Using PurePath Studio Step by Step

Texas Instruments

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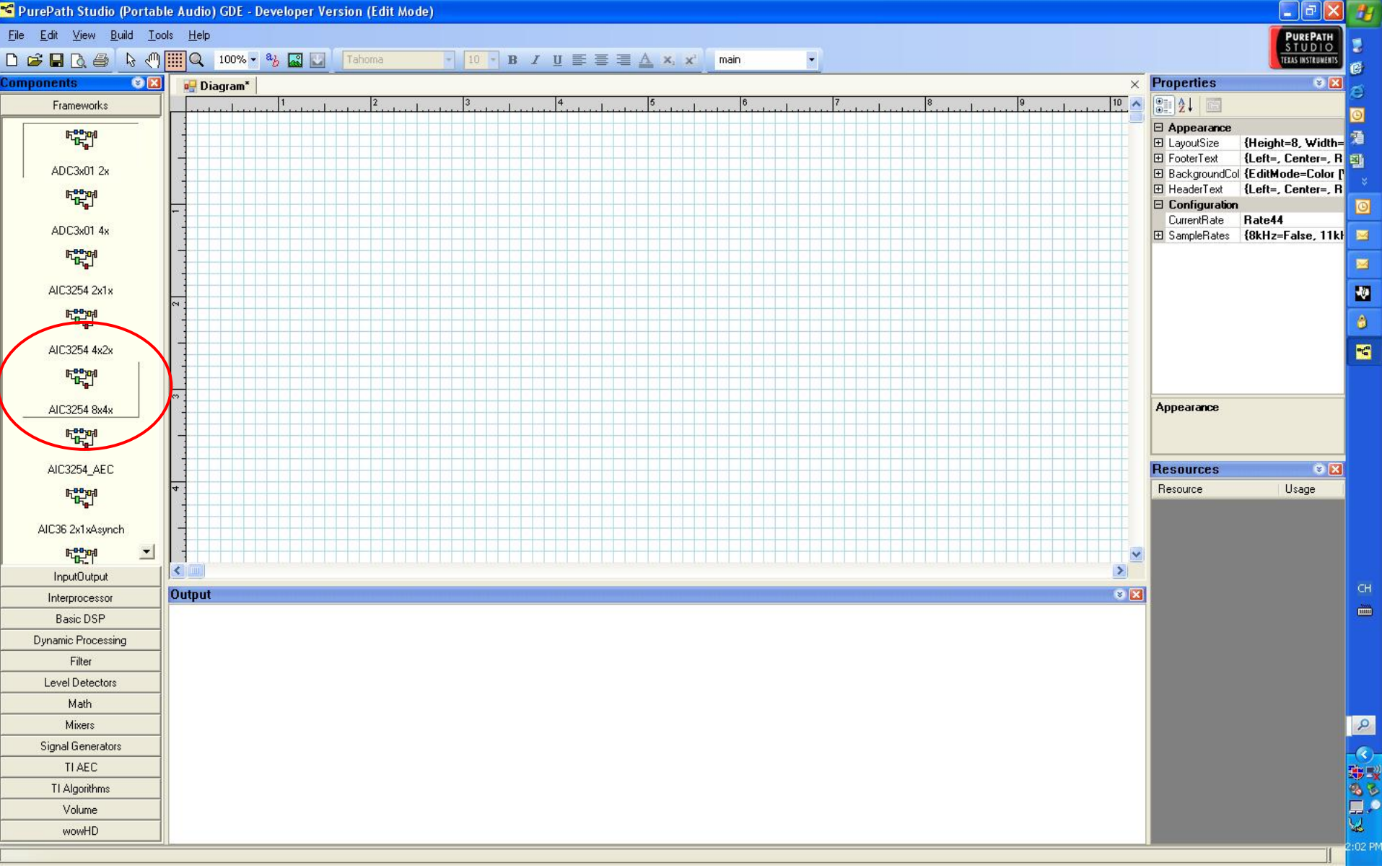
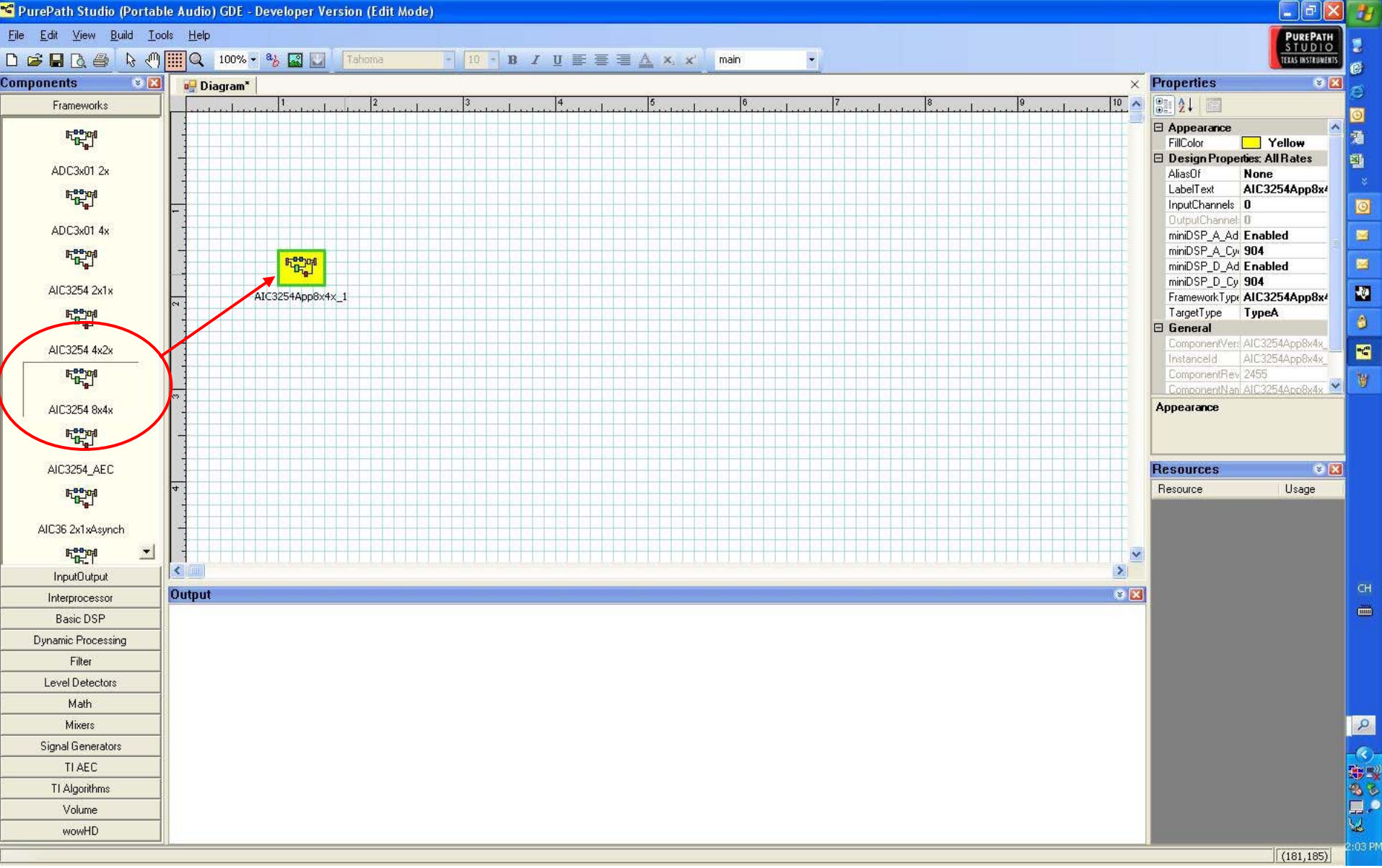
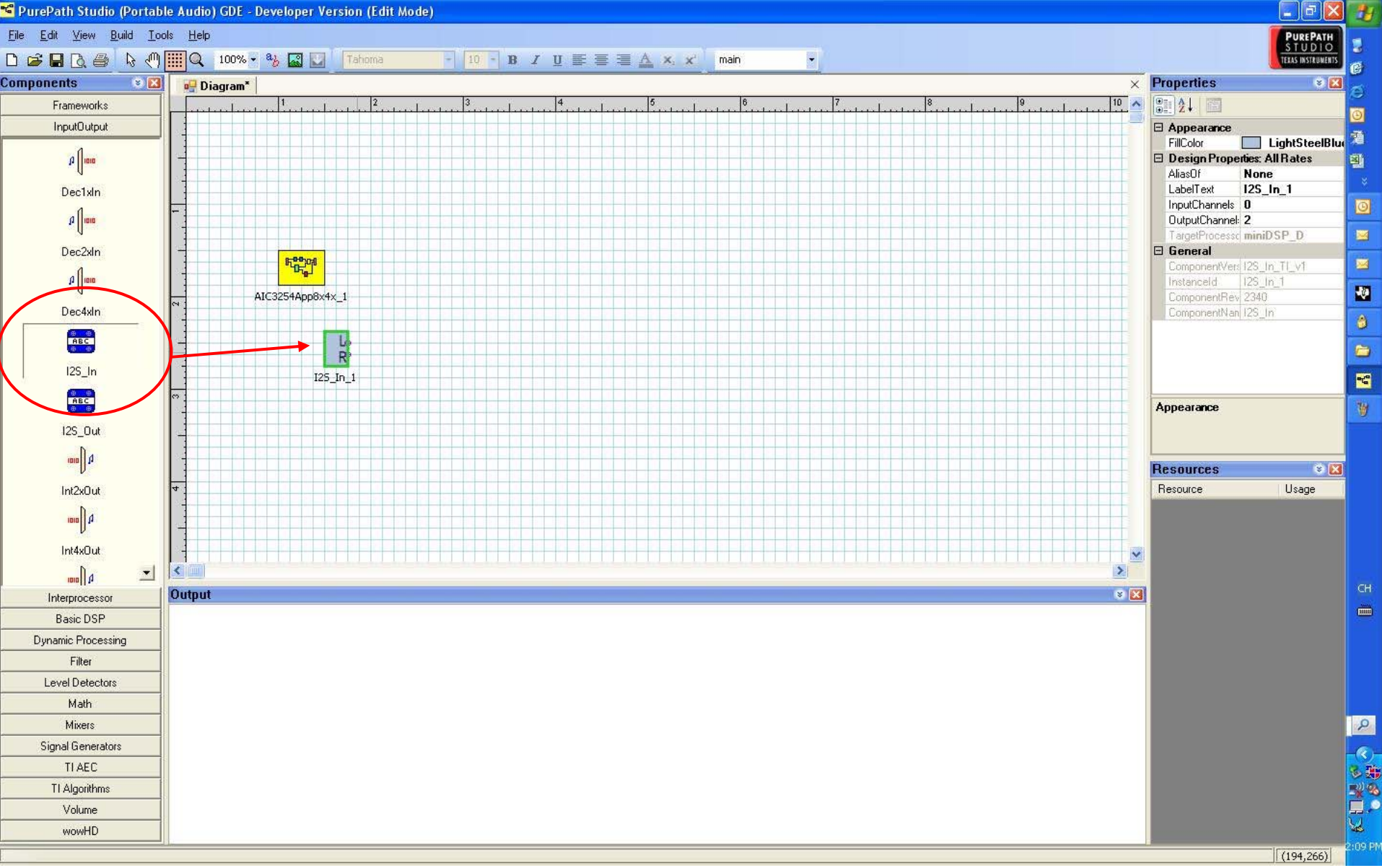
Chapter 1
Quick Use



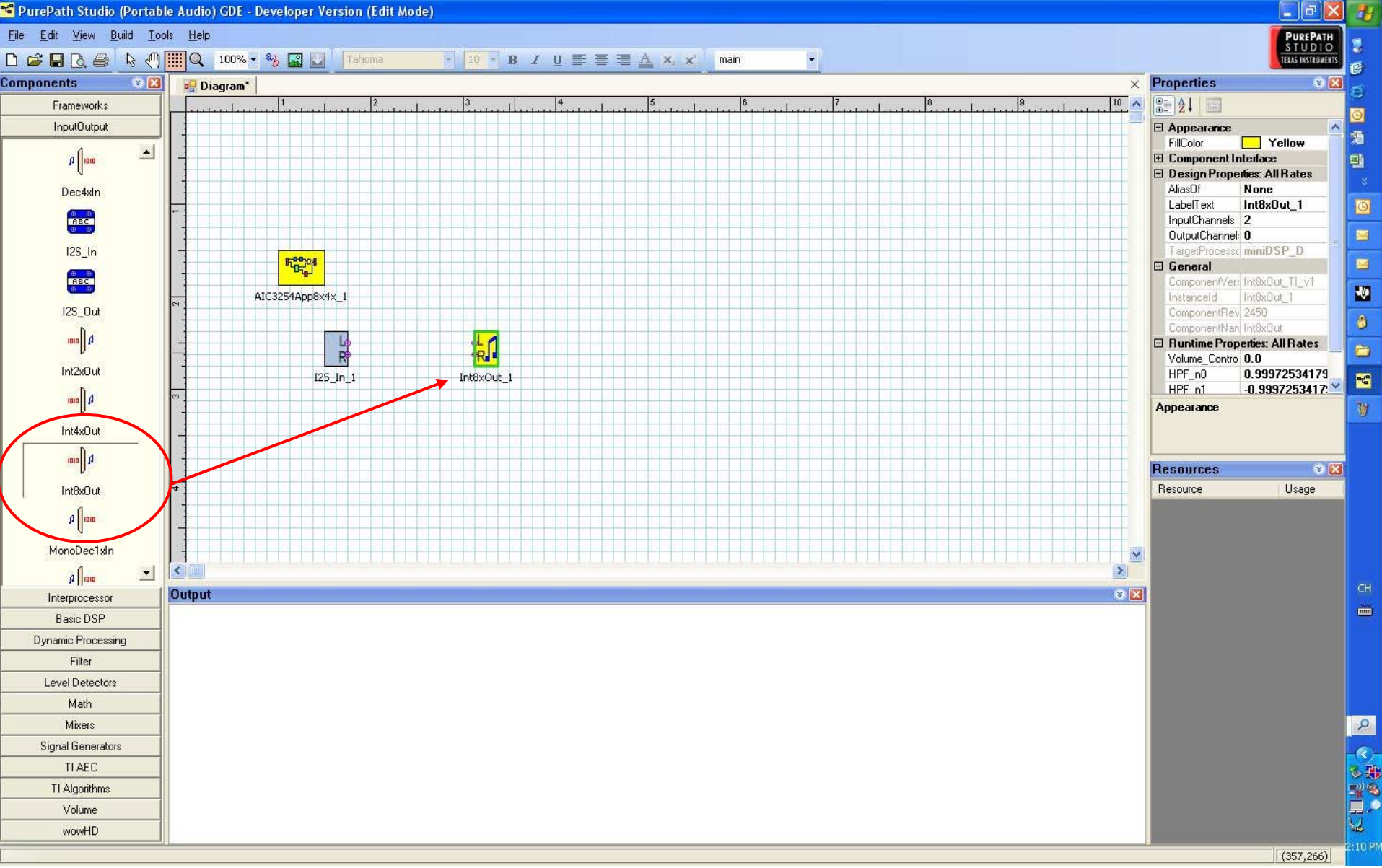
1. Find the proper Frameworks



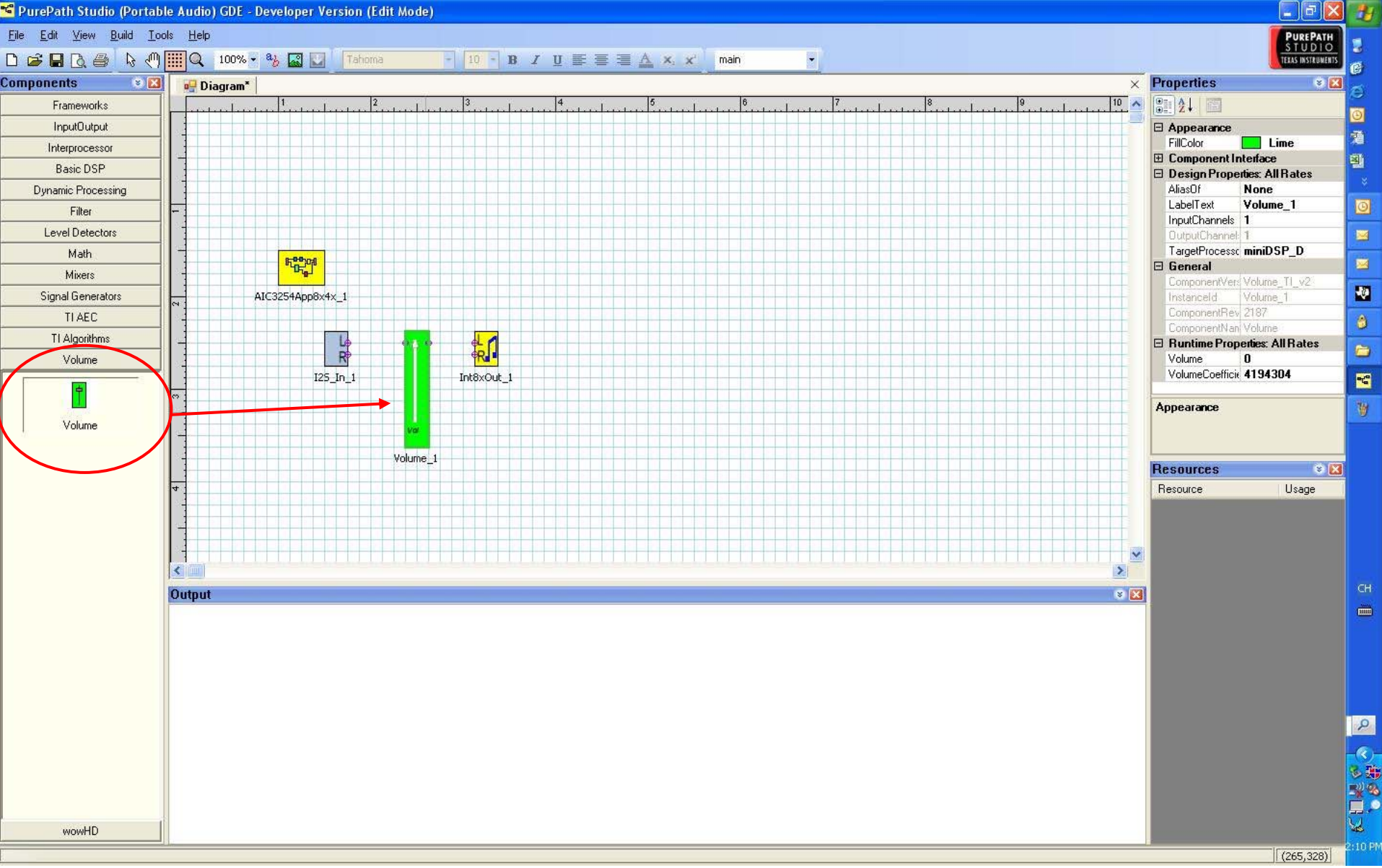
2. Pull the correct Frameworks on the platform



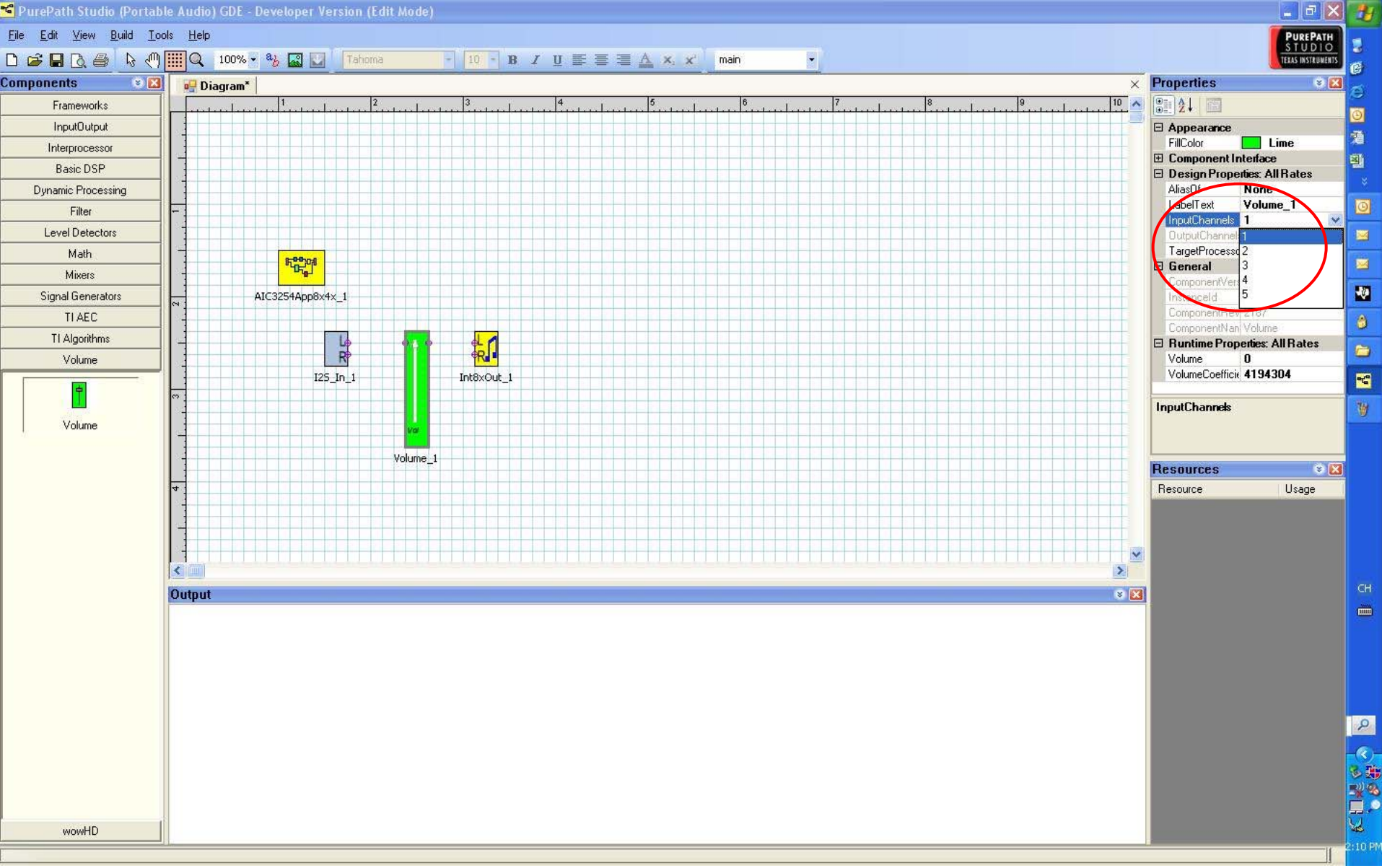
3. You could pull any other blocks on the platform



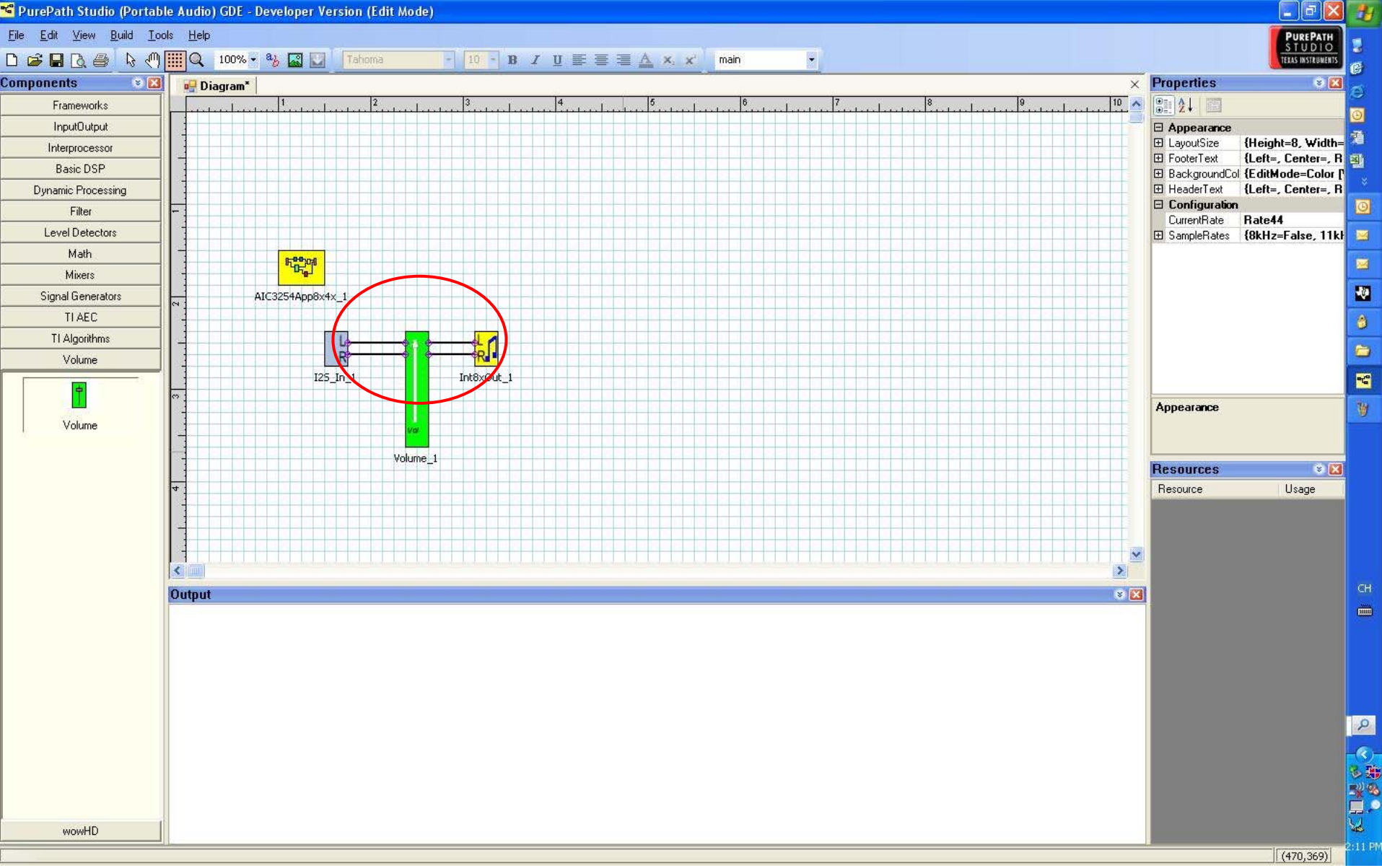
4. For example, we pull the I2S input and DAC output on the platform



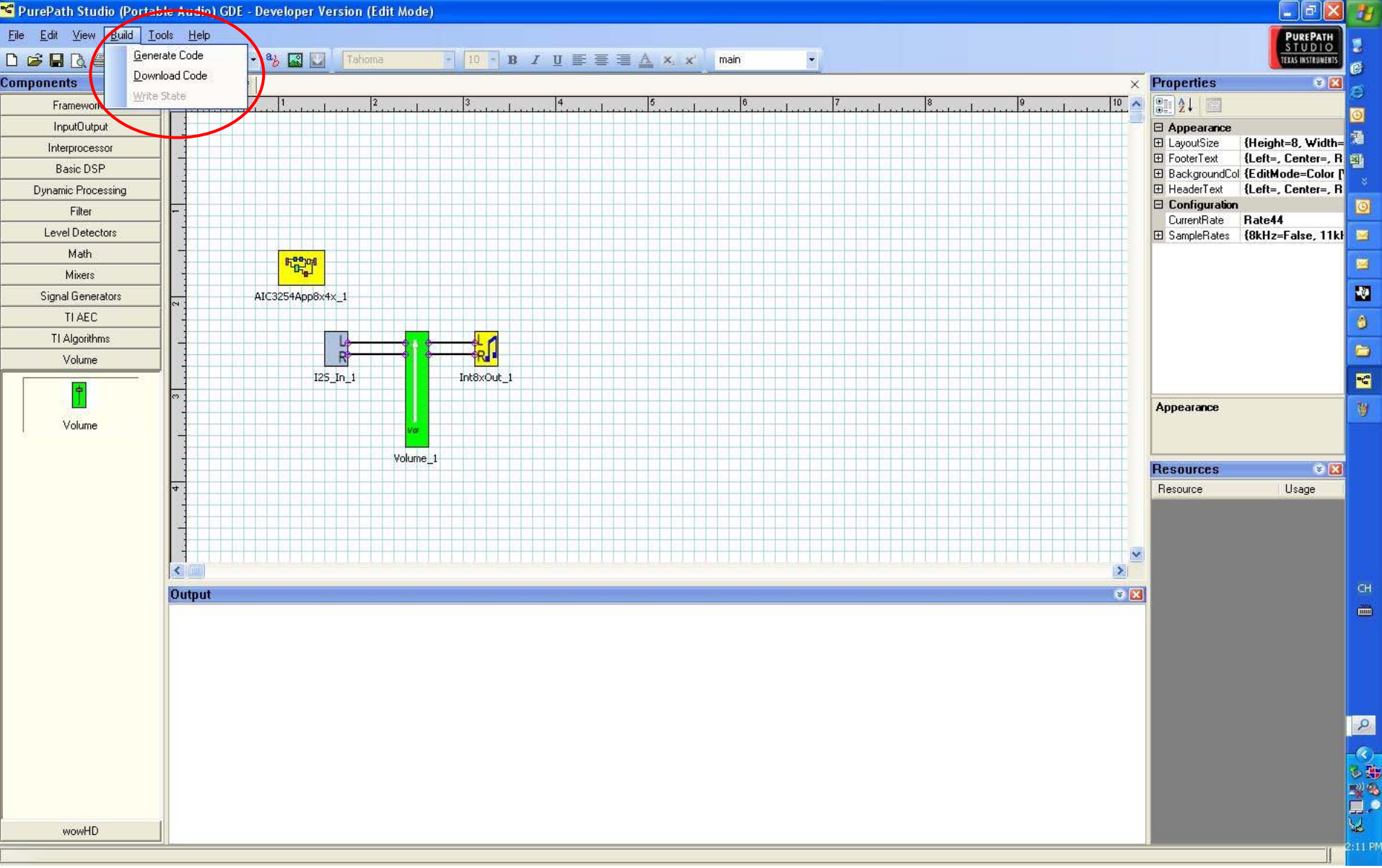
5. We now trying to do a simple volume control process flow



6. We could change the number of channel in the Design Properties



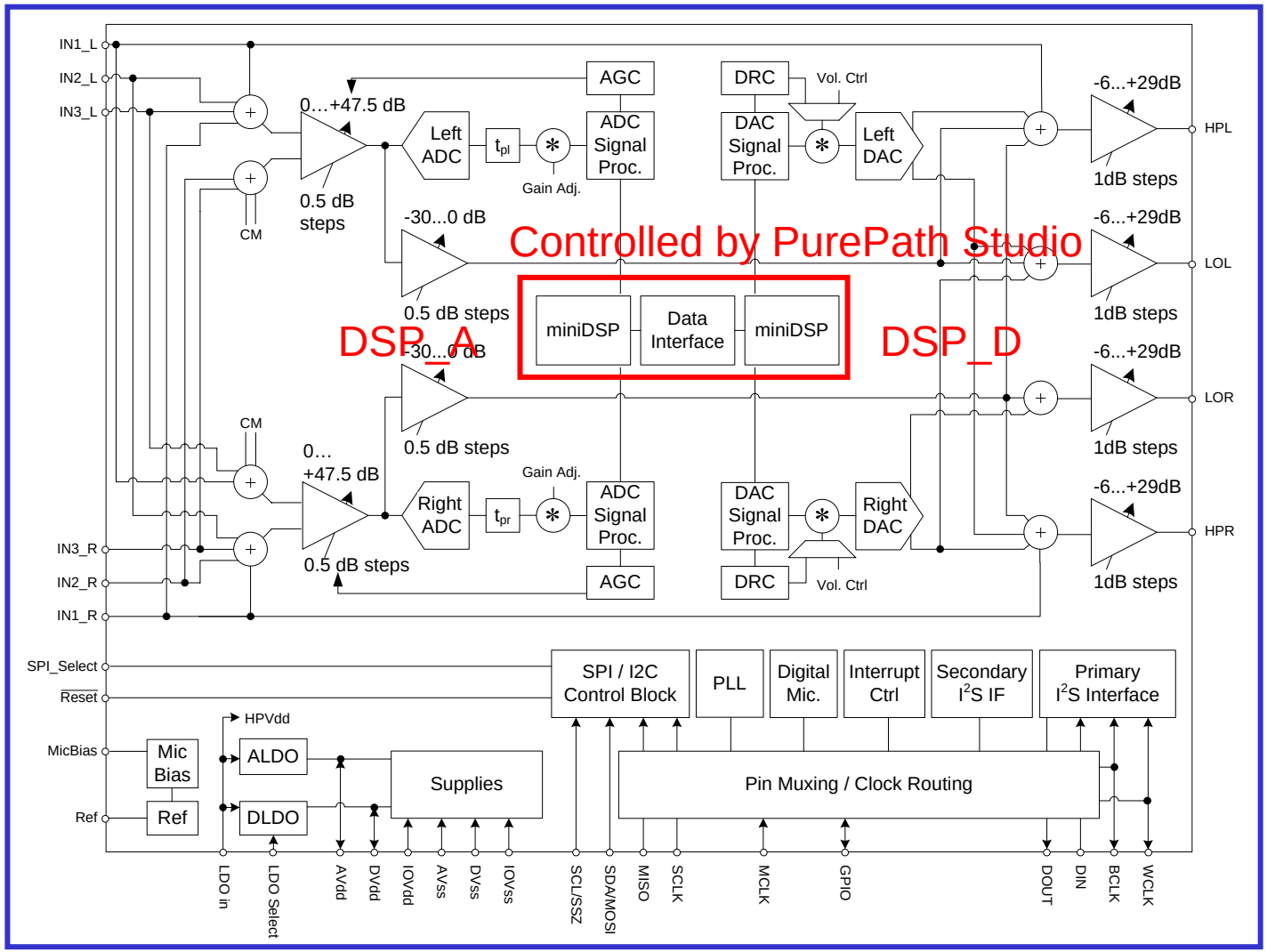
7. Left click from point to point connecting all the blocks



8. And then you could download the code into AIC3254EVM !

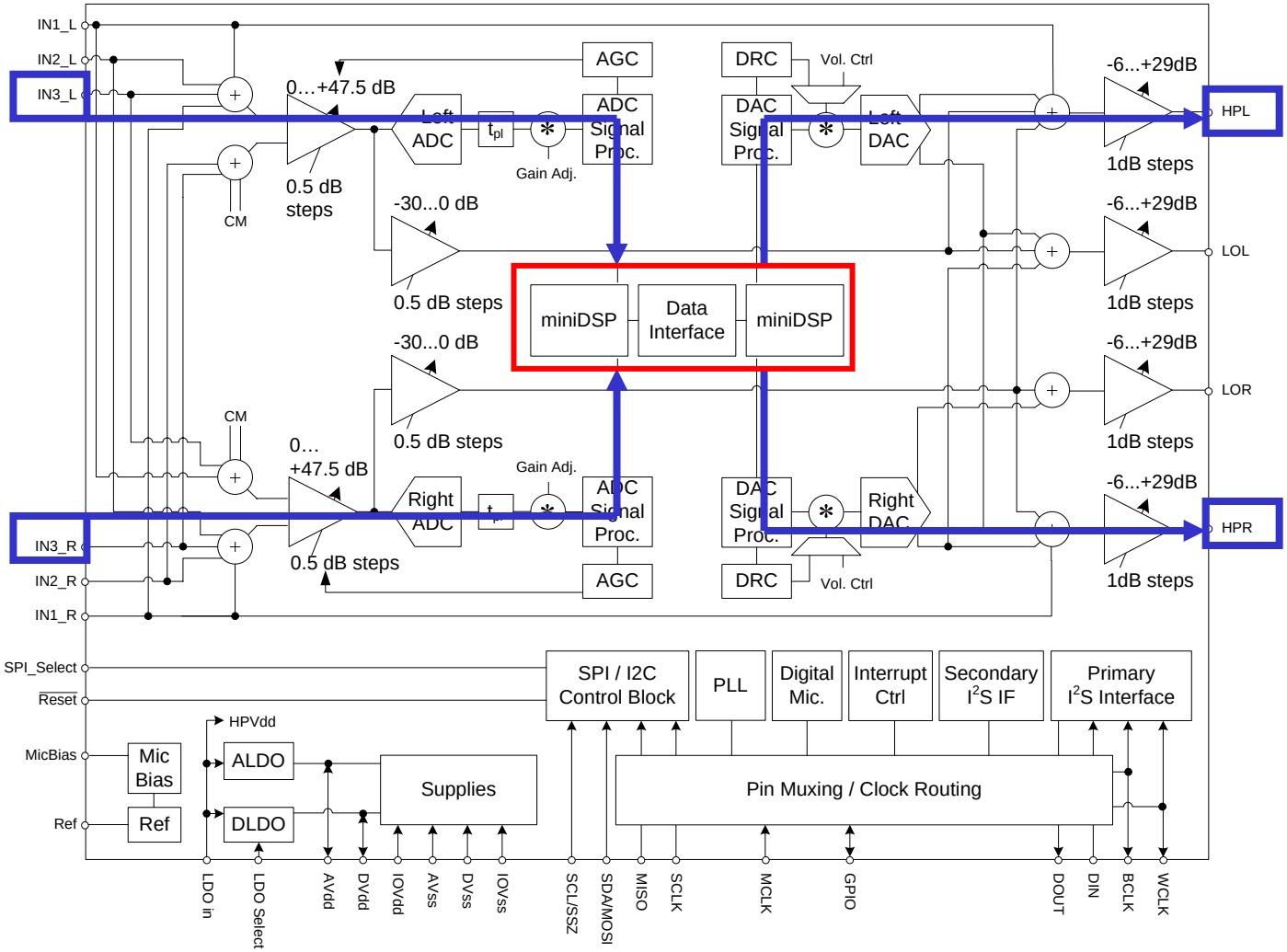
Chapter 2
Basic concept

For example: This is the block diagram of AIC3254

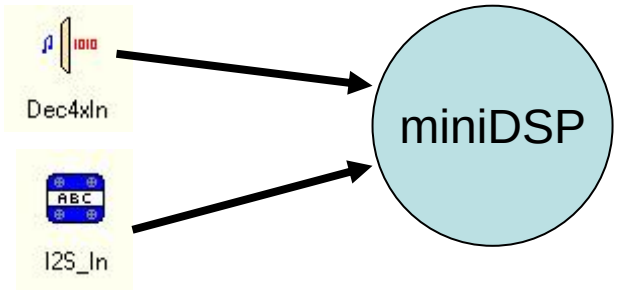


Controlled by Control Software

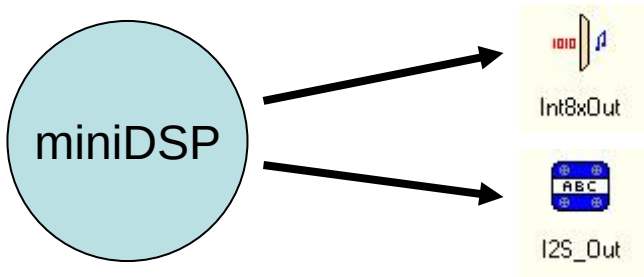
For easier evaluation, PPS uses some default settings
So, you could evaluate our codec without considering the Control Software



In PPS, miniDSP could get the Audio data from ADC or I2S interface.



Or, miniDSP could send the Audio data to DAC or I2S interface.

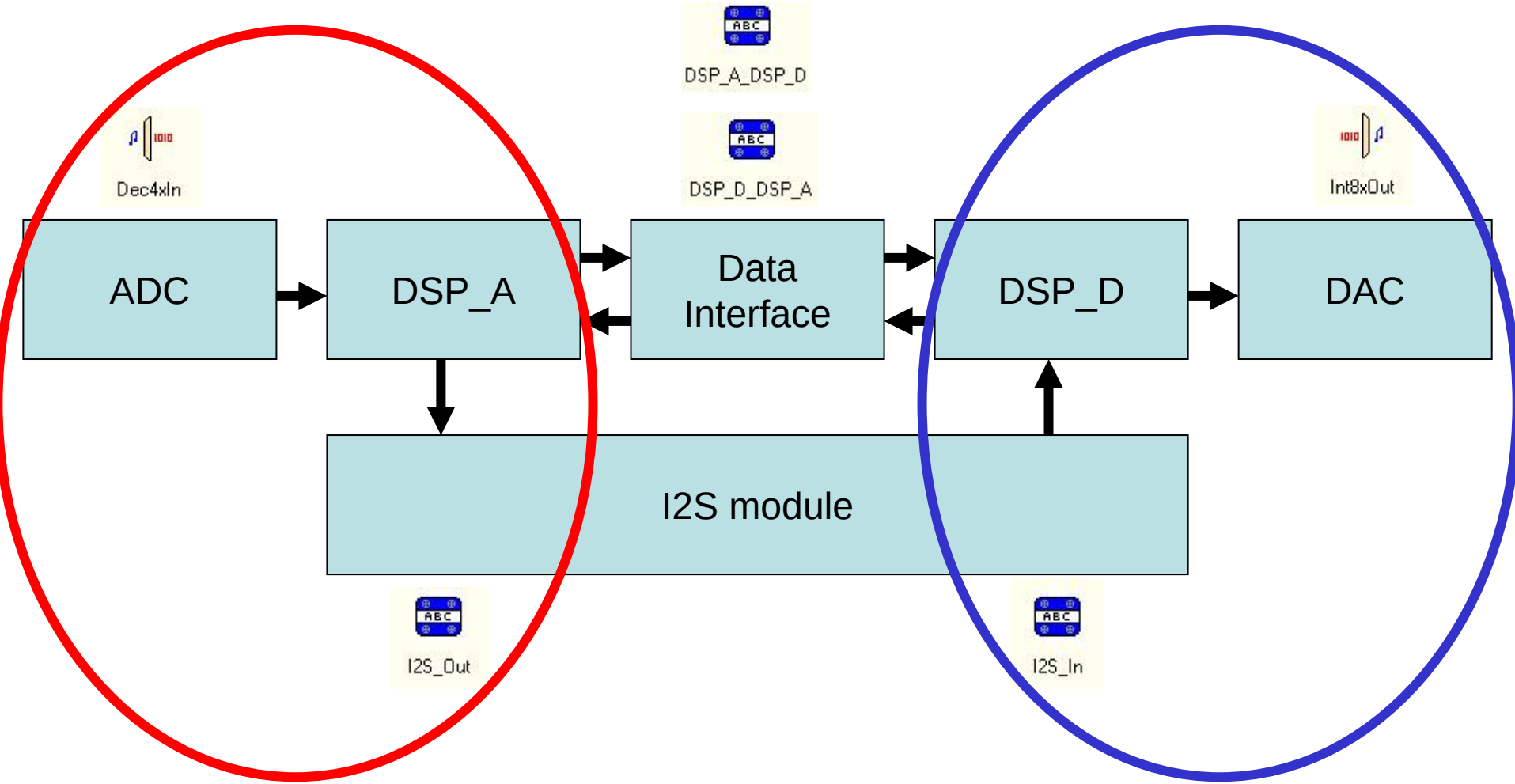


But, what are DSP_A and DSP_D?

As you could see below, here is the block diagram of how our codec works

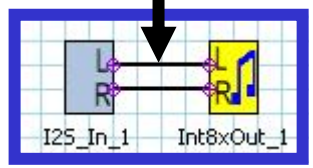
There are two miniDSPs called “DSP_A” and “DSP_D” in AIC3254.
(DSP_A means DSP of ADC, DSP_D means DSP of DAC)

Each miniDSP has its own resource and could be connected by data interface which you could find them in “Interprocessor” in PPS

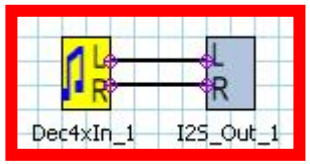


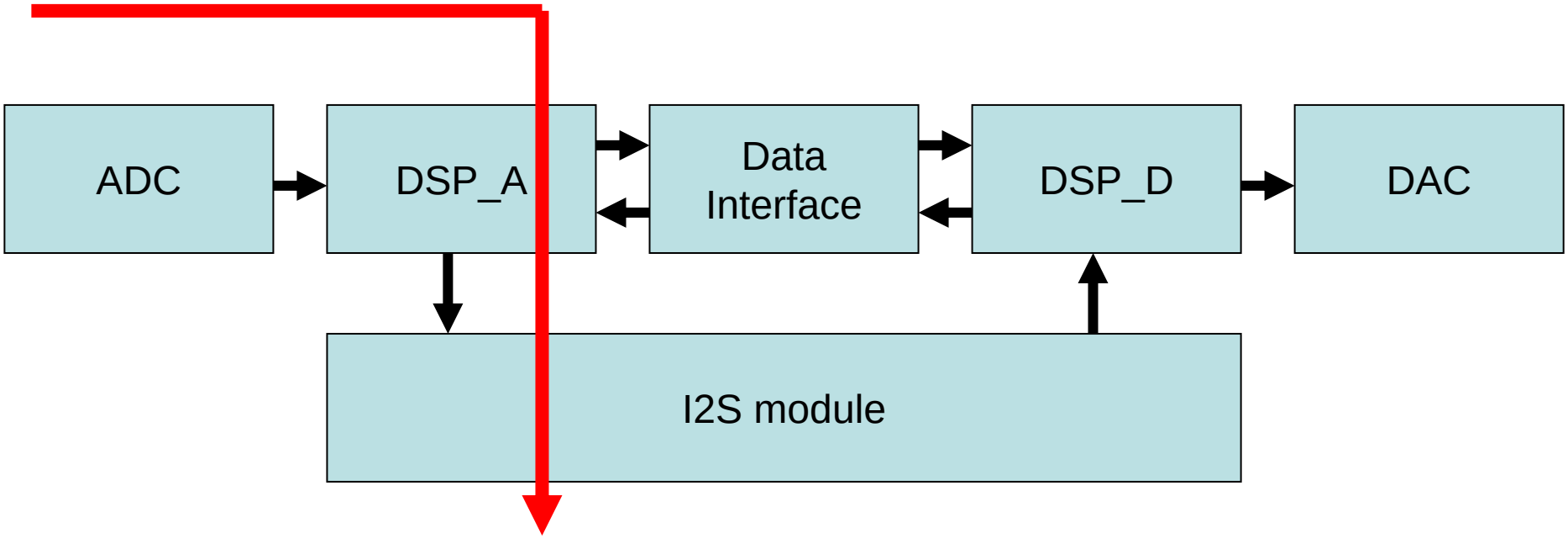
For example, blue line is the playback path
and uses DSP_D resource

(Of course, you could add more effect here)

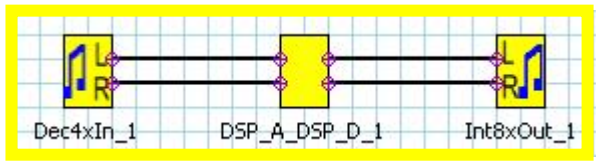


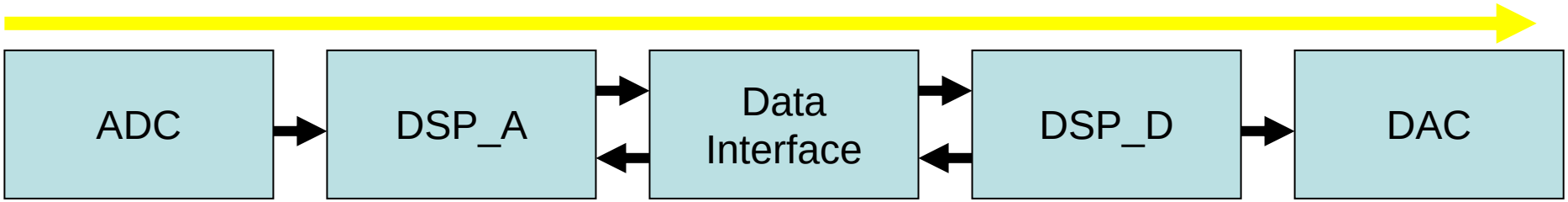
And red line is the record path which uses DSP_A resource

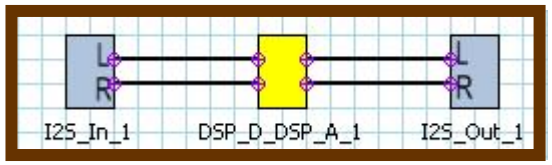


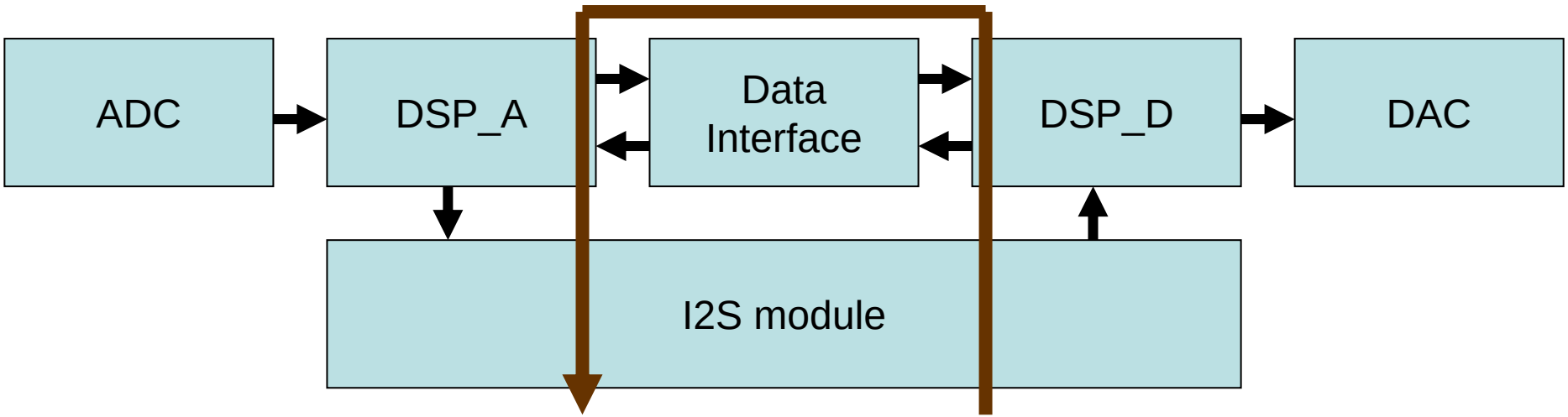


Yellow and brown lines show the possibility to use AIC3254 in Analog-Digital-Analog mode and Digital-Digital mode

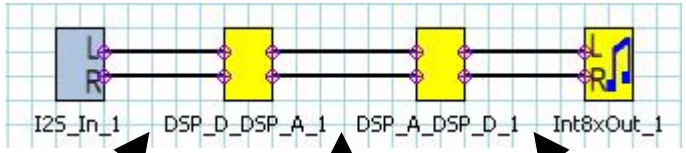








Even if playback path uses DSP_D resource,
we could utilize DSP_A resource by using data interface
It's really flexible.



DSP_D resource

DSP_A resource

DSP_D resource