PROXY Pro Host Updater Manual

Proxy Networks originally developed this tool to facilitate managing Host settings and its functionality has now been expanded to allow for Host software version upgrades. The requirement is that the Hosts simply have to be reporting into your PROXY Pro RAS server with an OK status and if so, the tool can update settings. Hosts must be at least v10.3 to be upgraded. The PROXY Pro Deployment Tool's "Update Host Settings" capability works great only when the Hosts are within the same network as the machine running the tool. PhSetup, the Host's command line configuration utility, works great only for Hosts that are joined to your domain and are managed by Active Directory. Neither are requirements for this tool and it even has a mechanism to remember the Hosts it has already updated and will auto-retry when offline Hosts later become online. Below is a breakdown of each of the capabilities and at the very end of this document you'll find the steps to update settings and upgrade the version.

1. **Add Task**
2. **Verify Task**
3. **Edit Task**
4. **Delete Task**
5. **Run Task**
6. **Task Summary**
7. **Task Report**
8. **Export Configuration to JSON**
9. **Preparing to Update Host Settings**
10. **Update Settings Only**
11. **Install Upgrade Only**
12. **Install Upgrade and Update Settings**

1. Add Task

The "Add Task" button will present a series of dialog boxes that collect information required to define a New Task. Three radio buttons are presented – Update Settings Only, Install Upgrade Only, and Install Upgrade and Update Settings.

Update Settings Only
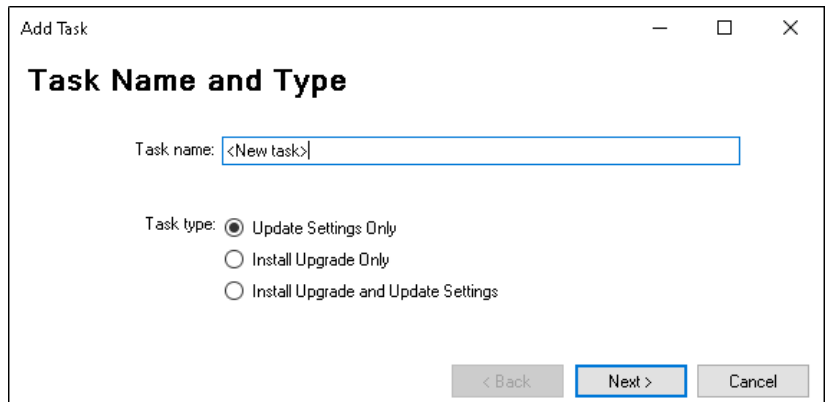Push a Host settings template to one or more groups of Hosts with a JSON string.

Install Upgrade Only
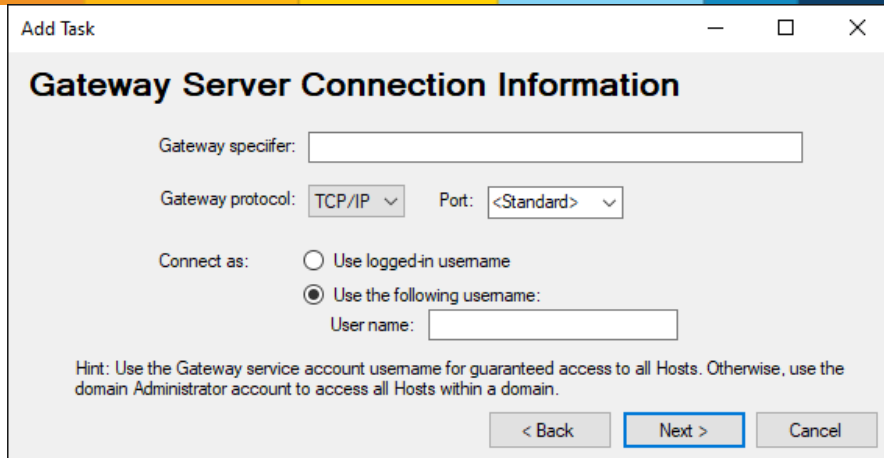Push a new Host version to upgrade from an existing version to one or more groups of Hosts.

Install Upgrade and Update Settings
Push a new Host version to upgrade from an existing version and apply settings with a JSON string to one or more groups of Hosts.

If the connection using current logged-in credentials or explicitly entered credentials is unsuccessful, the credentials prompt comes up again to prompt for explicit credentials and the connection is re-tried.

If the connection is successful, the utility determines whether the user authenticated as a system-category account, and whether the Gateway supports the new feature. If either is not the case, this fact is recorded and a warning is reported.

The second dialog box is captioned "Add Task" with a prompt to "Select Gateway Groups" at the top and presents a list view of the Host Groups known to the Gateway Server. The default is to have the "All Hosts" group selected (if connected to a v9 Gateway server), or the "Managed Hosts" group selected (if connected to a v10 Gateway server). Check or uncheck checkboxes next to the name of as many groups as needed. The utility will attempt to process each of the Hosts contained in each of the checked groups. Even if a Host appears in more than one group, it will only be processed once. The "Next" button proceeds to the next dialog.

If Update Settings Only is selected, the third dialog is captioned "Add Task" with a prompt to "Enter text of Host Settings" and contains a large edit box for composing a JSON document. The initial content of the edit box is empty. It's the user's responsibility to craft a valid JSON settings document and paste it into this field. A "Browse" button allows the user to select and import a previously created JSON file. The "Next" button on this dialog box closes the dialog and returns to the main window. The newly created task is stored in the database and the main window now displays the new task in summary form in the main list view. The JSON file can be created for you by the PROXY Pro Deployment Tool after having made a settings template with at least one setting. From it, expand Product Configurations, and expand Host to see previously generated template(s). Right-click your desired template -> All Tasks -> Copy JSON string to clipboard. Or from an already-configured Host, run phsetup mode:exportjson from the Host's installation directory.

If Upgrade Version Only is selected, the third dialog is captioned "Add Task" and a pair of "Browse" buttons allows the user to select Host-x64.msi for 64-bit systems or Host.msi for 32-bit systems. The "Next" button on this dialog box closes the dialog and returns to the main window. The newly created task is stored in the database and the main window now displays the new task in summary for in the main list view. The new task initially has a blank gray box for an icon.

If Install Upgrade and Update Settings is selected, the third radio dialog is captioned "Host Installers" and a pair of "Browse" buttons allows the user to select a Host-x64.msi for 64-bit systems or Host.msi for 32-bit systems. The "Next" button will prompt for "Host Settings to be Applied" and contains a large edit box for composing a JSON document. The initial content of the edit box is empty. It's the user's responsibility to craft a valid JSON settings document and paste it into this field. A "Browse" button allows the user to select and import a previously created JSON file. The "Next" button on this dialog box closes the dialog and returns to the main window. This newly created task is stored in the database and the main window now displays the new task in summary form in the main list view. The JSON file can be created for you by the PROXY Pro Deployment Tool after having made a settings template with at least one setting. From it, expand Product Configurations, and expand Host to see previously generated template(s). Right-click your desired template -> All Tasks -> Copy JSON string to clipboard. Or from an already-configured Host, run phsetup mode:exportjson from the Host's installation directory.

2. Verify Task

The "Verify Task" button is enabled when a non-running task is selected in the main list view. When the "Verify Task" button is selected, the utility checks that the Gateway is reachable using the specified station, protocol/port and credentials. It also verifies that the connection has been authenticated as a System-category user, and that the Gateway version supports the new feature. Any error in connecting or verifying these conditions places a warning or error message in the list view next to the corresponding task, and the task icon has a red dot added to it. If the task is successfully verified, the error message is cleared and the icon is given a black dot.

3. Edit Task

The "Edit Task" button is enabled when a non-running task is selected in the main list view. When the "Edit Task" button is selected, the utility invokes the same series of dialog boxes used to create a new task, allowing the user to make changes to an existing task. Any changes are immediately stored in the database. Note that editing a task clears any previous state saved with the task, and the edited task, when run, will revisit all of the Hosts selected by the task.

4. Delete Task

The "Delete Task" button is enabled when a non-running task is selected in the main list view. When the "Delete Task" button is selected, the utility prompts the user to verify that the selection was intentional, and if so, the corresponding task is deleted from the list view, and any storage associated with that task is deleted from the database.

5. Run Task

The "Run Task" button is enabled when a non-running task is selected in the main list view. When the "Run Task" button is selected, the utility places the task into execution. The execution phase runs on one or more background threads and tries to keep the UI thread responsive. While execution is running, the user is able to perform the following actions:

- Select a running task, (the "Run Task" button label is changed to "Stop Task") and select the "Stop Task" button, which prompts "Are you sure?" and then stops the execution process.
- Add, Verify, Edit, Delete, Run or Report other non-running tasks.
- Click on the window Close box, which should do the same thing as picking the "Stop" button for all running tasks and then exit the program, preserving any accumulated state.

The execution phase does the following things:

1. Reads the list of all Hosts (accessible by this user) from the selected groups and consolidates the list such that no Host appears more than once.
2. Builds an appropriate data structure that tracks the Host information (specifically, Workstation ID, and user-understandable identifying information like Station Name and/or Machine Name, and a status flag that says whether the Host has been updated successfully, has been connected-to but not updated (because of rights limitation), or not yet connected to. There should be global variables with counters of the total number of Hosts, and the number that have been updated.
3. While the number of updated Hosts is less than the total Number:
   a. Find the next Host that needs connecting to.
   b. Connect through the GWS to that Host (by Host GUID).

     c.   If connected successfully, verify account has rights to update all settings; if not, set flag that says host was connected to but not updated. Otherwise, update Host, and set that flag. In both cases, counter of updated hosts is incremented.

     d.   If connection fails, leave Host marked as not yet connected to.

     e.   Loop.

4.   If all Hosts are successfully connected-to (whether they were updated or not), the execution phase stops, and the UI is updated to reflect that.

The application window should display the following information at all times:

- Total number of Hosts to be updated.
- Number of Hosts that have been connected-to.

Current activity (e.g. info that would appear in a status bar in other contexts, what Host its connecting to, progress, connection success or failure). This creates a UI element that updates frequently, to give the sense that the application is running/making progress.

6. Task Summary

The "Task Summary" button is enabled when any task is selected in the main list view. When this button is selected, the utility displays a dialog containing a summary of the progress and status of the task, whether running or not.

7. Task Report

The "Task Report" button is enabled when any stopped task is selected in the main list view. When this button is clicked the utility displays a "Save As" dialog prompting for the directory and name of a TXT file to be saved. The resulting TXT file has a header section that summarizes the task state, followed by a comma-separated values (CSV) section, showing all Hosts, their identifying information, and their connection status. This status can be exported at any time and reflects the state at the time the button is pushed. This provides a way to identify the Hosts that are persistently unreachable by examining the report.

Note that for a long running task, you can either use the Task Summary feature to check on status while it's running, or stop the task, generate a Task Report, and then resume the task (via Run Task). In the latter case, the task picks up where it left off when it was stopped.

8. Export Configuration to JSON

The Host configuration objects now support an additional right-click menu item, All Tasks > Export Configuration to JSON. The resulting JSON file obeys the rules described elsewhere in the section "Host Settings JSON Representation".

Additionally, note the following behaviors specific to the Deployment Tool "Export" functionality:

- A Host Configuration object can be marked as being a "Host for RDS Template", either when created, or by changing the RDS > Host for RDS Template property. The RDS Template configuration has a few unique properties:
  - The RDS Template does not support all settings; some settings are locked from being changed. When the RDS Template is exported, any disallowed settings are NOT exported. These can generally be seen in the Configuration UI as being greyed out.
  - An "export" of the RDS Template settings does not have ANY indication that it came from an RDS Template – it's simply a valid subset of Host settings.

o When applying the RDS Template to a Host (via Update Host Settings), the Host must be on a Windows Server operating system and have Host RDS support enabled (either within the trial period, or with a Host for RDS license key). If not, the Update Host Settings operation fails with error 0x80004002 in Operation: APPLYTERMINALSERVICESSETTINGS.

9. Preparing to Update Host Settings

Before using the PROXY Pro Host Updater tool to update Host settings, one must first create a JSON file containing the settings and this can be done either with the PROXY Pro Deployment Tool, or from an existing Host. Within the software zip file, you'll find DeploymentTool.msi – please install this on your system to create a settings template to continue. Alternatively, if you have configured a Host the way you like, you can export the configuration values to JSON by navigating to the Host's installation directory (C:\Program Files (x86)\Proxy Networks\Host) and run "phsetup mode:exportjson".

To create a settings template, open the Deployment Tool, expand Product Configurations, right-click Host and choose "New Configuration". Give the template a name and the right pane will now list each available Host Setting that can be set, now allowing you to set each Host Setting as desired. When complete, right-click your template, click All Tasks and note the following two additional options introduced in this version, necessary for updating Host Settings.

- Export Configuration to a JSON file.
- Copy JSON settings string to clipboard.
- Once you have either a JSON file or the contents of the JSON on your clipboard, continue.

10. Update Settings Only

1. Open the PROXY Pro Host Updater.
2. Click "Add Task" and supply a name for the task then choose Update Settings Only.
3. Specify the Gateway server address (i.e. gateway.mywebsite.com).
4. Set the Gateway protocol/port to TCP 2303 if internal, otherwise use WSS 443.
5. Supply a valid username at the Gateway server and click "Next" to be prompted for the password.
    o Use DOMAIN\RemoteControlGateway if running RAS On Prem.
    o Use DOMAIN\Administrator if running RAS Hosted.
6. Select which Host Groups are to be updated by clicking the check boxes.
7. Either click "Browse" to import the JSON file or paste the JSON contents into the text field and click OK.
8. Highlight your task and click "Run Task" to begin updating Host Settings from within the groups selected.

11. Install Upgrade Only

1. Open the PROXY Pro Host Updater.
2. Click "Add Task" and supply a name for the task then choose Install Upgrade Only.
3. Specify the Gateway server address (i.e. gateway.mywebsite.com).
4. Set the Gateway protocol/port to TCP 2303 if internal, otherwise use WSS 443.
5. Supply a valid username at the Gateway server and click "Next" to be prompted for the password.
    o Use DOMAIN\RemoteControlGateway if running RAS On Prem.
    o Use DOMAIN\Administrator if running RAS Hosted.
6. Select which Host Groups are to be upgraded by clicking the check boxes.
7. Click "Browse" to select the Host-x64.msi installer and click OK.
8. Highlight your task and click "Run Task" to begin upgrading the Host version within the groups selected.

12. Install Upgrade and Update Settings

1. Open the PROXY Pro Host Updater.
2. Click "Add Task" and supply a name for the task then choose Install Upgrade and Update Settings.
3. Specify the Gateway server address (i.e. gateway.mywebsite.com).
4. Set the Gateway protocol/port to TCP 2303 if internal, otherwise use WSS 443.
5. Supply a valid username at the Gateway server and click "Next" to be prompted for the password.
   - Use DOMAIN\RemoteControlGateway if running RAS On Prem.
   - Use DOMAIN\Administrator if running RAS Hosted.
6. Select which Host Groups are to be upgraded by clicking the check boxes.
7. Click "Browse" to select the Host-x64.msi installer and click OK.
8. Either click "Browse" to import the JSON file or paste the JSON contents into the text field and click OK.
9. Highlight your task and click "Run Task" to begin upgrading the Host version and updating the settings within the groups selected.