Mass Deployment Tool
User’s Guide
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1 Introduction

1.1 Overview

The Mass Deployment Tool provides a configuration interface to help you manage a variety of Brother device settings, and allows users to install and manage multiple USB-connected or network-connected devices, without having to install any additional software. The tool has two independent interfaces:

- Graphical User Interface (GUI)
- Command Line Interface (CLI)

The main functions of this tool are:

- Manage multiple devices using a deployment profile that consists of device information or settings
- Deploy settings files to the target devices
- Retrieve settings from target devices

If you are also using BRAdmin Professional 4, you can link the Mass Deployment Tool to BRAdmin Professional 4 and use its device information and application settings:
- During the first launch of the Mass Deployment Tool
- In the Mass Deployment Tool's Application settings > Operation mode

For more information, see 3.1 Application Settings.

The intended users of this tool are:

- Pre-sales and post-sales engineers
- Installation engineers who install devices in customer environments
- Channel engineers who manage customer devices remotely
- IT administrators at end-user companies with their own device administration systems
1.2 System Requirements

<table>
<thead>
<tr>
<th>OS</th>
<th>Windows 7 SP1 or later (32-bit and 64-bit)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Windows Server 2008 SP2 or later (32-bit and 64-bit)</td>
</tr>
<tr>
<td>Additional Software</td>
<td>.NET Framework 4.5.2 or later</td>
</tr>
</tbody>
</table>

1.3 Preparation

1. Download the latest version of the Mass Deployment Tool from the Brother support website at [support.brother.com](http://support.brother.com).

2. Copy the contents of the archive into the folder you want.

Make sure you know which schema file is supported by your Brother model. For a list of available schema files and applicable models, see the README.TXT file in the “schema” folder. You will need this information later.

3. To run the tool, do one of the following:

   - **From a Graphical User Interface**
     
     Click the MassDeploymentTool.exe icon.

   - **For BRAdmin Professional 4 users**
     
     - To link the Mass Deployment Tool to BRAdmin and use its device information and application settings, select **Import the device list database and application settings from BRAdmin Professional 4.** in the dialog box that appears when you first launch the Mass Deployment Tool. To link it later, go to **Application settings > Operation mode.**
     
     - If your BRAdmin application is password-protected, you must type the password.

   - **From a Command Line Interface**
     
     Open the settingcmd.exe file using your operating system’s Command Prompt.

We recommend changing the default login password to protect your machine from unauthorized access and to use the Mass Deployment Tool securely.

For more information about changing your password, see **2.6 Set Password.**
2 Main Functions of the Mass Deployment Tool (GUI)

Use the Mass Deployment Tool's Graphical User Interface (GUI) to:
- Prepare and manage deployment profiles for multiple Brother devices.
- Deploy settings or send instructions to multiple Brother devices using deployment profiles.
- Change the Mass Deployment Tool's settings.

2.1 Update the Device List

No devices are displayed upon startup. Search for target devices first, and then add them to the list:
1. Click the **Add devices** button to display the list of devices on the **Add devices** screen.
   - If you are using the BRAdmin database, its Device list appears with **Smart filters** (containing the devices that meet your filtering criteria) and **Groups** (containing the devices you specified) in the left pane. For more information about Smart filters, see the *BRAdmin Professional 4 User's Guide*.

   **Without using the BRAdmin database**

   ![Without using the BRAdmin database](image1)

   **Using the BRAdmin database**

   ![Using the BRAdmin database](image2)

2. Type a keyword in the search box or click the **Refresh** button, if needed.
   - (The **Refresh** button is not available if you are using the BRAdmin database.)

3. Select the check boxes of the devices you want to add. If you are using the BRAdmin database, you can also select the target Smart filter or Group in the left pane.

4. Click the **Add** button. The list of devices you selected appears in the tool’s main window.
The following functions are available in the tool’s main window.

- **Select the Setting File**
  Select one or more devices, click the **Set file** button, and then select the file you want.

- **Enter a Password for Password-Protected Devices**
  Select one or more devices that use the same password, click the **Input device password** button, type the password, and then click **OK**.

- **Refresh the Device List**
  Select one or more devices and then click the **Refresh** button.

- **Delete Devices from the Device List**
  Select one or more devices and click the **Delete devices** button.

- **Sort the Device List**
  Click the column heading containing the sort criteria you want.

   To select multiple devices, press and hold the Shift or Ctrl key on your keyboard, and left-click the devices you want.
2.2 Check Device Notifications

The **Notification** column of the Device List notifies you of the results of the last-performed task of the listed devices.

The following notifications are available:

<table>
<thead>
<tr>
<th>Notification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not found</td>
<td>This device was offline when the deployment profile was imported into the tool. Check the device's connection status. (For more information, see 2.3.1 Import Deployment Profiles.)</td>
</tr>
<tr>
<td>Completed</td>
<td>This device completed the last-performed task successfully.</td>
</tr>
<tr>
<td>Error</td>
<td>This device did not complete the last-performed task successfully. See the log details, and perform the function again if needed. To check the log, click &gt; Information &gt; click the Open button of the Application log: menu.</td>
</tr>
<tr>
<td>Not supported</td>
<td>This device does not support this function.</td>
</tr>
<tr>
<td>Cancelled</td>
<td>The last-performed function has been cancelled in this device.</td>
</tr>
<tr>
<td>Already set</td>
<td>The default login password has already been changed.</td>
</tr>
<tr>
<td>(blank)</td>
<td>There are no notifications for this device.</td>
</tr>
</tbody>
</table>
2.3 Use Deployment Profiles

Deployment profiles contain paths to settings files, such as JSON files, and let you assign specific settings files to multiple Brother devices. This feature allows you to:

- Import deployment profiles to restore specific settings files for specific devices.
- Export and save deployment profiles to let others use them to import settings from multiple Brother devices and then send them to other devices.

Deployment profiles contain only the relative paths for settings files. To pass a set of deployment profiles and settings files to others, you must copy both the deployment profile and any necessary settings files to ensure that the relative path is correct.

2.3.1 Import Deployment Profiles

Advanced users can import customized deployments and use them to manage multiple devices.

1. Click in the upper left and select Import profile…

2. Select the CSV file or the encrypted ZIP archive you want.
3. The tool imports the selected file and deploys the profiles it contains.
4. Make sure the device list contains all the devices you want. Add more devices if needed.
2.3.2 Export Deployment Profiles

Advanced users can create and export customized deployments and use them to manage multiple devices.

1. Make sure the device list contains all the devices you want. Add more devices if needed.
2. Click and select Export profile..., or Export profile (with password)...

If you select Export Profile... and any of the target devices is password-protected, the tool notifies you that the profile will be saved without encryption.
Click OK to continue, or click Cancel to go back and select Export profile (with password)...

3. Select the destination folder, enter the file name, and then click the Save button.
   If prompted, enter the password and click the OK button.
4. The tool exports the file and saves it in CSV format.

2.4 Send Files

To send specific files (PJL, DJF, PRN files) or to deploy settings files (DPK, EDPK, JSON files) for managing multiple target devices, do the following:
(For more information about creating settings files, see 5.3 Create JSON Files.)

1. Make sure the device list contains all the devices you want.
2. Select Send files from the drop-down list.
3. Set the file you want to send to the target devices:
   a) Click the Set file button, or right-click one of the target devices and select Set file.
   b) Select the file you want and click the Open button.
   (When you select a file from a USB flash drive, or if you select an EDPK file, you must enter the password for the file.)
   The selected file is set, and the name of the file appears in the File name column.

While a settings file (JSON, DPK, or EDPK) is set and its details appear on the Send files screen, you can enter or edit the information in the text boxes of the Node name (wired), Node name (wireless), Contact, or Location column.

4. Click the Send button in the lower right.

Alternatively, you can use a USB flash drive to deploy settings to a device.
1. Rename your file: “write_xxxx.json”, where xxxx is your original file’s name.
2. Copy it onto a USB flash drive.
3. Insert the USB flash drive into the Brother device’s USB port.
4. Your selected settings will be applied to the device. The output log file will be automatically created.
5. The Send files dialog box shows the sending progress. To stop this operation, click the **Stop** button.

6. When completed, the summary results appear. If unsuccessful, the error status is also listed in the results. Click the **Open log folder** button, check the log details, and try again.
2.5 Back Up Settings

You can retrieve Brother device settings to back them up and use them later for applying the same settings to a different device.

1. Make sure the device list contains all the devices you want.
2. Select **Back up settings** from the drop-down list in the upper left.
3. The **Back up settings** screen appears. The devices whose settings cannot be retrieved are shown as “Not supported”.

4. Enter the device password in the **Device password** column, if needed.
5. Enter the path into the **Save to:** field or click the **Browse**... button to select the destination folder of the backed-up settings file.
6. In the **Backup setting items:** field, select either **All** or **Selected:** to specify the necessary items.
7. Click the **Back up** button.

Alternatively, you can use a USB flash drive to deploy settings to a device.

1. Rename your file: “read_xxxx.json”, where xxxx is your original file’s name.
2. Copy it onto a USB flash drive.
3. Insert the USB flash drive into the Brother device’s USB port.
4. The settings you want will be extracted from the device and saved as a new file in the following format:
   
   `[settings file name]_[model name]_[index].json /dpk /edpk`

   The output log file will be automatically created.

8. The Back up settings dialog box shows the backup progress.
   To stop this operation, click the **Stop** button.
9. When completed, the summary results appear.
   To check the destination folder of the backup file, click the **Open folder** button.
   If unsuccessful, the error status is also listed in the results. Click the **Open log folder** button, check the backup log details, and then try again.
2.6 Set Password

To change your default login password or current password.

1. Select **Password settings** from the drop-down list in the upper left.
2. Do one of the following:
   - **Change the default login password**
     a) Select the target devices in the list, and then select the Set a password for unconfigured devices radio button.
     b) Type the password you want in the **New password:** and **Confirm new password:** fields.
     c) Click **Apply**.
   - **Change the current password**
     a) Select the target devices in the list, and then select the Change device password radio button.
     b) Click **Input device password** and type the current password in the **Password:** field.
     OR
     Type the current password directly in the **Device password** field in the list.
     c) Type the new password in the **New password:** and **Confirm new password:** fields.
     d) Click **Apply**.
   - **When you select the Set a password for unconfigured devices menu, the Input device password button and the Device password fields are disabled.**
   - **Avoid using the following passwords as your administrator password:**
     * access
     * initpass
     * The “Pwd” located on the back of your machine

3. The **Password settings** dialog box shows the password setting progress. To stop this operation, click the **Stop** button.
4. When completed, the summary results appear.
   If unsuccessful, the error status is also listed in the results. Click the **Open log folder** button, check the password setting result log details, and then try again.
3 Additional Functions of the Mass Deployment Tool (GUI)

Additional advanced functions are available to help you manage your devices.

3.1 Application Settings

Click in the top bar to configure the tool's settings.

3.1.1 Configure the Network Settings

To configure the device Network settings, do the following:

1. Click Network.
2. Click the SNMP tab.
3. Select the settings you want.
4. (Optional) Click the Proxy tab and configure proxy settings.
   - The default setting is Auto.
   - If you select Manual, specify the items in the Server name, Port, User name, and Password fields.
5. When finished, click the OK button.
3.1.2 Configure the Device Discovery Settings

To discover the target devices you want, configure the Device discovery settings below:

- **To search for devices on your network**
  1. Select **Device discovery**.
  2. Select the IP broadcast: check box or the IP unicast: check box in the **Network**: tab.
  3. Click  to add a new address.
  4. When finished, click the **OK** button.

- **To search for devices on a different local network**
  1. Select **Device discovery**.
  2. Select the Agent broadcast: check box.
     The Agent Broadcast feature uses the software called BRAgent. BRAgent runs on a computer on a different LAN from your computer, discovers devices, and then passes the discovery results to your Mass Deployment Tool.
  3. Click  to enter the Agent’s IP address: or Agent’s node name: field, and then click the **OK** button.
  4. Specify the Agent server port.
  5. When finished, click the **OK** button.

- **To search for USB-connected devices**
  1. Select the **USB**: check box.
  2. Click the **OK** button.

- To edit the specified setting items, select the item and click .
- To delete the specified setting items, select the item and click .

3.1.3 Link the Mass Deployment Tool to BRAdmin

Click **Operation mode**, select **Import the device list database and application settings from BRAdmin Professional 4.** to link the Mass Deployment Tool to BRAdmin and use its device information and application settings. When this setting is enabled, you cannot change the **Network** and **Device discovery** settings from the Mass Deployment Tool.

3.1.4 Application Information

The following Mass Deployment Tool information is available.

- To check the tool’s Application log in the case of errors, click the **Open** button from the **Application log**: menu.
- To view the version information, click the **Version** button from the **About this application**: menu.
- To check the application version, click the **Check for software updates** button. You can update the software if a newer version is available.
- To check the license information, click the **License** button.
3.2 Activate Solutions

You can send license files to activate custom software solutions on the target devices. A valid license file is necessary for this task. A license file can contain many activation codes, allowing solutions to be activated on many devices simultaneously. If you do not have one, contact your local Brother office.

1. Make sure the device list contains all the devices you want.
2. Select **Activate solutions** from the drop-down list in the top bar.
3. The **Activate solutions** screen appears. The devices you cannot send the license to are shown as “Not supported”.
4. Enter the device password in the **Device password** column, if needed.
5. Do one of the following:
   - If you have a license file: Select the **License file**: radio button, and then type the file name in the field below, or click the **Browse…** button to select the license file.
   - If you have license codes: Select the **License code (20 digit number)**: radio button, and then type the license codes in the field below. Multiple codes can be entered, one license code per line.
6. Click the **Browse…** button next to the **Save the result file to**: field and specify where to save the result file. You can also copy and paste folder paths into this field.
7. Click the **Activate** button.
8. The **Activate solutions** dialog box shows the activation progress. You can also stop the operation by clicking the **Stop** button.
9. When completed, the summary results appear. If unsuccessful, the error status is also listed in the results. Click the **Open log folder** button, check the log details, and then try again.
4 Use of the Mass Deployment Tool (CLI)

The tool’s Command Line Interface (CLI) allows you to configure devices remotely using the Command Prompt. The CLI automatically converts settings files to an appropriate format and sends them to the device you want. It then retrieves the settings data and verifies whether the settings have been applied correctly.

4.1 How to Use the CLI

To use the tool’s CLI, you must run it from the Command Prompt in Windows, and then enter the correct commands and options to execute specific instructions. The CLI uses the following syntax:

```
settingcmd.exe command option option
```

Where:

- **Command**: performs a specific task and displays the result
- **Option**: modifies the operation of a command

Examples

Applying settings files:

```
settingcmd.exe apply --ip IP_address --file your_file_name.json --password your_password
```

Retrieving settings files:

```
settingcmd.exe retrieve --ip IP_address --file your_file_name.json --output your_file_name.edpk --password your_password
```

Only English can be used in the command line interface.

4.2 Commands and Options

4.2.1 Commands

Each of the following commands can be used together with one or more options to perform specific device configuration tasks.

<table>
<thead>
<tr>
<th>Command</th>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
</table>
| send    | Required:  
- Device identifier  
- file  
Additional:  
- password  
- networksettingpath  
- log  
- communitynameset  
- communitynameget | Allows you to send the specified file to a device’s printer port. PRN, PJL, and DJF files are supported.  
Example:  
```
settingcmd.exe send --ip IP_address --file your_file_name.prn
```
| read    | Required:  
- Device identifier  
- file  
Additional:  
- output  
- password  
- networksettingpath  
- log  
- communitynameset  
- communitynameget | Allows you to send the specified file to a device’s printer port, and to read the response. Only PJL files are supported.  
Example:  
```
settingcmd.exe read --ip IP_address --file your_file_name.pjl --output our_file_name.txt
```
<table>
<thead>
<tr>
<th>Command</th>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>apply</td>
<td>Required:</td>
<td>Allows you to send and apply the specified settings file and confirms the</td>
</tr>
<tr>
<td></td>
<td>● Device identifier</td>
<td>result. JSON, DPK, and EDPK files are supported.</td>
</tr>
<tr>
<td></td>
<td>● file</td>
<td>If the settings file is set to be password-protected, the tool</td>
</tr>
<tr>
<td></td>
<td>Additional:</td>
<td>will internally generate an encrypted package file and send it to the</td>
</tr>
<tr>
<td></td>
<td>● password</td>
<td>specified target device.</td>
</tr>
<tr>
<td></td>
<td>● schema</td>
<td>Example:</td>
</tr>
<tr>
<td></td>
<td>● pjltable</td>
<td><code>settingcmd.exe apply --ip IP_address --file your_file_name.json</code></td>
</tr>
<tr>
<td></td>
<td>● enumtable</td>
<td>mapply</td>
</tr>
<tr>
<td></td>
<td>● forcepjl</td>
<td>Required:</td>
</tr>
<tr>
<td></td>
<td>● forcenative</td>
<td>Allows you to send and apply the specified settings file to different</td>
</tr>
<tr>
<td></td>
<td>● ignorepjlerror</td>
<td>devices with just one command by using a deployment profile. It also</td>
</tr>
<tr>
<td></td>
<td>● skipvalidate</td>
<td>allows you to send and apply unique settings to each device. JSON, DPK,</td>
</tr>
<tr>
<td></td>
<td>● skipverify</td>
<td>and EDPK files are supported.</td>
</tr>
<tr>
<td></td>
<td>● networksettingpath</td>
<td>If the “mapply” command is used with the “--outputdir” option, the tool</td>
</tr>
<tr>
<td></td>
<td>● log</td>
<td>will output each device’s intermediate files to the designated folder.</td>
</tr>
<tr>
<td></td>
<td>● communitynameset</td>
<td>If the “mapply” command is used with both the “--createfileonly” and the</td>
</tr>
<tr>
<td></td>
<td>● communitynameget</td>
<td>“--outputdir” options, the tool will only output each device’s intermediate</td>
</tr>
<tr>
<td></td>
<td>● forcethtps</td>
<td>files to the designated folder, and will not apply the files to each</td>
</tr>
<tr>
<td></td>
<td>● csvdelim</td>
<td>device.</td>
</tr>
<tr>
<td></td>
<td>● createfileonly (*)</td>
<td>Example:</td>
</tr>
<tr>
<td></td>
<td>● outputdir</td>
<td>```settingcmd.exe mapply --profile your_profile_name.csv --result your</td>
</tr>
<tr>
<td></td>
<td></td>
<td>filename.csv --csvdelim semicolon or</td>
</tr>
<tr>
<td></td>
<td></td>
<td>```settingcmd.exe mapply --profile your_profile_name.csv --result your</td>
</tr>
<tr>
<td></td>
<td></td>
<td>filename.csv --csvdelim semicolon --createfileonly --outputdir your_path</td>
</tr>
<tr>
<td></td>
<td>*If you use “--createfileonly”, you must also use “--outputdir”.</td>
<td>You can confirm the result of each device in the result file (CSV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(CSV format). The result file consists of all items in your deployment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>profile and the following items:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Result</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Detail</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Start time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Finish time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- (Optional) Output: If the “mapply” command is used with the “--outputdir”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>option, the path for saving the intermediate file will be displayed here.</td>
</tr>
<tr>
<td>Command</td>
<td>Option</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>--------</td>
<td>-------------</td>
</tr>
</tbody>
</table>
| **retrieve** | Required:  
- Device identifier  
- output  
Additional:  
- file  
- password  
- networksettingpath  
- log  
- communitynameset  
- communitynameget  
- forcehttps | Allows you to retrieve the specific settings data you want from the specified device.  
The tool sends a request to the specified target device and stores the retrieved settings data, which includes all the settings in the JSON schema, according to the specified file path.  
To download only specific settings, use the “--file” option to specify the settings file that includes the items you want.  
*Example:*  
`settingcmd.exe retrieve --ip IP_address --file your_file_name.json --output your_file_name.edpk --password your_password` |
| **activate** | Required:  
- Device identifier  
- networksettingpath  
- licensecode  
- activateresult  
Additional:  
- password  
- log  
- communitynameset  
- communitynameget | Allows you to activate a custom software solution for the specified target device.  
*Example:*  
`settingcmd.exe activate --ip IP_address --networksettingpath (setting file name) --licensecode your_license_code --activateresult your_result_path` |
| **setpassword**  
*(network connection only)* | Required:  
- Device identifier  
- newpassword  
Additional:  
- networksettingpath  
- log  
- communitynameset  
- communitynameget | Allows you to change the administrator password from the default login password to a different password.  
*Example:*  
`settingcmd.exe setpassword --ip IP_address --newpassword your_new_password` |
| **msetpassword**  
*(network connection only)* | Required:  
- profile  
- result  
Additional:  
- networksettingpath  
- log  
- communitynameset  
- communitynameget  
- csvdelim | Allows you to change the administrator passwords for multiple devices at once from each machine’s default login password to different passwords, using deployment profiles.  
*Example:*  
`settingcmd.exe msetpassword --profile your_filename.csv --result result.csv` |
| **pack** | Required:  
- output  
- packfiles  
Additional:  
- password  
- log | Creates a settings package file from JSON settings files and their resource files. If the files are set to be password-protected, the package file will be encrypted.  
*Example:*  
`settingcmd.exe pack --packfiles your_file_name.json your_file_name.xml your_file_name_2.xml --output your_file_name.edpk --password your_password` |
The command execution results are displayed as follows:
- Success: “Result: Success”
- Failure: Error and error details
4.2.2 Device Identifiers

Device identifiers specify the device you want to send the commands to.

<table>
<thead>
<tr>
<th>Device Identifier</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>--ip address</td>
<td>The IP address of the target device (Network-connected devices only).</td>
</tr>
<tr>
<td>--mac address</td>
<td>The MAC address of the target device (Network-connected devices only).</td>
</tr>
<tr>
<td>--node name</td>
<td>The node name of the target device (Network-connected devices only).</td>
</tr>
<tr>
<td>--usb</td>
<td>Specifying a USB-connected device (Multiple USB-connected devices not supported).</td>
</tr>
<tr>
<td>--model name</td>
<td>The model name of the target device (USB-connected devices only).</td>
</tr>
<tr>
<td>--serial number</td>
<td>The serial number of the target device (Network-connected devices only).</td>
</tr>
</tbody>
</table>

4.2.3 Options

Options can be used together with commands to modify their operation. See each command description in section 4.2.1 Commands to learn which options you can use.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>--file filename</td>
<td>Specify the file you want to use.</td>
</tr>
<tr>
<td>--output filename</td>
<td>Specify the path to save the acquired settings file.</td>
</tr>
<tr>
<td>--password password</td>
<td>Specify the administrator password for the target device.</td>
</tr>
<tr>
<td>--newpassword password</td>
<td>Specify a new administrator password for the target device.</td>
</tr>
<tr>
<td>--schema filename</td>
<td>Specify an external JSON schema file.</td>
</tr>
<tr>
<td>--pjltable filename</td>
<td>Specify an external PJL conversion table.</td>
</tr>
<tr>
<td>--enumtable filename</td>
<td>Specify an external Enum conversion table.</td>
</tr>
<tr>
<td>--forcepjl</td>
<td>Force a PJL-based configuration.</td>
</tr>
<tr>
<td>--forcenative</td>
<td>Force a JSON-based configuration.</td>
</tr>
<tr>
<td>--ignorepjlerror</td>
<td>Skip PJL conversion warnings even if no conversion definition is stated in the PJL conversion table.</td>
</tr>
<tr>
<td>--skipvalidate</td>
<td>Skip verifying the validity for the settings using schema file before sending setting file.</td>
</tr>
<tr>
<td>--skipverify</td>
<td>Skip verifying if the settings are applied to printer correctly after applying settings.</td>
</tr>
<tr>
<td>--packfiles filename filename</td>
<td>Specify the files you want to pack (separated with spaces or commas).</td>
</tr>
<tr>
<td>--unpackdir destination</td>
<td>Specify the path to extract the package contents to.</td>
</tr>
<tr>
<td>--log filename</td>
<td>Specify the path to the log output file.</td>
</tr>
<tr>
<td>--communitynameget community name</td>
<td>Community name against “GET” in SNMP communication.</td>
</tr>
<tr>
<td>--communitynameset community name</td>
<td>Community name against “SET” in SNMP communication.</td>
</tr>
<tr>
<td>--agree</td>
<td>Specify the agreement to EULA.</td>
</tr>
<tr>
<td>--networksettingpath networksettingpath</td>
<td>Force the reference destination to the external file that contains the network communication settings (SNMP v3, proxy).</td>
</tr>
<tr>
<td>--source filename</td>
<td>Specify the file before conversion using the “convertsetting” command.</td>
</tr>
<tr>
<td>--destination filename</td>
<td>Specify the destination for saving the file after conversion using the “convertsetting” command.</td>
</tr>
<tr>
<td>--version</td>
<td>Specify the version after conversion using the “convertsetting” command.</td>
</tr>
<tr>
<td>--licensecode license code</td>
<td>Specify a 20-digit license code to activate a custom software solution.</td>
</tr>
</tbody>
</table>
### 4.2.4 Deployment Profile

A deployment profile contains device information, setting files, and the unique setting value for each device, if needed.

The first line of a deployment profile file (CSV) must list the following items (these can be in any order):

<table>
<thead>
<tr>
<th>Item</th>
<th>IP Address</th>
<th>Node Name</th>
<th>Serial Number</th>
<th>File Path</th>
<th>Password</th>
<th>Package Password</th>
<th>New Password</th>
<th>User Defined Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>mapply</td>
<td>○*</td>
<td>○*</td>
<td>△</td>
<td>○</td>
<td>○</td>
<td>△</td>
<td>–</td>
<td>○</td>
</tr>
<tr>
<td>msetpassword</td>
<td>○*</td>
<td>○*</td>
<td>△</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>○</td>
<td>–</td>
</tr>
</tbody>
</table>

○ Required item △ Optional item – Unsupported item

#### Required items: (An error may occur if not specified)

- **IP Address/Node Name**
  - The device's IP address or node name helps discovering the target device.
  - You must specify the device's IP Address or Node Name to discover the target device.
  - If you specify both, the Node Name takes priority over the IP Address.

- **File Path**
  - The setting file's path (relative or absolute).

- **Password**
  - The device administrator password.

- **New Password**
  - The new device administrator password.

#### Optional items:

- **Serial Number**
  - The serial number of the device.
  - If this item does not match the serial number identified using the IP Address or Node Name, the “Serial number mismatch error” occurs.

- **Package Password**
  - The password required to unpack EDPK files.
- **User Defined Value**
  You can define a unique value for a certain device by using your own item in “#XXXXXXXX#” format. Any characters except “#” can be used in XXXXXXXX.

  When creating the intermediate file, the tool replaces the items in the setting file based on the value you set for each device.

  Any items that are neither required nor optional are ignored and do not result in an error.

---

Examples of files used by **mapply** command:

- **Deployment profile**
  A CSV file containing the following information:

<table>
<thead>
<tr>
<th>IP Address,Serial Number,Password,File Path,Package Password,#CONTACT#,LOCATION#,AUTO_POWER_OFF#</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.1.2.146,E75868F7F173334,inittpass,C:\tmp\brother.epdk,package1,Brother A,5F,hour8</td>
</tr>
<tr>
<td>10.1.4.146,A99999A7H000511,inittpass,C:\tmp\brother.epdk,package1,Brother B,4F,hour4</td>
</tr>
<tr>
<td>10.1.7.179,C25312A1G553212,inittpass,C:\tmp\brother.epdk,package1,Brother C,3F,off</td>
</tr>
</tbody>
</table>

  The delimiter (,) in the above example can be specified using the “--csvdelim” option.

- **Setting file**
  A JSON file located in C:\tmp\brother.epdk:

  ```json
  { "attributes": { "software_id": "pars_firmware", "setting_version": "", "schema_revision": 4 }, "settings": { "general": { "contact_and_location": { "contact": "#CONTACT#", "location": "#LOCATION#" }, "auto_power_off_mode": { "auto_power_off_time": "#AUTO_POWER_OFF#" }, "auto_power_off_time": "hour8" } } }
  ```

- **Intermediate file**
  The 00001_10.1.2.146.json file for the device 10.1.2.146, where 00001 is the line number in your CSV file where the target device is listed with one subtracted (five digits, zero padding):

  ```json
  { "attributes": { "software_id": "pars_firmware", "setting_version": "", "schema_revision": 4 }, "settings": { "general": { "contact_and_location": { "contact": "Brother A", "location": "5F" }, "auto_power_off_mode": { "auto_power_off_time": "hour8" } } } }
  ```
5 Creating Settings Files

Refer to this section when creating settings files used by this tool.

5.1 Settings Files

The settings files are model-independent. If a customer replaces an existing device, settings files may be reused if they are compatible with the new device. The tool uses the following file types and extensions to store device settings:

- **JSON Files**
  JSON (JavaScript Object Notation) files allow you to configure device settings without having to understand PCL or PJL commands. For more information, see 5.2 JSON Files and 5.3 Create JSON Files.

- **Package Files**
  Package files can include a JSON-based settings file and any required external resources.

<table>
<thead>
<tr>
<th>Package File Type</th>
<th>Encryption</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPK</td>
<td>No</td>
</tr>
<tr>
<td>EDPK</td>
<td>Yes</td>
</tr>
</tbody>
</table>

- **Settings Files**
  Settings files consist of one or more JSON-based settings.

5.2 JSON Files

JSON (JavaScript Object Notation) files are used to configure device settings. JSON is an open standard that allows you to specify your own settings using a JSON editor, without having to understand PCL or PJL commands.

- For more information about JSON, see [http://www.json.org/](http://www.json.org/).
- For more information about JSON schema file structure and setting types, see [http://json-schema.org/](http://json-schema.org/).
The structure of JSON settings files and the placement of individual setting entries are described in JSON schema files. For example, the “sleep_time” setting must be located at $.settings.general.sleep_mode.sleep_time and will accept only numerical values.

There are three ways to create and edit JSON settings files:

<table>
<thead>
<tr>
<th>Method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using text editors</td>
<td>Edit the settings files you want in a text editor. We recommend using JSON-supported text editors such as Notepad++, because they allow for greater control when viewing, editing, and formatting JSON files.</td>
</tr>
<tr>
<td>Using JSON-schema supported JSON editors</td>
<td>Edit settings files using a third-party editor that supports JSON-schemas. The interface of such editors allows changing setting values based on a schema-defined structure.</td>
</tr>
<tr>
<td>Using scripts/programs</td>
<td>Create settings files using scripts or other software. You can construct a JSON file from scratch, or parse the base JSON file and then modify its setting values.</td>
</tr>
</tbody>
</table>

**5.3 Create JSON Files**

Any JSON-supported text editor can be used to create and edit settings files. To use JSON settings files, you need a JSON schema file containing all the configurable elements on Brother devices.

1. Prepare the JSON schema file.
   Default schema files can be found in the Schema folder in the Mass Deployment Tool's folder on your computer.

   Before you proceed, make sure you have the correct schema file for your model. For a list of available schema files and applicable models, see the README.TXT file in the “schema” folder. You will need this information later.

2. Edit the JSON settings file in a text editor file.
3. You can now use the Mass Deployment Tool to apply the settings remotely or use a USB flash drive to apply the settings at the device.

**Creating and editing settings files using an online JSON editor (example)**

1. In your web browser, go to http://www.jeremydorn.com/json-editor/.
2. Open the Brother JSON schema file in a text editor file and copy and paste its contents into the “Schema” field on the web page.
   The attributes section appears at the top of the page.
3. Scroll down to the settings section, and select “object” from the general drop-down list.
   The General settings options appear.
4. Select “object” from the contact_and_location drop-down list.
5. Enter the contact and location details you want.
6. Scroll up to the JSON Output area at the top of the page, and then click the Update Form button.
7. The updated code appears in the preview field. Copy the JSON output and paste it into the text editor.
8. Use the Mass Deployment Tool to apply the setting remotely or use a USB flash drive to apply the setting at the device.
### 6 Troubleshooting

If you have any problems using the Mass Deployment Tool, check the table below. If the problem persists, contact your local Brother office’s technical support team.

<table>
<thead>
<tr>
<th>Error</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admin account locked</td>
<td>The admin password for the target device was entered incorrectly too many times. Wait until the password lock of the target device is released.</td>
</tr>
<tr>
<td>Already activated</td>
<td>The function you want to activate on the device has already been activated.</td>
</tr>
<tr>
<td>Cannot convert to PJL</td>
<td>Make sure you use a PJL conversion table compatible with the input data.</td>
</tr>
<tr>
<td>Cannot convert to Setting file</td>
<td>Make sure you use a PJL conversion table compatible with the setting file you want.</td>
</tr>
<tr>
<td>Connection error</td>
<td>Make sure the target device is connected and available to transfer the data.</td>
</tr>
<tr>
<td>Deploy results mismatch</td>
<td>One or more settings in the settings file have not been applied. Check the log file for more information.</td>
</tr>
<tr>
<td>Device internal error</td>
<td>Reboot the target device and try again.</td>
</tr>
<tr>
<td>Device is busy</td>
<td>Wait until the target device finishes its current job.</td>
</tr>
<tr>
<td>File not found</td>
<td>Make sure you specify the file path correctly, and then try again.</td>
</tr>
<tr>
<td>File write error</td>
<td>Make sure that there is enough space in the destination folder, or that the files in the destination folder can be overwritten.</td>
</tr>
<tr>
<td>Firmware Update required</td>
<td>The schema version of the target device is older than the schema version of the JSON settings file. Update the device’s firmware.</td>
</tr>
<tr>
<td>Internal error</td>
<td>Make sure all settings are correct and then try again.</td>
</tr>
<tr>
<td>Invalid deploy setting file</td>
<td>Make sure the content and structure of the settings file are correct, and then try again.</td>
</tr>
<tr>
<td>Invalid file error</td>
<td>Make sure you select the correct DJF file or the correct target device.</td>
</tr>
<tr>
<td>License error</td>
<td>Make sure you enter the correct license code (20 digits).</td>
</tr>
<tr>
<td>New version schema required</td>
<td>The schema version of the JSON settings file is older than the schema version of the target device. Execute the “convertsetting” command in the tool's Command Line Interface (CLI).</td>
</tr>
<tr>
<td>Not supported</td>
<td>Make sure all the target devices support the function/command you want, or select the target devices that support that function/command.</td>
</tr>
<tr>
<td>Already set</td>
<td>The device password has already been changed from the default login password. Make sure that the password is the default login password.</td>
</tr>
<tr>
<td>Password incorrect</td>
<td>Make sure you enter the correct password.</td>
</tr>
<tr>
<td>Permission error</td>
<td>Make sure you have the permission to access the specified folder or output folder.</td>
</tr>
<tr>
<td>Serial number mismatch</td>
<td>When specifying the device identifier, make sure you specify the serial number that matches the serial number of the target device.</td>
</tr>
<tr>
<td>Server communication error</td>
<td>Make sure your network connection is active so that you can update the tool to the latest version.</td>
</tr>
<tr>
<td>Session timeout</td>
<td>This activation session has expired after more than 24 hours of inactivity. Try to activate the solution or function you want again.</td>
</tr>
<tr>
<td>SNMP communication error</td>
<td>Make sure you specify the SNMP settings correctly.</td>
</tr>
<tr>
<td>SNMP v3 security error</td>
<td>Make sure your SNMP settings are correct. Try again when the target device is unlocked.</td>
</tr>
<tr>
<td>Unauthorized access error</td>
<td>The license code was entered incorrectly too many times. Make sure your license code is in the correct format (20 digits) and has not been used yet.</td>
</tr>
</tbody>
</table>
The exit codes provided by the Mass Deployment Tool (CLI) allow you to identify deployment errors.

GUI/CLI Errors
For solutions, see section 6 Troubleshooting.

<table>
<thead>
<tr>
<th>Exit Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>80009</td>
<td>Admin account locked</td>
</tr>
<tr>
<td>80023</td>
<td>Already activated</td>
</tr>
<tr>
<td>80030</td>
<td>Cannot convert to PJL</td>
</tr>
<tr>
<td>80031</td>
<td>Cannot convert to Setting file</td>
</tr>
<tr>
<td>80015</td>
<td>Connection error</td>
</tr>
<tr>
<td>80032</td>
<td>Deploy results mismatch</td>
</tr>
<tr>
<td>80035</td>
<td>Device internal error</td>
</tr>
<tr>
<td>80007</td>
<td>Device is busy</td>
</tr>
<tr>
<td>80011</td>
<td>File not found</td>
</tr>
<tr>
<td>80010</td>
<td>File write error</td>
</tr>
<tr>
<td>80033</td>
<td>Firmware Update required</td>
</tr>
<tr>
<td>80052</td>
<td>Internal error</td>
</tr>
<tr>
<td>80029</td>
<td>Invalid deploy setting file</td>
</tr>
<tr>
<td>80026</td>
<td>Invalid file error</td>
</tr>
<tr>
<td>80022</td>
<td>License error</td>
</tr>
<tr>
<td>80034</td>
<td>New version schema required</td>
</tr>
<tr>
<td>80008</td>
<td>Not supported</td>
</tr>
<tr>
<td>80054</td>
<td>Already set</td>
</tr>
<tr>
<td>80005</td>
<td>Password incorrect</td>
</tr>
<tr>
<td>80012</td>
<td>Permission error</td>
</tr>
<tr>
<td>80006</td>
<td>Serial number mismatch</td>
</tr>
<tr>
<td>80014</td>
<td>Server communication error</td>
</tr>
<tr>
<td>80021</td>
<td>Session timeout</td>
</tr>
<tr>
<td>80013</td>
<td>SNMP communication error</td>
</tr>
<tr>
<td>80055</td>
<td>SNMP v3 security error</td>
</tr>
<tr>
<td>80020</td>
<td>Unauthorized access error</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Exit Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>70001</td>
<td>Agreement to the EULA is required.</td>
</tr>
<tr>
<td>70002</td>
<td>Failed to convert due to the wrong file or version.</td>
</tr>
<tr>
<td>70003</td>
<td>Failed to create the package.</td>
</tr>
<tr>
<td>70004</td>
<td>Failed to extract the package.</td>
</tr>
<tr>
<td>70007</td>
<td>Failed to read the network setting file.</td>
</tr>
<tr>
<td>70009</td>
<td>Invalid parameter.</td>
</tr>
<tr>
<td>70010</td>
<td>Failed to execute mapply or msetpassword command in one or more devices.</td>
</tr>
<tr>
<td>70011</td>
<td>Wrong deployment profile.</td>
</tr>
<tr>
<td>70012</td>
<td>Wrong delimiter.</td>
</tr>
<tr>
<td>70013</td>
<td>The new administrator password has fewer than eight characters.</td>
</tr>
</tbody>
</table>