



Technical Note Customizing SSO Authentication Forms

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Introduction

Introduction

Progress Kemp's Edge Security Pack (ESP) simplifies the secure publishing of applications with pre-authentication of clients and Single Sign-On to improve the user experience. ESP can be fully integrated into your current authentication and authorization directories, including Microsoft Active Directory.

With the Edge Security Pack (ESP), it is possible to specify how clients, which are connecting to the LoadMaster, are authenticated. One of the options is **Form Based** authentication. When this option is selected, clients must enter their user details within a form to be authenticated on the LoadMaster.

When **Form Based** authentication is enabled, it is possible to customize the login form that the user sees.

For more information on ESP, and the various methods of authentication, refer to the [ESP, Feature Description](#).

Related Links

- [Document Purpose](#)
- [Intended Audience](#)

Document Purpose

Document Purpose

This document describes how to customize the login form when **Form Based** authentication is selected as the **Client Authentication mode**.

Intended Audience

Intended Audience

This document is intended to be read by anyone who is interested in finding out how to customize the Progress Kemp ESP authentication form.

Customizing the Login Form

Customizing the Login Form

There are two ways to customize the ESP login form:

- Using the SSO Greeting Message text box
- Using a Single Sign On (SSO) image set

The **SSO Greeting Message** text box is an easy way of adding some text to the login form.

The SSO image set option should be used for further customizations, such as configuring the form to have a desired look and feel.

Refer to the relevant section below to find out more.

Related Links

- [SSO Greeting Message](#)
- [SSO Image Set](#)
- [Backing Up and Restoring a Custom SSO Image Set](#)
- [Display Public/Private Option](#)

SSO Greeting Message

SSO Greeting Message

The login form can be customized by adding text. To do this, follow the steps below in the LoadMaster Web User Interface (WUI):

1. In the main menu of the WUI, select **Virtual Services** and **View/Modify Services**.
2. Click **Modify** on the relevant Virtual Service.
3. Expand the **ESP Options** section.

ESP Options

Enable ESP ☒

ESP Logging

User Access: ☒ Security: ☒ Connection: ☒

Client Authentication Mode

Form Based

SSO Domain

ESPTTEST.LOCAL

Available Domain(s)

EXAMPLE.COM

Assigned Domain(s)

None Assigned

Alternative SSO Domains

Set Alternative SSO Domains

Allowed Virtual Hosts

mail.exchange.com mail.exch

Set Allowed Virtual Hosts

Allowed Virtual Directories

/owa*

Set Allowed Directories

Pre-Authorization Excluded Directories

Set Excluded Directories

Permitted Groups

Set Permitted Groups

Permitted Group SID(s)

Set Permitted Group SIDs

Include Nested Groups

☐

Steering Groups

Set Steering Groups

SSO Image Set

Exchange

SSO Greeting Message

This is an example SSO Gre

Set SSO Greeting Message

Logoff String

Set SSO Logoff String

Display Public/Private Option

☒

Disable Password Form

☐

Enable Captcha

☐

Use Session or Permanent Cookies

Session Cookies Only

User Password Change URL

/owa/auth/expiredpassword.

Set Password Change URL

User Password Change Dialog Message

Please change your

Set Dialog Message

User Password Expiry Warning

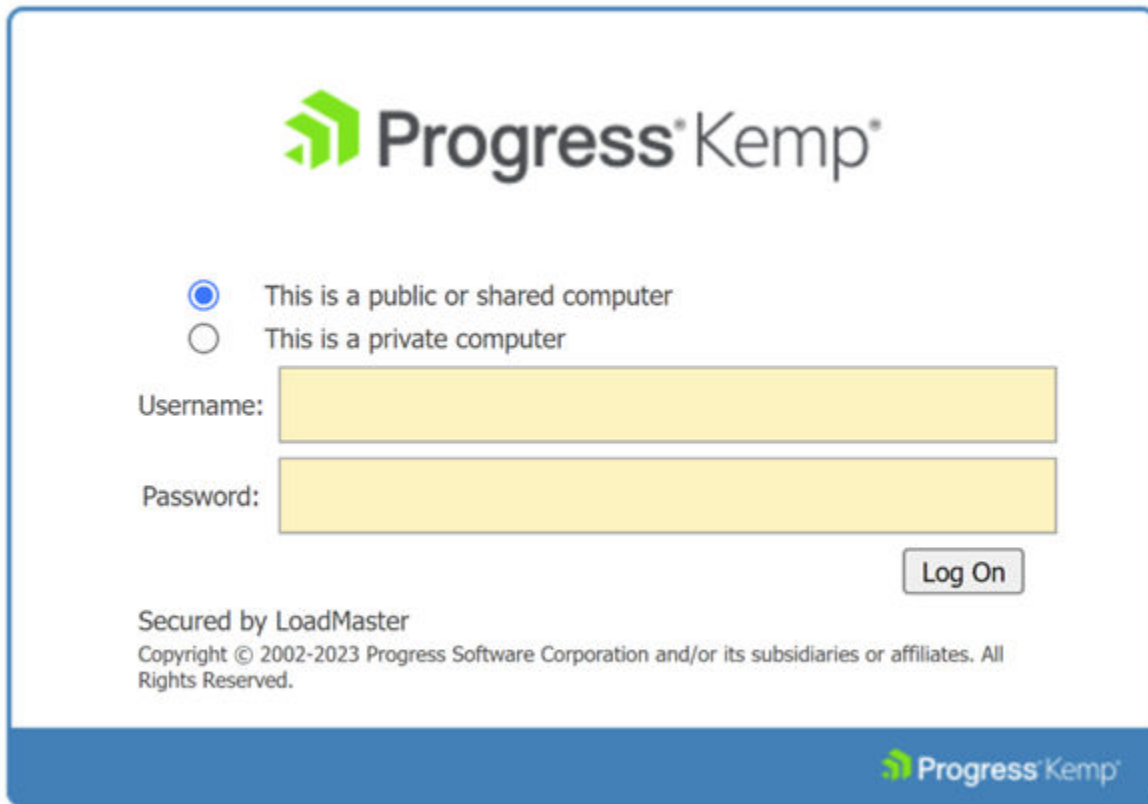
☒ 15 days

Server Authentication Mode

None


4. Ensure that ESP is enabled.
5. Ensure that the Client Authentication mode is set to Form Based.
6. Enter the text that you would like to appear on the form within the **SSO Greeting Message** text box.
7. Click the Set SSO Greeting Message button.


Note: The message can have up to 255 characters.



The screenshot displays the Progress Kemp login interface. At the top center is the Progress Kemp logo, featuring a green icon and the text "Progress Kemp". Below the logo are two radio button options: "This is a public or shared computer" (selected) and "This is a private computer". Underneath these options are two yellow input fields labeled "Username:" and "Password:". To the right of the password field is a "Log On" button. At the bottom left, the text "Secured by LoadMaster" is displayed, followed by a copyright notice: "Copyright © 2002-2023 Progress Software Corporation and/or its subsidiaries or affiliates. All Rights Reserved." The bottom right corner of the form features the Progress Kemp logo again, set against a blue background.

An example Exchange login form with an SSO greeting message is shown in the screenshot above.





Authorized Access Only !!!

☒ This is a public or shared computer
☐ This is a private computer

Remote Credentials

Username:


Passcode:

Internal Credentials

Internal Username:

Internal Password:

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The SSO Greeting Message field accepts ASCII characters and HTML code, so you can insert an image if required.

Note: The **SSO Greeting Message** displays up to 255 characters. Any ASCII character is accepted and will be displayed in the message, with two exceptions: the grave accent character (`) and the single quote ('). If a grave accent character is used in the SSO Greeting Message, the character will not display in the output, for example **a`b`c** becomes **abc**. If a single quote is used, users will not be able to log in.

Note: In addition to ASCII characters, HTML-encoded characters are also accepted and can be used to display non-ASCII characters in the login form; just type HTML-encoded characters into the **SSO Greeting Message** text box in the LoadMaster. For example, for the letter **Ä**, you must type the HTML-encoded code

for this letter, for example, **Ä**. For further information, please see: [List of XML and HTML character entity references](#).

SSO Image Set

SSO Image Set

Enable ESP☒

ESP Logging

User Access:☒ Security:☒ Connection:☒

Client Authentication Mode

Form Based

SSO Domain

ESPTTEST.LOCAL

Available Domain(s)

None Available

Assigned Domain(s)

None Assigned

Set Alternative SSO Domains

Allowed Virtual HostsSet Allowed Virtual Hosts

Allowed Virtual DirectoriesSet Allowed Directories

Pre-Authorization Excluded DirectoriesSet Excluded Directories

Permitted GroupsSet Permitted Groups

Permitted Group SID(s)Set Permitted Group SIDs

Include Nested Groups☐

Multi Domain Permitted Groups☐

Steering GroupsSet Steering Groups

SSO Image Set

Exchange

SSO Greeting Message

Blank

ing Message

Logoff String

Blank - Customizable

String

Display Public/Private Option

Dual Factor Authentication

Disable Password Form

Dual Factor Authentication - Customizable

Enable Captcha

Exchange

Use Session or Permanent Cookies

Français Canadien - Blank

Cookie SameSite Processing

Français Canadien - Exchange

Português do Brasil - Blank

Português do Brasil - Exchange

User Password Change URLSet Password Change URL

Server Authentication Mode

None

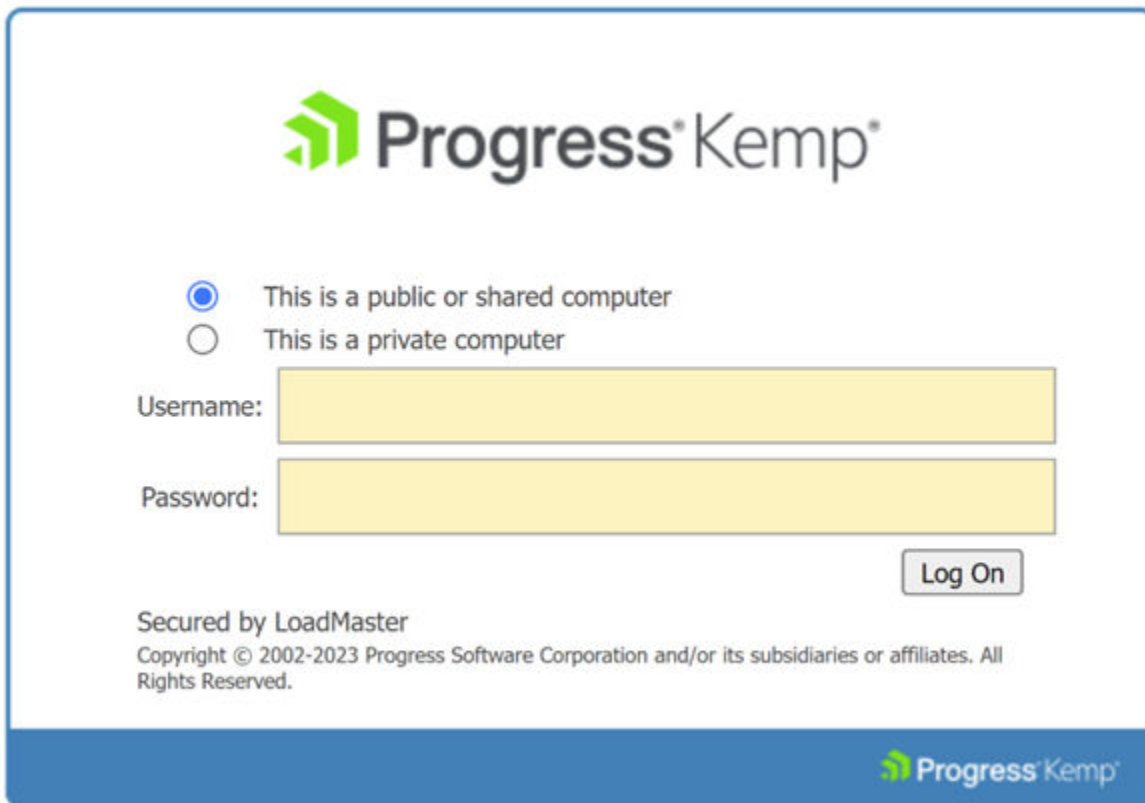
The **SSO Image Set** option is only available if **Form Based** is selected as the **Client Authentication mode**. The SSO image sets available are:

- Blank
- Blank Customizable
- Dual Factor Authentication
- Dual Factor Authentication - Customizable
- Exchange

- French Canadian - Blank
- French Canadian - Exchange
- Brazilian Portuguese - Blank
- Brazilian Portuguese - Exchange
- Any custom SSO image sets which have been uploaded

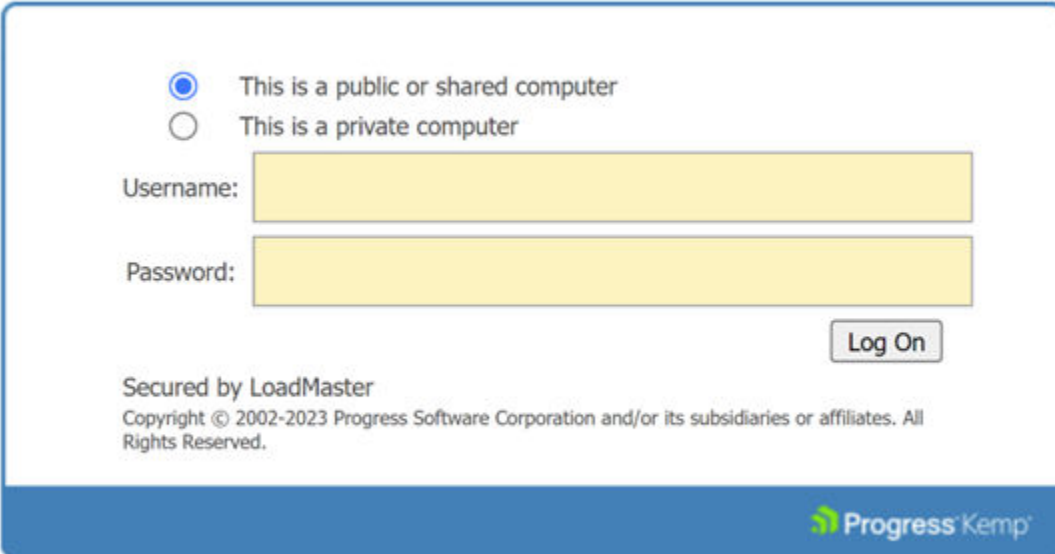
Note: When using the Exchange image set, you must select the image set in the **LM_Auth_Proxy**, **OWA**, and **ECP** SubVSs.

Exchange Form

The image shows a login form for Progress Kemp. At the top is the Progress Kemp logo, which consists of a green icon followed by the text "Progress Kemp". Below the logo are two radio buttons. The first radio button is selected and is labeled "This is a public or shared computer". The second radio button is unselected and is labeled "This is a private computer". Below these are two yellow input fields. The first is labeled "Username:" and the second is labeled "Password:". To the right of the password field is a "Log On" button. At the bottom left, it says "Secured by LoadMaster" and "Copyright © 2002-2023 Progress Software Corporation and/or its subsidiaries or affiliates. All Rights Reserved." At the bottom right is the Progress Kemp logo again.

The **Exchange Form** contains the Progress Kemp logo.

Blank Form

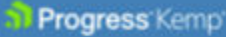


☒ This is a public or shared computer
☐ This is a private computer

Username:

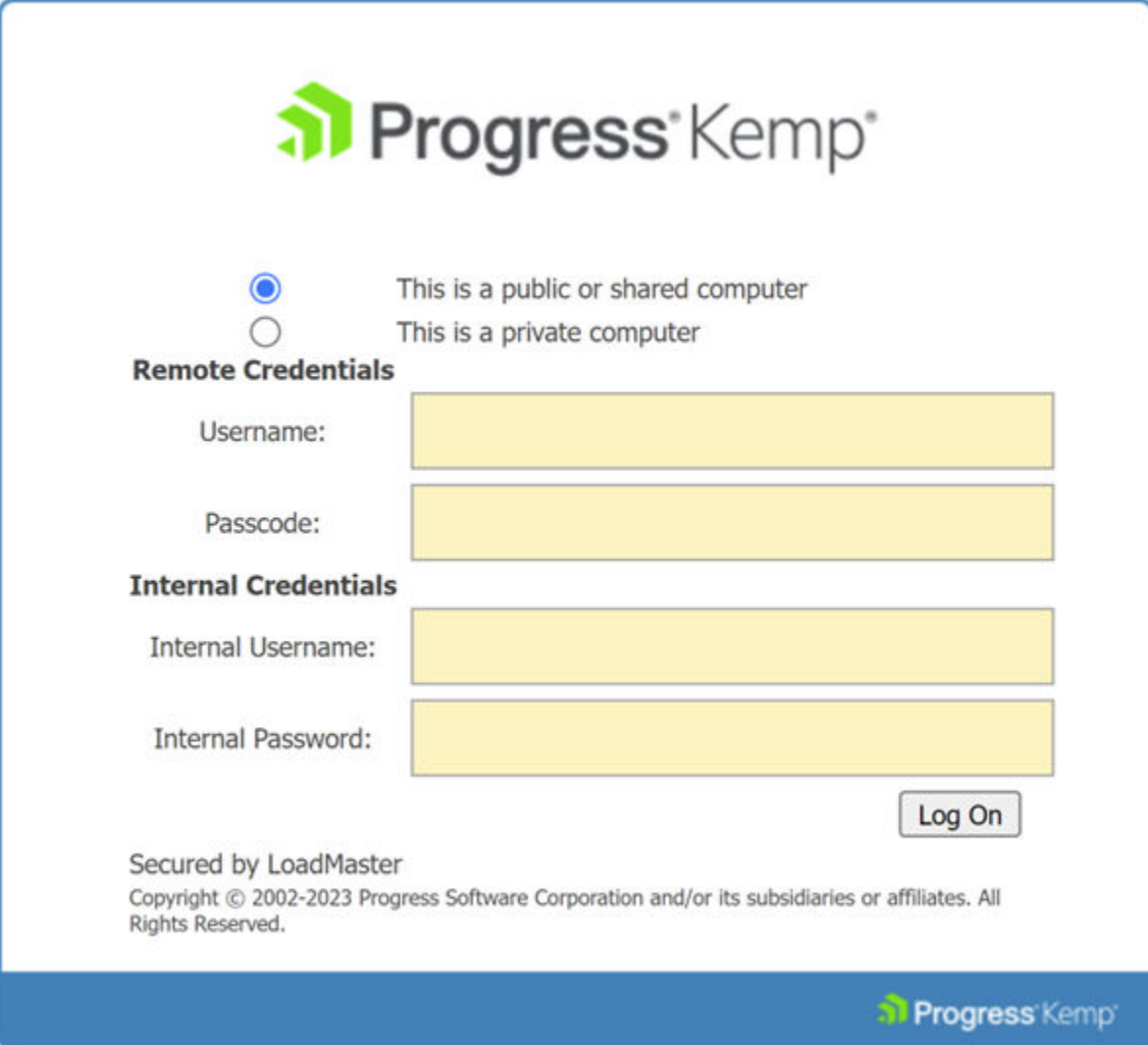
Password:

Secured by LoadMaster
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 Progress Kemp

The **Blank Form** does not contain the large Progress Kemp logo.

Dual Factor Authentication



The image shows a login form for Progress Kemp. At the top is the Progress Kemp logo. Below it are two radio buttons: the first is selected and labeled 'This is a public or shared computer', and the second is unselected and labeled 'This is a private computer'. Under the first radio button, there is a section titled 'Remote Credentials' with two yellow input fields: 'Username:' and 'Passcode:'. Below these is a section titled 'Internal Credentials' with two yellow input fields: 'Internal Username:' and 'Internal Password:'. To the right of the 'Internal Password:' field is a 'Log On' button. At the bottom left, it says 'Secured by LoadMaster' and 'Copyright © 2002-2023 Progress Software Corporation and/or its subsidiaries or affiliates. All Rights Reserved.' At the bottom right is the Progress Kemp logo again.

The **Dual Factor Authentication** form contains four fields - two for the remote credentials and two for the internal credentials.

Remote Credentials are credentials that are used to authenticate against remote authentication servers such as RADIUS, before allowing the user to authenticate against Domain Servers such as Active Directory servers.

Internal Credentials are credentials that are used to authenticate against the internal domain servers such as Active Directory Servers.

Note: If the **Authentication Protocol** of the relevant **SSO Domain** is set to **RADIUS** and **LDAP**, the **SSO Image Set** must be set to **Dual Factor Authentication**.

Related Links

- [Custom SSO Image Set Guidelines](#)

- [Uploading a Custom SSO Image Set](#)

Custom SSO Image Set Guidelines

Custom SSO Image Set Guidelines

It is possible to add your own SSO image set to customize the look and feel of the login form. The custom SSO image set must be in the format of a .tar file. Template .tar files are available from the Progress Kemp Support site: [Single Sign-On Custom Images](#). There is one template for regular login forms and one for dual factor authentication.

After you download the file, you must unzip it before you can upload it to the LoadMaster.

These templates can be modified to gain the desired look and feel. Guidelines on the tar file are below:

- The .tar file should have the following folder structure:

```
imagesets/  
  
<IMAGESETNAME>/  
  
lm_initial.html  
  
lm_logout.html  
  
MANIFEST  
  
...
```

lm_initial.html: The lm_initial.html is a dummy ESP login page which you can modify or use as is. This page will be presented for authentication when you connect to the ESP Virtual Service. The public/private option becomes available on the ESP login page if **Display Public/Private Option** is enabled. By default, this option is enabled.

lm_logout.html: The lm_logout.html is a dummy ESP logout page which you can modify or use as is. This page prompts when you successfully log out from ESP service.

Note: When compressing the .tar file, please ensure to compress the **imagesets** folder, not the folder above or beneath it.

- Multiple image sets can be included:
 - imagesets/<IMAGESETNAME_1>/<files>

/<IMAGESETNAME_2>/<files>

- The name that you specify as **<IMAGESETNAME_*>** is the name that will appear in the **SSO Image Set** drop-down list in the WUI. This name can contain Unicode characters.

Note: If the name of the custom SSO image set is the same as one of the default SSO image set names, the default one has precedence.

- All image set resources should contain non-encoded characters, that is, ASCII.

- The full list of required files for the image set is as follows:

```
# Default manifest of all files that are part of the logon
# screens.
#ident "$Id: EN-Blank.manifest 21364 2022-02-11 15:19:55Z author $ date"
#
# Format is "filename filetype".
# The first file is the initial login screen
# The second file is the logout screen.
#

lm_initial.html
lm_logout.html Text/html
lm_sso.js
espblank.png
espbottom.png
favicon.ico
kmgerror.png
kmgexleft.png
kmgexlogo.png
kmgexright.png
kmgleft.png
kmgright.png
kmgstyle.css
```

- A file called **MANIFEST** is mandatory. This file should contain a list of files that exist in the directory that should be loaded as part of the set. If the **MANIFEST** file does not exist, the image set will not work. Lines in this file can be commented out by adding # to the start of the line. Blank lines are ignored. The last line of the MANIFEST file must be a new line.
- The first uncommented line should contain the file for the main login page
- The second uncommented line should contain the file for the logout page
- All other files defined in the file, for example image, CSS or Javascript files, can be used by the login and logout pages
- If a listed file is missing, it will simply not be present on the page. For example, if a line in the **MANIFEST** refers to **image.jpg** and that image file is missing from the tar, it will be a broken image on the page.

Note: The logical format of the main login page cannot be changed. If the format is not maintained, problems will occur. The formatting and any CSS can be changed at will.

```
SSO_Image_Set_Template_V7.1.34.1
This is an example
```

Manage Single Sign On Options

Client Side Single Sign On Configurations

Name	Operation
TEST.LOCAL	<input type="button" value="Modify"/> <input type="button" value="Delete"/>

Add new Client Side Configuration

Server Side Single Sign On Configurations

Add new Server Side Configuration

Single Sign On Image Sets

Installed Image Sets	Installation Date	Operation
IMAGESETNAME_1 SSO_Image_Set_Template_V7.1.34.1 This is an example	Tue Jun 21 11:07:42 2016	<input type="button" value="Delete"/>

Add new Custom Image Set

Image File: No file selected.

- A file called **INFO** is read. This is a simple text file which contains a description of the image set and perhaps a version number. The contents of this file are displayed on the admin WUI to help identify which package/version has been installed. For example, this could contain version information.

Note: The **INFO** file is not mandatory. If it does not exist or if it is blank, only the installed date is displayed in the WUI.

- The maximum size restriction on images is approximately 1 MB. This is dependent on the amount of space on /tmp for storing the file as it is being downloaded. There is also an additional limit for how much space is available on the flash (the 512 MB boot partition). Multiple large image sets can cause problems.
- Image file names can be a maximum of 31 characters long.
- The syntax for adding an image to a custom authentication form is as follows: **** Replace **URL** with the URL of the image. Replace **NN** for **width** and **height** with the desired values.
- If a package is installed multiple times, the older packages are overwritten.
- It is the responsibility of the package builder to verify that all components included are valid. A missing file will not be displayed. Broken pages may cause problems.

Uploading a Custom SSO Image Set

Uploading a Custom SSO Image Set

To upload the custom SSO image set to the LoadMaster, follow the steps below in the LoadMaster WUI:

1. In the main menu, select **Virtual Services** and **Manage SSO**.
2. Click **Choose File**.
3. Browse to and select the .tar file.
4. Click **Add Custom Image Set**.

After adding the file, the supplied image set(s) is listed on this page. It will also be available to select in the **SSO Image Set** drop-down list in the **ESP Options** section of the Virtual Service modify screen.

Note: You can rename an image set by renaming the folder within the **imagesets** folder. After uploading, the new image set name is displayed in the **SSO Image Set** drop-down list.

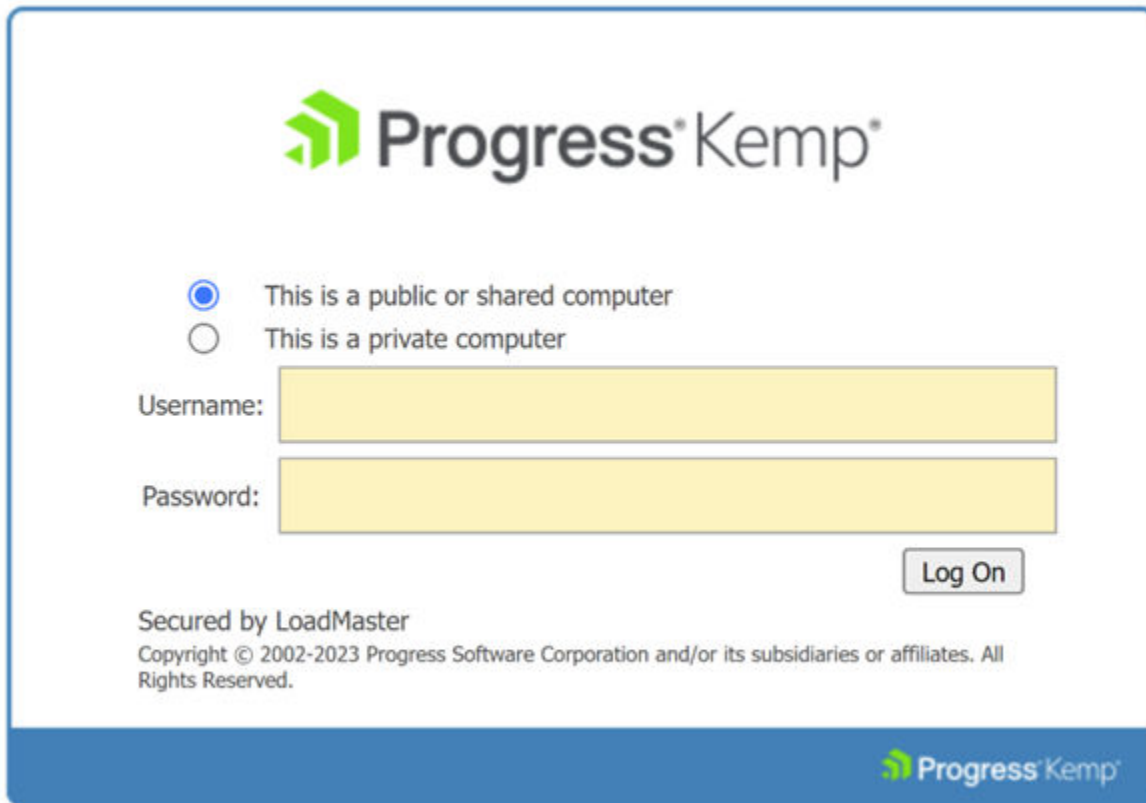
Backing Up and Restoring a Custom SSO Image Set

Backing Up and Restoring a Custom SSO Image Set

Any custom SSO image sets that exist on the LoadMaster are contained in any LoadMaster backups that are taken. They are restored when **VS Configuration** is selected when restoring a backup file.

Display Public/Private Option

Display Public/Private Option



The screenshot shows the Progress Kemp login interface. At the top is the Progress Kemp logo. Below it are two radio button options: "This is a public or shared computer" (selected) and "This is a private computer". Under these are two yellow input fields for "Username:" and "Password:". To the right of the password field is a "Log On" button. At the bottom left, it says "Secured by LoadMaster" and "Copyright © 2002-2023 Progress Software Corporation and/or its subsidiaries or affiliates. All Rights Reserved." The bottom right corner features the Progress Kemp logo on a blue background.

Enabling the **Display Public/Private Option** check box in the **ESP Options** section of the Virtual Service modify screen will display a public/private option on the ESP login page. Based on the option the user selected on the login form, the **Session Timeout** value is set to the value specified for either public or private in the **Manage SSO** domain screen. If the user is on a public or shared computer, they should use the default option (**This is a public or shared computer**), which does not save their credentials locally.

References

References

Unless otherwise specified, the following documents can be found at <https://docs.progress.com/>.

ESP, Feature Description

[Single Sign-On Custom Image Sets](#)