Optimizing your Laptop or Tablet for Interact-AS®

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Scope of this Document

Document Release Control

Release 1.0:	**January 8, 2011**	**B. Wagner**
This document provides instructions on optimizing a laptop for Interact-AS		
Release 2.0:	**March 3, 2011**	**J. Lenk**
Added instructions for support of Windows Vista.		
Release 3.0:	**January 23, 2013**	**R. Jackson**
Added instructions for support of Windows 7.		
Release 4.0:	**January 23, 2013**	**R. Jackson**
Added instructions for support of Windows 8.		
Release 5.0:	**August 6, 2015**	**J. Rendor**
Added instructions for support of Windows 10.		

1. OPTIMIZING YOUR LAPTOP - OVERVIEW

Simply put, Interact-AS® hammers processors. Instant transcription and translation does take a lot of "horsepower". Unfortunately, the initial configuration of most laptops when they are shipped from the factory is that of optimizing battery life versus optimizing performance. This document provides you with suggested steps for increasing the performance of your computer. Yes, this will result in a decreased battery life. You can expect to see a substantial increase in Interact-AS's run-time performance, but at the same time about at 10 percent decrease in battery life.

Here's a quick table of contents:

As always, if you have any questions, comments or suggestions about this procedure or any of our products, please do not hesitate to contact us.

All the Best,

Robert Palmquist

President & CEO, SpeechGear Inc. and Auditory Sciences, LLC.

2. OPTIMIZING PERFORMANCE – ALL USERS

Item 1: Interact-AS™ loves to run in RAM versus on your Hard Disk. Simply put, if you only have 4 GB of RAM in your system, then you are strongly encouraged to increase this to 8GBs. This will significantly improve the software's performance. 2 GB will work, 4 GB is significantly better, and 8 GBs will be even better.

Item 2: When you launch Interact-AS, the components will be loaded into RAM <u>after</u> you've transcribed/translated your first sentence. Thus, it's always best to have that first sentence be simple and short, such as "This is a check to see if the microphone is working". As an aside, we use to load the information while Interact-AS was launching, but that meant it took about 15 seconds longer to load, and people are not patient. So, we now have a system that loads much faster, with the one drawback being that it takes longer for that first sentence to be transcribed/translated.

Item 3: Probably fairly obvious, but for optimal performance you do not want other applications running on your computer that compete for system resources. Note that items like a music player and some websites can consume a significant amount of computer resources. Items like a PDF reader or Microsoft Word do not consume nearly the amount of CPU cycles.

Item 4: A high quality microphone is VERY significant. If your microphone has a lot of static, then Interact-AS will go from doing a three-pass analysis to perhaps as many as nine passes. What does that mean? Interact-AS captures the input audio stream and on the first pass identifies stop and start points in the audio stream. In the second pass phonemes are identified, and in the third pass these phonemes are grouped into words. If there is static or other interference in the audio, then additional passes will be performed in an attempt to identify and filter out this noise. This is an iterative process where subsequent passes are matched with the previous pass to determine if an improvement in the recognition has been achieved. The bottom line is that a high quality microphone significantly improves recognition accuracy and the real-time performance.

Item 5: The rest of this document provides instructions on how to optimize your CPU for computational performance. Please refer to the appropriate section for the operating system that you are using.

3. OPTIMIZING PERFORMANCE – WINDOWS 8 AND 10 USERS

This section is for Windows 8 and Windows 10 Users. If you have not already read the suggestions in Part 2, please do so prior to proceeding with this section.

Step 1: Open up a directory window (you can do this by pressing the Windows key and the "E" key at the same time) and enter the following address:

Control Panel\Hardware and Sound\Power Options
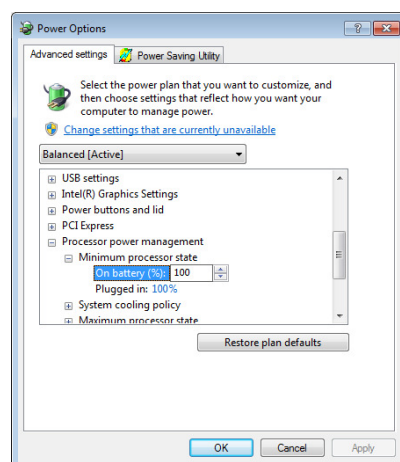
Step 2: Select *Balanced*

Step 3: Click on *Change Plan Settings*

Step 4: Click on *Change advanced power settings* (it's near the bottom of the page)

Step 5: Scroll down to *Processor Power Management* and click on the "+" sign.

Step 6: Click on the *Minimum processor state* and set the value to 100% (as is shown in the figure). Do this for both the "on battery" and "plugged in" settings. This will decrease your battery life, but only by about 10% (so you will still have about 90% of your current battery life).

Step 7: Click on *Ok* and close the windows that you have opened.

That's it, you've successfully optimized your computer. As always, if you have any questions and or suggestions to improve this document, please let us know.

4. OPTIMIZING PERFORMANCE – WINDOWS 7 USERS

This section is for Windows 7 Users. If you have not already read the suggestions in Part 2, please do so prior to proceeding with this section.

Step 1: Go to
Start > Control Panel > Hardware and Sound > Power Options
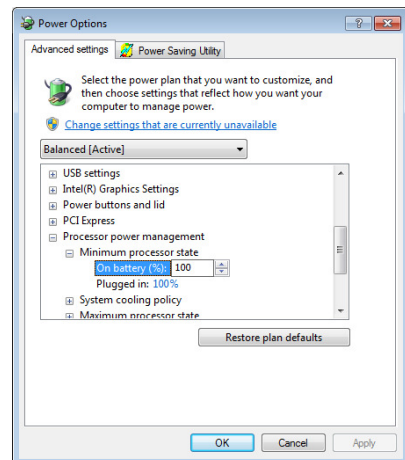
Step 2: Select *Balanced*

Step 3: Click on *Change Plan Settings*

Step 4: Click on *Change advanced power settings* (it's near the bottom of the page)

Step 5: Scroll down to *Processor Power Management* and click on the "+" sign.

Step 6: Click on the *Minimum processor state* and set the value to 100% (as is shown in the figure). Do this for both the "on battery" and "plugged in" settings. This will decrease your battery life, but only by about 10% (so you will still have about 90% of your current battery life).

Step 7: Click on *Ok* and close the windows that you have opened.

That's it, you've successfully optimized your computer. As always, if you have any questions and or suggestions to improve this document, please let us know.

5. OPTIMIZING PERFORMANCE – WINDOWS VISTA USERS

This section is for Windows Vista Users. If you have not already read the suggestions in Part 2, please do so prior to proceeding with this section.

Step 1: Go to
Start > Control Panel > Hardware and Sound > Power Options

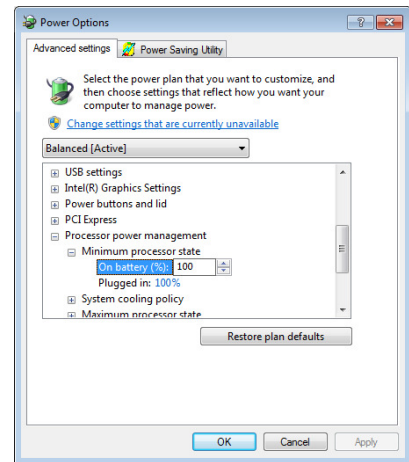**Step 2:** Select *High Performance*

Step 3: Click on *Change plan settings*

Step 4: Click on *Change advanced power settings*

Step 5: Scroll down to *Processor Power Management* and click on the **"+"** sign.

Step 6: Click on the *Minimum processor state* and set the value to 100% (as is shown in the figure). Do this for both the "on battery" and "plugged in" settings. This will decrease your battery life, but only by about 10% (so you will still have about 90% of your current battery life).

Step 7: Click on *Ok* and close the windows that you have opened.

That's it, you've successfully optimized your computer. As always, if you have any questions and or suggestions to improve this document, please let us know.

6. OPTIMIZING PERFORMANCE – WINDOWS XP USERS

This section is for Windows XP Users. If you have not already read the suggestions in Part 2, please do so prior to proceeding with this section.

Step 1:   Go to
              Start > Control Panel > Performance and Maintenance > Power Options

Step 2:   Select ***Home/Office Desk*** (actually, anything other than ***Max Battery***)

Step 3:   Click on ***Ok*** and close the windows that you have opened.

That's it, you've successfully optimized your computer. As always, if you have any questions and or suggestions to improve this document, please let us know.