

## Isomet Studio GUI

### Example: Tone Buffer Mode

Create Buffer with 16 tones on 2 channels.

Channel 1: Linear frequency increments, 150-90MHz

Channel 1: Linear amplitude slope : 100 – 70%

Channel 2: Static frequency increments, 120MHz

Channel 2: Static amplitude : 55%

No Compensation LUT applied

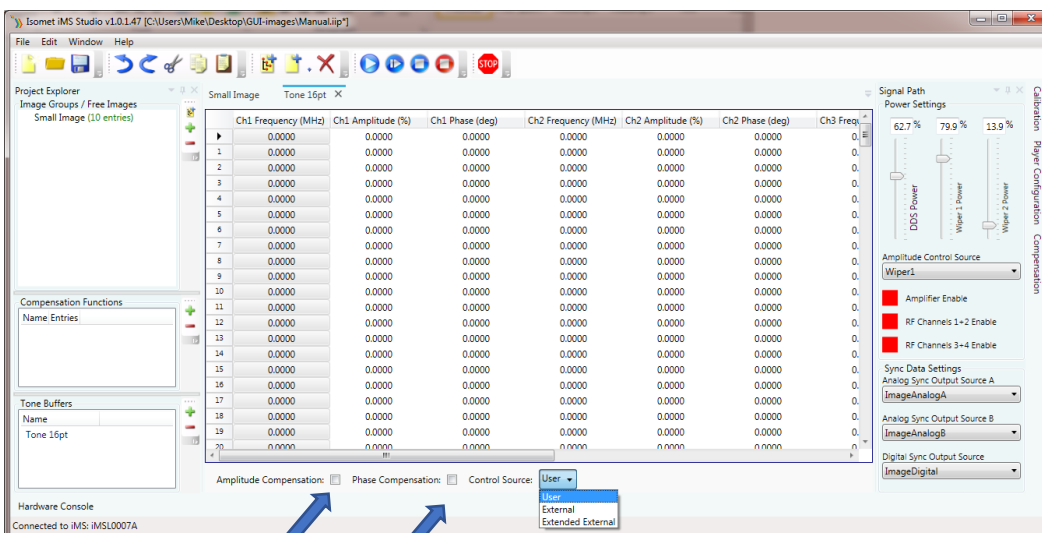
IMS4 only. No connected power amps.

Tones are selected using the GUI software (USER)

Example not appropriate for beam steered AO deflectors e.g. D1384

- 1: Click in the Tone Buffer window, bottom left of main window . Edit the name if desired.  
or click “ + ” to add another buffer file. A Tone Buffer tab is created

The input array will fill with 256 rows = 256 x 4 channel F/A/P data points  
Not all 256 need be used.



In this example we are not applying compensation table.

- 2: Uncheck **Amplitude Compensation** box, **Phase Compensation** box
- 3: In the **Control Source**, select **User**

For external control, select **Extended Control** (disregard **External**).

Apply external inputs to the LTB address pins on connector J8  
(See J8 Connector Pin out table, Alternate Use column)

Note: unterminated LTB address bits are pulled high.

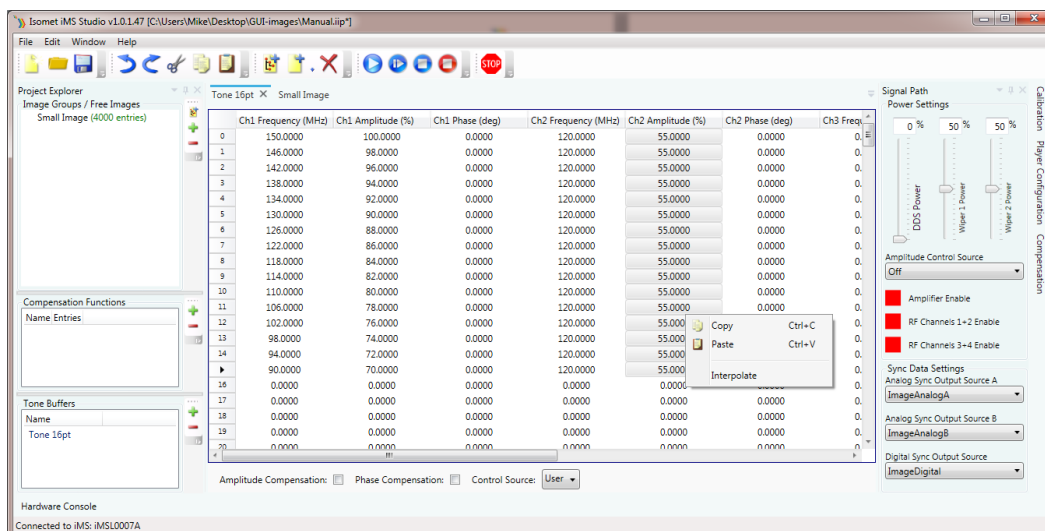
## AN210414: Isomet Studio - Running Tone Buffer example

The 256 possible F/A/P tones may be addressed at up to 90KHz rate using the 8x external LTB address bits on connector J8 , ( pins 3,4,5,6,16,14,7,8). See page 31 for further details.

- 4: **Ch1 Frequency**, enter end point values  
Tone 0, enter 150.00 MHz 9 (Start) ; Tone 15, enter 90.00 MHz (End)
- 5: **Ch1 Amplitude** , enter end point values  
Tone 0, enter 100 % ; Tone 15, enter 70 %
- 6: **Ch2 Frequency**, enter end point values  
Tone 0, enter 120.00 MHz 15 (Start) ; Tone 15, enter 120.00 MHz (End)
- 7: **Ch2 Amplitude**, enter end point values  
Tone 0, input 55 % ; Tone 15, input 55 %
- 8: Repeat for **Ch3** and **Ch4** fields if required.

Use the Interpolate feature to fill the remaining 14 cells  
For each column:

- Left click on Start cell
- Hold down the shift key
- Navigate to the end cell and left click  
(This should select and highlight all 16 cells)
- Right click to open sub window
- Select Interpolate



# AN210414: Isomet Studio - Running Tone Buffer example

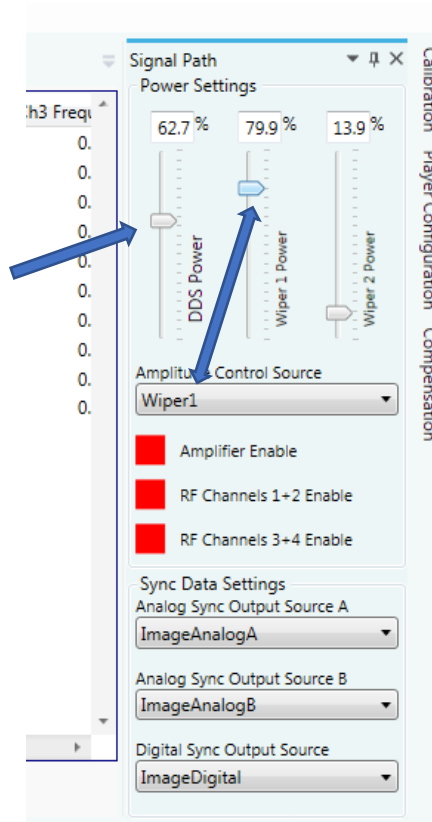
8: Set power levels

In this example for IMS4 (revB)

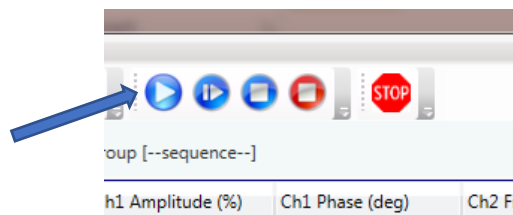
DDS power to 63%

Amplitude Control Source is Wiper 1

Wiper 1 setting = 80%



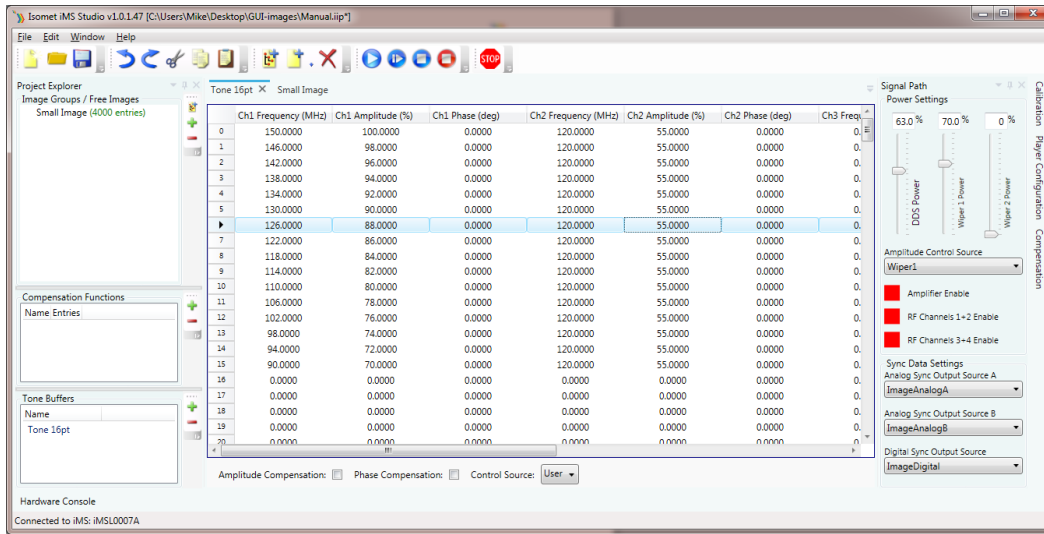
9: Enable output



# AN210414: Isomet Studio - Running Tone Buffer example

## 10: Tone Selection

Click on then desired Row to output that frequency set



## 11: To disable output

Click as shown

