localizations

1 Open a browser window (if necessary).

2 Set the browser language setting to Dutch (nl).

- 3 **Go to** `http://host.domain/amserver/UI/Login?org=bookshop`.
A customized Access Manager Administration Console Login page appears.

Generating an MO File in UTF-8 Encoding

This section is not directly related to Access Manager. However, you should perform the following procedures when customizing the Access Manager CLI with a new language.

An MO file is commonly generated with a PO file. Hence, create a PO file and then generate the MO file.

▼ To Create a PO File

- 1 **Open a terminal window (if necessary).**
- 2 **As superuser create a temporary directory.**

```
# mkdir /export/am_mo_gen
```
- 3 **Change to the created directory.**

```
# cd /export/am_mo_gen
```
- 4 **Create an `example.po` file.**
- 5 **Open the empty `example.po` file in a text editor.**
- 6 **Add the following content to the file:**

```
domain "example"  
  
msgid "This is an example how to generate a Machine Object file in UTF-8  
encoding"  
  
msgstr "Cet exemple démontre comment générer un fichier Machine Object encodé  
avec UTF-8"
```
- 7 **Add the charset specification to the bottom of the file, as follows:**

```
"Content-Type: text/plain; charset=UTF-8\n"
```
- 8 **Save the changes.**

▼ To Generate an MO File From the Created PO File

- 1 Open a terminal window (if necessary).
- 2 Go to the directory where a PO file is stored, `/export/am_mo_gen` in this procedure.

```
# cd /export/am_mo_gen
```

- 3 Generate the MO file by using the `msgfmt` tool.

```
# msgfmt -g -o example.mo example.po
```

Revision History

Version	Date	Description of Changes
1.0	June 25, 2007	Initial publication.

Accessing Sun Resources Online

The docs.sun.com (SM) web site enables you to access Sun technical documentation online. You can browse the docs.sun.com archive or search for a specific book title or subject. Books are available as online files in PDF and HTML formats. Both formats are readable by assistive technologies for users with disabilities.

To access the following Sun resources, go to <http://www.sun.com>:

- Downloads of Sun products
- Services and solutions
- Support (including patches and updates)
- Training
- Research
- Communities (for example, Sun Developer Network)

Third-Party Web Site References

Third-party URLs are referenced in this document and provide additional, related information.

Note – Sun is not responsible for the availability of third-party web sites mentioned in this document. Sun does not endorse and is not responsible or liable for any content, advertising, products, or other materials that are available on or through such sites or resources. Sun will not be responsible or liable for any actual or alleged damage or loss caused or alleged to be caused by or in connection with use of or reliance on any such content, goods, or services that are available on or through such sites or resources.

Sun Welcomes Your Comments

Sun is interested in improving its documentation and welcomes your comments and suggestions. To share your comments, go to <http://docs.sun.com> and click Send Comments. In the online form, provide the full document title and part number. The part number is a 7-digit or 9-digit number that can be found on the book's title page or in the document's URL. For example, the part number of this book is 820-2238.

