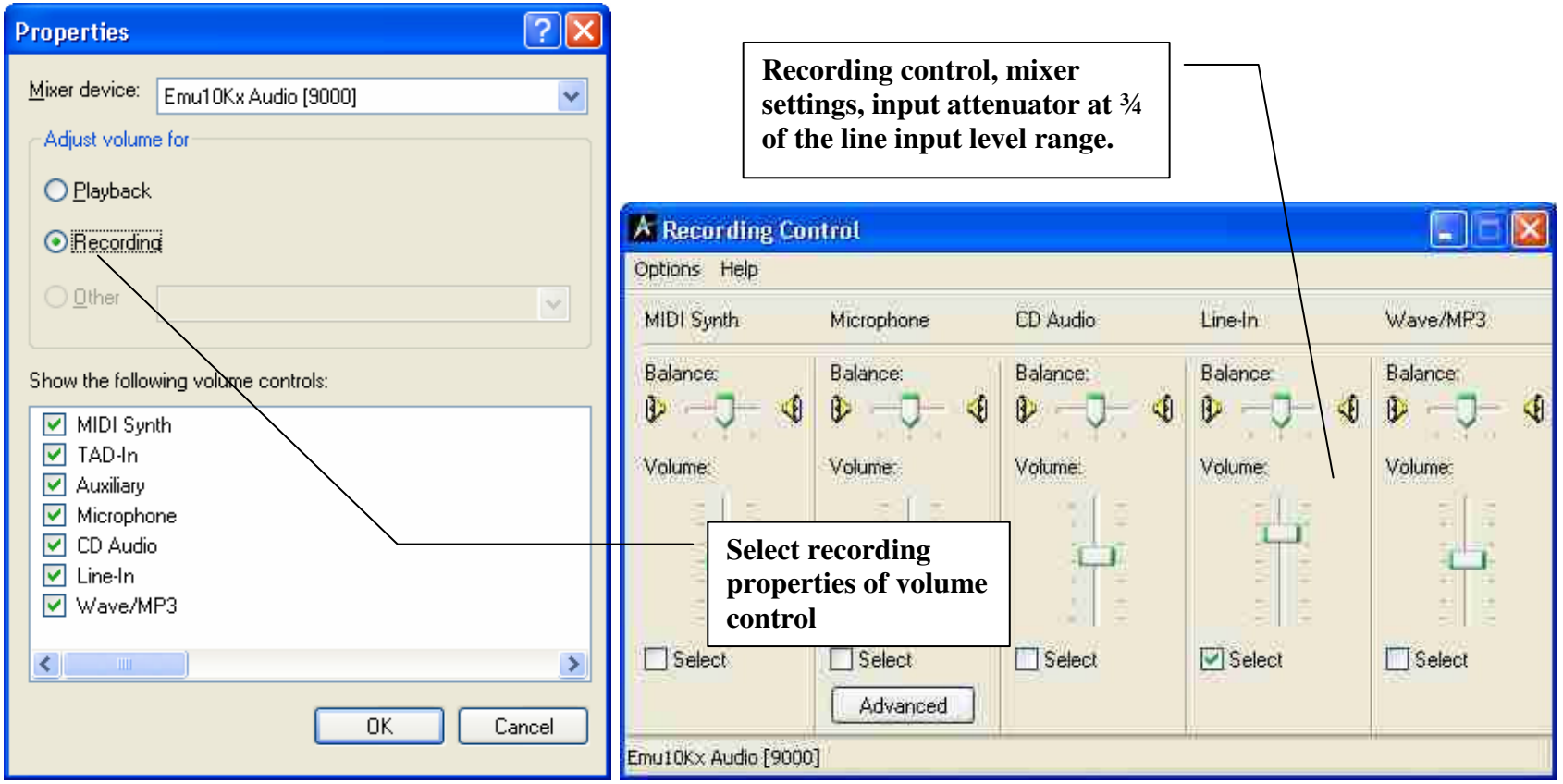
DYNAMS

Soundcard Based Dynamic Balancing Software

Soundcard settings



Soundcard left line input: position reference signal (tachometer signal should be sine wave or 50% duty cycle square wave (equal on-off time))
Soundcard right line input: vibration signal or input selector switch output

Settings of DYNAMS

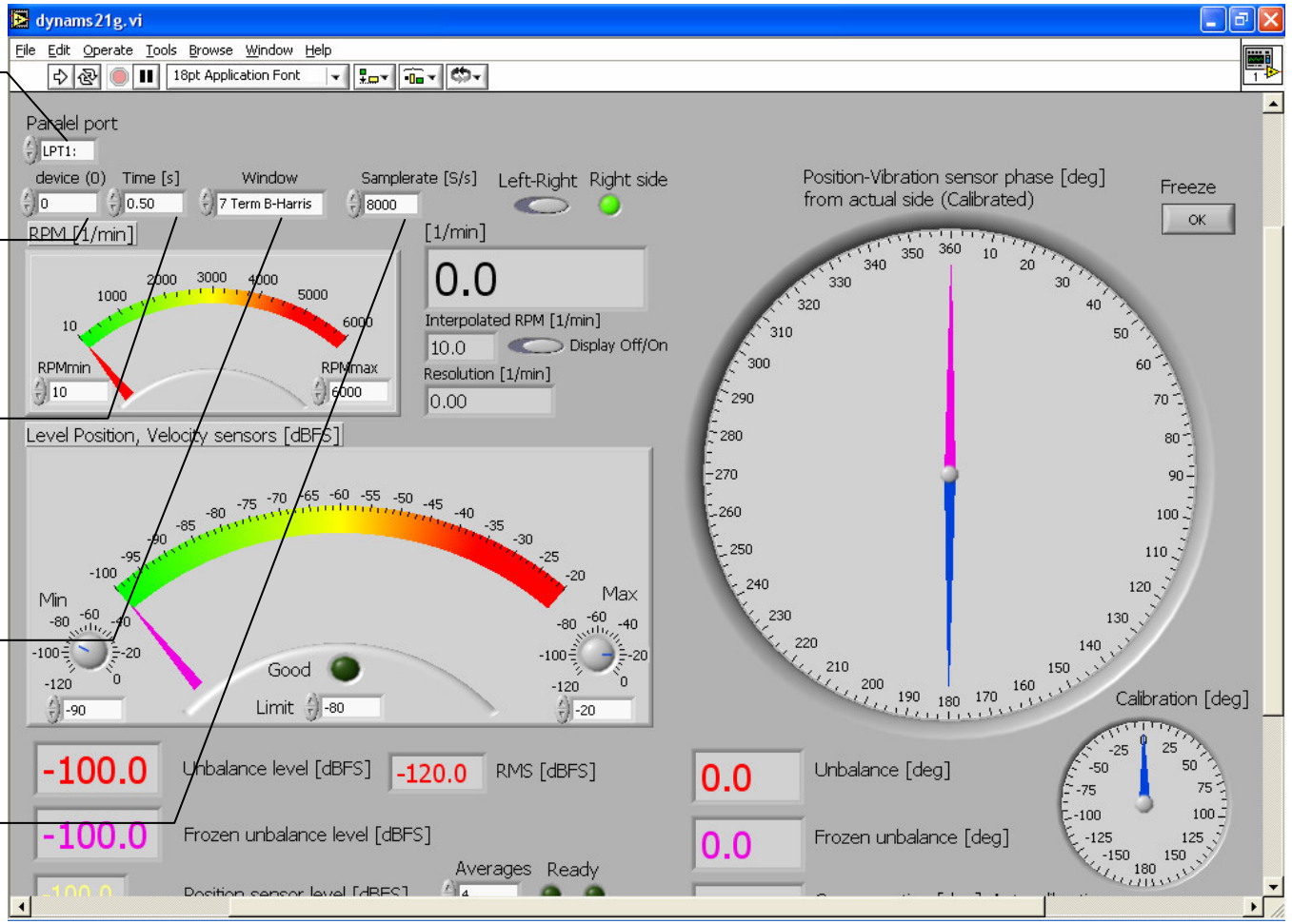
Parallel port selection for optional input multiplexer switch (left-right selection)

Select the soundcard, 0 if first soundcard is used.

Acquisition time or measurement time, if smaller then faster but less accurate measurement is achievable.

Measurement window type, this one is the best choice for balancing application.

Samplerate, the frequency of taking samples in one second. 8000S/s is enough for up-to 192000RPM.



Revolution display of DYNAMS

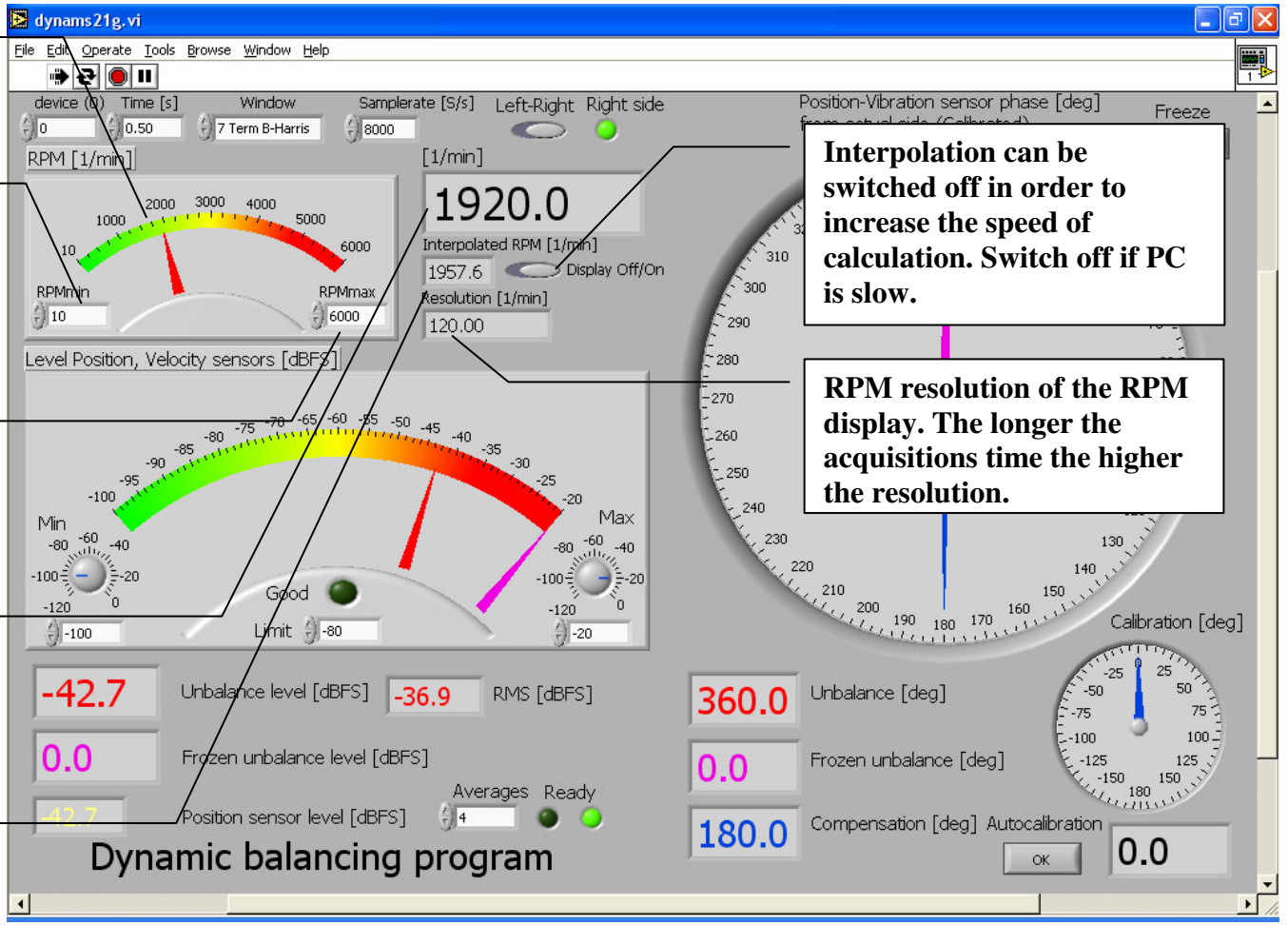
Revolution meter scale, unit is RPM (Rotate Per Minute)

Revolution low range, the scale minimum value and the usable measurement range. If the current revolution out of the range, no

Revolution high range, the scale maximum value and the usable measurement range.

Current revolution measured by speed of the highest amplitude spectrum bin of the position reference signal.

Interpolated revolution, the interpolation based on the strongest signal, window type and spectrum. It has higher resolution than the display above it, but can be erroneous.



Interpolation can be switched off in order to increase the speed of calculation. Switch off if PC is slow.

RPM resolution of the RPM display. The longer the acquisitions time the higher the resolution.

Level display of DYNAMS

Needle for the position reference signal. The signal level should be in the interval of –20 and –3dBFS. The level of highest amplitude spectrum bin.

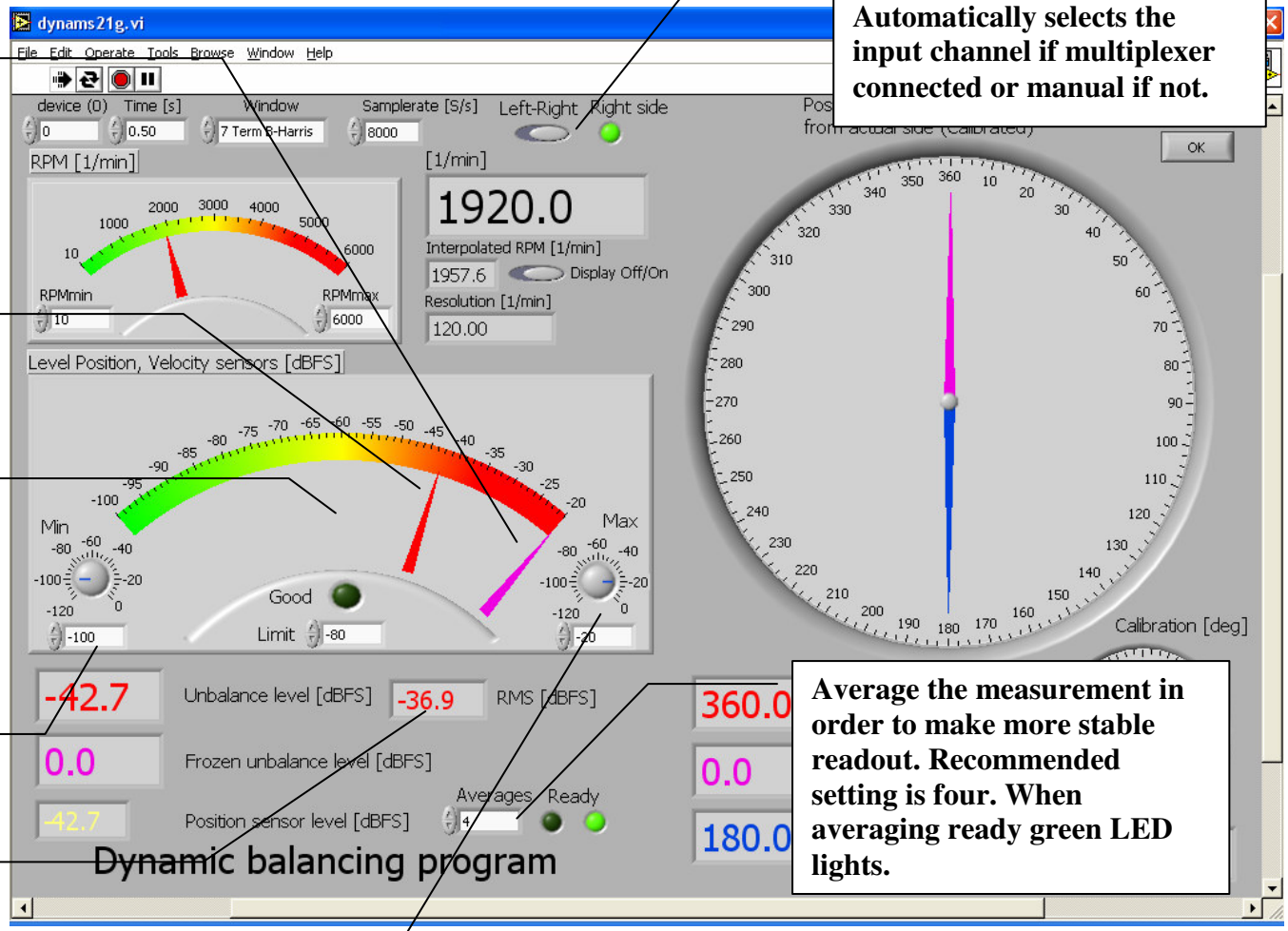
Frozen unbalance level needle. It is useful to store last measurement.

Needle for the unbalance level at the revolution of the shaft in dBFS. The longer the acquisitions time the more precise the level measurement.

Level display low range setting.

Wide frequency band vibration level.

Level display high range setting.



Left-Right side selection. Automatically selects the input channel if multiplexer connected or manual if not.

Average the measurement in order to make more stable readout. Recommended setting is four. When averaging ready green LED lights.

Phase display of DYNAMS

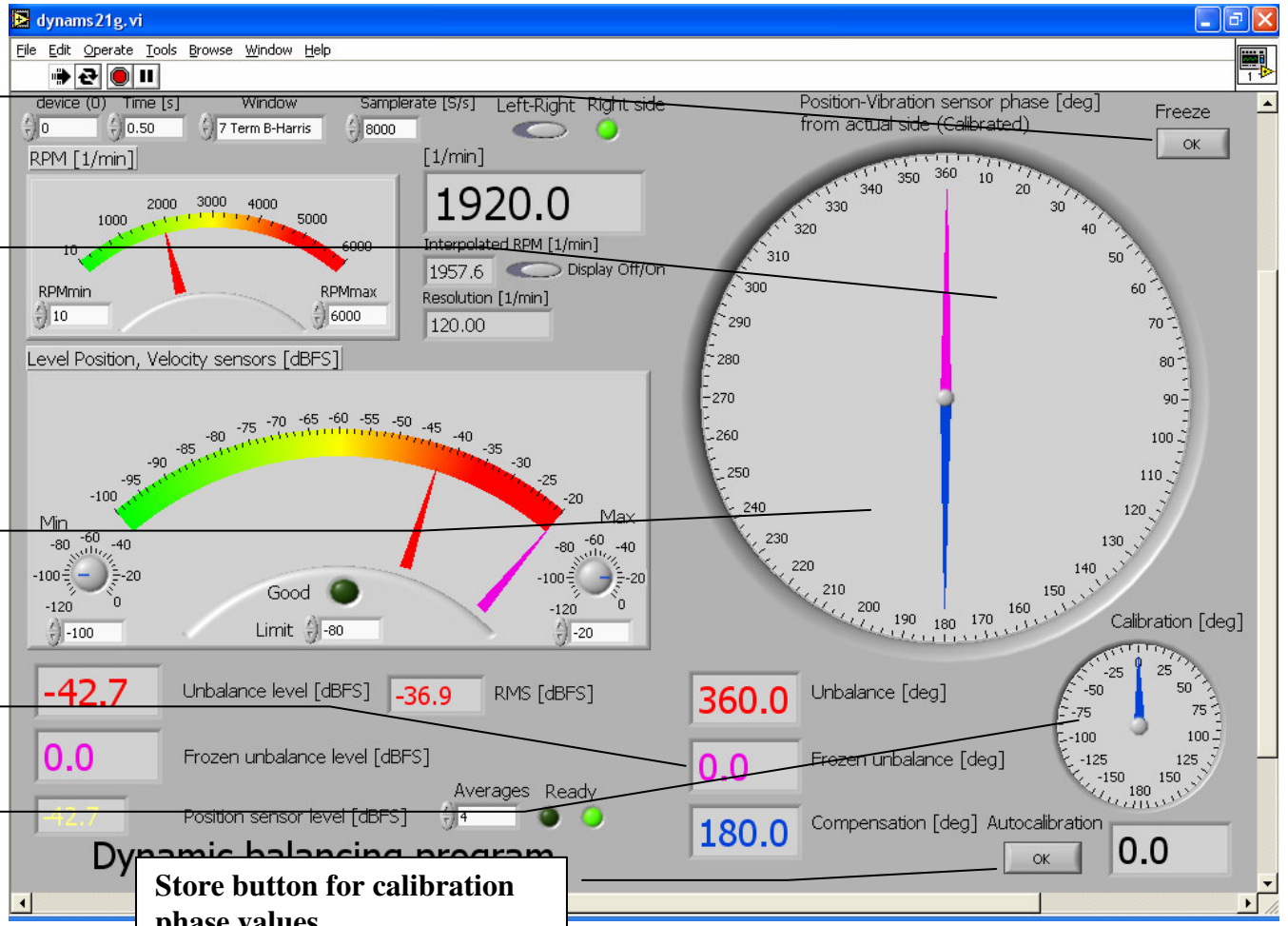
Freeze button. Useful to store the result of the last balancing rounds.

The unbalance position from the actual side (when left side is active the result is mirrored). This is the position, from where the unbalance weight should be removed.

Opposite position of the unbalance, where compensation weights should be put.

Phase digital displays.

Calibration phase, different for both sides. With a heavy weight should calibrate the left and the right side one after other.



Store button for calibration phase values.