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ParkereSSe Access, Control, Verification Add-In (PS.ACV)

Contents

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Introduction

The ParkereSSe Access, Control, Verification add-in, PS.ACV, is an application library that manages user login, user entitlements, and license verification. PS.ACV can be integrated into customer host applications to provide full-featured license and user management. The library includes a secure database, user interfaces for license and user operations, and integration with the ParkereSSe Web API.

Key issues with many applications, small and large, are limiting access to specific users, controlling what functions the users are able to perform, and verifying the application installation is approved. PS.ACV provides tools to perform all these services in a Windows library that is easily referenced by a host application. The following sections provide an overview of PS.ACV functionality.

PS.ACV: Access and Control

User Management Console

PS.ACV includes a User Management Console to manage users with access to the application:

An existing UserID can be selected to view and configure access/control criteria that include:
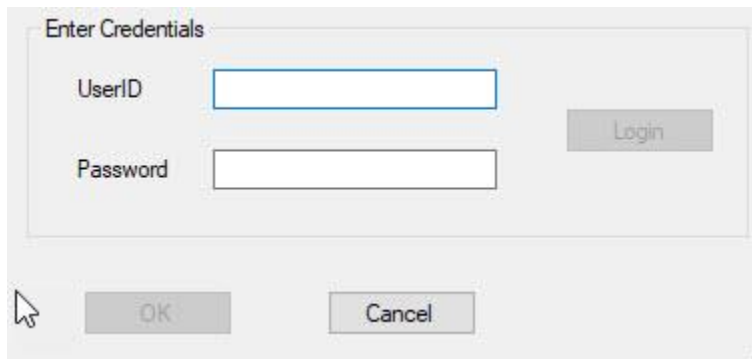
- Entitlements
    - Defined for the host application
    - One or more assigned as current entitlements
    - Provide access to the respective host application functions associated with the entitlement.
- Set Temporary Password
    - Forces user to create a new password on the next Login
    - Used to reset user password or force user to change password
- Session Status
    - Shows if user has an open session (Logged in but has not logged out)
    - Option to close the current open session
        - Used to close sessions where application ended abnormally (e.g., application/computer error or shutdown)
- Delete User
    - Remove the UserID from access to the application.

The 'New User' controls provide a means to enable host application access to new users:

- UserID: Create a new, unique UserID
- Temporary Password: Create a one-time temporary password
    - User will be required to create a new password on the first Login.
- Add: Adds the UserID to the user list.
    - The new UserID can then be selected and have entitlements assigned.

Login

Upon host application startup, PS.ACV prompts the user for login credentials:

Password is case-sensitive. The current UserID list is searched for a match. If found and if required, the user will be prompted to enter a new password. Otherwise a case sensitive comparison between the entered Password and the stored password is performed. If they match, the user can proceed to the host application. Otherwise, the user can try again or exit the application.

With a successful login, the assigned Entitlements are returned to the host application to control functional access.

PS.ACV: Verification

PS.ACV Verification consists of three functions:

- License Registration
    - New license creation (LicenseKey generation)
    - Recovery challenge question/answer created and stored
- License Recovery
    - Recovery of existing license using challenge data
- License and Number of Users Verification
    - Verification of valid license for the application
    - Tracking of user open sessions
    - Check of open session count to license allowable number of users

In support of these functions, PS.ACV makes calls to the PS Web API where application licenses are created and managed. Each of these functions is detailed in the following sections. Screen shot examples are for the PS.CRT application.

A Point of Contact associated with the host application provides the Customer Name and Number Users for the new license. This contact will also receive the CustomerID, required for both license registration and recovery.

PSLTD receives notifications about PS.ACV activity, in particular errors so that these can be researched and addressed. Optionally, the Point of Contact can also receive these notifications.

License Registration

After host software installation, the LicenseKey does not exist. The software must be registered and a LicenseKey created.

On starting the software and after successful login, the user will be asked if this is a 'new customer or first-time installation' or 'existing customer'. Choose 'new customer' to register the software and create a new LicenseKey or 'existing customer' to recover the LicenseKey (see next section).

To proceed with a new registration (screen shown below), the CustomerID provided to the host application Point of Contact is needed to validate a pending license registration exists. An internet connection is also required to submit the registration request to PSLTD and receive the LicenseKey. A Challenge Question and Answer are entered and used for license recovery (see next section).
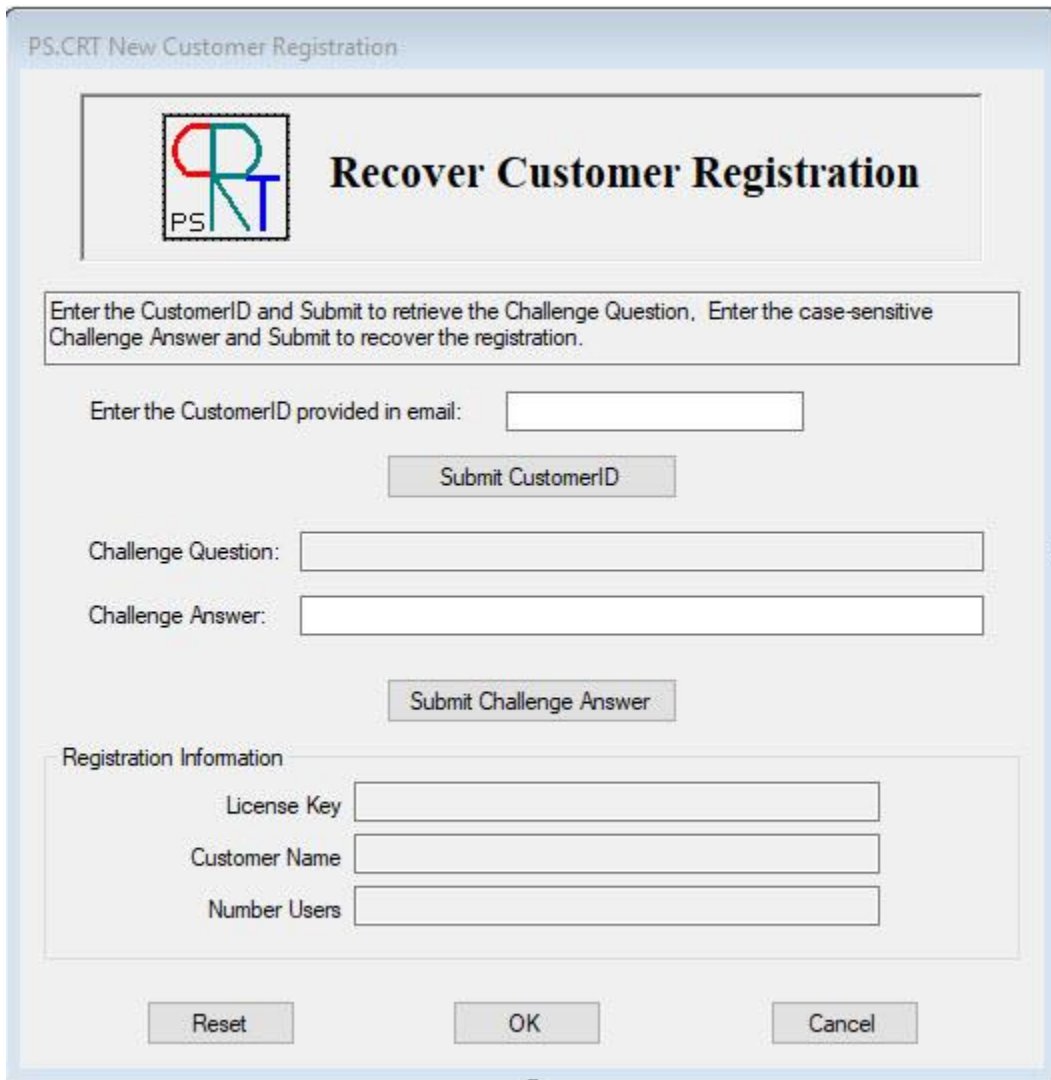

If the registration is successful, a LicenseKey is generated and displayed along with the Customer Name and Number Users defined for the host application by the Point of Contact. Registration failure is reported back to the host application and typically results in application shut down,

License Recovery

After a successful license registration, if the license is lost (e.g., new computer installation or re-installation), then after Login and selection of 'existing customer', the user will be shown a 'Recover Customer Registration' screen (see below). The CustomerID, Challenge Answer, and an internet connection are required.

After CustomerID is entered and a valid license associated with the CustomerID verified, the Challenge Question will be shown. The Challenge Answer is entered and verified.

If the verification is successful, the license information is displayed. Verification failure is reported back to the host application and typically results in application shut down,

License and Number of Users Verification

After each successful Login, a verification process performs the following:

- Validates the LicenseKey for the CustomerID and host software.
- Records the UserID Session as open with UserID and host application information.
- Checks the number of current open Sessions for the LicenseKey.

The verification requires an internet connection.

If the LicenseKey is validated and the number of open Sessions is less than or equal to the Agreement 'Number of Users', then software operation continues with no user messaging or action required.

If verification fails, then depending on the condition, an informational message is displayed and a "continue" or "exit" response is returned to the host application. The license can be configured to have a grace and warning period. Failures within the grace period are not reported. Failures that occur during the warning period generate a user message and "continue" response. Failures that exceed the warning period generate a user message and "exit" response. Additionally, the PS.ACV response when the number of open sessions exceed the license 'Number Users' can be configured.