Ella System PC Windows 7 to Windows 10 Update Guide
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Section 1: Update Ella System PC To Windows 10 Steps

The steps below cover upgrading an existing Ella Windows 7 PC to Windows 10. At the time of this writing the upgrade was still free (as of February 5, 2020) when using the Microsoft Media Creation Tool. If users decide to upgrade their system via another approach, then proceed to Section 2: After Updating Ella System PC to Windows 10 Steps upon completion.

1) Connect Ella PC to internet
2) Download the Microsoft Media Creation Tool
   a. Link: https://go.microsoft.com/fwlink/?LinkId=691209
3) After Downloading select Run
   a.
4) When prompted to accept MICROSOFT SOFTWARE LICENSE TERMS, select ‘Accept’
5) When prompted ‘What do you want to do?’ chose ‘Upgrade this PC now’ and select ‘Next.’
6) A series for message and prompts will now occur: Downloading, Getting updates, etc.
   a. If prompted again to Accept license terms, select Accept
   b. If prompted ‘What needs your attention’ select ‘Confirm’
7) When the dialog shows ‘Ready to install’, select Install
8) The PC will now be updated to Windows 10 and restart.
Section 2: After Updating Ella System PC to Windows 10 Steps

Sub-Section 2.1: Runner Software

Confirm that you have Simple Plex Runner 3.5 or greater installed to ensure proper functionality in Windows 10. The latest version of the Simple Plex Software is available here:

http://www.proteinsimple.com/simpleplex_software/downloads/

Sub-Section 2.2: Barcode Driver

After updating to Windows 10 the COM Port Configuration for the barcode reader may have changed. To check this, continue with the steps below.

1) Make sure your barcode scanner is plugged into the USB port.
2) Enter Device Manager (Select the Windows start button, type ‘Device Manager’, and select Device Manager).
3) Expand ‘Ports (COM & LPT)’ node in the Device Manager dialog as shown.
4) Look for the Motorola Scanner Virtual USB COM Port and confirm the value inside the parenthesis is (COM4). If a different value is displayed, then continue with the next step. Otherwise proceed to Sub-Section 2.3: Ella Driver.

5) Right click Motorola Scanner Virtual USB COM Port and select Properties.

6) Select Port Settings tab and then click the Advanced Button as shown.
7) Change **COM Port Number** to ‘COM4’ and select ‘OK’. Then Select ‘OK’ to close the Properties dialog.
Sub-Section 2.3: Ella Driver

After updating to Windows 10, the Ella device driver and it’s COM Port Configuration may have changed. To check this, continue with the steps below.

1) Make sure your Ella is connected and powered on.
2) Start Device Manager and expand ports node (via steps provided in Sub-Section 2.2: Barcode Driver).
3) Here is the view expected

4) If ProteinSimple Ella (COM3) is not displayed continue with following steps to correct. Otherwise proceed to Sub-Section 2.4: Network Interface Card.

5) Most likely the driver was reset to ‘USB Serial Device’. Right click USB Serial Device and select Update Driver as shown below. (NOTE: If you see more than one ‘USB Serial Device ’it’s possible the barcode reader driver was also changed. Unplug the barcode reader to determine which is the Ella device.)
a. Select **Browse my computer driver location** and set folder to the path shown (C:\Program Files (x86)\ProteinSimple\Simple Plex Runner\Driver)
a. Note: if that path is unavailable then an older version of Runner may be installed. Make sure at least Runner 3.5 is installed.

7) Select Next and when prompted ‘Would you like to install...’ select Install.

8) After the correcting the driver, the COM port number may need to be set to ‘COM3’. Follow steps provided for the barcode reader to change (see Sub-Section 2.2: Barcode Driver).
9) After proper configuration the Ella driver (and Barcode Reader) should appear as follows.
Sub-Section 2.4: Network Interface Card

After updating to Windows 10, the Network Interface Card Driver settings used for the Ella’s internal camera may have changed. To check this, continue with the steps below.

1) Enter Device Manager, Expand Network adapters Node, Right Click ‘Intel Gigabit CT Desktop Adapter’ and Select ‘Properties’

   a. NOTE: it’s also possible the Network adapter is called ‘Intel Ethernet I210-T1 Gbe NIC’.
2) Select the ‘Advanced’ tab and configure the following four settings
   a. Jumbo packet to 9014
   b. Interrupt Moderation Rate to Extreme
   c. Receive Buffer to 2048 (or max allowed).
i. Transmit buffer to 256 bytes

3) Click the OK button to close the dialog and save the changes.
Sub-Section 2.5: Windows Power & sleep setting

Power and sleep settings should carry over from Windows 7 but should be checked in case they were changed.

1) Select Start menu and then Settings
2) Select **System** and then **Power & sleep** (in the left column)
3) Confirm or Change both **Screen** and **Sleep** to be set to **Never**
Sub-Section 2.6: Windows Update settings

Windows Update should be configured to prevent updates and PC rebooting while running cartridges.

1) Select Start menu and then Settings

![Start menu settings](image)
2) Select **Update & Security** and then **Windows Update** (in the left column)
3) Change Active Hours to 5:00 AM to 11:00 PM or for hours that better represent when the Ella is in operation.
2) Set Windows update to provide more notification when the system will be restarted.
   a. Select **Advanced options**
   b. Turn on **Update Notifications**

   ![Settings](image)

   - **Advanced options**
     - **Update options**
       - Pause updates for other Microsoft products when you update Windows: **On**
       - Download updates over metered connections (extra charges may apply): **Off**
       - Restart this device as soon as possible when a restart is required to install an update: **Off**

   - **Update notifications**
     - Show a notification when your PC requires a restart to finish updating: **On**

   - **Pause updates**
     - Temporarily pause updates from being installed on this device for up to 35 days. When you reach the pause limit, your device will need to get new updates before you can pause again.
     - **Pause until**: Select date

   i. **NOTE**: the exact screen may not match.
Sub-Section 2.7: Final Steps

1) Restart PC. If PC is not restarted device driver states may not reflect configuration changes.

2) After restarting PC, log in and start runner to confirm Ella initializes successfully.
## Revision History

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<th>Author(s)</th>
<th>Description</th>
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<tbody>
<tr>
<td>Fred Westphal</td>
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