



OpenSceneGraph Version 2.9.6

# **osgPresentation::**

## **Reference Manual**



# Contents

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<b>1</b>	<b>Main Page</b>	<b>1</b>
<b>2</b>	<b>Directory Documentation</b>	<b>3</b>
2.1	include/ Directory Reference . . . . .	3
2.2	src/osgPresentation/ Directory Reference . . . . .	4
2.3	include/osgPresentation/ Directory Reference . . . . .	5
2.4	src/ Directory Reference . . . . .	6
<b>3</b>	<b>Namespace Documentation</b>	<b>7</b>
3.1	osgPresentation Namespace Reference . . . . .	7
3.1.1	Detailed Description . . . . .	7
3.1.2	Enumeration Type Documentation . . . . .	7
3.1.2.1	Operation . . . . .	7
<b>4</b>	<b>Class Documentation</b>	<b>9</b>
4.1	ActiveOperators Class Reference . . . . .	9
4.1.1	Member Typedef Documentation . . . . .	10
4.1.1.1	OperatorList . . . . .	10
4.1.2	Constructor & Destructor Documentation . . . . .	10
4.1.2.1	ActiveOperators . . . . .	10
4.1.2.2	~ActiveOperators . . . . .	10
4.1.3	Member Function Documentation . . . . .	10
4.1.3.1	collect . . . . .	10
4.1.3.2	getPause . . . . .	10
4.1.3.3	process . . . . .	10
4.1.3.4	processIncomming . . . . .	10
4.1.3.5	processMaintained . . . . .	10
4.1.3.6	processOutgoing . . . . .	10
4.1.3.7	reset . . . . .	10
4.1.3.8	setPause . . . . .	10
4.1.4	Member Data Documentation . . . . .	10
4.1.4.1	_current . . . . .	10
4.1.4.2	_incomming . . . . .	10
4.1.4.3	_maintained . . . . .	10
4.1.4.4	_outgoing . . . . .	10
4.1.4.5	_pause . . . . .	10
4.1.4.6	_previous . . . . .	10
4.2	AnimationMaterial Class Reference . . . . .	11

4.2.1	Detailed Description . . . . .	12
4.2.2	Member Typedef Documentation . . . . .	12
4.2.2.1	TimeControlPointMap . . . . .	12
4.2.3	Member Enumeration Documentation . . . . .	12
4.2.3.1	LoopMode . . . . .	12
4.2.4	Constructor & Destructor Documentation . . . . .	12
4.2.4.1	AnimationMaterial . . . . .	12
4.2.4.2	AnimationMaterial . . . . .	12
4.2.4.3	~AnimationMaterial . . . . .	12
4.2.5	Member Function Documentation . . . . .	12
4.2.5.1	getFirstTime . . . . .	12
4.2.5.2	getLastTime . . . . .	12
4.2.5.3	getLoopMode . . . . .	12
4.2.5.4	getMaterial . . . . .	12
4.2.5.5	getPeriod . . . . .	12
4.2.5.6	getTimeControlPointMap . . . . .	12
4.2.5.7	getTimeControlPointMap . . . . .	12
4.2.5.8	insert . . . . .	12
4.2.5.9	interpolate . . . . .	12
4.2.5.10	META_Object . . . . .	12
4.2.5.11	read . . . . .	12
4.2.5.12	requiresBlending . . . . .	12
4.2.5.13	setLoopMode . . . . .	12
4.2.5.14	write . . . . .	12
4.2.6	Member Data Documentation . . . . .	12
4.2.6.1	_loopMode . . . . .	12
4.2.6.2	_timeControlPointMap . . . . .	12
4.3	AnimationMaterialCallback Class Reference . . . . .	14
4.3.1	Constructor & Destructor Documentation . . . . .	14
4.3.1.1	AnimationMaterialCallback . . . . .	14
4.3.1.2	AnimationMaterialCallback . . . . .	14
4.3.1.3	AnimationMaterialCallback . . . . .	14
4.3.1.4	~AnimationMaterialCallback . . . . .	14
4.3.2	Member Function Documentation . . . . .	14
4.3.2.1	getAnimationMaterial . . . . .	14
4.3.2.2	getAnimationMaterial . . . . .	14
4.3.2.3	getAnimationTime . . . . .	14
4.3.2.4	getTimeMultiplier . . . . .	15
4.3.2.5	getTimeOffset . . . . .	15
4.3.2.6	META_Object . . . . .	15
4.3.2.7	operator() . . . . .	15

4.3.2.8	reset . . . . .	15
4.3.2.9	setAnimationMaterial . . . . .	15
4.3.2.10	setPause . . . . .	15
4.3.2.11	setTimeMultiplier . . . . .	15
4.3.2.12	setTimeOffset . . . . .	15
4.3.2.13	update . . . . .	15
4.3.3	Member Data Documentation . . . . .	15
4.3.3.1	_animationMaterial . . . . .	15
4.3.3.2	_firstTime . . . . .	15
4.3.3.3	_latestTime . . . . .	15
4.3.3.4	_pause . . . . .	15
4.3.3.5	_pauseTime . . . . .	15
4.3.3.6	_timeMultiplier . . . . .	15
4.3.3.7	_timeOffset . . . . .	15
4.3.3.8	_useInverseMatrix . . . . .	15
4.4	CallbackOperator Struct Reference . . . . .	16
4.4.1	Constructor & Destructor Documentation . . . . .	16
4.4.1.1	CallbackOperator . . . . .	16
4.4.2	Member Function Documentation . . . . .	16
4.4.2.1	enter . . . . .	16
4.4.2.2	leave . . . . .	16
4.4.2.3	maintain . . . . .	16
4.4.2.4	ptr . . . . .	17
4.4.2.5	reset . . . . .	17
4.4.2.6	setPause . . . . .	17
4.4.3	Member Data Documentation . . . . .	17
4.4.3.1	_callback . . . . .	17
4.4.3.2	_node . . . . .	17
4.5	CompileSlideCallback Class Reference . . . . .	18
4.5.1	Constructor & Destructor Documentation . . . . .	18
4.5.1.1	CompileSlideCallback . . . . .	18
4.5.1.2	~CompileSlideCallback . . . . .	18
4.5.2	Member Function Documentation . . . . .	18
4.5.2.1	needCompile . . . . .	18
4.5.2.2	operator() . . . . .	18
4.5.3	Member Data Documentation . . . . .	18
4.5.3.1	_frameNumber . . . . .	18
4.5.3.2	_needCompile . . . . .	18
4.5.3.3	_sceneToCompile . . . . .	18
4.6	dereference_less Struct Reference . . . . .	19
4.6.1	Member Function Documentation . . . . .	19

4.6.1.1	operator() . . . . .	19
4.7	DraggerVolumeTileCallback Class Reference . . . . .	20
4.7.1	Constructor & Destructor Documentation . . . . .	20
4.7.1.1	DraggerVolumeTileCallback . . . . .	20
4.7.2	Member Function Documentation . . . . .	20
4.7.2.1	receive . . . . .	20
4.7.3	Member Data Documentation . . . . .	20
4.7.3.1	_localToWorld . . . . .	20
4.7.3.2	_locator . . . . .	20
4.7.3.3	_startMotionMatrix . . . . .	20
4.7.3.4	_volume . . . . .	20
4.7.3.5	_worldToLocal . . . . .	20
4.8	FilePathData Struct Reference . . . . .	21
4.8.1	Constructor & Destructor Documentation . . . . .	21
4.8.1.1	FilePathData . . . . .	21
4.8.2	Member Data Documentation . . . . .	21
4.8.2.1	filePathList . . . . .	21
4.9	FindFilePathDataVisitor Class Reference . . . . .	22
4.9.1	Constructor & Destructor Documentation . . . . .	22
4.9.1.1	FindFilePathDataVisitor . . . . .	22
4.9.2	Member Function Documentation . . . . .	22
4.9.2.1	apply . . . . .	22
4.10	FindHomePositionVisitor Class Reference . . . . .	23
4.10.1	Constructor & Destructor Documentation . . . . .	23
4.10.1.1	FindHomePositionVisitor . . . . .	23
4.10.2	Member Function Documentation . . . . .	23
4.10.2.1	apply . . . . .	23
4.10.3	Member Data Documentation . . . . .	23
4.10.3.1	_homePosition . . . . .	23
4.11	FindImageStreamsVisitor Class Reference . . . . .	24
4.11.1	Constructor & Destructor Documentation . . . . .	24
4.11.1.1	FindImageStreamsVisitor . . . . .	24
4.11.2	Member Function Documentation . . . . .	24
4.11.2.1	apply . . . . .	24
4.11.2.2	apply . . . . .	24
4.11.2.3	process . . . . .	24
4.12	FindNamedSwitchVisitor Class Reference . . . . .	25
4.12.1	Constructor & Destructor Documentation . . . . .	25
4.12.1.1	FindNamedSwitchVisitor . . . . .	25
4.12.2	Member Function Documentation . . . . .	25
4.12.2.1	apply . . . . .	25

4.12.3	Member Data Documentation	25
4.12.3.1	_name	25
4.12.3.2	_switch	25
4.13	FindOperatorsVisitor Class Reference	26
4.13.1	Constructor & Destructor Documentation	26
4.13.1.1	FindOperatorsVisitor	26
4.13.2	Member Function Documentation	26
4.13.2.1	apply	26
4.13.2.2	apply	26
4.13.2.3	process	26
4.13.3	Member Data Documentation	26
4.13.3.1	_operatorList	26
4.14	FontData Struct Reference	27
4.14.1	Constructor & Destructor Documentation	27
4.14.1.1	FontData	27
4.14.2	Member Data Documentation	27
4.14.2.1	alignment	27
4.14.2.2	axisAlignment	27
4.14.2.3	characterSize	27
4.14.2.4	color	27
4.14.2.5	font	27
4.14.2.6	layout	27
4.14.2.7	maximumHeight	27
4.14.2.8	maximumWidth	27
4.15	HomePosition Struct Reference	28
4.15.1	Constructor & Destructor Documentation	28
4.15.1.1	HomePosition	28
4.15.1.2	HomePosition	28
4.15.2	Member Data Documentation	28
4.15.2.1	center	28
4.15.2.2	eye	28
4.15.2.3	up	28
4.16	ImageData Struct Reference	29
4.16.1	Constructor & Destructor Documentation	29
4.16.1.1	ImageData	29
4.16.2	Member Data Documentation	29
4.16.2.1	backgroundColor	29
4.16.2.2	height	29
4.16.2.3	loopingMode	29
4.16.2.4	page	29
4.16.2.5	region	29

4.16.2.6	region_in_pixel_coords	29
4.16.2.7	texcoord_rotate	29
4.16.2.8	width	29
4.17	ImageStreamOperator Struct Reference	30
4.17.1	Constructor & Destructor Documentation	30
4.17.1.1	ImageStreamOperator	30
4.17.2	Member Function Documentation	30
4.17.2.1	enter	30
4.17.2.2	leave	30
4.17.2.3	maintain	30
4.17.2.4	ptr	31
4.17.2.5	reset	31
4.17.2.6	setPause	31
4.17.3	Member Data Documentation	31
4.17.3.1	_imageStream	31
4.18	KeyPosition Struct Reference	32
4.18.1	Constructor & Destructor Documentation	32
4.18.1.1	KeyPosition	32
4.18.2	Member Function Documentation	32
4.18.2.1	set	32
4.18.3	Member Data Documentation	32
4.18.3.1	_key	32
4.18.3.2	_x	32
4.18.3.3	_y	32
4.19	LayerAttributes Struct Reference	33
4.19.1	Member Typedef Documentation	34
4.19.1.1	Keys	34
4.19.1.2	LayerCallbacks	34
4.19.1.3	RunStrings	34
4.19.2	Constructor & Destructor Documentation	34
4.19.2.1	LayerAttributes	34
4.19.2.2	LayerAttributes	34
4.19.3	Member Function Documentation	34
4.19.3.1	addEnterCallback	34
4.19.3.2	addKey	34
4.19.3.3	addLeaveCallback	34
4.19.3.4	addRunString	34
4.19.3.5	callEnterCallbacks	34
4.19.3.6	callLeaveCallbacks	34
4.19.3.7	getDuration	34
4.19.3.8	getKeys	34

4.19.3.9	getLayerNum	34
4.19.3.10	getRelativeJump	34
4.19.3.11	getRunStrings	34
4.19.3.12	getSlideNum	34
4.19.3.13	requiresJump	34
4.19.3.14	setDuration	34
4.19.3.15	setJump	34
4.19.3.16	setKeys	34
4.19.3.17	setRunStrings	34
4.19.4	Member Data Documentation	34
4.19.4.1	_duration	34
4.19.4.2	_enterLayerCallbacks	34
4.19.4.3	_keys	34
4.19.4.4	_layerNum	34
4.19.4.5	_leaveLayerCallbacks	34
4.19.4.6	_relativeJump	34
4.19.4.7	_runStrings	34
4.19.4.8	_slideNum	34
4.20	LayerAttributesOperator Struct Reference	36
4.20.1	Constructor & Destructor Documentation	36
4.20.1.1	LayerAttributesOperator	36
4.20.2	Member Function Documentation	36
4.20.2.1	enter	36
4.20.2.2	leave	36
4.20.2.3	maintain	36
4.20.2.4	ptr	37
4.20.2.5	reset	37
4.20.2.6	setPause	37
4.20.3	Member Data Documentation	37
4.20.3.1	_layerAttribute	37
4.20.3.2	_node	37
4.21	LayerCallback Struct Reference	38
4.21.1	Member Function Documentation	38
4.21.1.1	operator()	38
4.22	ModelData Struct Reference	39
4.22.1	Constructor & Destructor Documentation	39
4.22.1.1	ModelData	39
4.22.2	Member Data Documentation	39
4.22.2.1	effect	39
4.23	ObjectOperator Struct Reference	40
4.23.1	Constructor & Destructor Documentation	40

4.23.1.1	~ObjectOperator	40
4.23.2	Member Function Documentation	40
4.23.2.1	enter	40
4.23.2.2	leave	40
4.23.2.3	maintain	40
4.23.2.4	operator<	40
4.23.2.5	ptr	40
4.23.2.6	reset	40
4.23.2.7	setPause	40
4.24	PickEventHandler Class Reference	41
4.24.1	Constructor & Destructor Documentation	42
4.24.1.1	PickEventHandler	42
4.24.1.2	PickEventHandler	42
4.24.1.3	PickEventHandler	42
4.24.2	Member Function Documentation	42
4.24.2.1	accept	42
4.24.2.2	doOperation	42
4.24.2.3	getCommand	42
4.24.2.4	getKeyPosition	42
4.24.2.5	getLayerNum	42
4.24.2.6	getOperation	42
4.24.2.7	getRelativeJump	42
4.24.2.8	getSlideNum	42
4.24.2.9	getUsage	42
4.24.2.10	handle	42
4.24.2.11	requiresJump	42
4.24.2.12	setAbsoluteJump	42
4.24.2.13	setCommand	42
4.24.2.14	setKeyPosition	42
4.24.2.15	setOperation	42
4.24.2.16	setRelativeJump	42
4.24.3	Member Data Documentation	42
4.24.3.1	_command	42
4.24.3.2	_keyPos	42
4.24.3.3	_layerNum	42
4.24.3.4	_operation	42
4.24.3.5	_relativeJump	42
4.24.3.6	_slideNum	42
4.25	PositionData Struct Reference	43
4.25.1	Constructor & Destructor Documentation	44
4.25.1.1	PositionData	44

4.25.2	Member Function Documentation	44
4.25.2.1	requiresAnimation	44
4.25.2.2	requiresMaterialAnimation	44
4.25.2.3	requiresPosition	44
4.25.2.4	requiresRotate	44
4.25.2.5	requiresScale	44
4.25.3	Member Data Documentation	44
4.25.3.1	absolute_path	44
4.25.3.2	animation_material_filename	44
4.25.3.3	animation_material_loop_mode	44
4.25.3.4	animation_material_time_multiplier	44
4.25.3.5	animation_material_time_offset	44
4.25.3.6	animation_name	44
4.25.3.7	fade	44
4.25.3.8	frame	44
4.25.3.9	inverse_path	44
4.25.3.10	path	44
4.25.3.11	path_loop_mode	44
4.25.3.12	path_time_multiplier	44
4.25.3.13	path_time_offset	44
4.25.3.14	position	44
4.25.3.15	rotate	44
4.25.3.16	rotation	44
4.25.3.17	scale	44
4.26	SetPageCallback Class Reference	45
4.26.1	Constructor & Destructor Documentation	45
4.26.1.1	SetPageCallback	45
4.26.2	Member Function Documentation	45
4.26.2.1	operator()	45
4.26.3	Member Data Documentation	45
4.26.3.1	_pageNum	45
4.26.3.2	_pdfImage	45
4.27	SetToTransparentBin Class Reference	46
4.27.1	Constructor & Destructor Documentation	46
4.27.1.1	SetToTransparentBin	46
4.27.2	Member Function Documentation	46
4.27.2.1	apply	46
4.27.2.2	apply	46
4.28	SlideEventHandler Class Reference	47
4.28.1	Member Enumeration Documentation	49
4.28.1.1	ObjectMask	49

4.28.1.2	WhichPosition	49
4.28.2	Constructor & Destructor Documentation	50
4.28.2.1	SlideEventHandler	50
4.28.2.2	~SlideEventHandler	50
4.28.2.3	SlideEventHandler	50
4.28.3	Member Function Documentation	50
4.28.3.1	accept	50
4.28.3.2	compileSlide	50
4.28.3.3	dispatchEvent	50
4.28.3.4	getActiveLayer	50
4.28.3.5	getActiveSlide	50
4.28.3.6	getAutoSteppingActive	50
4.28.3.7	getCurrentTimeDelayBetweenSlides	50
4.28.3.8	getDuration	50
4.28.3.9	getLoopPresentation	50
4.28.3.10	getNumSlides	50
4.28.3.11	getReleaseAndCompileOnEachNewSlide	50
4.28.3.12	getTimeDelayBetweenSlides	50
4.28.3.13	getTimeDelayOnNewSlideWithMovies	50
4.28.3.14	getUsage	50
4.28.3.15	getViewer	50
4.28.3.16	handle	50
4.28.3.17	home	50
4.28.3.18	home	50
4.28.3.19	instance	50
4.28.3.20	META_Object	50
4.28.3.21	nextLayer	50
4.28.3.22	nextLayerOrSlide	50
4.28.3.23	nextSlide	50
4.28.3.24	operator()	50
4.28.3.25	previousLayer	52
4.28.3.26	previousLayerOrSlide	52
4.28.3.27	previousSlide	52
4.28.3.28	releaseSlide	52
4.28.3.29	selectLayer	52
4.28.3.30	selectSlide	52
4.28.3.31	set	52
4.28.3.32	setAutoSteppingActive	52
4.28.3.33	setLoopPresentation	52
4.28.3.34	setReleaseAndCompileOnEachNewSlide	52
4.28.3.35	setTimeDelayBetweenSlides	52

4.28.3.36	setTimeDelayOnNewSlideWithMovies	52
4.28.3.37	updateAlpha	52
4.28.3.38	updateLight	52
4.28.3.39	updateOperators	52
4.28.4	Member Data Documentation	52
4.28.4.1	_activeLayer	52
4.28.4.2	_activeOperators	52
4.28.4.3	_activePresentation	52
4.28.4.4	_activeSlide	52
4.28.4.5	_autoSteppingActive	52
4.28.4.6	_compileSlideCallback	52
4.28.4.7	_cursorOn	52
4.28.4.8	_firstSlideOrLayerChange	52
4.28.4.9	_firstTraversal	52
4.28.4.10	_hold	52
4.28.4.11	_loopPresentation	52
4.28.4.12	_minimumTimeBetweenKeyPresses	52
4.28.4.13	_pause	52
4.28.4.14	_presentationSwitch	52
4.28.4.15	_previousTime	52
4.28.4.16	_previousX	52
4.28.4.17	_previousY	52
4.28.4.18	_releaseAndCompileOnEachNewSlide	52
4.28.4.19	_showSwitch	52
4.28.4.20	_slideSwitch	52
4.28.4.21	_tickAtFirstSlideOrLayerChange	52
4.28.4.22	_tickAtLastSlideOrLayerChange	52
4.28.4.23	_timeDelayOnNewSlideWithMovies	52
4.28.4.24	_timeLastKeyPresses	52
4.28.4.25	_timePerSlide	52
4.28.4.26	_updateLightActive	52
4.28.4.27	_updateOpacityActive	52
4.28.4.28	_viewer	52
4.29	SlideShowConstructor Class Reference	54
4.29.1	Member Enumeration Documentation	57
4.29.1.1	CoordinateFrame	57
4.29.2	Constructor & Destructor Documentation	59
4.29.2.1	SlideShowConstructor	59
4.29.3	Member Function Documentation	59
4.29.3.1	addBrowser	59
4.29.3.2	addBullet	59

4.29.3.3	addImage	59
4.29.3.4	addInteractiveImage	59
4.29.3.5	addKey	59
4.29.3.6	addLayer	59
4.29.3.7	addLayerKey	59
4.29.3.8	addLayerRunString	59
4.29.3.9	addModel	59
4.29.3.10	addModel	59
4.29.3.11	addParagraph	59
4.29.3.12	addPDF	59
4.29.3.13	addPresentationKey	59
4.29.3.14	addPresentationRunString	59
4.29.3.15	addRunString	59
4.29.3.16	addSlide	59
4.29.3.17	addSlideKey	59
4.29.3.18	addSlideRunString	59
4.29.3.19	addStereolImagePair	59
4.29.3.20	addVNC	59
4.29.3.21	addVolume	59
4.29.3.22	attachMaterialAnimation	59
4.29.3.23	attachTexMat	59
4.29.3.24	computePositionInModelCoords	59
4.29.3.25	convertModelToSlide	59
4.29.3.26	convertSlideToModel	59
4.29.3.27	createPresentation	59
4.29.3.28	createTexturedQuadGeometry	59
4.29.3.29	createTransformStateSet	59
4.29.3.30	findFileAndRecordPath	59
4.29.3.31	findImageStreamsAndAddCallbacks	59
4.29.3.32	getAnimationPathCallback	59
4.29.3.33	getAutoSteppingActive	59
4.29.3.34	getBackgroundColor	59
4.29.3.35	getCurrentLayer	59
4.29.3.36	getCurrentSlide	59
4.29.3.37	getImagePositionData	59
4.29.3.38	getImagePositionDataDefault	59
4.29.3.39	getLoopPresentation	59
4.29.3.40	getModelPositionData	59
4.29.3.41	getModelPositionDataDefault	59
4.29.3.42	getOrCreateLayerAttributes	59
4.29.3.43	getPresentation	59

4.29.3.44	getPresentationSwitch	59
4.29.3.45	getTextColor	59
4.29.3.46	getTextFontData	59
4.29.3.47	getTextFontDataDefault	59
4.29.3.48	getTextPositionData	59
4.29.3.49	getTextPositionDataDefault	59
4.29.3.50	getTitleFontData	59
4.29.3.51	getTitleFontDataDefault	59
4.29.3.52	getTitlePositionData	59
4.29.3.53	getTitlePositionDataDefault	59
4.29.3.54	layerClickEventOperation	59
4.29.3.55	layerClickToDoOperation	59
4.29.3.56	layerClickToDoOperation	59
4.29.3.57	recordOptionsFilePath	59
4.29.3.58	selectLayer	59
4.29.3.59	selectSlide	59
4.29.3.60	setAutoSteppingActive	59
4.29.3.61	setBackgroundColor	59
4.29.3.62	setDuration	59
4.29.3.63	setJump	59
4.29.3.64	setLayerDuration	59
4.29.3.65	setLayerJump	59
4.29.3.66	setLoopPresentation	59
4.29.3.67	setPresentationAspectRatio	59
4.29.3.68	setPresentationAspectRatio	59
4.29.3.69	setPresentationDuration	59
4.29.3.70	setPresentationName	59
4.29.3.71	setSlideBackground	59
4.29.3.72	setSlideDuration	59
4.29.3.73	setSlideJump	59
4.29.3.74	setSlideTitle	59
4.29.3.75	setTextColor	59
4.29.3.76	takePresentation	59
4.29.3.77	translateTextCursor	59
4.29.3.78	updatePositionFromInModelCoords	59
4.29.4	Member Data Documentation	59
4.29.4.1	_autoSteppingActive	59
4.29.4.2	_backgroundColor	59
4.29.4.3	_currentLayer	59
4.29.4.4	_eyeOrigin	59
4.29.4.5	_filePathData	59

4.29.4.6	<a href="#">_imagePositionData</a>	59
4.29.4.7	<a href="#">_imagePositionDataDefault</a>	59
4.29.4.8	<a href="#">_loopPresentation</a>	59
4.29.4.9	<a href="#">_modelPositionData</a>	59
4.29.4.10	<a href="#">_modelPositionDataDefault</a>	59
4.29.4.11	<a href="#">_options</a>	59
4.29.4.12	<a href="#">_presentationDuration</a>	59
4.29.4.13	<a href="#">_presentationName</a>	59
4.29.4.14	<a href="#">_presentationSwitch</a>	59
4.29.4.15	<a href="#">_previousLayer</a>	59
4.29.4.16	<a href="#">_root</a>	59
4.29.4.17	<a href="#">_slide</a>	59
4.29.4.18	<a href="#">_slideBackgroundImageFileName</a>	59
4.29.4.19	<a href="#">_slideClearNode</a>	59
4.29.4.20	<a href="#">_slideDistance</a>	59
4.29.4.21	<a href="#">_slideHeight</a>	59
4.29.4.22	<a href="#">_slideOrigin</a>	59
4.29.4.23	<a href="#">_slideTitle</a>	59
4.29.4.24	<a href="#">_slideWidth</a>	59
4.29.4.25	<a href="#">_textFontData</a>	59
4.29.4.26	<a href="#">_textFontDataDefault</a>	59
4.29.4.27	<a href="#">_textPositionData</a>	59
4.29.4.28	<a href="#">_textPositionDataDefault</a>	59
4.29.4.29	<a href="#">_titleFontData</a>	59
4.29.4.30	<a href="#">_titleFontDataDefault</a>	59
4.29.4.31	<a href="#">_titlePositionData</a>	59
4.29.4.32	<a href="#">_titlePositionDataDefault</a>	59
4.30	<a href="#">UpdateAlphaVisitor Class Reference</a>	61
4.30.1	<a href="#">Constructor &amp; Destructor Documentation</a>	61
4.30.1.1	<a href="#">UpdateAlphaVisitor</a>	61
4.30.2	<a href="#">Member Function Documentation</a>	61
4.30.2.1	<a href="#">apply</a>	61
4.30.2.2	<a href="#">apply</a>	61
4.30.3	<a href="#">Member Data Documentation</a>	61
4.30.3.1	<a href="#">_currentX</a>	61
4.30.3.2	<a href="#">_currentY</a>	61
4.30.3.3	<a href="#">_modAlphaFunc</a>	61
4.30.3.4	<a href="#">_modMaterial</a>	61
4.31	<a href="#">UpdateLightVisitor Class Reference</a>	62
4.31.1	<a href="#">Constructor &amp; Destructor Documentation</a>	62
4.31.1.1	<a href="#">UpdateLightVisitor</a>	62

4.31.2	Member Function Documentation	62
4.31.2.1	apply	62
4.31.2.2	apply	62
4.31.2.3	apply	62
4.31.2.4	apply	62
4.31.3	Member Data Documentation	62
4.31.3.1	_currentX	62
4.31.3.2	_currentY	62
4.31.3.3	_viewMatrix	62
4.32	VolumeData Struct Reference	63
4.32.1	Member Enumeration Documentation	63
4.32.1.1	ShadingModel	63
4.32.2	Constructor & Destructor Documentation	63
4.32.2.1	VolumeData	63
4.32.3	Member Data Documentation	63
4.32.3.1	alphaValue	63
4.32.3.2	cutoffValue	63
4.32.3.3	region	63
4.32.3.4	region_in_pixel_coords	63
4.32.3.5	sampleDensityValue	63
4.32.3.6	shadingModel	63
4.32.3.7	transferFunction	63
4.32.3.8	useTabbedDragger	63
4.32.3.9	useTrackballDragger	63
<b>5</b>	<b>File Documentation</b>	<b>65</b>
5.1	AnimationMaterial File Reference	65
5.1.1	Define Documentation	66
5.1.1.1	OSG_ANIMATIONMATERIAL	66
5.2	AnimationMaterial.cpp File Reference	67
5.2.1	Function Documentation	67
5.2.1.1	interp	67
5.3	CompileSlideCallback File Reference	68
5.3.1	Define Documentation	68
5.3.1.1	OSG_COMPILESLIDECALLBACK	68
5.4	CompileSlideCallback.cpp File Reference	69
5.5	Export File Reference	70
5.5.1	Define Documentation	70
5.5.1.1	OSGPRESSENTATION_EXPORT	70
5.5.1.2	OSGPRESSENTATION_EXPORT_	70
5.6	mainpage.h File Reference	71

---

5.6.1	Detailed Description . . . . .	71
5.7	PickEventHandler File Reference . . . . .	72
5.7.1	Define Documentation . . . . .	72
5.7.1.1	PICKEVENTHANDLER . . . . .	72
5.8	PickEventHandler.cpp File Reference . . . . .	73
5.9	SlideEventHandler File Reference . . . . .	74
5.9.1	Define Documentation . . . . .	75
5.9.1.1	SLIDEEVENTHANDLER . . . . .	75
5.10	SlideEventHandler.cpp File Reference . . . . .	76
5.10.1	Variable Documentation . . . . .	76
5.10.1.1	s_seh . . . . .	76
5.11	SlideShowConstructor File Reference . . . . .	77
5.12	SlideShowConstructor.cpp File Reference . . . . .	78

## Main Page

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The [OpenSceneGraph](#) exists as a number of modules, each sitting in its own library, enclosed within its own namespace. At the very core lies the osg library. This contains the OpenSceneGraph's central classes and, at the bare minimum, it is all users need to write an OpenSceneGraph program in C++.

Around and alongside this sit other supporting libraries, such as osgUtil (containing visitors for app traversals, cull traversals, scene graph optimizers and so on), osgDB (for handling plug-ins, shared library loading, database reading and writing and the like), osgText, osgParticle, etc.

Extensive online documentation is available from the OSG [Support](#) section to help in using Open Scene Graph.

The project's original reference guides generated by Doxygen from the source code may be downloaded as a single file from the OSG [Reference Guides](#) section.

To download source code, binaries, dependencies and sample datasets visit the OSG [Download](#) page.

For more about dependencies see the OSG [Dependencies](#) page.

The documentation you are looking at can be downloaded from [www.3draum.ch](http://www.3draum.ch).

Enjoy!



# Directory Documentation

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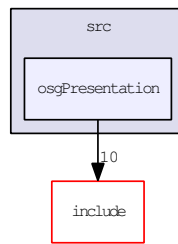
## 2.1 include/ Directory Reference



### Directories

- directory [osgPresentation](#)

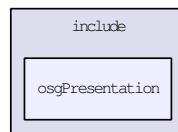
## 2.2 src/osgPresentation/ Directory Reference



### Files

- file [AnimationMaterial.cpp](#)
- file [CompileSlideCallback.cpp](#)
- file [PickEventHandler.cpp](#)
- file [SlideEventHandler.cpp](#)
- file [SlideShowConstructor.cpp](#)

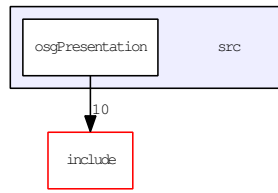
## 2.3 include/osgPresentation/ Directory Reference



### Files

- file [AnimationMaterial](#)
- file [CompileSlideCallback](#)
- file [Export](#)
- file [mainpage.h](#)
- file [PickEventHandler](#)
- file [SlideEventHandler](#)
- file [SlideShowConstructor](#)

## 2.4 src/ Directory Reference



### Directories

- directory [osgPresentation](#)

## Namespace Documentation

---

### 3.1 osgPresentation Namespace Reference

The [osgPresentation](#) library is a NodeKit that extends the core scene graph to support 3D scene graph based presentations.

#### Classes

- class [ActiveOperators](#)
- class [AnimationMaterial](#)  
*[AnimationMaterial](#) for specify the time varying transformation pathway to use when update camera and model objects.*
- class [AnimationMaterialCallback](#)
- class [CompileSlideCallback](#)
- struct [dereference\\_less](#)
- struct [FilePathData](#)
- struct [HomePosition](#)
- struct [KeyPosition](#)
- struct [LayerAttributes](#)
- struct [LayerCallback](#)
- struct [ObjectOperator](#)
- class [PickEventHandler](#)
- class [SlideEventHandler](#)
- class [SlideShowConstructor](#)

#### Enumerations

- enum [Operation](#) { [RUN](#), [LOAD](#), [EVENT](#), [JUMP](#) }  
*Operations related to click to run/load/key events.*

#### 3.1.1 Detailed Description

The [osgPresentation](#) library is a NodeKit that extends the core scene graph to support 3D scene graph based presentations.

#### 3.1.2 Enumeration Type Documentation

##### 3.1.2.1 enum Operation

Operations related to click to run/load/key events.

##### Enumerator:

***RUN***  
***LOAD***  
***EVENT***  
***JUMP***

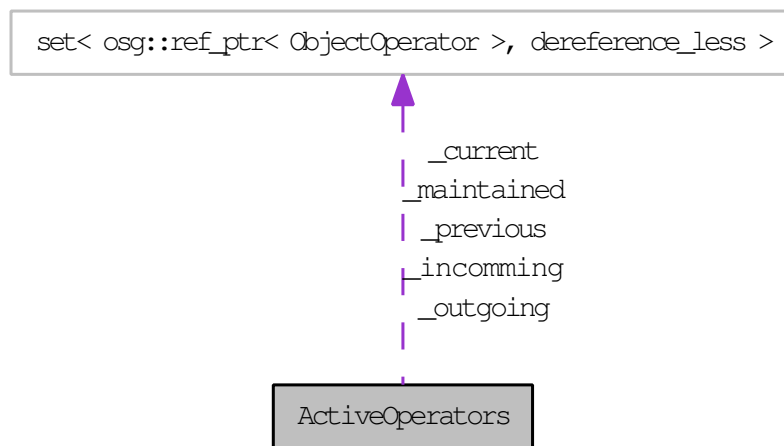


# Class Documentation

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## 4.1 ActiveOperators Class Reference

Collaboration diagram for ActiveOperators:



### Public Types

- typedef std::set< osg::ref\_ptr< [ObjectOperator](#) >, [dereference\\_less](#) > [OperatorList](#)

### Public Member Functions

- [ActiveOperators](#) ()
- [~ActiveOperators](#) ()
- void [collect](#) (osg::Node \*incommingNode, [osg::NodeVisitor::TraversalMode](#) tm=osg::NodeVisitor::TRAVERSE\_ACTIVE\_CHILDREN)
- bool [getPause](#) () const
- void [process](#) ()
- void [reset](#) ()
- void [setPause](#) (bool pause)

### Protected Member Functions

- void [processIncomming](#) ()
- void [processMaintained](#) ()
- void [processOutgoing](#) ()

### Protected Attributes

- [OperatorList](#) [\\_current](#)
- [OperatorList](#) [\\_incomming](#)

- [OperatorList \\_maintained](#)
- [OperatorList \\_outgoing](#)
- [bool \\_pause](#)
- [OperatorList \\_previous](#)

#### 4.1.1 Member Typedef Documentation

4.1.1.1 `typedef std::set< osg::ref_ptr<ObjectOperator>, dereference_less > OperatorList`

#### 4.1.2 Constructor & Destructor Documentation

4.1.2.1 `ActiveOperators ()`

4.1.2.2 `~ActiveOperators ()`

#### 4.1.3 Member Function Documentation

4.1.3.1 `void collect (osg::Node * incommingNode, osg::NodeVisitor::TraversalMode tm = osg::NodeVisitor::TRAVERSE_ACTIVE_CHILDREN)`

4.1.3.2 `bool getPause () const [inline]`

4.1.3.3 `void process ()`

4.1.3.4 `void processIncomming () [protected]`

4.1.3.5 `void processMaintained () [protected]`

4.1.3.6 `void processOutgoing () [protected]`

4.1.3.7 `void reset ()`

4.1.3.8 `void setPause (bool pause)`

#### 4.1.4 Member Data Documentation

4.1.4.1 `OperatorList _current [protected]`

4.1.4.2 `OperatorList _incomming [protected]`

4.1.4.3 `OperatorList _maintained [protected]`

4.1.4.4 `OperatorList _outgoing [protected]`

4.1.4.5 `bool _pause [protected]`

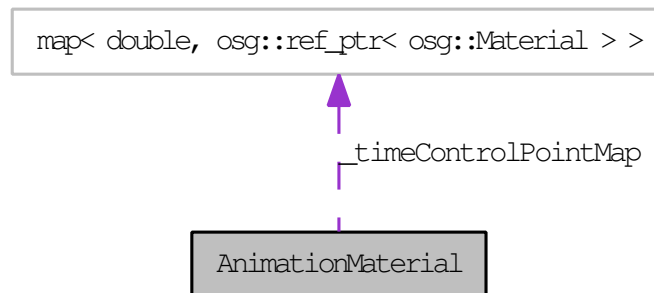
4.1.4.6 `OperatorList _previous [protected]`

The documentation for this class was generated from the following files:

- [SlideEventHandler](#)
- [SlideEventHandler.cpp](#)

## 4.2 AnimationMaterial Class Reference

[AnimationMaterial](#) for specify the time varying transformation pathway to use when update camera and model objects. Collaboration diagram for AnimationMaterial:



### Public Types

- enum [LoopMode](#) { [SWING](#), [LOOP](#), [NO\\_LOOPING](#) }
- typedef std::map< double, osg::ref\_ptr< osg::Material > > [TimeControlPointMap](#)

### Public Member Functions

- [AnimationMaterial](#) (const [AnimationMaterial](#) &ap, const osg::CopyOp &copyop=osg::CopyOp::SHALLOW\_COPY)
- [AnimationMaterial](#) ()
- double [getFirstTime](#) () const
- double [getLastTime](#) () const
- [LoopMode](#) [getLoopMode](#) () const
- bool [getMaterial](#) (double time, osg::Material &material) const  
*get the transformation matrix for a point in time.*
- double [getPeriod](#) () const
- const [TimeControlPointMap](#) & [getTimeControlPointMap](#) () const
- [TimeControlPointMap](#) & [getTimeControlPointMap](#) ()
- void [insert](#) (double time, osg::Material \*material)
- [META\\_Object](#) (osg, [AnimationMaterial](#))
- void [read](#) (std::istream &in)  
*read the anumation path from a flat ascii file stream.*
- bool [requiresBlending](#) () const
- void [setLoopMode](#) ([LoopMode](#) lm)
- void [write](#) (std::ostream &out) const  
*write the anumation path to a flat ascii file stream.*

### Protected Member Functions

- virtual [~AnimationMaterial](#) ()
- void [interpolate](#) (osg::Material &material, float r, const osg::Material &lhs, const osg::Material &rhs) const

### Protected Attributes

- [LoopMode](#) [\\_loopMode](#)
- [TimeControlPointMap](#) [\\_timeControlPointMap](#)

## 4.2.1 Detailed Description

[AnimationMaterial](#) for specify the time varying transformation pathway to use when update camera and model objects. Subclassed from `Transform::ComputeTransformCallback` allows [AnimationMaterial](#) to be attached directly to `Transform` nodes to move subgraphs around the scene.

## 4.2.2 Member Typedef Documentation

4.2.2.1 `typedef std::map<double, osg::ref_ptr<osg::Material> > TimeControlPointMap`

## 4.2.3 Member Enumeration Documentation

4.2.3.1 `enum LoopMode`

Enumerator:

`SWING`  
`LOOP`  
`NO_LOOPING`

## 4.2.4 Constructor & Destructor Documentation

4.2.4.1 `AnimationMaterial () [inline]`

4.2.4.2 `AnimationMaterial (const AnimationMaterial & ap, const osg::CopyOp & copyop = osg::CopyOp::SHALLOW_COPY) [inline]`

4.2.4.3 `virtual ~AnimationMaterial () [inline, protected, virtual]`

## 4.2.5 Member Function Documentation

4.2.5.1 `double getFirstTime () const [inline]`

4.2.5.2 `double getLastTime () const [inline]`

4.2.5.3 `LoopMode getLoopMode () const [inline]`

4.2.5.4 `bool getMaterial (double time, osg::Material & material) const`

get the transformation matrix for a point in time.

4.2.5.5 `double getPeriod () const [inline]`

4.2.5.6 `const TimeControlPointMap& getTimeControlPointMap () const [inline]`

4.2.5.7 `TimeControlPointMap& getTimeControlPointMap () [inline]`

4.2.5.8 `void insert (double time, osg::Material * material)`

4.2.5.9 `void interpolate (osg::Material & material, float r, const osg::Material & lhs, const osg::Material & rhs) const [protected]`

4.2.5.10 `META_Object (osg, AnimationMaterial)`

4.2.5.11 `void read (std::istream & in)`

read the animation path from a flat ascii file stream.

4.2.5.12 `bool requiresBlending () const`

4.2.5.13 `void setLoopMode (LoopMode lm) [inline]`

4.2.5.14 `void write (std::ostream & out) const`

write the animation path to a flat ascii file stream.

## 4.2.6 Member Data Documentation

4.2.6.1 `LoopMode _loopMode [protected]`

4.2.6.2 `TimeControlPointMap _timeControlPointMap [protected]`

The documentation for this class was generated from the following files:

- [AnimationMaterial](#)
- [AnimationMaterial.cpp](#)

## 4.3 AnimationMaterialCallback Class Reference

### Public Member Functions

- [AnimationMaterialCallback](#) ([AnimationMaterial](#) \*ap, double timeOffset=0.0f, double timeMultiplier=1.0f)
- [AnimationMaterialCallback](#) (const [AnimationMaterialCallback](#) &apc, const osg::CopyOp &copyop)
- [AnimationMaterialCallback](#) ()
- const [AnimationMaterial](#) \* [getAnimationMaterial](#) () const
- [AnimationMaterial](#) \* [getAnimationMaterial](#) ()
- double [getAnimationTime](#) () const  
*get the animation time that is used to specify the position along the [AnimationMaterial](#).*
- double [getTimeMultiplier](#) () const
- double [getTimeOffset](#) () const
- [META\\_Object](#) (osg, [AnimationMaterialCallback](#))
- virtual void [operator](#)() (osg::Node \*node, osg::NodeVisitor \*nv)  
*implements the callback*
- void [reset](#) ()
- void [setAnimationMaterial](#) ([AnimationMaterial](#) \*path)
- void [setPause](#) (bool pause)
- void [setTimeMultiplier](#) (double multiplier)
- void [setTimeOffset](#) (double offset)
- void [update](#) (osg::Node &node)

### Public Attributes

- osg::ref\_ptr< [AnimationMaterial](#) > [\\_animationMaterial](#)
- double [\\_firstTime](#)
- double [\\_latestTime](#)
- bool [\\_pause](#)
- double [\\_pauseTime](#)
- double [\\_timeMultiplier](#)
- double [\\_timeOffset](#)
- bool [\\_useInverseMatrix](#)

### Protected Member Functions

- [~AnimationMaterialCallback](#) ()

#### 4.3.1 Constructor & Destructor Documentation

4.3.1.1 [AnimationMaterialCallback](#) () [inline]

4.3.1.2 [AnimationMaterialCallback](#) (const [AnimationMaterialCallback](#) & apc, const osg::CopyOp & copyop) [inline]

4.3.1.3 [AnimationMaterialCallback](#) ([AnimationMaterial](#) \* ap, double *timeOffset* = 0.0f, double *timeMultiplier* = 1.0f) [inline]

4.3.1.4 [~AnimationMaterialCallback](#) () [inline, protected]

#### 4.3.2 Member Function Documentation

4.3.2.1 const [AnimationMaterial](#)\* [getAnimationMaterial](#) () const [inline]

4.3.2.2 [AnimationMaterial](#)\* [getAnimationMaterial](#) () [inline]

4.3.2.3 double [getAnimationTime](#) () const

get the animation time that is used to specify the position along the [AnimationMaterial](#). Animation time is computed from the formula  $((\_latestTime - \_firstTime) - \_timeOffset) * \_timeMultiplier$ .

4.3.2.4 `double getTimeMultiplier () const [inline]`

4.3.2.5 `double getTimeOffset () const [inline]`

4.3.2.6 `META_Object (osg, AnimationMaterialCallback)`

4.3.2.7 `void operator() (osg::Node * node, osg::NodeVisitor * nv) [virtual]`

implements the callback

4.3.2.8 `void reset ()`

4.3.2.9 `void setAnimationMaterial (AnimationMaterial * path) [inline]`

4.3.2.10 `void setPause (bool pause)`

4.3.2.11 `void setTimeMultiplier (double multiplier) [inline]`

4.3.2.12 `void setTimeOffset (double offset) [inline]`

4.3.2.13 `void update (osg::Node & node)`

### 4.3.3 Member Data Documentation

4.3.3.1 `osg::ref_ptr<AnimationMaterial> _animationMaterial`

4.3.3.2 `double _firstTime`

4.3.3.3 `double _latestTime`

4.3.3.4 `bool _pause`

4.3.3.5 `double _pauseTime`

4.3.3.6 `double _timeMultiplier`

4.3.3.7 `double _timeOffset`

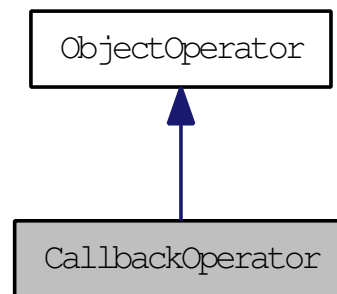
4.3.3.8 `bool _useInverseMatrix`

The documentation for this class was generated from the following files:

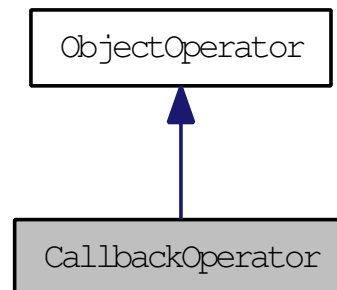
- [AnimationMaterial](#)
- [AnimationMaterial.cpp](#)

## 4.4 CallbackOperator Struct Reference

Inheritance diagram for CallbackOperator:



Collaboration diagram for CallbackOperator:



### Public Member Functions

- [CallbackOperator](#) (osg::Node \*node, osg::Referenced \*callback)
- virtual void [enter](#) ()
- virtual void [leave](#) ()
- virtual void [maintain](#) ()
- virtual void \* [ptr](#) () const
- virtual void [reset](#) ()
- virtual void [setPause](#) (bool pause)

### Public Attributes

- osg::ref\_ptr< osg::Referenced > [\\_callback](#)
- osg::ref\_ptr< osg::Node > [\\_node](#)

#### 4.4.1 Constructor & Destructor Documentation

4.4.1.1 [CallbackOperator](#) (osg::Node \* *node*, osg::Referenced \* *callback*) [inline]

#### 4.4.2 Member Function Documentation

4.4.2.1 virtual void [enter](#) () [inline, virtual]

Implements [ObjectOperator](#).

4.4.2.2 virtual void [leave](#) () [inline, virtual]

Implements [ObjectOperator](#).

4.4.2.3 virtual void [maintain](#) () [inline, virtual]

Implements [ObjectOperator](#).

**4.4.2.4 virtual void\* ptr () const [inline, virtual]**

Implements [ObjectOperator](#).

**4.4.2.5 virtual void reset () [inline, virtual]**

Implements [ObjectOperator](#).

**4.4.2.6 virtual void setPause (bool *pause*) [inline, virtual]**

Implements [ObjectOperator](#).

**4.4.3 Member Data Documentation****4.4.3.1 `osg::ref_ptr<osg::Referenced> _callback`****4.4.3.2 `osg::ref_ptr<osg::Node> _node`**

The documentation for this struct was generated from the following file:

- [SlideEventHandler.cpp](#)

## 4.5 CompileSlideCallback Class Reference

### Public Member Functions

- [CompileSlideCallback](#) ()
- void [needCompile](#) (osg::Node \*node)
- virtual void [operator](#)() (const osg::Camera &camera) const

### Protected Member Functions

- virtual [~CompileSlideCallback](#) ()

### Protected Attributes

- int [\\_frameNumber](#)
- bool [\\_needCompile](#)
- osg::ref\_ptr< osg::Node > [\\_sceneToCompile](#)

#### 4.5.1 Constructor & Destructor Documentation

4.5.1.1 [CompileSlideCallback](#) () [inline]

4.5.1.2 [virtual ~CompileSlideCallback](#) () [inline, protected, virtual]

#### 4.5.2 Member Function Documentation

4.5.2.1 [void needCompile](#) (osg::Node \* *node*) [inline]

4.5.2.2 [void operator](#)() (const osg::Camera & *camera*) const [virtual]

#### 4.5.3 Member Data Documentation

4.5.3.1 [int \\_frameNumber](#) [mutable, protected]

4.5.3.2 [bool \\_needCompile](#) [mutable, protected]

4.5.3.3 [osg::ref\\_ptr<osg::Node> \\_sceneToCompile](#) [protected]

The documentation for this class was generated from the following files:

- [CompileSlideCallback](#)
- [CompileSlideCallback.cpp](#)

## 4.6 dereference\_less Struct Reference

### Public Member Functions

- `template<class T , class U >`  
`bool operator\(\) (const T &lhs, const U &rhs) const`

### 4.6.1 Member Function Documentation

#### 4.6.1.1 `bool operator() (const T & lhs, const U & rhs) const` [`inline`]

The documentation for this struct was generated from the following file:

- [SlideEventHandler](#)

## 4.7 DraggerVolumeTileCallback Class Reference

### Public Member Functions

- [DraggerVolumeTileCallback](#) (osgVolume::VolumeTile \*volume, osgVolume::Locator \*locator)
- virtual bool [receive](#) (const osgManipulator::MotionCommand &command)

### Public Attributes

- osg::Matrix [\\_localToWorld](#)
- osg::ref\_ptr< osgVolume::Locator > [\\_locator](#)
- osg::Matrix [\\_startMotionMatrix](#)
- osg::observer\_ptr< osgVolume::VolumeTile > [\\_volume](#)
- osg::Matrix [\\_worldToLocal](#)

### 4.7.1 Constructor & Destructor Documentation

4.7.1.1 [DraggerVolumeTileCallback](#) (osgVolume::VolumeTile \* *volume*, osgVolume::Locator \* *locator*)  
[inline]

### 4.7.2 Member Function Documentation

4.7.2.1 bool [receive](#) (const osgManipulator::MotionCommand & *command*) [virtual]

### 4.7.3 Member Data Documentation

4.7.3.1 osg::Matrix [\\_localToWorld](#)

4.7.3.2 osg::ref\_ptr<osgVolume::Locator> [\\_locator](#)

4.7.3.3 osg::Matrix [\\_startMotionMatrix](#)

4.7.3.4 osg::observer\_ptr<osgVolume::VolumeTile> [\\_volume](#)

4.7.3.5 osg::Matrix [\\_worldToLocal](#)

The documentation for this class was generated from the following file:

- [SlideShowConstructor.cpp](#)

## 4.8 FilePathData Struct Reference

### Public Member Functions

- [FilePathData](#) (const osgDB::FilePathList &fpl)

### Public Attributes

- osgDB::FilePathList [filePathList](#)

### 4.8.1 Constructor & Destructor Documentation

4.8.1.1 [FilePathData](#) (const osgDB::FilePathList & *fpl*) [inline]

### 4.8.2 Member Data Documentation

4.8.2.1 [osgDB::FilePathList](#) [filePathList](#)

The documentation for this struct was generated from the following file:

- [SlideEventHandler](#)

## 4.9 FindFilePathDataVisitor Class Reference

### Public Member Functions

- [FindFilePathDataVisitor](#) ()
- void [apply](#) (osg::Node &node)

### 4.9.1 Constructor & Destructor Documentation

#### 4.9.1.1 [FindFilePathDataVisitor](#) () [inline]

### 4.9.2 Member Function Documentation

#### 4.9.2.1 void [apply](#) (osg::Node & *node*) [inline]

The documentation for this class was generated from the following file:

- [SlideEventHandler.cpp](#)

## 4.10 FindHomePositionVisitor Class Reference

### Public Member Functions

- [FindHomePositionVisitor](#) ()
- void [apply](#) (osg::Node &node)

### Public Attributes

- osg::ref\_ptr< [HomePosition](#) > [\\_homePosition](#)

### 4.10.1 Constructor & Destructor Documentation

#### 4.10.1.1 [FindHomePositionVisitor](#) () [inline]

### 4.10.2 Member Function Documentation

#### 4.10.2.1 void [apply](#) (osg::Node & *node*) [inline]

### 4.10.3 Member Data Documentation

#### 4.10.3.1 osg::ref\_ptr<[HomePosition](#)> [\\_homePosition](#)

The documentation for this class was generated from the following file:

- [SlideEventHandler.cpp](#)

## 4.11 FindImageStreamsVisitor Class Reference

### Public Member Functions

- [FindImageStreamsVisitor](#) ()
- virtual void [apply](#) (osg::Geode &node)
- virtual void [apply](#) (osg::Node &node)
- void [process](#) (osg::StateSet \*ss)

### 4.11.1 Constructor & Destructor Documentation

#### 4.11.1.1 FindImageStreamsVisitor () [inline]

### 4.11.2 Member Function Documentation

#### 4.11.2.1 virtual void apply (osg::Geode & *node*) [inline, virtual]

#### 4.11.2.2 virtual void apply (osg::Node & *node*) [inline, virtual]

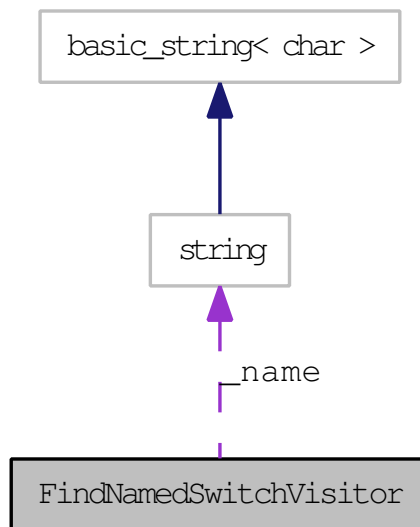
#### 4.11.2.3 void process (osg::StateSet \* *ss*) [inline]

The documentation for this class was generated from the following file:

- [SlideShowConstructor.cpp](#)

## 4.12 FindNamedSwitchVisitor Class Reference

Collaboration diagram for FindNamedSwitchVisitor:



### Public Member Functions

- [FindNamedSwitchVisitor](#) (const std::string &name)
- void [apply](#) (osg::Switch &sw)

### Public Attributes

- std::string [\\_name](#)
- osg::Switch \* [\\_switch](#)

#### 4.12.1 Constructor & Destructor Documentation

4.12.1.1 [FindNamedSwitchVisitor](#) (const std::string & *name*) [inline]

#### 4.12.2 Member Function Documentation

4.12.2.1 void [apply](#) (osg::Switch & *sw*) [inline]

#### 4.12.3 Member Data Documentation

4.12.3.1 std::string [\\_name](#)

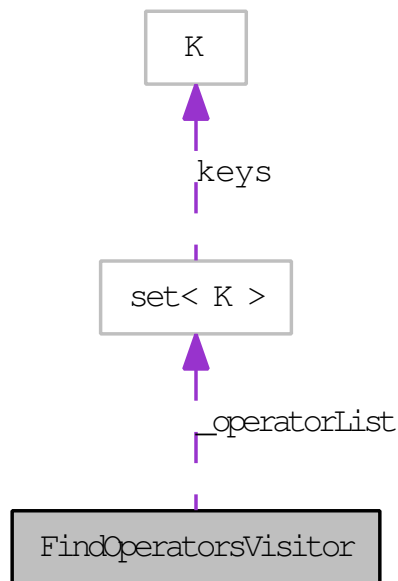
4.12.3.2 osg::Switch\* [\\_switch](#)

The documentation for this class was generated from the following file:

- [SlideEventHandler.cpp](#)

## 4.13 FindOperatorsVisitor Class Reference

Collaboration diagram for FindOperatorsVisitor:



### Public Member Functions

- [FindOperatorsVisitor](#) ([ActiveOperators::OperatorList](#) &operatorList, osg::NodeVisitor::TraversalMode tm)
- void [apply](#) (osg::Geode &node)
- void [apply](#) (osg::Node &node)
- virtual void [process](#) (osg::StateSet \*ss)

### Public Attributes

- [ActiveOperators::OperatorList](#) & [\\_operatorList](#)

### 4.13.1 Constructor & Destructor Documentation

4.13.1.1 [FindOperatorsVisitor](#) ([ActiveOperators::OperatorList](#) & *operatorList*, osg::NodeVisitor::TraversalMode *tm*) [[inline](#)]

### 4.13.2 Member Function Documentation

4.13.2.1 void [apply](#) (osg::Geode & *node*) [[inline](#)]

4.13.2.2 void [apply](#) (osg::Node & *node*) [[inline](#)]

4.13.2.3 virtual void [process](#) (osg::StateSet \* *ss*) [[inline](#), [virtual](#)]

### 4.13.3 Member Data Documentation

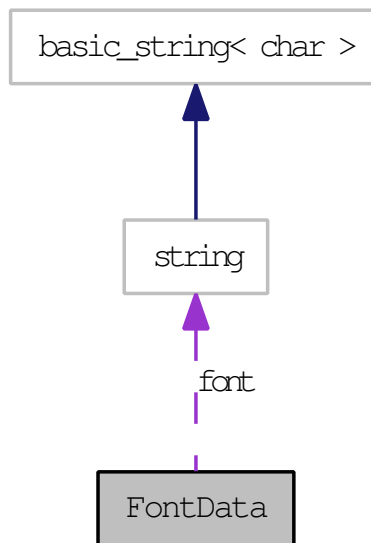
4.13.3.1 [ActiveOperators::OperatorList](#)& [\\_operatorList](#)

The documentation for this class was generated from the following file:

- [SlideEventHandler.cpp](#)

## 4.14 FontData Struct Reference

Collaboration diagram for FontData:



### Public Member Functions

- [FontData \(\)](#)

### Public Attributes

- `osgText::Text::AlignmentType` [alignment](#)
- `osgText::Text::AxisAlignment` [axisAlignment](#)
- `float` [characterSize](#)
- `osg::Vec4` [color](#)
- `std::string` [font](#)
- `osgText::Text::Layout` [layout](#)
- `float` [maximumHeight](#)
- `float` [maximumWidth](#)

#### 4.14.1 Constructor & Destructor Documentation

##### 4.14.1.1 [FontData \(\)](#) [inline]

#### 4.14.2 Member Data Documentation

##### 4.14.2.1 `osgText::Text::AlignmentType` [alignment](#)

##### 4.14.2.2 `osgText::Text::AxisAlignment` [axisAlignment](#)

##### 4.14.2.3 `float` [characterSize](#)

##### 4.14.2.4 `osg::Vec4` [color](#)

##### 4.14.2.5 `std::string` [font](#)

##### 4.14.2.6 `osgText::Text::Layout` [layout](#)

##### 4.14.2.7 `float` [maximumHeight](#)

##### 4.14.2.8 `float` [maximumWidth](#)

The documentation for this struct was generated from the following file:

- [SlideShowConstructor](#)

## 4.15 HomePosition Struct Reference

### Public Member Functions

- [HomePosition](#) (const osg::Vec3 &in\_eye, const osg::Vec3 &in\_center, const osg::Vec3 &in\_up)
- [HomePosition](#) ()

### Public Attributes

- osg::Vec3 [center](#)
- osg::Vec3 [eye](#)
- osg::Vec3 [up](#)

### 4.15.1 Constructor & Destructor Documentation

4.15.1.1 [HomePosition](#) () [inline]

4.15.1.2 [HomePosition](#) (const osg::Vec3 & *in\_eye*, const osg::Vec3 & *in\_center*, const osg::Vec3 & *in\_up*) [inline]

### 4.15.2 Member Data Documentation

4.15.2.1 [osg::Vec3 center](#)

4.15.2.2 [osg::Vec3 eye](#)

4.15.2.3 [osg::Vec3 up](#)

The documentation for this struct was generated from the following file:

- [SlideEventHandler](#)

## 4.16 ImageData Struct Reference

### Public Member Functions

- [ImageData \(\)](#)

### Public Attributes

- osg::Vec4 [backgroundColor](#)
- float [height](#)
- osg::ImageStream::LoopingMode [loopingMode](#)
- int [page](#)
- osg::Vec4 [region](#)
- bool [region\\_in\\_pixel\\_coords](#)
- float [texcoord\\_rotate](#)
- float [width](#)

### 4.16.1 Constructor & Destructor Documentation

#### 4.16.1.1 [ImageData \(\)](#) [inline]

### 4.16.2 Member Data Documentation

#### 4.16.2.1 [osg::Vec4 backgroundColor](#)

#### 4.16.2.2 [float height](#)

#### 4.16.2.3 [osg::ImageStream::LoopingMode loopingMode](#)

#### 4.16.2.4 [int page](#)

#### 4.16.2.5 [osg::Vec4 region](#)

#### 4.16.2.6 [bool region\\_in\\_pixel\\_coords](#)

#### 4.16.2.7 [float texcoord\\_rotate](#)

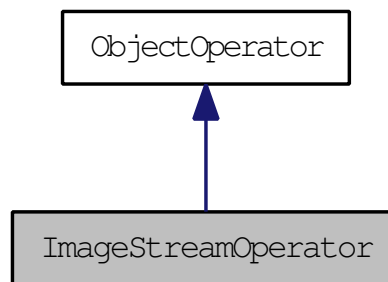
#### 4.16.2.8 [float width](#)

The documentation for this struct was generated from the following file:

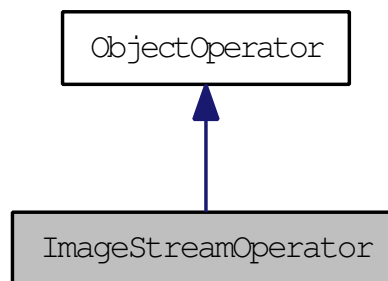
- [SlideShowConstructor](#)

## 4.17 ImageStreamOperator Struct Reference

Inheritance diagram for ImageStreamOperator:



Collaboration diagram for ImageStreamOperator:



### Public Member Functions

- [ImageStreamOperator](#) (osg::ImageStream \*imageStream)
- virtual void [enter](#) ()
- virtual void [leave](#) ()
- virtual void [maintain](#) ()
- virtual void \* [ptr](#) () const
- virtual void [reset](#) ()
- virtual void [setPause](#) (bool pause)

### Public Attributes

- osg::ref\_ptr< osg::ImageStream > [\\_imageStream](#)

### 4.17.1 Constructor & Destructor Documentation

4.17.1.1 [ImageStreamOperator](#) (osg::ImageStream \* *imageStream*) [inline]

### 4.17.2 Member Function Documentation

4.17.2.1 virtual void [enter](#) () [inline, virtual]

Implements [ObjectOperator](#).

4.17.2.2 virtual void [leave](#) () [inline, virtual]

Implements [ObjectOperator](#).

4.17.2.3 virtual void [maintain](#) () [inline, virtual]

Implements [ObjectOperator](#).

**4.17.2.4 virtual void\* ptr () const [inline, virtual]**

Implements [ObjectOperator](#).

**4.17.2.5 virtual void reset () [inline, virtual]**

Implements [ObjectOperator](#).

**4.17.2.6 virtual void setPause (bool *pause*) [inline, virtual]**

Implements [ObjectOperator](#).

**4.17.3 Member Data Documentation****4.17.3.1 osg::ref\_ptr<osg::ImageStream> \_imageStream**

The documentation for this struct was generated from the following file:

- [SlideEventHandler.cpp](#)

## 4.18 KeyPosition Struct Reference

### Public Member Functions

- [KeyPosition](#) (unsigned int key=0, float x=FLT\_MAX, float y=FLT\_MAX)
- void [set](#) (unsigned int key=0, float x=FLT\_MAX, float y=FLT\_MAX)

### Public Attributes

- osgGA::GUIEventAdapter::KeySymbol [\\_key](#)
- float [\\_x](#)
- float [\\_y](#)

### 4.18.1 Constructor & Destructor Documentation

4.18.1.1 [KeyPosition](#) (unsigned int *key* = 0, float *x* = FLT\_MAX, float *y* = FLT\_MAX) [inline]

### 4.18.2 Member Function Documentation

4.18.2.1 void [set](#) (unsigned int *key* = 0, float *x* = FLT\_MAX, float *y* = FLT\_MAX) [inline]

### 4.18.3 Member Data Documentation

4.18.3.1 osgGA::GUIEventAdapter::KeySymbol [\\_key](#)

4.18.3.2 float [\\_x](#)

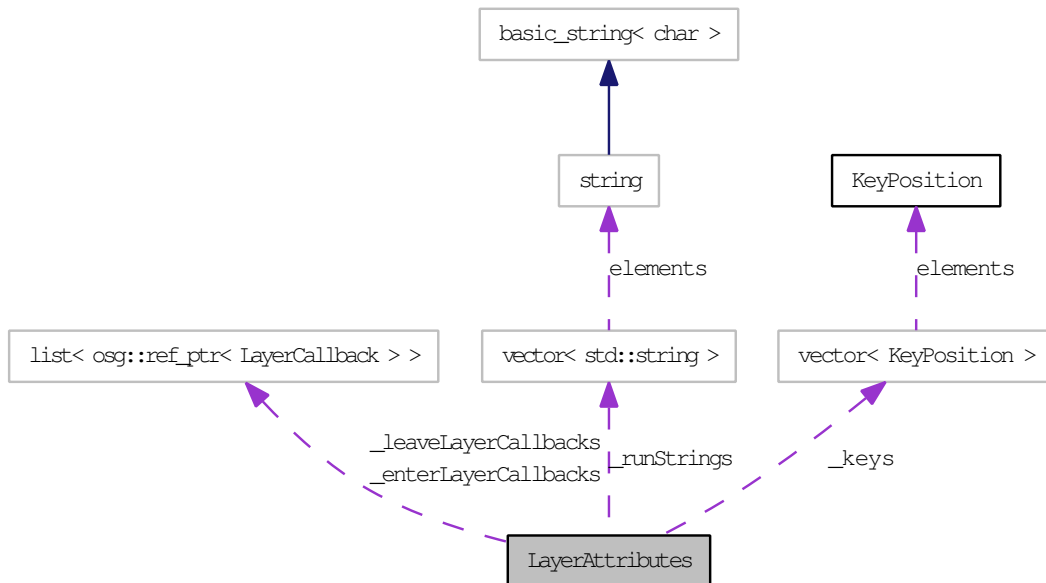
4.18.3.3 float [\\_y](#)

The documentation for this struct was generated from the following file:

- [SlideEventHandler](#)

## 4.19 LayerAttributes Struct Reference

Collaboration diagram for LayerAttributes:



### Public Types

- typedef std::vector< [KeyPosition](#) > [Keys](#)
- typedef std::list< osg::ref\_ptr< [LayerCallback](#) > > [LayerCallbacks](#)
- typedef std::vector< std::string > [RunStrings](#)

### Public Member Functions

- [LayerAttributes](#) (double in\_duration)
- [LayerAttributes](#) ()
- void [addEnterCallback](#) ([LayerCallback](#) \*lc)
- void [addKey](#) (const [KeyPosition](#) &kp)
- void [addLeaveCallback](#) ([LayerCallback](#) \*lc)
- void [addRunString](#) (const std::string &runString)
- void [callEnterCallbacks](#) (osg::Node \*node)
- void [callLeaveCallbacks](#) (osg::Node \*node)
- double [getDuration](#) () const
- const [Keys](#) & [getKeys](#) () const
- int [getLayerNum](#) () const
- bool [getRelativeJump](#) () const
- const [RunStrings](#) & [getRunStrings](#) () const
- int [getSlideNum](#) () const
- bool [requiresJump](#) () const
- void [setDuration](#) (double duration)
- void [setJump](#) (bool relativeJump, int slideNum, int layerNum)
- void [setKeys](#) (const [Keys](#) &keys)
- void [setRunStrings](#) (const [RunStrings](#) &runStrings)

### Public Attributes

- double [\\_duration](#)
- [LayerCallbacks](#) [\\_enterLayerCallbacks](#)
- [Keys](#) [\\_keys](#)
- int [\\_layerNum](#)

- [LayerCallbacks \\_leaveLayerCallbacks](#)
- `bool _relativeJump`
- [RunStrings \\_runStrings](#)
- `int _slideNum`

#### 4.19.1 Member Typedef Documentation

4.19.1.1 `typedef std::vector<KeyPosition> Keys`

4.19.1.2 `typedef std::list< osg::ref_ptr<LayerCallback> > LayerCallbacks`

4.19.1.3 `typedef std::vector<std::string> RunStrings`

#### 4.19.2 Constructor & Destructor Documentation

4.19.2.1 `LayerAttributes () [inline]`

4.19.2.2 `LayerAttributes (double in_duration) [inline]`

#### 4.19.3 Member Function Documentation

4.19.3.1 `void addEnterCallback (LayerCallback * lc) [inline]`

4.19.3.2 `void addKey (const KeyPosition & kp) [inline]`

4.19.3.3 `void addLeaveCallback (LayerCallback * lc) [inline]`

4.19.3.4 `void addRunString (const std::string & runString) [inline]`

4.19.3.5 `void callEnterCallbacks (osg::Node * node)`

4.19.3.6 `void callLeaveCallbacks (osg::Node * node)`

4.19.3.7 `double getDuration () const [inline]`

4.19.3.8 `const Keys& getKeys () const [inline]`

4.19.3.9 `int getLayerNum () const [inline]`

4.19.3.10 `bool getRelativeJump () const [inline]`

4.19.3.11 `const RunStrings& getRunStrings () const [inline]`

4.19.3.12 `int getSlideNum () const [inline]`

4.19.3.13 `bool requiresJump () const [inline]`

4.19.3.14 `void setDuration (double duration) [inline]`

4.19.3.15 `void setJump (bool relativeJump, int slideNum, int layerNum) [inline]`

4.19.3.16 `void setKeys (const Keys & keys) [inline]`

4.19.3.17 `void setRunStrings (const RunStrings & runStrings) [inline]`

#### 4.19.4 Member Data Documentation

4.19.4.1 `double _duration`

4.19.4.2 `LayerCallbacks _enterLayerCallbacks`

4.19.4.3 `Keys _keys`

4.19.4.4 `int _layerNum`

4.19.4.5 `LayerCallbacks _leaveLayerCallbacks`

4.19.4.6 `bool _relativeJump`

4.19.4.7 `RunStrings _runStrings`

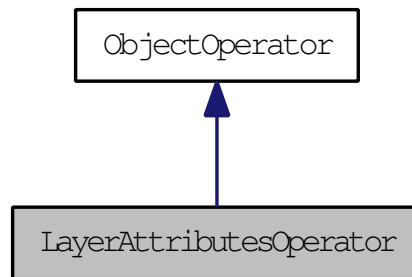
4.19.4.8 `int _slideNum`

The documentation for this struct was generated from the following files:

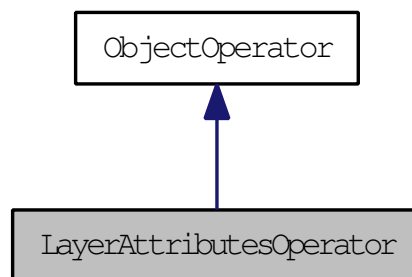
- [SlideEventHandler](#)
- [SlideEventHandler.cpp](#)

## 4.20 LayerAttributesOperator Struct Reference

Inheritance diagram for LayerAttributesOperator:



Collaboration diagram for LayerAttributesOperator:



### Public Member Functions

- [LayerAttributesOperator](#) (osg::Node \*node, [LayerAttributes](#) \*la)
- virtual void [enter](#) ()
- virtual void [leave](#) ()
- virtual void [maintain](#) ()
- virtual void \* [ptr](#) () const
- virtual void [reset](#) ()
- virtual void [setPause](#) (bool pause)

### Public Attributes

- osg::ref\_ptr< [LayerAttributes](#) > [\\_layerAttribute](#)
- osg::ref\_ptr< osg::Node > [\\_node](#)

#### 4.20.1 Constructor & Destructor Documentation

4.20.1.1 [LayerAttributesOperator](#) (osg::Node \* *node*, [LayerAttributes](#) \* *la*) [[inline](#)]

#### 4.20.2 Member Function Documentation

4.20.2.1 virtual void [enter](#) () [[inline](#), [virtual](#)]

Implements [ObjectOperator](#).

4.20.2.2 virtual void [leave](#) () [[inline](#), [virtual](#)]

Implements [ObjectOperator](#).

4.20.2.3 virtual void [maintain](#) () [[inline](#), [virtual](#)]

Implements [ObjectOperator](#).

**4.20.2.4 virtual void\* ptr () const [inline, virtual]**

Implements [ObjectOperator](#).

**4.20.2.5 virtual void reset () [inline, virtual]**

Implements [ObjectOperator](#).

**4.20.2.6 virtual void setPause (bool *pause*) [inline, virtual]**

Implements [ObjectOperator](#).

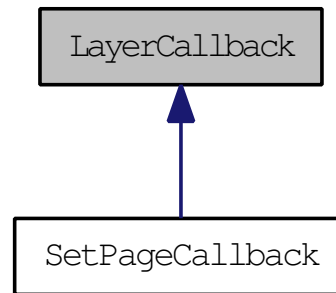
**4.20.3 Member Data Documentation****4.20.3.1 osg::ref\_ptr<LayerAttributes> \_layerAttribute****4.20.3.2 osg::ref\_ptr<osg::Node> \_node**

The documentation for this struct was generated from the following file:

- [SlideEventHandler.cpp](#)

## 4.21 LayerCallback Struct Reference

Inheritance diagram for LayerCallback:



### Public Member Functions

- virtual void [operator\(\)](#) (osg::Node \*node) const =0

#### 4.21.1 Member Function Documentation

##### 4.21.1.1 virtual void [operator\(\)](#) (osg::Node \* *node*) const [pure virtual]

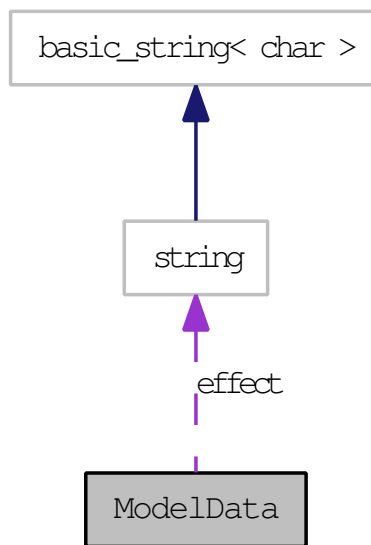
Implemented in [SetPageCallback](#).

The documentation for this struct was generated from the following file:

- [SlideEventHandler](#)

## 4.22 ModelData Struct Reference

Collaboration diagram for ModelData:



### Public Member Functions

- [ModelData \(\)](#)

### Public Attributes

- `std::string` [effect](#)

### 4.22.1 Constructor & Destructor Documentation

#### 4.22.1.1 `ModelData ()` [inline]

### 4.22.2 Member Data Documentation

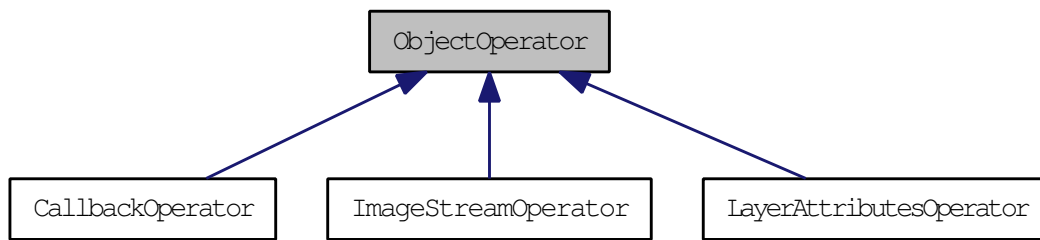
#### 4.22.2.1 `std::string effect`

The documentation for this struct was generated from the following file:

- [SlideShowConstructor](#)

## 4.23 ObjectOperator Struct Reference

Inheritance diagram for ObjectOperator:



### Public Member Functions

- virtual [~ObjectOperator](#) ()
- virtual void [enter](#) ()=0
- virtual void [leave](#) ()=0
- virtual void [maintain](#) ()=0
- bool [operator<](#) (const [ObjectOperator](#) &rhs) const
- virtual void \* [ptr](#) () const =0
- virtual void [reset](#) ()=0
- virtual void [setPause](#) (bool pause)=0

#### 4.23.1 Constructor & Destructor Documentation

**4.23.1.1** virtual [~ObjectOperator](#) () [[inline](#), [virtual](#)]

#### 4.23.2 Member Function Documentation

**4.23.2.1** virtual void [enter](#) () [[pure virtual](#)]

Implemented in [ImageStreamOperator](#), [CallbackOperator](#), and [LayerAttributesOperator](#).

**4.23.2.2** virtual void [leave](#) () [[pure virtual](#)]

Implemented in [ImageStreamOperator](#), [CallbackOperator](#), and [LayerAttributesOperator](#).

**4.23.2.3** virtual void [maintain](#) () [[pure virtual](#)]

Implemented in [ImageStreamOperator](#), [CallbackOperator](#), and [LayerAttributesOperator](#).

**4.23.2.4** bool [operator<](#) (const [ObjectOperator](#) & rhs) const [[inline](#)]

**4.23.2.5** virtual void\* [ptr](#) () const [[pure virtual](#)]

Implemented in [ImageStreamOperator](#), [CallbackOperator](#), and [LayerAttributesOperator](#).

**4.23.2.6** virtual void [reset](#) () [[pure virtual](#)]

Implemented in [ImageStreamOperator](#), [CallbackOperator](#), and [LayerAttributesOperator](#).

**4.23.2.7** virtual void [setPause](#) (bool *pause*) [[pure virtual](#)]

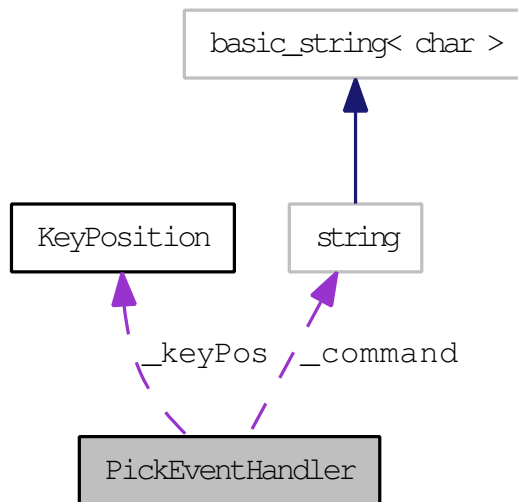
Implemented in [ImageStreamOperator](#), [CallbackOperator](#), and [LayerAttributesOperator](#).

The documentation for this struct was generated from the following file:

- [SlideEventHandler](#)

## 4.24 PickEventHandler Class Reference

Collaboration diagram for PickEventHandler:



### Public Member Functions

- `PickEventHandler` (const `osgPresentation::KeyPosition` &keyPos, bool relativeJump=true, int slideNum=0, int layerNum=0)
- `PickEventHandler` (const std::string &str, `osgPresentation::Operation` operation, bool relativeJump=true, int slideNum=0, int layerNum=0)
- `PickEventHandler` (`osgPresentation::Operation` operation, bool relativeJump=true, int slideNum=0, int layerNum=0)
- virtual void `accept` (`osgGA::GUIEventHandlerVisitor` &v)
- void `doOperation` ()
- const std::string & `getCommand` () const
- const `osgPresentation::KeyPosition` & `getKeyPosition` () const
- int `getLayerNum` () const
- `osgPresentation::Operation` `getOperation` () const
- bool `getRelativeJump` () const
- int `getSlideNum` () const
- virtual void `getUsage` (`osg::ApplicationUsage` &usage) const
- virtual bool `handle` (const `osgGA::GUIEventAdapter` &ea, `osgGA::GUIActionAdapter` &aa, `osg::Object` \*object, `osg::NodeVisitor` \*nv)
- bool `requiresJump` () const
- void `setAbsoluteJump` (int slideNum, int layerNum)
- void `setCommand` (const std::string &str)
- void `setKeyPosition` (const `osgPresentation::KeyPosition` &keyPos)
- void `setOperation` (`osgPresentation::Operation` operation)
- void `setRelativeJump` (int slideDelta, int layerDelta)

### Public Attributes

- std::string `_command`
- `osgPresentation::KeyPosition` `_keyPos`
- int `_layerNum`
- `osgPresentation::Operation` `_operation`
- bool `_relativeJump`
- int `_slideNum`

### 4.24.1 Constructor & Destructor Documentation

- 4.24.1.1 `PickEventHandler (osgPresentation::Operation operation, bool relativeJump = true, int slideNum = 0, int layerNum = 0)`
- 4.24.1.2 `PickEventHandler (const std::string & str, osgPresentation::Operation operation, bool relativeJump = true, int slideNum = 0, int layerNum = 0)`
- 4.24.1.3 `PickEventHandler (const osgPresentation::KeyPosition & keyPos, bool relativeJump = true, int slideNum = 0, int layerNum = 0)`

### 4.24.2 Member Function Documentation

- 4.24.2.1 `void accept (osgGA::GUIEventHandlerVisitor & v) [virtual]`
- 4.24.2.2 `void doOperation ()`
- 4.24.2.3 `const std::string& getCommand () const [inline]`
- 4.24.2.4 `const osgPresentation::KeyPosition& getKeyPosition () const [inline]`
- 4.24.2.5 `int getLayerNum () const [inline]`
- 4.24.2.6 `osgPresentation::Operation getOperation () const [inline]`
- 4.24.2.7 `bool getRelativeJump () const [inline]`
- 4.24.2.8 `int getSlideNum () const [inline]`
- 4.24.2.9 `void getUsage (osg::ApplicationUsage & usage) const [virtual]`
- 4.24.2.10 `bool handle (const osgGA::GUIEventAdapter & ea, osgGA::GUIActionAdapter & aa, osg::Object * object, osg::NodeVisitor * nv) [virtual]`
- 4.24.2.11 `bool requiresJump () const [inline]`
- 4.24.2.12 `void setAbsoluteJump (int slideNum, int layerNum)`
- 4.24.2.13 `void setCommand (const std::string & str) [inline]`
- 4.24.2.14 `void setKeyPosition (const osgPresentation::KeyPosition & keyPos) [inline]`
- 4.24.2.15 `void setOperation (osgPresentation::Operation operation) [inline]`
- 4.24.2.16 `void setRelativeJump (int slideDelta, int layerDelta)`

### 4.24.3 Member Data Documentation

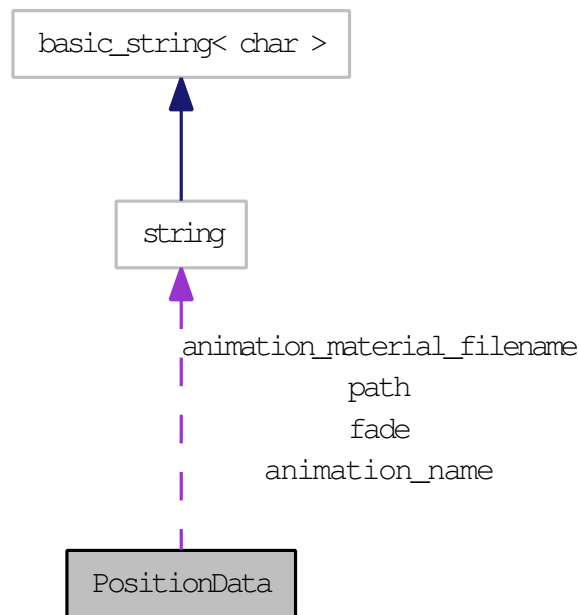
- 4.24.3.1 `std::string _command`
- 4.24.3.2 `osgPresentation::KeyPosition _keyPos`
- 4.24.3.3 `int _layerNum`
- 4.24.3.4 `osgPresentation::Operation _operation`
- 4.24.3.5 `bool _relativeJump`
- 4.24.3.6 `int _slideNum`

The documentation for this class was generated from the following files:

- [PickEventHandler](#)
- [PickEventHandler.cpp](#)

## 4.25 PositionData Struct Reference

Collaboration diagram for PositionData:



### Public Member Functions

- [PositionData](#) ()
- bool [requiresAnimation](#) () const
- bool [requiresMaterialAnimation](#) () const
- bool [requiresPosition](#) () const
- bool [requiresRotate](#) () const
- bool [requiresScale](#) () const

### Public Attributes

- bool [absolute\\_path](#)
- std::string [animation\\_material\\_filename](#)
- [AnimationMaterial::LoopMode](#) [animation\\_material\\_loop\\_mode](#)
- double [animation\\_material\\_time\\_multiplier](#)
- double [animation\\_material\\_time\\_offset](#)
- std::string [animation\\_name](#)
- std::string [fade](#)
- [CoordinateFrame](#) [frame](#)
- bool [inverse\\_path](#)
- std::string [path](#)
- [osg::AnimationPath::LoopMode](#) [path\\_loop\\_mode](#)
- double [path\\_time\\_multiplier](#)
- double [path\\_time\\_offset](#)
- [osg::Vec3](#) [position](#)
- [osg::Vec4](#) [rotate](#)
- [osg::Vec4](#) [rotation](#)
- [osg::Vec3](#) [scale](#)

## 4.25.1 Constructor & Destructor Documentation

4.25.1.1 `PositionData () [inline]`

## 4.25.2 Member Function Documentation

4.25.2.1 `bool requiresAnimation () const [inline]`

4.25.2.2 `bool requiresMaterialAnimation () const [inline]`

4.25.2.3 `bool requiresPosition () const [inline]`

4.25.2.4 `bool requiresRotate () const [inline]`

4.25.2.5 `bool requiresScale () const [inline]`

## 4.25.3 Member Data Documentation

4.25.3.1 `bool absolute_path`

4.25.3.2 `std::string animation_material_filename`

4.25.3.3 `AnimationMaterial::LoopMode animation_material_loop_mode`

4.25.3.4 `double animation_material_time_multiplier`

4.25.3.5 `double animation_material_time_offset`

4.25.3.6 `std::string animation_name`

4.25.3.7 `std::string fade`

4.25.3.8 `CoordinateFrame frame`

4.25.3.9 `bool inverse_path`

4.25.3.10 `std::string path`

4.25.3.11 `osg::AnimationPath::LoopMode path_loop_mode`

4.25.3.12 `double path_time_multiplier`

4.25.3.13 `double path_time_offset`

4.25.3.14 `osg::Vec3 position`

4.25.3.15 `osg::Vec4 rotate`

4.25.3.16 `osg::Vec4 rotation`

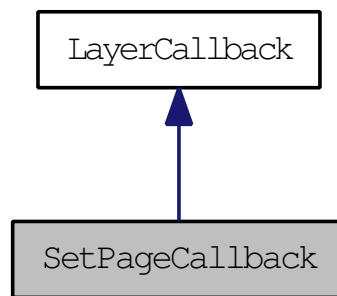
4.25.3.17 `osg::Vec3 scale`

The documentation for this struct was generated from the following file:

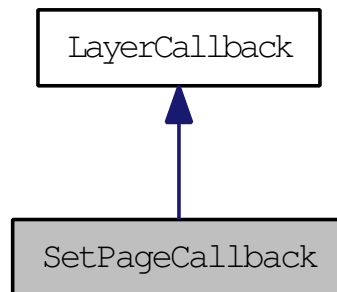
- [SlideShowConstructor](#)

## 4.26 SetPageCallback Class Reference

Inheritance diagram for SetPageCallback:



Collaboration diagram for SetPageCallback:



### Public Member Functions

- [SetPageCallback](#) (osgWidget::PdfImage \*pdfImage, int pageNum)
- virtual void [operator\(\)](#) (osg::Node \*) const

### Public Attributes

- int [\\_pageNum](#)
- osg::observer\_ptr< osgWidget::PdfImage > [\\_pdfImage](#)

#### 4.26.1 Constructor & Destructor Documentation

4.26.1.1 [SetPageCallback](#) (osgWidget::PdfImage \* *pdfImage*, int *pageNum*) [inline]

#### 4.26.2 Member Function Documentation

4.26.2.1 virtual void [operator\(\)](#) (osg::Node \*) const [inline, virtual]

Implements [LayerCallback](#).

#### 4.26.3 Member Data Documentation

4.26.3.1 int [\\_pageNum](#)

4.26.3.2 osg::observer\_ptr< osgWidget::PdfImage > [\\_pdfImage](#)

The documentation for this class was generated from the following file:

- [SlideShowConstructor.cpp](#)

## 4.27 SetToTransparentBin Class Reference

### Public Member Functions

- [SetToTransparentBin](#) ()
- virtual void [apply](#) (osg::Geode &geode)
- virtual void [apply](#) (osg::Node &node)

### 4.27.1 Constructor & Destructor Documentation

#### 4.27.1.1 [SetToTransparentBin](#) () [inline]

### 4.27.2 Member Function Documentation

#### 4.27.2.1 virtual void [apply](#) (osg::Geode & *geode*) [inline, virtual]

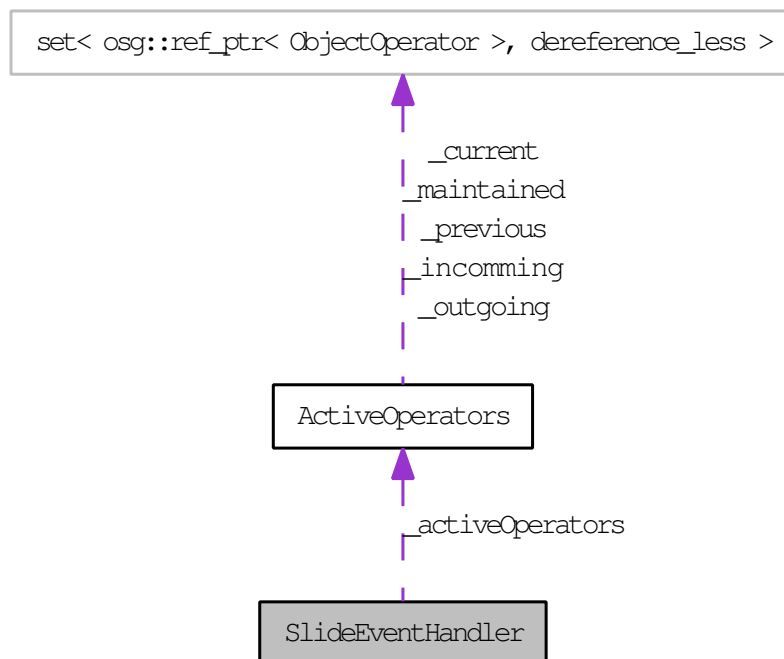
#### 4.27.2.2 virtual void [apply](#) (osg::Node & *node*) [inline, virtual]

The documentation for this class was generated from the following file:

- [SlideShowConstructor.cpp](#)

## 4.28 SlideEventHandler Class Reference

Collaboration diagram for SlideEventHandler:



### Public Types

- enum [ObjectMask](#) { [MOVIE](#) = 1<<0, [OBJECTS](#) = 1<<1, [ALL\\_OBJECTS](#) = MOVIE | OBJECTS }
- enum [WhichPosition](#) { [FIRST\\_POSITION](#) = 0, [LAST\\_POSITION](#) = -1 }

### Public Member Functions

- [SlideEventHandler](#) (osgViewer::Viewer \*viewer=0)
- virtual void [accept](#) (osgGA::GUIEventHandlerVisitor &v)
- void [compileSlide](#) (unsigned int slideNum)
- void [dispatchEvent](#) (const [KeyPosition](#) &keyPosition)
- int [getActiveLayer](#) () const
- int [getActiveSlide](#) () const
- bool [getAutoSteppingActive](#) () const
- double [getCurrentTimeDelayBetweenSlides](#) () const
- double [getDuration](#) (const osg::Node \*node) const
- bool [getLoopPresentation](#) () const
- unsigned int [getNumSlides](#) ()
- bool [getReleaseAndCompileOnEachNewSlide](#) () const
- double [getTimeDelayBetweenSlides](#) () const
- float [getTimeDelayOnNewSlideWithMovies](#) () const
- virtual void [getUsage](#) (osg::ApplicationUsage &usage) const
- osgViewer::Viewer \* [getViewer](#) ()
- virtual bool [handle](#) (const osgGA::GUIEventAdapter &ea, osgGA::GUIActionAdapter &)
- bool [home](#) ()
- [META\\_Object](#) (osgslideshowApp, [SlideEventHandler](#))
- bool [nextLayer](#) ()
- bool [nextLayerOrSlide](#) ()
- bool [nextSlide](#) ()
- virtual void [operator\(\)](#) (osg::Node \*node, osg::NodeVisitor \*nv)

*Event traversal node callback method.*

- bool [previousLayer](#) ()
- bool [previousLayerOrSlide](#) ()
- bool [previousSlide](#) ()
- void [releaseSlide](#) (unsigned int slideNum)
- bool [selectLayer](#) (int layerNum)
- bool [selectSlide](#) (int slideNum, int layerNum=FIRST\_POSITION)
- void [set](#) (osg::Node \*model)
- void [setAutoSteppingActive](#) (bool flag=true)
- void [setLoopPresentation](#) (bool loop)
- void [setReleaseAndCompileOnEachNewSlide](#) (bool flag)
- void [setTimeDelayBetweenSlides](#) (double dt)
- void [setTimeDelayOnNewSlideWithMovies](#) (float t)

### Static Public Member Functions

- static [SlideEventHandler](#) \* [instance](#) ()

### Protected Member Functions

- [SlideEventHandler](#) (const [SlideEventHandler](#) &, const osg::CopyOp &)
- [~SlideEventHandler](#) ()
- bool [home](#) (const osgGA::GUIEventAdapter &ea, osgGA::GUIActionAdapter &aa)
- void [updateAlpha](#) (bool, bool, float x, float y)
- void [updateLight](#) (float x, float y)
- void [updateOperators](#) ()

### Protected Attributes

- int [\\_activeLayer](#)
- [ActiveOperators](#) [\\_activeOperators](#)
- int [\\_activePresentation](#)
- int [\\_activeSlide](#)
- bool [\\_autoSteppingActive](#)
- osg::ref\_ptr< [CompileSlideCallback](#) > [\\_compileSlideCallback](#)
- bool [\\_cursorOn](#)
- bool [\\_firstSlideOrLayerChange](#)
- bool [\\_firstTraversal](#)
- bool [\\_hold](#)
- bool [\\_loopPresentation](#)
- double [\\_minimumTimeBetweenKeyPresses](#)
- bool [\\_pause](#)
- osg::observer\_ptr< osg::Switch > [\\_presentationSwitch](#)
- double [\\_previousTime](#)
- float [\\_previousX](#)
- float [\\_previousY](#)
- bool [\\_releaseAndCompileOnEachNewSlide](#)
- osg::observer\_ptr< osg::Switch > [\\_showSwitch](#)
- osg::observer\_ptr< osg::Switch > [\\_slideSwitch](#)
- osg::Timer\_t [\\_tickAtFirstSlideOrLayerChange](#)
- osg::Timer\_t [\\_tickAtLastSlideOrLayerChange](#)
- float [\\_timeDelayOnNewSlideWithMovies](#)
- double [\\_timeLastKeyPresses](#)
- double [\\_timePerSlide](#)
- bool [\\_updateLightActive](#)
- bool [\\_updateOpacityActive](#)
- osg::observer\_ptr< osgViewer::Viewer > [\\_viewer](#)

## 4.28.1 Member Enumeration Documentation

### 4.28.1.1 enum ObjectMask

Enumerator:

*MOVIE*

*OBJECTS*

*ALL\_OBJECTS*

### 4.28.1.2 enum WhichPosition

Enumerator:

*FIRST\_POSITION*

*LAST\_POSITION*

## 4.28.2 Constructor & Destructor Documentation

4.28.2.1 SlideEventHandler (osgViewer::Viewer \* *viewer* = 0)

4.28.2.2 ~SlideEventHandler () [inline, protected]

4.28.2.3 SlideEventHandler (const SlideEventHandler &, const osg::CopyOp &) [inline, protected]

## 4.28.3 Member Function Documentation

4.28.3.1 virtual void accept (osgGA::GUIEventHandlerVisitor & *v*) [inline, virtual]

4.28.3.2 void compileSlide (unsigned int *slideNum*)

4.28.3.3 void dispatchEvent (const KeyPosition & *keyPosition*)

4.28.3.4 int getActiveLayer () const [inline]

4.28.3.5 int getActiveSlide () const [inline]

4.28.3.6 bool getAutoSteppingActive () const [inline]

4.28.3.7 double getCurrentTimeDelayBetweenSlides () const

4.28.3.8 double getDuration (const osg::Node \* *node*) const

4.28.3.9 bool getLoopPresentation () const [inline]

4.28.3.10 unsigned int getNumSlides ()

4.28.3.11 bool getReleaseAndCompileOnEachNewSlide () const [inline]

4.28.3.12 double getTimeDelayBetweenSlides () const [inline]

4.28.3.13 float getTimeDelayOnNewSlideWithMovies () const [inline]

4.28.3.14 void getUsage (osg::ApplicationUsage & *usage*) const [virtual]

4.28.3.15 osgViewer::Viewer\* getView () [inline]

4.28.3.16 bool handle (const osgGA::GUIEventAdapter & *ea*, osgGA::GUIActionAdapter & *aa*)  
[virtual]

4.28.3.17 bool home (const osgGA::GUIEventAdapter & *ea*, osgGA::GUIActionAdapter & *aa*)  
[protected]

4.28.3.18 bool home ()

4.28.3.19 SlideEventHandler \* instance () [static]

4.28.3.20 META\_Object (osglideshowApp, SlideEventHandler)

4.28.3.21 bool nextLayer ()

4.28.3.22 bool nextLayerOrSlide ()

4.28.3.23 bool nextSlide ()

4.28.3.24 void operator() (osg::Node \* *node*, osg::NodeVisitor \* *nv*) [virtual]

Event traversal node callback method.



- 4.28.3.25 bool previousLayer ()
- 4.28.3.26 bool previousLayerOrSlide ()
- 4.28.3.27 bool previousSlide ()
- 4.28.3.28 void releaseSlide (unsigned int *slideNum*)
- 4.28.3.29 bool selectLayer (int *layerNum*)
- 4.28.3.30 bool selectSlide (int *slideNum*, int *layerNum* = FIRST\_POSITION)
- 4.28.3.31 void set (osg::Node \* *model*)
- 4.28.3.32 void setAutoSteppingActive (bool *flag* = true) [inline]
- 4.28.3.33 void setLoopPresentation (bool *loop*) [inline]
- 4.28.3.34 void setReleaseAndCompileOnEachNewSlide (bool *flag*) [inline]
- 4.28.3.35 void setTimeDelayBetweenSlides (double *dt*) [inline]
- 4.28.3.36 void setTimeDelayOnNewSlideWithMovies (float *t*) [inline]
- 4.28.3.37 void updateAlpha (bool *modAlphaFunc*, bool *modMaterial*, float *x*, float *y*) [protected]
- 4.28.3.38 void updateLight (float *x*, float *y*) [protected]
- 4.28.3.39 void updateOperators () [protected]

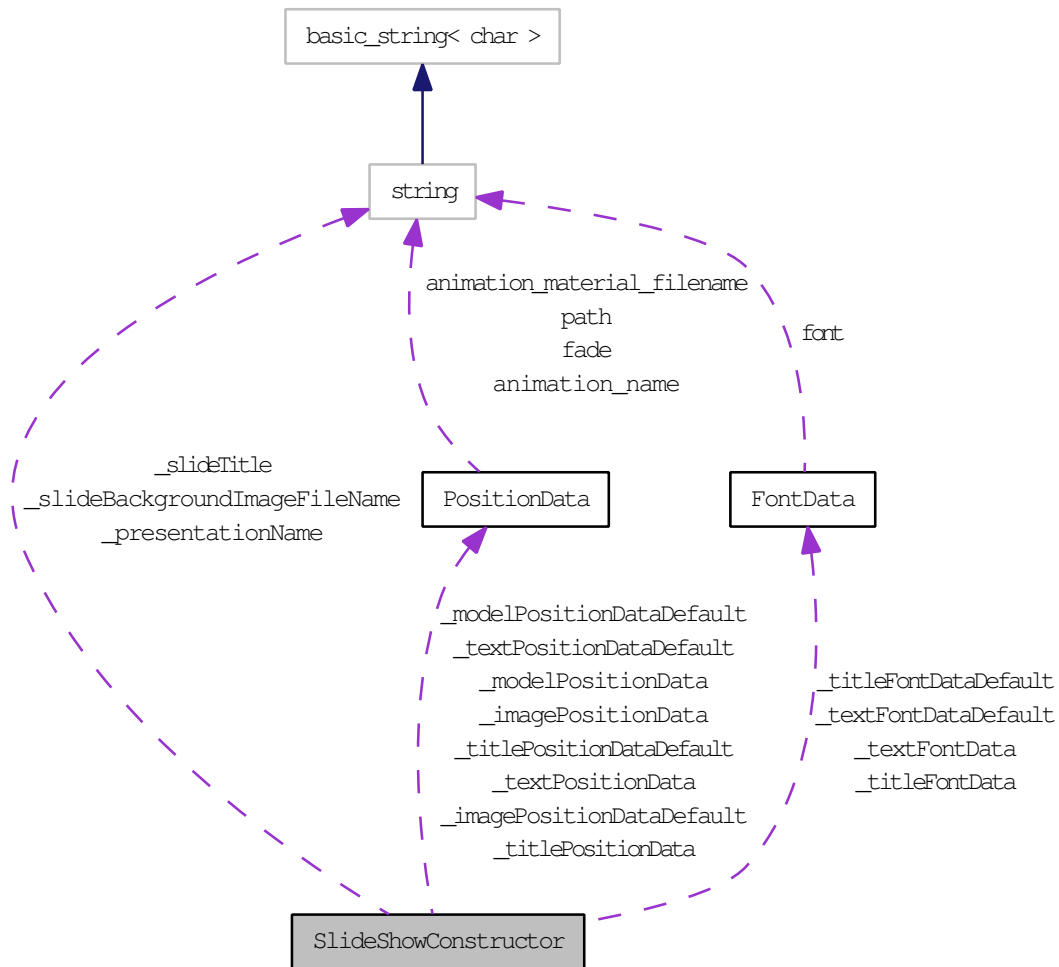
#### 4.28.4 Member Data Documentation

- 4.28.4.1 int *\_activeLayer* [protected]
- 4.28.4.2 ActiveOperators *\_activeOperators* [protected]
- 4.28.4.3 int *\_activePresentation* [protected]
- 4.28.4.4 int *\_activeSlide* [protected]
- 4.28.4.5 bool *\_autoSteppingActive* [protected]
- 4.28.4.6 osg::ref\_ptr<CompileSlideCallback> *\_compileSlideCallback* [protected]
- 4.28.4.7 bool *\_cursorOn* [protected]
- 4.28.4.8 bool *\_firstSlideOrLayerChange* [protected]
- 4.28.4.9 bool *\_firstTraversal* [protected]
- 4.28.4.10 bool *\_hold* [protected]
- 4.28.4.11 bool *\_loopPresentation* [protected]
- 4.28.4.12 double *\_minimumTimeBetweenKeyPresses* [protected]
- 4.28.4.13 bool *\_pause* [protected]
- 4.28.4.14 osg::observer\_ptr<osg::Switch> *\_presentationSwitch* [protected]
- 4.28.4.15 double *\_previousTime* [protected]
- 4.28.4.16 float *\_previousX* [protected]
- 4.28.4.17 float *\_previousY* [protected]
- 4.28.4.18 bool *\_releaseAndCompileOnEachNewSlide* [protected]
- 4.28.4.19 osg::observer\_ptr<osg::Switch> *\_showSwitch* [protected]
- 4.28.4.20 osg::observer\_ptr<osg::Switch> *\_slideSwitch* [protected]
- 4.28.4.21 osg::Timer\_t *\_tickAtFirstSlideOrLayerChange* [protected]
- 4.28.4.22 osg::Timer\_t *\_tickAtLastSlideOrLayerChange* [protected]
- 4.28.4.23 float *\_timeDelayOnNewSlideWithMovies* [protected]
- 4.28.4.24 double *\_timeLastKeyPresses* [protected]
- 4.28.4.25 double *\_timePerSlide* [protected]
- 4.28.4.26 bool *\_updateLightActive* [protected]
- 4.28.4.27 bool *\_updateOpacityActive* [protected]

- [SlideEventHandler](#)
- [SlideEventHandler.cpp](#)

## 4.29 SlideShowConstructor Class Reference

Collaboration diagram for SlideShowConstructor:



### Classes

- struct [FontData](#)
- struct [ImageData](#)
- struct [ModelData](#)
- struct [PositionData](#)
- struct [VolumeData](#)

### Public Types

- enum [CoordinateFrame](#) { [SLIDE](#), [MODEL](#) }

### Public Member Functions

- [SlideShowConstructor](#) (const osgDB::ReaderWriter::Options \*options)
- void [addBrowser](#) (const std::string &filename, const [PositionData](#) &positionData, const [ImageData](#) &imageData)
- void [addBullet](#) (const std::string &bullet, [PositionData](#) &positionData, [FontData](#) &fontData)
- void [addImage](#) (const std::string &filename, const [PositionData](#) &positionData, const [ImageData](#) &imageData)
- osg::Image \* [addInteractiveImage](#) (const std::string &filename, const [PositionData](#) &positionData, const [ImageData](#) &imageData)
- void [addKey](#) (osg::Node \*node, const [KeyPosition](#) &kp)

- void [addLayer](#) (bool inheritPreviousLayers=true, bool defineAsBaseLayer=false)
- void [addLayerKey](#) (const [KeyPosition](#) &kp)
- void [addLayerRunString](#) (const std::string &runString)
- void [addModel](#) (const std::string &filename, const [PositionData](#) &positionData, const [ModelData](#) &modelData)
- void [addModel](#) (osg::Node \*subgraph, const [PositionData](#) &positionData, const [ModelData](#) &modelData)
- void [addParagraph](#) (const std::string &paragraph, [PositionData](#) &positionData, [FontData](#) &fontData)
- void [addPDF](#) (const std::string &filename, const [PositionData](#) &positionData, const [ImageData](#) &imageData)
- void [addPresentationKey](#) (const [KeyPosition](#) &kp)
- void [addPresentationRunString](#) (const std::string &runString)
- void [addRunString](#) (osg::Node \*node, const std::string &runString)
- void [addSlide](#) ()
- void [addSlideKey](#) (const [KeyPosition](#) &kp)
- void [addSlideRunString](#) (const std::string &runString)
- void [addStereolImagePair](#) (const std::string &filenameLeft, const [ImageData](#) &imageDataLeft, const std::string &filenameRight, const [ImageData](#) &imageDataRight, const [PositionData](#) &positionData)
- void [addVNC](#) (const std::string &filename, const [PositionData](#) &positionData, const [ImageData](#) &imageData)
- void [addVolume](#) (const std::string &filename, const [PositionData](#) &positionData, const [VolumeData](#) &volumeData)
- void [createPresentation](#) ()
- bool [getAutoSteppingActive](#) () const
- const osg::Vec4 & [getBackgroundColor](#) () const
- osg::Group \* [getCurrentLayer](#) ()
- osg::Switch \* [getCurrentSlide](#) ()
- [PositionData](#) & [getImagePositionData](#) ()
- [PositionData](#) & [getImagePositionDataDefault](#) ()
- bool [getLoopPresentation](#) () const
- [PositionData](#) & [getModelPositionData](#) ()
- [PositionData](#) & [getModelPositionDataDefault](#) ()
- [LayerAttributes](#) \* [getOrCreateLayerAttributes](#) (osg::Node \*node)
- osg::Group \* [getPresentation](#) ()
- osg::Switch \* [getPresentationSwitch](#) ()
- const osg::Vec4 & [getTextColor](#) () const
- [FontData](#) & [getTextFontData](#) ()
- [FontData](#) & [getTextFontDataDefault](#) ()
- [PositionData](#) & [getTextPositionData](#) ()
- [PositionData](#) & [getTextPositionDataDefault](#) ()
- [FontData](#) & [getTitleFontData](#) ()
- [FontData](#) & [getTitleFontDataDefault](#) ()
- [PositionData](#) & [getTitlePositionData](#) ()
- [PositionData](#) & [getTitlePositionDataDefault](#) ()
- void [layerClickEventOperation](#) (const [KeyPosition](#) &keyPos, bool relativeJump=true, int slideNum=0, int layerNum=0)
- void [layerClickToDoOperation](#) (const std::string &command, [Operation](#) operation, bool relativeJump=true, int slideNum=0, int layerNum=0)
- void [layerClickToDoOperation](#) ([Operation](#) operation, bool relativeJump=true, int slideNum=0, int layerNum=0)
- void [selectLayer](#) (int layerNum)
- void [selectSlide](#) (int slideNum)
- void [setAutoSteppingActive](#) (bool flag=true)
- void [setBackgroundColor](#) (const osg::Vec4 &color, bool updateClearNode)
- void [setDuration](#) (osg::Node \*node, double duration)
- void [setJump](#) (osg::Node \*node, bool relativeJump, int slideNum, int layerNum)
- void [setLayerDuration](#) (double duration)
- void [setLayerJump](#) (bool relativeJump, int switchNum, int layerNum)
- void [setLoopPresentation](#) (bool loop)
- void [setPresentationAspectRatio](#) (const std::string &str)

- void [setPresentationAspectRatio](#) (float aspectRatio)
- void [setPresentationDuration](#) (double duration)
- void [setPresentationName](#) (const std::string &name)
- void [setSlideBackground](#) (const std::string &name)
- void [setSlideDuration](#) (double duration)
- void [setSlideJump](#) (bool relativeJump, int switchNum, int layerNum)
- void [setSlideTitle](#) (const std::string &name, [PositionData](#) &positionData, [FontData](#) &fontData)
- void [setTextColor](#) (const osg::Vec4 &color)
- osg::Group \* [takePresentation](#) ()
- void [translateTextCursor](#) (const osg::Vec3 &delta)

### Protected Member Functions

- osg::Node \* [attachMaterialAnimation](#) (osg::Node \*model, const [PositionData](#) &positionData)
- bool [attachTexMat](#) (osg::StateSet \*stateset, const [ImageData](#) &imageData, float s, float t, bool textureRectangle)
- osg::Vec3 [computePositionInModelCoords](#) (const [PositionData](#) &positionData) const
- osg::Vec3 [convertModelToSlide](#) (const osg::Vec3 &position) const
- osg::Vec3 [convertSlideToModel](#) (const osg::Vec3 &position) const
- osg::Geometry \* [createTexturedQuadGeometry](#) (const osg::Vec3 &pos, const osg::Vec4 &rotation, float width, float height, osg::Image \*image, bool &usedTextureRectangle)
- osg::StateSet \* [createTransformStateSet](#) ()
- std::string [findFileAndRecordPath](#) (const std::string &filename)
- void [findImageStreamsAndAddCallbacks](#) (osg::Node \*node)
- osg::AnimationPathCallback \* [getAnimationPathCallback](#) (const [PositionData](#) &positionData)
- void [recordOptionsFilePath](#) (const osgDB::Options \*options)
- void [updatePositionFromInModelCoords](#) (const osg::Vec3 &vertex, [PositionData](#) &positionData) const

### Protected Attributes

- bool [\\_autoSteppingActive](#)
- osg::Vec4 [\\_backgroundColor](#)
- osg::ref\_ptr< osg::Group > [\\_currentLayer](#)
- osg::Vec3 [\\_eyeOrigin](#)
- osg::ref\_ptr< [FilePathData](#) > [\\_filePathData](#)
- [PositionData](#) [\\_imagePositionData](#)
- [PositionData](#) [\\_imagePositionDataDefault](#)
- bool [\\_loopPresentation](#)
- [PositionData](#) [\\_modelPositionData](#)
- [PositionData](#) [\\_modelPositionDataDefault](#)
- osg::ref\_ptr< const osgDB::ReaderWriter::Options > [\\_options](#)
- double [\\_presentationDuration](#)
- std::string [\\_presentationName](#)
- osg::ref\_ptr< osg::Switch > [\\_presentationSwitch](#)
- osg::ref\_ptr< osg::Group > [\\_previousLayer](#)
- osg::ref\_ptr< osg::Group > [\\_root](#)
- osg::ref\_ptr< osg::Switch > [\\_slide](#)
- std::string [\\_slideBackgroundImageFileName](#)
- osg::ref\_ptr< osg::ClearNode > [\\_slideClearNode](#)
- float [\\_slideDistance](#)
- float [\\_slideHeight](#)
- osg::Vec3 [\\_slideOrigin](#)
- std::string [\\_slideTitle](#)
- float [\\_slideWidth](#)
- [FontData](#) [\\_textFontData](#)
- [FontData](#) [\\_textFontDataDefault](#)
- [PositionData](#) [\\_textPositionData](#)

- [PositionData\\_textPositionDataDefault](#)
- [FontData\\_titleFontData](#)
- [FontData\\_titleFontDataDefault](#)
- [PositionData\\_titlePositionData](#)
- [PositionData\\_titlePositionDataDefault](#)

## 4.29.1 Member Enumeration Documentation

### 4.29.1.1 enum CoordinateFrame

Enumerator:

***SLIDE***

***MODEL***



## 4.29.2 Constructor & Destructor Documentation

4.29.2.1 SlideShowConstructor (const osgDB::ReaderWriter::Options \* *options*)

## 4.29.3 Member Function Documentation

- 4.29.3.1 void addBrowser (const std::string & *filename*, const PositionData & *positionData*, const ImageData & *imageData*)
- 4.29.3.2 void addBullet (const std::string & *bullet*, PositionData & *positionData*, FontData & *fontData*)
- 4.29.3.3 void addImage (const std::string & *filename*, const PositionData & *positionData*, const ImageData & *imageData*)
- 4.29.3.4 osg::Image \* addInteractivelImage (const std::string & *filename*, const PositionData & *positionData*, const ImageData & *imageData*)
- 4.29.3.5 void addKey (osg::Node \* *node*, const KeyPosition & *kp*) [inline]
- 4.29.3.6 void addLayer (bool *inheritPreviousLayers* = true, bool *defineAsBaseLayer* = false)
- 4.29.3.7 void addLayerKey (const KeyPosition & *kp*) [inline]
- 4.29.3.8 void addLayerRunString (const std::string & *runString*) [inline]
- 4.29.3.9 void addModel (const std::string & *filename*, const PositionData & *positionData*, const ModelData & *modelData*)
- 4.29.3.10 void addModel (osg::Node \* *subgraph*, const PositionData & *positionData*, const ModelData & *modelData*)
- 4.29.3.11 void addParagraph (const std::string & *paragraph*, PositionData & *positionData*, FontData & *fontData*)
- 4.29.3.12 void addPDF (const std::string & *filename*, const PositionData & *positionData*, const ImageData & *imageData*)
- 4.29.3.13 void addPresentationKey (const KeyPosition & *kp*) [inline]
- 4.29.3.14 void addPresentationRunString (const std::string & *runString*) [inline]
- 4.29.3.15 void addRunString (osg::Node \* *node*, const std::string & *runString*) [inline]
- 4.29.3.16 void addSlide ()
- 4.29.3.17 void addSlideKey (const KeyPosition & *kp*) [inline]
- 4.29.3.18 void addSlideRunString (const std::string & *runString*) [inline]
- 4.29.3.19 void addStereolImagePair (const std::string & *filenameLeft*, const ImageData & *imageDataLeft*, const std::string & *filenameRight*, const ImageData & *imageDataRight*, const PositionData & *positionData*)
- 4.29.3.20 void addVNC (const std::string & *filename*, const PositionData & *positionData*, const ImageData & *imageData*)
- 4.29.3.21 void addVolume (const std::string & *filename*, const PositionData & *positionData*, const VolumeData & *volumeData*)
- 4.29.3.22 osg::Node \* attachMaterialAnimation (osg::Node \* *model*, const PositionData & *positionData*) [protected]
- 4.29.3.23 bool attachTexMat (osg::StateSet \* *stateset*, const ImageData & *imageData*, float *s*, float *t*, bool *textureRectangle*) [protected]
- 4.29.3.24 osg::Vec3 computePositionInModelCoords (const PositionData & *positionData*) const [protected]
- 4.29.3.25 osg::Vec3 convertModelToSlide (const osg::Vec3 & *position*) const [protected]
- 4.29.3.26 osg::Vec3 convertSlideToModel (const osg::Vec3 & *position*) const [protected]
- 4.29.3.27 void createPresentation ()
- 4.29.3.28 ~~osg::Geometry \* createTexturedQuadGeometry (const osg::Vec3 & *pos*, const osg::Vec4 & *rotation*, float *width*, float *height*, osg::Image \* *image*, bool & *usedTextureRectangle*)~~ [protected]
- 4.29.3.29 osg::StateSet\* createTransformStateSet () [inline, protected]

- [SlideShowConstructor](#)
- [SlideShowConstructor.cpp](#)

## 4.30 UpdateAlphaVisitor Class Reference

### Public Member Functions

- [UpdateAlphaVisitor](#) (bool modAlphaFunc, bool modMaterial, float currentX, float currentY)
- void [apply](#) (osg::StateSet &stateset)
- void [apply](#) (osg::Node &node)

### Public Attributes

- float [\\_currentX](#)
- float [\\_currentY](#)
- bool [\\_modAlphaFunc](#)
- bool [\\_modMaterial](#)

### 4.30.1 Constructor & Destructor Documentation

**4.30.1.1 UpdateAlphaVisitor (bool *modAlphaFunc*, bool *modMaterial*, float *currentX*, float *currentY*)**  
[inline]

### 4.30.2 Member Function Documentation

**4.30.2.1 void apply (osg::StateSet & *stateset*)** [inline]

**4.30.2.2 void apply (osg::Node & *node*)** [inline]

### 4.30.3 Member Data Documentation

**4.30.3.1 float [\\_currentX](#)**

**4.30.3.2 float [\\_currentY](#)**

**4.30.3.3 bool [\\_modAlphaFunc](#)**

**4.30.3.4 bool [\\_modMaterial](#)**

The documentation for this class was generated from the following file:

- [SlideEventHandler.cpp](#)

## 4.31 UpdateLightVisitor Class Reference

### Public Member Functions

- [UpdateLightVisitor](#) (const osg::Matrixd &viewMatrix, float currentX, float currentY)
- void [apply](#) (osg::TexEnvCombine &texenv)
- void [apply](#) (osg::StateSet &stateset)
- void [apply](#) (osg::LightSource &lightsource)
- void [apply](#) (osg::Node &node)

### Public Attributes

- float [\\_currentX](#)
- float [\\_currentY](#)
- osg::Matrixd [\\_viewMatrix](#)

#### 4.31.1 Constructor & Destructor Documentation

4.31.1.1 [UpdateLightVisitor](#) (const osg::Matrixd & *viewMatrix*, float *currentX*, float *currentY*) [inline]

#### 4.31.2 Member Function Documentation

4.31.2.1 void [apply](#) (osg::TexEnvCombine & *texenv*) [inline]

4.31.2.2 void [apply](#) (osg::StateSet & *stateset*) [inline]

4.31.2.3 void [apply](#) (osg::LightSource & *lightsource*) [inline]

4.31.2.4 void [apply](#) (osg::Node & *node*) [inline]

#### 4.31.3 Member Data Documentation

4.31.3.1 float [\\_currentX](#)

4.31.3.2 float [\\_currentY](#)

4.31.3.3 osg::Matrixd [\\_viewMatrix](#)

The documentation for this class was generated from the following file:

- [SlideEventHandler.cpp](#)

## 4.32 VolumeData Struct Reference

### Public Types

- enum [ShadingModel](#) { [Standard](#), [Light](#), [Isosurface](#), [MaximumIntensityProjection](#) }

### Public Member Functions

- [VolumeData](#) ()

### Public Attributes

- float [alphaValue](#)
- float [cutoffValue](#)
- float [region](#) [6]
- bool [region\\_in\\_pixel\\_coords](#)
- float [sampleDensityValue](#)
- [ShadingModel](#) [shadingModel](#)
- [osg::ref\\_ptr](#)< [osg::TransferFunction1D](#) > [transferFunction](#)
- bool [useTabbedDragger](#)
- bool [useTrackballDragger](#)

### 4.32.1 Member Enumeration Documentation

#### 4.32.1.1 enum ShadingModel

Enumerator:

*Standard*

*Light*

*Isosurface*

*MaximumIntensityProjection*

### 4.32.2 Constructor & Destructor Documentation

#### 4.32.2.1 [VolumeData](#) () [inline]

### 4.32.3 Member Data Documentation

#### 4.32.3.1 float [alphaValue](#)

#### 4.32.3.2 float [cutoffValue](#)

#### 4.32.3.3 float [region](#)[6]

#### 4.32.3.4 bool [region\\_in\\_pixel\\_coords](#)

#### 4.32.3.5 float [sampleDensityValue](#)

#### 4.32.3.6 [ShadingModel](#) [shadingModel](#)

#### 4.32.3.7 [osg::ref\\_ptr](#)<[osg::TransferFunction1D](#)> [transferFunction](#)

#### 4.32.3.8 bool [useTabbedDragger](#)

#### 4.32.3.9 bool [useTrackballDragger](#)

The documentation for this struct was generated from the following file:

- [SlideShowConstructor](#)



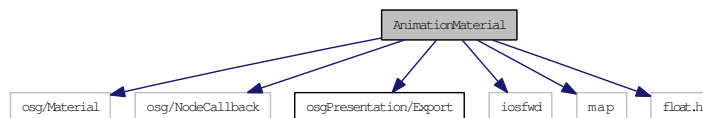
# File Documentation

---

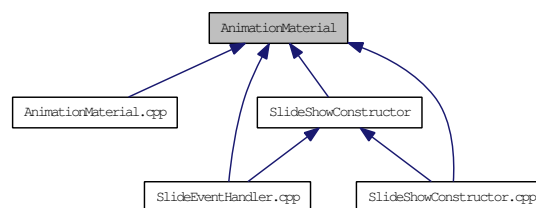
## 5.1 AnimationMaterial File Reference

```
#include <osg/Material>
#include <osg/NodeCallback>
#include <osgPresentation/Export>
#include <iosfwd>
#include <map>
#include <float.h>
```

Include dependency graph for AnimationMaterial:



This graph shows which files directly or indirectly include this file:



### Classes

- class [AnimationMaterial](#)  
*AnimationMaterial* for specify the time varying transformation pathway to use when update camera and model objects.
- class [AnimationMaterialCallback](#)

### Namespaces

- namespace [osgPresentation](#)  
*The osgPresentation library is a NodeKit that extends the core scene graph to support 3D scene graph based presentations.*

**Defines**

- #define [OSG\\_ANIMATIONMATERIAL](#) 1

**5.1.1 Define Documentation****5.1.1.1 #define OSG\_ANIMATIONMATERIAL 1**

## 5.2 AnimationMaterial.cpp File Reference

```
#include <osgPresentation/AnimationMaterial>
```

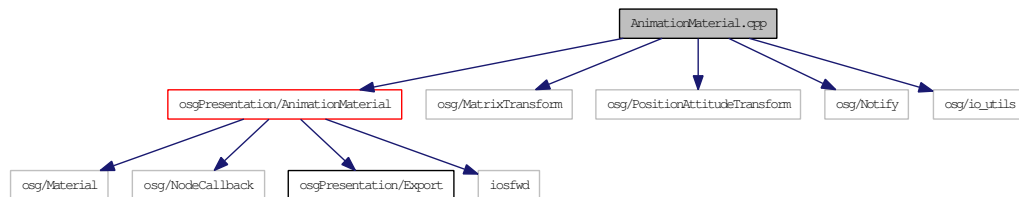
```
#include <osg/MatrixTransform>
```

```
#include <osg/PositionAttitudeTransform>
```

```
#include <osg/Notify>
```

```
#include <osg/io_utils>
```

Include dependency graph for AnimationMaterial.cpp:



### Functions

- `template<class T >`  
`T interp (float r, const T &lhs, const T &rhs)`

#### 5.2.1 Function Documentation

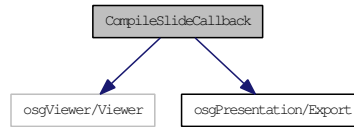
##### 5.2.1.1 `T interp (float r, const T &lhs, const T &rhs)` [inline]

## 5.3 CompileSlideCallback File Reference

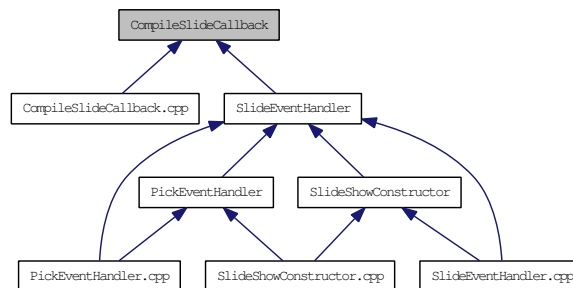
```
#include <osgViewer/Viewer>
```

```
#include <osgPresentation/Export>
```

Include dependency graph for CompileSlideCallback:



This graph shows which files directly or indirectly include this file:



### Classes

- class [CompileSlideCallback](#)

### Namespaces

- namespace [osgPresentation](#)

*The [osgPresentation](#) library is a NodeKit that extends the core scene graph to support 3D scene graph based presentations.*

### Defines

- #define [OSG\\_COMPILESLIDECALLBACK](#) 1

#### 5.3.1 Define Documentation

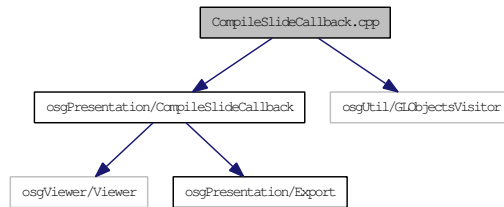
##### 5.3.1.1 #define OSG\_COMPILESLIDECALLBACK 1

## 5.4 CompileSlideCallback.cpp File Reference

```
#include <osgPresentation/CompileSlideCallback>
```

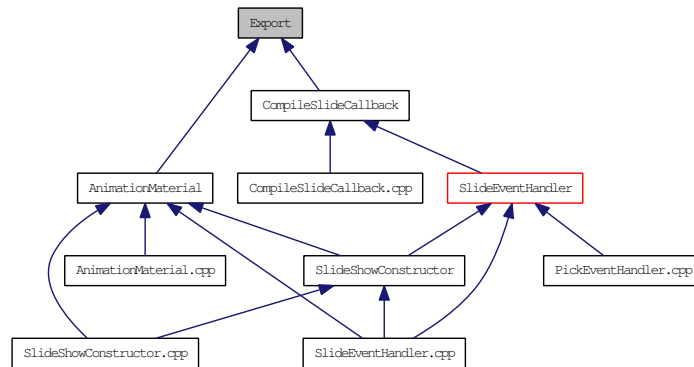
```
#include <osgUtil/GLObjectsVisitor>
```

Include dependency graph for CompileSlideCallback.cpp:



## 5.5 Export File Reference

This graph shows which files directly or indirectly include this file:



### Namespaces

- namespace [osgPresentation](#)

*The [osgPresentation](#) library is a NodeKit that extends the core scene graph to support 3D scene graph based presentations.*

### Defines

- #define [OSGPresentation\\_EXPORT](#)
- #define [OSGPresentation\\_EXPORT\\_1](#)

#### 5.5.1 Define Documentation

##### 5.5.1.1 #define OSGPRESENTATION\_EXPORT

##### 5.5.1.2 #define OSGPRESENTATION\_EXPORT\_1

## 5.6 mainpage.h File Reference

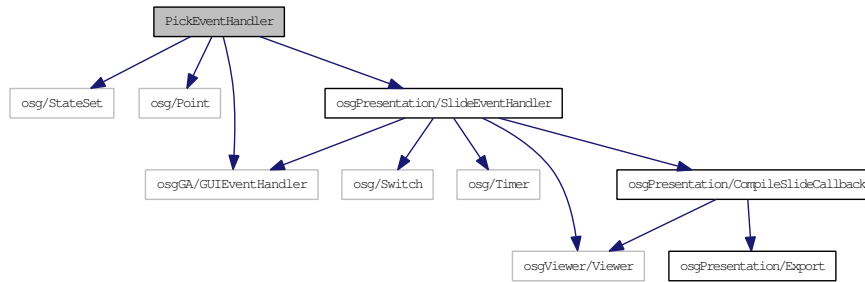
### 5.6.1 Detailed Description

This file contains doxygen special commands and text for the [Main Page](#) and some other minor aspects of this documentation. It is not part of the OSG.

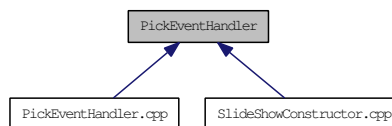
## 5.7 PickEventHandler File Reference

```
#include <osg/StateSet>
#include <osg/Point>
#include <osgGA/GUIEventHandler>
#include <osgPresentation/SlideEventHandler>
```

Include dependency graph for PickEventHandler:



This graph shows which files directly or indirectly include this file:



### Classes

- class [PickEventHandler](#)

### Namespaces

- namespace [osgPresentation](#)

*The [osgPresentation](#) library is a NodeKit that extends the core scene graph to support 3D scene graph based presentations.*

### Defines

- #define [PICKEVENTHANDLER](#) 1

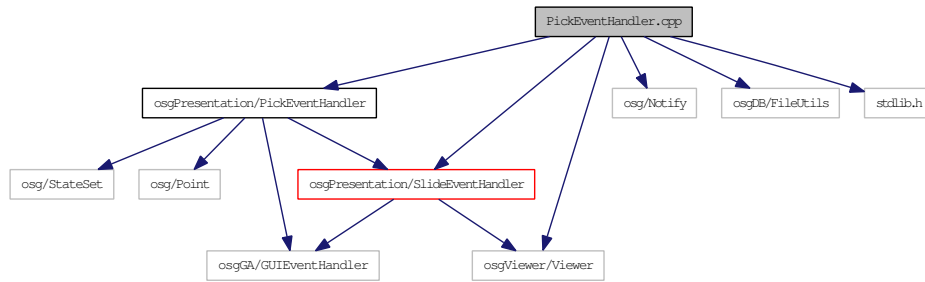
#### 5.7.1 Define Documentation

##### 5.7.1.1 #define PICKEVENTHANDLER 1

## 5.8 PickEventHandler.cpp File Reference

```
#include <osgPresentation/PickEventHandler>
#include <osgPresentation/SlideEventHandler>
#include <osgViewer/Viewer>
#include <osg/Notify>
#include <osgDB/FileUtils>
#include <stdlib.h>
```

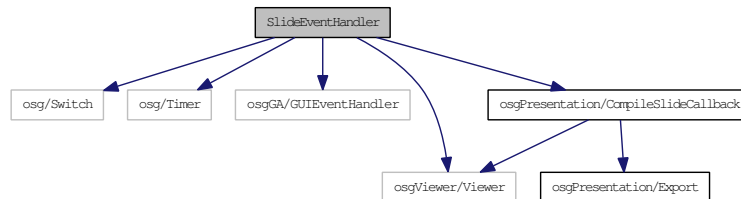
Include dependency graph for PickEventHandler.cpp:



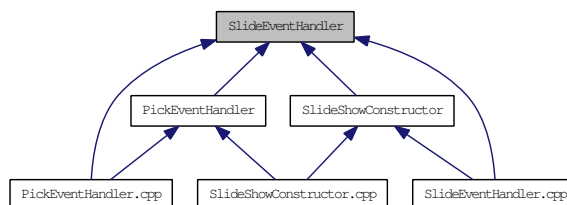
## 5.9 SlideEventHandler File Reference

```
#include <osg/Switch>
#include <osg/Timer>
#include <osgGA/GUIEventHandler>
#include <osgViewer/Viewer>
#include <osgPresentation/CompileSlideCallback>
```

Include dependency graph for SlideEventHandler:



This graph shows which files directly or indirectly include this file:



### Classes

- class [ActiveOperators](#)
- struct [dereference\\_less](#)
- struct [FilePathData](#)
- struct [HomePosition](#)
- struct [KeyPosition](#)
- struct [LayerAttributes](#)
- struct [LayerCallback](#)
- struct [ObjectOperator](#)
- class [SlideEventHandler](#)

### Namespaces

- namespace [osgPresentation](#)

*The [osgPresentation](#) library is a NodeKit that extends the core scene graph to support 3D scene graph based presentations.*

### Defines

- #define [SLIDEEVENTHANDLER](#) 1

### Enumerations

- enum [Operation](#) { [RUN](#), [LOAD](#), [EVENT](#), [JUMP](#) }
- Operations related to click to run/load/key events.*

### 5.9.1 Define Documentation

#### 5.9.1.1 #define SLIDEEVENTHANDLER 1

## 5.10 SlideEventHandler.cpp File Reference

```
#include <osgPresentation/SlideEventHandler>
#include <osgPresentation/SlideShowConstructor>
#include <osg/AnimationPath>
#include <osg/Transform>
#include <osg/TexEnvCombine>
#include <osg/LightSource>
#include <osg/AlphaFunc>
#include <osg/io_utils>
#include <osgUtil/TransformCallback>
#include <osgUtil/GLObjectsVisitor>
#include <osgGA/AnimationPathManipulator>
#include <osgPresentation/AnimationMaterial>
#include <iostream>
```

### Classes

- struct [CallbackOperator](#)
- class [FindFilePathDataVisitor](#)
- class [FindHomePositionVisitor](#)
- class [FindNamedSwitchVisitor](#)
- class [FindOperatorsVisitor](#)
- struct [ImageStreamOperator](#)
- struct [LayerAttributesOperator](#)
- class [UpdateAlphaVisitor](#)
- class [UpdateLightVisitor](#)

### Variables

- static `osg::observer_ptr< SlideEventHandler > s_seh`

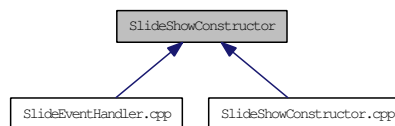
#### 5.10.1 Variable Documentation

**5.10.1.1** `osg::observer_ptr<SlideEventHandler> s_seh` [static]

## 5.11 SlideShowConstructor File Reference

```
#include <osg/Vec3>
#include <osg/Vec4>
#include <osg/Group>
#include <osg/ClearNode>
#include <osg/Switch>
#include <osg/AnimationPath>
#include <osg/TransferFunction>
#include <osg/ImageStream>
#include <osgText/Text>
#include <osgGA/GUIEventAdapter>
#include <osgDB/FileUtils>
#include <osgPresentation/AnimationMaterial>
#include <osgPresentation/SlideEventHandler>
```

This graph shows which files directly or indirectly include this file:



### Classes

- struct [FontData](#)
- struct [ImageData](#)
- struct [ModelData](#)
- struct [PositionData](#)
- class [SlideShowConstructor](#)
- struct [VolumeData](#)

### Namespaces

- namespace [osgPresentation](#)

*The [osgPresentation](#) library is a NodeKit that extends the core scene graph to support 3D scene graph based presentations.*

## 5.12 SlideShowConstructor.cpp File Reference

```
#include <osgPresentation/SlideShowConstructor>
#include <osg/Geometry>
#include <osg/PolygonOffset>
#include <osg/Geode>
#include <osg/Texture2D>
#include <osg/TextureRectangle>
#include <osg/MatrixTransform>
#include <osg/PositionAttitudeTransform>
#include <osg/TexMat>
#include <osg/ShapeDrawable>
#include <osg/Notify>
#include <osg/io_utils>
#include <osgUtil/TransformCallback>
#include <osgDB/ReadFile>
#include <osgDB/WriteFile>
#include <osgDB/FileUtils>
#include <osgDB/Input>
#include <osgDB/FileNameUtils>
#include <osgWidget/PdfReader>
#include <osgViewer/ViewerEventHandlers>
#include <osgText/Text>
#include <osgFX/SpecularHighlights>
#include <osgVolume/Volume>
#include <osgVolume/RayTracedTechnique>
#include <osgVolume/FixedFunctionTechnique>
#include <sstream>
#include <algorithm>
#include <osgPresentation/AnimationMaterial>
#include <osgPresentation/PickEventHandler>
#include <osgManipulator/TabBoxDragger>
#include <osgManipulator/TabBoxTrackballDragger>
#include <osgManipulator/TrackballDragger>
```

### Classes

- class [DraggerVolumeTileCallback](#)
- class [FindImageStreamsVisitor](#)
- class [SetPageCallback](#)
- class [SetToTransparentBin](#)

# Index

---

## - Symbols -

- ~ActiveOperators
  - osgPresentation::ActiveOperators, 10
- ~AnimationMaterial
  - osgPresentation::AnimationMaterial, 12
- ~AnimationMaterialCallback
  - osgPresentation::AnimationMaterialCallback, 14
- ~CompileSlideCallback
  - osgPresentation::CompileSlideCallback, 18
- ~ObjectOperator
  - osgPresentation::ObjectOperator, 40
- ~SlideEventHandler
  - osgPresentation::SlideEventHandler, 50
- \_activeLayer
  - osgPresentation::SlideEventHandler, 52
- \_activeOperators
  - osgPresentation::SlideEventHandler, 52
- \_activePresentation
  - osgPresentation::SlideEventHandler, 52
- \_activeSlide
  - osgPresentation::SlideEventHandler, 52
- \_animationMaterial
  - osgPresentation::AnimationMaterialCallback, 15
- \_autoSteppingActive
  - osgPresentation::SlideEventHandler, 52
  - osgPresentation::SlideShowConstructor, 59
- \_backgroundColor
  - osgPresentation::SlideShowConstructor, 59
- \_callback
  - CallbackOperator, 17
- \_command
  - osgPresentation::PickEventHandler, 42
- \_compileSlideCallback
  - osgPresentation::SlideEventHandler, 52
- \_current
  - osgPresentation::ActiveOperators, 10
- \_currentLayer
  - osgPresentation::SlideShowConstructor, 59
- \_currentX
  - UpdateAlphaVisitor, 61
  - UpdateLightVisitor, 62
- \_currentY
  - UpdateAlphaVisitor, 61
  - UpdateLightVisitor, 62
- \_cursorOn
  - osgPresentation::SlideEventHandler, 52
- \_duration
  - osgPresentation::LayerAttributes, 34
- \_enterLayerCallbacks
  - osgPresentation::LayerAttributes, 34
- \_eyeOrigin
  - osgPresentation::SlideShowConstructor, 59
- \_filePathData
  - osgPresentation::SlideShowConstructor, 59
- \_firstSlideOrLayerChange
  - osgPresentation::SlideEventHandler, 52
- \_firstTime
  - osgPresentation::AnimationMaterialCallback, 15
- \_firstTraversal
  - osgPresentation::SlideEventHandler, 52
- \_frameNumber
  - osgPresentation::CompileSlideCallback, 18
- \_hold
  - osgPresentation::SlideEventHandler, 52
- \_homePosition
  - FindHomePositionVisitor, 23
- \_imagePositionData
  - osgPresentation::SlideShowConstructor, 59
- \_imagePositionDataDefault
  - osgPresentation::SlideShowConstructor, 59
- \_imageStream
  - ImageStreamOperator, 31
- \_incomming
  - osgPresentation::ActiveOperators, 10
- \_key
  - osgPresentation::KeyPosition, 32
- \_keyPos
  - osgPresentation::PickEventHandler, 42
- \_keys
  - osgPresentation::LayerAttributes, 34
- \_latestTime
  - osgPresentation::AnimationMaterialCallback, 15
- \_layerAttribute
  - LayerAttributesOperator, 37
- \_layerNum
  - osgPresentation::LayerAttributes, 34
  - osgPresentation::PickEventHandler, 42
- \_leaveLayerCallbacks
  - osgPresentation::LayerAttributes, 34
- \_localToWorld
  - DraggerVolumeTileCallback, 20
- \_locator
  - DraggerVolumeTileCallback, 20
- \_loopMode
  - osgPresentation::AnimationMaterial, 12
- \_loopPresentation
  - osgPresentation::SlideEventHandler, 52
  - osgPresentation::SlideShowConstructor, 59
- \_maintained
  - osgPresentation::ActiveOperators, 10
- \_minimumTimeBetweenKeyPresses
  - osgPresentation::SlideEventHandler, 52
- \_modAlphaFunc
  - UpdateAlphaVisitor, 61
- \_modMaterial
  - UpdateAlphaVisitor, 61
- \_modelPositionData
  - osgPresentation::SlideShowConstructor, 59
- \_modelPositionDataDefault
  - osgPresentation::SlideShowConstructor, 59
- \_name
  - FindNamedSwitchVisitor, 25
- \_needCompile
  - osgPresentation::CompileSlideCallback, 18
- \_node
  - CallbackOperator, 17
  - LayerAttributesOperator, 37
- \_operation
  - osgPresentation::PickEventHandler, 42
- \_operatorList

- FindOperatorsVisitor, 26
- \_options
  - osgPresentation::SlideShowConstructor, 59
- \_outgoing
  - osgPresentation::ActiveOperators, 10
- \_pageNum
  - SetPageCallback, 45
- \_pause
  - osgPresentation::ActiveOperators, 10
  - osgPresentation::AnimationMaterialCallback, 15
  - osgPresentation::SlideEventHandler, 52
- \_pauseTime
  - osgPresentation::AnimationMaterialCallback, 15
- \_pdfImage
  - SetPageCallback, 45
- \_presentationDuration
  - osgPresentation::SlideShowConstructor, 59
- \_presentationName
  - osgPresentation::SlideShowConstructor, 59
- \_presentationSwitch
  - osgPresentation::SlideEventHandler, 52
  - osgPresentation::SlideShowConstructor, 59
- \_previous
  - osgPresentation::ActiveOperators, 10
- \_previousLayer
  - osgPresentation::SlideShowConstructor, 59
- \_previousTime
  - osgPresentation::SlideEventHandler, 52
- \_previousX
  - osgPresentation::SlideEventHandler, 52
- \_previousY
  - osgPresentation::SlideEventHandler, 52
- \_relativeJump
  - osgPresentation::LayerAttributes, 34
  - osgPresentation::PickEventHandler, 42
- \_releaseAndCompileOnEachNewSlide
  - osgPresentation::SlideEventHandler, 52
- \_root
  - osgPresentation::SlideShowConstructor, 59
- \_runStrings
  - osgPresentation::LayerAttributes, 34
- \_sceneToCompile
  - osgPresentation::CompileSlideCallback, 18
- \_showSwitch
  - osgPresentation::SlideEventHandler, 52
- \_slide
  - osgPresentation::SlideShowConstructor, 59
- \_slideBackgroundImageFileName
  - osgPresentation::SlideShowConstructor, 59
- \_slideClearNode
  - osgPresentation::SlideShowConstructor, 59
- \_slideDistance
  - osgPresentation::SlideShowConstructor, 59
- \_slideHeight
  - osgPresentation::SlideShowConstructor, 59
- \_slideNum
  - osgPresentation::LayerAttributes, 34
  - osgPresentation::PickEventHandler, 42
- \_slideOrigin
  - osgPresentation::SlideShowConstructor, 59
- \_slideSwitch
  - osgPresentation::SlideEventHandler, 52
- \_slideTitle
  - osgPresentation::SlideShowConstructor, 59
- \_slideWidth
  - osgPresentation::SlideShowConstructor, 59
- \_startMotionMatrix
  - DraggerVolumeTileCallback, 20
- \_switch
  - FindNamedSwitchVisitor, 25
- \_textFontData
  - osgPresentation::SlideShowConstructor, 59
- \_textFontDataDefault
  - osgPresentation::SlideShowConstructor, 59
- \_textPositionData
  - osgPresentation::SlideShowConstructor, 59
- \_textPositionDataDefault
  - osgPresentation::SlideShowConstructor, 59
- \_tickAtFirstSlideOrLayerChange
  - osgPresentation::SlideEventHandler, 52
- \_tickAtLastSlideOrLayerChange
  - osgPresentation::SlideEventHandler, 52
- \_timeControlPointMap
  - osgPresentation::AnimationMaterial, 12
- \_timeDelayOnNewSlideWithMovies
  - osgPresentation::SlideEventHandler, 52
- \_timeLastKeyPresses
  - osgPresentation::SlideEventHandler, 52
- \_timeMultiplier
  - osgPresentation::AnimationMaterialCallback, 15
- \_timeOffset
  - osgPresentation::AnimationMaterialCallback, 15
- \_timePerSlide
  - osgPresentation::SlideEventHandler, 52
- \_titleFontData
  - osgPresentation::SlideShowConstructor, 59
- \_titleFontDataDefault
  - osgPresentation::SlideShowConstructor, 59
- \_titlePositionData
  - osgPresentation::SlideShowConstructor, 59
- \_titlePositionDataDefault
  - osgPresentation::SlideShowConstructor, 59
- \_updateLightActive
  - osgPresentation::SlideEventHandler, 52
- \_updateOpacityActive
  - osgPresentation::SlideEventHandler, 52
- \_useInverseMatrix
  - osgPresentation::AnimationMaterialCallback, 15
- \_viewMatrix
  - UpdateLightVisitor, 62
- \_viewer
  - osgPresentation::SlideEventHandler, 52
- \_volume
  - DraggerVolumeTileCallback, 20
- \_worldToLocal
  - DraggerVolumeTileCallback, 20
- \_x
  - osgPresentation::KeyPosition, 32
- \_y
  - osgPresentation::KeyPosition, 32
- A -**
- absolute\_path
  - osgPresentation::SlideShowConstructor::PositionData, 44
- accept
  - osgPresentation::PickEventHandler, 42
  - osgPresentation::SlideEventHandler, 50
- ActiveOperators
  - osgPresentation::ActiveOperators, 10
- addBrowser
  - osgPresentation::SlideShowConstructor, 59

- addBullet
  - osgPresentation::SlideShowConstructor, 59
- addEnterCallback
  - osgPresentation::LayerAttributes, 34
- addImage
  - osgPresentation::SlideShowConstructor, 59
- addInteractiveImage
  - osgPresentation::SlideShowConstructor, 59
- addKey
  - osgPresentation::LayerAttributes, 34
  - osgPresentation::SlideShowConstructor, 59
- addLayer
  - osgPresentation::SlideShowConstructor, 59
- addLayerKey
  - osgPresentation::SlideShowConstructor, 59
- addLayerRunString
  - osgPresentation::SlideShowConstructor, 59
- addLeaveCallback
  - osgPresentation::LayerAttributes, 34
- addModel
  - osgPresentation::SlideShowConstructor, 59
- addParagraph
  - osgPresentation::SlideShowConstructor, 59
- addPDF
  - osgPresentation::SlideShowConstructor, 59
- addPresentationKey
  - osgPresentation::SlideShowConstructor, 59
- addPresentationRunString
  - osgPresentation::SlideShowConstructor, 59
- addRunString
  - osgPresentation::LayerAttributes, 34
  - osgPresentation::SlideShowConstructor, 59
- addSlide
  - osgPresentation::SlideShowConstructor, 59
- addSlideKey
  - osgPresentation::SlideShowConstructor, 59
- addSlideRunString
  - osgPresentation::SlideShowConstructor, 59
- addStereoImagePair
  - osgPresentation::SlideShowConstructor, 59
- addVNC
  - osgPresentation::SlideShowConstructor, 59
- addVolume
  - osgPresentation::SlideShowConstructor, 59
- alignment
  - osgPresentation::SlideShowConstructor::FontData, 27
- ALL\_OBJECTS
  - osgPresentation::SlideEventHandler, 49
- alphaValue
  - osgPresentation::SlideShowConstructor::VolumeData, 63
- animation\_material\_filename
  - osgPresentation::SlideShowConstructor::PositionData, 44
- animation\_material\_loop\_mode
  - osgPresentation::SlideShowConstructor::PositionData, 44
- animation\_material\_time\_multiplier
  - osgPresentation::SlideShowConstructor::PositionData, 44
- animation\_material\_time\_offset
  - osgPresentation::SlideShowConstructor::PositionData, 44
- animation\_name
  - osgPresentation::SlideShowConstructor::PositionData, 44
- AnimationMaterial, 65
  - OSG\_ANIMATIONMATERIAL, 66
  - osgPresentation::AnimationMaterial, 12
- AnimationMaterial.cpp, 67
  - interp, 67
- AnimationMaterialCallback
  - osgPresentation::AnimationMaterialCallback, 14
- apply
  - FindFilePathDataVisitor, 22
  - FindHomePositionVisitor, 23
  - FindImageStreamsVisitor, 24
  - FindNamedSwitchVisitor, 25
  - FindOperatorsVisitor, 26
  - SetToTransparentBin, 46
  - UpdateAlphaVisitor, 61
  - UpdateLightVisitor, 62
- apply
  - SetToTransparentBin, 46
- attachMaterialAnimation
  - osgPresentation::SlideShowConstructor, 59
- attachTexMat
  - osgPresentation::SlideShowConstructor, 59
- axisAlignment
  - osgPresentation::SlideShowConstructor::FontData, 27
- B -
- backgroundColor
  - osgPresentation::SlideShowConstructor::ImageData, 29
- C -
- CallbackOperator, 16
  - \_callback, 17
  - \_node, 17
  - CallbackOperator, 16
  - enter, 16
  - leave, 16
  - maintain, 16
  - ptr, 16
  - reset, 17
  - setPause, 17
- callEnterCallbacks
  - osgPresentation::LayerAttributes, 34
- callLeaveCallbacks
  - osgPresentation::LayerAttributes, 34
- center
  - osgPresentation::HomePosition, 28
- characterSize
  - osgPresentation::SlideShowConstructor::FontData, 27
- collect
  - osgPresentation::ActiveOperators, 10
- color
  - osgPresentation::SlideShowConstructor::FontData, 27
- compileSlide
  - osgPresentation::SlideEventHandler, 50
- CompileSlideCallback, 68
  - OSG\_COMPILESLIDECALLBACK, 68
  - osgPresentation::CompileSlideCallback, 18
- CompileSlideCallback.cpp, 69
- computePositionInModelCoords
  - osgPresentation::SlideShowConstructor, 59
- convertModelToSlide
  - osgPresentation::SlideShowConstructor, 59
- convertSlideToModel
  - osgPresentation::SlideShowConstructor, 59
- CoordinateFrame

- osgPresentation::SlideShowConstructor, 57
- createPresentation
  - osgPresentation::SlideShowConstructor, 59
- createTexturedQuadGeometry
  - osgPresentation::SlideShowConstructor, 59
- createTransformStateSet
  - osgPresentation::SlideShowConstructor, 59
- cutoffValue
  - osgPresentation::SlideShowConstructor::VolumeData, 63
- D -**
- dispatchEvent
  - osgPresentation::SlideEventHandler, 50
- doOperation
  - osgPresentation::PickEventHandler, 42
- DraggerVolumeTileCallback, 20
  - \_localToWorld, 20
  - \_locator, 20
  - \_startMotionMatrix, 20
  - \_volume, 20
  - \_worldToLocal, 20
  - DraggerVolumeTileCallback, 20
  - receive, 20
- E -**
- effect
  - osgPresentation::SlideShowConstructor::ModelData, 39
- enter
  - CallbackOperator, 16
  - ImageStreamOperator, 30
  - LayerAttributesOperator, 36
  - osgPresentation::ObjectOperator, 40
- EVENT
  - osgPresentation, 7
- Export, 70
  - OSGPresentation\_EXPORT, 70
  - OSGPresentation\_EXPORT\_, 70
- eye
  - osgPresentation::HomePosition, 28
- F -**
- fade
  - osgPresentation::SlideShowConstructor::PositionData, 44
- FilePathData
  - osgPresentation::FilePathData, 21
- filePathList
  - osgPresentation::FilePathData, 21
- findFileAndRecordPath
  - osgPresentation::SlideShowConstructor, 59
- FindFilePathDataVisitor, 22
  - apply, 22
  - FindFilePathDataVisitor, 22
- FindHomePositionVisitor, 23
  - \_homePosition, 23
  - apply, 23
  - FindHomePositionVisitor, 23
- findImageStreamsAndAddCallbacks
  - osgPresentation::SlideShowConstructor, 59
- FindImageStreamsVisitor, 24
  - apply, 24
  - FindImageStreamsVisitor, 24
  - process, 24
- FindNamedSwitchVisitor, 25
  - \_name, 25
  - \_switch, 25
  - apply, 25
  - FindNamedSwitchVisitor, 25
- FindOperatorsVisitor, 26
  - \_operatorList, 26
  - apply, 26
  - FindOperatorsVisitor, 26
  - process, 26
- FIRST\_POSITION
  - osgPresentation::SlideEventHandler, 49
- font
  - osgPresentation::SlideShowConstructor::FontData, 27
- FontData
  - osgPresentation::SlideShowConstructor::FontData, 27
- frame
  - osgPresentation::SlideShowConstructor::PositionData, 44
- G -**
- getActiveLayer
  - osgPresentation::SlideEventHandler, 50
- getActiveSlide
  - osgPresentation::SlideEventHandler, 50
- getAnimationMaterial
  - osgPresentation::AnimationMaterialCallback, 14
- getAnimationPathCallback
  - osgPresentation::SlideShowConstructor, 59
- getAnimationTime
  - osgPresentation::AnimationMaterialCallback, 14
- getAutoSteppingActive
  - osgPresentation::SlideEventHandler, 50
  - osgPresentation::SlideShowConstructor, 59
- getBackgroundColor
  - osgPresentation::SlideShowConstructor, 59
- getCommand
  - osgPresentation::PickEventHandler, 42
- getCurrentLayer
  - osgPresentation::SlideShowConstructor, 59
- getCurrentSlide
  - osgPresentation::SlideShowConstructor, 59
- getCurrentTimeDelayBetweenSlides
  - osgPresentation::SlideEventHandler, 50
- getDuration
  - osgPresentation::LayerAttributes, 34
  - osgPresentation::SlideEventHandler, 50
- getFirstTime
  - osgPresentation::AnimationMaterial, 12
- getImagePositionData
  - osgPresentation::SlideShowConstructor, 59
- getImagePositionDataDefault
  - osgPresentation::SlideShowConstructor, 59
- getKeyPosition
  - osgPresentation::PickEventHandler, 42
- getKeys
  - osgPresentation::LayerAttributes, 34
- getLastTime
  - osgPresentation::AnimationMaterial, 12
- getLayerNum
  - osgPresentation::LayerAttributes, 34
  - osgPresentation::PickEventHandler, 42
- getLoopMode
  - osgPresentation::AnimationMaterial, 12
- getLoopPresentation
  - osgPresentation::SlideEventHandler, 50
  - osgPresentation::SlideShowConstructor, 59

- getMaterial
    - osgPresentation::AnimationMaterial, 12
  - getModelPositionData
    - osgPresentation::SlideShowConstructor, 59
  - getModelPositionDataDefault
    - osgPresentation::SlideShowConstructor, 59
  - getNumSlides
    - osgPresentation::SlideEventHandler, 50
  - getOperation
    - osgPresentation::PickEventHandler, 42
  - getOrCreateLayerAttributes
    - osgPresentation::SlideShowConstructor, 59
  - getPause
    - osgPresentation::ActiveOperators, 10
  - getPeriod
    - osgPresentation::AnimationMaterial, 12
  - getPresentation
    - osgPresentation::SlideShowConstructor, 59
  - getPresentationSwitch
    - osgPresentation::SlideShowConstructor, 59
  - getRelativeJump
    - osgPresentation::LayerAttributes, 34
    - osgPresentation::PickEventHandler, 42
  - getReleaseAndCompileOnEachNewSlide
    - osgPresentation::SlideEventHandler, 50
  - getRunStrings
    - osgPresentation::LayerAttributes, 34
  - getSlideNum
    - osgPresentation::LayerAttributes, 34
    - osgPresentation::PickEventHandler, 42
  - getTextColor
    - osgPresentation::SlideShowConstructor, 59
  - getTextFontData
    - osgPresentation::SlideShowConstructor, 59
  - getTextFontDataDefault
    - osgPresentation::SlideShowConstructor, 59
  - getTextPositionData
    - osgPresentation::SlideShowConstructor, 59
  - getTextPositionDataDefault
    - osgPresentation::SlideShowConstructor, 59
  - getTimeControlPointMap
    - osgPresentation::AnimationMaterial, 12
  - getTimeDelayBetweenSlides
    - osgPresentation::SlideEventHandler, 50
  - getTimeDelayOnNewSlideWithMovies
    - osgPresentation::SlideEventHandler, 50
  - getTimeMultiplier
    - osgPresentation::AnimationMaterialCallback, 14
  - getTimeOffset
    - osgPresentation::AnimationMaterialCallback, 15
  - getTitleFontData
    - osgPresentation::SlideShowConstructor, 59
  - getTitleFontDataDefault
    - osgPresentation::SlideShowConstructor, 59
  - getTitlePositionData
    - osgPresentation::SlideShowConstructor, 59
  - getTitlePositionDataDefault
    - osgPresentation::SlideShowConstructor, 59
  - getUsage
    - osgPresentation::PickEventHandler, 42
    - osgPresentation::SlideEventHandler, 50
  - getViewer
    - osgPresentation::SlideEventHandler, 50
- H -**
- handle
    - osgPresentation::PickEventHandler, 42
    - osgPresentation::SlideEventHandler, 50
  - height
    - osgPresentation::SlideShowConstructor::ImageData, 29
  - home
    - osgPresentation::SlideEventHandler, 50
  - HomePosition
    - osgPresentation::HomePosition, 28
- I -**
- ImageData
    - osgPresentation::SlideShowConstructor::ImageData, 29
  - ImageStreamOperator, 30
    - \_imageStream, 31
    - enter, 30
    - ImageStreamOperator, 30
    - leave, 30
    - maintain, 30
    - ptr, 30
    - reset, 31
    - setPause, 31
  - include/ Directory Reference, 3
  - include/osgPresentation/ Directory Reference, 5
  - insert
    - osgPresentation::AnimationMaterial, 12
  - instance
    - osgPresentation::SlideEventHandler, 50
  - interp
    - AnimationMaterial.cpp, 67
  - interpolate
    - osgPresentation::AnimationMaterial, 12
  - inverse\_path
    - osgPresentation::SlideShowConstructor::PositionData, 44
  - Isosurface
    - osgPresentation::SlideShowConstructor::VolumeData, 63
- J -**
- JUMP
    - osgPresentation, 7
- K -**
- KeyPosition
    - osgPresentation::KeyPosition, 32
  - Keys
    - osgPresentation::LayerAttributes, 34
- L -**
- LAST\_POSITION
    - osgPresentation::SlideEventHandler, 49
  - LayerAttributes
    - osgPresentation::LayerAttributes, 34
  - LayerAttributesOperator, 36
    - \_layerAttribute, 37
    - \_node, 37
    - enter, 36
    - LayerAttributesOperator, 36
    - leave, 36
    - maintain, 36
    - ptr, 36
    - reset, 37
    - setPause, 37
  - LayerCallbacks
    - osgPresentation::LayerAttributes, 34

layerClickEventOperation  
 osgPresentation::SlideShowConstructor, 59

layerClickToDoOperation  
 osgPresentation::SlideShowConstructor, 59

layout  
 osgPresentation::SlideShowConstructor::FontData, 27

leave  
 CallbackOperator, 16  
 ImageStreamOperator, 30  
 LayerAttributesOperator, 36  
 osgPresentation::ObjectOperator, 40

Light  
 osgPresentation::SlideShowConstructor::VolumeData, 63

LOAD  
 osgPresentation, 7

LOOP  
 osgPresentation::AnimationMaterial, 12

loopingMode  
 osgPresentation::SlideShowConstructor::ImageData, 29

LoopMode  
 osgPresentation::AnimationMaterial, 12

**- M -**

mainpage.h, 71

maintain  
 CallbackOperator, 16  
 ImageStreamOperator, 30  
 LayerAttributesOperator, 36  
 osgPresentation::ObjectOperator, 40

maximumHeight  
 osgPresentation::SlideShowConstructor::FontData, 27

MaximumIntensityProjection  
 osgPresentation::SlideShowConstructor::VolumeData, 63

maximumWidth  
 osgPresentation::SlideShowConstructor::FontData, 27

META\_Object  
 osgPresentation::AnimationMaterial, 12  
 osgPresentation::AnimationMaterialCallback, 15  
 osgPresentation::SlideEventHandler, 50

MODEL  
 osgPresentation::SlideShowConstructor, 57

ModelData  
 osgPresentation::SlideShowConstructor::ModelData, 39

MOVIE  
 osgPresentation::SlideEventHandler, 49

**- N -**

needCompile  
 osgPresentation::CompileSlideCallback, 18

nextLayer  
 osgPresentation::SlideEventHandler, 50

nextLayerOrSlide  
 osgPresentation::SlideEventHandler, 50

nextSlide  
 osgPresentation::SlideEventHandler, 50

NO\_LOOPING  
 osgPresentation::AnimationMaterial, 12

**- O -**

ObjectMask  
 osgPresentation::SlideEventHandler, 49

OBJECTS  
 osgPresentation::SlideEventHandler, 49

Operation  
 osgPresentation, 7

operator<  
 osgPresentation::ObjectOperator, 40

operator()  
 osgPresentation::AnimationMaterialCallback, 15  
 osgPresentation::CompileSlideCallback, 18  
 osgPresentation::dereference\_less, 19  
 osgPresentation::LayerCallback, 38  
 osgPresentation::SlideEventHandler, 50  
 SetPageCallback, 45

OperatorList  
 osgPresentation::ActiveOperators, 10

OSG\_ANIMATIONMATERIAL  
 AnimationMaterial, 66

OSG\_COMPILESLIDECALLBACK  
 CompileSlideCallback, 68

osgPresentation, 7  
 EVENT, 7  
 JUMP, 7  
 LOAD, 7  
 Operation, 7  
 RUN, 7

osgPresentation::ActiveOperators, 9  
 ~ActiveOperators, 10  
 \_current, 10  
 \_incomming, 10  
 \_maintained, 10  
 \_outgoing, 10  
 \_pause, 10  
 \_previous, 10  
 ActiveOperators, 10  
 collect, 10  
 getPause, 10  
 OperatorList, 10  
 process, 10  
 processIncomming, 10  
 processMaintained, 10  
 processOutgoing, 10  
 reset, 10  
 setPause, 10

osgPresentation::AnimationMaterial, 11  
 ~AnimationMaterial, 12  
 \_loopMode, 12  
 \_timeControlPointMap, 12  
 AnimationMaterial, 12  
 getFirstTime, 12  
 getLastTime, 12  
 getLoopMode, 12  
 getMaterial, 12  
 getPeriod, 12  
 getTimeControlPointMap, 12  
 insert, 12  
 interpolate, 12  
 LOOP, 12  
 LoopMode, 12  
 META\_Object, 12  
 NO\_LOOPING, 12  
 read, 12  
 requiresBlending, 12  
 setLoopMode, 12  
 SWING, 12  
 TimeControlPointMap, 12  
 write, 12

osgPresentation::AnimationMaterialCallback, 14  
 ~AnimationMaterialCallback, 14

- [\\_animationMaterial, 15](#)
- [\\_firstTime, 15](#)
- [\\_latestTime, 15](#)
- [\\_pause, 15](#)
- [\\_pauseTime, 15](#)
- [\\_timeMultiplier, 15](#)
- [\\_timeOffset, 15](#)
- [\\_useInverseMatrix, 15](#)
- [AnimationMaterialCallback, 14](#)
- [getAnimationMaterial, 14](#)
- [getAnimationTime, 14](#)
- [getTimeMultiplier, 14](#)
- [getTimeOffset, 15](#)
- [META\\_Object, 15](#)
- [operator\(\), 15](#)
- [reset, 15](#)
- [setAnimationMaterial, 15](#)
- [setPause, 15](#)
- [setTimeMultiplier, 15](#)
- [setTimeOffset, 15](#)
- [update, 15](#)
- [osgPresentation::CompileSlideCallback, 18](#)
  - [~CompileSlideCallback, 18](#)
  - [\\_frameNumber, 18](#)
  - [\\_needCompile, 18](#)
  - [\\_sceneToCompile, 18](#)
  - [CompileSlideCallback, 18](#)
  - [needCompile, 18](#)
  - [operator\(\), 18](#)
- [osgPresentation::dereference\\_less, 19](#)
  - [operator\(\), 19](#)
- [osgPresentation::FilePathData, 21](#)
  - [FilePathData, 21](#)
  - [filePathList, 21](#)
- [osgPresentation::HomePosition, 28](#)
  - [center, 28](#)
  - [eye, 28](#)
  - [HomePosition, 28](#)
  - [up, 28](#)
- [osgPresentation::KeyPosition, 32](#)
  - [\\_key, 32](#)
  - [\\_x, 32](#)
  - [\\_y, 32](#)
  - [KeyPosition, 32](#)
  - [set, 32](#)
- [osgPresentation::LayerAttributes, 33](#)
  - [\\_duration, 34](#)
  - [\\_enterLayerCallbacks, 34](#)
  - [\\_keys, 34](#)
  - [\\_layerNum, 34](#)
  - [\\_leaveLayerCallbacks, 34](#)
  - [\\_relativeJump, 34](#)
  - [\\_runStrings, 34](#)
  - [\\_slideNum, 34](#)
  - [addEnterCallback, 34](#)
  - [addKey, 34](#)
  - [addLeaveCallback, 34](#)
  - [addRunString, 34](#)
  - [callEnterCallbacks, 34](#)
  - [callLeaveCallbacks, 34](#)
  - [getDuration, 34](#)
  - [getKeys, 34](#)
  - [getLayerNum, 34](#)
  - [getRelativeJump, 34](#)
  - [getRunStrings, 34](#)
  - [getSlideNum, 34](#)
- [Keys, 34](#)
- [LayerAttributes, 34](#)
- [LayerCallbacks, 34](#)
- [requiresJump, 34](#)
- [RunStrings, 34](#)
- [setDuration, 34](#)
- [setJump, 34](#)
- [setKeys, 34](#)
- [setRunStrings, 34](#)
- [osgPresentation::LayerCallback, 38](#)
  - [operator\(\), 38](#)
- [osgPresentation::ObjectOperator, 40](#)
  - [~ObjectOperator, 40](#)
  - [enter, 40](#)
  - [leave, 40](#)
  - [maintain, 40](#)
  - [operator<, 40](#)
  - [ptr, 40](#)
  - [reset, 40](#)
  - [setPause, 40](#)
- [osgPresentation::PickEventHandler, 41](#)
  - [\\_command, 42](#)
  - [\\_keyPos, 42](#)
  - [\\_layerNum, 42](#)
  - [\\_operation, 42](#)
  - [\\_relativeJump, 42](#)
  - [\\_slideNum, 42](#)
  - [accept, 42](#)
  - [doOperation, 42](#)
  - [getCommand, 42](#)
  - [getKeyPosition, 42](#)
  - [getLayerNum, 42](#)
  - [getOperation, 42](#)
  - [getRelativeJump, 42](#)
  - [getSlideNum, 42](#)
  - [getUsage, 42](#)
  - [handle, 42](#)
  - [PickEventHandler, 42](#)
  - [requiresJump, 42](#)
  - [setAbsoluteJump, 42](#)
  - [setCommand, 42](#)
  - [setKeyPosition, 42](#)
  - [setOperation, 42](#)
  - [setRelativeJump, 42](#)
- [osgPresentation::SlideEventHandler, 47](#)
  - [~SlideEventHandler, 50](#)
  - [\\_activeLayer, 52](#)
  - [\\_activeOperators, 52](#)
  - [\\_activePresentation, 52](#)
  - [\\_activeSlide, 52](#)
  - [\\_autoSteppingActive, 52](#)
  - [\\_compileSlideCallback, 52](#)
  - [\\_cursorOn, 52](#)
  - [\\_firstSlideOrLayerChange, 52](#)
  - [\\_firstTraversal, 52](#)
  - [\\_hold, 52](#)
  - [\\_loopPresentation, 52](#)
  - [\\_minimumTimeBetweenKeyPresses, 52](#)
  - [\\_pause, 52](#)
  - [\\_presentationSwitch, 52](#)
  - [\\_previousTime, 52](#)
  - [\\_previousX, 52](#)
  - [\\_previousY, 52](#)
  - [\\_releaseAndCompileOnEachNewSlide, 52](#)
  - [\\_showSwitch, 52](#)
  - [\\_slideSwitch, 52](#)

- [\\_tickAtFirstSlideOrLayerChange, 52](#)
- [\\_tickAtLastSlideOrLayerChange, 52](#)
- [\\_timeDelayOnNewSlideWithMovies, 52](#)
- [\\_timeLastKeyPresses, 52](#)
- [\\_timePerSlide, 52](#)
- [\\_updateLightActive, 52](#)
- [\\_updateOpacityActive, 52](#)
- [\\_viewer, 52](#)
- [accept, 50](#)
- [ALL\\_OBJECTS, 49](#)
- [compileSlide, 50](#)
- [dispatchEvent, 50](#)
- [FIRST\\_POSITION, 49](#)
- [getActiveLayer, 50](#)
- [getActiveSlide, 50](#)
- [getAutoSteppingActive, 50](#)
- [getCurrentTimeDelayBetweenSlides, 50](#)
- [getDuration, 50](#)
- [getLoopPresentation, 50](#)
- [getNumSlides, 50](#)
- [getReleaseAndCompileOnEachNewSlide, 50](#)
- [getTimeDelayBetweenSlides, 50](#)
- [getTimeDelayOnNewSlideWithMovies, 50](#)
- [getUsage, 50](#)
- [getViewer, 50](#)
- [handle, 50](#)
- [home, 50](#)
- [instance, 50](#)
- [LAST\\_POSITION, 49](#)
- [META\\_Object, 50](#)
- [MOVIE, 49](#)
- [nextLayer, 50](#)
- [nextLayerOrSlide, 50](#)
- [nextSlide, 50](#)
- [ObjectMask, 49](#)
- [OBJECTS, 49](#)
- [operator\(\), 50](#)
- [previousLayer, 50](#)
- [previousLayerOrSlide, 52](#)
- [previousSlide, 52](#)
- [releaseSlide, 52](#)
- [selectLayer, 52](#)
- [selectSlide, 52](#)
- [set, 52](#)
- [setAutoSteppingActive, 52](#)
- [setLoopPresentation, 52](#)
- [setReleaseAndCompileOnEachNewSlide, 52](#)
- [setTimeDelayBetweenSlides, 52](#)
- [setTimeDelayOnNewSlideWithMovies, 52](#)
- [SlideEventHandler, 50](#)
- [updateAlpha, 52](#)
- [updateLight, 52](#)
- [updateOperators, 52](#)
- [WhichPosition, 49](#)
- [osgPresentation::SlideShowConstructor, 54](#)
  - [\\_autoSteppingActive, 59](#)
  - [\\_backgroundColor, 59](#)
  - [\\_currentLayer, 59](#)
  - [\\_eyeOrigin, 59](#)
  - [\\_filePathData, 59](#)
  - [\\_imagePositionData, 59](#)
  - [\\_imagePositionDataDefault, 59](#)
  - [\\_loopPresentation, 59](#)
  - [\\_modelPositionData, 59](#)
  - [\\_modelPositionDataDefault, 59](#)
  - [\\_options, 59](#)
  - [\\_presentationDuration, 59](#)
  - [\\_presentationName, 59](#)
  - [\\_presentationSwitch, 59](#)
  - [\\_previousLayer, 59](#)
  - [\\_root, 59](#)
  - [\\_slide, 59](#)
  - [\\_slideBackgroundImageFileName, 59](#)
  - [\\_slideClearNode, 59](#)
  - [\\_slideDistance, 59](#)
  - [\\_slideHeight, 59](#)
  - [\\_slideOrigin, 59](#)
  - [\\_slideTitle, 59](#)
  - [\\_slideWidth, 59](#)
  - [\\_textFontData, 59](#)
  - [\\_textFontDataDefault, 59](#)
  - [\\_textPositionData, 59](#)
  - [\\_textPositionDataDefault, 59](#)
  - [\\_titleFontData, 59](#)
  - [\\_titleFontDataDefault, 59](#)
  - [\\_titlePositionData, 59](#)
  - [\\_titlePositionDataDefault, 59](#)
  - [addBrowser, 59](#)
  - [addBullet, 59](#)
  - [addImage, 59](#)
  - [addInteractiveImage, 59](#)
  - [addKey, 59](#)
  - [addLayer, 59](#)
  - [addLayerKey, 59](#)
  - [addLayerRunString, 59](#)
  - [addModel, 59](#)
  - [addParagraph, 59](#)
  - [addPDF, 59](#)
  - [addPresentationKey, 59](#)
  - [addPresentationRunString, 59](#)
  - [addRunString, 59](#)
  - [addSlide, 59](#)
  - [addSlideKey, 59](#)
  - [addSlideRunString, 59](#)
  - [addStereoImagePair, 59](#)
  - [addVNC, 59](#)
  - [addVolume, 59](#)
  - [attachMaterialAnimation, 59](#)
  - [attachTexMat, 59](#)
  - [computePositionInModelCoords, 59](#)
  - [convertModelToSlide, 59](#)
  - [convertSlideToModel, 59](#)
  - [CoordinateFrame, 57](#)
  - [createPresentation, 59](#)
  - [createTexturedQuadGeometry, 59](#)
  - [createTransformStateSet, 59](#)
  - [findFileAndRecordPath, 59](#)
  - [findImageStreamsAndAddCallbacks, 59](#)
  - [getAnimationPathCallback, 59](#)
  - [getAutoSteppingActive, 59](#)
  - [getBackgroundColor, 59](#)
  - [getCurrentLayer, 59](#)
  - [getCurrentSlide, 59](#)
  - [getImagePositionData, 59](#)
  - [getImagePositionDataDefault, 59](#)
  - [getLoopPresentation, 59](#)
  - [getModelPositionData, 59](#)
  - [getModelPositionDataDefault, 59](#)
  - [getOrCreateLayerAttributes, 59](#)
  - [getPresentation, 59](#)
  - [getPresentationSwitch, 59](#)
  - [getTextColor, 59](#)

- getTextFontData, 59
- getTextFontDataDefault, 59
- getTextPositionData, 59
- getTextPositionDataDefault, 59
- getTitleFontData, 59
- getTitleFontDataDefault, 59
- getTitlePositionData, 59
- getTitlePositionDataDefault, 59
- layerClickEventOperation, 59
- layerClickToDoOperation, 59
- MODEL, 57
- recordOptionsFilePath, 59
- selectLayer, 59
- selectSlide, 59
- setAutoSteppingActive, 59
- setBackgroundColor, 59
- setDuration, 59
- setJump, 59
- setLayerDuration, 59
- setLayerJump, 59
- setLoopPresentation, 59
- setPresentationAspectRatio, 59
- setPresentationDuration, 59
- setPresentationName, 59
- setSlideBackground, 59
- setSlideDuration, 59
- setSlideJump, 59
- setSlideTitle, 59
- setTextColor, 59
- SLIDE, 57
- SlideShowConstructor, 59
- takePresentation, 59
- translateTextCursor, 59
- updatePositionFromInModelCoords, 59
- osgPresentation::SlideShowConstructor::FontData, 27
  - alignment, 27
  - axisAlignment, 27
  - characterSize, 27
  - color, 27
  - font, 27
  - FontData, 27
  - layout, 27
  - maximumHeight, 27
  - maximumWidth, 27
- osgPresentation::SlideShowConstructor::ImageData, 29
  - backgroundColor, 29
  - height, 29
  - ImageData, 29
  - loopingMode, 29
  - page, 29
  - region, 29
  - region\_in\_pixel\_coords, 29
  - texcoord\_rotate, 29
  - width, 29
- osgPresentation::SlideShowConstructor::ModelData, 39
  - effect, 39
  - ModelData, 39
- osgPresentation::SlideShowConstructor::PositionData, 43
  - absolute\_path, 44
  - animation\_material\_filename, 44
  - animation\_material\_loop\_mode, 44
  - animation\_material\_time\_multiplier, 44
  - animation\_material\_time\_offset, 44
  - animation\_name, 44
  - fade, 44
  - frame, 44
  - inverse\_path, 44
  - path, 44
  - path\_loop\_mode, 44
  - path\_time\_multiplier, 44
  - path\_time\_offset, 44
  - position, 44
  - PositionData, 44
  - requiresAnimation, 44
  - requiresMaterialAnimation, 44
  - requiresPosition, 44
  - requiresRotate, 44
  - requiresScale, 44
  - rotate, 44
  - rotation, 44
  - scale, 44
- osgPresentation::SlideShowConstructor::VolumeData, 63
  - alphaValue, 63
  - cutoffValue, 63
  - Isosurface, 63
  - Light, 63
  - MaximumIntensityProjection, 63
  - region, 63
  - region\_in\_pixel\_coords, 63
  - sampleDensityValue, 63
  - ShadingModel, 63
  - shadingModel, 63
  - Standard, 63
  - transferFunction, 63
  - useTabbedDragger, 63
  - useTrackballDragger, 63
  - VolumeData, 63
- OSGPresentation\_EXPORT
  - Export, 70
- OSGPresentation\_EXPORT\_
  - Export, 70
- P -**
- page
  - osgPresentation::SlideShowConstructor::ImageData, 29
- path
  - osgPresentation::SlideShowConstructor::PositionData, 44
- path\_loop\_mode
  - osgPresentation::SlideShowConstructor::PositionData, 44
- path\_time\_multiplier
  - osgPresentation::SlideShowConstructor::PositionData, 44
- path\_time\_offset
  - osgPresentation::SlideShowConstructor::PositionData, 44
- PICKEVENTHANDLER
  - PickEventHandler, 72
- PickEventHandler, 72
  - osgPresentation::PickEventHandler, 42
  - PICKEVENTHANDLER, 72
- PickEventHandler.cpp, 73
- position
  - osgPresentation::SlideShowConstructor::PositionData, 44
- PositionData
  - osgPresentation::SlideShowConstructor::PositionData, 44
- previousLayer
  - osgPresentation::SlideEventHandler, 50
- previousLayerOrSlide

- osgPresentation::SlideEventHandler, 52
- previousSlide
  - osgPresentation::SlideEventHandler, 52
- process
  - FindImageStreamsVisitor, 24
  - FindOperatorsVisitor, 26
  - osgPresentation::ActiveOperators, 10
- processIncomming
  - osgPresentation::ActiveOperators, 10
- processMaintained
  - osgPresentation::ActiveOperators, 10
- processOutgoing
  - osgPresentation::ActiveOperators, 10
- ptr
  - CallbackOperator, 16
  - ImageStreamOperator, 30
  - LayerAttributesOperator, 36
  - osgPresentation::ObjectOperator, 40
- R -**
- read
  - osgPresentation::AnimationMaterial, 12
- receive
  - DraggerVolumeTileCallback, 20
- recordOptionsFilePath
  - osgPresentation::SlideShowConstructor, 59
- region
  - osgPresentation::SlideShowConstructor::ImageData, 29
  - osgPresentation::SlideShowConstructor::VolumeData, 63
- region\_in\_pixel\_coords
  - osgPresentation::SlideShowConstructor::ImageData, 29
  - osgPresentation::SlideShowConstructor::VolumeData, 63
- releaseSlide
  - osgPresentation::SlideEventHandler, 52
- requiresAnimation
  - osgPresentation::SlideShowConstructor::PositionData, 44
- requiresBlending
  - osgPresentation::AnimationMaterial, 12
- requiresJump
  - osgPresentation::LayerAttributes, 34
  - osgPresentation::PickEventHandler, 42
- requiresMaterialAnimation
  - osgPresentation::SlideShowConstructor::PositionData, 44
- requiresPosition
  - osgPresentation::SlideShowConstructor::PositionData, 44
- requiresRotate
  - osgPresentation::SlideShowConstructor::PositionData, 44
- requiresScale
  - osgPresentation::SlideShowConstructor::PositionData, 44
- reset
  - CallbackOperator, 17
  - ImageStreamOperator, 31
  - LayerAttributesOperator, 37
  - osgPresentation::ActiveOperators, 10
  - osgPresentation::AnimationMaterialCallback, 15
  - osgPresentation::ObjectOperator, 40
- rotate
  - osgPresentation::SlideShowConstructor::PositionData, 44
- rotation
  - osgPresentation::SlideShowConstructor::PositionData, 44
- RUN
  - osgPresentation, 7
- RunStrings
  - osgPresentation::LayerAttributes, 34
- S -**
- s\_seh
  - SlideEventHandler.cpp, 76
- sampleDensityValue
  - osgPresentation::SlideShowConstructor::VolumeData, 63
- scale
  - osgPresentation::SlideShowConstructor::PositionData, 44
- selectLayer
  - osgPresentation::SlideEventHandler, 52
  - osgPresentation::SlideShowConstructor, 59
- selectSlide
  - osgPresentation::SlideEventHandler, 52
  - osgPresentation::SlideShowConstructor, 59
- set
  - osgPresentation::KeyPosition, 32
  - osgPresentation::SlideEventHandler, 52
- setAbsoluteJump
  - osgPresentation::PickEventHandler, 42
- setAnimationMaterial
  - osgPresentation::AnimationMaterialCallback, 15
- setAutoSteppingActive
  - osgPresentation::SlideEventHandler, 52
  - osgPresentation::SlideShowConstructor, 59
- setBackgroundcolor
  - osgPresentation::SlideShowConstructor, 59
- setCommand
  - osgPresentation::PickEventHandler, 42
- setDuration
  - osgPresentation::LayerAttributes, 34
  - osgPresentation::SlideShowConstructor, 59
- setJump
  - osgPresentation::LayerAttributes, 34
  - osgPresentation::SlideShowConstructor, 59
- setKeyPosition
  - osgPresentation::PickEventHandler, 42
- setKeys
  - osgPresentation::LayerAttributes, 34
- setLayerDuration
  - osgPresentation::SlideShowConstructor, 59
- setLayerJump
  - osgPresentation::SlideShowConstructor, 59
- setLoopMode
  - osgPresentation::AnimationMaterial, 12
- setLoopPresentation
  - osgPresentation::SlideEventHandler, 52
  - osgPresentation::SlideShowConstructor, 59
- setOperation
  - osgPresentation::PickEventHandler, 42
- SetPageCallback, 45
  - \_pageNum, 45
  - \_pdfImage, 45
  - operator(), 45
  - SetPageCallback, 45
- setPause
  - CallbackOperator, 17
  - ImageStreamOperator, 31

- LayerAttributesOperator, 37
- osgPresentation::ActiveOperators, 10
- osgPresentation::AnimationMaterialCallback, 15
- osgPresentation::ObjectOperator, 40
- setPresentationAspectRatio
  - osgPresentation::SlideShowConstructor, 59
- setPresentationDuration
  - osgPresentation::SlideShowConstructor, 59
- setPresentationName
  - osgPresentation::SlideShowConstructor, 59
- setRelativeJump
  - osgPresentation::PickEventHandler, 42
- setReleaseAndCompileOnEachNewSlide
  - osgPresentation::SlideEventHandler, 52
- setRunStrings
  - osgPresentation::LayerAttributes, 34
- setSlideBackground
  - osgPresentation::SlideShowConstructor, 59
- setSlideDuration
  - osgPresentation::SlideShowConstructor, 59
- setSlideJump
  - osgPresentation::SlideShowConstructor, 59
- setSlideTitle
  - osgPresentation::SlideShowConstructor, 59
- setTextColor
  - osgPresentation::SlideShowConstructor, 59
- setTimeDelayBetweenSlides
  - osgPresentation::SlideEventHandler, 52
- setTimeDelayOnNewSlideWithMovies
  - osgPresentation::SlideEventHandler, 52
- setTimeMultiplier
  - osgPresentation::AnimationMaterialCallback, 15
- setTimeOffset
  - osgPresentation::AnimationMaterialCallback, 15
- SetToTransparentBin, 46
  - apply, 46
  - apply, 46
  - SetToTransparentBin, 46
- ShadingModel
  - osgPresentation::SlideShowConstructor::VolumeData, 63
- shadingModel
  - osgPresentation::SlideShowConstructor::VolumeData, 63
- SLIDE
  - osgPresentation::SlideShowConstructor, 57
- SLIDEEVENTHANDLER
  - SlideEventHandler, 75
- SlideEventHandler, 74
  - osgPresentation::SlideEventHandler, 50
  - SLIDEEVENTHANDLER, 75
- SlideEventHandler.cpp, 76
  - s\_seh, 76
- SlideShowConstructor, 77
  - osgPresentation::SlideShowConstructor, 59
- SlideShowConstructor.cpp, 78
- src/ Directory Reference, 6
- src/osgPresentation/ Directory Reference, 4
- Standard
  - osgPresentation::SlideShowConstructor::VolumeData, 63
- SWING
  - osgPresentation::AnimationMaterial, 12
- T -**
- takePresentation
  - osgPresentation::SlideShowConstructor, 59
- texcoord\_rotate
  - osgPresentation::SlideShowConstructor::ImageData, 29
- TimeControlPointMap
  - osgPresentation::AnimationMaterial, 12
- transferFunction
  - osgPresentation::SlideShowConstructor::VolumeData, 63
- translateTextCursor
  - osgPresentation::SlideShowConstructor, 59
- U -**
- up
  - osgPresentation::HomePosition, 28
- update
  - osgPresentation::AnimationMaterialCallback, 15
- updateAlpha
  - osgPresentation::SlideEventHandler, 52
- UpdateAlphaVisitor, 61
  - \_currentX, 61
  - \_currentY, 61
  - \_modAlphaFunc, 61
  - \_modMaterial, 61
  - apply, 61
  - UpdateAlphaVisitor, 61
- updateLight
  - osgPresentation::SlideEventHandler, 52
- UpdateLightVisitor, 62
  - \_currentX, 62
  - \_currentY, 62
  - \_viewMatrix, 62
  - apply, 62
  - UpdateLightVisitor, 62
- updateOperators
  - osgPresentation::SlideEventHandler, 52
- updatePositionFromInModelCoords
  - osgPresentation::SlideShowConstructor, 59
- useTabbedDragger
  - osgPresentation::SlideShowConstructor::VolumeData, 63
- useTrackballDragger
  - osgPresentation::SlideShowConstructor::VolumeData, 63
- V -**
- VolumeData
  - osgPresentation::SlideShowConstructor::VolumeData, 63
- W -**
- WhichPosition
  - osgPresentation::SlideEventHandler, 49
- width
  - osgPresentation::SlideShowConstructor::ImageData, 29
- write
  - osgPresentation::AnimationMaterial, 12