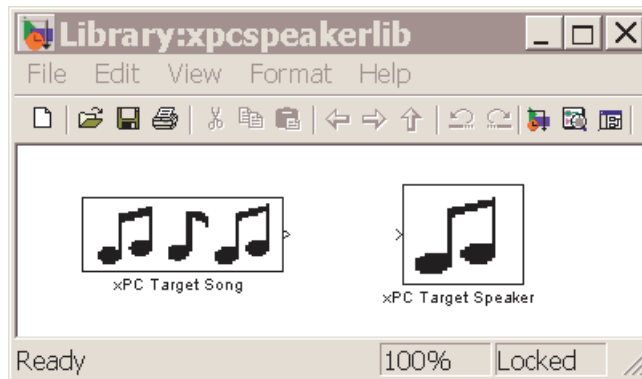


## xPC Target Speaker Blocks

To install, place all the files extracted from `xpcspeakerlib.zip` on your MATLAB path. Mex `xpcsong.c` & `xpcspeaker.c`, rehash toolbox then open `xpcspeakerlib.mdl`.

```
>> mex xpcsong.c
>> mex xpcspeaker.c
>> rehash toolbox
>> xpcspeakerlib
>>
```



To use these blocks, drag into a model and connect as shown below:



The xPC Target Song block, based on the mask parameters, generates a frequency to be played every sample time. The xPC Target Speaker block plays this frequency over the PC internal speaker. The xPC Target Song block provides two options to specify frequencies: 1) Two vectors, one of frequencies and one of durations. 2) By specifying parameters to the `song()` function. `Song` takes a string of notes (and other optional parameters) and converts them into frequencies and durations. See `>> help song` for more details. With `previewsong.m` the output of `song` can be played over the speaker on the host PC. The model `speakerdemo.mdl` is a simple demonstration of these two blocks.

Contents of `xpcspeaker.zip`:

<code>speakerlib.pdf</code>	This document.
<code>xpcsong.htm</code>	Help file for the song block.
<code>xpcspeaker.htm</code>	Help file for the speaker block.
<code>song.m</code>	Converts a simple text based musical note notation to frequencies & durations.
<code>previewsong.m</code>	Plays the output of <code>song()</code> on the host PC.
<code>xpcsong.c</code>	Source code for the song block.
<code>xpcspeaker.c</code>	Source code for the speaker block.
<code>xpcspeakerlib.mdl</code>	Song & speaker block library.
<code>speakerdemo.mdl</code>	Demo model.
<code>notes.bmp</code>	Icon image for song block.
<code>note.bmp</code>	Icon image for speaker block.