Check your Odeon model

Model name:		Case ID	
Made by:		Date:	
QA by:		Dato:	
Approved by:		Dato:	

Object	Odeon command		What to look for	Self control	Quality assurance
GEOMETRY		Room information/ dimensions (SHIFT + CTRL + R)	Are the max. x, y, z dimensions the right ones?		
		3D Geometry debugger (SHIFT + CTRL + W)	Avoid any warped surfaces. Warped surfaces can lead to large errors in results. There should not be overlap of surfaces. Smaller/partly overlaps, can in some cases be accepted. But avoid overlaps as far a possible. If there is an overlap, one of the overlapping surfaces shall be added the material 0 from the material list.		
		3D Investigate Rays (SHIFT + CTRL + I)	Are there holes in the model where there should not be (shown as several rays braking through walls).		
			Are there any blocked passages.		
		3D OpenGL (SHIFT + CTRL + O)	Look around in the room. Surfaces changing colours when changing view could indicate overlapping surfaces. Black surfaces or holes could be signs of openings to the outskirts of the model Also look at the room from outside to see if anything lacks.		

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MATERIALS	Material List (SHIFT + CTRL + M) Quick estimate (CTRL + Q) Limit absorption coefficients	Look at the Alfa menu in quick estimate to see if the right absorption coefficents are used. If in doubt of the exact absorption coefficient is available, do not use extremely high or low absorption. If uncertain keep the absorption coefficients between e.g. 0,05 and 0,9. E.g by using the button "limit absorption coefficients"		
	3D OpenGL (SHIFT + CTRL + O)	Look at the colours in the room, are the materials placed in the right positions?		
	Material List → Scatter (SHIFT + CTRL + M)	Is the scattering coefficients correct? Genral rules: floor (0,05) walls (0,05) ceiling (0,05) Table / Chair (0,10)		
	Material List → Wall Type (SHIFT + CTRL + M)	Is the wall type correct? NORMAL: Standard EXTERIOR: If the surface is the outer surface of a large room FRACTIONAL: if surfaces are part of a larger object. E.g. a curved surface devided into multiple plane surfaces. TRANSMISSION: If the wall is transmitting		
SOURCES	3D Source Receiver View (SHIFT + CTRL + V) Source Receiver List (SHIFT + CTRL + S)	Are the sources placed correct and with the correct direction? Make the same check in 3DOpenGL and 3D Billiard also to check if part of the source is placed outside the room		
		Check the Gain. If the source is a loudspeaker the gain should resemble the wanted TAP.		
		If the room acoustical parameter Strength (G i ISO 3382) is wanted use an omni source with Gain = 31 dB.		

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		Are the right sources turned on in each job. (press J to change between jobs)		
RECEIVERS	3D Source Receiver View (SHIFT + CTRL + V)	Are the receivers placed correct?		
ROOM SETUP	Room setup → Calculation parameters (SHIFT + CTRL + P)	In most cases the "Engineering" setup is good to use as a basis. "Precision" will normally not be necessary and it gives a considerably longer calculation time for just a little more precise results.		
	Number of late rays	"Number of rays" should perhaps be larger if there are problems with the reflection density in the "Point response".		
	Impulse response length	"Impulse response length" should always be around the actual reverberation time and not below 2/3 of the longest reverberation time (usually at 63 Hz, because T30 in a room is often longer at low frequencies).		
	Transition order	"Transition order" in a regular room should be around 2 or 3 (not very critical). But If the room has lots of details compared to the size due to e.g. a lot of furniture or if the geometry is very complex or has many coupling effects, it is recommended to set TO = 0-1.		
	Room setup → Air conditions / STI param / model check (SHIFT + CTRL + P)	Check the level? Check that both dB(A) and octaves fit.		

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	Job List (SHIFT + CTRL + J) View Single Point response (ALT + P) Decay curves	Look at the curves and the pointresponse parameters to see if your room setup is good? Look at every octave band. If in doubt try to repeat the calculation with a larger number of rays to see if it changes anything. If it does it will probably be a good idea to use alarger amount of rays		
POINT RESPONSE	Reflection density	Should be above 20-50/ms.		
	BRIR	Are they nice and even to look at? Zoom inn on the first part; if it is very thin use a larger amount of late rays		
GRID RESPONSE	Define Grid (SHIFT + CTRL + G)	Are the receiver grids placed in the right height? Are the distance between receivers good enough?		

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	Define Room Acoustic Parameter list Grid:	Is the scale of different room acoustic parameters in the grid as they should be? For optimized presentation choose manual grid for the relevant parameter(s) in the "Room acoustics parameter list" and set the Min(Grid) and Max(Grid) properties appropriately. It is possible to save prefered manual grid scales along with the list of room acoustic parameters to be calculated using the "Save as" button from with in the "Room acoustic parameter list" for later reuse in another room ("Load grid scales from program folder" or "Load parameters from program folder).		
	Job List – Analse Grid (SHIFT + CTRL + J)	Look at the T_{30} grid response; Are there points inside the room, where T_{30} is missing? The reason can be that reverberation time can't be computed because the selected impulse response is too short, therefore choose a longer "Impulse Response Length" in the "Room setup". Look at the statistics of your parameters to see if there are any outliers, and try to analyse why. Also compare the global estimate with the mean reverberation time in the grid response. If these are very different perhaps there is too few receiver points in your simulation.		

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AURALISATION	Auralisation setup	The normal setup in auralisation is for headphones, you can choose which kinds in the auralisation setup. If you only want to look at the impulse response? Choose HRTF = unity, this gives the impulse response with a omni directional microphone. - delete the text contents in the Headphone input box (turns red which is ok in this case) finally set the phase approximation to random. This will produce a BRIR where both channels are equal. If you want to present the auralisation over loudspeakers: do not choose binaural but 2D surround. For standard stereo presentation choose 2.1 then disable the subwoofer.		
	Find your wav files	You find the wave files in the room folder along with the Room of the smae name. If you have created the auralistaion in the mixer.		
ARCHIVING	File/Zip/Create archive	This option saves relevant files for a project in one single file, e.g. for archiving or to be sent by mail. Choose "Room and result files" to save grids and other calculation results. Saving room files only to the zip file will save geometry and all data entered by user – this is fairly compact and suited to be sent by email.		
CLEANING	File/Tidy directory	Deletes temporary calculation files, which can be pretty large.		
	File/Delete files/All files	Deletes all files belonging to the open room. (the ZipArchive file should be placed somewhere else).		