Windows Phone 'Mango' Beta 2 Build Developer Device Update Steps

Thank you for your interest in developing for Windows® Phone Mango'. The success of the platform depends on developers like you to provide end users with great apps.

The Windows Phone team is making the beta build of 'Mango' available to our developers to allow you to get your applications ready for 'Mango prior to release of the update. As you install the Beta 2 build on your phone, you should also download the Windows Phone SDK 7.1 Beta 2 to test your code on the phone.

> **Please read this document fully and carefully before you update your retail device. Not properly following these instructions can place your personal phone in an unusable state. Microsoft is unable to assist developers who "bricked" their phone because an instruction step was skimmed or skipped.**

Installation Warnings

Installation voids your warranty

Before you install 'Mango' on your retail device, it can't be stressed enough that **installing this update voids your warranty** with your Mobile Operator (MO); during the time your phone has this beta OS image applied, your MO will not be able to provide support. At the end of the program, you can and should use the phone backup that you will be creating as part of this update process. This backup will return you to your current, MO-supported state, from which you can then update to the final retail version of 'Mango'.

Support limitations

Microsoft will make a reasonable effort to support developers who are running on the 'Mango'Beta 2 build via this program. This support is subject to the EULA and conditions that you accepted when you joined the Microsoft Connect program and downloaded the update tools.

Limitations on eligibility for support include the following:

- The developer must be an invited participant in the Connect program that distributed this tool, and have accepted the terms and conditions for participation.
- The developer must have an active developer account on App Hub.
- The developer must reside in one of the eligible, supported countries or regions (the full list is in the terms and conditions for participating in the Connect program).
- We will support only one retail Windows Phone device per developer account
- We are unable to support phones that are physically damaged (no matter the cause)

It's important to stress the preceding points about supported countries or regions and support of one retail device. For the team to provide reasonable support to developers, we are able to support only

countries or regions that we've had relative success when shipping devices to and from. This country/region list was determined based on past shipping experiences. We are unable to support countries or regions that we've had recurring issues with, including (but not limited to) excessive customs fees, time to process, lost-mail rate, and so on.

Backup your backup

You should keep in a secure location at least one additional copy of the backup that this update process takes from your Windows Phone. This backup is required to be able to upgrade to new versions of the OS. Furthermore, because you will be returning to this backup at a later time, you will lose all data generated as part of this beta upgrade (including, but not limited to, pictures, videos, app/game data, and so on). Because you will lose any new data added to your phone during this Beta trial, we recommend that you do not store new data to your Windows Phone unless you also have a backup of the data elsewhere (for example, you are syncing your pictures/videos to your PC).

Also, because the backup process is one of the more lengthy portions of this process, you may also want to consider using this as an opportunity to move pictures and videos off of your phone and onto a more permanent location. Doing this makes the backup process now (and the restore process later) much faster.

Confidentiality *(updated 6/30/2011)*

By participating in this pre-release program, you agree not to share the 'Mango' pre-release device image, binary dumps, or the applications used to update to this pre-release image, with third parties.

Update Process Overview

At a high level, this update works by changing the way that Microsoft® Zune® applies an update to your retail Windows Phone to point at a special update server, which will place your phone on a one-time update (the 'Mango'Beta 2 build, build 7661). To do this, you will run a three-step process:

1. Use the self-provisioning application to back up your phone and point to the special update server.
2. Use the Zune client to update your phone to build 7401.
3. Use the Zune client to update your phone to build 7661.

This process is intended to be one-time and one-way, meaning that it is designed to update your phone from a current retail image build to the 'Mango'Beta 2 build. If you have any other Windows Phone builds, or have used a different update process other than the retail update process via the Zune client, these tools will likely not work.

Prerequisites: Before You Begin

Before installing any of the software you've downloaded from Connect, or starting the process of upgrading to 'Mango', you need to check four things:

1. **Your Windows Phone should be running a current retail version.**
   Verify that your phone is running the latest operating-system version of Windows Phone, and update your phone to the latest version if needed. To do this:
   a. On the device, flick left to the Windows Phone's application list.
   b. Tap **Settings** (⚙) > **About** > **More Info**.
   c. Scroll to the bottom and select **about**.
   d. If you are above build 7355 (7.0.7355.0, 7.0.7389.0, 7.0.7390.0, or 7.0.7392.0), you can proceed; if not, you should install "NoDo" via Zune before you install this update.
      i. Updates can be applied by navigating to Zune, and selecting **Settings** at the top of the screen.
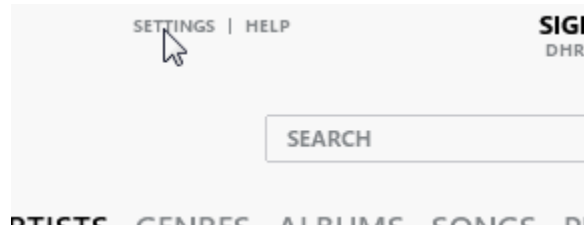
      ii. Select **Phone** -> **Update**.
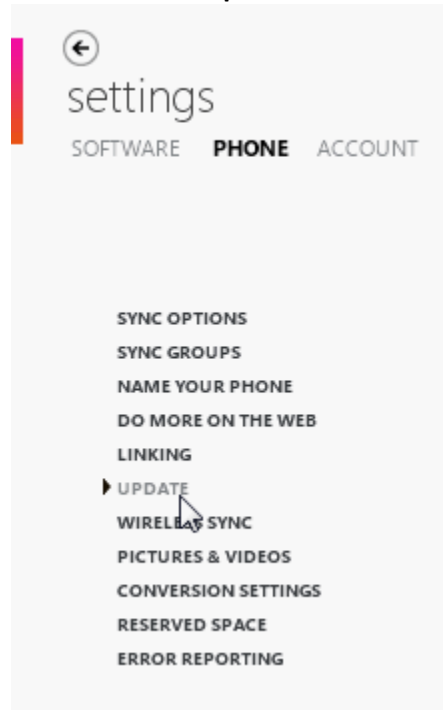
      iii. Select **Update** to accept the relevant update.
      iv. Repeat this update process to check and accept updates until you are on a recent Windows Phone OS build.

2. **You have enough disk space for your phone backup**
   Check that you have enough disk space on your C: drive to successfully back up your phone,

---

which is part of the update process. You should ideally have twice the amount of disk space available on your C: drive as you are using on your Windows Phone.

3. **Your phone must be developer unlocked.**
This update works only for phones that are developer unlocked. If you are unsure if your phone is unlocked, you can verify this by running the Windows Phone Developer Registration tool, which is available with the Windows Phone Developer Tools.

4. **Your computer is plugged in and can run uninterrupted for several hours.**
This process can take several hours, and interruption can result in your phone being unbootable and un-upgradable (also known as "bricked").

Once you've verified the four prerequisites in the preceding list, you're ready to update your Windows Phone to 'Mango' Beta 2 pre-release OS.
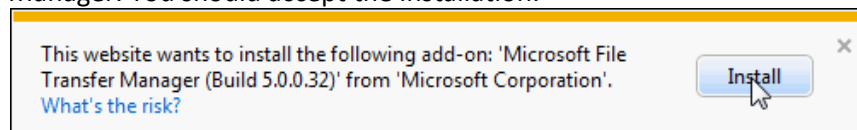
Phone Upgrade to 'Mango'

Install the update software

Once you've verified that your computer and phone meet the prerequisites, let's get started with installation of the software:

1. Disconnect your Windows Phone from your PC.
2. Uninstall the Zune client software; you will be installing a newer (pre-release) version as part of the update process.
3. Uninstall previous beta installations of the Windows Phone Developer Tools (WPDT) 7.1; you will need to install Beta 2 of the WPDTs as part of the update process.
4. Download and unzip the files from Connect (download link):
    a. *MangoB2-ZuneClient.zip* – Archive file that contains the pre-release Zune Client 4.8, required to update your Windows Phone retail device
    b. *MangoB2-UpdateWP.zip* – Archive that contains the program that will update your Windows Phone to point to the new server
    c. *MangoB2-DevRetailUpdate.exe* – Tool that will update your phone to receive the 'Mango' update from the test servers

    As you download the files, you may be prompted by Connect to install the File Transfer Manager. You should accept the installation.


    This website wants to install the following add-on: 'Microsoft File Transfer Manager (Build 5.0.0.32)' from 'Microsoft Corporation'. What's the risk?   Install ×

5. Download and install the Windows Phone SDK 7.1 Beta 2 (previously WPDTs) from http://go.microsoft.com/?linkid=9772716 or via the Web Platform Installer.
6. Install the updated Zune client software (duration: ~10 minutes)
    a. Accept the license terms.
    b. Select **Install**.
    c. A progress bar should show the Zune client installing.

---

d. Once the installation is complete, click the **Close** button on the dialog box.

e. Verify that the correct version of the Zune client is now installed:

    i. Launch Zune.

    ii. Go to **Settings** -> **Software** -> **General**.

    iii. Click **About Zune**.

    iv. Verify that the version is 4.8.2098.0.

7. Install the UpdateWP software. *(updated 6/30/2011)*

a. Check to see if you have an older version of UpdateWP already installed in your Zune directory (`{ProgramFiles}\Zune`).

b. If you have either a `UpdateWP.exe` or `WM7Update.dll` file – delete them.

c. Run the UpdateWP setup program; to place an UpdateWP.exe binary in your Zune directory.

Update your retail Windows Phone with the 'Mango' Beta 2 build

With the software installed, we can now start the process to update the device:

1. Connect your phone to your computer.
2. If Zune is running, close the Zune client software.
3. Click the *MangoB2-DevRetailUpdate.exe* file from Connect (duration: ~1 hour).

a. You'll be reminded of the cautions and risks that you accepted when you joined the pre-release program; click **I agree**.
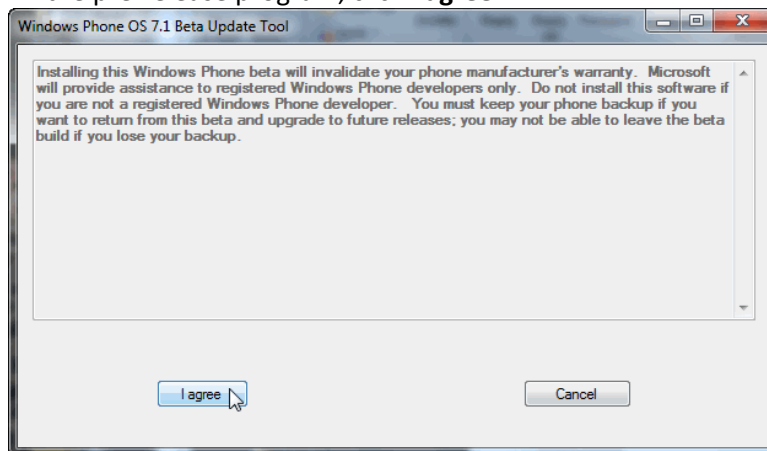

b. The application will verify that your device is developer unlocked, and it will also download the latest update package from the server.
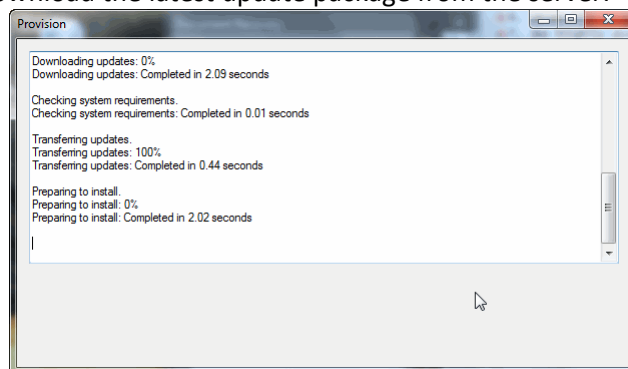
c. The application will process will restart your phone and create a backup of your device. Make a copy of this backup in a place where you will not lose it.
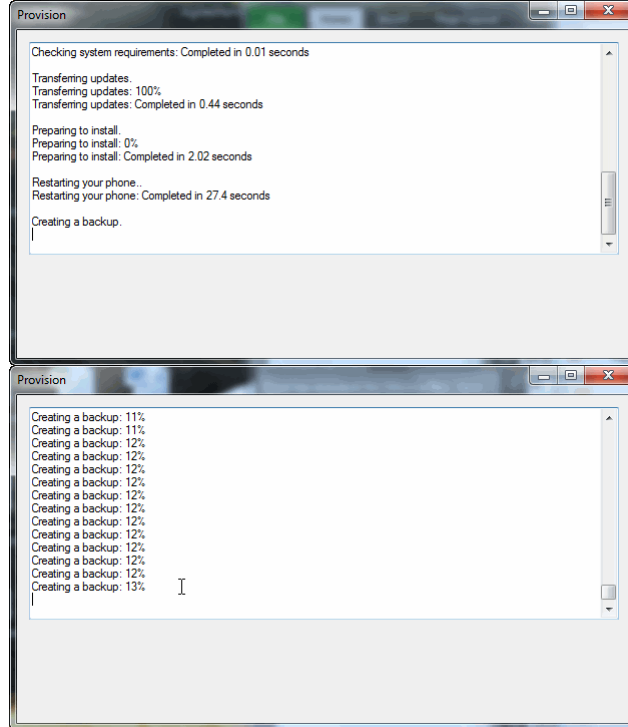
d. When you have completed this backup, the application will then update your phone, enabling you to receive the 'Mango' updates.
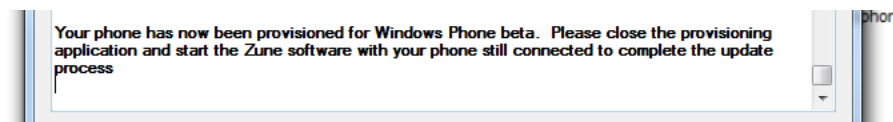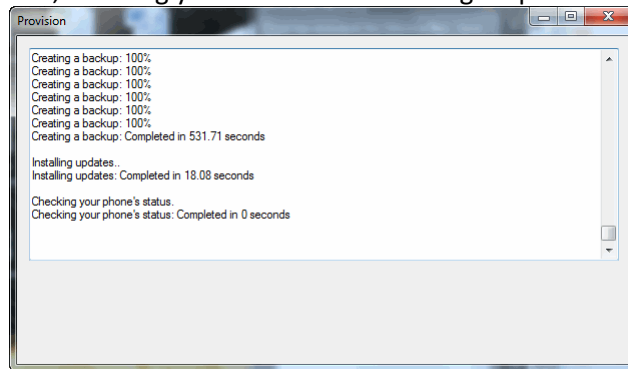

e. Once you a message telling you that "your phone has now been provisioned for Windows Phone beta", the update process is complete, and you can close the provisioning tool.

f. You should now have a backup in the following location:
`C:\Users\{username}\AppData\Local\Microsoft\Windows Phone Update\{Device GUID}\`

Copy this folder to a secure storage location. We recommend a stand-alone flash/zip/disk drive. **If you lose this backup, you will not be able to restore your Windows Phone to a retail image.**

4. Update your Windows Phone to build 7.0.7401.0 (duration: ~20 minutes)
   a. Your device must be updated to build **7.0.7401.0** before updating to "Mango" Pre-Release Builds.
   b. Connect the device to your PC.
   c. Start the pre-released Zune client ( ) located on your desktop.
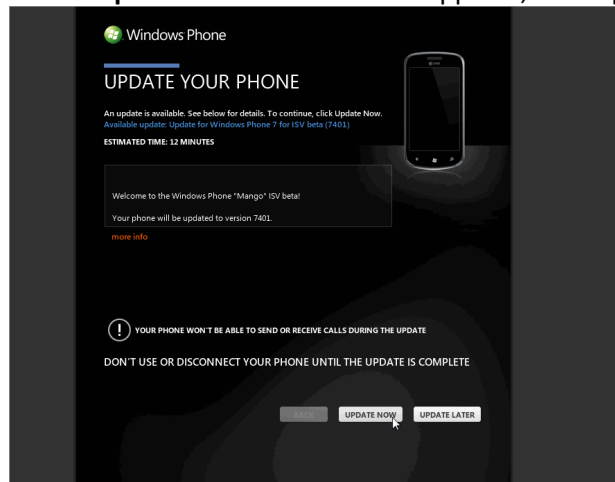   d. Select **Settings** from the menu.
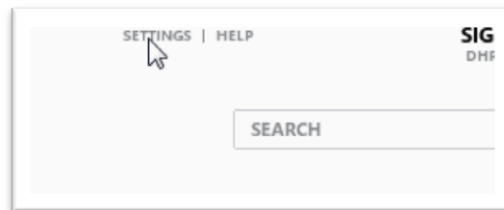
   e. Select **Phone** -> and **Update** from the menu on the left.
   f. An update for the **Update for Windows Phone 7 for ISV Beta (7401)** should be listed.
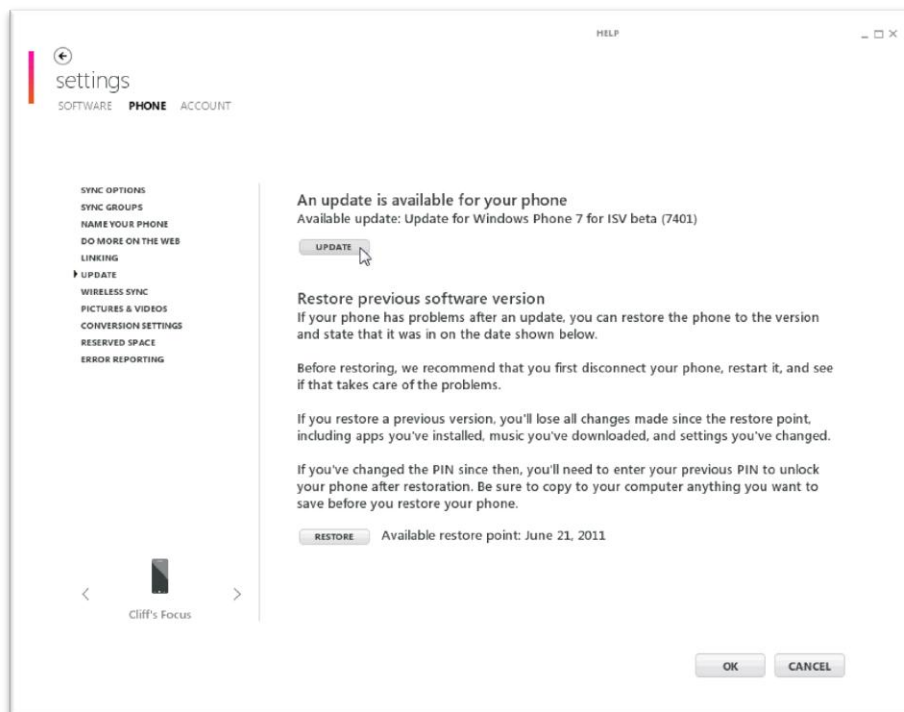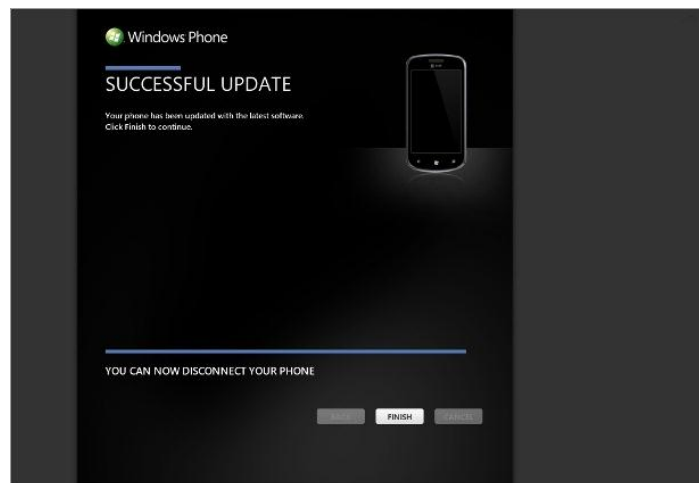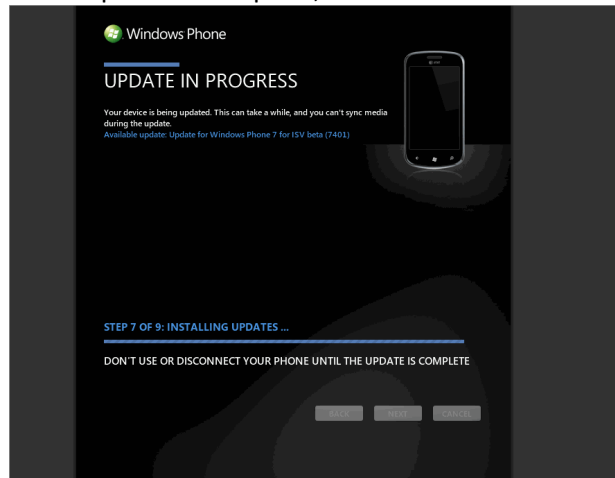

   g. Select **Update**.

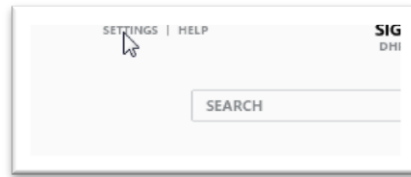h. When the **Update Your Phone** screen appears, click **Update Now**.

i. Your device will begin the update process.
j. Once the update is complete, click **Finish**.

5. Update your device to the "Mango" pre-release build (Duration: 70 minutes)
   a. Your device can now be updated to the "Mango" Pre-Release Build.

b. Connect the device to your PC.
c. Start the pre-released Zune client ( ) located on your desktop.
d. Select **Settings** from the menu.

e. Select **Phone** -> and **Update** from the menu on the left.
f. An update for the **Update for Windows Phone 7 for ISV Beta (7661)** should be listed.
    Select **Update**.
g. When the **Update Your Phone** screen appears, click **Update Now**.
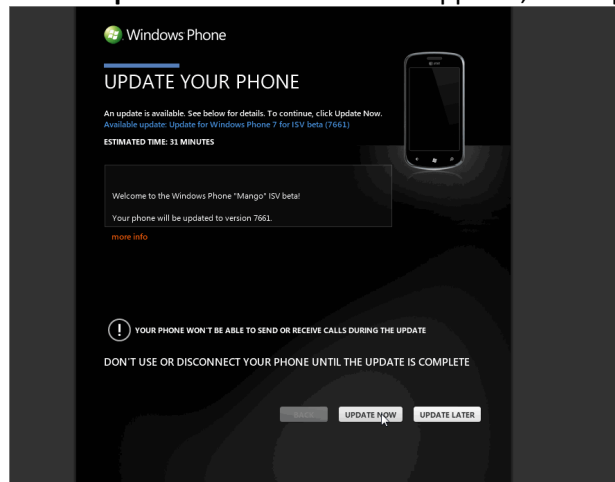
h. *Your device will begin the update process.*
    (Expect to see long delays during this part of the update process; do not disconnect your phone, even if the screen's phone goes black. Do not touch the device until the update process completes or you are prompted to enter your PIN to unlock the device.)
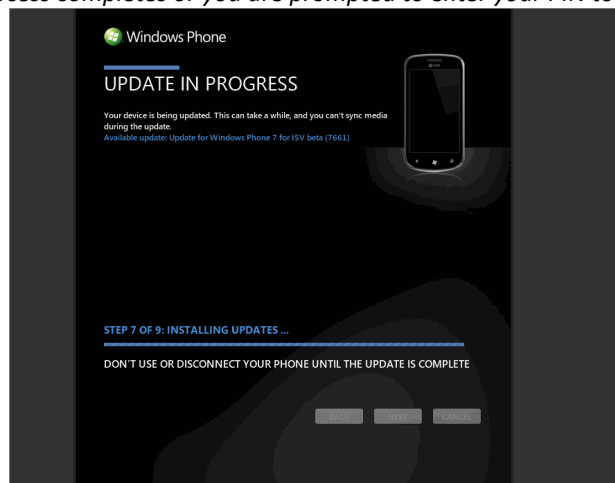
i. Once the update is complete, click **Finish** and disconnect your device.
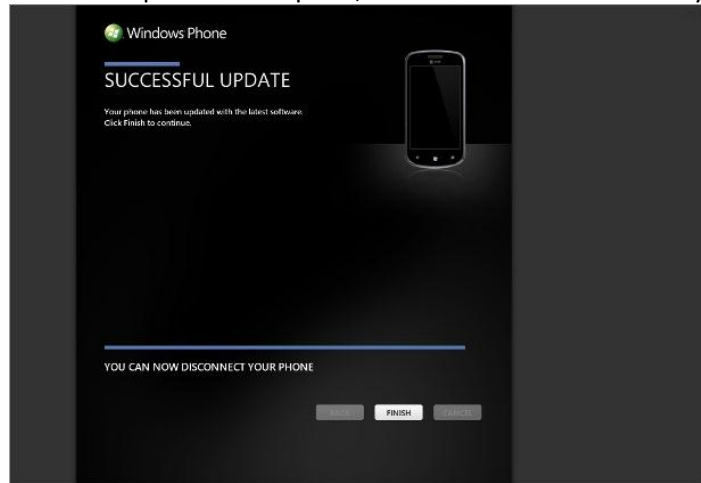
6. Your device is now running the pre-release 'Mango' software!
7. You should now verify that your phone is now on build 7661 (refer to step 1).

8. Run the Windows Phone Developer Registration tool again to unlock your phone.
   As part of the update process, the developer unlock is removed. In order to continue using any apps side-loaded prior to the update, you should unlock your phone again.

Returning Your Windows Phone to its Pre-"Mango" State

To return your Windows Phone to its pre-'Mango'state, you can use the following instructions:

1. Copy your device backup from its secure location back to
   C:\Users*username*\AppData\Local\Microsoft\Windows Phone Update\
2. Open Zune.
3. Go to **Settings** -> **Phone** -> **Update**.
4. Click the **Restore** button. At this point, Zune will walk you through restoring your phone.

Troubleshooting Common Update and Flashing Issues with Windows Phone

Based on prior experience in updating phones, the following is a collection of the more common errors that we've seen. These should help you in the unlikely event that you run into an issue.

If the troubleshooting suggestions in this section are unable to help you solve your issue, and you're unable to find an answer on the App Hub forum, you will need to open up an App Hub support ticket by logging into the App Hub portal (http://create.msdn.com) under your developer account. Tickets can be opened by navigating to the **Support** tab.

Forum Support *(Updated 6/29/11)*

A great first resource is the 'Mango Update' update support forum. Here you can get immediate community support to your issues, and see what has (and hasn't worked) for other developers updating their retail devices to the 'Mango' pre-release.

App Hub support *(Updated 6/29/11)*

App Hub support is provided during normal business hours (Monday-Friday, 9 A.M.-5 P.M. Pacific Time (UTC-8)), and is provided by the same team that supports all other Windows Phone developer requests. Please understand if it takes time to respond to any issues that you encounter.

When opening up a help desk ticket via App Hub, please include the following information:
- Make and model of the Windows Phone
- Your mobile operator
- OS version/build number of the Windows Phone before the update
- Zune version number
- Current status of the Windows Phone
- Number of upgrade attempts
- Any error codes or screenshots
- Include a complete set of repro steps.
- If the error arose using the Provisioning .exe file, include the complete output of the console window (not just the final error message).
- If the error arose using the Zune client, include a screenshot of the error.

Common errors and guidance

Error 80180011 when running the *MangoB2-DevRetailUpdate.exe* file.

> *Cause:* This error means the update has already been applied.

> *What to do:*
> Go to the next step in the instructions, because it is likely your phone is already set up correctly.

I am on a build other/earlier than 7355, 7389, 7390, or 7392, and the Zune software shows my phone as "up to date". *(Updated 6/29/11)*

> *Cause:*
> The only builds that have updates available for the "Mango" ISV beta are 7355, 7389, 7390, and 7392. Older builds are not supported.

> *What to do:*
> Be sure you get all updates released for your phone via the Windows Phone Update service before running the Provisioning .exe file to configure your phone for beta updates.

> **For Samsung Focus v1.4 devices**, we will be providing an update path to 7392 and 'Mango' in mid-July. At this time, if you have this device, please wait until this update is delivered.

Phone appears to stop responding on OEM boot screen (for example, "Samsung") when rebooting after the update to "Mango" (7661).

> *Cause:* Under investigation by Microsoft and OEMs.

> *What to do:*
> In all reported cases so far, the phone eventually did boot successfully to main OS, although reports of the time during which the phone was not responding vary from 5 minutes to 45 minutes. If your phone still is on the OEM boot screen after 45 minutes, go to App Hub and log in to your developer account. Under the support tab, open a support request – select **Technical Exception** from the drop-down menu. Include all the details at the bottom of these FAQs.

The Zune software update hangs on Step 6 of 10 (rebooting to update OS to begin the install). Phone stuck in update OS with "connect to PC" image on the screen.

> *Cause:* Almost all cases are due to updating via Remote Desktop.

> *What to do:*
> Be sure you are not updating via Remote Desktop (this is unsupported). If you can repro without Remote Desktop being involved, go to App Hub and log in to your developer account. Under the support tab, open a support request – select **Technical Exception** from the drop-down menu. Include all the details at the bottom of these FAQs.

I get error 80180048 when trying to install the first update using the Zune PC client. *(Updated 6/29/11)*

> *Cause:* This error most often occurs when one of the following has been used on the phone:
> - The ChevronWP7 "tool" created by the community.
> - The WP Support Tool *and* the phone is on build 7390 or greater (the tool should only be used on specific phones on build 7004).

> *What to do:*
> This issue has to do with confusion within the image. Based on feedback from developers, we will be delivering a fix in mid-July. We will be updating the logic in the 7401 update to properly

update these phones. At this time, if you encounter this error, please wait until this update is delivered.

Checking for updates in the Zune software fails with error: 80072EE7 or 801881EF (can't check for updates)

Cause:

This error typically indicates one of two things:
- **HTC Arrive (Sprint) only:** you have hit a known bug that affects only some phones.
- USB instability is causing the Desktop Pass-through (DTPT) connection between the phone and the PC to stop working correctly. You can verify if DTPT is working or not by turning Airplane Mode on (**Settings** -> **Airplane Mode**), connecting the phone to the PC with the Zune software launched, and then using Internet Explorer® on the phone to browse to websites.

What to do:

Go to App Hub and log in to your developer account. Under the support tab, open a support request – select **Technical Exception** from the drop-down menu. Include all the details at the bottom of these FAQs.

The Zune software update fails with error: 801812DD (can't create backup) or C1010007

Cause:

This error is most often the result of an unstable USB connection, which causes the data transfer between the phone and the PC to fail at random points during the update process.

What to do:

Switching to a different USB cable often helps, as does trying a different USB port on the PC, or a different PC altogether.

For backup failures specifically, you can also try reducing the amount of content on your phone temporarily. For example, delete any synced media from your phone (leaving it on the PC), perform the update, and then re-sync the media content back to the phone.

Also, you should verify that you have enough available disk space for a backup to be created.

If you have another issue that is not covered in the preceding list…

Go to App Hub and check out the ‘Mango Update’ update support forum. If you're still unable to find an answer, log in to your developer account, navigate to the support tab, and open a support request (see ‘App Hub Support’ section above).