

# RAPP Platform

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# Contents

<b>1</b>	<b>Namespace Index</b>	<b>1</b>
1.1	Namespace List . . . . .	1
<b>2</b>	<b>Hierarchical Index</b>	<b>3</b>
2.1	Class Hierarchy . . . . .	3
<b>3</b>	<b>Class Index</b>	<b>5</b>
3.1	Class List . . . . .	5
<b>4</b>	<b>File Index</b>	<b>9</b>
4.1	File List . . . . .	9
<b>5</b>	<b>Namespace Documentation</b>	<b>13</b>
5.1	app_error_exception Namespace Reference . . . . .	13
5.2	caffe_wrapper Namespace Reference . . . . .	13
5.3	caffe_wrapper_main Namespace Reference . . . . .	13
5.3.1	Variable Documentation . . . . .	13
5.3.1.1	RappCaffeWrapperNode . . . . .	13
5.4	cognitive_exercise Namespace Reference . . . . .	13
5.5	cognitive_exercise_main Namespace Reference . . . . .	14
5.5.1	Variable Documentation . . . . .	14
5.5.1.1	CognitiveExerciseNode . . . . .	14
5.6	costmap_2d Namespace Reference . . . . .	14
5.7	crop_map Namespace Reference . . . . .	14
5.7.1	Function Documentation . . . . .	14
5.7.1.1	computed_cropped_origin . . . . .	14
5.7.1.2	find_bounds . . . . .	15
5.7.2	Variable Documentation . . . . .	15
5.7.2.1	bounds . . . . .	15
5.7.2.2	crop_image . . . . .	15
5.7.2.3	crop_name . . . . .	15
5.7.2.4	crop_yaml . . . . .	15
5.7.2.5	cropped_image . . . . .	15

5.7.2.6	<a href="#">map_data</a>	15
5.7.2.7	<a href="#">map_image</a>	15
5.7.2.8	<a href="#">map_image_file</a>	15
5.7.2.9	<a href="#">origin</a>	15
5.7.2.10	<a href="#">resolution</a>	15
5.8	<a href="#">helper_functions Namespace Reference</a>	16
5.9	<a href="#">image_classification Namespace Reference</a>	16
5.10	<a href="#">image_registration_to_ontology Namespace Reference</a>	16
5.11	<a href="#">map_server Namespace Reference</a>	16
5.11.1	<a href="#">Function Documentation</a>	16
5.11.1.1	<a href="#">loadMapFromFile</a>	16
5.12	<a href="#">mysql_wrapper Namespace Reference</a>	17
5.13	<a href="#">mysql_wrapper_main Namespace Reference</a>	17
5.13.1	<a href="#">Variable Documentation</a>	17
5.13.1.1	<a href="#">MySQLWrapperNode</a>	17
5.14	<a href="#">mysql_wrapper_old Namespace Reference</a>	17
5.15	<a href="#">ontology_class_bridge Namespace Reference</a>	17
5.16	<a href="#">rapp_application_authentication_manager Namespace Reference</a>	17
5.17	<a href="#">rapp_application_authentication_manager.application_authentication_node Namespace Reference</a>	17
5.17.1	<a href="#">Variable Documentation</a>	18
5.17.1.1	<a href="#">application_authentication_ros_node</a>	18
5.18	<a href="#">rapp_application_authentication_manager.database_handler Namespace Reference</a>	18
5.19	<a href="#">rapp_audio_processing Namespace Reference</a>	18
5.20	<a href="#">rapp_audio_processing.rapp_audio_processing Namespace Reference</a>	18
5.20.1	<a href="#">Variable Documentation</a>	19
5.20.1.1	<a href="#">AudioProcessingNode</a>	19
5.21	<a href="#">rapp_audio_processing.rapp_detect_silence Namespace Reference</a>	19
5.22	<a href="#">rapp_audio_processing.rapp_energy_denoise Namespace Reference</a>	19
5.23	<a href="#">rapp_audio_processing.rapp_set_noise_profile Namespace Reference</a>	19
5.24	<a href="#">rapp_audio_processing.rapp_sox_denoise Namespace Reference</a>	19
5.25	<a href="#">rapp_audio_processing.rapp_transform_audio Namespace Reference</a>	19
5.26	<a href="#">rapp_audio_processing.rapp_utilities Namespace Reference</a>	19
5.27	<a href="#">rapp_email Namespace Reference</a>	20
5.28	<a href="#">rapp_email.email_node Namespace Reference</a>	20
5.28.1	<a href="#">Variable Documentation</a>	20
5.28.1.1	<a href="#">emailReceiver</a>	20
5.28.1.2	<a href="#">emailSender</a>	20
5.29	<a href="#">rapp_email.email_receiver Namespace Reference</a>	20
5.30	<a href="#">rapp_email.email_sender Namespace Reference</a>	20
5.31	<a href="#">rapp_geolocator Namespace Reference</a>	20

5.32 rapp_geolocator.geolocator_base Namespace Reference . . . . .	21
5.33 rapp_geolocator.geolocator_factory Namespace Reference . . . . .	21
5.34 rapp_geolocator.geolocator_node Namespace Reference . . . . .	21
5.34.1 Variable Documentation . . . . .	21
5.34.1.1 geolocator_node . . . . .	21
5.35 rapp_geolocator.ip_api_locator Namespace Reference . . . . .	21
5.36 rapp_news_explorer Namespace Reference . . . . .	21
5.37 rapp_news_explorer.engine_factory Namespace Reference . . . . .	22
5.38 rapp_news_explorer.event_registry_engine Namespace Reference . . . . .	22
5.39 rapp_news_explorer.google_news_engine Namespace Reference . . . . .	22
5.40 rapp_news_explorer.news_engine_base Namespace Reference . . . . .	22
5.41 rapp_news_explorer.news_explorer_node Namespace Reference . . . . .	22
5.41.1 Variable Documentation . . . . .	22
5.41.1.1 news_explorer_node . . . . .	22
5.42 rapp_speech_detection_sphinx4 Namespace Reference . . . . .	23
5.43 rapp_speech_detection_sphinx4.english_support Namespace Reference . . . . .	23
5.44 rapp_speech_detection_sphinx4.global_parameters Namespace Reference . . . . .	23
5.45 rapp_speech_detection_sphinx4.greek_english_support Namespace Reference . . . . .	23
5.46 rapp_speech_detection_sphinx4.greek_support Namespace Reference . . . . .	23
5.47 rapp_speech_detection_sphinx4.language_support Namespace Reference . . . . .	23
5.48 rapp_speech_detection_sphinx4.limited_vocabulary_creator Namespace Reference . . . . .	24
5.49 rapp_speech_detection_sphinx4.speech_recognition_sphinx4 Namespace Reference . . . . .	24
5.49.1 Variable Documentation . . . . .	24
5.49.1.1 SpeechRecognitionSphinx4Node . . . . .	24
5.50 rapp_speech_detection_sphinx4.speech_recognition_sphinx4_handler_node Namespace Reference . . . . .	24
5.50.1 Variable Documentation . . . . .	24
5.50.1.1 rospack . . . . .	24
5.50.1.2 SpeechRecognitionSphinx4HandlerNode . . . . .	25
5.50.1.3 sphinx_class . . . . .	25
5.51 rapp_speech_detection_sphinx4.sphinx4_configuration_params Namespace Reference . . . . .	25
5.52 rapp_speech_detection_sphinx4.sphinx4_wrapper Namespace Reference . . . . .	25
5.53 rapp_weather_reporter Namespace Reference . . . . .	25
5.54 rapp_weather_reporter.forecastio_reporter Namespace Reference . . . . .	25
5.55 rapp_weather_reporter.weather_reporter_base Namespace Reference . . . . .	25
5.56 rapp_weather_reporter.weather_reporter_factory Namespace Reference . . . . .	26
5.57 rapp_weather_reporter.weather_reporter_node Namespace Reference . . . . .	26
5.57.1 Variable Documentation . . . . .	26
5.57.1.1 weather_reporter_node . . . . .	26
5.58 rapp_weather_reporter.yweather_reporter Namespace Reference . . . . .	26
5.59 speech_recognition_google Namespace Reference . . . . .	26

5.59.1	Variable Documentation	27
5.59.1.1	speech_to_text_node	27
5.60	src Namespace Reference	27
5.61	src.rapp_exceptions Namespace Reference	27
5.62	src.rapp_html_parser Namespace Reference	27
5.63	src.rapp_http_json_parser Namespace Reference	27
5.64	src.rapp_http_request_handler Namespace Reference	27
5.65	src.rapp_utilities Namespace Reference	28
5.66	text_to_speech_espeak Namespace Reference	28
5.66.1	Variable Documentation	28
5.66.1.1	text_to_speech_espeak_ros_node	28
5.67	userScoreHistoryForAllCategories Namespace Reference	28
5.68	userScoresForAllCategories Namespace Reference	28
<b>6</b>	<b>Class Documentation</b>	<b>29</b>
6.1	app_error_exception.AppError Class Reference	29
6.1.1	Detailed Description	30
6.1.2	Constructor & Destructor Documentation	30
6.1.2.1	__init__	30
6.1.2.2	__init__	30
6.1.3	Member Function Documentation	30
6.1.3.1	passErrorToRosSrv	30
6.1.3.2	passErrorToRosSrv	30
6.1.4	Member Data Documentation	31
6.1.4.1	args	31
6.2	rapp_application_authentication_manager.application_authentication_node.ApplicationAuthentication-Manager Class Reference	31
6.2.1	Detailed Description	32
6.2.2	Constructor & Destructor Documentation	32
6.2.2.1	__init__	32
6.2.3	Member Function Documentation	32
6.2.3.1	_add_new_user_to_db	32
6.2.3.2	_validate_username_format	32
6.2.3.3	_verify_new_username_uniqueness	32
6.2.3.4	_verify_user_credentials	33
6.2.3.5	add_new_user_from_platform_callback	33
6.2.3.6	add_new_user_from_store_callback	33
6.2.3.7	authenticate_token_callback	34
6.2.3.8	login_callback	34
6.2.3.9	login_from_store_callback	34

6.2.4	Member Data Documentation . . . . .	35
6.2.4.1	_db_handler . . . . .	35
6.3	rapp_audio_processing.rapp_audio_processing.AudioProcessing Class Reference . . . . .	35
6.3.1	Detailed Description . . . . .	36
6.3.2	Constructor & Destructor Documentation . . . . .	36
6.3.2.1	__init__ . . . . .	36
6.3.3	Member Function Documentation . . . . .	36
6.3.3.1	denoiseCallback . . . . .	36
6.3.3.2	detectSilenceCallback . . . . .	36
6.3.3.3	energyDenoiseCallback . . . . .	36
6.3.3.4	setNoiseProfileCallback . . . . .	37
6.3.3.5	transformAudioCallback . . . . .	37
6.3.4	Member Data Documentation . . . . .	37
6.3.4.1	_detect_silence_module . . . . .	37
6.3.4.2	_energy_denoise_module . . . . .	37
6.3.4.3	_energy_denoising_debug . . . . .	38
6.3.4.4	_set_noise_profile_module . . . . .	38
6.3.4.5	_sox_denoise_module . . . . .	38
6.3.4.6	_transform_audio_module . . . . .	38
6.3.4.7	_utilities_module . . . . .	38
6.4	cognitive_exercise.CognitiveExercise Class Reference . . . . .	38
6.4.1	Detailed Description . . . . .	39
6.4.2	Constructor & Destructor Documentation . . . . .	39
6.4.2.1	__init__ . . . . .	39
6.4.3	Member Function Documentation . . . . .	39
6.4.3.1	chooserDataHandler . . . . .	39
6.4.3.2	cognitiveTestCreatorDataHandler . . . . .	39
6.4.3.3	recordUserCognitiveTestPerformanceDataHandler . . . . .	39
6.4.3.4	returnTestsOfTypeSubtypeDifficultyDataHandler . . . . .	40
6.4.3.5	userScoreHistoryForAllCategoriesDataHandler . . . . .	40
6.4.3.6	userScoresForAllCategoriesDataHandler . . . . .	40
6.4.4	Member Data Documentation . . . . .	41
6.4.4.1	serv . . . . .	41
6.4.4.2	serv_topic . . . . .	41
6.5	helper_functions.CognitiveExerciseHelperFunctions Class Reference . . . . .	41
6.5.1	Detailed Description . . . . .	41
6.5.2	Member Function Documentation . . . . .	41
6.5.2.1	determineTestTypeListForReturningScoresOrHistory . . . . .	41
6.5.2.2	filterTestsbyDifficultyAndSubtype . . . . .	42
6.5.2.3	getCognitiveTestsOfType . . . . .	42

6.5.2.4	<a href="#">getTestLanguagesFromOntology</a>	42
6.5.2.5	<a href="#">getTestTypesFromOntology</a>	43
6.5.2.6	<a href="#">getUserLanguage</a>	43
6.5.2.7	<a href="#">getUserOntologyAlias</a>	43
6.5.2.8	<a href="#">getUserPerformanceRecordsForTestType</a>	43
6.5.2.9	<a href="#">organizeUserPerformanceByTimestamp</a>	44
6.6	<a href="#">rapp_application_authentication_manager.database_handler.DatabaseHandler Class Reference</a>	44
6.6.1	Detailed Description	46
6.6.2	Constructor & Destructor Documentation	46
6.6.2.1	<a href="#">__init__</a>	46
6.6.3	Member Function Documentation	46
6.6.3.1	<a href="#">add_new_user</a>	46
6.6.3.2	<a href="#">add_store_token_to_device</a>	47
6.6.3.3	<a href="#">get_token_user</a>	48
6.6.3.4	<a href="#">get_user_password</a>	48
6.6.3.5	<a href="#">username_exists</a>	48
6.6.3.6	<a href="#">validate_user_role</a>	48
6.6.3.7	<a href="#">verify_active_application_token</a>	49
6.6.3.8	<a href="#">verify_active_robot_session</a>	49
6.6.3.9	<a href="#">verify_platform_device_token</a>	49
6.6.3.10	<a href="#">verify_store_device_token</a>	49
6.6.3.11	<a href="#">write_new_application_token</a>	50
6.6.4	Member Data Documentation	50
6.6.4.1	<a href="#">_add_new_user_proxy</a>	50
6.6.4.2	<a href="#">_add_store_token_to_device_proxy</a>	50
6.6.4.3	<a href="#">_create_new_app_token_proxy</a>	50
6.6.4.4	<a href="#">_get_token_user_proxy</a>	50
6.6.4.5	<a href="#">_get_user_passwd_proxy</a>	51
6.6.4.6	<a href="#">_username_exists_proxy</a>	51
6.6.4.7	<a href="#">_validate_existing_device_token_proxy</a>	51
6.6.4.8	<a href="#">_validate_user_role_proxy</a>	51
6.6.4.9	<a href="#">_verify_appl_token_proxy</a>	51
6.6.4.10	<a href="#">_verify_robot_session_proxy</a>	51
6.7	<a href="#">rapp_audio_processing.rapp_detect_silence.DetectSilence Class Reference</a>	52
6.7.1	Detailed Description	52
6.7.2	Member Function Documentation	52
6.7.2.1	<a href="#">detectSilence</a>	52
6.8	<a href="#">rapp_email.email_receiver.EmailReceiver Class Reference</a>	52
6.8.1	Detailed Description	54
6.8.2	Constructor & Destructor Documentation	54



6.8.2.1	<a href="#">__init__</a>	54
6.8.3	<a href="#">Member Function Documentation</a>	54
6.8.3.1	<a href="#">_connectImap</a>	54
6.8.3.2	<a href="#">_fetchEmail</a>	54
6.8.3.3	<a href="#">_initializePath</a>	54
6.8.3.4	<a href="#">_selectEmails</a>	55
6.8.3.5	<a href="#">receiveEmailSrvCallback</a>	55
6.9	<a href="#">rapp_email.email_sender.EmailSender Class Reference</a>	55
6.9.1	<a href="#">Detailed Description</a>	56
6.9.2	<a href="#">Constructor &amp; Destructor Documentation</a>	56
6.9.2.1	<a href="#">__init__</a>	56
6.9.3	<a href="#">Member Function Documentation</a>	56
6.9.3.1	<a href="#">_connectAndSend</a>	56
6.9.3.2	<a href="#">_createEmailBody</a>	57
6.9.3.3	<a href="#">_handleAttachment</a>	57
6.9.3.4	<a href="#">sendEmailSrvCallback</a>	57
6.10	<a href="#">rapp_audio_processing.rapp_energy_denoise.EnergyDenoise Class Reference</a>	58
6.10.1	<a href="#">Detailed Description</a>	58
6.10.2	<a href="#">Member Function Documentation</a>	58
6.10.2.1	<a href="#">energyDenoise</a>	58
6.11	<a href="#">rapp_news_explorer.engine_factory.EngineFactory Class Reference</a>	58
6.11.1	<a href="#">Detailed Description</a>	59
6.11.2	<a href="#">Member Function Documentation</a>	59
6.11.2.1	<a href="#">select_news_engine</a>	59
6.12	<a href="#">rapp_speech_detection_sphinx4.english_support.EnglishSupport Class Reference</a>	60
6.12.1	<a href="#">Detailed Description</a>	61
6.12.2	<a href="#">Constructor &amp; Destructor Documentation</a>	61
6.12.2.1	<a href="#">__init__</a>	61
6.12.3	<a href="#">Member Function Documentation</a>	62
6.12.3.1	<a href="#">getLimitedVocebularyConfiguration</a>	62
6.12.3.2	<a href="#">getWordPhonemes</a>	62
6.12.4	<a href="#">Member Data Documentation</a>	62
6.12.4.1	<a href="#">_english_dict_file</a>	62
6.12.4.2	<a href="#">_english_dict_mapping</a>	62
6.13	<a href="#">rapp_news_explorer.event_registry_engine.EventRegistryEngine Class Reference</a>	62
6.13.1	<a href="#">Detailed Description</a>	64
6.13.2	<a href="#">Constructor &amp; Destructor Documentation</a>	64
6.13.2.1	<a href="#">__init__</a>	64
6.13.3	<a href="#">Member Function Documentation</a>	64
6.13.3.1	<a href="#">fetch_news</a>	64

6.13.4	Member Data Documentation . . . . .	64
6.13.4.1	_event_handler . . . . .	64
6.13.4.2	_max_requests . . . . .	64
6.13.4.3	_max_stories . . . . .	64
6.13.4.4	_password . . . . .	65
6.13.4.5	_username . . . . .	65
6.14	FaceDetection Class Reference . . . . .	65
6.14.1	Detailed Description . . . . .	66
6.14.2	Constructor & Destructor Documentation . . . . .	66
6.14.2.1	FaceDetection . . . . .	66
6.14.3	Member Function Documentation . . . . .	66
6.14.3.1	faceDetectionCallback . . . . .	66
6.14.4	Member Data Documentation . . . . .	66
6.14.4.1	face_detector_ . . . . .	66
6.14.4.2	faceDetectionService_ . . . . .	66
6.14.4.3	faceDetectionTopic_ . . . . .	66
6.14.4.4	nh_ . . . . .	67
6.15	FaceDetector Class Reference . . . . .	67
6.15.1	Detailed Description . . . . .	67
6.15.2	Constructor & Destructor Documentation . . . . .	67
6.15.2.1	FaceDetector . . . . .	67
6.15.3	Member Function Documentation . . . . .	68
6.15.3.1	detectFaces . . . . .	68
6.15.3.2	detectFaces . . . . .	69
6.15.3.3	findFaces . . . . .	69
6.15.3.4	identifyUniqueFaces . . . . .	69
6.15.3.5	loadImage . . . . .	70
6.16	rapp_weather_reporter.forecastio_reporter.ForecastIOReporter Class Reference . . . . .	71
6.16.1	Detailed Description . . . . .	72
6.16.2	Constructor & Destructor Documentation . . . . .	73
6.16.2.1	__init__ . . . . .	73
6.16.3	Member Function Documentation . . . . .	73
6.16.3.1	_get_fio_object . . . . .	73
6.16.3.2	_handle_current_weather_report . . . . .	73
6.16.3.3	_handle_weather_forecast_report . . . . .	73
6.16.3.4	fetch_current_weather . . . . .	73
6.16.3.5	fetch_weather_forecast . . . . .	74
6.16.4	Member Data Documentation . . . . .	74
6.16.4.1	_api_key . . . . .	74
6.17	rapp_geolocator.geolocator_base.GeolocatorBase Class Reference . . . . .	74

6.17.1 Detailed Description . . . . .	75
6.17.2 Constructor & Destructor Documentation . . . . .	76
6.17.2.1 <code>__init__</code> . . . . .	76
6.17.3 Member Function Documentation . . . . .	76
6.17.3.1 <code>fetch_geolocation</code> . . . . .	76
6.17.4 Member Data Documentation . . . . .	76
6.17.4.1 <code>__metaclass__</code> . . . . .	76
6.17.4.2 <code>_accepted_status</code> . . . . .	76
6.17.4.3 <code>_http_request</code> . . . . .	76
6.17.4.4 <code>_url</code> . . . . .	76
6.17.4.5 <code>rapp_http_json_parser</code> . . . . .	76
6.18 <code>rapp_geolocator.geolocator_factory.GeolocatorFactory</code> Class Reference . . . . .	77
6.18.1 Detailed Description . . . . .	77
6.18.2 Member Function Documentation . . . . .	77
6.18.2.1 <code>select_geolocator</code> . . . . .	77
6.19 <code>rapp_geolocator.geolocator_node.GeolocatorNode</code> Class Reference . . . . .	78
6.19.1 Detailed Description . . . . .	79
6.19.2 Constructor & Destructor Documentation . . . . .	79
6.19.2.1 <code>__init__</code> . . . . .	79
6.19.3 Member Function Documentation . . . . .	79
6.19.3.1 <code>_create_service_response</code> . . . . .	79
6.19.3.2 <code>fetch_location_srv_callback</code> . . . . .	79
6.19.4 Member Data Documentation . . . . .	80
6.19.4.1 <code>_geolocator_factory</code> . . . . .	80
6.20 <code>rapp_speech_detection_sphinx4.global_parameters.GlobalParams</code> Class Reference . . . . .	80
6.20.1 Detailed Description . . . . .	81
6.20.2 Constructor & Destructor Documentation . . . . .	81
6.20.2.1 <code>__init__</code> . . . . .	81
6.20.3 Member Data Documentation . . . . .	81
6.20.3.1 <code>_acoustic_models_url</code> . . . . .	81
6.20.3.2 <code>_allow_sphinx_output</code> . . . . .	81
6.20.3.3 <code>_language_models_url</code> . . . . .	81
6.20.3.4 <code>_noise_profiles_url</code> . . . . .	81
6.20.3.5 <code>_socket_host</code> . . . . .	81
6.20.3.6 <code>_sphinx_jar_file</code> . . . . .	81
6.20.3.7 <code>_sphinx_jar_files_url</code> . . . . .	82
6.20.3.8 <code>_sphinx_package_url</code> . . . . .	82
6.20.3.9 <code>_sphinx_preconf</code> . . . . .	82
6.20.3.10 <code>_tmp_language_models_url</code> . . . . .	82
6.20.3.11 <code>rospack</code> . . . . .	82

6.21 rapp_news_explorer.google_news_engine.GoogleNewsEngine Class Reference . . . . .	82
6.21.1 Detailed Description . . . . .	84
6.21.2 Constructor & Destructor Documentation . . . . .	84
6.21.2.1 __init__ . . . . .	84
6.21.3 Member Function Documentation . . . . .	84
6.21.3.1 _handle_params . . . . .	84
6.21.3.2 _handle_server_response . . . . .	84
6.21.3.3 fetch_news . . . . .	85
6.21.4 Member Data Documentation . . . . .	85
6.21.4.1 _max_requests . . . . .	85
6.21.4.2 _max_stories . . . . .	85
6.21.4.3 _params . . . . .	85
6.21.4.4 _url . . . . .	85
6.22 rapp_speech_detection_sphinx4.greek_english_support.GreekEnglishSupport Class Reference . .	86
6.22.1 Detailed Description . . . . .	86
6.22.2 Constructor & Destructor Documentation . . . . .	86
6.22.2.1 __init__ . . . . .	86
6.22.3 Member Function Documentation . . . . .	87
6.22.3.1 _separateEngGrWords . . . . .	87
6.22.3.2 getLimitedVocebularyConfiguration . . . . .	88
6.23 GreekSupport Class Reference . . . . .	88
6.23.1 Detailed Description . . . . .	88
6.24 rapp_speech_detection_sphinx4.greek_support.GreekSupport Class Reference . . . . .	89
6.24.1 Detailed Description . . . . .	91
6.24.2 Constructor & Destructor Documentation . . . . .	91
6.24.2.1 __init__ . . . . .	91
6.24.3 Member Function Documentation . . . . .	91
6.24.3.1 _configureLetters . . . . .	91
6.24.3.2 _englify_words . . . . .	91
6.24.3.3 _transformWords . . . . .	91
6.24.3.4 getLimitedVocebularyConfiguration . . . . .	92
6.24.4 Member Data Documentation . . . . .	93
6.24.4.1 _all_special_two_digit_letters . . . . .	93
6.24.4.2 _capital_letters . . . . .	93
6.24.4.3 _english_support . . . . .	93
6.24.4.4 _letters . . . . .	93
6.24.4.5 _literal_letters . . . . .	93
6.24.4.6 _phonemes . . . . .	93
6.24.4.7 _s_specific_rules . . . . .	93
6.24.4.8 _special_two_digit_letters . . . . .	94

6.24.4.9	<a href="#">_two_digit_letters</a>	94
6.25	<a href="#">HumanDetection Class Reference</a>	94
6.25.1	<a href="#">Detailed Description</a>	95
6.25.2	<a href="#">Constructor &amp; Destructor Documentation</a>	95
6.25.2.1	<a href="#">HumanDetection</a>	95
6.25.3	<a href="#">Member Function Documentation</a>	95
6.25.3.1	<a href="#">humanDetectionCallback</a>	95
6.25.4	<a href="#">Member Data Documentation</a>	95
6.25.4.1	<a href="#">human_detector_</a>	95
6.25.4.2	<a href="#">humanDetectionService_</a>	95
6.25.4.3	<a href="#">humanDetectionTopic_</a>	95
6.25.4.4	<a href="#">nh_</a>	96
6.26	<a href="#">HumanDetector Class Reference</a>	96
6.26.1	<a href="#">Detailed Description</a>	96
6.26.2	<a href="#">Constructor &amp; Destructor Documentation</a>	96
6.26.2.1	<a href="#">HumanDetector</a>	96
6.26.3	<a href="#">Member Function Documentation</a>	97
6.26.3.1	<a href="#">detectHuman2D</a>	97
6.26.3.2	<a href="#">detectHuman2D</a>	98
6.26.3.3	<a href="#">findHuman2D</a>	98
6.26.3.4	<a href="#">identifyUniqueHumans</a>	98
6.26.3.5	<a href="#">loadImage</a>	98
6.27	<a href="#">image_classification.ImageClassification Class Reference</a>	99
6.27.1	<a href="#">Detailed Description</a>	99
6.27.2	<a href="#">Constructor &amp; Destructor Documentation</a>	99
6.27.2.1	<a href="#">__init__</a>	99
6.27.3	<a href="#">Member Function Documentation</a>	100
6.27.3.1	<a href="#">classifyImage</a>	100
6.27.3.2	<a href="#">getImageClass</a>	101
6.27.3.3	<a href="#">getOntologyClass</a>	101
6.27.3.4	<a href="#">registerToOntology</a>	101
6.27.4	<a href="#">Member Data Documentation</a>	102
6.27.4.1	<a href="#">caffe_root</a>	102
6.27.4.2	<a href="#">labels</a>	102
6.27.4.3	<a href="#">net</a>	102
6.27.4.4	<a href="#">transformer</a>	102
6.28	<a href="#">image_registration_to_ontology.ImageRegistrationToOntology Class Reference</a>	102
6.28.1	<a href="#">Detailed Description</a>	103
6.28.2	<a href="#">Member Function Documentation</a>	103
6.28.2.1	<a href="#">getUserOntologyAlias</a>	103

6.28.2.2	<a href="#">registerImage</a>	103
6.28.2.3	<a href="#">registerImageToOntology</a>	103
6.29	<a href="#">rapp_geolocator.ip_api_locator.IpAPILocator Class Reference</a>	104
6.29.1	<a href="#">Detailed Description</a>	105
6.29.2	<a href="#">Constructor &amp; Destructor Documentation</a>	105
6.29.2.1	<a href="#">__init__</a>	105
6.29.3	<a href="#">Member Function Documentation</a>	106
6.29.3.1	<a href="#">_handle_server_response</a>	106
6.29.3.2	<a href="#">fetch_geolocation</a>	106
6.29.4	<a href="#">Member Data Documentation</a>	106
6.29.4.1	<a href="#">_url</a>	106
6.30	<a href="#">IPLocatorFactory Class Reference</a>	106
6.30.1	<a href="#">Detailed Description</a>	106
6.31	<a href="#">KnowrobWrapper Class Reference</a>	107
6.31.1	<a href="#">Detailed Description</a>	108
6.31.2	<a href="#">Constructor &amp; Destructor Documentation</a>	108
6.31.2.1	<a href="#">KnowrobWrapper</a>	108
6.31.3	<a href="#">Member Function Documentation</a>	108
6.31.3.1	<a href="#">assertAttributeValue</a>	108
6.31.3.2	<a href="#">clear_user_cognitive_tests_performance_records</a>	109
6.31.3.3	<a href="#">cognitive_tests_of_type</a>	110
6.31.3.4	<a href="#">create_cognitive_tests</a>	110
6.31.3.5	<a href="#">create_ontology_alias</a>	111
6.31.3.6	<a href="#">create_ontology_alias_for_new_user</a>	111
6.31.3.7	<a href="#">createInstanceQuery</a>	112
6.31.3.8	<a href="#">dump_ontology_now</a>	112
6.31.3.9	<a href="#">dumpOntologyQuery</a>	112
6.31.3.10	<a href="#">get_ontology_alias</a>	113
6.31.3.11	<a href="#">isSubSuperclassOfQuery</a>	113
6.31.3.12	<a href="#">loadOntologyQuery</a>	114
6.31.3.13	<a href="#">record_user_cognitive_tests_performance</a>	114
6.31.3.14	<a href="#">register_image_object_to_ontology</a>	115
6.31.3.15	<a href="#">retract_user_ontology_alias</a>	115
6.31.3.16	<a href="#">subclassesOfQuery</a>	115
6.31.3.17	<a href="#">superclassesOfQuery</a>	116
6.31.3.18	<a href="#">user_instances_of_class</a>	117
6.31.3.19	<a href="#">user_performance_cognitive_tests</a>	118
6.31.4	<a href="#">Member Data Documentation</a>	119
6.31.4.1	<a href="#">mysql_get_user_ontology_alias_client</a>	119
6.31.4.2	<a href="#">mysql_register_user_ontology_alias_client</a>	119

6.31.4.3	nh_ . . . . .	119
6.31.4.4	pl . . . . .	119
6.32	KnowrobWrapperCommunications Class Reference . . . . .	119
6.32.1	Detailed Description . . . . .	121
6.32.2	Constructor & Destructor Documentation . . . . .	121
6.32.2.1	KnowrobWrapperCommunications . . . . .	121
6.32.3	Member Function Documentation . . . . .	122
6.32.3.1	clear_user_cognitive_tests_performance_records_callback . . . . .	122
6.32.3.2	cognitive_tests_of_type_callback . . . . .	123
6.32.3.3	create_cognitive_tests_callback . . . . .	123
6.32.3.4	create_ontology_alias_callback . . . . .	123
6.32.3.5	createInstanceCallback . . . . .	124
6.32.3.6	dumpOntologyCallback . . . . .	124
6.32.3.7	isSubSuperclassOfCallback . . . . .	124
6.32.3.8	loadOntologyCallback . . . . .	125
6.32.3.9	record_user_cognitive_tests_performance_callback . . . . .	125
6.32.3.10	register_image_object_to_ontology_callback . . . . .	125
6.32.3.11	retract_user_ontology_alias_callback . . . . .	126
6.32.3.12	subclassesOfCallback . . . . .	126
6.32.3.13	superclassesOfCallback . . . . .	126
6.32.3.14	user_instances_of_class_callback . . . . .	127
6.32.3.15	user_performance_cognitive_tests_callback . . . . .	127
6.32.4	Member Data Documentation . . . . .	127
6.32.4.1	clear_user_cognitive_tests_performance_records_service_ . . . . .	127
6.32.4.2	clear_user_cognitive_tests_performance_records_topic_ . . . . .	128
6.32.4.3	cognitive_tests_of_type_service_ . . . . .	128
6.32.4.4	cognitive_tests_of_type_topic_ . . . . .	128
6.32.4.5	create_cognitive_tests_service_ . . . . .	128
6.32.4.6	create_cognitive_tests_topic_ . . . . .	128
6.32.4.7	create_ontology_alias_service_ . . . . .	128
6.32.4.8	create_ontology_alias_topic_ . . . . .	128
6.32.4.9	createInstanceService_ . . . . .	128
6.32.4.10	createInstanceServiceTopic_ . . . . .	128
6.32.4.11	dumpOntologyService_ . . . . .	129
6.32.4.12	dumpOntologyServiceTopic_ . . . . .	129
6.32.4.13	is_subsuperclass_of_service_ . . . . .	129
6.32.4.14	is_subsuperclass_of_service_topic_ . . . . .	129
6.32.4.15	knowrob_wrapper . . . . .	129
6.32.4.16	loadOntologyService_ . . . . .	129
6.32.4.17	loadOntologyServiceTopic_ . . . . .	129

6.32.4.18	<a href="#">nh_</a>	129
6.32.4.19	<a href="#">record_user_cognitive_tests_performance_service_</a>	129
6.32.4.20	<a href="#">record_user_cognitive_tests_performance_topic_</a>	130
6.32.4.21	<a href="#">register_image_object_to_ontology_service_</a>	130
6.32.4.22	<a href="#">register_image_object_to_ontology_topic_</a>	130
6.32.4.23	<a href="#">retract_user_ontology_alias_service_</a>	130
6.32.4.24	<a href="#">retract_user_ontology_alias_topic_</a>	130
6.32.4.25	<a href="#">subclasses_of_service_</a>	130
6.32.4.26	<a href="#">subclasses_of_service_topic_</a>	130
6.32.4.27	<a href="#">superclasses_of_service_</a>	130
6.32.4.28	<a href="#">superclasses_of_service_topic_</a>	130
6.32.4.29	<a href="#">user_instances_of_class_service_</a>	131
6.32.4.30	<a href="#">user_instances_of_class_topic_</a>	131
6.32.4.31	<a href="#">user_performance_cognitive_tests_service_</a>	131
6.32.4.32	<a href="#">user_performance_cognitive_tests_topic_</a>	131
6.33	<a href="#">rapp_speech_detection_sphinx4.language_support.LanguageSupport Class Reference</a>	131
6.33.1	<a href="#">Detailed Description</a>	132
6.33.2	<a href="#">Constructor &amp; Destructor Documentation</a>	132
6.33.2.1	<a href="#">__init__</a>	132
6.33.3	<a href="#">Member Function Documentation</a>	133
6.33.3.1	<a href="#">getGenericConfiguration</a>	133
6.33.3.2	<a href="#">getLimitedVocebularyConfiguration</a>	133
6.33.4	<a href="#">Member Data Documentation</a>	133
6.33.4.1	<a href="#">_generic_sphinx_configuration</a>	133
6.33.4.2	<a href="#">_globalParams</a>	133
6.33.4.3	<a href="#">_vocabulary</a>	133
6.34	<a href="#">rapp_speech_detection_sphinx4.limited_vocabulary_creator.LimitedVocabularyCreator Class Reference</a>	134
6.34.1	<a href="#">Detailed Description</a>	134
6.34.2	<a href="#">Constructor &amp; Destructor Documentation</a>	134
6.34.2.1	<a href="#">__init__</a>	134
6.34.3	<a href="#">Member Function Documentation</a>	134
6.34.3.1	<a href="#">createConfigurationFiles</a>	134
6.34.4	<a href="#">Member Data Documentation</a>	135
6.34.4.1	<a href="#">_globalParams</a>	135
6.34.4.2	<a href="#">_languages_package</a>	135
6.34.4.3	<a href="#">_sphinx_configuration</a>	135
6.35	<a href="#">MapGenerator Class Reference</a>	135
6.35.1	<a href="#">Detailed Description</a>	136
6.35.2	<a href="#">Constructor &amp; Destructor Documentation</a>	136



6.35.2.1	MapGenerator	136
6.35.3	Member Function Documentation	136
6.35.3.1	mapCallback	136
6.35.4	Member Data Documentation	136
6.35.4.1	map_sub_	136
6.35.4.2	mapname_	136
6.35.4.3	saved_map_	136
6.36	MapServer Class Reference	136
6.36.1	Detailed Description	137
6.36.2	Constructor & Destructor Documentation	137
6.36.2.1	MapServer	137
6.36.3	Member Function Documentation	137
6.36.3.1	mapCallback	137
6.36.3.2	mapUploadCallback	137
6.36.3.3	updateMap	137
6.36.4	Member Data Documentation	137
6.36.4.1	deprecated	137
6.36.4.2	fname	138
6.36.4.3	get_service	138
6.36.4.4	homedir	138
6.36.4.5	map_pub	138
6.36.4.6	map_resp_	138
6.36.4.7	meta_data_message_	138
6.36.4.8	metadata_pub	138
6.36.4.9	n	138
6.36.4.10	test_service	138
6.36.4.11	upload_map_trigger	138
6.36.4.12	upload_map_trigger_name	138
6.36.4.13	upload_service	139
6.37	mysql_wrapper_old.MySQLdbWrapper Class Reference	139
6.37.1	Detailed Description	141
6.37.2	Constructor & Destructor Documentation	141
6.37.2.1	__init__	141
6.37.3	Member Function Documentation	141
6.37.3.1	authTokenByService	141
6.37.3.2	authTokenByServiceDataHandler	141
6.37.3.3	checkConnection	142
6.37.3.4	constructAndQuery	142
6.37.3.5	constructCommaColumns	142
6.37.3.6	deleteData	142

6.37.3.7	fetchData	142
6.37.3.8	getLogin	143
6.37.3.9	getTableColumnNames	143
6.37.3.10	tblAppsRobotsDeleteDataHandler	143
6.37.3.11	tblAppsRobotsFetchDataHandler	143
6.37.3.12	tblAppsRobotsUpdateDataHandler	143
6.37.3.13	tblAppsRobotsWriteDataHandler	144
6.37.3.14	tblCloudAgentDeleteDataHandler	144
6.37.3.15	tblCloudAgentFetchDataHandler	144
6.37.3.16	tblCloudAgentServiceArgumentsDeleteDataHandler	144
6.37.3.17	tblCloudAgentServiceArgumentsFetchDataHandler	145
6.37.3.18	tblCloudAgentServiceArgumentsUpdateDataHandler	145
6.37.3.19	tblCloudAgentServiceArgumentsWriteDataHandler	145
6.37.3.20	tblCloudAgentServiceDeleteDataHandler	145
6.37.3.21	tblCloudAgentServiceFetchDataHandler	145
6.37.3.22	tblCloudAgentServiceUpdateDataHandler	146
6.37.3.23	tblCloudAgentServiceWriteDataHandler	146
6.37.3.24	tblCloudAgentUpdateDataHandler	146
6.37.3.25	tblCloudAgentWriteDataHandler	146
6.37.3.26	tblModelDeleteDataHandler	147
6.37.3.27	tblModelFetchDataHandler	147
6.37.3.28	tblModelUpdateDataHandler	147
6.37.3.29	tblModelWriteDataHandler	147
6.37.3.30	tblRappDeleteDataHandler	147
6.37.3.31	tblRappFetchDataHandler	148
6.37.3.32	tblRappUpdateDataHandler	148
6.37.3.33	tblRappWriteDataHandler	148
6.37.3.34	tblRobotDeleteDataHandler	148
6.37.3.35	tblRobotFetchDataHandler	149
6.37.3.36	tblRobotUpdateDataHandler	149
6.37.3.37	tblRobotWriteDataHandler	149
6.37.3.38	tblUserDeleteDataHandler	149
6.37.3.39	tblUserFetchDataHandler	149
6.37.3.40	tblUsersOntologyInstancesDeleteDataHandler	150
6.37.3.41	tblUsersOntologyInstancesFetchDataHandler	150
6.37.3.42	tblUsersOntologyInstancesUpdateDataHandler	150
6.37.3.43	tblUsersOntologyInstancesWriteDataHandler	150
6.37.3.44	tblUserUpdateDataHandler	151
6.37.3.45	tblUserWriteDataHandler	151
6.37.3.46	updateData	151

6.37.3.47	<a href="#">viewUsersRobotsAppsFetchDataHandler</a>	151
6.37.3.48	<a href="#">whatRappsCanRun</a>	151
6.37.3.49	<a href="#">whatRappsCanRunDataHandler</a>	152
6.37.3.50	<a href="#">writeData</a>	152
6.37.4	<a href="#">Member Data Documentation</a>	152
6.37.4.1	<a href="#">serv</a>	152
6.37.4.2	<a href="#">serv_topic</a>	152
6.38	<a href="#">mysql_wrapper.MySQLdbWrapper Class Reference</a>	152
6.38.1	<a href="#">Detailed Description</a>	154
6.38.2	<a href="#">Constructor &amp; Destructor Documentation</a>	154
6.38.2.1	<a href="#">__init__</a>	154
6.38.3	<a href="#">Member Function Documentation</a>	155
6.38.3.1	<a href="#">addStoreTokenToDevice</a>	155
6.38.3.2	<a href="#">addStoreTokenToDeviceDataHandler</a>	156
6.38.3.3	<a href="#">checkActiveApplicationToken</a>	156
6.38.3.4	<a href="#">checkActiveApplicationTokenDataHandler</a>	156
6.38.3.5	<a href="#">checkActiveRobotSession</a>	157
6.38.3.6	<a href="#">checkActiveRobotSessionDataHandler</a>	157
6.38.3.7	<a href="#">checkConnection</a>	157
6.38.3.8	<a href="#">checkIfUserExists</a>	158
6.38.3.9	<a href="#">checkIfUserExistsDataHandler</a>	159
6.38.3.10	<a href="#">createNewApplicationToken</a>	159
6.38.3.11	<a href="#">createNewApplicationTokenDataHandler</a>	159
6.38.3.12	<a href="#">createNewCloudAgent</a>	160
6.38.3.13	<a href="#">createNewCloudAgentDataHandler</a>	160
6.38.3.14	<a href="#">createNewCloudAgentService</a>	160
6.38.3.15	<a href="#">createNewCloudAgentServiceDataHandler</a>	161
6.38.3.16	<a href="#">createNewPlatformUser</a>	161
6.38.3.17	<a href="#">createNewPlatformUserDataHandler</a>	161
6.38.3.18	<a href="#">getCloudAgentServiceTypeAndHostPort</a>	162
6.38.3.19	<a href="#">getCloudAgentServiceTypeAndHostPortDataHandler</a>	162
6.38.3.20	<a href="#">getLogin</a>	162
6.38.3.21	<a href="#">getTableColumnNames</a>	163
6.38.3.22	<a href="#">getUserLanguage</a>	164
6.38.3.23	<a href="#">getUserLanguageDataHandler</a>	164
6.38.3.24	<a href="#">getUsernameAssociatedWithApplicationToken</a>	164
6.38.3.25	<a href="#">getUsernameAssociatedWithApplicationTokenDataHandler</a>	165
6.38.3.26	<a href="#">getUserOntologyAlias</a>	165
6.38.3.27	<a href="#">getUserOntologyAliasDataHandler</a>	165
6.38.3.28	<a href="#">getUserPassword</a>	166

6.38.3.29	<a href="#">getUserPasswordDataHandler</a>	166
6.38.3.30	<a href="#">registerNewTokenDataHandler</a>	166
6.38.3.31	<a href="#">registerUserOntologyAlias</a>	166
6.38.3.32	<a href="#">registerUserOntologyAliasDataHandler</a>	167
6.38.3.33	<a href="#">removePlatformUser</a>	167
6.38.3.34	<a href="#">removePlatformUserDataHandler</a>	167
6.38.3.35	<a href="#">validateExistingPlatformDeviceToken</a>	168
6.38.3.36	<a href="#">validateExistingPlatformDeviceTokenDataHandler</a>	168
6.38.3.37	<a href="#">validateUserRole</a>	168
6.38.3.38	<a href="#">validateUserRoleDataHandler</a>	169
6.38.4	<a href="#">Member Data Documentation</a>	169
6.38.4.1	<a href="#">serv</a>	169
6.38.4.2	<a href="#">serv_topic</a>	169
6.39	<a href="#">rapp_news_explorer.news_engine_base.NewsEngineBase Class Reference</a>	169
6.39.1	<a href="#">Detailed Description</a>	171
6.39.2	<a href="#">Constructor &amp; Destructor Documentation</a>	171
6.39.2.1	<a href="#">__init__</a>	171
6.39.3	<a href="#">Member Function Documentation</a>	171
6.39.3.1	<a href="#">fetch_news</a>	171
6.39.4	<a href="#">Member Data Documentation</a>	171
6.39.4.1	<a href="#">__metaclass__</a>	171
6.39.4.2	<a href="#">_accepted_status</a>	171
6.39.4.3	<a href="#">_http_request</a>	171
6.39.4.4	<a href="#">_url</a>	171
6.39.4.5	<a href="#">rapp_http_json_parser</a>	172
6.40	<a href="#">rapp_news_explorer.news_explorer_node.NewsExplorerNode Class Reference</a>	172
6.40.1	<a href="#">Detailed Description</a>	173
6.40.2	<a href="#">Constructor &amp; Destructor Documentation</a>	173
6.40.2.1	<a href="#">__init__</a>	173
6.40.3	<a href="#">Member Function Documentation</a>	173
6.40.3.1	<a href="#">_create_service_response</a>	173
6.40.3.2	<a href="#">fetch_news_srv_callback</a>	173
6.40.4	<a href="#">Member Data Documentation</a>	174
6.40.4.1	<a href="#">_engine_factory</a>	174
6.41	<a href="#">ontology_class_bridge.OntologyClassBridge Class Reference</a>	174
6.41.1	<a href="#">Detailed Description</a>	174
6.41.2	<a href="#">Member Function Documentation</a>	174
6.41.2.1	<a href="#">getOntologyClassEquivalent</a>	174
6.41.2.2	<a href="#">loadMappingIntoDictionary</a>	174
6.42	<a href="#">PathPlanner Class Reference</a>	175

6.42.1	Detailed Description	175
6.42.2	Constructor & Destructor Documentation	175
6.42.2.1	PathPlanner	175
6.42.3	Member Function Documentation	175
6.42.3.1	configureSequence	175
6.42.3.2	setSequenceNR	176
6.42.3.3	startSequence	176
6.43	PathPlanning Class Reference	177
6.43.1	Detailed Description	177
6.43.2	Constructor & Destructor Documentation	178
6.43.2.1	PathPlanning	178
6.43.2.2	~PathPlanning	178
6.43.3	Member Function Documentation	178
6.43.3.1	pathPlanningCallback	178
6.43.3.2	uploadMapCallback	178
6.43.4	Member Data Documentation	178
6.43.4.1	GP_pIDs	178
6.43.4.2	homedir	179
6.43.4.3	MS_pIDs	179
6.43.4.4	new_path	179
6.43.4.5	nh_	179
6.43.4.6	path_planner_	179
6.43.4.7	pathPlanningService_	179
6.43.4.8	pathPlanningThreads_	179
6.43.4.9	pathPlanningThreadServices_	179
6.43.4.10	pathPlanningTopic_	179
6.43.4.11	pose_dist_	179
6.43.4.12	TP_pID	179
6.43.4.13	uploadMapService_	179
6.43.4.14	uploadMapTopic_	180
6.44	QrCode Class Reference	180
6.44.1	Detailed Description	180
6.44.2	Member Data Documentation	180
6.44.2.1	center	180
6.44.2.2	message	180
6.45	QrDetection Class Reference	180
6.45.1	Detailed Description	181
6.45.2	Constructor & Destructor Documentation	181
6.45.2.1	QrDetection	181
6.45.3	Member Function Documentation	181

6.45.3.1	qrDetectionCallback	181
6.45.4	Member Data Documentation	182
6.45.4.1	nh_	182
6.45.4.2	qr_detector_	182
6.45.4.3	qrDetectionService_	182
6.45.4.4	qrDetectionTopic_	182
6.46	QrDetector Class Reference	182
6.46.1	Detailed Description	183
6.46.2	Constructor & Destructor Documentation	183
6.46.2.1	QrDetector	183
6.46.3	Member Function Documentation	183
6.46.3.1	detectQrs	183
6.46.3.2	findQrs	183
6.46.3.3	loadImage	183
6.47	caffe_wrapper.RappCaffeWrapper Class Reference	184
6.47.1	Detailed Description	184
6.47.2	Constructor & Destructor Documentation	184
6.47.2.1	__init__	184
6.47.3	Member Function Documentation	185
6.47.3.1	imageClassificationDataHandler	185
6.47.3.2	ontologyClassBridgeDataHandler	186
6.47.3.3	registerImageToOntologyDataHandler	186
6.47.4	Member Data Documentation	186
6.47.4.1	serv	186
6.47.4.2	serv_topic	186
6.48	src.rapp_exceptions.RappError Class Reference	187
6.48.1	Detailed Description	187
6.48.2	Constructor & Destructor Documentation	188
6.48.2.1	__init__	188
6.48.3	Member Function Documentation	188
6.48.3.1	__str__	188
6.48.4	Member Data Documentation	188
6.48.4.1	value	188
6.49	src.rapp_html_parser.RappHTMLParser Class Reference	188
6.49.1	Detailed Description	189
6.49.2	Constructor & Destructor Documentation	189
6.49.2.1	__init__	189
6.49.3	Member Function Documentation	189
6.49.3.1	get_data	189
6.49.3.2	handle_data	190

6.49.4	Member Data Documentation . . . . .	190
6.49.4.1	fed . . . . .	190
6.50	src.rapp_http_json_parser.RappHttpJSONParser Class Reference . . . . .	190
6.50.1	Detailed Description . . . . .	191
6.50.2	Constructor & Destructor Documentation . . . . .	191
6.50.2.1	__init__ . . . . .	191
6.50.3	Member Function Documentation . . . . .	191
6.50.3.1	find_values . . . . .	191
6.50.4	Member Data Documentation . . . . .	192
6.50.4.1	_html_parser . . . . .	192
6.51	src.rapp_http_request_handler.RappHttpRequestHandler Class Reference . . . . .	192
6.51.1	Detailed Description . . . . .	193
6.51.2	Constructor & Destructor Documentation . . . . .	194
6.51.2.1	__init__ . . . . .	194
6.51.3	Member Function Documentation . . . . .	194
6.51.3.1	_modify_response . . . . .	194
6.51.3.2	perform_request . . . . .	194
6.51.4	Member Data Documentation . . . . .	194
6.51.4.1	_accepted_status . . . . .	194
6.51.4.2	_headers . . . . .	194
6.51.4.3	_params . . . . .	194
6.51.4.4	_response_format . . . . .	195
6.51.4.5	_server_timeout . . . . .	195
6.51.4.6	_url . . . . .	195
6.52	costmap_2d::RappStaticLayer Class Reference . . . . .	195
6.52.1	Detailed Description . . . . .	197
6.52.2	Constructor & Destructor Documentation . . . . .	197
6.52.2.1	RappStaticLayer . . . . .	197
6.52.2.2	~RappStaticLayer . . . . .	197
6.52.3	Member Function Documentation . . . . .	197
6.52.3.1	activate . . . . .	197
6.52.3.2	deactivate . . . . .	197
6.52.3.3	incomingMap . . . . .	197
6.52.3.4	incomingUpdate . . . . .	197
6.52.3.5	incomingUpdateService . . . . .	198
6.52.3.6	interpretValue . . . . .	198
6.52.3.7	matchSize . . . . .	198
6.52.3.8	onInitialize . . . . .	198
6.52.3.9	reconfigureCB . . . . .	198
6.52.3.10	reset . . . . .	198

6.52.3.11	<a href="#">updateBounds</a>	198
6.52.3.12	<a href="#">updateCosts</a>	198
6.52.4	<a href="#">Member Data Documentation</a>	198
6.52.4.1	<a href="#">costmap_update_service</a>	198
6.52.4.2	<a href="#">dsrv_</a>	198
6.52.4.3	<a href="#">global_frame_</a>	199
6.52.4.4	<a href="#">has_updated_data_</a>	199
6.52.4.5	<a href="#">height_</a>	199
6.52.4.6	<a href="#">lethal_threshold_</a>	199
6.52.4.7	<a href="#">lock_</a>	199
6.52.4.8	<a href="#">map_received_</a>	199
6.52.4.9	<a href="#">map_sub_</a>	199
6.52.4.10	<a href="#">map_update_sub_</a>	199
6.52.4.11	<a href="#">subscribe_to_updates_</a>	199
6.52.4.12	<a href="#">track_unknown_space_</a>	199
6.52.4.13	<a href="#">trinary_costmap_</a>	199
6.52.4.14	<a href="#">unknown_cost_value_</a>	199
6.52.4.15	<a href="#">use_maximum_</a>	200
6.52.4.16	<a href="#">width_</a>	200
6.52.4.17	<a href="#">x_</a>	200
6.52.4.18	<a href="#">y_</a>	200
6.53	<a href="#">src.rapp_utilities.RappUtilities Class Reference</a>	200
6.53.1	<a href="#">Detailed Description</a>	201
6.53.2	<a href="#">Constructor &amp; Destructor Documentation</a>	201
6.53.2.1	<a href="#">__init__</a>	201
6.53.3	<a href="#">Member Function Documentation</a>	201
6.53.3.1	<a href="#">rapp_print</a>	201
6.54	<a href="#">rapp_audio_processing.rapp_set_noise_profile.SetNoiseProfile Class Reference</a>	201
6.54.1	<a href="#">Detailed Description</a>	202
6.54.2	<a href="#">Constructor &amp; Destructor Documentation</a>	202
6.54.2.1	<a href="#">__init__</a>	202
6.54.3	<a href="#">Member Function Documentation</a>	202
6.54.3.1	<a href="#">setNoise_profile</a>	202
6.54.4	<a href="#">Member Data Documentation</a>	202
6.54.4.1	<a href="#">utilities</a>	202
6.55	<a href="#">rapp_audio_processing.rapp_sox_denoise.SoxDenoise Class Reference</a>	203
6.55.1	<a href="#">Detailed Description</a>	203
6.55.2	<a href="#">Member Function Documentation</a>	203
6.55.2.1	<a href="#">soxDenoise</a>	203



6.56	<a href="#">rapp_speech_detection_sphinx4.speech_recognition_sphinx4.SpeechRecognitionSphinx4</a>	<a href="#">Class Reference</a>	203
6.56.1	<a href="#">Detailed Description</a>		204
6.56.2	<a href="#">Constructor &amp; Destructor Documentation</a>		204
6.56.2.1	<a href="#">__init__</a>		204
6.56.3	<a href="#">Member Function Documentation</a>		204
6.56.3.1	<a href="#">_configureSpeechRecognition</a>		204
6.56.3.2	<a href="#">_createPreconfiguration</a>		205
6.56.3.3	<a href="#">_createSupportConfiguration</a>		205
6.56.3.4	<a href="#">_selectLanguageSupport</a>		205
6.56.3.5	<a href="#">_speechRecognition</a>		206
6.56.3.6	<a href="#">getConfigurationHash</a>		206
6.56.3.7	<a href="#">speechRecognitionBatch</a>		206
6.56.4	<a href="#">Member Data Documentation</a>		206
6.56.4.1	<a href="#">_configuration_params</a>		206
6.56.4.2	<a href="#">_english_support</a>		207
6.56.4.3	<a href="#">_globalParams</a>		207
6.56.4.4	<a href="#">_greek_support</a>		207
6.56.4.5	<a href="#">_sphinx4</a>		207
6.56.4.6	<a href="#">_word_mapping</a>		207
6.57	<a href="#">rapp_speech_detection_sphinx4.speech_recognition_sphinx4_handler_node.SpeechRecognition-Sphinx4HandlerNode</a>	<a href="#">Class Reference</a>	207
6.57.1	<a href="#">Detailed Description</a>		208
6.57.2	<a href="#">Constructor &amp; Destructor Documentation</a>		208
6.57.2.1	<a href="#">__init__</a>		208
6.57.3	<a href="#">Member Function Documentation</a>		208
6.57.3.1	<a href="#">_calculateRequestHash</a>		208
6.57.3.2	<a href="#">_getPreconfigurationNames</a>		209
6.57.3.3	<a href="#">handleSpeechRecognitionCallback</a>		209
6.57.4	<a href="#">Member Data Documentation</a>		209
6.57.4.1	<a href="#">_availableProcesses</a>		209
6.57.4.2	<a href="#">_lock</a>		209
6.57.4.3	<a href="#">_speech_recognition_batch_service</a>		210
6.57.4.4	<a href="#">_threadCounter</a>		210
6.57.4.5	<a href="#">_threads</a>		210
6.58	<a href="#">speech_recognition_google.SpeechToTextGoogle</a>	<a href="#">Class Reference</a>	210
6.58.1	<a href="#">Detailed Description</a>		210
6.58.2	<a href="#">Constructor &amp; Destructor Documentation</a>		211
6.58.2.1	<a href="#">__init__</a>		211
6.58.3	<a href="#">Member Function Documentation</a>		211

6.58.3.1	<a href="#">speech_to_text</a>	211
6.58.3.2	<a href="#">speech_to_text_callback</a>	211
6.58.4	<a href="#">Member Data Documentation</a>	211
6.58.4.1	<a href="#">serv</a>	211
6.58.4.2	<a href="#">serv_topic</a>	211
6.59	<a href="#">Sphinx4 Class Reference</a>	212
6.59.1	<a href="#">Detailed Description</a>	212
6.59.2	<a href="#">Member Function Documentation</a>	213
6.59.2.1	<a href="#">main</a>	213
6.59.2.2	<a href="#">updateConfiguration</a>	213
6.59.3	<a href="#">Member Data Documentation</a>	213
6.59.3.1	<a href="#">acoustic_model_path</a>	213
6.59.3.2	<a href="#">acoustic_model_path_prev</a>	213
6.59.3.3	<a href="#">bufferRead</a>	213
6.59.3.4	<a href="#">bufferWrite</a>	213
6.59.3.5	<a href="#">cm</a>	213
6.59.3.6	<a href="#">configuration</a>	213
6.59.3.7	<a href="#">configuration_model_path</a>	213
6.59.3.8	<a href="#">configuration_model_path_prev</a>	213
6.59.3.9	<a href="#">dictionary_path</a>	214
6.59.3.10	<a href="#">dictionary_path_prev</a>	214
6.59.3.11	<a href="#">grammar_enabled</a>	214
6.59.3.12	<a href="#">grammar_enabled_prev</a>	214
6.59.3.13	<a href="#">grammar_model_file_path</a>	214
6.59.3.14	<a href="#">grammar_model_file_path_prev</a>	214
6.59.3.15	<a href="#">grammar_model_folder_path</a>	214
6.59.3.16	<a href="#">grammar_model_folder_path_prev</a>	214
6.59.3.17	<a href="#">language_path</a>	214
6.59.3.18	<a href="#">language_path_prev</a>	214
6.59.3.19	<a href="#">recognizer</a>	214
6.60	<a href="#">rapp_speech_detection_sphinx4.sphinx4_wrapper.Sphinx4Wrapper Class Reference</a>	215
6.60.1	<a href="#">Detailed Description</a>	216
6.60.2	<a href="#">Constructor &amp; Destructor Documentation</a>	216
6.60.2.1	<a href="#">__init__</a>	216
6.60.3	<a href="#">Member Function Documentation</a>	216
6.60.3.1	<a href="#">_callSphinxJava</a>	216
6.60.3.2	<a href="#">_createProcessingProfile</a>	216
6.60.3.3	<a href="#">_createSocket</a>	217
6.60.3.4	<a href="#">_initializeSphinxProcess</a>	217
6.60.3.5	<a href="#">_performEnergyDenoising</a>	217

6.60.3.6	<a href="#">_readLine</a>	217
6.60.3.7	<a href="#">_respawnSphinx</a>	217
6.60.3.8	<a href="#">configureSphinx</a>	217
6.60.3.9	<a href="#">performSpeechRecognition</a>	218
6.60.4	<a href="#">Member Data Documentation</a>	218
6.60.4.1	<a href="#">_audio_transform_srv</a>	218
6.60.4.2	<a href="#">_conf</a>	218
6.60.4.3	<a href="#">_denoise_service</a>	218
6.60.4.4	<a href="#">_detect_silence_service</a>	218
6.60.4.5	<a href="#">_energy_denoise_service</a>	219
6.60.4.6	<a href="#">_globalParams</a>	219
6.60.4.7	<a href="#">_jar_path</a>	219
6.60.4.8	<a href="#">_sphinx_socket</a>	219
6.60.4.9	<a href="#">_sphinx_socket_PORT</a>	219
6.60.4.10	<a href="#">_sphinxDied</a>	219
6.60.4.11	<a href="#">_sphinxSubprocess</a>	219
6.61	<a href="#">rapp_speech_detection_sphinx4.sphinx4_configuration_params.SphinxConfigurationParams Class Reference</a>	219
6.61.1	<a href="#">Detailed Description</a>	220
6.61.2	<a href="#">Constructor &amp; Destructor Documentation</a>	220
6.61.2.1	<a href="#">__init__</a>	220
6.61.3	<a href="#">Member Function Documentation</a>	220
6.61.3.1	<a href="#">_readConfigurationYaml</a>	220
6.61.3.2	<a href="#">equalsRequest</a>	221
6.61.3.3	<a href="#">getHash</a>	221
6.61.3.4	<a href="#">makeEqualToInstance</a>	221
6.61.3.5	<a href="#">makeEqualToRequest</a>	221
6.61.4	<a href="#">Member Data Documentation</a>	221
6.61.4.1	<a href="#">_globalParams</a>	221
6.61.4.2	<a href="#">_grammar</a>	222
6.61.4.3	<a href="#">_language</a>	222
6.61.4.4	<a href="#">_sentences</a>	222
6.61.4.5	<a href="#">_words</a>	222
6.62	<a href="#">text_to_speech_espeak.TextToSpeechEspeak Class Reference</a>	222
6.62.1	<a href="#">Detailed Description</a>	222
6.62.2	<a href="#">Constructor &amp; Destructor Documentation</a>	223
6.62.2.1	<a href="#">__init__</a>	223
6.62.3	<a href="#">Member Function Documentation</a>	223
6.62.3.1	<a href="#">text_to_speech_callback</a>	223
6.62.4	<a href="#">Member Data Documentation</a>	223

6.62.4.1	<a href="#">serv</a>	223
6.62.4.2	<a href="#">serv_topic</a>	223
6.63	<a href="#">rapp_audio_processing.rapp_transform_audio.TransformAudio Class Reference</a>	223
6.63.1	Detailed Description	223
6.63.2	Member Function Documentation	224
6.63.2.1	<a href="#">_assertArgs</a>	224
6.63.2.2	<a href="#">_convertType</a>	224
6.63.2.3	<a href="#">_validateSourceType</a>	224
6.63.2.4	<a href="#">transform_audio</a>	225
6.64	<a href="#">userScoreHistoryForAllCategories.UserScoreHistoryForAllCategories Class Reference</a>	226
6.64.1	Detailed Description	226
6.64.2	Member Function Documentation	226
6.64.2.1	<a href="#">assignTestHistoryForTestCategoriesToSrv</a>	226
6.64.2.2	<a href="#">returnUserHistory</a>	227
6.64.2.3	<a href="#">validateTimeRange</a>	227
6.65	<a href="#">userScoresForAllCategories.UserScoresForAllCategories Class Reference</a>	228
6.65.1	Detailed Description	228
6.65.2	Member Function Documentation	228
6.65.2.1	<a href="#">calculateUserScoresForCategories</a>	228
6.65.2.2	<a href="#">returnUserScores</a>	228
6.66	<a href="#">rapp_audio_processing.rapp_utilities.Utilities Class Reference</a>	229
6.66.1	Detailed Description	229
6.66.2	Member Function Documentation	229
6.66.2.1	<a href="#">cleanup</a>	229
6.67	<a href="#">rapp_weather_reporter.weather_reporter_base.WeatherReporterBase Class Reference</a>	229
6.67.1	Detailed Description	231
6.67.2	Constructor & Destructor Documentation	231
6.67.2.1	<a href="#">__init__</a>	231
6.67.3	Member Function Documentation	231
6.67.3.1	<a href="#">fetch_current_weather</a>	231
6.67.3.2	<a href="#">fetch_weather_forecast</a>	231
6.67.4	Member Data Documentation	231
6.67.4.1	<a href="#">__metaclass__</a>	231
6.67.4.2	<a href="#">_accepted_status</a>	231
6.67.4.3	<a href="#">_http_request</a>	231
6.67.4.4	<a href="#">_url</a>	232
6.67.4.5	<a href="#">rapp_http_json_parser</a>	232
6.68	<a href="#">rapp_weather_reporter.weather_reporter_factory.WeatherReporterFactory Class Reference</a>	232
6.68.1	Detailed Description	233
6.68.2	Member Function Documentation	233

6.68.2.1	<a href="#">select_weather_reporter</a>	233
6.69	<a href="#">rapp_weather_reporter.weather_reporter_node.WeatherReporterNode Class Reference</a>	234
6.69.1	Detailed Description	235
6.69.2	Constructor & Destructor Documentation	235
6.69.2.1	<a href="#">__init__</a>	235
6.69.3	Member Function Documentation	235
6.69.3.1	<a href="#">_create_current_service_response</a>	235
6.69.3.2	<a href="#">_create_forecast_service_response</a>	235
6.69.3.3	<a href="#">fetch_current_weather_srv_callback</a>	235
6.69.3.4	<a href="#">fetch_forecast_srv_callback</a>	236
6.69.4	Member Data Documentation	236
6.69.4.1	<a href="#">_weather_reporter_factory</a>	236
6.70	<a href="#">rapp_weather_reporter.yweather_reporter.YWeatherReporter Class Reference</a>	236
6.70.1	Detailed Description	237
6.70.2	Constructor & Destructor Documentation	238
6.70.2.1	<a href="#">__init__</a>	238
6.70.3	Member Function Documentation	238
6.70.3.1	<a href="#">_fetch_city_id</a>	238
6.70.3.2	<a href="#">_fetch_yweather_report</a>	238
6.70.3.3	<a href="#">_handle_current_weather_report</a>	238
6.70.3.4	<a href="#">_handle_weather_forecast_report</a>	238
6.70.3.5	<a href="#">fetch_current_weather</a>	238
6.70.3.6	<a href="#">fetch_weather_forecast</a>	238
6.70.4	Member Data Documentation	239
6.70.4.1	<a href="#">_client</a>	239
<b>7</b>	<b>File Documentation</b>	<b>241</b>
7.1	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_application_authentication_manager/src/rapp_application_authentication_manager/__init__.py File Reference</a>	241
7.2	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_audio_processing/src/rapp_audio_processing/__init__.py File Reference</a>	241
7.3	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_email/src/rapp_email/__init__.py File Reference</a>	241
7.4	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_geolocator/src/rapp_geolocator/__init__.py File Reference</a>	241
7.5	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_news_explorer/src/rapp_news_explorer/__init__.py File Reference</a>	241
7.6	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_sphinx4/__init__.py File Reference</a>	242
7.7	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_utilities/src/__init__.py File Reference</a>	242
7.8	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_weather_reporter/src/rapp_weather_reporter/__init__.py File Reference</a>	242

7.9	/home/travis/rapp_temp/rapp-platform/rapp_application_authentication_manager/src/rapp_application_authentication_manager/application_authentication_node.py File Reference	242
7.10	/home/travis/rapp_temp/rapp-platform/rapp_application_authentication_manager/src/rapp_application_authentication_manager/database_handler.py File Reference	243
7.11	/home/travis/rapp_temp/rapp-platform/rapp_audio_processing/src/rapp_audio_processing/rapp_audio_processing.py File Reference	243
7.12	/home/travis/rapp_temp/rapp-platform/rapp_audio_processing/src/rapp_audio_processing/rapp_detect_silence.py File Reference	243
7.13	/home/travis/rapp_temp/rapp-platform/rapp_audio_processing/src/rapp_audio_processing/rapp_energy_denoise.py File Reference	243
7.14	/home/travis/rapp_temp/rapp-platform/rapp_audio_processing/src/rapp_audio_processing/rapp_set_noise_profile.py File Reference	244
7.15	/home/travis/rapp_temp/rapp-platform/rapp_audio_processing/src/rapp_audio_processing/rapp_sox_denoise.py File Reference	244
7.16	/home/travis/rapp_temp/rapp-platform/rapp_audio_processing/src/rapp_audio_processing/rapp_transform_audio.py File Reference	244
7.17	/home/travis/rapp_temp/rapp-platform/rapp_audio_processing/src/rapp_audio_processing/rapp_utilities.py File Reference	244
7.18	/home/travis/rapp_temp/rapp-platform/rapp_utilities/src/rapp_utilities.py File Reference	245
7.19	/home/travis/rapp_temp/rapp-platform/rapp_caffe_wrapper/src/app_error_exception.py File Reference	245
7.20	/home/travis/rapp_temp/rapp-platform/rapp_cognitive_exercise/src/app_error_exception.py File Reference	245
7.21	/home/travis/rapp_temp/rapp-platform/rapp_caffe_wrapper/src/caffe_wrapper.py File Reference	245
7.22	/home/travis/rapp_temp/rapp-platform/rapp_caffe_wrapper/src/caffe_wrapper_main.py File Reference	246
7.23	/home/travis/rapp_temp/rapp-platform/rapp_caffe_wrapper/src/image_classification.py File Reference	246
7.24	/home/travis/rapp_temp/rapp-platform/rapp_caffe_wrapper/src/image_registration_to_ontology.py File Reference	246
7.25	/home/travis/rapp_temp/rapp-platform/rapp_caffe_wrapper/src/ontology_class_bridge.py File Reference	246
7.26	/home/travis/rapp_temp/rapp-platform/rapp_cognitive_exercise/src/cognitive_exercise.py File Reference	247
7.27	/home/travis/rapp_temp/rapp-platform/rapp_cognitive_exercise/src/cognitive_exercise_main.py File Reference	247
7.28	/home/travis/rapp_temp/rapp-platform/rapp_cognitive_exercise/src/helper_functions.py File Reference	247
7.29	/home/travis/rapp_temp/rapp-platform/rapp_cognitive_exercise/src/userScoreHistoryForAllCategories.py File Reference	247
7.30	/home/travis/rapp_temp/rapp-platform/rapp_cognitive_exercise/src/userScoresForAllCategories.py File Reference	248
7.31	/home/travis/rapp_temp/rapp-platform/rapp_email/src/rapp_email/email_node.py File Reference	248
7.32	/home/travis/rapp_temp/rapp-platform/rapp_email/src/rapp_email/email_receiver.py File Reference	248
7.33	/home/travis/rapp_temp/rapp-platform/rapp_email/src/rapp_email/email_sender.py File Reference	248
7.34	/home/travis/rapp_temp/rapp-platform/rapp_face_detection/include/face_detection/face_detection.h File Reference	249
7.35	/home/travis/rapp_temp/rapp-platform/rapp_face_detection/include/face_detection/face_detector.h File Reference	249

7.36	/home/travis/rapp_temp/rapp-platform/rapp_face_detection/src/face_detection.cpp File Reference	250
7.37	/home/travis/rapp_temp/rapp-platform/rapp_face_detection/src/face_detection_node.cpp File Reference	251
7.37.1	Function Documentation	251
7.37.1.1	main	251
7.38	/home/travis/rapp_temp/rapp-platform/rapp_face_detection/src/face_detector.cpp File Reference	252
7.39	/home/travis/rapp_temp/rapp-platform/rapp_geolocator/src/rapp_geolocator/geolocator_base.py File Reference	252
7.40	/home/travis/rapp_temp/rapp-platform/rapp_geolocator/src/rapp_geolocator/geolocator_factory.py File Reference	252
7.41	/home/travis/rapp_temp/rapp-platform/rapp_geolocator/src/rapp_geolocator/geolocator_node.py File Reference	252
7.42	/home/travis/rapp_temp/rapp-platform/rapp_geolocator/src/rapp_geolocator/ip_api_locator.py File Reference	253
7.43	/home/travis/rapp_temp/rapp-platform/rapp_hazard_detection/src/door_check.cpp File Reference	253
7.44	/home/travis/rapp_temp/rapp-platform/rapp_hazard_detection/src/hazard_detection.cpp File Reference	253
7.45	/home/travis/rapp_temp/rapp-platform/rapp_hazard_detection/src/hazard_detection_node.cpp File Reference	254
7.45.1	Function Documentation	254
7.45.1.1	main	255
7.46	/home/travis/rapp_temp/rapp-platform/rapp_hazard_detection/src/light_check.cpp File Reference	255
7.47	/home/travis/rapp_temp/rapp-platform/rapp_human_detection/include/human_detection/human_detection.h File Reference	255
7.48	/home/travis/rapp_temp/rapp-platform/rapp_human_detection/include/human_detection/human_detector.h File Reference	256
7.49	/home/travis/rapp_temp/rapp-platform/rapp_human_detection/src/human_detection.cpp File Reference	257
7.50	/home/travis/rapp_temp/rapp-platform/rapp_human_detection/src/human_detection_node.cpp File Reference	257
7.50.1	Function Documentation	258
7.50.1.1	main	258
7.51	/home/travis/rapp_temp/rapp-platform/rapp_human_detection/src/human_detector.cpp File Reference	258
7.52	/home/travis/rapp_temp/rapp-platform/rapp_knowrob_wrapper/include/knowrob_wrapper/knowrob_wrapper.h File Reference	258
7.53	/home/travis/rapp_temp/rapp-platform/rapp_knowrob_wrapper/include/knowrob_wrapper/knowrob_wrapper_communications.h File Reference	260
7.54	/home/travis/rapp_temp/rapp-platform/rapp_knowrob_wrapper/src/knowrob_wrapper.cpp File Reference	260
7.54.1	Function Documentation	261
7.54.1.1	checkIfFileExists	261
7.54.1.2	checkIfStringContainsString	261
7.54.1.3	checkIfStringVectorContainsString	261
7.54.1.4	intToString	262

7.54.1.5	<a href="#">split</a>	263
7.54.1.6	<a href="#">SplitFilename</a>	263
7.55	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_knowrob_wrapper/src/knowrob_wrapper_communications.cpp File Reference</a>	263
7.56	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_knowrob_wrapper/src/knowrob_wrapper_node.cpp File Reference</a>	264
7.56.1	<a href="#">Function Documentation</a>	264
7.56.1.1	<a href="#">main</a>	264
7.57	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_mysql_wrapper/src/mysql_wrapper.py File Reference</a>	264
7.58	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_mysql_wrapper/src/mysql_wrapper_main.py File Reference</a>	264
7.59	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_mysql_wrapper/src/mysql_wrapper_old.py File Reference</a>	265
7.60	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_news_explorer/src/rapp_news_explorer/engine_factory.py File Reference</a>	265
7.61	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_news_explorer/src/rapp_news_explorer/event_registry_engine.py File Reference</a>	265
7.62	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_news_explorer/src/rapp_news_explorer/google_news_engine.py File Reference</a>	265
7.63	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_news_explorer/src/rapp_news_explorer/news_engine_base.py File Reference</a>	266
7.64	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_news_explorer/src/rapp_news_explorer/news_explorer_node.py File Reference</a>	266
7.65	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_costmap2d/include/rapp_costmap2d/rapp_static_layer.h File Reference</a>	266
7.66	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_costmap2d/plugins/rapp_static_layer.cpp File Reference</a>	267
7.67	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_costmap2d/src/observation_buffer.cpp File Reference</a>	268
7.68	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_map_server/include/map_server/image_loader.h File Reference</a>	268
7.69	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_map_server/scripts/crop_map.py File Reference</a>	269
7.70	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_map_server/src/image_loader.cpp File Reference</a>	270
7.70.1	<a href="#">Macro Definition Documentation</a>	270
7.70.1.1	<a href="#">MAP_IDX</a>	270
7.71	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_map_server/src/main.cpp File Reference</a>	271
7.71.1	<a href="#">Macro Definition Documentation</a>	271
7.71.1.1	<a href="#">USAGE</a>	271
7.71.2	<a href="#">Function Documentation</a>	272
7.71.2.1	<a href="#">main</a>	272
7.72	<a href="#">/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_map_server/src/map_saver.cpp File Reference</a>	272
7.72.1	<a href="#">Macro Definition Documentation</a>	272



7.72.1.1	USAGE	272
7.72.2	Function Documentation	273
7.72.2.1	main	273
7.73	/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_path_planning/include/path_planning/path_planner.h File Reference	273
7.74	/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_path_planning/include/path_planning/path_planning.h File Reference	274
7.75	/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_path_planning/src/path_planner.cpp File Reference	274
7.76	/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_path_planning/src/path_planning.cpp File Reference	275
7.76.1	Function Documentation	275
7.76.1.1	exists_file	275
7.76.1.2	input_poses_correct	275
7.76.1.3	setPoseDist	276
7.76.1.4	start_global_planners	276
7.76.1.5	start_map_servers	276
7.76.1.6	start_tf_publisher	276
7.77	/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_path_planning/src/path_planning_node.cpp File Reference	276
7.77.1	Function Documentation	276
7.77.1.1	main	276
7.77.1.2	mySigintHandler	276
7.77.2	Variable Documentation	277
7.77.2.1	path_planning_	277
7.78	/home/travis/rapp_temp/rapp-platform/rapp_qr_detection/include/qr_detection/qr_detection.h File Reference	277
7.79	/home/travis/rapp_temp/rapp-platform/rapp_qr_detection/include/qr_detection/qr_detector.h File Reference	278
7.80	/home/travis/rapp_temp/rapp-platform/rapp_qr_detection/src/qr_detection.cpp File Reference	278
7.81	/home/travis/rapp_temp/rapp-platform/rapp_qr_detection/src/qr_detection_node.cpp File Reference	279
7.81.1	Function Documentation	279
7.81.1.1	main	279
7.82	/home/travis/rapp_temp/rapp-platform/rapp_qr_detection/src/qr_detector.cpp File Reference	279
7.83	/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_google/src/speech_recognition_google.py File Reference	280
7.84	/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_sphinx4/english_support.py File Reference	280
7.85	/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_sphinx4/global_parameters.py File Reference	280
7.86	/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_sphinx4/greek_english_support.py File Reference	281
7.87	/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_sphinx4/greek_support.py File Reference	281

7.88 /home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_sphinx4/language_support.py File Reference . . . . .	281
7.89 /home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_sphinx4/limited_vocabulary_creator.py File Reference . . . . .	281
7.90 /home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_sphinx4/speech_recognition_sphinx4.py File Reference . . . . .	282
7.91 /home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_sphinx4/speech_recognition_sphinx4_handler_node.py File Reference . . . . .	282
7.92 /home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_sphinx4/sphinx4_configuration_params.py File Reference . . . . .	283
7.93 /home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_sphinx4/sphinx4_wrapper.py File Reference . . . . .	283
7.94 /home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/Sphinx4.java File Reference . . . . .	283
7.95 /home/travis/rapp_temp/rapp-platform/rapp_text_to_speech_espeak/src/text_to_speech_espeak.py File Reference . . . . .	283
7.96 /home/travis/rapp_temp/rapp-platform/rapp_utilities/src/rapp_exceptions.py File Reference . . . . .	284
7.97 /home/travis/rapp_temp/rapp-platform/rapp_utilities/src/rapp_html_parser.py File Reference . . . . .	284
7.98 /home/travis/rapp_temp/rapp-platform/rapp_utilities/src/rapp_http_json_parser.py File Reference . . . . .	284
7.99 /home/travis/rapp_temp/rapp-platform/rapp_utilities/src/rapp_http_request_handler.py File Reference . . . . .	284
7.100/home/travis/rapp_temp/rapp-platform/rapp_weather_reporter/src/rapp_weather_reporter/forecastio_reporter.py File Reference . . . . .	285
7.101/home/travis/rapp_temp/rapp-platform/rapp_weather_reporter/src/rapp_weather_reporter/weather_reporter_base.py File Reference . . . . .	285
7.102/home/travis/rapp_temp/rapp-platform/rapp_weather_reporter/src/rapp_weather_reporter/weather_reporter_factory.py File Reference . . . . .	285
7.103/home/travis/rapp_temp/rapp-platform/rapp_weather_reporter/src/rapp_weather_reporter/weather_reporter_node.py File Reference . . . . .	285
7.104/home/travis/rapp_temp/rapp-platform/rapp_weather_reporter/src/rapp_weather_reporter/yweather_reporter.py File Reference . . . . .	286
<b>Index</b>	<b>287</b>

# Chapter 1

## Namespace Index

### 1.1 Namespace List

Here is a list of all namespaces with brief descriptions:

<a href="#">app_error_exception</a>	13
<a href="#">caffe_wrapper</a>	13
<a href="#">caffe_wrapper_main</a>	13
<a href="#">cognitive_exercise</a>	13
<a href="#">cognitive_exercise_main</a>	14
<a href="#">costmap_2d</a>	14
<a href="#">crop_map</a>	14
<a href="#">helper_functions</a>	16
<a href="#">image_classification</a>	16
<a href="#">image_registration_to_ontology</a>	16
<a href="#">map_server</a>	16
<a href="#">mysql_wrapper</a>	17
<a href="#">mysql_wrapper_main</a>	17
<a href="#">mysql_wrapper_old</a>	17
<a href="#">ontology_class_bridge</a>	17
<a href="#">rapp_application_authentication_manager</a>	17
<a href="#">rapp_application_authentication_manager.application_authentication_node</a>	17
<a href="#">rapp_application_authentication_manager.database_handler</a>	18
<a href="#">rapp_audio_processing</a>	18
<a href="#">rapp_audio_processing.rapp_audio_processing</a>	18
<a href="#">rapp_audio_processing.rapp_detect_silence</a>	19
<a href="#">rapp_audio_processing.rapp_energy_denoise</a>	19
<a href="#">rapp_audio_processing.rapp_set_noise_profile</a>	19
<a href="#">rapp_audio_processing.rapp_sox_denoise</a>	19
<a href="#">rapp_audio_processing.rapp_transform_audio</a>	19
<a href="#">rapp_audio_processing.rapp_utilities</a>	19
<a href="#">rapp_email</a>	20
<a href="#">rapp_email.email_node</a>	20
<a href="#">rapp_email.email_receiver</a>	20
<a href="#">rapp_email.email_sender</a>	20
<a href="#">rapp_geolocator</a>	20
<a href="#">rapp_geolocator.geolocator_base</a>	21
<a href="#">rapp_geolocator.geolocator_factory</a>	21
<a href="#">rapp_geolocator.geolocator_node</a>	21
<a href="#">rapp_geolocator.ip_api_locator</a>	21
<a href="#">rapp_news_explorer</a>	21
<a href="#">rapp_news_explorer.engine_factory</a>	22
<a href="#">rapp_news_explorer.event_registry_engine</a>	22

<a href="#">rapp_news_explorer.google_news_engine</a>	22
<a href="#">rapp_news_explorer.news_engine_base</a>	22
<a href="#">rapp_news_explorer.news_explorer_node</a>	22
<a href="#">rapp_speech_detection_sphinx4</a>	23
<a href="#">rapp_speech_detection_sphinx4.english_support</a>	23
<a href="#">rapp_speech_detection_sphinx4.global_parameters</a>	23
<a href="#">rapp_speech_detection_sphinx4.greek_english_support</a>	23
<a href="#">rapp_speech_detection_sphinx4.greek_support</a>	23
<a href="#">rapp_speech_detection_sphinx4.language_support</a>	23
<a href="#">rapp_speech_detection_sphinx4.limited_vocabulary_creator</a>	24
<a href="#">rapp_speech_detection_sphinx4.speech_recognition_sphinx4</a>	24
<a href="#">rapp_speech_detection_sphinx4.speech_recognition_sphinx4_handler_node</a>	24
<a href="#">rapp_speech_detection_sphinx4.sphinx4_configuration_params</a>	25
<a href="#">rapp_speech_detection_sphinx4.sphinx4_wrapper</a>	25
<a href="#">rapp_weather_reporter</a>	25
<a href="#">rapp_weather_reporter.forecastio_reporter</a>	25
<a href="#">rapp_weather_reporter.weather_reporter_base</a>	25
<a href="#">rapp_weather_reporter.weather_reporter_factory</a>	26
<a href="#">rapp_weather_reporter.weather_reporter_node</a>	26
<a href="#">rapp_weather_reporter.yweather_reporter</a>	26
<a href="#">speech_recognition_google</a>	26
<a href="#">src</a>	27
<a href="#">src.rapp_exceptions</a>	27
<a href="#">src.rapp_html_parser</a>	27
<a href="#">src.rapp_http_json_parser</a>	27
<a href="#">src.rapp_http_request_handler</a>	27
<a href="#">src.rapp_utilities</a>	28
<a href="#">text_to_speech_espeak</a>	28
<a href="#">userScoreHistoryForAllCategories</a>	28
<a href="#">userScoresForAllCategories</a>	28

## Chapter 2

# Hierarchical Index

### 2.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

rapp_application_authentication_manager.application_authentication_node.ApplicationAuthentication-Manager . . . . .	31
rapp_audio_processing.rapp_audio_processing.AudioProcessing . . . . .	35
cognitive_exercise.CognitiveExercise . . . . .	38
helper_functions.CognitiveExerciseHelperFunctions . . . . .	41
CostmapLayer	
costmap_2d::RappStaticLayer . . . . .	195
rapp_audio_processing.rapp_detect_silence.DetectSilence . . . . .	52
rapp_audio_processing.rapp_energy_denoise.EnergyDenoise . . . . .	58
Exception	
app_error_exception.AppError . . . . .	29
app_error_exception.AppError . . . . .	29
src.rapp_exceptions.RappError . . . . .	187
FaceDetection . . . . .	65
FaceDetector . . . . .	67
rapp_speech_detection_sphinx4.global_parameters.GlobalParams . . . . .	80
GreekSupport . . . . .	88
HumanDetection . . . . .	94
HumanDetector . . . . .	96
image_classification.ImageClassification . . . . .	99
image_registration_to_ontology.ImageRegistrationToOntology . . . . .	102
IPLocatorFactory . . . . .	106
KnowrobWrapper . . . . .	107
KnowrobWrapperCommunications . . . . .	119
rapp_speech_detection_sphinx4.limited_vocabulary_creator.LimitedVocabularyCreator . . . . .	134
MapGenerator . . . . .	135
MapServer . . . . .	136
mysql_wrapper_old.MySQLdbWrapper . . . . .	139
mysql_wrapper.MySQLdbWrapper . . . . .	152
object	
rapp_application_authentication_manager.database_handler.DatabaseHandler . . . . .	44
rapp_email.email_receiver.EmailReceiver . . . . .	52
rapp_email.email_sender.EmailSender . . . . .	55
rapp_geolocator.geolocator_base.GeolocatorBase . . . . .	74
rapp_geolocator.ip_api_locator.IpAPILocator . . . . .	104
rapp_geolocator.geolocator_factory.GeolocatorFactory . . . . .	77
rapp_geolocator.geolocator_node.GeolocatorNode . . . . .	78
rapp_news_explorer.engine_factory.EngineFactory . . . . .	58

rapp_news_explorer.news_engine_base.NewsEngineBase . . . . .	169
rapp_news_explorer.event_registry_engine.EventRegistryEngine . . . . .	62
rapp_news_explorer.google_news_engine.GoogleNewsEngine . . . . .	82
rapp_news_explorer.news_explorer_node.NewsExplorerNode . . . . .	172
rapp_speech_detection_sphinx4.language_support.LanguageSupport . . . . .	131
rapp_speech_detection_sphinx4.english_support.EnglishSupport . . . . .	60
rapp_speech_detection_sphinx4.greek_english_support.GreekEnglishSupport . . . . .	86
rapp_speech_detection_sphinx4.greek_support.GreekSupport . . . . .	89
rapp_speech_detection_sphinx4.greek_english_support.GreekEnglishSupport . . . . .	86
rapp_weather_reporter.weather_reporter_base.WeatherReporterBase . . . . .	229
rapp_weather_reporter.forecastio_reporter.ForecastIOReporter . . . . .	71
rapp_weather_reporter.yweather_reporter.YWeatherReporter . . . . .	236
rapp_weather_reporter.weather_reporter_factory.WeatherReporterFactory . . . . .	232
rapp_weather_reporter.weather_reporter_node.WeatherReporterNode . . . . .	234
src.rapp_http_json_parser.RappHttpJSONParser . . . . .	190
src.rapp_http_request_handler.RappHttpRequestHandler . . . . .	192
src.rapp_utilities.RappUtilities . . . . .	200
ontology_class_bridge.OntologyClassBridge . . . . .	174
PathPlanner . . . . .	175
PathPlanning . . . . .	177
QrCode . . . . .	180
QrDetection . . . . .	180
QrDetector . . . . .	182
caffe_wrapper.RappCaffeWrapper . . . . .	184
rapp_audio_processing.rapp_set_noise_profile.SetNoiseProfile . . . . .	201
rapp_audio_processing.rapp_sox_denoise.SoxDenoise . . . . .	203
rapp_speech_detection_sphinx4.speech_recognition_sphinx4.SpeechRecognitionSphinx4 . . . . .	203
rapp_speech_detection_sphinx4.speech_recognition_sphinx4_handler_node.SpeechRecognition- Sphinx4HandlerNode . . . . .	207
speech_recognition_google.SpeechToTextGoogle . . . . .	210
Sphinx4 . . . . .	212
rapp_speech_detection_sphinx4.sphinx4_wrapper.Sphinx4Wrapper . . . . .	215
rapp_speech_detection_sphinx4.sphinx4_configuration_params.SphinxConfigurationParams . . . . .	219
text_to_speech_espeak.TextToSpeechEspeak . . . . .	222
rapp_audio_processing.rapp_transform_audio.TransformAudio . . . . .	223
userScoreHistoryForAllCategories.UserScoreHistoryForAllCategories . . . . .	226
userScoresForAllCategories.UserScoresForAllCategories . . . . .	228
rapp_audio_processing.rapp_utilities.Utilities . . . . .	229
HTMLParser	
src.rapp_html_parser.RappHTMLParser . . . . .	188

## Chapter 3

# Class Index

### 3.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

<a href="#">app_error_exception.AppError</a>	29
Exception compliant with the ros error and trace srvs	
<a href="#">rapp_application_authentication_manager.application_authentication_node.ApplicationAuthentication-Manager</a>	31
Provides user management features	
<a href="#">rapp_audio_processing.rapp_audio_processing.AudioProcessing</a>	35
Provides audio processing utilities	
<a href="#">cognitive_exercise.CognitiveExercise</a>	38
The Cognitive exercise ros node	
<a href="#">helper_functions.CognitiveExerciseHelperFunctions</a>	41
<a href="#">rapp_application_authentication_manager.database_handler.DatabaseHandler</a>	44
Handles database functions for authentication manager	
<a href="#">rapp_audio_processing.rapp_detect_silence.DetectSilence</a>	52
Performs silence detection on an audio file	
<a href="#">rapp_email.email_receiver.EmailReceiver</a>	52
Fetches emails from user's email account	
<a href="#">rapp_email.email_sender.EmailSender</a>	55
<a href="#">rapp_audio_processing.rapp_energy_denoise.EnergyDenoise</a>	58
Performs energy denoising on an audio file	
<a href="#">rapp_news_explorer.engine_factory.EngineFactory</a>	58
Creates and returns the class of the news engine requested	
<a href="#">rapp_speech_detection_sphinx4.english_support.EnglishSupport</a>	60
Allows the creation of configuration files for English Sphinx speech recognition	
<a href="#">rapp_news_explorer.event_registry_engine.EventRegistryEngine</a>	62
EventRegistry news engine hndler	
<a href="#">FaceDetection</a>	65
Class <a href="#">FaceDetection</a> uptakes the task of handling the ROS service callbacks	
<a href="#">FaceDetector</a>	67
Class that implements a face detection algorithm based on a Haar cascade classifier	
<a href="#">rapp_weather_reporter.forecastio_reporter.ForecastIOReporter</a>	71
ForecastIO weather reporter	
<a href="#">rapp_geolocator.geolocator_base.GeolocatorBase</a>	74
Base class for geolocators	
<a href="#">rapp_geolocator.geolocator_factory.GeolocatorFactory</a>	77
<a href="#">rapp_geolocator.geolocator_node.GeolocatorNode</a>	78
Calculates geolocation via IP	
<a href="#">rapp_speech_detection_sphinx4.global_parameters.GlobalParams</a>	80
Contains global Sphinx parameters	

<a href="#">rapp_news_explorer.google_news_engine.GoogleNewsEngine</a>	
Google news engine hndler	82
<a href="#">rapp_speech_detection_sphinx4.greek_english_support.GreekEnglishSupport</a>	86
<a href="#">GreekSupport</a>	
Allows the creation of configuration files for Greek Sphinx speech recognition	88
<a href="#">rapp_speech_detection_sphinx4.greek_support.GreekSupport</a>	
Allows the creation of configuration files for Greek Sphinx speech recognition	89
<a href="#">HumanDetection</a>	
Class <a href="#">HumanDetection</a> uptakes the task of handling the ROS service callbacks	94
<a href="#">HumanDetector</a>	
Class that implements a human detection algorithm based on a Haar cascade classifier	96
<a href="#">image_classification.ImageClassification</a>	
Contains the necessary functions for classifying an images and requesting registration to the ontology	99
<a href="#">image_registration_to_ontology.ImageRegistrationToOntology</a>	
Contains the necessary functions for registering images to the ontology	102
<a href="#">rapp_geolocator.ip_api_locator.IpAPILocator</a>	
IP-API locator	104
<a href="#">IPLocatorFactory</a>	
Creates and returns the class of the geolocator requested	106
<a href="#">KnowrobWrapper</a>	
Class <a href="#">KnowrobWrapperCommunications</a> contains all the necessary knowrob wrapper functions	107
<a href="#">KnowrobWrapperCommunications</a>	
Class <a href="#">KnowrobWrapperCommunications</a> uptakes the task of handling the ROS service callbacks	119
<a href="#">rapp_speech_detection_sphinx4.language_support.LanguageSupport</a>	
Allows the creation of configuration files for Sphinx speech recognition	131
<a href="#">rapp_speech_detection_sphinx4.limited_vocabulary_creator.LimitedVocabularyCreator</a>	
Creates temporary configuration files for the input limited vocabulary	134
<a href="#">MapGenerator</a>	
Map generation node	135
<a href="#">MapServer</a>	136
<a href="#">mysql_wrapper_old.MySQLdbWrapper</a>	
The mysql wrapper ros node	139
<a href="#">mysql_wrapper.MySQLdbWrapper</a>	
The mysql wrapper ros node	152
<a href="#">rapp_news_explorer.news_engine_base.NewsEngineBase</a>	
Base class for news engines	169
<a href="#">rapp_news_explorer.news_explorer_node.NewsExplorerNode</a>	
Fetches news from various News sites' APIs	172
<a href="#">ontology_class_bridge.OntologyClassBridge</a>	
Contains the necessary functions for translating caffe classes to ontology classes	174
<a href="#">PathPlanner</a>	
Class that implements a path planning algorithm based on global_planner and <a href="#">map_server</a> ROS nodes	175
<a href="#">PathPlanning</a>	177
<a href="#">QrCode</a>	
Structure holding the essential info for a QR code	180
<a href="#">QrDetection</a>	
Uptakes the task of setting up the ROS service callbacks towards qr detection	180
<a href="#">QrDetector</a>	
Provides the QR detection functionality	182
<a href="#">caffe_wrapper.RappCaffeWrapper</a>	
The <a href="#">RappCaffeWrapper</a> ros node	184
<a href="#">src.rapp_exceptions.RappError</a>	
Provides a RAPP specific exception	187
<a href="#">src.rapp_html_parser.RappHTMLParser</a>	
Strips html from input string	188



<a href="#">src.rapp_http_json_parser.RappHttpJSONParser</a>	
Retrieves key:value pairs from JSON responses . . . . .	190
<a href="#">src.rapp_http_request_handler.RappHttpRequestHandler</a>	
Performs http requests . . . . .	192
<a href="#">costmap_2d::RappStaticLayer</a>	195
<a href="#">src.rapp_utilities.RappUtilities</a>	
Provides various utility functionalities . . . . .	200
<a href="#">rapp_audio_processing.rapp_set_noise_profile.SetNoiseProfile</a>	
Evaluates the noise profile for an audio file . . . . .	201
<a href="#">rapp_audio_processing.rapp_sox_denoise.SoxDenoise</a>	
Performs denoising on an audio file employing Sox application . . . . .	203
<a href="#">rapp_speech_detection_sphinx4.speech_recognition_sphinx4.SpeechRecognitionSphinx4</a>	
Provides a complete Rapp Sphinx Entity . . . . .	203
<a href="#">rapp_speech_detection_sphinx4.speech_recognition_sphinx4_handler_node.SpeechRecognition-Sphinx4HandlerNode</a>	
Maintains Sphinx instances to perform speech recognition . . . . .	207
<a href="#">speech_recognition_google.SpeechToTextGoogle</a>	
Implements calls the Google ASR API . . . . .	210
<a href="#">Sphinx4</a>	
Performs speech recognition employing Sphinx . . . . .	212
<a href="#">rapp_speech_detection_sphinx4.sphinx4_wrapper.Sphinx4Wrapper</a>	
Contains the Sphinx subprocess and is responsible for configuring Sphinx and performing the recognition request . . . . .	215
<a href="#">rapp_speech_detection_sphinx4.sphinx4_configuration_params.SphinxConfigurationParams</a>	
Contains the parameters required for the Sphinx configuration . . . . .	219
<a href="#">text_to_speech_espeak.TextToSpeechEspeak</a>	222
<a href="#">rapp_audio_processing.rapp_transform_audio.TransformAudio</a>	
Provides audio type tranformation functionalities . . . . .	223
<a href="#">userScoreHistoryForAllCategories.UserScoreHistoryForAllCategories</a>	
Provides the necessary functions for returning the history of user scores . . . . .	226
<a href="#">userScoresForAllCategories.UserScoresForAllCategories</a>	
Provides the necessary functions for returning the user scores . . . . .	228
<a href="#">rapp_audio_processing.rapp_utilities.Utilities</a>	
Provides audio processing utilities . . . . .	229
<a href="#">rapp_weather_reporter.weather_reporter_base.WeatherReporterBase</a>	
Base class for weather reporters . . . . .	229
<a href="#">rapp_weather_reporter.weather_reporter_factory.WeatherReporterFactory</a>	
Creates and returns the class of the weather reporter requested . . . . .	232
<a href="#">rapp_weather_reporter.weather_reporter_node.WeatherReporterNode</a>	
Evaluates weather conditions . . . . .	234
<a href="#">rapp_weather_reporter.yweather_reporter.YWeatherReporter</a>	
Yweather weather reporter . . . . .	236



## Chapter 4

# File Index

### 4.1 File List

Here is a list of all files with brief descriptions:

/home/travis/rapp_temp/rapp-platform/rapp_application_authentication_manager/src/rapp_application_authentication_manager/	241
authentication_manager/	241
__init__.py	241
/home/travis/rapp_temp/rapp-platform/rapp_application_authentication_manager/src/rapp_application_authentication_manager/application_authentication_node.py	242
/home/travis/rapp_temp/rapp-platform/rapp_application_authentication_manager/src/rapp_application_authentication_manager/database_handler.py	243
/home/travis/rapp_temp/rapp-platform/rapp_audio_processing/src/rapp_audio_processing/	241
__init__.py	241
/home/travis/rapp_temp/rapp-platform/rapp_audio_processing/src/rapp_audio_processing/rapp_audio_processing.py	243
/home/travis/rapp_temp/rapp-platform/rapp_audio_processing/src/rapp_audio_processing/rapp_detect_silence.py	243
/home/travis/rapp_temp/rapp-platform/rapp_audio_processing/src/rapp_audio_processing/rapp_energy_denoise.py	243
/home/travis/rapp_temp/rapp-platform/rapp_audio_processing/src/rapp_audio_processing/rapp_set_noise_profile.py	244
/home/travis/rapp_temp/rapp-platform/rapp_audio_processing/src/rapp_audio_processing/rapp_sox_denoise.py	244
/home/travis/rapp_temp/rapp-platform/rapp_audio_processing/src/rapp_audio_processing/rapp_transform_audio.py	244
/home/travis/rapp_temp/rapp-platform/rapp_audio_processing/src/rapp_audio_processing/rapp_utilities.py	244
/home/travis/rapp_temp/rapp-platform/rapp_caffe_wrapper/src/app_error_exception.py	245
/home/travis/rapp_temp/rapp-platform/rapp_caffe_wrapper/src/caffe_wrapper.py	245
/home/travis/rapp_temp/rapp-platform/rapp_caffe_wrapper/src/caffe_wrapper_main.py	246
/home/travis/rapp_temp/rapp-platform/rapp_caffe_wrapper/src/image_classification.py	246
/home/travis/rapp_temp/rapp-platform/rapp_caffe_wrapper/src/image_registration_to_ontology.py	246
/home/travis/rapp_temp/rapp-platform/rapp_caffe_wrapper/src/ontology_class_bridge.py	246
/home/travis/rapp_temp/rapp-platform/rapp_cognitive_exercise/src/app_error_exception.py	245
/home/travis/rapp_temp/rapp-platform/rapp_cognitive_exercise/src/cognitive_exercise.py	247
/home/travis/rapp_temp/rapp-platform/rapp_cognitive_exercise/src/cognitive_exercise_main.py	247
/home/travis/rapp_temp/rapp-platform/rapp_cognitive_exercise/src/helper_functions.py	247
/home/travis/rapp_temp/rapp-platform/rapp_cognitive_exercise/src/userScoreHistoryForAllCategories.py	247
/home/travis/rapp_temp/rapp-platform/rapp_cognitive_exercise/src/userScoresForAllCategories.py	248
/home/travis/rapp_temp/rapp-platform/rapp_email/src/rapp_email/	241
__init__.py	241
/home/travis/rapp_temp/rapp-platform/rapp_email/src/rapp_email/email_node.py	248
/home/travis/rapp_temp/rapp-platform/rapp_email/src/rapp_email/email_receiver.py	248
/home/travis/rapp_temp/rapp-platform/rapp_email/src/rapp_email/email_sender.py	248
/home/travis/rapp_temp/rapp-platform/rapp_face_detection/include/face_detection/face_detection.h	249

/home/travis/rapp_temp/rapp-platform/rapp_face_detection/include/face_detection/face_detector.h . . .	249
/home/travis/rapp_temp/rapp-platform/rapp_face_detection/src/face_detection.cpp . . . . .	250
/home/travis/rapp_temp/rapp-platform/rapp_face_detection/src/face_detection_node.cpp . . . . .	251
/home/travis/rapp_temp/rapp-platform/rapp_face_detection/src/face_detector.cpp . . . . .	252
/home/travis/rapp_temp/rapp-platform/rapp_geolocator/src/rapp_geolocator/__init__.py . . . . .	241
/home/travis/rapp_temp/rapp-platform/rapp_geolocator/src/rapp_geolocator/geolocator_base.py . . . . .	252
/home/travis/rapp_temp/rapp-platform/rapp_geolocator/src/rapp_geolocator/geolocator_factory.py . . . . .	252
/home/travis/rapp_temp/rapp-platform/rapp_geolocator/src/rapp_geolocator/geolocator_node.py . . . . .	252
/home/travis/rapp_temp/rapp-platform/rapp_geolocator/src/rapp_geolocator/ip_api_locator.py . . . . .	253
/home/travis/rapp_temp/rapp-platform/rapp_hazard_detection/src/door_check.cpp . . . . .	253
/home/travis/rapp_temp/rapp-platform/rapp_hazard_detection/src/hazard_detection.cpp . . . . .	253
/home/travis/rapp_temp/rapp-platform/rapp_hazard_detection/src/hazard_detection_node.cpp . . . . .	254
/home/travis/rapp_temp/rapp-platform/rapp_hazard_detection/src/light_check.cpp . . . . .	255
/home/travis/rapp_temp/rapp-platform/rapp_human_detection/include/human_detection/human_detection.- h . . . . .	255
/home/travis/rapp_temp/rapp-platform/rapp_human_detection/include/human_detection/human_detector.- h . . . . .	256
/home/travis/rapp_temp/rapp-platform/rapp_human_detection/src/human_detection.cpp . . . . .	257
/home/travis/rapp_temp/rapp-platform/rapp_human_detection/src/human_detection_node.cpp . . . . .	257
/home/travis/rapp_temp/rapp-platform/rapp_human_detection/src/human_detector.cpp . . . . .	258
/home/travis/rapp_temp/rapp-platform/rapp_knowrob_wrapper/include/knowrob_wrapper/knowrob_- wrapper.h . . . . .	258
/home/travis/rapp_temp/rapp-platform/rapp_knowrob_wrapper/include/knowrob_wrapper/knowrob_- wrapper_communications.h . . . . .	260
/home/travis/rapp_temp/rapp-platform/rapp_knowrob_wrapper/src/knowrob_wrapper.cpp . . . . .	260
/home/travis/rapp_temp/rapp-platform/rapp_knowrob_wrapper/src/knowrob_wrapper_communications.- cpp . . . . .	263
/home/travis/rapp_temp/rapp-platform/rapp_knowrob_wrapper/src/knowrob_wrapper_node.cpp . . . . .	264
/home/travis/rapp_temp/rapp-platform/rapp_mysql_wrapper/src/mysql_wrapper.py . . . . .	264
/home/travis/rapp_temp/rapp-platform/rapp_mysql_wrapper/src/mysql_wrapper_main.py . . . . .	264
/home/travis/rapp_temp/rapp-platform/rapp_mysql_wrapper/src/mysql_wrapper_old.py . . . . .	265
/home/travis/rapp_temp/rapp-platform/rapp_news_explorer/src/rapp_news_explorer/__init__.py . . . . .	241
/home/travis/rapp_temp/rapp-platform/rapp_news_explorer/src/rapp_news_explorer/engine_factory.py . . . . .	265
/home/travis/rapp_temp/rapp-platform/rapp_news_explorer/src/rapp_news_explorer/event_registry_- engine.py . . . . .	265
/home/travis/rapp_temp/rapp-platform/rapp_news_explorer/src/rapp_news_explorer/google_news_- engine.py . . . . .	265
/home/travis/rapp_temp/rapp-platform/rapp_news_explorer/src/rapp_news_explorer/news_engine_base.- py . . . . .	266
/home/travis/rapp_temp/rapp-platform/rapp_news_explorer/src/rapp_news_explorer/news_explorer_- node.py . . . . .	266
/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_costmap2d/include/rapp_costmap_- 2d/rapp_static_layer.h . . . . .	266
/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_costmap2d/plugins/rapp_static_layer.- cpp . . . . .	267
/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_costmap2d/src/observation_buffer.cpp . . . . .	268
/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_map_server/include/map_server/image_- loader.h . . . . .	268
/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_map_server/scripts/crop_map.py . . . . .	269
/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_map_server/src/image_loader.cpp . . . . .	270
/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_map_server/src/main.cpp . . . . .	271
/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_map_server/src/map_saver.cpp . . . . .	272
/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_path_planning/include/path_planning/path_- planner.h . . . . .	273
/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_path_planning/include/path_planning/path_- planning.h . . . . .	274
/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_path_planning/src/path_planner.cpp . . . . .	274
/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_path_planning/src/path_planning.cpp . . . . .	275

/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_path_planning/src/path_planning_node- cpp	276
/home/travis/rapp_temp/rapp-platform/rapp_qr_detection/include/qr_detection/qr_detection.h	277
/home/travis/rapp_temp/rapp-platform/rapp_qr_detection/include/qr_detection/qr_detector.h	278
/home/travis/rapp_temp/rapp-platform/rapp_qr_detection/src/qr_detection.cpp	278
/home/travis/rapp_temp/rapp-platform/rapp_qr_detection/src/qr_detection_node.cpp	279
/home/travis/rapp_temp/rapp-platform/rapp_qr_detection/src/qr_detector.cpp	279
/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_google/src/speech_recognition_google.py	280
/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/Sphinx4.java	283
/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_ sphinx4/__init__.py	242
/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_ sphinx4/english_support.py	280
/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_ sphinx4/global_parameters.py	280
/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_ sphinx4/greek_english_support.py	281
/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_ sphinx4/greek_support.py	281
/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_ sphinx4/language_support.py	281
/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_ sphinx4/limited_vocabulary_creator.py	281
/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_ sphinx4/speech_recognition_sphinx4.py	282
/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_ sphinx4/speech_recognition_sphinx4_handler_node.py	282
/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_ sphinx4/sphinx4_configuration_params.py	283
/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_ sphinx4/sphinx4_wrapper.py	283
/home/travis/rapp_temp/rapp-platform/rapp_text_to_speech_espeak/src/text_to_speech_espeak.py	283
/home/travis/rapp_temp/rapp-platform/rapp_utilities/src/__init__.py	242
/home/travis/rapp_temp/rapp-platform/rapp_utilities/src/rapp_exceptions.py	284
/home/travis/rapp_temp/rapp-platform/rapp_utilities/src/rapp_html_parser.py	284
/home/travis/rapp_temp/rapp-platform/rapp_utilities/src/rapp_http_json_parser.py	284
/home/travis/rapp_temp/rapp-platform/rapp_utilities/src/rapp_http_request_handler.py	284
/home/travis/rapp_temp/rapp-platform/rapp_utilities/src/rapp_utilities.py	245
/home/travis/rapp_temp/rapp-platform/rapp_weather_reporter/src/rapp_weather_reporter/__init__.py	242
/home/travis/rapp_temp/rapp-platform/rapp_weather_reporter/src/rapp_weather_reporter/forecastio_ reporter.py	285
/home/travis/rapp_temp/rapp-platform/rapp_weather_reporter/src/rapp_weather_reporter/weather_ reporter_base.py	285
/home/travis/rapp_temp/rapp-platform/rapp_weather_reporter/src/rapp_weather_reporter/weather_ reporter_factory.py	285
/home/travis/rapp_temp/rapp-platform/rapp_weather_reporter/src/rapp_weather_reporter/weather_ reporter_node.py	285
/home/travis/rapp_temp/rapp-platform/rapp_weather_reporter/src/rapp_weather_reporter/yweather_ reporter.py	286



## Chapter 5

# Namespace Documentation

### 5.1 app\_error\_exception Namespace Reference

#### Classes

- class [AppError](#)  
*Exception compliant with the ros error and trace srvs.*

### 5.2 caffe\_wrapper Namespace Reference

#### Classes

- class [RappCaffeWrapper](#)  
*The [RappCaffeWrapper](#) ros node.*

### 5.3 caffe\_wrapper\_main Namespace Reference

#### Variables

- tuple [RappCaffeWrapperNode](#) = [RappCaffeWrapper](#)()  
*The main function that initiates the rapp\_caffe\_wrapper ROS Node.*

#### 5.3.1 Variable Documentation

##### 5.3.1.1 tuple `caffe_wrapper_main.RappCaffeWrapperNode = RappCaffeWrapper()`

The main function that initiates the rapp\_caffe\_wrapper ROS Node.

Definition at line 26 of file `caffe_wrapper_main.py`.

### 5.4 cognitive\_exercise Namespace Reference

#### Classes

- class [CognitiveExercise](#)  
*The Cognitive exercise ros node.*

## 5.5 cognitive\_exercise\_main Namespace Reference

### Variables

- tuple [CognitiveExerciseNode](#) = [CognitiveExercise\(\)](#)  
*The main function that initiates the CognitiveExercise ROS Node.*

### 5.5.1 Variable Documentation

#### 5.5.1.1 tuple cognitive\_exercise\_main.CognitiveExerciseNode = CognitiveExercise()

The main function that initiates the CognitiveExercise ROS Node.

Definition at line 27 of file cognitive\_exercise\_main.py.

## 5.6 costmap\_2d Namespace Reference

### Classes

- class [RappStaticLayer](#)

## 5.7 crop\_map Namespace Reference

### Functions

- def [computed\\_cropped\\_origin](#)
- def [find\\_bounds](#)

### Variables

- tuple [bounds](#) = [find\\_bounds](#)([map\\_image](#))
- string [crop\\_image](#) = [crop\\_name](#)+".pgm"
- list [crop\\_name](#) = [sys.argv](#)[2]
- string [crop\\_yaml](#) = [crop\\_name](#)+".yaml"
- tuple [cropped\\_image](#) = [map\\_image](#).crop(([bounds](#)[0], [bounds](#)[2], [bounds](#)[1] + 1, [bounds](#)[3] + 1))
- tuple [map\\_data](#) = [yaml.safe\\_load](#)([f](#))
- tuple [map\\_image](#) = [Image.open](#)([map\\_image\\_file](#))
- list [map\\_image\\_file](#) = [map\\_data](#)["image"]
- list [origin](#) = [map\\_data](#)["origin"]
- list [resolution](#) = [map\\_data](#)["resolution"]

### 5.7.1 Function Documentation

#### 5.7.1.1 def crop\_map.computed\_cropped\_origin ( map\_image, bounds, resolution, origin )

Compute the image for the cropped map when map\_image is cropped by bounds and had origin before.

Definition at line 24 of file crop\_map.py.



5.7.1.2 `def crop_map.find_bounds ( map_image )`

Definition at line 8 of file `crop_map.py`.

## 5.7.2 Variable Documentation

5.7.2.1 `tuple crop_map.bounds = find_bounds(map_image)`

Definition at line 66 of file `crop_map.py`.

5.7.2.2 `string crop_map.crop_image = crop_name+".pgm"`

Definition at line 55 of file `crop_map.py`.

5.7.2.3 `list crop_map.crop_name = sys.argv[2]`

Definition at line 51 of file `crop_map.py`.

5.7.2.4 `string crop_map.crop_yaml = crop_name+".yaml"`

Definition at line 54 of file `crop_map.py`.

5.7.2.5 `tuple crop_map.cropped_image = map_image.crop((bounds[0], bounds[2], bounds[1] + 1, bounds[3] + 1))`

Definition at line 69 of file `crop_map.py`.

5.7.2.6 `tuple crop_map.map_data = yaml.safe_load(f)`

Definition at line 48 of file `crop_map.py`.

5.7.2.7 `tuple crop_map.map_image = Image.open(map_image_file)`

Definition at line 64 of file `crop_map.py`.

5.7.2.8 `list crop_map.map_image_file = map_data["image"]`

Definition at line 60 of file `crop_map.py`.

5.7.2.9 `list crop_map.origin = map_data["origin"]`

Definition at line 62 of file `crop_map.py`.

5.7.2.10 `list crop_map.resolution = map_data["resolution"]`

Definition at line 61 of file `crop_map.py`.

## 5.8 helper\_functions Namespace Reference

### Classes

- class [CognitiveExerciseHelperFunctions](#)

## 5.9 image\_classification Namespace Reference

### Classes

- class [ImageClassification](#)

*Contains the necessary functions for classifying an images and requesting registration to the ontology.*

## 5.10 image\_registration\_to\_ontology Namespace Reference

### Classes

- class [ImageRegistrationToOntology](#)

*Contains the necessary functions for registering images to the ontology.*

## 5.11 map\_server Namespace Reference

### Functions

- void [loadMapFromFile](#) (nav\_msgs::GetMap::Response \*resp, const char \*fname, double res, bool negate, double occ\_th, double free\_th, double \*origin, bool trinary=true)

### 5.11.1 Function Documentation

5.11.1.1 void map\_server::loadMapFromFile ( nav\_msgs::GetMap::Response \* resp, const char \* fname, double res, bool negate, double occ\_th, double free\_th, double \* origin, bool trinary = true )

Read the image from file and fill out the resp object, for later use when our services are requested.

#### Parameters

<i>resp</i>	The map will be written into here
<i>fname</i>	The image file to read from
<i>res</i>	The resolution of the map (gets stored in resp)
<i>negate</i>	If true, then whiter pixels are occupied, and blacker pixels are free
<i>occ_th</i>	Threshold above which pixels are occupied
<i>free_th</i>	Threshold below which pixels are free
<i>origin</i>	Triple specifying 2-D pose of lower-left corner of image
<i>trinary</i>	If true, only outputs Occupied/Free/Unknown

#### Exceptions

<i>std::runtime_error</i>	If the image file can't be loaded
---------------------------	-----------------------------------

Definition at line 55 of file image\_loader.cpp.

## 5.12 mysql\_wrapper Namespace Reference

### Classes

- class [MySQLdbWrapper](#)  
*The mysql wrapper ros node.*

## 5.13 mysql\_wrapper\_main Namespace Reference

### Variables

- tuple [MySQLWrapperNode](#) = [MySQLdbWrapper](#)()  
*The main function that initiates the rapp mysql wrapper ROS Node.*

### 5.13.1 Variable Documentation

#### 5.13.1.1 tuple mysql\_wrapper\_main.MySQLWrapperNode = MySQLdbWrapper()

The main function that initiates the rapp mysql wrapper ROS Node.

Definition at line 26 of file mysql\_wrapper\_main.py.

## 5.14 mysql\_wrapper\_old Namespace Reference

### Classes

- class [MySQLdbWrapper](#)  
*The mysql wrapper ros node.*

## 5.15 ontology\_class\_bridge Namespace Reference

### Classes

- class [OntologyClassBridge](#)  
*Contains the necessary functions for translating caffe classes to ontology classes.*

## 5.16 rapp\_application\_authentication\_manager Namespace Reference

### Namespaces

- [application\\_authentication\\_node](#)
- [database\\_handler](#)

## 5.17 rapp\_application\_authentication\_manager.application\_authentication\_node Namespace Reference

## Classes

- class [ApplicationAuthenticationManager](#)  
*Provides user management features.*

## Variables

- tuple [application\\_authentication\\_ros\\_node](#) = [ApplicationAuthenticationManager](#)()

### 5.17.1 Variable Documentation

5.17.1.1 tuple `rapp_application_authentication_manager.application_authentication_node.application_authentication_ros_node = ApplicationAuthenticationManager()`

Definition at line 365 of file `application_authentication_node.py`.

## 5.18 `rapp_application_authentication_manager.database_handler` Namespace Reference

### Classes

- class [DatabaseHandler](#)  
*Handles database functions for authentication manager.*

## 5.19 `rapp_audio_processing` Namespace Reference

### Namespaces

- [rapp\\_audio\\_processing](#)
- [rapp\\_detect\\_silence](#)
- [rapp\\_energy\\_denoise](#)
- [rapp\\_set\\_noise\\_profile](#)
- [rapp\\_sox\\_denoise](#)
- [rapp\\_transform\\_audio](#)
- [rapp\\_utilities](#)

## 5.20 `rapp_audio_processing.rapp_audio_processing` Namespace Reference

### Classes

- class [AudioProcessing](#)  
*Provides audio processing utilities.*

### Variables

- tuple [AudioProcessingNode](#) = [AudioProcessing](#)()

### 5.20.1 Variable Documentation

#### 5.20.1.1 tuple rapp\_audio\_processing.rapp\_audio\_processing.AudioProcessingNode = AudioProcessing()

Definition at line 217 of file rapp\_audio\_processing.py.

## 5.21 rapp\_audio\_processing.rapp\_detect\_silence Namespace Reference

### Classes

- class [DetectSilence](#)  
*Performs silence detection on an audio file.*

## 5.22 rapp\_audio\_processing.rapp\_energy\_denoise Namespace Reference

### Classes

- class [EnergyDenoise](#)  
*Performs energy denoising on an audio file.*

## 5.23 rapp\_audio\_processing.rapp\_set\_noise\_profile Namespace Reference

### Classes

- class [SetNoiseProfile](#)  
*Evaluates the noise profile for an audio file.*

## 5.24 rapp\_audio\_processing.rapp\_sox\_denoise Namespace Reference

### Classes

- class [SoxDenoise](#)  
*Performs denoising on an audio file employing Sox application.*

## 5.25 rapp\_audio\_processing.rapp\_transform\_audio Namespace Reference

### Classes

- class [TransformAudio](#)  
*Provides audio type tranformation functionalities.*

## 5.26 rapp\_audio\_processing.rapp\_utilities Namespace Reference

### Classes

- class [Utilities](#)  
*Provides audio processing utilities.*

## 5.27 rapp\_email Namespace Reference

### Namespaces

- [email\\_node](#)
- [email\\_receiver](#)
- [email\\_sender](#)

## 5.28 rapp\_email.email\_node Namespace Reference

### Variables

- tuple [emailReceiver](#) = EmailReceiver()
- tuple [emailSender](#) = EmailSender()

### 5.28.1 Variable Documentation

#### 5.28.1.1 tuple rapp\_email.email\_node.emailReceiver = EmailReceiver()

Definition at line 28 of file email\_node.py.

#### 5.28.1.2 tuple rapp\_email.email\_node.emailSender = EmailSender()

Definition at line 29 of file email\_node.py.

## 5.29 rapp\_email.email\_receiver Namespace Reference

### Classes

- class [EmailReceiver](#)  
*Fetches emails from user's email account.*

## 5.30 rapp\_email.email\_sender Namespace Reference

### Classes

- class [EmailSender](#)

## 5.31 rapp\_geolocator Namespace Reference

### Namespaces

- [geolocator\\_base](#)
- [geolocator\\_factory](#)
- [geolocator\\_node](#)
- [ip\\_api\\_locator](#)

## 5.32 rapp\_geolocator.geolocator\_base Namespace Reference

### Classes

- class [GeolocatorBase](#)  
*Base class for geolocators.*

## 5.33 rapp\_geolocator.geolocator\_factory Namespace Reference

### Classes

- class [GeolocatorFactory](#)

## 5.34 rapp\_geolocator.geolocator\_node Namespace Reference

### Classes

- class [GeolocatorNode](#)  
*Calculates geolocation via IP.*

### Variables

- tuple [geolocator\\_node](#) = [GeolocatorNode](#)()

#### 5.34.1 Variable Documentation

5.34.1.1 tuple `rapp_geolocator.geolocator_node.geolocator_node = GeolocatorNode()`

Definition at line 103 of file `geolocator_node.py`.

## 5.35 rapp\_geolocator.ip\_api\_locator Namespace Reference

### Classes

- class [IpAPILocator](#)  
*IP-API locator.*

## 5.36 rapp\_news\_explorer Namespace Reference

### Namespaces

- [engine\\_factory](#)
- [event\\_registry\\_engine](#)
- [google\\_news\\_engine](#)
- [news\\_engine\\_base](#)
- [news\\_explorer\\_node](#)

## 5.37 rapp\_news\_explorer.engine\_factory Namespace Reference

### Classes

- class [EngineFactory](#)  
*Creates and returns the class of the news engine requested.*

## 5.38 rapp\_news\_explorer.event\_registry\_engine Namespace Reference

### Classes

- class [EventRegistryEngine](#)  
*EventRegistry news engine handler.*

## 5.39 rapp\_news\_explorer.google\_news\_engine Namespace Reference

### Classes

- class [GoogleNewsEngine](#)  
*Google news engine handler.*

## 5.40 rapp\_news\_explorer.news\_engine\_base Namespace Reference

### Classes

- class [NewsEngineBase](#)  
*Base class for news engines.*

## 5.41 rapp\_news\_explorer.news\_explorer\_node Namespace Reference

### Classes

- class [NewsExplorerNode](#)  
*Fetches news from various News sites' APIs.*

### Variables

- tuple [news\\_explorer\\_node](#) = [NewsExplorerNode](#)()

### 5.41.1 Variable Documentation

#### 5.41.1.1 tuple rapp\_news\_explorer.news\_explorer\_node.news\_explorer\_node = [NewsExplorerNode](#)()

Definition at line 103 of file news\_explorer\_node.py.



## 5.42 rapp\_speech\_detection\_sphinx4 Namespace Reference

### Namespaces

- [english\\_support](#)
- [global\\_parameters](#)
- [greek\\_english\\_support](#)
- [greek\\_support](#)
- [language\\_support](#)
- [limited\\_vocabulary\\_creator](#)
- [speech\\_recognition\\_sphinx4](#)
- [speech\\_recognition\\_sphinx4\\_handler\\_node](#)
- [sphinx4\\_configuration\\_params](#)
- [sphinx4\\_wrapper](#)

## 5.43 rapp\_speech\_detection\_sphinx4.english\_support Namespace Reference

### Classes

- class [EnglishSupport](#)  
*Allows the creation of configuration files for English Sphinx speech recognition.*

## 5.44 rapp\_speech\_detection\_sphinx4.global\_parameters Namespace Reference

### Classes

- class [GlobalParams](#)  
*Contains global Sphinx parameters.*

## 5.45 rapp\_speech\_detection\_sphinx4.greek\_english\_support Namespace Reference

### Classes

- class [GreekEnglishSupport](#)

## 5.46 rapp\_speech\_detection\_sphinx4.greek\_support Namespace Reference

### Classes

- class [GreekSupport](#)  
*Allows the creation of configuration files for Greek Sphinx speech recognition.*

## 5.47 rapp\_speech\_detection\_sphinx4.language\_support Namespace Reference

### Classes

- class [LanguageSupport](#)  
*Allows the creation of configuration files for Sphinx speech recognition.*

## 5.48 rapp\_speech\_detection\_sphinx4.limited\_vocabulary\_creator Namespace Reference

### Classes

- class [LimitedVocabularyCreator](#)  
*Creates temporary configuration files for the input limited vocabulary.*

## 5.49 rapp\_speech\_detection\_sphinx4.speech\_recognition\_sphinx4 Namespace Reference

### Classes

- class [SpeechRecognitionSphinx4](#)  
*Provides a complete Rapp Sphinx Entity.*

### Variables

- tuple [SpeechRecognitionSphinx4Node](#) = [SpeechRecognitionSphinx4\(\)](#)

### 5.49.1 Variable Documentation

5.49.1.1 tuple rapp\_speech\_detection\_sphinx4.speech\_recognition\_sphinx4.SpeechRecognitionSphinx4Node = [SpeechRecognitionSphinx4\(\)](#)

Definition at line 261 of file speech\_recognition\_sphinx4.py.

## 5.50 rapp\_speech\_detection\_sphinx4.speech\_recognition\_sphinx4\_handler\_node Namespace Reference

### Classes

- class [SpeechRecognitionSphinx4HandlerNode](#)  
*Maintains Sphinx instances to perform speech recognition.*

### Variables

- tuple [rospack](#) = rospkg.RosPack()
- tuple [SpeechRecognitionSphinx4HandlerNode](#) = [SpeechRecognitionSphinx4HandlerNode\(\)](#)
- tuple [sphinx\\_class](#) = rospack.get\_path('rapp\_speech\_detection\_sphinx4')

### 5.50.1 Variable Documentation

5.50.1.1 tuple rapp\_speech\_detection\_sphinx4.speech\_recognition\_sphinx4\_handler\_node.rospack = rospkg.RosPack()

Definition at line 213 of file speech\_recognition\_sphinx4\_handler\_node.py.

#### 5.50.1.2 tuple rapp\_speech\_detection\_sphinx4.speech\_recognition\_sphinx4\_handler\_node.SpeechRecognitionSphinx4HandlerNode = SpeechRecognitionSphinx4HandlerNode()

Definition at line 220 of file speech\_recognition\_sphinx4\_handler\_node.py.

#### 5.50.1.3 tuple rapp\_speech\_detection\_sphinx4.speech\_recognition\_sphinx4\_handler\_node.sphinx\_class = rospack.get\_path('rapp\_speech\_detection\_sphinx4')

Definition at line 214 of file speech\_recognition\_sphinx4\_handler\_node.py.

## 5.51 rapp\_speech\_detection\_sphinx4.sphinx4\_configuration\_params Namespace Reference

### Classes

- class [SphinxConfigurationParams](#)  
*Contains the parameters required for the Sphinx configuration.*

## 5.52 rapp\_speech\_detection\_sphinx4.sphinx4\_wrapper Namespace Reference

### Classes

- class [Sphinx4Wrapper](#)  
*Contains the Sphinx subprocess and is responsible for configuring Sphinx and performing the recognition request.*

## 5.53 rapp\_weather\_reporter Namespace Reference

### Namespaces

- [forecastio\\_reporter](#)
- [weather\\_reporter\\_base](#)
- [weather\\_reporter\\_factory](#)
- [weather\\_reporter\\_node](#)
- [yweather\\_reporter](#)

## 5.54 rapp\_weather\_reporter.forecastio\_reporter Namespace Reference

### Classes

- class [ForecastIOReporter](#)  
*ForecastIO weather reporter.*

## 5.55 rapp\_weather\_reporter.weather\_reporter\_base Namespace Reference

### Classes

- class [WeatherReporterBase](#)  
*Base class for weather reporters.*

## 5.56 rapp\_weather\_reporter.weather\_reporter\_factory Namespace Reference

### Classes

- class [WeatherReporterFactory](#)

*Creates and returns the class of the weather reporter requested.*

## 5.57 rapp\_weather\_reporter.weather\_reporter\_node Namespace Reference

### Classes

- class [WeatherReporterNode](#)

*Evaluates weather conditions.*

### Variables

- tuple [weather\\_reporter\\_node](#) = [WeatherReporterNode](#)()

### 5.57.1 Variable Documentation

5.57.1.1 tuple `rapp_weather_reporter.weather_reporter_node.weather_reporter_node = WeatherReporterNode()`

Definition at line 158 of file `weather_reporter_node.py`.

## 5.58 rapp\_weather\_reporter.yweather\_reporter Namespace Reference

### Classes

- class [YWeatherReporter](#)

*Yweather weather reporter.*

## 5.59 speech\_recognition\_google Namespace Reference

### Classes

- class [SpeechToTextGoogle](#)

*Implements calls the Google ASR API.*

### Variables

- tuple [speech\\_to\\_text\\_node](#) = [SpeechToTextGoogle](#)()

*The main function.*

### 5.59.1 Variable Documentation

#### 5.59.1.1 `tuple speech_recognition_google.speech_to_text_node = SpeechToTextGoogle()`

The main function.

Creates a [SpeechToTextGoogle](#) object

Definition at line 272 of file `speech_recognition_google.py`.

## 5.60 src Namespace Reference

### Namespaces

- [rapp\\_exceptions](#)
- [rapp\\_html\\_parser](#)
- [rapp\\_http\\_json\\_parser](#)
- [rapp\\_http\\_request\\_handler](#)
- [rapp\\_utilities](#)

## 5.61 src.rapp\_exceptions Namespace Reference

### Classes

- class [RappError](#)  
*Provides a RAPP specific exception.*

## 5.62 src.rapp\_html\_parser Namespace Reference

### Classes

- class [RappHTMLParser](#)  
*Strips html from input string.*

## 5.63 src.rapp\_http\_json\_parser Namespace Reference

### Classes

- class [RappHttpJSONParser](#)  
*Retrieves key:value pairs from JSON responses.*

## 5.64 src.rapp\_http\_request\_handler Namespace Reference

### Classes

- class [RappHttpRequestHandler](#)  
*Performs http requests.*

## 5.65 src.rapp\_utilities Namespace Reference

### Classes

- class [RappUtilities](#)  
*Provides various utility functionalities.*

## 5.66 text\_to\_speech\_espeak Namespace Reference

### Classes

- class [TextToSpeechEspeak](#)

### Variables

- tuple [text\\_to\\_speech\\_espeak\\_ros\\_node](#) = [TextToSpeechEspeak\(\)](#)

### 5.66.1 Variable Documentation

5.66.1.1 tuple [text\\_to\\_speech\\_espeak.text\\_to\\_speech\\_espeak\\_ros\\_node](#) = [TextToSpeechEspeak\(\)](#)

Definition at line 82 of file [text\\_to\\_speech\\_espeak.py](#).

## 5.67 userScoreHistoryForAllCategories Namespace Reference

### Classes

- class [UserScoreHistoryForAllCategories](#)  
*Provides the necessary functions for returning the history of user scores.*

## 5.68 userScoresForAllCategories Namespace Reference

### Classes

- class [UserScoresForAllCategories](#)  
*Provides the necessary functions for returning the user scores.*

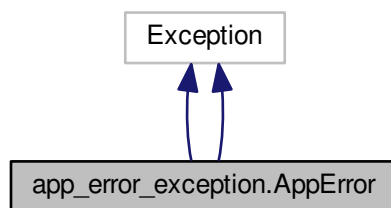
## Chapter 6

# Class Documentation

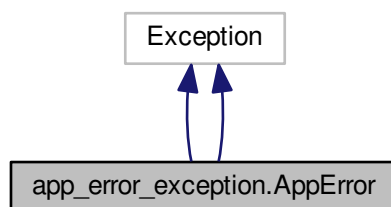
### 6.1 app\_error\_exception.AppError Class Reference

Exception compliant with the ros error and trace srvs.

Inheritance diagram for app\_error\_exception.AppError:



Collaboration diagram for app\_error\_exception.AppError:



#### Public Member Functions

- `def \_\_init\_\_`

- `def __init__`  
Default constructor for passing error parameters.

## Static Public Member Functions

- `def passErrorToRosSrv`  
Validates the provided test type.
- `def passErrorToRosSrv`  
Validates the provided test type.

## Public Attributes

- `args`

### 6.1.1 Detailed Description

Exception compliant with the ros error and trace srvs.

Definition at line 3 of file `app_error_exception.py`.

### 6.1.2 Constructor & Destructor Documentation

#### 6.1.2.1 `def app_error_exception.AppError.__init__( self, args )`

Default constructor for passing error parameters.

Definition at line 6 of file `app_error_exception.py`.

#### 6.1.2.2 `def app_error_exception.AppError.__init__( self, args )`

Default constructor for passing error parameters.

Definition at line 6 of file `app_error_exception.py`.

### 6.1.3 Member Function Documentation

#### 6.1.3.1 `def app_error_exception.AppError.passErrorToRosSrv( e, res ) [static]`

Validates the provided test type.

Parameters

<code>e</code>	[ <a href="#">AppError</a> ] The provided error
<code>trace</code>	[Srv] Ros srv with error [string] and trace [string[]] arguments

Returns

trace [Srv] Ros srv with error [string] and trace [string[]] arguments

Definition at line 16 of file `app_error_exception.py`.

#### 6.1.3.2 `def app_error_exception.AppError.passErrorToRosSrv( e, res ) [static]`

Validates the provided test type.



<i>e</i>	[ <a href="#">AppError</a> ] The provided error
<i>trace</i>	[Srv] Ros srv with error [string] and trace [string[]] arguments

#### Returns

trace [Srv] Ros srv with error [string] and trace [string[]] arguments

Definition at line 16 of file app\_error\_exception.py.

### 6.1.4 Member Data Documentation

#### 6.1.4.1 app\_error\_exception.AppError.args

Definition at line 8 of file app\_error\_exception.py.

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

- /home/travis/rapp\_temp/rapp-platform/rapp\_caffe\_wrapper/src/[app\\_error\\_exception.py](#)

## 6.2 rapp\_application\_authentication\_manager.application\_authentication\_node.Application-AuthenticationManager Class Reference

Provides user management features.

### Public Member Functions

- def [\\_\\_init\\_\\_](#)  
*ROS Service initializations.*
- def [add\\_new\\_user\\_from\\_platform\\_callback](#)  
*Add new platform user using platform credentials.*
- def [add\\_new\\_user\\_from\\_store\\_callback](#)  
*Add new platform user using rapp\_store credentials.*
- def [authenticate\\_token\\_callback](#)  
*Authenticate token.*
- def [login\\_callback](#)  
*Login existing user using platform device token.*
- def [login\\_from\\_store\\_callback](#)  
*Login existing user using store device token.*

### Private Member Functions

- def [\\_add\\_new\\_user\\_to\\_db](#)  
*Create password hash and store to the database.*
- def [\\_validate\\_username\\_format](#)  
*Verify that new username complies with a set of rules.*
- def [\\_verify\\_new\\_username\\_uniqueness](#)  
*Verify that new username is unique.*
- def [\\_verify\\_user\\_credentials](#)  
*Verify username and password.*

## Private Attributes

- [\\_db\\_handler](#)

*Handles the database queries.*

### 6.2.1 Detailed Description

Provides user management features.

Definition at line 49 of file application\_authentication\_node.py.

### 6.2.2 Constructor & Destructor Documentation

6.2.2.1 `def rapp_application_authentication_manager.application_authentication_node.ApplicationAuthenticationManager.__init__( self )`

ROS Service initializations.

Definition at line 52 of file application\_authentication\_node.py.

### 6.2.3 Member Function Documentation

6.2.3.1 `def rapp_application_authentication_manager.application_authentication_node.ApplicationAuthenticationManager._add_new_user_to_db( self, new_user_username, new_user_password, creator_username, language ) [private]`

Create password hash and store to the databse.

Parameters

<i>username</i>	[string] The username
<i>password</i>	[string] The password

Definition at line 356 of file application\_authentication\_node.py.

6.2.3.2 `def rapp_application_authentication_manager.application_authentication_node.ApplicationAuthenticationManager._validate_username_format( self, username ) [private]`

Verify that new username complies with a set of rules.

Alphanumerics, dashes and underscores are allowed

Parameters

<i>username</i>	[string] The username
-----------------	-----------------------

Exceptions

<i>RappError</i>	Username violates rules
------------------	-------------------------

Definition at line 346 of file application\_authentication\_node.py.

6.2.3.3 `def rapp_application_authentication_manager.application_authentication_node.ApplicationAuthenticationManager._verify_new_username_uniqueness( self, username ) [private]`

Verify that new username is unique.

## 6.2 rapp\_application\_authentication\_manager.application\_authentication\_node.ApplicationAuthenticationManager Class

### Reference Parameters

33

<i>username</i>	[string] The username
-----------------	-----------------------

### Returns

suggestion [string] A suggested username if the provided already exists

### Exceptions

<i>RappError</i>	Username exists and can not find a username suggestion
------------------	--

Definition at line 324 of file application\_authentication\_node.py.

```
6.2.3.4 def rapp_application_authentication_manager.application_authentication_node.ApplicationAuthenticationManager._  
        verify_user_credentials( self, username, password ) [private]
```

Verify username and password.

### Parameters

<i>username</i>	[string] The username
<i>password</i>	[string] Password associated with username

### Exceptions

<i>RappError</i>	Username does not exist or password does not match
------------------	--

Definition at line 312 of file application\_authentication\_node.py.

```
6.2.3.5 def rapp_application_authentication_manager.application_authentication_node.ApplicationAuthenticationManager.add-  
        _new_user_from_platform_callback( self, req )
```

Add new platform user using platform credentials.

### Parameters

<i>req</i>	[rapp_platform_ros_communications::ApplicationAuthentication::AddNewUserFromPlatformSrvRequest] The service request
------------	---

### Returns

res [rapp\_platform\_ros\_communications::ApplicationAuthentication::AddNewUserFromPlatformSrvResponse]  
The service response

Definition at line 120 of file application\_authentication\_node.py.

```
6.2.3.6 def rapp_application_authentication_manager.application_authentication_node.ApplicationAuthenticationManager.add-  
        _new_user_from_store_callback( self, req )
```

Add new platform user using rapp\_store credentials.

### Parameters

<i>req</i>	[rapp_platform_ros_communications::ApplicationAuthentication::AddNewUserFromStoreSrvRequest] The service request
------------	--

**Returns**

res [rapp\_platform\_ros\_communications::ApplicationAuthentication::AddNewUserFromStoreSrvResponse]  
The service response

Definition at line 162 of file application\_authentication\_node.py.

```
6.2.3.7 def rapp_application_authentication_manager.application_authentication_node.ApplicationAuthenticationManager.-
        authenticate_token_callback ( self, req )
```

Authenticate token.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::ApplicationAuthentication::UserTokenAuthenticationSrvRequest] The service request
------------	--

**Returns**

res [rapp\_platform\_ros\_communications::ApplicationAuthentication::UserTokenAuthenticationSrvResponse]  
The service response

Definition at line 295 of file application\_authentication\_node.py.

```
6.2.3.8 def rapp_application_authentication_manager.application_authentication_node.ApplicationAuthenticationManager.-
        login_callback ( self, req )
```

Login existing user using platform device token.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::ApplicationAuthentication::UserLoginSrvRequest] The service request
------------	--

**Returns**

res [rapp\_platform\_ros\_communications::ApplicationAuthentication::UserLoginSrvResponse] The service response

Definition at line 207 of file application\_authentication\_node.py.

```
6.2.3.9 def rapp_application_authentication_manager.application_authentication_node.ApplicationAuthenticationManager.-
        login_from_store_callback ( self, req )
```

Login existing user using store device token.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::ApplicationAuthentication::UserLoginSrvRequest] The service request
------------	--

**Returns**

res [rapp\_platform\_ros\_communications::ApplicationAuthentication::UserLoginSrvResponse] The service response

Definition at line 248 of file application\_authentication\_node.py.

## 6.2.4 Member Data Documentation

### 6.2.4.1 rapp\_application\_authentication\_manager.application\_authentication\_node.ApplicationAuthenticationManager.\_db\_handler [private]

Handles the database queries.

(see [database\\_handler.DatabaseHandler](#))

Definition at line 57 of file application\_authentication\_node.py.

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

- /home/travis/rapp\_temp/rapp-platform/rapp\_application\_authentication\_manager/src/rapp\_application\_authentication\_manager/application\_authentication\_node.py

## 6.3 rapp\_audio\_processing.rapp\_audio\_processing.AudioProcessing Class Reference

Provides audio processing utilities.

### Public Member Functions

- def [\\_\\_init\\_\\_](#)  
*Constructor performing initializations.*
- def [denoiseCallback](#)  
*Service callback for denoising.*
- def [detectSilenceCallback](#)  
*Service callback for Detecting silence.*
- def [energyDenoiseCallback](#)  
*Service callback for Energy denoising.*
- def [setNoiseProfileCallback](#)  
*Service callback for setting noise profile.*
- def [transformAudioCallback](#)  
*Service callback for Audio transformation.*

### Private Attributes

- [\\_detect\\_silence\\_module](#)  
*Instantiates [rapp\\_detect\\_silence.DetectSilence](#).*
- [\\_energy\\_denoise\\_module](#)  
*Instantiates [rapp\\_energy\\_denoise.EnergyDenoise](#).*
- [\\_energy\\_denoising\\_debug](#)  
*Energy denoising debug flag.*
- [\\_set\\_noise\\_profile\\_module](#)  
*Instantiates [rapp\\_set\\_noise\\_profile.SetNoiseProfile](#).*
- [\\_sox\\_denoise\\_module](#)  
*Instantiates [rapp\\_sox\\_denoise.SoxDenoise](#).*
- [\\_transform\\_audio\\_module](#)  
*Instantiates [rapp\\_transform\\_audio.TransformAudio](#).*
- [\\_utilities\\_module](#)  
*Instantiates [rapp\\_utilities.Utilities](#).*

### 6.3.1 Detailed Description

Provides audio processing utilities.

Implements service servers to perform denoising, audio transformation etc.

Definition at line 61 of file rapp\_audio\_processing.py.

### 6.3.2 Constructor & Destructor Documentation

#### 6.3.2.1 `def rapp_audio_processing.rapp_audio_processing.AudioProcessing.__init__( self )`

Constructor performing initializations.

Definition at line 64 of file rapp\_audio\_processing.py.

### 6.3.3 Member Function Documentation

#### 6.3.3.1 `def rapp_audio_processing.rapp_audio_processing.AudioProcessing.denoiseCallback( self, req )`

Service callback for denoising.

Parameters

<i>req</i>	[rapp_platform_ros_communications::AudioProcessing::AudioProcessingDenoiseSrv] The denoise request
------------	--

Returns

res [rapp\_platform\_ros\_communications::AudioProcessing::AudioProcessingDenoiseSrvResponse] The denoise response

Definition at line 158 of file rapp\_audio\_processing.py.

#### 6.3.3.2 `def rapp_audio_processing.rapp_audio_processing.AudioProcessing.detectSilenceCallback( self, req )`

Service callback for Detecting silence.

Parameters

<i>req</i>	[rapp_platform_ros_communications::AudioProcessing::AudioProcessingDetectSilence] The detect silence request
------------	--

Returns

res [rapp\_platform\_ros\_communications::AudioProcessing::AudioProcessingDetectSilenceSrvResponse] The detect silence response

Definition at line 173 of file rapp\_audio\_processing.py.

#### 6.3.3.3 `def rapp_audio_processing.rapp_audio_processing.AudioProcessing.energyDenoiseCallback( self, req )`

Service callback for Energy denoising.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::AudioProcessing::AudioProcessingDenoiseSrv] The denoise request
------------	---

## Returns

res [rapp\_platform\_ros\_communications::AudioProcessing::AudioProcessingDenoiseSrvResponse] The energy denoise response

Definition at line 188 of file rapp\_audio\_processing.py.

#### 6.3.3.4 def rapp\_audio\_processing.rapp\_audio\_processing.AudioProcessing.setNoiseProfileCallback ( self, req )

Service callback for setting noise profile.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::AudioProcessing::AudioProcessingSetNoiseProfileSrv] The set noise profile request
------------	---

## Returns

res [rapp\_platform\_ros\_communications::AudioProcessing::AudioProcessingSetNoiseProfileSrvResponse]  
The set noise profile response

Definition at line 137 of file rapp\_audio\_processing.py.

#### 6.3.3.5 def rapp\_audio\_processing.rapp\_audio\_processing.AudioProcessing.transformAudioCallback ( self, req )

Service callback for Audio transformation.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::AudioProcessing::AudioProcessingTransformAudioSrv] The transform audio request
------------	--

## Returns

res [rapp\_platform\_ros\_communications::AudioProcessing::AudioProcessingTransformAudioSrvResponse]  
The transform audio response

Definition at line 204 of file rapp\_audio\_processing.py.

### 6.3.4 Member Data Documentation

#### 6.3.4.1 rapp\_audio\_processing.rapp\_audio\_processing.AudioProcessing.\_detect\_silence\_module [private]

Instantiates [rapp\\_detect\\_silence.DetectSilence](#).

Definition at line 67 of file rapp\_audio\_processing.py.

#### 6.3.4.2 rapp\_audio\_processing.rapp\_audio\_processing.AudioProcessing.\_energy\_denoise\_module [private]

Instantiates [rapp\\_energy\\_denoise.EnergyDenoise](#).

Definition at line 69 of file rapp\_audio\_processing.py.

#### 6.3.4.3 `rapp_audio_processing.rapp_audio_processing.AudioProcessing._energy_denoising_debug` [private]

Energy denoising debug flag.

Definition at line 104 of file `rapp_audio_processing.py`.

#### 6.3.4.4 `rapp_audio_processing.rapp_audio_processing.AudioProcessing._set_noise_profile_module` [private]

Instantiates `rapp_set_noise_profile.SetNoiseProfile`.

Definition at line 75 of file `rapp_audio_processing.py`.

#### 6.3.4.5 `rapp_audio_processing.rapp_audio_processing.AudioProcessing._sox_denoise_module` [private]

Instantiates `rapp_sox_denoise.SoxDenoise`.

Definition at line 71 of file `rapp_audio_processing.py`.

#### 6.3.4.6 `rapp_audio_processing.rapp_audio_processing.AudioProcessing._transform_audio_module` [private]

Instantiates `rapp_transform_audio.TransformAudio`.

Definition at line 77 of file `rapp_audio_processing.py`.

#### 6.3.4.7 `rapp_audio_processing.rapp_audio_processing.AudioProcessing._utilities_module` [private]

Instantiates `rapp_utilities.Utilities`.

Definition at line 73 of file `rapp_audio_processing.py`.

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

- `/home/travis/rapp_temp/rapp-platform/rapp_audio_processing/src/rapp_audio_processing/rapp_audio_processing.py`

## 6.4 `cognitive_exercise.CognitiveExercise` Class Reference

The Cognitive exercise ros node.

### Public Member Functions

- `def __init__`  
*Default constructor.*
- `def chooserDataHandler`  
*The cognitive exercise chooser service callback.*
- `def cognitiveTestCreatorDataHandler`  
*The cognitive test creator service callback.*
- `def recordUserCognitiveTestPerformanceDataHandler`  
*The record user cognitive test performance service callback.*
- `def returnTestsOfTypeSubtypeDifficultyDataHandler`  
*The returnTestsOfTypeSubtypeDifficultyDataHandler service callback.*
- `def userScoreHistoryForAllCategoriesDataHandler`  
*The userScoreHistoryForAllCategories service callback.*
- `def userScoresForAllCategoriesDataHandler`  
*The userScoresForAllCategories service callback.*



## Public Attributes

- [serv](#)
- [serv\\_topic](#)

### 6.4.1 Detailed Description

The Cognitive exercise ros node.

Definition at line 49 of file cognitive\_exercise.py.

### 6.4.2 Constructor & Destructor Documentation

#### 6.4.2.1 def cognitive\_exercise.CognitiveExercise.\_\_init\_\_( self )

Default constructor.

Waits for services the node depends on and declares the callbacks of the node's services

Definition at line 54 of file cognitive\_exercise.py.

### 6.4.3 Member Function Documentation

#### 6.4.3.1 def cognitive\_exercise.CognitiveExercise.chooserDataHandler ( self, req )

The cognitive exercise chooser service callback.

Parameters

<i>req</i>	[rapp_platform_ros_communications::testSelectorSrvRequest::Request&] The ROS service request
------------	--

Returns

res [rapp\_platform\_ros\_communications::testSelectorSrvResponse::Response&] The ROS service response

Definition at line 123 of file cognitive\_exercise.py.

#### 6.4.3.2 def cognitive\_exercise.CognitiveExercise.cognitiveTestCreatorDataHandler ( self, req )

The cognitive test creator service callback.

Parameters

<i>req</i>	[rapp_platform_ros_communications::cognitiveTestCreatorSrvRequest::Request&] The ROS service request
------------	--

Returns

res [rapp\_platform\_ros\_communications::cognitiveTestCreatorSrvResponse::Response&] The ROS service response

Definition at line 141 of file cognitive\_exercise.py.

#### 6.4.3.3 def cognitive\_exercise.CognitiveExercise.recordUserCognitiveTestPerformanceDataHandler ( self, req )

The record user cognitive test performance service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::recordUserCognitiveTestPerformanceSrvRequest::Request&] The ROS service request
------------	--

## Returns

res [rapp\_platform\_ros\_communications::recordUserCognitiveTestPerformanceSrvResponse::Response&] The ROS service response

Definition at line 132 of file cognitive\_exercise.py.

6.4.3.4 `def cognitive_exercise.CognitiveExercise.returnTestsOfTypeSubtypeDifficultyDataHandler ( self, req )`

The returnTestsOfTypeSubtypeDifficultyDataHandler service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::returnTestsOfTypeSubtypeDifficultyDataHandler::Request&] The ROS service request
------------	---

## Returns

res [rapp\_platform\_ros\_communications::returnTestsOfTypeSubtypeDifficultyDataHandler::Response&] The ROS service response

Definition at line 168 of file cognitive\_exercise.py.

6.4.3.5 `def cognitive_exercise.CognitiveExercise.userScoreHistoryForAllCategoriesDataHandler ( self, req )`

The [userScoreHistoryForAllCategories](#) service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::userScoreHistoryForAllCategoriesSrv::Request&] The ROS service request
------------	---

## Returns

res [rapp\_platform\_ros\_communications::userScoreHistoryForAllCategoriesSrv::Response&] The ROS service response

Definition at line 159 of file cognitive\_exercise.py.

6.4.3.6 `def cognitive_exercise.CognitiveExercise.userScoresForAllCategoriesDataHandler ( self, req )`

The [userScoresForAllCategories](#) service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::userScoresForAllCategoriesSrvRequest::Request&] The ROS service request
------------	--

## Returns

res [rapp\_platform\_ros\_communications::userScoresForAllCategoriesSrvResponse::Response&] The ROS service response

Definition at line 150 of file cognitive\_exercise.py.

## 6.4.4 Member Data Documentation

### 6.4.4.1 cognitive\_exercise.CognitiveExercise.serv

Definition at line 91 of file cognitive\_exercise.py.

### 6.4.4.2 cognitive\_exercise.CognitiveExercise.serv\_topic

Definition at line 57 of file cognitive\_exercise.py.

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

- [/home/travis/rapp\\_temp/rapp-platform/rapp\\_cognitive\\_exercise/src/cognitive\\_exercise.py](#)

## 6.5 helper\_functions.CognitiveExerciseHelperFunctions Class Reference

### Static Public Member Functions

- def [determineTestTypeListForReturningScoresOrHistory](#)  
*Validates the provided test type or selects all test types from ontology if non provided.*
- def [filterTestsbyDifficultyAndSubtype](#)  
*Filters the tests by Difficulty and test subtype.*
- def [getCognitiveTestsOfType](#)  
*Gets the cognitive tests of the given type and difficulty available in the ontology.*
- def [getTestLanguagesFromOntology](#)  
*Queries the ontology and returns the cognitive test languages available.*
- def [getTestTypesFromOntology](#)  
*Queries the ontology and returns the cognitive test types available.*
- def [getUserLanguage](#)  
*Queries the MySQL database through the MySQL wrapper and returns the user's language.*
- def [getUserOntologyAlias](#)  
*Gets the users ontology alias and if it doesnt exist it creates it.*
- def [getUserPerformanceRecordsForTestType](#)  
*Gets the user cognitive test performance records for given test type.*
- def [organizeUserPerformanceByTimestamp](#)  
*Organizes the user's performance entries by timestamp.*

### 6.5.1 Detailed Description

Definition at line 33 of file helper\_functions.py.

### 6.5.2 Member Function Documentation

#### 6.5.2.1 def helper\_functions.CognitiveExerciseHelperFunctions.determineTestTypeListForReturningScoresOrHistory ( testType, validtestTypesList ) [static]

Validates the provided test type or selects all test types from ontology if non provided.

## Parameters

<i>testType</i>	[string] The provided test type
<i>validtestTypes-List</i>	[list] The list of valid test types

## Returns

testTypesList [list] The list of testTypes returned

## Exceptions

<i>Exception</i>	AppError
------------------	----------

Definition at line 165 of file helper\_functions.py.

```
6.5.2.2 def helper_functions.CognitiveExerciseHelperFunctions.filterTestsbyDifficultyAndSubtype ( testsOfType, chosenDif,
        testSubType ) [static]
```

Filters the tests by Difficulty and test subtype.

## Parameters

<i>testsOfType</i>	[dictionary] The dictionary containing all the tests
<i>chosenDif</i>	[string] The test difficulty
<i>testSubType</i>	[string] The test sub type

## Returns

d [dictionary] The selected cognitive tests after filtering was applied

Definition at line 131 of file helper\_functions.py.

```
6.5.2.3 def helper_functions.CognitiveExerciseHelperFunctions.getCognitiveTestsOfType ( testType, userLanguage )
        [static]
```

Gets the cognitive tests of the given type and difficulty available in the ontology.

## Parameters

<i>testType</i>	[string] The test type (category)
<i>userLanguage</i>	[string] The user's language

## Returns

cognitiveTestsOfTypeResponse [cognitiveTestsOfTypeResponse] The cognitive tests of type service response

## Exceptions

<i>Exception</i>	AppError
------------------	----------

Definition at line 112 of file helper\_functions.py.

```
6.5.2.4 def helper_functions.CognitiveExerciseHelperFunctions.getTestLanguagesFromOntology ( ) [static]
```

Queries the ontology and returns the cognitive test languages available.

## Returns

languagesList [list] The list of the available cognitive test languages they were read from the ontology

## Exceptions

<i>Exception</i>	AppError
------------------	----------

Definition at line 90 of file helper\_functions.py.

#### 6.5.2.5 def helper\_functions.CognitiveExerciseHelperFunctions.getTestTypesFromOntology ( ) [static]

Queries the ontology and returns the cognitive test types available.

## Returns

testTypesList [list] The list of the available tests as they were read from the ontology

## Exceptions

<i>Exception</i>	AppError
------------------	----------

Definition at line 70 of file helper\_functions.py.

#### 6.5.2.6 def helper\_functions.CognitiveExerciseHelperFunctions.getUserLanguage ( username ) [static]

Queries the MySQL database through the MySQL wrapper and returns the user's language.

## Parameters

<i>username</i>	[string] The username of the user as is in the MySQL database
<i>languageInSrv</i>	[string] The user's language for assigning it to the srv response trace

## Returns

userLanguage [string] The user's language

## Exceptions

<i>Exception</i>	AppError
------------------	----------

Definition at line 148 of file helper\_functions.py.

#### 6.5.2.7 def helper\_functions.CognitiveExerciseHelperFunctions.getUserOntologyAlias ( username ) [static]

Gets the users ontology alias and if it doesnt exist it creates it.

## Parameters

<i>username</i>	[string] The user's username
-----------------	------------------------------

## Returns

ontologyAlias [string] The user's ontology alias

## Exceptions

<i>Exception</i>	AppError
------------------	----------

Definition at line 55 of file helper\_functions.py.

#### 6.5.2.8 def helper\_functions.CognitiveExerciseHelperFunctions.getUserPerformanceRecordsForTestType ( testType, userOntologyAlias ) [static]

Gets the user cognitive test performance records for given test type.

**Parameters**

<i>username</i>	[string] The user's username
-----------------	------------------------------

**Returns**

userPerformanceReq [rapp\_platform\_ros\_communications::userPerformanceCognitiveTestsSrvRequest::Request&] The user's performance records

**Exceptions**

<i>Exception</i>	AppError
------------------	----------

Definition at line 41 of file helper\_functions.py.

**6.5.2.9** `def helper_functions.CognitiveExerciseHelperFunctions.organizeUserPerformanceByTimestamp ( userPerf )`  
`[static]`

Organizes the user's performance entries by timestamp.

**Parameters**

<i>userPerf</i>	[dict] The dictionary containing the user's performance entries
-----------------	---

**Returns**

userPerfOrganizedByTimestamp [OrderedDict] The dictionary containing the user's performance entries organized by timestamp

Definition at line 181 of file helper\_functions.py.

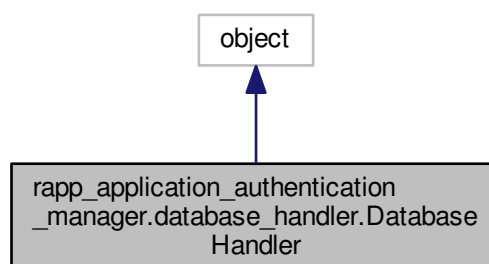
The documentation for this class was generated from the following file:

- [/home/travis/rapp\\_temp/rapp-platform/rapp\\_cognitive\\_exercise/src/helper\\_functions.py](/home/travis/rapp_temp/rapp-platform/rapp_cognitive_exercise/src/helper_functions.py)

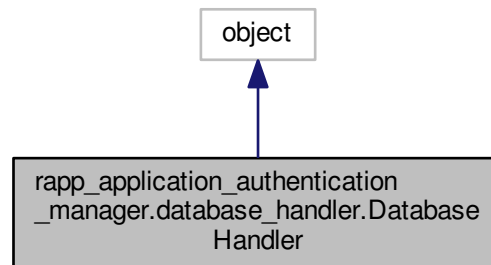
## 6.6 rapp\_application\_authentication\_manager.database\_handler.DatabaseHandler Class Reference

Handles database functions for authentication manager.

Inheritance diagram for rapp\_application\_authentication\_manager.database\_handler.DatabaseHandler:



Collaboration diagram for rapp\_application\_authentication\_manager.database\_handler.DatabaseHandler:



## Public Member Functions

- `def \_\_init\_\_`  
*ROS Service initializations.*
- `def add\_new\_user`  
*Write new user to the platform database.*
- `def add\_store\_token\_to\_device`  
*Write store token the device table.*
- `def get\_token\_user`  
*Retrieve username associated with application\_token from platform database.*
- `def get\_user\_password`  
*Retrieve user's password from platform database.*
- `def username\_exists`  
*Verify that username exists in platform database.*
- `def validate\_user\_role`  
*Check if user has an admin/root role.*
- `def verify\_active\_application\_token`  
*Check if the application\_token is active/valid.*
- `def verify\_active\_robot\_session`  
*Check if there is an active session (token) for the specified user and store\_token (device\_token)*
- `def verify\_platform\_device\_token`  
*Verify that the device token exists in platform database.*
- `def verify\_store\_device\_token`  
*Verify that the device token exists in store database.*
- `def write\_new\_application\_token`  
*Write new token to the platform database.*

## Private Attributes

- `\_add\_new\_user\_proxy`  
*Service proxy to add new user to the database.*
- `\_add\_store\_token\_to\_device\_proxy`  
*Service proxy to add new device token from store to the database.*
- `\_create\_new\_app\_token\_proxy`

*Service proxy to add new application token to the database.*

- [\\_get\\_token\\_user\\_proxy](#)

*Service proxy to query database for the user associated with a token.*

- [\\_get\\_user\\_passwd\\_proxy](#)

*Service proxy to query database for user password.*

- [\\_username\\_exists\\_proxy](#)

*Service proxy to query database for user existence.*

- [\\_validate\\_existing\\_device\\_token\\_proxy](#)

*Service proxy to query the database for a device token.*

- [\\_validate\\_user\\_role\\_proxy](#)

*Service proxy to query the database for the user's role.*

- [\\_verify\\_appl\\_token\\_proxy](#)

*Service proxy to query database for application token validity.*

- [\\_verify\\_robot\\_session\\_proxy](#)

*Service proxy to query database for active user session.*

### 6.6.1 Detailed Description

Handles database functions for authentication manager.

Definition at line 58 of file database\_handler.py.

### 6.6.2 Constructor & Destructor Documentation

#### 6.6.2.1 `def rapp_application_authentication_manager.database_handler.DatabaseHandler.__init__( self )`

ROS Service initializations.

Definition at line 61 of file database\_handler.py.

### 6.6.3 Member Function Documentation

#### 6.6.3.1 `def rapp_application_authentication_manager.database_handler.DatabaseHandler.add_new_user( self, username, password, creator, language )`

Write new user to the platform database.

Parameters

<i>username</i>	[string] The username
<i>password</i>	[string] The user's password
<i>store_token</i>	[string] The user's store token
<i>language</i>	[string] The user's language

Returns

status [bool] True if token exists, false otherwise

Exceptions

<i>RappError</i>	Failed to create the new user
------------------	-------------------------------

Definition at line 316 of file database\_handler.py.



6.6.3.2 `def rapp_application_authentication_manager.database_handler.DatabaseHandler.add_store_token_to_device ( self, store_token )`

Write store token the device table.

**Parameters**

<i>store_token</i>	[string] The device_token of the application token
--------------------	--

**Exceptions**

<i>RappError</i>	Failed to write token
------------------	-----------------------

Definition at line 358 of file database\_handler.py.

6.6.3.3 `def rapp_application_authentication_manager.database_handler.DatabaseHandler.get_token_user ( self, app_token )`

Retrieve username associated with application\_token from platform database.

**Parameters**

<i>token</i>	[string] The user's application token
--------------	---------------------------------------

**Returns**

username [string] The username

Definition at line 281 of file database\_handler.py.

6.6.3.4 `def rapp_application_authentication_manager.database_handler.DatabaseHandler.get_user_password ( self, username )`

Retrieve user's password from platform database.

**Parameters**

<i>username</i>	[string] The username
-----------------	-----------------------

**Returns**

password [string] Password associated with username

**Exceptions**

<i>RappError</i>	Username does not exist
------------------	-------------------------

Definition at line 250 of file database\_handler.py.

6.6.3.5 `def rapp_application_authentication_manager.database_handler.DatabaseHandler.username_exists ( self, username )`

Verify that username exists in platform database.

**Parameters**

<i>username</i>	[string] The username
-----------------	-----------------------

**Returns**

status [bool] True if username exists, false otherwise

Definition at line 233 of file database\_handler.py.

6.6.3.6 `def rapp_application_authentication_manager.database_handler.DatabaseHandler.validate_user_role ( self, username )`

Check if user has an admin/root role.

## Parameters

<i>username</i>	[string] The user's username
-----------------	------------------------------

## Exceptions

<i>RappError</i>	Invalid user role
------------------	-------------------

Definition at line 376 of file database\_handler.py.

```
6.6.3.7 def rapp_application_authentication_manager.database_handler.DatabaseHandler.verify_active_application_token (
        self, application_token )
```

Check if the application\_token is active/valid.

## Parameters

<i>token</i>	[string] The user's application token
--------------	---------------------------------------

## Returns

status [bool] True if it is valid, false otherwise

Definition at line 265 of file database\_handler.py.

```
6.6.3.8 def rapp_application_authentication_manager.database_handler.DatabaseHandler.verify_active_robot_session ( self,
        username, store_token )
```

Check if there is an active session (token) for the specified user and store\_token (device\_token)

## Parameters

<i>username</i>	[string] The username
<i>store_token</i>	[string] The device_token associated with the appl_token

## Returns

status [bool] True if token exists, false otherwise

Definition at line 295 of file database\_handler.py.

```
6.6.3.9 def rapp_application_authentication_manager.database_handler.DatabaseHandler.verify_platform_device_token ( self,
        device_token )
```

Verify that the device token exists in platform database.

## Parameters

<i>device_token</i>	[string] The token
---------------------	--------------------

## Returns

status [bool] True if token exists, false otherwise

Definition at line 221 of file database\_handler.py.

```
6.6.3.10 def rapp_application_authentication_manager.database_handler.DatabaseHandler.verify_store_device_token ( self,
        device_token )
```

Verify that the device token exists in store database.

**Parameters**

<i>device_token</i>	[string] The token
---------------------	--------------------

**Returns**

status [bool] True if token exists, false otherwise

Definition at line 211 of file database\_handler.py.

**6.6.3.11** `def rapp_application_authentication_manager.database_handler.DatabaseHandler.write_new_application_token ( self, username, store_token, appl_token )`

Write new token to the platform database.

**Parameters**

<i>username</i>	[string] The user issuing the token
<i>store_token</i>	[string] The device_token of the application token
<i>app_token</i>	[string] The user's application token

**Exceptions**

<i>RappError</i>	Failed to write token
------------------	-----------------------

Definition at line 339 of file database\_handler.py.

**6.6.4 Member Data Documentation**

**6.6.4.1** `rapp_application_authentication_manager.database_handler.DatabaseHandler._add_new_user_proxy` [private]

Service proxy to add new user to the database.

(see database\_handler.add\_new\_user)

Definition at line 145 of file database\_handler.py.

**6.6.4.2** `rapp_application_authentication_manager.database_handler.DatabaseHandler._add_store_token_to_device_proxy` [private]

Service proxy to add new device token from store to the database.

(see database\_handler.add\_store\_token\_to\_device)

Definition at line 173 of file database\_handler.py.

**6.6.4.3** `rapp_application_authentication_manager.database_handler.DatabaseHandler._create_new_app_token_proxy` [private]

Service proxy to add new application token to the database.

(see database\_handler.write\_new\_application\_token)

Definition at line 159 of file database\_handler.py.

**6.6.4.4** `rapp_application_authentication_manager.database_handler.DatabaseHandler._get_token_user_proxy` [private]

Service proxy to query database for the user associated with a token.

(see database\_handler.get\_token\_user)

Definition at line 116 of file database\_handler.py.

#### 6.6.4.5 rapp\_application\_authentication\_manager.database\_handler.DatabaseHandler.\_get\_user\_passwd\_proxy [private]

Service proxy to query database for user password.

(see database\_handler.get\_user\_password)

Definition at line 86 of file database\_handler.py.

#### 6.6.4.6 rapp\_application\_authentication\_manager.database\_handler.DatabaseHandler.\_username\_exists\_proxy [private]

Service proxy to query database for user existence.

(see database\_handler.username\_exists)

Definition at line 72 of file database\_handler.py.

#### 6.6.4.7 rapp\_application\_authentication\_manager.database\_handler.DatabaseHandler.\_validate\_existing\_device\_token\_proxy [private]

Service proxy to query the database for a device token.

(see database\_handler.verify\_platform\_device\_token)

Definition at line 202 of file database\_handler.py.

#### 6.6.4.8 rapp\_application\_authentication\_manager.database\_handler.DatabaseHandler.\_validate\_user\_role\_proxy [private]

Service proxy to query the database for the user's role.

(see database\_handler.validate\_user\_role)

Definition at line 187 of file database\_handler.py.

#### 6.6.4.9 rapp\_application\_authentication\_manager.database\_handler.DatabaseHandler.\_verify\_appl\_token\_proxy [private]

Service proxy to query database for application token validity.

(see database\_handler.verify\_active\_application\_token)

Definition at line 101 of file database\_handler.py.

#### 6.6.4.10 rapp\_application\_authentication\_manager.database\_handler.DatabaseHandler.\_verify\_robot\_session\_proxy [private]

Service proxy to query database for active user session.

(see database\_handler.verify\_active\_robot\_session)

Definition at line 131 of file database\_handler.py.

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

- /home/travis/rapp\_temp/rapp-platform/rapp\_application\_authentication\_manager/src/rapp\_application\_authentication\_manager/database\_handler.py

## 6.7 rapp\_audio\_processing.rapp\_detect\_silence.DetectSilence Class Reference

Performs silence detection on an audio file.

### Public Member Functions

- def [detectSilence](#)

*Detects silence.*

### 6.7.1 Detailed Description

Performs silence detection on an audio file.

Definition at line 29 of file rapp\_detect\_silence.py.

### 6.7.2 Member Function Documentation

6.7.2.1 def rapp\_audio\_processing.rapp\_detect\_silence.DetectSilence.detectSilence ( *self*, *audio\_file*, *threshold* )

Detects silence.

Handles service callback [rapp\\_audio\\_processing.AudioProcessing::detectSilenceCallback](#)

#### Parameters

<i>audio_file</i>	[string] Audio file path
<i>threshold</i>	[float] Silence threshold

#### Returns

rsd\_sq [float] Noise relative standard deviation  
has\_silence [bool] Indicates the existence of silence

Definition at line 41 of file rapp\_detect\_silence.py.

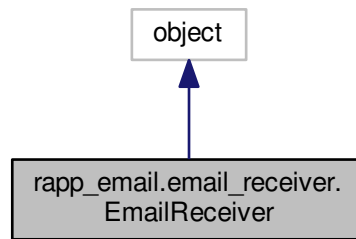
The documentation for this class was generated from the following file:

- /home/travis/rapp\_temp/rapp-platform/rapp\_audio\_processing/src/rapp\_audio\_processing/[rapp\\_detect\\_silence.py](#)

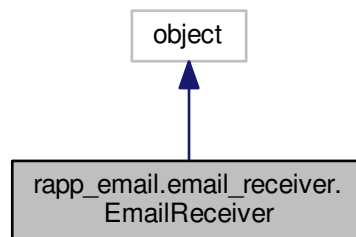
## 6.8 rapp\_email.email\_receiver.EmailReceiver Class Reference

Fetches emails from user's email account.

Inheritance diagram for rapp\_email.email\_receiver.EmailReceiver:



Collaboration diagram for rapp\_email.email\_receiver.EmailReceiver:



## Public Member Functions

- `def \_\_init\_\_`  
*Constructor.*
- `def receiveEmailSrvCallback`  
*The callback to receive specified mails from users email account.*

## Private Member Functions

- `def \_connectImap`  
*Create an IMAP connection to the server.*
- `def \_fetchEmail`  
*Fetch specified email's data.*
- `def \_initializePath`  
*Create a temporary path for the user emails.*
- `def \_selectEmails`  
*Fetch the emails that match the requests criteria.*

### 6.8.1 Detailed Description

Fetches emails from user's email account.

Definition at line 46 of file email\_receiver.py.

### 6.8.2 Constructor & Destructor Documentation

#### 6.8.2.1 `def rapp_email.email_receiver.EmailReceiver.__init__( self )`

Constructor.

Definition at line 49 of file email\_receiver.py.

### 6.8.3 Member Function Documentation

#### 6.8.3.1 `def rapp_email.email_receiver.EmailReceiver._connectImap( self, email, password, server, port ) [private]`

Create an IMAP connection to the server.

Initiates an IMAP connection according to the user's email and logs in to the server using user's credentials

Parameters

<i>email</i>	[string] The user's email
<i>password</i>	[string] The user's password
<i>server</i>	[string] The email server
<i>port</i>	[string] The email server's port

Returns

imap [imaplib::IMAP4\_SSL] The connection

Definition at line 264 of file email\_receiver.py.

#### 6.8.3.2 `def rapp_email.email_receiver.EmailReceiver._fetchEmail( self, imap, emailID, receivePath, emailCounter ) [private]`

Fetch specified email's data.

Parameters

<i>imap</i>	[imaplib::IMAP4_SSL] The connection
<i>emailID</i>	[int] The emails UID
<i>receivePath</i>	[string] The absolute path where the contents of the email should be written.
<i>emailCounter</i>	[int] The number of emails processed

return mailMsg [rapp\_platform\_ros\_communications::MailMsg] The mail msg to be appended in the service response

Definition at line 113 of file email\_receiver.py.

#### 6.8.3.3 `def rapp_email.email_receiver.EmailReceiver._initializePath( self, email ) [private]`

Create a temporary path for the user emails.

The path will be placed in ~/rapp\_platform\_files/emails/{username}{random\_string}



## Parameters

<i>email</i>	[string] The rapp user's email
--------------	--------------------------------

Definition at line 188 of file email\_receiver.py.

6.8.3.4 `def rapp_email.email_receiver.EmailReceiver._selectEmails ( self, req, imap ) [private]`

Fetch the emails that match the requests criteria.

req [rapp\_platform\_ros\_communications::Email::ReceiveEmailSrvRequest] The receive email request

## Returns

emails [list<int>] The UIDs of the selected emails

imaplib.IMAP4.error General imaplib error

Definition at line 215 of file email\_receiver.py.

6.8.3.5 `def rapp_email.email_receiver.EmailReceiver.receiveEmailSrvCallback ( self, req )`

The callback to receive specified mails from users email account.

req [rapp\_platform\_ros\_communications::Email::ReceiveEmailSrvRequest] The receive email request

res [rapp\_platform\_ros\_communications::Email::ReceiveEmailSrvResponse] The receive email response

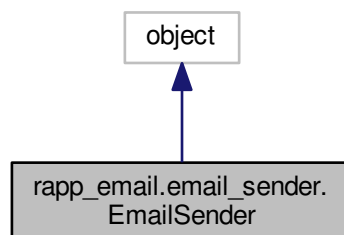
Definition at line 59 of file email\_receiver.py.

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

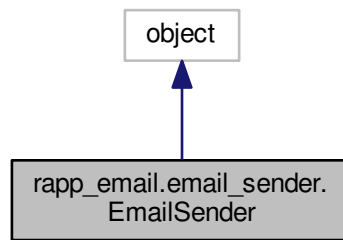
- /home/travis/rapp\_temp/rapp-platform/rapp\_email/src/rapp\_email/[email\\_receiver.py](#)

## 6.9 rapp\_email.email\_sender.EmailSender Class Reference

Inheritance diagram for rapp\_email.email\_sender.EmailSender:



Collaboration diagram for rapp\_email.email\_sender.EmailSender:



## Public Member Functions

- def `__init__`
- def `sendEmailSrvCallback`  
*The callback to send specified mails from users email account.*

## Private Member Functions

- def `_connectAndSend`  
*Connect to the requested SMTP server and send email.*
- def `_createEmailBody`  
*Creates the emails main body.*
- def `_handleAttachment`  
*Add attachment to the email.*

### 6.9.1 Detailed Description

Definition at line 41 of file `email_sender.py`.

### 6.9.2 Constructor & Destructor Documentation

6.9.2.1 def `rapp_email.email_sender.EmailSender.__init__( self )`

Definition at line 43 of file `email_sender.py`.

### 6.9.3 Member Function Documentation

6.9.3.1 def `rapp_email.email_sender.EmailSender._connectAndSend( self, userEmail, userPassword, recipients, server, port, msg )` `[private]`

Connect to the requested SMTP server and send email.

## Parameters

<i>userEmail</i>	[string] The sender's email
<i>userPassword</i>	[string] The sender's password
<i>recipients</i>	[list<string>] The recipients' emails
<i>server</i>	[string] The SMTP server's address
<i>port</i>	[string] The SMTP server's port

## Exceptions

<i>smtpplib.SMTPException</i>	Base SMTP exception class
<i>socket.error</i>	Socket class exception (connection problem)

Definition at line 100 of file email\_sender.py.

```
6.9.3.2 def rapp_email.email_sender.EmailSender._createEmailBody ( self, recipients, userEmail, body, subject )
        [private]
```

Creates the emails main body.

## Parameters

<i>recipients</i>	[list<string>] The recipients' emails
<i>userEmail</i>	[string] The sender's email
<i>subject</i>	[string] The email's subject
<i>body</i>	[string] The email's body text

## Returns

msg [MimeMultipart] The email's main body to be sent via SMTP

Definition at line 137 of file email\_sender.py.

```
6.9.3.3 def rapp_email.email_sender.EmailSender._handleAttachment ( self, filename ) [private]
```

Add attachment to the email.

## Parameters

<i>filename</i>	[string] The absolute path of the requested file
-----------------	--

## Returns

attachment [mimeobject] The attachment format of the file to be appended to the email

## Exceptions

<i>IOError</i>	General IO error
<i>EnvironmentError</i>	General IO error

Definition at line 158 of file email\_sender.py.

```
6.9.3.4 def rapp_email.email_sender.EmailSender.sendEmailSrvCallback ( self, req )
```

The callback to send specified mails from users email account.

req [rapp\_platform\_ros\_communications::Email::SendEmailSrvRequest] The send email request

res [rapp\_platform\_ros\_communications::Email::SendEmailSrvResponse] The send email response

Definition at line 53 of file email\_sender.py.

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

- [/home/travis/rapp\\_temp/rapp-platform/rapp\\_email/src/rapp\\_email/email\\_sender.py](#)

## 6.10 rapp\_audio\_processing.rapp\_energy\_denoise.EnergyDenoise Class Reference

Performs energy denoising on an audio file.

### Public Member Functions

- [def energyDenoise](#)

*Performs energy-based denoising.*

#### 6.10.1 Detailed Description

Performs energy denoising on an audio file.

Definition at line 29 of file `rapp_energy_denoise.py`.

#### 6.10.2 Member Function Documentation

6.10.2.1 `def rapp_audio_processing.rapp_energy_denoise.EnergyDenoise.energyDenoise ( self, audio_file, scale, denoised_audio_file, energy_denoising_debug )`

Performs energy-based denoising.

Handles service callback [rapp\\_audio\\_processing.AudioProcessing::energyDenoiseCallback](#)

Parameters

<i>audio_file</i>	[string] Audio file path
<i>scale</i>	[float] Energy denoise scale
<i>denoised_audio_file</i>	[string] Path to write denoised audio file

Definition at line 39 of file `rapp_energy_denoise.py`.

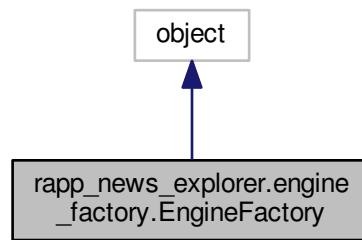
The documentation for this class was generated from the following file:

- [/home/travis/rapp\\_temp/rapp-platform/rapp\\_audio\\_processing/src/rapp\\_audio\\_processing/rapp\\_energy\\_denoise.py](#)

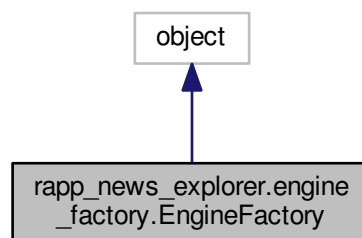
## 6.11 rapp\_news\_explorer.engine\_factory.EngineFactory Class Reference

Creates and returns the class of the news engine requested.

Inheritance diagram for rapp\_news\_explorer.engine\_factory.EngineFactory:



Collaboration diagram for rapp\_news\_explorer.engine\_factory.EngineFactory:



## Public Member Functions

- def [select\\_news\\_engine](#)  
*Select proper news engine according to request.*

### 6.11.1 Detailed Description

Creates and returns the class of the news engine requested.

Implements a factory pattern.

Definition at line 31 of file engine\_factory.py.

### 6.11.2 Member Function Documentation

6.11.2.1 def rapp\_news\_explorer.engine\_factory.EngineFactory.select\_news\_engine ( *self*, *engine* )

Select proper news engine according to request.

## Parameters

<i>engine</i>	[string] The name of the news engine
---------------	--------------------------------------

## Returns

res [rapp\_news\_explorer.rapp\_news\_explorer.NewsEngine] The news engine

RappError Wrong news engine provided by user

Definition at line 42 of file engine\_factory.py.

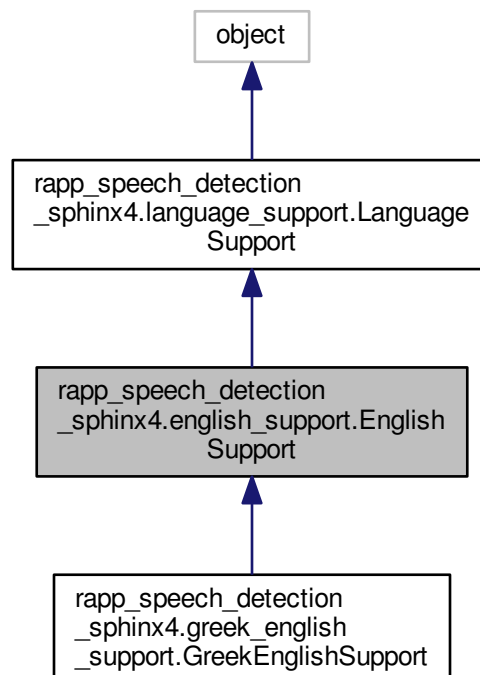
The documentation for this class was generated from the following file:

- /home/travis/rapp\_temp/rapp-platform/rapp\_news\_explorer/src/rapp\_news\_explorer/engine\_factory.py

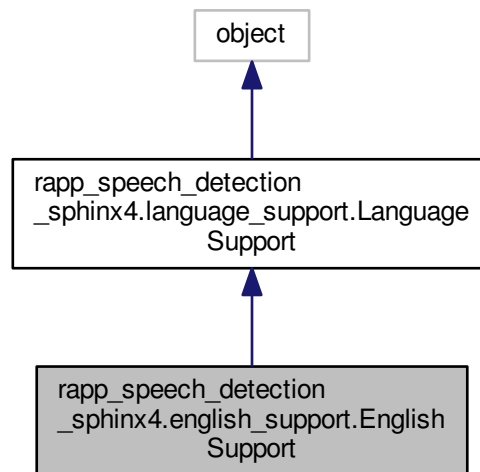
## 6.12 rapp\_speech\_detection\_sphinx4.english\_support.EnglishSupport Class Reference

Allows the creation of configuration files for English Sphinx speech recognition.

Inheritance diagram for rapp\_speech\_detection\_sphinx4.english\_support.EnglishSupport:



Collaboration diagram for rapp\_speech\_detection\_sphinx4.english\_support.EnglishSupport:



## Public Member Functions

- [def \\_\\_init\\_\\_](#)  
*Performs initializations.*
- [def getLimitedVocebularyConfiguration](#)  
*Computes the Limited English Configuration.*
- [def getWordPhonemes](#)  
*Compute the English word phonemes.*

## Private Attributes

- [\\_english\\_dict\\_file](#)  
*The English dictionary file.*
- [\\_english\\_dict\\_mapping](#)  
*The mmap of the English dictionary file contents.*

### 6.12.1 Detailed Description

Allows the creation of configuration files for English Sphinx speech recognition.

Definition at line 27 of file english\_support.py.

### 6.12.2 Constructor & Destructor Documentation

#### 6.12.2.1 `def rapp_speech_detection_sphinx4.english_support.EnglishSupport.__init__( self )`

Performs initializations.

Definition at line 30 of file english\_support.py.

### 6.12.3 Member Function Documentation

6.12.3.1 `def rapp_speech_detection_sphinx4.english_support.EnglishSupport.getLimitedVocebularyConfiguration ( self, words, grammar, sentences )`

Computes the Limited English Configuration.

Parameters

<i>words</i>	[list::string] The set of words to be identified
<i>grammar</i>	[list::string] The Sphinx grammar parameter
<i>sentences</i>	[list::string] The Sphinx sentences parameter

Returns

limited\_sphinx\_configuration [dictionary] The Limited English configuration  
engEngDict [dictionary] Introduced for code interface compliance

Definition at line 105 of file english\_support.py.

6.12.3.2 `def rapp_speech_detection_sphinx4.english_support.EnglishSupport.getWordPhonemes ( self, words )`

Compute the English word phonemes.

Parameters

<i>words</i>	[list::string] The set of English words
--------------	---

Returns

enhanced\_words [dictionary] The English word->phonemes mapping

Definition at line 60 of file english\_support.py.

### 6.12.4 Member Data Documentation

6.12.4.1 `rapp_speech_detection_sphinx4.english_support.EnglishSupport._english_dict_file` [private]

The English dictionary file.

Located in path `global_parameters.GlobalParams::_language_models_url + "/englishPack/cmudict-en-us.dict"`

Definition at line 39 of file english\_support.py.

6.12.4.2 `rapp_speech_detection_sphinx4.english_support.EnglishSupport._english_dict_mapping` [private]

The mmap of the English dictionary file contents.

Definition at line 41 of file english\_support.py.

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

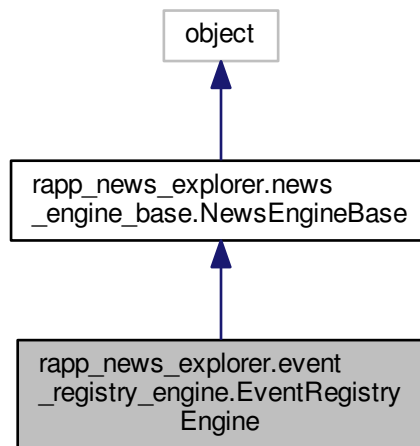
- `/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_sphinx4/english_support.py`

## 6.13 rapp\_news\_explorer.event\_registry\_engine.EventRegistryEngine Class Reference

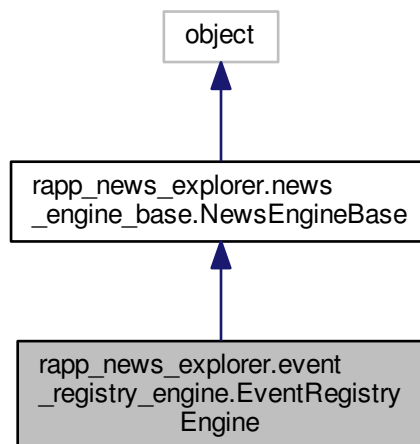
EventRegistry news engine hndler.



Inheritance diagram for rapp\_news\_explorer.event\_registry\_engine.EventRegistryEngine:



Collaboration diagram for rapp\_news\_explorer.event\_registry\_engine.EventRegistryEngine:



## Public Member Functions

- def [\\_\\_init\\_\\_](#)  
*Constructor.*
- def [fetch\\_news](#)  
*Fetch the news.*

## Private Attributes

- [\\_event\\_handler](#)
- [\\_max\\_requests](#)
- [\\_max\\_stories](#)
- [\\_password](#)
- [\\_username](#)

## Additional Inherited Members

### 6.13.1 Detailed Description

EventRegistry news engine hndler.

Definition at line 32 of file event\_registry\_engine.py.

### 6.13.2 Constructor & Destructor Documentation

6.13.2.1 `def rapp_news_explorer.event_registry_engine.EventRegistryEngine.__init__( self )`

Constructor.

Definition at line 35 of file event\_registry\_engine.py.

### 6.13.3 Member Function Documentation

6.13.3.1 `def rapp_news_explorer.event_registry_engine.EventRegistryEngine.fetch_news( self, req )`

Fetch the news.

Parameters

<i>req</i>	[rapp_platform_ros_communications::NewsExplorer::NewsExplorerSrv] The service request
------------	---

Returns

[list<dict>] The server results containing the stories

Definition at line 62 of file event\_registry\_engine.py.

### 6.13.4 Member Data Documentation

6.13.4.1 `rapp_news_explorer.event_registry_engine.EventRegistryEngine._event_handler` [private]

Definition at line 37 of file event\_registry\_engine.py.

6.13.4.2 `rapp_news_explorer.event_registry_engine.EventRegistryEngine._max_requests` [private]

Definition at line 52 of file event\_registry\_engine.py.

6.13.4.3 `rapp_news_explorer.event_registry_engine.EventRegistryEngine._max_stories` [private]

Definition at line 53 of file event\_registry\_engine.py.

#### 6.13.4.4 rapp\_news\_explorer.event\_registry\_engine.EventRegistryEngine.\_password [private]

Definition at line 45 of file event\_registry\_engine.py.

#### 6.13.4.5 rapp\_news\_explorer.event\_registry\_engine.EventRegistryEngine.\_username [private]

Definition at line 44 of file event\_registry\_engine.py.

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

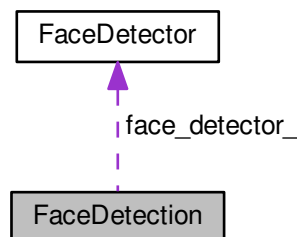
- /home/travis/rapp\_temp/rapp-platform/rapp\_news\_explorer/src/rapp\_news\_explorer/event\_registry\_engine.py

## 6.14 FaceDetection Class Reference

Class [FaceDetection](#) uptakes the task of handling the ROS service callbacks.

```
#include <face_detection.h>
```

Collaboration diagram for FaceDetection:



### Public Member Functions

- [FaceDetection](#) (void)  
*Default constructor.*
- bool [faceDetectionCallback](#) (rapp\_platform\_ros\_communications::FaceDetectionRosSrv::Request &req, rapp\_platform\_ros\_communications::FaceDetectionRosSrv::Response &res)  
*Serves the face detection ROS service callback.*

### Private Attributes

- [FaceDetector](#) `face_detector_`
- `ros::ServiceServer` `faceDetectionService_`
- `std::string` `faceDetectionTopic_`
- `ros::NodeHandle` `nh_`

### 6.14.1 Detailed Description

Class [FaceDetection](#) uptakes the task of handling the ROS service callbacks.

Definition at line 31 of file `face_detection.h`.

### 6.14.2 Constructor & Destructor Documentation

#### 6.14.2.1 `FaceDetection::FaceDetection ( void )`

Default constructor.

Default constructor. Performs initializations.

Definition at line 24 of file `face_detection.cpp`.

### 6.14.3 Member Function Documentation

#### 6.14.3.1 `bool FaceDetection::faceDetectionCallback ( rapp_platform_ros_communications::FaceDetectionRosSrv::Request & req, rapp_platform_ros_communications::FaceDetectionRosSrv::Response & res )`

Serves the face detection ROS service callback.

Parameters

<i>req</i>	[ <code>rapp_platform_ros_communications::FaceDetectionRosSrv::Request&amp;</code> ] The ROS service request
<i>res</i>	[ <code>rapp_platform_ros_communications::FaceDetectionRosSrv::Response&amp;</code> ] The ROS service response

Returns

`bool` - The success status of the call

Definition at line 42 of file `face_detection.cpp`.

### 6.14.4 Member Data Documentation

#### 6.14.4.1 `FaceDetector FaceDetection::face_detector_ [private]`

Definition at line 62 of file `face_detection.h`.

#### 6.14.4.2 `ros::ServiceServer FaceDetection::faceDetectionService_ [private]`

Member variable holding the face detection ROS service topic

Definition at line 56 of file `face_detection.h`.

#### 6.14.4.3 `std::string FaceDetection::faceDetectionTopic_ [private]`

Object of type [FaceDetector](#)

Definition at line 59 of file `face_detection.h`.

6.14.4.4 `ros::NodeHandle FaceDetection::nh_` `[private]`

< The ROS node handle The face detection service server

Definition at line 53 of file `face_detection.h`.

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

- `/home/travis/rapp_temp/rapp-platform/rapp_face_detection/include/face_detection/face_detection.h`
- `/home/travis/rapp_temp/rapp-platform/rapp_face_detection/src/face_detection.cpp`

## 6.15 FaceDetector Class Reference

Class that implements a face detection algorithm based on a Haar cascade classifier.

```
#include <face_detector.h>
```

### Public Member Functions

- `FaceDetector` (void)  
*Default constructor.*
- `std::vector< cv::Rect > detectFaces` (const `cv::Mat` &input\_img, bool fast=false)  
*Detects faces from a cv::Mat.*
- `std::vector< cv::Rect > findFaces` (std::string file\_name, bool fast=false)  
*Finds faces in an image retrieved from a file URL.*
- `cv::Mat loadImage` (std::string file\_name)  
*Loads an image from a file URL.*

### Private Member Functions

- `std::vector< cv::Rect > detectFaces` (const `cv::Mat` &input\_img, const std::string &haar\_path)  
*Detects faces from a cv::Mat.*
- `std::vector< cv::Rect > identifyUniqueFaces` (const std::vector< cv::Rect > firstFaceVector, const std::vector< cv::Rect > secondFaceVector)  
*Identify unique faces from two sets of faces.*

### 6.15.1 Detailed Description

Class that implements a face detection algorithm based on a Haar cascade classifier.

Definition at line 33 of file `face_detector.h`.

### 6.15.2 Constructor & Destructor Documentation

6.15.2.1 `FaceDetector::FaceDetector ( void )`

Default constructor.

Definition at line 26 of file `face_detector.cpp`.

### 6.15.3 Member Function Documentation

6.15.3.1 `std::vector< cv::Rect > FaceDetector::detectFaces ( const cv::Mat & input_img, bool fast = false )`

Detects faces from a `cv::Mat`.

## Parameters

<i>input_img</i>	[const cv::Mat&] The input image
<i>fast</i>	[bool] True for fast detection – frontal only

## Returns

[std::vector<cv::Rect>] A vector containing the detected faces. Each face is represented by a rectangle.

Definition at line 50 of file face\_detector.cpp.

**6.15.3.2** `std::vector< cv::Rect > FaceDetector::detectFaces ( const cv::Mat & input_img, const std::string & haar_path )`  
[private]

Detects faces from a cv::Mat.

## Parameters

<i>input_img</i>	[const cv::Mat&] The input image
<i>haar_path</i>	[const std::string] The Haar training model path

## Returns

[std::vector<cv::Rect>] A vector containing the detected faces. Each face is represented by a rectangle.

Definition at line 89 of file face\_detector.cpp.

**6.15.3.3** `std::vector< cv::Rect > FaceDetector::findFaces ( std::string file_name, bool fast = false )`

Finds faces in an image retrieved from a file URL.

## Parameters

<i>file_name</i>	[std::string] The image file's URL
<i>fast</i>	[bool] True for fast detection – frontal only

## Returns

[std::vector<cv::Rect>] A vector containing the detected faces. Each face is represented by a rectangle.

Definition at line 168 of file face\_detector.cpp.

**6.15.3.4** `std::vector< cv::Rect > FaceDetector::identifyUniqueFaces ( const std::vector< cv::Rect > firstFaceVector, const std::vector< cv::Rect > secondFaceVector )` [private]

Identify unique faces from two sets of faces.

## Parameters

<i>frontFaceVector</i>	[const std::vector<cv::Rect>&] The first set of faces
<i>secondFace-Vector</i>	[const std::vector<cv::Rect>&] The second set of faces

## Returns

[std::vector<cv::Rect>] A vector containing the unique faces. Each face is represented by a rectangle.

Definition at line 140 of file face\_detector.cpp.

#### 6.15.3.5 cv::Mat FaceDetector::loadImage ( std::string *file\_name* )

Loads an image from a file URL.



## Parameters

<i>file_name</i>	[std::string] The image's file URL
------------------	------------------------------------

## Returns

[cv::Mat] The image in OpenCV representation

Definition at line 35 of file face\_detector.cpp.

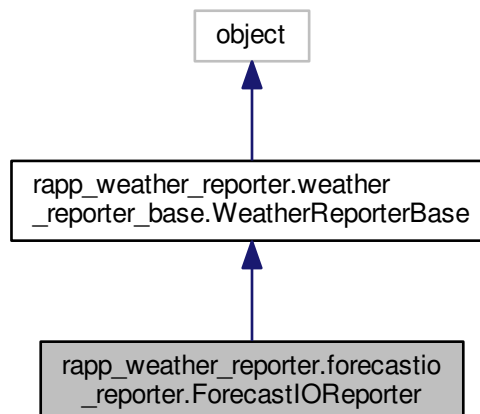
The documentation for this class was generated from the following files:

- /home/travis/rapp\_temp/rapp-platform/rapp\_face\_detection/include/face\_detection/face\_detector.h
- /home/travis/rapp\_temp/rapp-platform/rapp\_face\_detection/src/face\_detector.cpp

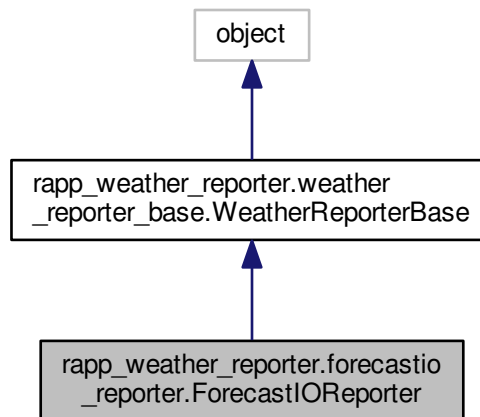
## 6.16 rapp\_weather\_reporter.forecastio\_reporter.ForecastIOReporter Class Reference

ForecastIO weather reporter.

Inheritance diagram for rapp\_weather\_reporter.forecastio\_reporter.ForecastIOReporter:



Collaboration diagram for `rapp_weather_reporter.forecastio_reporter.ForecastIOReporter`:



### Public Member Functions

- `def __init__`  
*Constructor.*
- `def fetch_current_weather`  
*Fetch the current weather.*
- `def fetch_weather_forecast`  
*Fetch the current weather.*

### Private Member Functions

- `def _get_fio_object`  
*Perform request for weather data.*
- `def _handle_current_weather_report`  
*Handles the server's response.*
- `def _handle_weather_forecast_report`

### Private Attributes

- `_api_key`

### Additional Inherited Members

#### 6.16.1 Detailed Description

ForecastIO weather reporter.

Definition at line 34 of file `forecastio_reporter.py`.

## 6.16.2 Constructor & Destructor Documentation

### 6.16.2.1 `def rapp_weather_reporter.forecastio_reporter.ForecastIOReporter.__init__( self )`

Constructor.

Definition at line 37 of file forecastio\_reporter.py.

## 6.16.3 Member Function Documentation

### 6.16.3.1 `def rapp_weather_reporter.forecastio_reporter.ForecastIOReporter.get_fio_object( self, city, metric )` [private]

Perform request for weather data.

Parameters

<i>city</i>	[string] The city name
-------------	------------------------

Returns

fio [object] The weather report object

Definition at line 49 of file forecastio\_reporter.py.

### 6.16.3.2 `def rapp_weather_reporter.forecastio_reporter.ForecastIOReporter.handle_current_weather_report( self, report )` [private]

Handles the server's response.

Parameters

<i>response</i>	[] The server's response to the request module.
-----------------	---

Returns

values [dict] The final values

Definition at line 100 of file forecastio\_reporter.py.

### 6.16.3.3 `def rapp_weather_reporter.forecastio_reporter.ForecastIOReporter.handle_weather_forecast_report( self, report )` [private]

Definition at line 115 of file forecastio\_reporter.py.

### 6.16.3.4 `def rapp_weather_reporter.forecastio_reporter.ForecastIOReporter.fetch_current_weather( self, req )`

Fetch the current weather.

Parameters

<i>req</i>	[rapp_platform_ros_communications::WeatherReporter::WeatherReporterCurrentSrv] The service request
------------	--

Returns

[dict] The server results

Definition at line 72 of file forecastio\_reporter.py.

6.16.3.5 `def rapp_weather_reporter.forecastio_reporter.ForecastIOReporter.fetch_weather_forecast ( self, req )`

Fetch the current weather.

Parameters

<i>req</i>	[rapp_platform_ros_communications::WeatherReporter::WeatherReporterCurrentSrv] The service request
------------	--

Returns

[dict] The server results

Definition at line 87 of file `forecastio_reporter.py`.

## 6.16.4 Member Data Documentation

6.16.4.1 `rapp_weather_reporter.forecastio_reporter.ForecastIOReporter._api_key` [private]

Definition at line 42 of file `forecastio_reporter.py`.

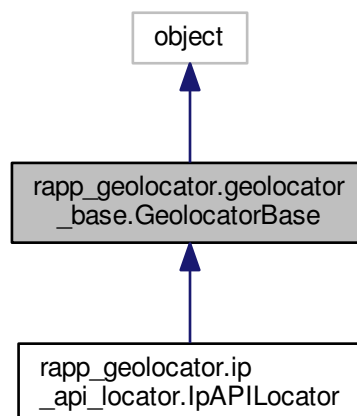
The documentation for this class was generated from the following file:

- [/home/travis/rapp\\_temp/rapp-platform/rapp\\_weather\\_reporter/src/rapp\\_weather\\_reporter/forecastio\\_reporter.py](#)

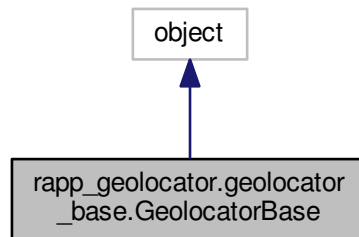
## 6.17 rapp\_geolocator.geolocator\_base.GeolocatorBase Class Reference

Base class for geolocators.

Inheritance diagram for `rapp_geolocator.geolocator_base.GeolocatorBase`:



Collaboration diagram for rapp\_geolocator.geolocator\_base.GeolocatorBase:



### Public Member Functions

- `def \_\_init\_\_`  
*Constructor.*
- `def fetch\_geolocation`  
*Abstract method to fetch geolocation.*

### Public Attributes

- `rapp\_http\_json\_parser`  
*Strips html tags from strings.*

### Private Attributes

- `\_accepted\_status`  
*The value of valid response status code.*
- `\_http\_request`  
*Perform http requests to servers.*
- `\_url`  
*The base geolocator url.*

### Static Private Attributes

- `\_\_metaclass\_\_ = abc.ABCMeta`

#### 6.17.1 Detailed Description

Base class for geolocators.

Definition at line 32 of file `geolocator_base.py`.

## 6.17.2 Constructor & Destructor Documentation

### 6.17.2.1 `def rapp_geolocator.geolocator_base.GeolocatorBase.__init__( self )`

Constructor.

Definition at line 37 of file `geolocator_base.py`.

## 6.17.3 Member Function Documentation

### 6.17.3.1 `def rapp_geolocator.geolocator_base.GeolocatorBase.fetch_geolocation( self, req )`

Abstract method to fetch geolocation.

Definition at line 52 of file `geolocator_base.py`.

## 6.17.4 Member Data Documentation

### 6.17.4.1 `rapp_geolocator.geolocator_base.GeolocatorBase.__metaclass__ = abc.ABCMeta` `[static]`, `[private]`

Definition at line 34 of file `geolocator_base.py`.

### 6.17.4.2 `rapp_geolocator.geolocator_base.GeolocatorBase._accepted_status` `[private]`

The value of valid response status code.

Definition at line 42 of file `geolocator_base.py`.

### 6.17.4.3 `rapp_geolocator.geolocator_base.GeolocatorBase._http_request` `[private]`

Perform http requests to servers.

Definition at line 45 of file `geolocator_base.py`.

### 6.17.4.4 `rapp_geolocator.geolocator_base.GeolocatorBase._url` `[private]`

The base geolocator url.

Definition at line 39 of file `geolocator_base.py`.

### 6.17.4.5 `rapp_geolocator.geolocator_base.GeolocatorBase.rapp_http_json_parser`

Strips html tags from strings.

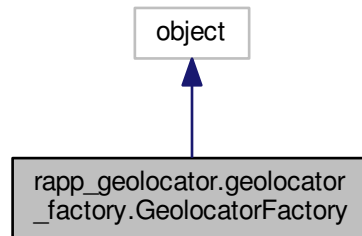
Definition at line 48 of file `geolocator_base.py`.

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

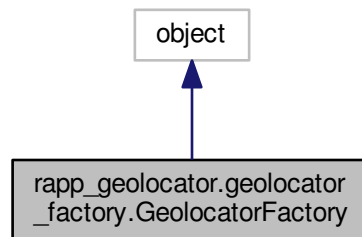
- `/home/travis/rapp_temp/rapp-platform/rapp_geolocator/src/rapp_geolocator/geolocator_base.py`

## 6.18 rapp\_geolocator.geolocator\_factory.GeolocatorFactory Class Reference

Inheritance diagram for rapp\_geolocator.geolocator\_factory.GeolocatorFactory:



Collaboration diagram for rapp\_geolocator.geolocator\_factory.GeolocatorFactory:



### Public Member Functions

- def [select\\_geolocator](#)  
*Select proper geolocator according to request.*

#### 6.18.1 Detailed Description

Definition at line 30 of file geolocator\_factory.py.

#### 6.18.2 Member Function Documentation

6.18.2.1 def rapp\_geolocator.geolocator\_factory.GeolocatorFactory.select\_geolocator ( *self*, *geolocator* = " " )

Select proper geolocator according to request.

## Parameters

<i>geolocator</i>	[string] The name of the geolocator
-------------------	-------------------------------------

## Returns

res [rapp\_geolocator.rapp\_geolocator.GeolocatorBase] The geolocator

RappError Wrong geolocator provided by user

Definition at line 41 of file geolocator\_factory.py.

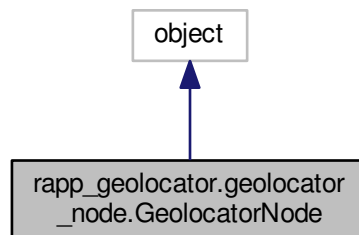
The documentation for this class was generated from the following file:

- /home/travis/rapp\_temp/rapp-platform/rapp\_geolocator/src/rapp\_geolocator/[geolocator\\_factory.py](#)

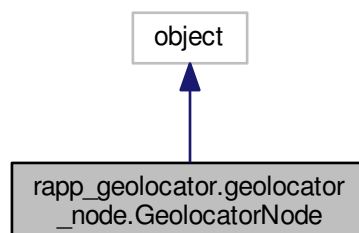
## 6.19 rapp\_geolocator.geolocator\_node.GeolocatorNode Class Reference

Calculates geolocation via IP.

Inheritance diagram for rapp\_geolocator.geolocator\_node.GeolocatorNode:



Collaboration diagram for rapp\_geolocator.geolocator\_node.GeolocatorNode:





## Public Member Functions

- def [\\_\\_init\\_\\_](#)  
*Constructor.*
- def [fetch\\_location\\_srv\\_callback](#)  
*The callback to calculate geolocation.*

## Private Member Functions

- def [\\_create\\_service\\_response](#)  
*The callback to geolocalize.*

## Private Attributes

- [\\_geolocator\\_factory](#)  
*Factory that returns proper geolocator.*

### 6.19.1 Detailed Description

Calculates geolocation via IP.

Definition at line 36 of file geolocator\_node.py.

### 6.19.2 Constructor & Destructor Documentation

#### 6.19.2.1 def rapp\_geolocator.geolocator\_node.GeolocatorNode.\_\_init\_\_( self )

Constructor.

Definition at line 39 of file geolocator\_node.py.

### 6.19.3 Member Function Documentation

#### 6.19.3.1 def rapp\_geolocator.geolocator\_node.GeolocatorNode.\_create\_service\_response( self, result ) [private]

The callback to geolocalize.

##### Parameters

<i>results</i>	[dict] The server results containing the location information
----------------	---

##### Returns

res [rapp\_platform\_ros\_communications::Geolocator::GeolocatorSrvResponse] The service response

Definition at line 88 of file geolocator\_node.py.

#### 6.19.3.2 def rapp\_geolocator.geolocator\_node.GeolocatorNode.fetch\_location\_srv\_callback( self, req )

The callback to calculate geolocation.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::Geolocator::GeolocatorSrv] The service request
------------	---

**Returns**

res [rapp\_platform\_ros\_communications::Geolocator::GeolocatorSrvResponse] The service response

Definition at line 63 of file geolocator\_node.py.

**6.19.4 Member Data Documentation****6.19.4.1 rapp\_geolocator.geolocator\_node.GeolocatorNode.\_geolocator\_factory [private]**

Factory that returns proper geolocator.

Definition at line 41 of file geolocator\_node.py.

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

- /home/travis/rapp\_temp/rapp-platform/rapp\_geolocator/src/rapp\_geolocator/[geolocator\\_node.py](#)

**6.20 rapp\_speech\_detection\_sphinx4.global\_parameters.GlobalParams Class Reference**

Contains global Sphinx parameters.

**Public Member Functions**

- [def \\_\\_init\\_\\_](#)

**Public Attributes**

- [rospack](#)

**Private Attributes**

- [\\_acoustic\\_models\\_url](#)  
*Acoustic models path.*
- [\\_allow\\_sphinx\\_output](#)  
*True if Sphinx is allowed output on STDIN, STDERR.*
- [\\_language\\_models\\_url](#)  
*Language models path.*
- [\\_noise\\_profiles\\_url](#)  
*Noise profiles path.*
- [\\_socket\\_host](#)  
*IPC socket HOST parameter.*
- [\\_sphinx\\_jar\\_file](#)  
*Sphinx jar file path.*
- [\\_sphinx\\_jar\\_files\\_url](#)  
*Java libraries path.*
- [\\_sphinx\\_package\\_url](#)  
*Sphinx package path.*

- [\\_sphinx\\_preconf](#)  
*Sphinx preconfigurations yaml.*
- [\\_tmp\\_language\\_models\\_url](#)  
*Temporary language models path.*

### 6.20.1 Detailed Description

Contains global Sphinx parameters.

Definition at line 22 of file global\_parameters.py.

### 6.20.2 Constructor & Destructor Documentation

6.20.2.1 `def rapp_speech_detection_sphinx4.global_parameters.GlobalParams.__init__( self )`

Definition at line 23 of file global\_parameters.py.

### 6.20.3 Member Data Documentation

6.20.3.1 `rapp_speech_detection_sphinx4.global_parameters.GlobalParams._acoustic_models_url` [private]

Acoustic models path.

Definition at line 38 of file global\_parameters.py.

6.20.3.2 `rapp_speech_detection_sphinx4.global_parameters.GlobalParams._allow_sphinx_output` [private]

True if Sphinx is allowed output on STDIN, STDERR.

Definition at line 43 of file global\_parameters.py.

6.20.3.3 `rapp_speech_detection_sphinx4.global_parameters.GlobalParams._language_models_url` [private]

Language models path.

Definition at line 31 of file global\_parameters.py.

6.20.3.4 `rapp_speech_detection_sphinx4.global_parameters.GlobalParams._noise_profiles_url` [private]

Noise profiles path.

Definition at line 36 of file global\_parameters.py.

6.20.3.5 `rapp_speech_detection_sphinx4.global_parameters.GlobalParams._socket_host` [private]

IPC socket HOST parameter.

Definition at line 45 of file global\_parameters.py.

6.20.3.6 `rapp_speech_detection_sphinx4.global_parameters.GlobalParams._sphinx_jar_file` [private]

Sphinx jar file path.

Definition at line 41 of file global\_parameters.py.

#### 6.20.3.7 `rapp_speech_detection_sphinx4.global_parameters.GlobalParams._sphinx_jar_files_url` [private]

Java libraries path.

Definition at line 27 of file `global_parameters.py`.

#### 6.20.3.8 `rapp_speech_detection_sphinx4.global_parameters.GlobalParams._sphinx_package_url` [private]

Sphinx package path.

Definition at line 29 of file `global_parameters.py`.

#### 6.20.3.9 `rapp_speech_detection_sphinx4.global_parameters.GlobalParams._sphinx_preconf` [private]

Sphinx preconfigurations yaml.

Definition at line 47 of file `global_parameters.py`.

#### 6.20.3.10 `rapp_speech_detection_sphinx4.global_parameters.GlobalParams._tmp_language_models_url` [private]

Temporary language models path.

Definition at line 33 of file `global_parameters.py`.

#### 6.20.3.11 `rapp_speech_detection_sphinx4.global_parameters.GlobalParams.rospack`

Definition at line 24 of file `global_parameters.py`.

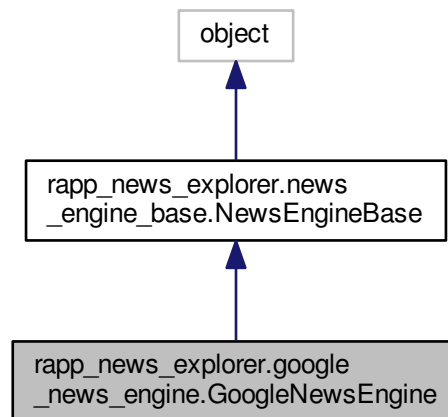
The documentation for this class was generated from the following file:

- `/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_sphinx4/global_parameters.py`

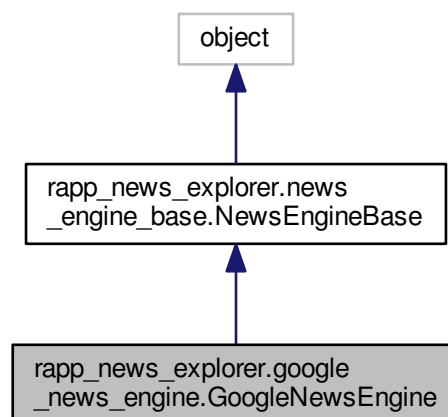
## 6.21 `rapp_news_explorer.google_news_engine.GoogleNewsEngine` Class Reference

Google news engine handler.

Inheritance diagram for rapp\_news\_explorer.google\_news\_engine.GoogleNewsEngine:



Collaboration diagram for rapp\_news\_explorer.google\_news\_engine.GoogleNewsEngine:



## Public Member Functions

- def [\\_\\_init\\_\\_](#)  
*Constructor.*
- def [fetch\\_news](#)  
*Fetch the news.*

## Private Member Functions

- [def \\_handle\\_params](#)  
*Create parameter dictionary for request module.*
- [def \\_handle\\_server\\_response](#)  
*Handles the server's response.*

## Private Attributes

- [\\_max\\_requests](#)
- [\\_max\\_stories](#)
- [\\_params](#)
- [\\_url](#)

## Additional Inherited Members

### 6.21.1 Detailed Description

Google news engine hndler.

Definition at line 30 of file google\_news\_engine.py.

### 6.21.2 Constructor & Destructor Documentation

6.21.2.1 `def rapp_news_explorer.google_news_engine.GoogleNewsEngine.__init__( self )`

Constructor.

Definition at line 33 of file google\_news\_engine.py.

### 6.21.3 Member Function Documentation

6.21.3.1 `def rapp_news_explorer.google_news_engine.GoogleNewsEngine._handle_params ( self, req, iters )`  
[private]

Create parameter dictionary for request module.

Parameters

<i>req</i>	[rapp_platform_ros_communications::NewsExplorer::NewsExplorerSrv] The service request
------------	---

Returns

params [dict] The parameters

Definition at line 144 of file google\_news\_engine.py.

6.21.3.2 `def rapp_news_explorer.google_news_engine.GoogleNewsEngine._handle_server_response ( self, response, story_list, exclude_list )` [private]

Handles the server's response.

## Parameters

<i>response</i>	[] The server's response to the request module.
<i>story_list</i>	[string] The current list of stories
<i>exclude_list</i>	[string] The list of titles to be excluded from the results

Definition at line 115 of file google\_news\_engine.py.

### 6.21.3.3 def rapp\_news\_explorer.google\_news\_engine.GoogleNewsEngine.fetch\_news ( self, req )

Fetch the news.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::NewsExplorer::NewsExplorerSrv] The service request
------------	---

## Returns

[list<dict>] The server results containing the stories

Definition at line 52 of file google\_news\_engine.py.

## 6.21.4 Member Data Documentation

### 6.21.4.1 rapp\_news\_explorer.google\_news\_engine.GoogleNewsEngine.\_max\_requests [private]

Definition at line 42 of file google\_news\_engine.py.

### 6.21.4.2 rapp\_news\_explorer.google\_news\_engine.GoogleNewsEngine.\_max\_stories [private]

Definition at line 43 of file google\_news\_engine.py.

### 6.21.4.3 rapp\_news\_explorer.google\_news\_engine.GoogleNewsEngine.\_params [private]

Definition at line 38 of file google\_news\_engine.py.

### 6.21.4.4 rapp\_news\_explorer.google\_news\_engine.GoogleNewsEngine.\_url [private]

Definition at line 35 of file google\_news\_engine.py.

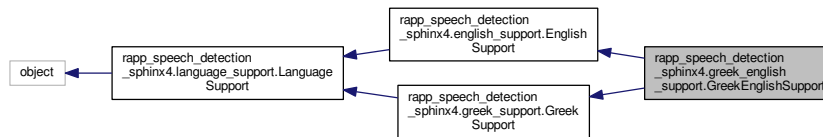
The documentation for this class was generated from the following file:

- /home/travis/rapp\_temp/rapp-platform/rapp\_news\_explorer/src/rapp\_news\_explorer/google\_news\_engine.py

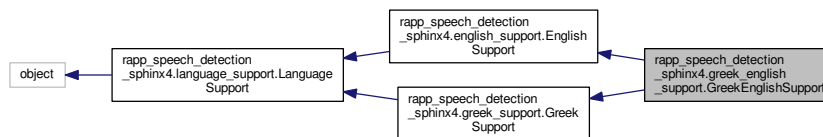
## 6.22 rapp\_speech\_detection\_sphinx4.greek\_english\_support.GreekEnglishSupport

### Class Reference

Inheritance diagram for rapp\_speech\_detection\_sphinx4.greek\_english\_support.GreekEnglishSupport:



Collaboration diagram for rapp\_speech\_detection\_sphinx4.greek\_english\_support.GreekEnglishSupport:



### Public Member Functions

- def [\\_\\_init\\_\\_](#)  
*Performs initializations.*
- def [getLimitedVocebularyConfiguration](#)  
*Computes the Limited Greek/English Configuration.*

### Private Member Functions

- def [\\_separateEngGrWords](#)  
*Separates English from Greek words.*

#### 6.22.1 Detailed Description

Definition at line 32 of file greek\_english\_support.py.

#### 6.22.2 Constructor & Destructor Documentation

##### 6.22.2.1 def rapp\_speech\_detection\_sphinx4.greek\_english\_support.GreekEnglishSupport.\_\_init\_\_( self )

Performs initializations.

Definition at line 35 of file greek\_english\_support.py.



### 6.22.3 Member Function Documentation

6.22.3.1 `def rapp_speech_detection_sphinx4.greek_english_support.GreekEnglishSupport._separateEngGrWords ( self, words, grammar, sentences ) [private]`

Separates English from Greek words.

**Parameters**

<i>words</i>	[list::string] The set of words to be identified
<i>grammar</i>	[list::string] The Sphinx grammar parameter
<i>sentences</i>	[list::string] The Sphinx sentences parameter

**Returns**

english\_words [list::string] The set of English words  
 english\_grammar [list::string] The set of English grammar  
 english\_sentences [list::string] The set of English sentences  
 greek\_words [list::string] The set of Greek words  
 greek\_grammar [list::string] The set of Greek words  
 greek\_sentences [list::string] The set of Greek words

Definition at line 59 of file greek\_english\_support.py.

```
6.22.3.2 def rapp_speech_detection_sphinx4.greek_english_support.GreekEnglishSupport.getLimitedVocebularyConfiguration
( self, words, grammar, sentences )
```

Computes the Limited Greek/English Configuration.

**Parameters**

<i>words</i>	[list::string] The set of words to be identified
<i>grammar</i>	[list::string] The Sphinx grammar parameter
<i>sentences</i>	[list::string] The Sphinx sentences parameter

**Returns**

limited\_sphinx\_configuration [dictionary] The Limited Greek/English configuration  
 englified\_to\_greek\_dict [dictionary] A dictionary to transform the englified greek words to actual greek words

Definition at line 103 of file greek\_english\_support.py.

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

- /home/travis/rapp\_temp/rapp-platform/rapp\_speech\_detection\_sphinx4/src/rapp\_speech\_detection\_sphinx4/[greek-english\\_support.py](#)

## 6.23 GreekSupport Class Reference

Allows the creation of configuration files for Greek Sphinx speech recognition.

### 6.23.1 Detailed Description

Allows the creation of configuration files for Greek Sphinx speech recognition.

Also supports multilanguage words (English/Greek) by utilizing english\_support.EnglishSupport

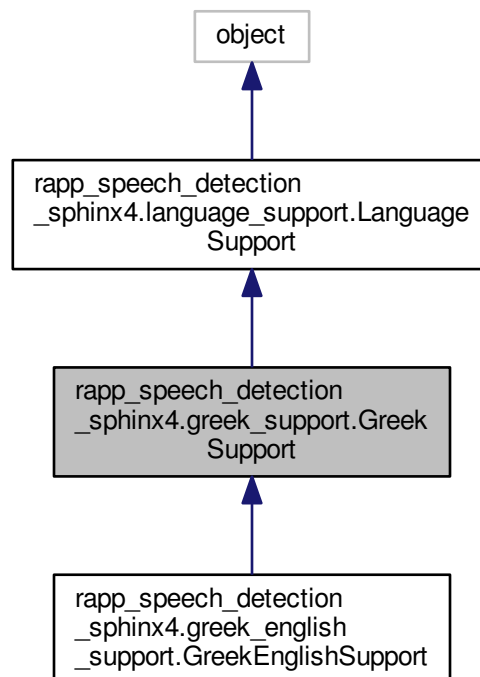
The documentation for this class was generated from the following file:

- /home/travis/rapp\_temp/rapp-platform/rapp\_speech\_detection\_sphinx4/src/rapp\_speech\_detection\_sphinx4/[greek-english\\_support.py](#)

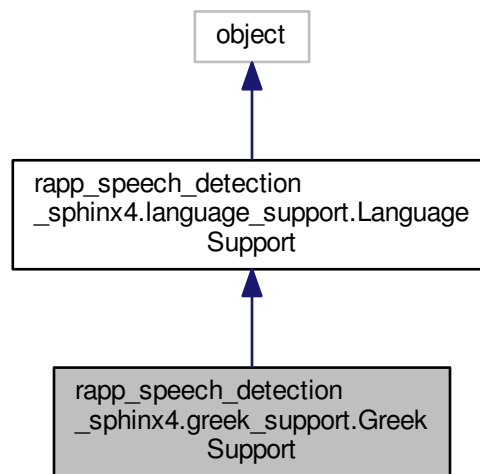
## 6.24 rapp\_speech\_detection\_sphinx4.greek\_support.GreekSupport Class Reference

Allows the creation of configuration files for Greek Sphinx speech recognition.

Inheritance diagram for rapp\_speech\_detection\_sphinx4.greek\_support.GreekSupport:



Collaboration diagram for `rapp_speech_detection_sphinx4.greek_support.GreekSupport`:



## Public Member Functions

- `def \_\_init\_\_`  
*Performs initializations.*
- `def getLimitedVocebularyConfiguration`  
*Computes the Limited Greek Configuration.*

## Private Member Functions

- `def \_configureLetters`  
*Creates the basic Greek letter to English configuration.*
- `def \_englify\_words`  
*Englify Greek words.*
- `def \_transformWords`  
*Transforms the Greek words into phonemes for the Sphinx configuration.*

## Private Attributes

- `\_all\_special\_two\_digit\_letters`  
*All special two digit Greek letter->English phonemes mapping.*
- `\_capital\_letters`  
*Greek uppercase to lowercase mapping.*
- `\_english\_support`  
*Allows the creation of configuration files for English words.*
- `\_letters`  
*Standard Greek letter->English phonemes mapping.*
- `\_literal\_letters`  
*Greek letters->English letters mapping.*

- [\\_phonemes](#)  
*Greek words->English standard phonemes mapping.*
- [\\_s\\_specific\\_rules](#)  
*Special Greek words ->English phonemes mapping.*
- [\\_special\\_two\\_digit\\_letters](#)  
*Special two digit Greek letter->English phonemes mapping.*
- [\\_two\\_digit\\_letters](#)  
*Two digit Greek letters->English phonemes mapping.*

### 6.24.1 Detailed Description

Allows the creation of configuration files for Greek Sphinx speech recognition.

Also supports multilanguage words (English/Greek) by utilizing [english\\_support.EnglishSupport](#)

Definition at line 30 of file greek\_support.py.

### 6.24.2 Constructor & Destructor Documentation

6.24.2.1 `def rapp_speech_detection_sphinx4.greek_support.GreekSupport.__init__( self )`

Performs initializations.

Definition at line 33 of file greek\_support.py.

### 6.24.3 Member Function Documentation

6.24.3.1 `def rapp_speech_detection_sphinx4.greek_support.GreekSupport._configureLetters( self )` [private]

Creates the basic Greek letter to English configuration.

Definition at line 69 of file greek\_support.py.

6.24.3.2 `def rapp_speech_detection_sphinx4.greek_support.GreekSupport._englify_words( self, words )` [private]

Englify Greek words.

Parameters

<i>words</i>	[list::string] The set of Greek words
--------------	---------------------------------------

Definition at line 308 of file greek\_support.py.

6.24.3.3 `def rapp_speech_detection_sphinx4.greek_support.GreekSupport._transformWords( self, words )` [private]

Transforms the Greek words into phonemes for the Sphinx configuration.

Parameters

<i>words</i>	[list::string] The set of Greek words
--------------	---------------------------------------

Returns

enhanced\_words [dictionary] The Greek word->phonemes mapping

englified\_words [dictionary] The Greek word->Englified Greek word mapping

Definition at line 259 of file greek\_support.py.

6.24.3.4 `def rapp_speech_detection_sphinx4.greek_support.GreekSupport.getLimitedVocebularyConfiguration ( self, words, grammar, sentences )`

Computes the Limited Greek Configuration.

## Parameters

<i>words</i>	[list::string] The set of words to be identified
<i>grammar</i>	[list::string] The Sphinx grammar parameter
<i>sentences</i>	[list::string] The Sphinx sentences parameter

## Returns

limited\_sphinx\_configuration [dictionary] The Limited Greek configuration  
 englified\_to\_greek\_dict [dictionary] A dictionary to transform the englified greek words to actual greek words

Definition at line 329 of file greek\_support.py.

## 6.24.4 Member Data Documentation

6.24.4.1 `rapp_speech_detection_sphinx4.greek_support.GreekSupport._all_special_two_digit_letters` [private]

All special two digit Greek letter->English phonemes mapping.

Definition at line 58 of file greek\_support.py.

6.24.4.2 `rapp_speech_detection_sphinx4.greek_support.GreekSupport._capital_letters` [private]

Greek uppcase to lowercase mapping.

Definition at line 50 of file greek\_support.py.

6.24.4.3 `rapp_speech_detection_sphinx4.greek_support.GreekSupport._english_support` [private]

Allows the creation of configuration files for English words.

Instantiates [english\\_support.EnglishSupport](#) to identify english words

Definition at line 47 of file greek\_support.py.

6.24.4.4 `rapp_speech_detection_sphinx4.greek_support.GreekSupport._letters` [private]

Standard Greek letter->English phonemes mapping.

Definition at line 62 of file greek\_support.py.

6.24.4.5 `rapp_speech_detection_sphinx4.greek_support.GreekSupport._literal_letters` [private]

Greek letters->English letters mapping.

Definition at line 64 of file greek\_support.py.

6.24.4.6 `rapp_speech_detection_sphinx4.greek_support.GreekSupport._phonemes` [private]

Greek words->English standard phonemes mapping.

Definition at line 52 of file greek\_support.py.

6.24.4.7 `rapp_speech_detection_sphinx4.greek_support.GreekSupport._s_specific_rules` [private]

Special Greek words ->English phonemes mapping.

Definition at line 60 of file greek\_support.py.

#### 6.24.4.8 `rapp_speech_detection_sphinx4.greek_support.GreekSupport._special_two_digit_letters` [private]

Special two digit Greek letter->English phonemes mapping.

Definition at line 56 of file `greek_support.py`.

#### 6.24.4.9 `rapp_speech_detection_sphinx4.greek_support.GreekSupport._two_digit_letters` [private]

Two digit Greek letters->English phonemes mapping.

Definition at line 54 of file `greek_support.py`.

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

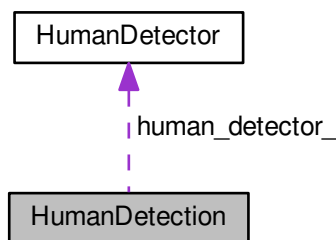
- `/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_sphinx4/greek-_support.py`

## 6.25 HumanDetection Class Reference

Class [HumanDetection](#) uptakes the task of handling the ROS service callbacks.

```
#include <human_detection.h>
```

Collaboration diagram for HumanDetection:



### Public Member Functions

- [HumanDetection](#) (void)  
*Default constructor.*
- bool [humanDetectionCallback](#) (rapp\_platform\_ros\_communications::HumanDetectionRosSrv::Request &req, rapp\_platform\_ros\_communications::HumanDetectionRosSrv::Response &res)  
*Serves the human detection ROS service callback.*

### Private Attributes

- [HumanDetector](#) [human\\_detector\\_](#)
- `ros::ServiceServer` [humanDetectionService\\_](#)
- `std::string` [humanDetectionTopic\\_](#)
- `ros::NodeHandle` [nh\\_](#)



### 6.25.1 Detailed Description

Class [HumanDetection](#) uptakes the task of handling the ROS service callbacks.

Definition at line 31 of file `human_detection.h`.

### 6.25.2 Constructor & Destructor Documentation

#### 6.25.2.1 HumanDetection::HumanDetection ( void )

Default constructor.

Default constructor. Performs initializations.

Definition at line 24 of file `human_detection.cpp`.

### 6.25.3 Member Function Documentation

#### 6.25.3.1 bool HumanDetection::humanDetectionCallback ( rapp\_platform\_ros\_communications::HumanDetectionRosSrv::Request & req, rapp\_platform\_ros\_communications::HumanDetectionRosSrv::Response & res )

Serves the human detection ROS service callback.

Parameters

<i>req</i>	[rapp_platform_ros_communications::HumanDetectionRosSrv::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::HumanDetectionRosSrv::Response&] The ROS service response

Returns

bool - The success status of the call

Definition at line 42 of file `human_detection.cpp`.

### 6.25.4 Member Data Documentation

#### 6.25.4.1 HumanDetector HumanDetection::human\_detector\_ [private]

Definition at line 62 of file `human_detection.h`.

#### 6.25.4.2 ros::ServiceServer HumanDetection::humanDetectionService\_ [private]

Member variable holding the human detection ROS service topic

Definition at line 56 of file `human_detection.h`.

#### 6.25.4.3 std::string HumanDetection::humanDetectionTopic\_ [private]

Object of type [HumanDetector](#)

Definition at line 59 of file `human_detection.h`.

#### 6.25.4.4 `ros::NodeHandle HumanDetection::nh_` [private]

< The ROS node handle The human detection service server

Definition at line 53 of file `human_detection.h`.

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

- `/home/travis/rapp_temp/rapp-platform/rapp_human_detection/include/human_detection/human_detection.h`
- `/home/travis/rapp_temp/rapp-platform/rapp_human_detection/src/human_detection.cpp`

## 6.26 HumanDetector Class Reference

Class that implements a human detection algorithm based on a Haar cascade classifier.

`#include <human_detector.h>`

### Public Member Functions

- `HumanDetector` (void)  
*Default constructor.*
- `std::vector< cv::Rect > detectHuman2D` (const `cv::Mat` &input\_img)  
*Detects humans from a cv::Mat.*
- `std::vector< cv::Rect > findHuman2D` (std::string file\_name)  
*Finds humans in an image retrieved from a file URL.*
- `cv::Mat loadImage` (std::string file\_name)  
*Loads an image from a file URL.*

### Private Member Functions

- `std::vector< cv::Rect > detectHuman2D` (const `cv::Mat` &input\_img, const std::string &haar\_path)  
*Detects humans from a cv::Mat.*
- `std::vector< cv::Rect > identifyUniqueHumans` (const std::vector< cv::Rect > pedestrianVector, const std::vector< cv::Rect > upperbodyVector)  
*Identify unique humans from two sets of humans.*

### 6.26.1 Detailed Description

Class that implements a human detection algorithm based on a Haar cascade classifier.

Definition at line 35 of file `human_detector.h`.

### 6.26.2 Constructor & Destructor Documentation

#### 6.26.2.1 `HumanDetector::HumanDetector ( void )`

Default constructor.

Definition at line 23 of file `human_detector.cpp`.

### 6.26.3 Member Function Documentation

#### 6.26.3.1 `std::vector< cv::Rect > HumanDetector::detectHuman2D ( const cv::Mat & input_img )`

Detects humans from a `cv::Mat`.

## Parameters

<i>input_img</i>	[const cv::Mat&] The input image
------------------	----------------------------------

## Returns

[std::vector<cv::Rect>] A vector containing the detected humans. Each human is represented by a rectangle.

Definition at line 46 of file human\_detector.cpp.

**6.26.3.2** `std::vector< cv::Rect > HumanDetector::detectHuman2D ( const cv::Mat & input_img, const std::string & haar_path )` [private]

Detects humans from a cv::Mat.

## Parameters

<i>input_img</i>	[const cv::Mat&] The input image
<i>haar_path</i>	[const std::string] The Haar training model path

## Returns

[std::vector<cv::Rect>] A vector containing the detected humans. Each human is represented by a rectangle.

Definition at line 80 of file human\_detector.cpp.

**6.26.3.3** `std::vector< cv::Rect > HumanDetector::findHuman2D ( std::string file_name )`

Finds humans in an image retrieved from a file URL.

## Parameters

<i>file_name</i>	[std::string] The image file's URL
------------------	------------------------------------

## Returns

[std::vector<cv::Rect>] A vector containing the detected humans. Each human is represented by a rectangle.

Definition at line 166 of file human\_detector.cpp.

**6.26.3.4** `std::vector< cv::Rect > HumanDetector::identifyUniqueHumans ( const std::vector< cv::Rect > pedestrianVector, const std::vector< cv::Rect > upperbodyVector )` [private]

Identify unique humans from two sets of humans.

## Parameters

<i>pedestrianVector</i>	[const std::vector<cv::Rect>&] The first set of humans
<i>upperbodyVector</i>	[const std::vector<cv::Rect>&] The second set of humans

## Returns

[std::vector<cv::Rect>] A vector containing the unique humans. Each human is represented by a rectangle.

Definition at line 139 of file human\_detector.cpp.

**6.26.3.5** `cv::Mat HumanDetector::loadImage ( std::string file_name )`

Loads an image from a file URL.

## Parameters

<i>file_name</i>	[std::string] The image's file URL
------------------	------------------------------------

## Returns

[cv::Mat] The image in OpenCV representation

Definition at line 32 of file human\_detector.cpp.

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

- /home/travis/rapp\_temp/rapp-platform/rapp\_human\_detection/include/human\_detection/human\_detector.h
- /home/travis/rapp\_temp/rapp-platform/rapp\_human\_detection/src/human\_detector.cpp

## 6.27 image\_classification.ImageClassification Class Reference

Contains the necessary functions for classifying an images and requesting registration to the ontology.

### Public Member Functions

- def [\\_\\_init\\_\\_](#)  
*Initializes Caffe.*
- def [classifyImage](#)  
*Implements the imageClassificationSrv service main function.*
- def [getImageClass](#)  
*Obtains the name of the class of the image from the caffe image classes file.*
- def [getOntologyClass](#)  
*Calls the caffe wrapper service that registers the image to the ontology.*
- def [registerToOntology](#)  
*Calls the caffe wrapper service that registers the image to the ontology.*

### Public Attributes

- [caffe\\_root](#)
- [labels](#)
- [net](#)
- [transformer](#)

#### 6.27.1 Detailed Description

Contains the necessary functions for classifying an images and requesting registration to the ontology.

Definition at line 46 of file image\_classification.py.

#### 6.27.2 Constructor & Destructor Documentation

##### 6.27.2.1 def image\_classification.ImageClassification.\_\_init\_\_( self )

Initializes Caffe.

Definition at line 49 of file image\_classification.py.

### 6.27.3 Member Function Documentation

#### 6.27.3.1 `def image_classification.ImageClassification.classifyImage ( self, req )`

Implements the imageClassificationSrv service main function.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::imageClassificationSrvRequest::Request&] The ROS service request
------------	---

## Returns

res [rapp\_platform\_ros\_communications::imageClassificationSrvResponse::Response&] The ROS service response

## Exceptions

<i>Exception</i>	IndexError
<i>Exception</i>	IOError
<i>Exception</i>	AppError
<i>Exception</i>	KeyError

Definition at line 86 of file image\_classification.py.

## 6.27.3.2 def image\_classification.ImageClassification.getImageClass ( self, req )

Obtains the name of the class of the image from the caffe image classes file.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::ontologyClassBridgeSrvRequest::Request&] The ROS service request
------------	---

## Returns

res [string] The class of the image

Definition at line 163 of file image\_classification.py.

## 6.27.3.3 def image\_classification.ImageClassification.getOntologyClass ( self, caffeObjectClass )

Calls the caffe wrapper service that registers the image to the ontology.

## Parameters

<i>caffeObjectClass</i>	[string] The caffe object class
-------------------------	---------------------------------

## Returns

ontologyClassBridgeResponse.ontologyClass [string] The ontology class of the image

## Exceptions

<i>Exception</i>	AppError
------------------	----------

Definition at line 124 of file image\_classification.py.

## 6.27.3.4 def image\_classification.ImageClassification.registerToOntology ( self, req, caffeObjectClass, ontologyClass, currentImagePath )

Calls the caffe wrapper service that registers the image to the ontology.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::ontologyClassBridgeSrvRequest::Request&] The ROS service request
<i>caffeObjectClass</i>	[string] The caffe object class
<i>ontologyClass</i>	[string] The ontology object class
<i>currentImagePath</i>	[string] The path of the image file

## Returns

registerImageToOntologyResponse.object\_entry [string] The ontology entry of the image

## Exceptions

Exception	AppError
-----------	----------

Definition at line 145 of file image\_classification.py.

## 6.27.4 Member Data Documentation

### 6.27.4.1 image\_classification.ImageClassification.caffe\_root

Definition at line 50 of file image\_classification.py.

### 6.27.4.2 image\_classification.ImageClassification.labels

Definition at line 76 of file image\_classification.py.

### 6.27.4.3 image\_classification.ImageClassification.net

Definition at line 60 of file image\_classification.py.

### 6.27.4.4 image\_classification.ImageClassification.transformer

Definition at line 66 of file image\_classification.py.

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

- /home/travis/rapp\_temp/rapp-platform/rapp\_caffe\_wrapper/src/[image\\_classification.py](#)

## 6.28 image\_registration\_to\_ontology.ImageRegistrationToOntology Class Reference

Contains the necessary functions for registering images to the ontology.

### Public Member Functions

- def [getUserOntologyAlias](#)  
*Gets the users ontology alias and if it doesnt exist it creates it.*
- def [registerImage](#)  
*Implements the getCloudAgentServiceTypeAndHostPort service main function.*
- def [registerImageToOntology](#)  
*Calls the knowrob\_wrapper service that registers the image to the ontology.*



### 6.28.1 Detailed Description

Contains the necessary functions for registering images to the ontology.

Definition at line 44 of file image\_registration\_to\_ontology.py.

### 6.28.2 Member Function Documentation

#### 6.28.2.1 `def image_registration_to_ontology.ImageRegistrationToOntology.getUserOntologyAlias ( self, username )`

Gets the users ontology alias and if it doesnt exist it creates it.

##### Parameters

<i>username</i>	[string] The user's username
-----------------	------------------------------

##### Returns

ontologyAlias [string] The user's ontology alias

##### Exceptions

<i>Exception</i>	AppError
------------------	----------

Definition at line 93 of file image\_registration\_to\_ontology.py.

#### 6.28.2.2 `def image_registration_to_ontology.ImageRegistrationToOntology.registerImage ( self, req )`

Implements the getCloudAgentServiceTypeAndHostPort service main function.

##### Parameters

<i>req</i>	[rapp_platform_ros_communications::registerImageToOntologySrvRequest::Request&] The ROS service request
------------	---

##### Returns

res [rapp\_platform\_ros\_communications::registerImageToOntologySrvResponse::Response&] The ROS service response

##### Exceptions

<i>Exception</i>	IndexError
<i>Exception</i>	IOError
<i>Exception</i>	AppError
<i>Exception</i>	KeyError

Definition at line 54 of file image\_registration\_to\_ontology.py.

#### 6.28.2.3 `def image_registration_to_ontology.ImageRegistrationToOntology.registerImageToOntology ( self, req, baseDestinationFolder )`

Calls the knowrob\_wrapper service that registers the image to the ontology.

##### Parameters

<i>req</i>	[rapp_platform_ros_communications::registerImageToOntologySrvRequest::Request&] The ROS service request
<i>baseDestination-Folder</i>	[string] The path to the image

#### Returns

registerImageObjectToOntologyResponse.object\_entry [string] The ontology alias image entry

#### Exceptions

<i>Exception</i>	AppError
------------------	----------

Definition at line 109 of file image\_registration\_to\_ontology.py.

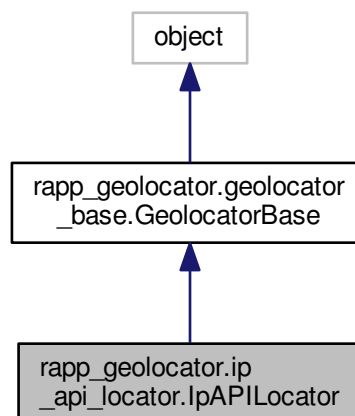
The documentation for this class was generated from the following file:

- /home/travis/rapp\_temp/rapp-platform/rapp\_caffe\_wrapper/src/[image\\_registration\\_to\\_ontology.py](#)

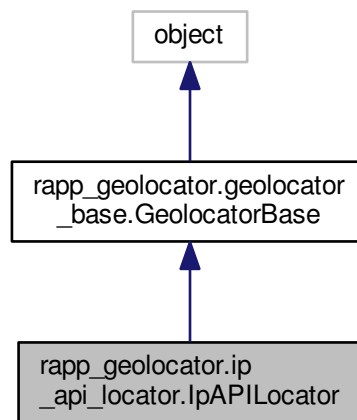
## 6.29 rapp\_geolocator.ip\_api\_locator.IpAPILocator Class Reference

IP-API locator.

Inheritance diagram for rapp\_geolocator.ip\_api\_locator.IpAPILocator:



Collaboration diagram for rapp\_geolocator.ip\_api\_locator.IpAPILocator:



### Public Member Functions

- `def __init__`  
*Constructor.*
- `def fetch_geolocation`  
*Fetch the location.*

### Private Member Functions

- `def _handle_server_response`  
*Handles the server's response.*

### Private Attributes

- `_url`

### Additional Inherited Members

#### 6.29.1 Detailed Description

IP-API locator.

Definition at line 30 of file `ip_api_locator.py`.

#### 6.29.2 Constructor & Destructor Documentation

##### 6.29.2.1 `def rapp_geolocator.ip_api_locator.IpAPILocator.__init__( self )`

Constructor.

Definition at line 33 of file `ip_api_locator.py`.

### 6.29.3 Member Function Documentation

6.29.3.1 `def rapp_geolocator.ip_api_locator.IpAPILocator._handle_server_response ( self, response )` [private]

Handles the server's response.

Parameters

<i>response</i>	[] The server's response to the request module.
-----------------	---

Returns

values [dict] The final values

Definition at line 74 of file `ip_api_locator.py`.

6.29.3.2 `def rapp_geolocator.ip_api_locator.IpAPILocator.fetch_geolocation ( self, req )`

Fetch the location.

Parameters

<i>req</i>	[ <code>rapp_platform_ros_communications::Geolocator::GeolocatorSrv</code> ] The service request
------------	--

Returns

[dict] The server results

Definition at line 44 of file `ip_api_locator.py`.

### 6.29.4 Member Data Documentation

6.29.4.1 `rapp_geolocator.ip_api_locator.IpAPILocator._url` [private]

Definition at line 35 of file `ip_api_locator.py`.

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

- `/home/travis/rapp_temp/rapp-platform/rapp_geolocator/src/rapp_geolocator/ip_api_locator.py`

## 6.30 IPLocatorFactory Class Reference

Creates and returns the class of the geolocator requested.

### 6.30.1 Detailed Description

Creates and returns the class of the geolocator requested.

Implements a factory pattern.

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

- `/home/travis/rapp_temp/rapp-platform/rapp_geolocator/src/rapp_geolocator/geolocator_factory.py`

## 6.31 KnowrobWrapper Class Reference

Class [KnowrobWrapperCommunications](#) contains all the necessary knowrob wrapper functions.

```
#include <knowrob_wrapper.h>
```

### Public Member Functions

- [KnowrobWrapper](#) (ros::NodeHandle nh)  
*Default constructor.*
- rapp\_platform\_ros\_communications::assertRetractAttributeSrv::Response [assertAttributeValue](#) (rapp\_platform\_ros\_communications::assertRetractAttributeSrv::Request req)  
*Implements the assertRetractAttribute ROS service.*
- rapp\_platform\_ros\_communications::clearUserPerformanceCognitiveTestsSrv::Response [clear\\_user\\_cognitive\\_tests\\_performance\\_records](#) (rapp\_platform\_ros\_communications::clearUserPerformanceCognitiveTestsSrv::Request req)  
*Implements the clear\_user\_cognitive\_tests\_performance\_records ROS service.*
- rapp\_platform\_ros\_communications::cognitiveTestsOfTypeSrv::Response [cognitive\\_tests\\_of\\_type](#) (rapp\_platform\_ros\_communications::cognitiveTestsOfTypeSrv::Request req)  
*Implements the cognitive\_tests\_of\_type ROS service.*
- rapp\_platform\_ros\_communications::createCognitiveExerciseTestSrv::Response [create\\_cognitive\\_tests](#) (rapp\_platform\_ros\_communications::createCognitiveExerciseTestSrv::Request req)  
*Implements the create\_cognitive\_tests ROS service.*
- rapp\_platform\_ros\_communications::createOntologyAliasSrv::Response [create\\_ontology\\_alias](#) (rapp\_platform\_ros\_communications::createOntologyAliasSrv::Request req)  
*Implements the create\_ontology\_alias ROS service.*
- std::string [create\\_ontology\\_alias\\_for\\_new\\_user](#) (std::string user\_id)  
*Creates a new ontology alias for a user.*
- rapp\_platform\_ros\_communications::createInstanceSrv::Response [createInstanceQuery](#) (rapp\_platform\_ros\_communications::createInstanceSrv::Request req)  
*Implements the createInstance ROS service.*
- void [dump\\_ontology\\_now](#) ()  
*Dumps the ontology to default path.*
- rapp\_platform\_ros\_communications::ontologyLoadDumpSrv::Response [dumpOntologyQuery](#) (rapp\_platform\_ros\_communications::ontologyLoadDumpSrv::Request req)  
*Implements the dumpOntology ROS service.*
- std::string [get\\_ontology\\_alias](#) (std::string user\_id)  
*Returns the ontology alias of the user.*
- rapp\_platform\_ros\_communications::ontologyIsSubSuperClassOfSrv::Response [isSubSuperclassOfQuery](#) (rapp\_platform\_ros\_communications::ontologyIsSubSuperClassOfSrv::Request req)  
*Implements the isSubSuperclass ROS service.*
- rapp\_platform\_ros\_communications::ontologyLoadDumpSrv::Response [loadOntologyQuery](#) (rapp\_platform\_ros\_communications::ontologyLoadDumpSrv::Request req)  
*Implements the loadOntology ROS service.*
- rapp\_platform\_ros\_communications::recordUserPerformanceCognitiveTestsSrv::Response [record\\_user\\_cognitive\\_tests\\_performance](#) (rapp\_platform\_ros\_communications::recordUserPerformanceCognitiveTestsSrv::Request req)  
*Implements the record\_user\_cognitive\_tests\_performance ROS service.*
- rapp\_platform\_ros\_communications::registerImageObjectToOntologySrv::Response [register\\_image\\_object\\_to\\_ontology](#) (rapp\_platform\_ros\_communications::registerImageObjectToOntologySrv::Request req)  
*Implements the register\_image\_object\_to\_ontology ROS service.*
- rapp\_platform\_ros\_communications::retractUserOntologyAliasSrv::Response [retract\\_user\\_ontology\\_alias](#) (rapp\_platform\_ros\_communications::retractUserOntologyAliasSrv::Request req)

*Implements the retract\_user\_ontology\_alias ROS service.*

- rapp\_platform\_ros\_communications::ontologySubSuperClassesOfSrv::Response [subclassesOfQuery](#) (rapp\_platform\_ros\_communications::ontologySubSuperClassesOfSrv::Request req)

*Implements the subclassesOf ROS service.*

- rapp\_platform\_ros\_communications::ontologySubSuperClassesOfSrv::Response [superclassesOfQuery](#) (rapp\_platform\_ros\_communications::ontologySubSuperClassesOfSrv::Request req)

*Implements the superclassesOf ROS service.*

- rapp\_platform\_ros\_communications::returnUserInstancesOfClassSrv::Response [user\\_instances\\_of\\_class](#) (rapp\_platform\_ros\_communications::returnUserInstancesOfClassSrv::Request req)

*Implements the returnUserInstancesOfClass ROS service.*

- rapp\_platform\_ros\_communications::userPerformanceCognitiveTestsSrv::Response [user\\_performance\\_cognitive\\_tests](#) (rapp\_platform\_ros\_communications::userPerformanceCognitiveTestsSrv::Request req)

*Implements the user\_performance\_cognitive\_tests ROS service.*

## Private Attributes

- ros::ServiceClient [mysql\\_get\\_user\\_ontology\\_alias\\_client](#)
- ros::ServiceClient [mysql\\_register\\_user\\_ontology\\_alias\\_client](#)
- ros::NodeHandle [nh\\_](#)
- json\_prolog::Prolog [pl](#)

## 6.31.1 Detailed Description

Class [KnowrobWrapperCommunications](#) contains all the necessary knowrob wrapper functions.

Definition at line 49 of file knowrob\_wrapper.h.

## 6.31.2 Constructor & Destructor Documentation

### 6.31.2.1 KnowrobWrapper::KnowrobWrapper ( ros::NodeHandle nh )

Default constructor.

Definition at line 30 of file knowrob\_wrapper.cpp.

## 6.31.3 Member Function Documentation

### 6.31.3.1 rapp\_platform\_ros\_communications::assertRetractAttributeSrv::Response KnowrobWrapper::assertAttributeValue ( rapp\_platform\_ros\_communications::assertRetractAttributeSrv::Request req )

Implements the assertRetractAttribute ROS service.

Parameters

<i>req</i>	[rapp_platform_ros_communications::assertRetractAttributeSrv::Request&] The ROS service request
------------	---

Returns

res [rapp\_platform\_ros\_communications::assertRetractAttributeSrv::Response&] The ROS service response

6.31.3.2 rapp\_platform\_ros\_communications::clearUserPerformanceCognitiveTestsSrv::Response  
KnowrobWrapper::clear\_user\_cognitive\_tests\_performance\_records ( rapp\_platform\_ros\_communications::clearUserPerformanceCognitiveTestsSrv::Request *req* )

Implements the clear\_user\_cognitive\_tests\_performance\_records ROS service.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::clearUserPerformanceCognitiveTestsSrv::Request&] The ROS service request
------------	--

**Returns**

res [rapp\_platform\_ros\_communications::clearUserPerformanceCognitiveTestsSrv::Response&] The ROS service response

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::clearUserPerformanceCognitiveTestsSrv::Request&] The ROS service request
------------	--

**Returns**

res [rapp\_platform\_ros\_communications::clearUserPerformanceCognitiveTestsSrv::Response&] The ROS service response

**Exceptions**

<i>AppError</i>	
-----------------	--

Definition at line 444 of file knowrob\_wrapper.cpp.

6.31.3.3 rapp\_platform\_ros\_communications::cognitiveTestsOfTypeSrv::Response KnowrobWrapper::cognitive\_tests\_of\_type ( rapp\_platform\_ros\_communications::cognitiveTestsOfTypeSrv::Request *req* )

Implements the cognitive\_tests\_of\_type ROS service.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::cognitiveTestsOfTypeSrv::Request&] The ROS service request
------------	---

**Returns**

res [rapp\_platform\_ros\_communications::cognitiveTestsOfTypeSrv::Response&] The ROS service response

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::cognitiveTestsOfTypeSrv::Request&] The ROS service request
------------	---

**Returns**

res [rapp\_platform\_ros\_communications::cognitiveTestsOfTypeSrv::Response&] The ROS service response

**Exceptions**

<i>AppError</i>	
-----------------	--

Definition at line 329 of file knowrob\_wrapper.cpp.

6.31.3.4 rapp\_platform\_ros\_communications::createCognitiveExerciseTestSrv::Response KnowrobWrapper::create\_cognitive\_tests ( rapp\_platform\_ros\_communications::createCognitiveExerciseTestSrv::Request *req* )

Implements the create\_cognitive\_tests ROS service.



## Parameters

<i>req</i>	[rapp_platform_ros_communications::createCognitiveExerciseTestSrv::Request&] The ROS service request
------------	--

## Returns

res [rapp\_platform\_ros\_communications::createCognitiveExerciseTestSrv::Response&] The ROS service response

## Parameters

<i>req</i>	[rapp_platform_ros_communications::createCognitiveExerciseTestSrv::Request&] The ROS service request
------------	--

## Returns

res [rapp\_platform\_ros\_communications::createCognitiveExerciseTestSrv::Response&] The ROS service response

## Exceptions

<i>AppError</i>	
-----------------	--

Definition at line 271 of file knowrob\_wrapper.cpp.

#### 6.31.3.5 rapp\_platform\_ros\_communications::createOntologyAliasSrv::Response KnowrobWrapper::create\_ontology\_alias ( rapp\_platform\_ros\_communications::createOntologyAliasSrv::Request *req* )

Implements the create\_ontology\_alias ROS service.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::createOntologyAliasSrv::Request&] The ROS service request
------------	--

## Returns

res [rapp\_platform\_ros\_communications::createOntologyAliasSrv::Response&] The ROS service response

## Parameters

<i>req</i>	[rapp_platform_ros_communications::createOntologyAliasSrv::Request&] The ROS service request
------------	--

## Returns

res [rapp\_platform\_ros\_communications::createOntologyAliasSrv::Response&] The ROS service response

## Exceptions

<i>AppError</i>	
-----------------	--

Definition at line 132 of file knowrob\_wrapper.cpp.

#### 6.31.3.6 std::string KnowrobWrapper::create\_ontology\_alias\_for\_new\_user ( std::string *username* )

Creates a new ontology alias for a user.

## Parameters

<i>user_id</i>	[string] The username of the user
----------------	-----------------------------------

## Returns

ontology\_alias [string] The ontology\_alias of the user or possible error

## Parameters

<i>username</i>	[string] The username of the user
-----------------	-----------------------------------

## Returns

ontology\_alias [string] The ontology\_alias of the user or possible error

## Exceptions

<i>AppError</i>	
-----------------	--

Definition at line 183 of file knowrob\_wrapper.cpp.

6.31.3.7 rapp\_platform\_ros\_communications::createInstanceSrv::Response KnowrobWrapper::createInstanceQuery ( rapp\_platform\_ros\_communications::createInstanceSrv::Request req )

Implements the createInstance ROS service.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::createInstanceSrv::Request&] The ROS service request
------------	---

## Returns

res [rapp\_platform\_ros\_communications::createInstanceSrv::Response&] The ROS service response

## Parameters

<i>req</i>	[rapp_platform_ros_communications::createInstanceSrv::Request&] The ROS service request
------------	---

## Returns

res [rapp\_platform\_ros\_communications::createInstanceSrv::Response&] The ROS service response

## Exceptions

<i>AppError</i>	
-----------------	--

Definition at line 633 of file knowrob\_wrapper.cpp.

6.31.3.8 void KnowrobWrapper::dump\_ontology\_now ( )

Dumps the ontology to default path.

Definition at line 39 of file knowrob\_wrapper.cpp.

6.31.3.9 rapp\_platform\_ros\_communications::ontologyLoadDumpSrv::Response KnowrobWrapper::dumpOntologyQuery ( rapp\_platform\_ros\_communications::ontologyLoadDumpSrv::Request req )

Implements the dumpOntology ROS service.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::ontologyLoadDumpSrv::Request&] The ROS service request
------------	---

## Returns

res [rapp\_platform\_ros\_communications::ontologyLoadDumpSrv::Response&] The ROS service response

## Parameters

<i>req</i>	[rapp_platform_ros_communications::ontologyLoadDumpSrv::Request&] The ROS service request
------------	---

## Returns

res [rapp\_platform\_ros\_communications::ontologyLoadDumpSrv::Response&] The ROS service response

## Exceptions

<i>AppError</i>	
-----------------	--

Definition at line 682 of file knowrob\_wrapper.cpp.

#### 6.31.3.10 std::string KnowrobWrapper::get\_ontology\_alias ( std::string *username* )

Returns the ontology alias of the user.

## Parameters

<i>user_id</i>	[string] The username of the user
----------------	-----------------------------------

## Returns

ontology\_alias [string] The ontology\_alias of the user or possible error

## Parameters

<i>username</i>	[string] The username of the user
-----------------	-----------------------------------

## Returns

ontology\_alias [string] The ontology\_alias of the user or possible error

## Exceptions

<i>AppError</i>	
-----------------	--

Definition at line 161 of file knowrob\_wrapper.cpp.

#### 6.31.3.11 rapp\_platform\_ros\_communications::ontologyIsSubSuperClassOfSrv::Response KnowrobWrapper::isSubSuperclassOfQuery ( rapp\_platform\_ros\_communications::ontologyIsSubSuperClassOfSrv::Request *req* )

Implements the isSubSuperclass ROS service.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::ontologyIsSubSuperClassOfSrv::Request&] The ROS service request
------------	--

**Returns**

res [rapp\_platform\_ros\_communications::ontologyIsSubSuperClassOfSrv::Response&] The ROS service response

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::ontologyIsSubSuperClassOfSrv::Request&] The ROS service request
------------	--

**Returns**

res [rapp\_platform\_ros\_communications::ontologyIsSubSuperClassOfSrv::Response&] The ROS service response

**Exceptions**

<i>AppError</i>	
-----------------	--

Definition at line 580 of file knowrob\_wrapper.cpp.

6.31.3.12 rapp\_platform\_ros\_communications::ontologyLoadDumpSrv::Response KnowrobWrapper::loadOntologyQuery ( rapp\_platform\_ros\_communications::ontologyLoadDumpSrv::Request *req* )

Implements the loadOntology ROS service.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::ontologyLoadDumpSrv::Request&] The ROS service request
------------	---

**Returns**

res [rapp\_platform\_ros\_communications::ontologyLoadDumpSrv::Response&] The ROS service response

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::ontologyLoadDumpSrv::Request&] The ROS service request
------------	---

**Returns**

res [rapp\_platform\_ros\_communications::ontologyLoadDumpSrv::Response&] The ROS service response

**Exceptions**

<i>AppError</i>	
-----------------	--

Definition at line 723 of file knowrob\_wrapper.cpp.

6.31.3.13 rapp\_platform\_ros\_communications::recordUserPerformanceCognitiveTestsSrv::Response KnowrobWrapper::record\_user\_cognitive\_tests\_performance ( rapp\_platform\_ros\_communications::recordUserPerformanceCognitiveTestsSrv::Request *req* )

Implements the record\_user\_cognitive\_tests\_performance ROS service.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::recordUserPerformanceCognitiveTestsSrv::Request&] The ROS service request
------------	---

## Returns

res [rapp\_platform\_ros\_communications::recordUserPerformanceCognitiveTestsSrv::Response&] The ROS service response

Definition at line 226 of file knowrob\_wrapper.cpp.

6.31.3.14 rapp\_platform\_ros\_communications::registerImageObjectToOntologySrv::Response KnowrobWrapper::register\_image\_object\_to\_ontology ( rapp\_platform\_ros\_communications::registerImageObjectToOntologySrv::Request *req* )

Implements the register\_image\_object\_to\_ontology ROS service.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::registerImageObjectToOntologySrv::Request&] The ROS service request
------------	--

## Returns

res [rapp\_platform\_ros\_communications::registerImageObjectToOntologySrv::Response&] The ROS service response

Definition at line 804 of file knowrob\_wrapper.cpp.

6.31.3.15 rapp\_platform\_ros\_communications::retractUserOntologyAliasSrv::Response KnowrobWrapper::retract\_user\_ontology\_alias ( rapp\_platform\_ros\_communications::retractUserOntologyAliasSrv::Request *req* )

Implements the retract\_user\_ontology\_alias ROS service.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::retractUserOntologyAliasSrv::Request&] The ROS service request
------------	---

## Returns

res [rapp\_platform\_ros\_communications::retractUserOntologyAliasSrv::Response&] The ROS service response

Definition at line 853 of file knowrob\_wrapper.cpp.

6.31.3.16 rapp\_platform\_ros\_communications::ontologySubSuperClassesOfSrv::Response KnowrobWrapper::subclassesOfQuery ( rapp\_platform\_ros\_communications::ontologySubSuperClassesOfSrv::Request *req* )

Implements the subclassesOf ROS service.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::ontologySubSuperClassesOfSrv::Request&] The ROS service request
------------	--

**Returns**

res [rapp\_platform\_ros\_communications::ontologySubSuperClassesOfSrv::Response&] The ROS service response

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::ontologySubSuperClassesOfSrv::Request&] The ROS service request
------------	--

**Returns**

res [rapp\_platform\_ros\_communications::ontologySubSuperClassesOfSrv::Response&] The ROS service response

**Exceptions**

<i>AppError</i>	
-----------------	--

Definition at line 486 of file knowrob\_wrapper.cpp.

6.31.3.17 rapp\_platform\_ros\_communications::ontologySubSuperClassesOfSrv::Response KnowrobWrapper::superclassesOfQuery ( rapp\_platform\_ros\_communications::ontologySubSuperClassesOfSrv::Request *req* )

Implements the superclassesOf ROS service.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::ontologySubSuperClassesOfSrv::Request&] The ROS service request
------------	--

**Returns**

res [rapp\_platform\_ros\_communications::ontologySubSuperClassesOfSrv::Response&] The ROS service response

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::ontologySubSuperClassesOfSrv::Request&] The ROS service request
------------	--

**Returns**

res [rapp\_platform\_ros\_communications::ontologySubSuperClassesOfSrv::Response&] The ROS service response

**Exceptions**

<i>AppError</i>	
-----------------	--

Definition at line 533 of file knowrob\_wrapper.cpp.

6.31.3.18 `rapp_platform_ros_communications::returnUserInstancesOfClassSrv::Response` `KnowrobWrapper::user_instances_of_class ( rapp_platform_ros_communications::returnUserInstancesOfClassSrv::Request req )`

Implements the `returnUserInstancesOfClass` ROS service.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::returnUserInstancesOfClassSrv::Request&] The ROS service request
------------	---

**Returns**

res [rapp\_platform\_ros\_communications::returnUserInstancesOfClassSrv::Response&] The ROS service response

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::returnUserInstancesOfClassSrv::Request&] The ROS service request
------------	---

**Returns**

res [rapp\_platform\_ros\_communications::returnUserInstancesOfClassSrv::Response&] The ROS service response

**Exceptions**

<i>AppError</i>	
-----------------	--

Definition at line 759 of file knowrob\_wrapper.cpp.

6.31.3.19 rapp\_platform\_ros\_communications::userPerformanceCognitiveTestsSrv::Response KnowrobWrapper::user\_performance\_cognitive\_tests ( rapp\_platform\_ros\_communications::userPerformanceCognitiveTestsSrv::Request *req* )

Implements the user\_performance\_cognitive\_tests ROS service.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::userPerformanceCognitiveTestsSrv::Request&] The ROS service request
------------	--

**Returns**

res [rapp\_platform\_ros\_communications::userPerformanceCognitiveTestsSrv::Response&] The ROS service response

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::userPerformanceCognitiveTestsSrv::Request&] The ROS service request
------------	--

**Returns**

res [rapp\_platform\_ros\_communications::userPerformanceCognitiveTestsSrv::Response&] The ROS service response

**Exceptions**

<i>AppError</i>	
-----------------	--

Definition at line 387 of file knowrob\_wrapper.cpp.



### 6.31.4 Member Data Documentation

#### 6.31.4.1 `ros::ServiceClient KnowrobWrapper::mysql_get_user_ontology_alias_client` [private]

The mysql update tblUser client server

Definition at line 62 of file `knowrob_wrapper.h`.

#### 6.31.4.2 `ros::ServiceClient KnowrobWrapper::mysql_register_user_ontology_alias_client` [private]

The mysql fetch from tblUser client server

Definition at line 59 of file `knowrob_wrapper.h`.

#### 6.31.4.3 `ros::NodeHandle KnowrobWrapper::nh_` [private]

< The ROS node handle The json prolog handle

Definition at line 53 of file `knowrob_wrapper.h`.

#### 6.31.4.4 `json_prolog::Prolog KnowrobWrapper::pl` [private]

The mysql write to tblUser client server

Definition at line 56 of file `knowrob_wrapper.h`.

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

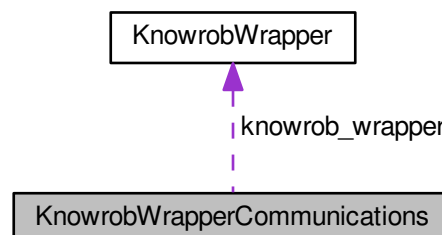
- [/home/travis/rapp\\_temp/rapp-platform/rapp\\_knowrob\\_wrapper/include/knowrob\\_wrapper/knowrob\\_wrapper.h](#)
- [/home/travis/rapp\\_temp/rapp-platform/rapp\\_knowrob\\_wrapper/src/knowrob\\_wrapper.cpp](#)

## 6.32 KnowrobWrapperCommunications Class Reference

Class [KnowrobWrapperCommunications](#) uptakes the task of handling the ROS service callbacks.

```
#include <knowrob_wrapper_communications.h>
```

Collaboration diagram for KnowrobWrapperCommunications:



## Public Member Functions

- [KnowrobWrapperCommunications](#) ()

*Default constructor.*

- bool [clear\\_user\\_cognitive\\_tests\\_performance\\_records\\_callback](#) (rapp\_platform\_ros\_communications::clearUserPerformanceCognitiveTestsSrv::Request &req, rapp\_platform\_ros\_communications::clearUserPerformanceCognitiveTestsSrv::Response &res)

*Serves the clear\_user\_cognitive\_tests\_performance\_records ROS service callback.*

- bool [cognitive\\_tests\\_of\\_type\\_callback](#) (rapp\_platform\_ros\_communications::cognitiveTestsOfTypeSrv::Request &req, rapp\_platform\_ros\_communications::cognitiveTestsOfTypeSrv::Response &res)

*Serves the cognitive\_tests\_of\_type ROS service callback.*

- bool [create\\_cognitive\\_tests\\_callback](#) (rapp\_platform\_ros\_communications::createCognitiveExerciseTestSrv::Request &req, rapp\_platform\_ros\_communications::createCognitiveExerciseTestSrv::Response &res)

*Serves the create\_cognitive\_tests ROS service callback.*

- bool [create\\_ontology\\_alias\\_callback](#) (rapp\_platform\_ros\_communications::createOntologyAliasSrv::Request &req, rapp\_platform\_ros\_communications::createOntologyAliasSrv::Response &res)

*Serves the create\_ontology\_alias ROS service callback.*

- bool [createInstanceCallback](#) (rapp\_platform\_ros\_communications::createInstanceSrv::Request &req, rapp\_platform\_ros\_communications::createInstanceSrv::Response &res)

*Serves the createInstance ROS service callback.*

- bool [dumpOntologyCallback](#) (rapp\_platform\_ros\_communications::ontologyLoadDumpSrv::Request &req, rapp\_platform\_ros\_communications::ontologyLoadDumpSrv::Response &res)

*Serves the dumpOntology ROS service callback.*

- bool [isSubSuperclassOfCallback](#) (rapp\_platform\_ros\_communications::ontologyIsSubSuperClassOfSrv::Request &req, rapp\_platform\_ros\_communications::ontologyIsSubSuperClassOfSrv::Response &res)

*Serves the isSubSuperclassOf ROS service callback.*

- bool [loadOntologyCallback](#) (rapp\_platform\_ros\_communications::ontologyLoadDumpSrv::Request &req, rapp\_platform\_ros\_communications::ontologyLoadDumpSrv::Response &res)

*Serves the loadOntology ROS service callback.*

- bool [record\\_user\\_cognitive\\_tests\\_performance\\_callback](#) (rapp\_platform\_ros\_communications::recordUserPerformanceCognitiveTestsSrv::Request &req, rapp\_platform\_ros\_communications::recordUserPerformanceCognitiveTestsSrv::Response &res)

*Serves the record\_user\_cognitive\_tests\_performance ROS service callback.*

- bool [register\\_image\\_object\\_to\\_ontology\\_callback](#) (rapp\_platform\_ros\_communications::registerImageObjectToOntologySrv::Request &req, rapp\_platform\_ros\_communications::registerImageObjectToOntologySrv::Response &res)

*Serves the register\_image\_object\_to\_ontology ROS service callback.*

- bool [retract\\_user\\_ontology\\_alias\\_callback](#) (rapp\_platform\_ros\_communications::retractUserOntologyAliasSrv::Request &req, rapp\_platform\_ros\_communications::retractUserOntologyAliasSrv::Response &res)

*Serves the retract\_user\_ontology\_alias ROS service callback.*

- bool [subclassesOfCallback](#) (rapp\_platform\_ros\_communications::ontologySubSuperClassesOfSrv::Request &req, rapp\_platform\_ros\_communications::ontologySubSuperClassesOfSrv::Response &res)

*Serves the subclassesOf ROS service callback.*

- bool [superclassesOfCallback](#) (rapp\_platform\_ros\_communications::ontologySubSuperClassesOfSrv::Request &req, rapp\_platform\_ros\_communications::ontologySubSuperClassesOfSrv::Response &res)

*Serves the superlassesOf ROS service callback.*

- bool [user\\_instances\\_of\\_class\\_callback](#) (rapp\_platform\_ros\_communications::returnUserInstancesOfClassSrv::Request &req, rapp\_platform\_ros\_communications::returnUserInstancesOfClassSrv::Response &res)

*Serves the user\_instances\_of\_class ROS service callback.*

- bool [user\\_performance\\_cognitive\\_tests\\_callback](#) (rapp\_platform\_ros\_communications::userPerformanceCognitiveTestsSrv::Request &req, rapp\_platform\_ros\_communications::userPerformanceCognitiveTestsSrv::Response &res)

*Serves the user\_performance\_cognitive\_tests ROS service callback.*

## Private Attributes

- `ros::ServiceServer` [clear\\_user\\_cognitive\\_tests\\_performance\\_records\\_service\\_](#)
- `std::string` [clear\\_user\\_cognitive\\_tests\\_performance\\_records\\_topic\\_](#)
- `ros::ServiceServer` [cognitive\\_tests\\_of\\_type\\_service\\_](#)
- `std::string` [cognitive\\_tests\\_of\\_type\\_topic\\_](#)
- `ros::ServiceServer` [create\\_cognitive\\_tests\\_service\\_](#)
- `std::string` [create\\_cognitive\\_tests\\_topic\\_](#)
- `ros::ServiceServer` [create\\_ontology\\_alias\\_service\\_](#)
- `std::string` [create\\_ontology\\_alias\\_topic\\_](#)
- `ros::ServiceServer` [createInstanceService\\_](#)
- `std::string` [createInstanceServiceTopic\\_](#)
- `ros::ServiceServer` [dumpOntologyService\\_](#)
- `std::string` [dumpOntologyServiceTopic\\_](#)
- `ros::ServiceServer` [is\\_subsuperclass\\_of\\_service\\_](#)
- `std::string` [is\\_subsuperclass\\_of\\_service\\_topic\\_](#)
- [KnowrobWrapper](#) `knowrob_wrapper`
- `ros::ServiceServer` [loadOntologyService\\_](#)
- `std::string` [loadOntologyServiceTopic\\_](#)
- `ros::NodeHandle` `nh_`
- `ros::ServiceServer` [record\\_user\\_cognitive\\_tests\\_performance\\_service\\_](#)
- `std::string` [record\\_user\\_cognitive\\_tests\\_performance\\_topic\\_](#)
- `ros::ServiceServer` [register\\_image\\_object\\_to\\_ontology\\_service\\_](#)
- `std::string` [register\\_image\\_object\\_to\\_ontology\\_topic\\_](#)
- `ros::ServiceServer` [retract\\_user\\_ontology\\_alias\\_service\\_](#)
- `std::string` [retract\\_user\\_ontology\\_alias\\_topic\\_](#)
- `ros::ServiceServer` [subclasses\\_of\\_service\\_](#)
- `std::string` [subclasses\\_of\\_service\\_topic\\_](#)
- `ros::ServiceServer` [superclasses\\_of\\_service\\_](#)
- `std::string` [superclasses\\_of\\_service\\_topic\\_](#)
- `ros::ServiceServer` [user\\_instances\\_of\\_class\\_service\\_](#)
- `std::string` [user\\_instances\\_of\\_class\\_topic\\_](#)
- `ros::ServiceServer` [user\\_performance\\_cognitive\\_tests\\_service\\_](#)
- `std::string` [user\\_performance\\_cognitive\\_tests\\_topic\\_](#)

### 6.32.1 Detailed Description

Class [KnowrobWrapperCommunications](#) uptakes the task of handling the ROS service callbacks.

Definition at line 28 of file `knowrob_wrapper_communications.h`.

### 6.32.2 Constructor & Destructor Documentation

#### 6.32.2.1 KnowrobWrapperCommunications::KnowrobWrapperCommunications ( )

Default constructor.

Default constructor Waits for services it depends on and declares the knowrob wrapper services callbacks.

Definition at line 28 of file `knowrob_wrapper_communications.cpp`.

### 6.32.3 Member Function Documentation

6.32.3.1 `bool KnowrobWrapperCommunications::clear_user_cognitive_tests_performance_records_callback`  
( `rapp_platform_ros_communications::clearUserPerformanceCognitiveTestsSrv::Request & req`,  
`rapp_platform_ros_communications::clearUserPerformanceCognitiveTestsSrv::Response & res` )

Serves the `clear_user_cognitive_tests_performance_records` ROS service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::clearUserPerformanceCognitiveTestsSrv::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::clearUserPerformanceCognitiveTestsSrv::Response&] The ROS service response

## Returns

bool - The success status of the call

Definition at line 331 of file knowrob\_wrapper\_communications.cpp.

**6.32.3.2** bool KnowrobWrapperCommunications::cognitive\_tests\_of\_type\_callback ( rapp\_platform\_ros\_communications::cognitiveTestsOfTypeSrv::Request & *req*, rapp\_platform\_ros\_communications::cognitiveTestsOfTypeSrv::Response & *res* )

Serves the cognitive\_tests\_of\_type ROS service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::cognitiveTestsOfTypeSrv::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::cognitiveTestsOfTypeSrv::Response&] The ROS service response

## Returns

bool - The success status of the call

Definition at line 303 of file knowrob\_wrapper\_communications.cpp.

**6.32.3.3** bool KnowrobWrapperCommunications::create\_cognitive\_tests\_callback ( rapp\_platform\_ros\_communications::createCognitiveExerciseTestSrv::Request & *req*, rapp\_platform\_ros\_communications::createCognitiveExerciseTestSrv::Response & *res* )

Serves the create\_cognitive\_tests ROS service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::createCognitiveExerciseTestSrv::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::createCognitiveExerciseTestSrv::Response&] The ROS service response

## Returns

bool - The success status of the call

Definition at line 289 of file knowrob\_wrapper\_communications.cpp.

**6.32.3.4** bool KnowrobWrapperCommunications::create\_ontology\_alias\_callback ( rapp\_platform\_ros\_communications::createOntologyAliasSrv::Request & *req*, rapp\_platform\_ros\_communications::createOntologyAliasSrv::Response & *res* )

Serves the create\_ontology\_alias ROS service callback.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::createOntologyAliasSrv::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::createOntologyAliasSrv::Response&] The ROS service response

**Returns**

bool - The success status of the call

Definition at line 247 of file knowrob\_wrapper\_communications.cpp.

**6.32.3.5** bool KnowrobWrapperCommunications::createInstanceCallback ( rapp\_platform\_ros\_communications::createInstanceSrv::Request & *req*, rapp\_platform\_ros\_communications::createInstanceSrv::Response & *res* )

Serves the createInstance ROS service callback.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::createInstanceSrv::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::createInstanceSrv::Response&] The ROS service response

**Returns**

bool - The success status of the call

Definition at line 205 of file knowrob\_wrapper\_communications.cpp.

**6.32.3.6** bool KnowrobWrapperCommunications::dumpOntologyCallback ( rapp\_platform\_ros\_communications::ontologyLoadDumpSrv::Request & *req*, rapp\_platform\_ros\_communications::ontologyLoadDumpSrv::Response & *res* )

Serves the dumpOntology ROS service callback.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::ontologyLoadDumpSrv::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::ontologyLoadDumpSrv::Response&] The ROS service response

**Returns**

bool - The success status of the call

Definition at line 219 of file knowrob\_wrapper\_communications.cpp.

**6.32.3.7** bool KnowrobWrapperCommunications::isSubSuperclassOfCallback ( rapp\_platform\_ros\_communications::ontologyIsSubSuperClassOfSrv::Request & *req*, rapp\_platform\_ros\_communications::ontologyIsSubSuperClassOfSrv::Response & *res* )

Serves the isSubSuperclassOf ROS service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::ontologyIsSubSuperClassOfSrv::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::ontologyIsSubSuperClassOfSrv::Response&] The ROS service response

## Returns

bool - The success status of the call

Definition at line 191 of file knowrob\_wrapper\_communications.cpp.

**6.32.3.8** bool KnowrobWrapperCommunications::loadOntologyCallback ( rapp\_platform\_ros\_communications::ontologyLoadDumpSrv::Request & *req*, rapp\_platform\_ros\_communications::ontologyLoadDumpSrv::Response & *res* )

Serves the loadOntology ROS service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::ontologyLoadDumpSrv::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::ontologyLoadDumpSrv::Response&] The ROS service response

## Returns

bool - The success status of the call

Definition at line 233 of file knowrob\_wrapper\_communications.cpp.

**6.32.3.9** bool KnowrobWrapperCommunications::record\_user\_cognitive\_tests\_performance\_callback ( rapp\_platform\_ros\_communications::recordUserPerformanceCognitiveTestsSrv::Request & *req*, rapp\_platform\_ros\_communications::recordUserPerformanceCognitiveTestsSrv::Response & *res* )

Serves the record\_user\_cognitive\_tests\_performance ROS service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::recordUserPerformanceCognitiveTestsSrv::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::recordUserPerformanceCognitiveTestsSrv::Response&] The ROS service response

## Returns

bool - The success status of the call

Definition at line 317 of file knowrob\_wrapper\_communications.cpp.

**6.32.3.10** bool KnowrobWrapperCommunications::register\_image\_object\_to\_ontology\_callback ( rapp\_platform\_ros\_communications::registerImageObjectToOntologySrv::Request & *req*, rapp\_platform\_ros\_communications::registerImageObjectToOntologySrv::Response & *res* )

Serves the register\_image\_object\_to\_ontology ROS service callback.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::registerImageToOntologySrv::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::registerImageToOntologySrv::Response&] The ROS service response

**Returns**

bool - The success status of the call

Definition at line 359 of file knowrob\_wrapper\_communications.cpp.

```
6.32.3.11 bool KnowrobWrapperCommunications::retract_user_ontology_alias_callback (
    rapp_platform_ros_communications::retractUserOntologyAliasSrv::Request & req,
    rapp_platform_ros_communications::retractUserOntologyAliasSrv::Response & res )
```

Serves the retract\_user\_ontology\_alias ROS service callback.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::retractUserOntologyAliasSrv::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::retractUserOntologyAliasSrv::Response&] The ROS service response

**Returns**

bool - The success status of the call

Definition at line 345 of file knowrob\_wrapper\_communications.cpp.

```
6.32.3.12 bool KnowrobWrapperCommunications::subclassesOfCallback ( rapp_platform_ros_communications::ontologySub-
    SuperClassesOfSrv::Request & req, rapp_platform_ros_communications::ontologySubSuperClassesOfSrv::Response
    & res )
```

Serves the subclassesOf ROS service callback.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::ontologySubSuperClassesOfSrv::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::ontologySubSuperClassesOfSrv::Response&] The ROS service response

**Returns**

bool - The success status of the call

Definition at line 163 of file knowrob\_wrapper\_communications.cpp.

```
6.32.3.13 bool KnowrobWrapperCommunications::superclassesOfCallback ( rapp_platform_ros_communications::ontology-
    SubSuperClassesOfSrv::Request & req, rapp_platform_ros_communications::ontologySubSuperClassesOfSrv::-
    Response & res )
```

Serves the superlassesOf ROS service callback.



**Parameters**

<i>req</i>	[rapp_platform_ros_communications::ontologySubSuperClassesOfSrv::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::ontologySubSuperClassesOfSrv::Response&] The R-OS service response

**Returns**

bool - The success status of the call

Definition at line 177 of file knowrob\_wrapper\_communications.cpp.

**6.32.3.14** bool KnowrobWrapperCommunications::user\_instances\_of\_class\_callback ( rapp\_platform\_ros\_communications::returnUserInstancesOfClassSrv::Request & *req*, rapp\_platform\_ros\_communications::returnUserInstancesOfClassSrv::Response & *res* )

Serves the user\_instances\_of\_class ROS service callback.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::returnUserInstancesOfClassSrv::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::returnUserInstancesOfClassSrv::Response&] The R-OS service response

**Returns**

bool - The success status of the call

Definition at line 261 of file knowrob\_wrapper\_communications.cpp.

**6.32.3.15** bool KnowrobWrapperCommunications::user\_performance\_cognitive\_tests\_callback ( rapp\_platform\_ros\_communications::userPerformanceCognitiveTestsSrv::Request & *req*, rapp\_platform\_ros\_communications::userPerformanceCognitiveTestsSrv::Response & *res* )

Serves the user\_performance\_cognitive\_tests ROS service callback.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::userPerformanceCognitiveTestsSrv::Request&] The R-OS service request
<i>res</i>	[rapp_platform_ros_communications::userPerformanceCognitiveTestsSrv::Response&] The ROS service response

**Returns**

bool - The success status of the call

Definition at line 275 of file knowrob\_wrapper\_communications.cpp.

**6.32.4 Member Data Documentation**

**6.32.4.1** ros::ServiceServer KnowrobWrapperCommunications::clear\_user\_cognitive\_tests\_performance\_records\_service\_  
[private]

Member variable holding the clear\_user\_cognitive\_tests\_performance\_records ROS service topic

Definition at line 99 of file knowrob\_wrapper\_communications.h.

**6.32.4.2** `std::string KnowrobWrapperCommunications::clear_user_cognitive_tests_performance_records_topic_ [private]`

The retract\_user\_ontology\_alias service server

Definition at line 101 of file knowrob\_wrapper\_communications.h.

**6.32.4.3** `ros::ServiceServer KnowrobWrapperCommunications::cognitive_tests_of_type_service_ [private]`

Member variable holding the cognitive\_tests\_of\_type ROS service topic

Definition at line 89 of file knowrob\_wrapper\_communications.h.

**6.32.4.4** `std::string KnowrobWrapperCommunications::cognitive_tests_of_type_topic_ [private]`

The record\_user\_cognitive\_tests\_performance service server

Definition at line 91 of file knowrob\_wrapper\_communications.h.

**6.32.4.5** `ros::ServiceServer KnowrobWrapperCommunications::create_cognitive_tests_service_ [private]`

Member variable holding the create\_cognitive\_tests ROS service topic

Definition at line 84 of file knowrob\_wrapper\_communications.h.

**6.32.4.6** `std::string KnowrobWrapperCommunications::create_cognitive_tests_topic_ [private]`

The cognitive\_tests\_of\_type service server

Definition at line 86 of file knowrob\_wrapper\_communications.h.

**6.32.4.7** `ros::ServiceServer KnowrobWrapperCommunications::create_ontology_alias_service_ [private]`

Member variable holding the create\_ontology\_alias ROS service topic

Definition at line 74 of file knowrob\_wrapper\_communications.h.

**6.32.4.8** `std::string KnowrobWrapperCommunications::create_ontology_alias_topic_ [private]`

The user\_performance\_cognitive\_tests service server

Definition at line 76 of file knowrob\_wrapper\_communications.h.

**6.32.4.9** `ros::ServiceServer KnowrobWrapperCommunications::createInstanceService_ [private]`

Member variable holding the createInstanceServiceTopic ROS service topic

Definition at line 54 of file knowrob\_wrapper\_communications.h.

**6.32.4.10** `std::string KnowrobWrapperCommunications::createInstanceServiceTopic_ [private]`

The dumpOntologyService service server

Definition at line 56 of file knowrob\_wrapper\_communications.h.

**6.32.4.11** `ros::ServiceServer KnowrobWrapperCommunications::dumpOntologyService_` `[private]`

Member variable holding the dumpOntologyServiceTopic ROS service topic

Definition at line 59 of file knowrob\_wrapper\_communications.h.

**6.32.4.12** `std::string KnowrobWrapperCommunications::dumpOntologyServiceTopic_` `[private]`

The loadOntologyService service server

Definition at line 61 of file knowrob\_wrapper\_communications.h.

**6.32.4.13** `ros::ServiceServer KnowrobWrapperCommunications::is_subsuperclass_of_service_` `[private]`

Member variable holding the is\_subsuperclass ROS service topic

Definition at line 49 of file knowrob\_wrapper\_communications.h.

**6.32.4.14** `std::string KnowrobWrapperCommunications::is_subsuperclass_of_service_topic_` `[private]`

The createInstanceService service server

Definition at line 51 of file knowrob\_wrapper\_communications.h.

**6.32.4.15** `KnowrobWrapper KnowrobWrapperCommunications::knowrob_wrapper` `[private]`

The subclasses\_of service server

Definition at line 35 of file knowrob\_wrapper\_communications.h.

**6.32.4.16** `ros::ServiceServer KnowrobWrapperCommunications::loadOntologyService_` `[private]`

Member variable holding the loadOntologyServiceTopic ROS service topic

Definition at line 64 of file knowrob\_wrapper\_communications.h.

**6.32.4.17** `std::string KnowrobWrapperCommunications::loadOntologyServiceTopic_` `[private]`

The user\_instances\_of\_class service server

Definition at line 66 of file knowrob\_wrapper\_communications.h.

**6.32.4.18** `ros::NodeHandle KnowrobWrapperCommunications::nh_` `[private]`

< The ROS node handle Object of type knowrob\_wrapper

Definition at line 32 of file knowrob\_wrapper\_communications.h.

**6.32.4.19** `ros::ServiceServer KnowrobWrapperCommunications::record_user_cognitive_tests_performance_service_` `[private]`

Member variable holding the record\_user\_cognitive\_tests\_performance ROS service topic

Definition at line 94 of file knowrob\_wrapper\_communications.h.

6.32.4.20 `std::string KnowrobWrapperCommunications::record_user_cognitive_tests_performance_topic_` [private]

The clear\_user\_cognitive\_tests\_performance\_records service server

Definition at line 96 of file knowrob\_wrapper\_communications.h.

6.32.4.21 `ros::ServiceServer KnowrobWrapperCommunications::register_image_object_to_ontology_service_` [private]

Member variable holding the register\_image\_object\_to\_ontology ROS service topic

Definition at line 109 of file knowrob\_wrapper\_communications.h.

6.32.4.22 `std::string KnowrobWrapperCommunications::register_image_object_to_ontology_topic_` [private]

Definition at line 111 of file knowrob\_wrapper\_communications.h.

6.32.4.23 `ros::ServiceServer KnowrobWrapperCommunications::retract_user_ontology_alias_service_` [private]

Member variable holding the retract\_user\_ontology\_alias ROS service topic

Definition at line 104 of file knowrob\_wrapper\_communications.h.

6.32.4.24 `std::string KnowrobWrapperCommunications::retract_user_ontology_alias_topic_` [private]

The register\_image\_object\_to\_ontology service server

Definition at line 106 of file knowrob\_wrapper\_communications.h.

6.32.4.25 `ros::ServiceServer KnowrobWrapperCommunications::subclasses_of_service_` [private]

Member variable holding the subclasses\_of ROS service topic

Definition at line 38 of file knowrob\_wrapper\_communications.h.

6.32.4.26 `std::string KnowrobWrapperCommunications::subclasses_of_service_topic_` [private]

The superclasses\_of service server

Definition at line 41 of file knowrob\_wrapper\_communications.h.

6.32.4.27 `ros::ServiceServer KnowrobWrapperCommunications::superclasses_of_service_` [private]

Member variable holding the superclasses\_of ROS service topic

Definition at line 44 of file knowrob\_wrapper\_communications.h.

6.32.4.28 `std::string KnowrobWrapperCommunications::superclasses_of_service_topic_` [private]

The is\_subsuperclass service server

Definition at line 46 of file knowrob\_wrapper\_communications.h.

6.32.4.29 `ros::ServiceServer KnowrobWrapperCommunications::user_instances_of_class_service_` [private]

Member variable holding the user\_instances\_of\_class ROS service topic

Definition at line 69 of file knowrob\_wrapper\_communications.h.

6.32.4.30 `std::string KnowrobWrapperCommunications::user_instances_of_class_topic_` [private]

The create\_ontology\_alias service server

Definition at line 71 of file knowrob\_wrapper\_communications.h.

6.32.4.31 `ros::ServiceServer KnowrobWrapperCommunications::user_performance_cognitive_tests_service_` [private]

Member variable holding the user\_performance\_cognitive\_tests ROS service topic

Definition at line 79 of file knowrob\_wrapper\_communications.h.

6.32.4.32 `std::string KnowrobWrapperCommunications::user_performance_cognitive_tests_topic_` [private]

The create\_cognitive\_tests service server

Definition at line 81 of file knowrob\_wrapper\_communications.h.

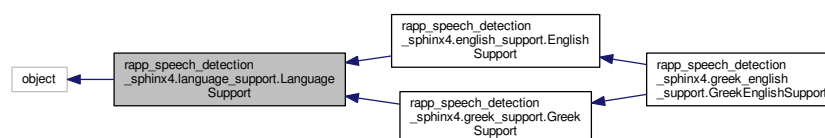
The documentation for this class was generated from the following files:

- [/home/travis/rapp\\_temp/rapp-platform/rapp-knowrob-wrapper/include/knowrob\\_wrapper/knowrob\\_wrapper\\_communications.h](/home/travis/rapp_temp/rapp-platform/rapp-knowrob-wrapper/include/knowrob_wrapper/knowrob_wrapper_communications.h)
- [/home/travis/rapp\\_temp/rapp-platform/rapp-knowrob-wrapper/src/knowrob\\_wrapper\\_communications.cpp](/home/travis/rapp_temp/rapp-platform/rapp-knowrob-wrapper/src/knowrob_wrapper_communications.cpp)

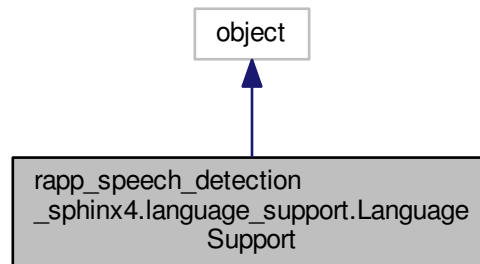
## 6.33 rapp\_speech\_detection\_sphinx4.language\_support.LanguageSupport Class Reference

Allows the creation of configuration files for Sphinx speech recognition.

Inheritance diagram for rapp\_speech\_detection\_sphinx4.language\_support.LanguageSupport:



Collaboration diagram for `rapp_speech_detection_sphinx4.language_support.LanguageSupport`:



## Public Member Functions

- `def \_\_init\_\_`  
*Performs initializations.*
- `def getGenericConfiguration`  
*Returns the Generic English Configuration.*
- `def getLimitedVocebularyConfiguration`  
*Computes the Limited English Configuration.*

## Private Attributes

- `\_generic\_sphinx\_configuration`  
*The generic Sphinx configuration.*
- `\_globalParams`  
*Contains global Sphinx parameters.*
- `\_vocabulary`  
*The limited vocabulary creator.*

### 6.33.1 Detailed Description

Allows the creation of configuration files for Sphinx speech recognition.

Definition at line 32 of file `language_support.py`.

### 6.33.2 Constructor & Destructor Documentation

#### 6.33.2.1 `def rapp_speech_detection_sphinx4.language_support.LanguageSupport.__init__( self )`

Performs initializations.

Definition at line 35 of file `language_support.py`.

### 6.33.3 Member Function Documentation

#### 6.33.3.1 `def rapp_speech_detection_sphinx4.language_support.LanguageSupport.getGenericConfiguration ( self )`

Returns the Generic English Configuration.

Returns

[\\_generic\\_sphinx\\_configuration](#) [dictionary] The Generic English configuration

Definition at line 84 of file `language_support.py`.

#### 6.33.3.2 `def rapp_speech_detection_sphinx4.language_support.LanguageSupport.getLimitedVocebularyConfiguration ( self, words, grammar, sentences )`

Computes the Limited English Configuration.

Parameters

<i>words</i>	[list::string] The set of words to be identified
<i>grammar</i>	[list::string] The Sphinx grammar parameter
<i>sentences</i>	[list::string] The Sphinx sentences parameter

Returns

`limited_sphinx_configuration` [dictionary] The Limited configuration  
`englified_to_lang_dict` [dictionary] A dictionary to transform the englified words to the words in the proper language

Definition at line 78 of file `language_support.py`.

### 6.33.4 Member Data Documentation

#### 6.33.4.1 `rapp_speech_detection_sphinx4.language_support.LanguageSupport._generic_sphinx_configuration` [private]

The generic Sphinx configuration.

Note

Check acoustic model!!

Definition at line 54 of file `language_support.py`.

#### 6.33.4.2 `rapp_speech_detection_sphinx4.language_support.LanguageSupport._globalParams` [private]

Contains global Sphinx parameters.

(see [global\\_parameters.GlobalParams](#))

Definition at line 39 of file `language_support.py`.

#### 6.33.4.3 `rapp_speech_detection_sphinx4.language_support.LanguageSupport._vocabulary` [private]

The limited vocabulary creator.

Instantiates [limited\\_vocabulary\\_creator.LimitedVocabularyCreator](#)

Definition at line 44 of file language\_support.py.

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

- [/home/travis/rapp\\_temp/rapp-platform/rapp\\_speech\\_detection\\_sphinx4/src/rapp\\_speech\\_detection\\_sphinx4/language-\\_support.py](#)

## 6.34 rapp\_speech\_detection\_sphinx4.limited\_vocabulary\_creator.LimitedVocabulary-Creator Class Reference

Creates temporary configuration files for the input limited vocabulary.

### Public Member Functions

- def [\\_\\_init\\_\\_](#)  
*Performs initializations.*
- def [createConfigurationFiles](#)  
*Creates temporary configuration files for the input limited vocabulary.*

### Private Attributes

- [\\_globalParams](#)  
*Contains global Sphinx parameters.*
- [\\_languages\\_package](#)  
*The temporary directory containing the configurations.*
- [\\_sphinx\\_configuration](#)  
*The default configuration.*

### 6.34.1 Detailed Description

Creates temporary configuration files for the input limited vocabulary.

Definition at line 35 of file limited\_vocabulary\_creator.py.

### 6.34.2 Constructor & Destructor Documentation

6.34.2.1 `def rapp_speech_detection_sphinx4.limited_vocabulary_creator.LimitedVocabularyCreator.__init__( self )`

Performs initializations.

Definition at line 38 of file limited\_vocabulary\_creator.py.

### 6.34.3 Member Function Documentation

6.34.3.1 `def rapp_speech_detection_sphinx4.limited_vocabulary_creator.LimitedVocabularyCreator.createConfigurationFiles ( self, words, grammar, sentences )`

Creates temporary configuration files for the input limited vocabulary.

The 'words' input argument is of the form: words = { 'word1\_en\_chars': [phonem1, phonem2,...], 'word2\_en\_chars': [phonem1, phonem2,...] ... }



## Parameters

<i>words</i>	[list::string] The set of words to be identified
<i>grammar</i>	[list::string] The Sphinx grammar parameter
<i>sentences</i>	[list::string] The Sphinx sentences parameter

## Returns

conf [dictionary] The final configuration  
 status [string] Either the error (string) or True (bool)

Definition at line 88 of file limited\_vocabulary\_creator.py.

### 6.34.4 Member Data Documentation

#### 6.34.4.1 rapp\_speech\_detection\_sphinx4.limited\_vocabulary\_creator.LimitedVocabularyCreator.\_globalParams [private]

Contains global Sphinx parameters.

(see [global\\_parameters.GlobalParams](#))

Definition at line 42 of file limited\_vocabulary\_creator.py.

#### 6.34.4.2 rapp\_speech\_detection\_sphinx4.limited\_vocabulary\_creator.LimitedVocabularyCreator.\_languages\_package [private]

The temporary directory containing the configurations.

Definition at line 50 of file limited\_vocabulary\_creator.py.

#### 6.34.4.3 rapp\_speech\_detection\_sphinx4.limited\_vocabulary\_creator.LimitedVocabularyCreator.\_sphinx\_configuration [private]

The default configuration.

Definition at line 58 of file limited\_vocabulary\_creator.py.

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

- /home/travis/rapp\_temp/rapp-platform/rapp\_speech\_detection\_sphinx4/src/rapp\_speech\_detection\_sphinx4/[limited\\_vocabulary\\_creator.py](#)

## 6.35 MapGenerator Class Reference

Map generation node.

### Public Member Functions

- [MapGenerator](#) (const std::string &mapname)
- void [mapCallback](#) (const nav\_msgs::OccupancyGridConstPtr &map)

### Public Attributes

- ros::Subscriber [map\\_sub\\_](#)

- `std::string mapname_`
- `bool saved_map_`

### 6.35.1 Detailed Description

Map generation node.

Definition at line 43 of file `map_saver.cpp`.

### 6.35.2 Constructor & Destructor Documentation

6.35.2.1 `MapGenerator::MapGenerator ( const std::string & mapname )` `[inline]`

Definition at line 47 of file `map_saver.cpp`.

### 6.35.3 Member Function Documentation

6.35.3.1 `void MapGenerator::mapCallback ( const nav_msgs::OccupancyGridConstPtr & map )` `[inline]`

Definition at line 54 of file `map_saver.cpp`.

### 6.35.4 Member Data Documentation

6.35.4.1 `ros::Subscriber MapGenerator::map_sub_`

Definition at line 119 of file `map_saver.cpp`.

6.35.4.2 `std::string MapGenerator::mapname_`

Definition at line 118 of file `map_saver.cpp`.

6.35.4.3 `bool MapGenerator::saved_map_`

Definition at line 120 of file `map_saver.cpp`.

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

- `/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_map_server/src/map\_saver.cpp`

## 6.36 MapServer Class Reference

### Public Member Functions

- `MapServer` (`std::string fname`)

### Private Member Functions

- `bool mapCallback` (`rapp_platform_ros_communications::MapServerGetMapRosSrv::Request &req`, `rapp_platform_ros_communications::MapServerGetMapRosSrv::Response &res`)
- `bool mapUploadCallback` (`rapp_platform_ros_communications::MapServerUploadMapRosSrv::Request &req`, `rapp_platform_ros_communications::MapServerUploadMapRosSrv::Response &res`)
- `bool updateMap` (`const std::string fname`, `double res`)

## Private Attributes

- bool [deprecated](#)
- std::string [fname](#)
- ros::ServiceServer [get\\_service](#)
- const char \* [homedir](#)
- ros::Publisher [map\\_pub](#)
- nav\_msgs::GetMap::Response [map\\_resp\\_](#)
- nav\_msgs::MapMetaData [meta\\_data\\_message\\_](#)
- ros::Publisher [metadata\\_pub](#)
- ros::NodeHandle [n](#)
- ros::ServiceServer [test\\_service](#)
- bool [upload\\_map\\_trigger](#)
- std::string [upload\\_map\\_trigger\\_name](#)
- ros::ServiceServer [upload\\_service](#)

### 6.36.1 Detailed Description

Definition at line 74 of file main.cpp.

### 6.36.2 Constructor & Destructor Documentation

#### 6.36.2.1 MapServer::MapServer ( std::string *fname* ) `[inline]`

Trivial constructor

Definition at line 78 of file main.cpp.

### 6.36.3 Member Function Documentation

#### 6.36.3.1 bool MapServer::mapCallback ( rapp\_platform\_ros\_communications::MapServerGetMapRosSrv::Request & *req*, rapp\_platform\_ros\_communications::MapServerGetMapRosSrv::Response & *res* ) `[inline]`, `[private]`

Callback invoked when someone requests our service

Definition at line 162 of file main.cpp.

#### 6.36.3.2 bool MapServer::mapUploadCallback ( rapp\_platform\_ros\_communications::MapServerUploadMapRosSrv::Request & *req*, rapp\_platform\_ros\_communications::MapServerUploadMapRosSrv::Response & *res* ) `[inline]`, `[private]`

Definition at line 121 of file main.cpp.

#### 6.36.3.3 bool MapServer::updateMap ( const std::string *fname*, double *res* ) `[inline]`, `[private]`

Definition at line 178 of file main.cpp.

### 6.36.4 Member Data Documentation

#### 6.36.4.1 bool MapServer::deprecated `[private]`

Definition at line 119 of file main.cpp.

#### 6.36.4.2 `std::string MapServer::fname` [private]

Definition at line 118 of file main.cpp.

#### 6.36.4.3 `ros::ServiceServer MapServer::get_service` [private]

Definition at line 117 of file main.cpp.

#### 6.36.4.4 `const char* MapServer::homedir` [private]

Definition at line 111 of file main.cpp.

#### 6.36.4.5 `ros::Publisher MapServer::map_pub` [private]

Definition at line 115 of file main.cpp.

#### 6.36.4.6 `nav_msgs::GetMap::Response MapServer::map_resp_` [private]

Definition at line 285 of file main.cpp.

#### 6.36.4.7 `nav_msgs::MapMetaData MapServer::meta_data_message_` [private]

The map data is cached here, to be sent out to service callers

Definition at line 284 of file main.cpp.

#### 6.36.4.8 `ros::Publisher MapServer::metadata_pub` [private]

Definition at line 116 of file main.cpp.

#### 6.36.4.9 `ros::NodeHandle MapServer::n` [private]

Definition at line 114 of file main.cpp.

#### 6.36.4.10 `ros::ServiceServer MapServer::test_service` [private]

Definition at line 117 of file main.cpp.

#### 6.36.4.11 `bool MapServer::upload_map_trigger` [private]

Definition at line 113 of file main.cpp.

#### 6.36.4.12 `std::string MapServer::upload_map_trigger_name` [private]

Definition at line 112 of file main.cpp.

## 6.36.4.13 ros::ServiceServer MapServer::upload\_service [private]

Definition at line 117 of file main.cpp.

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

- /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_map\_server/src/main.cpp

## 6.37 mysql\_wrapper\_old.MySQLdbWrapper Class Reference

The mysql wrapper ros node.

### Public Member Functions

- def [\\_\\_init\\_\\_](#)  
*Default constructor.*
- def [authTokenByService](#)
- def [authTokenByServiceDataHandler](#)  
*The authTokenByService service callback.*
- def [checkConnection](#)  
*Checks connectivity to the DB.*
- def [constructAndQuery](#)  
*Constructs the where= ..and where=...*
- def [constructCommaColumns](#)  
*Places commas between columns and constructs a string.*
- def [deleteData](#)  
*Implements the general delete data from table function.*
- def [fetchData](#)  
*Implements the general fetch data from table function.*
- def [getLogin](#)  
*Loads login details from file.*
- def [getTableColumnNames](#)  
*Gets the columns of the table.*
- def [tblAppsRobotsDeleteDataHandler](#)  
*The tbl appsRobots delete data service callback.*
- def [tblAppsRobotsFetchDataHandler](#)  
*The tbl appsRobots fetch data service callback.*
- def [tblAppsRobotsUpdateDataHandler](#)  
*The tbl appsRobots update data service callback.*
- def [tblAppsRobotsWriteDataHandler](#)  
*The tbl appsRobots write data service callback.*
- def [tblCloudAgentDeleteDataHandler](#)  
*The tbl cloud\_agent delete data service callback.*
- def [tblCloudAgentFetchDataHandler](#)  
*The tbl cloud\_agent fetch data service callback.*
- def [tblCloudAgentServiceArgumentsDeleteDataHandler](#)  
*The tbl cloud\_agent\_service\_arguments delete data service callback.*
- def [tblCloudAgentServiceArgumentsFetchDataHandler](#)  
*The tbl cloud\_agent\_service\_arguments fetch data service callback.*
- def [tblCloudAgentServiceArgumentsUpdateDataHandler](#)  
*The tbl cloud\_agent\_service\_arguments update data service callback.*

- def [tblCloudAgentServiceArgumentsWriteDataHandler](#)  
*The tbl cloud\_agent\_service\_arguments write data service callback.*
- def [tblCloudAgentServiceDeleteDataHandler](#)  
*The tbl cloud\_agent\_service delete data service callback.*
- def [tblCloudAgentServiceFetchDataHandler](#)  
*The tbl cloud\_agent\_service fetch data service callback.*
- def [tblCloudAgentServiceUpdateDataHandler](#)  
*The tbl cloud\_agent\_service update data service callback.*
- def [tblCloudAgentServiceWriteDataHandler](#)  
*The tbl cloud\_agent\_service write data service callback.*
- def [tblCloudAgentUpdateDataHandler](#)  
*The tbl cloud\_agent update data service callback.*
- def [tblCloudAgentWriteDataHandler](#)  
*The tbl cloud\_agent write data service callback.*
- def [tblModelDeleteDataHandler](#)  
*The tbl model delete data service callback.*
- def [tblModelFetchDataHandler](#)  
*The tbl model fetch data service callback.*
- def [tblModelUpdateDataHandler](#)  
*The tbl model update data service callback.*
- def [tblModelWriteDataHandler](#)  
*The tbl model write data service callback.*
- def [tblRappDeleteDataHandler](#)  
*The tbl rapp delete data service callback.*
- def [tblRappFetchDataHandler](#)  
*The tbl rapp fetch data service callback.*
- def [tblRappUpdateDataHandler](#)  
*The tbl rapp update data service callback.*
- def [tblRappWriteDataHandler](#)  
*The tbl rapp write data service callback.*
- def [tblRobotDeleteDataHandler](#)  
*The tbl robot delete data service callback.*
- def [tblRobotFetchDataHandler](#)  
*The tbl robot fetch data service callback.*
- def [tblRobotUpdateDataHandler](#)  
*The tbl robot update data service callback.*
- def [tblRobotWriteDataHandler](#)  
*The tbl robot write data service callback.*
- def [tblUserDeleteDataHandler](#)  
*The tbl user delete data service callback.*
- def [tblUserFetchDataHandler](#)  
*The tbl user fetch data service callback.*
- def [tblUsersOntologyInstancesDeleteDataHandler](#)  
*The tbl usersOntologyInstances delete data service callback.*
- def [tblUsersOntologyInstancesFetchDataHandler](#)  
*The tbl usersOntologyInstances fetch data service callback.*
- def [tblUsersOntologyInstancesUpdateDataHandler](#)  
*The tbl usersOntologyInstances update data service callback.*
- def [tblUsersOntologyInstancesWriteDataHandler](#)  
*The tbl usersOntologyInstances write data service callback.*
- def [tblUserUpdateDataHandler](#)

- The tbl user update data service callback.*

  - def [tblUserWriteDataHandler](#)

*The tbl user write data service callback.*
- def [updateData](#)

*Implements the general update data from table function.*
- def [viewUsersRobotsAppsFetchDataHandler](#)

*The view usersRobotsApps fetch data service callback.*
- def [whatRappsCanRun](#)

*Implements the whatRappsCanRun service.*
- def [whatRappsCanRunDataHandler](#)

*The what rappRappCanRun service callback.*
- def [writeData](#)

*Implements the general write data to table function.*

## Public Attributes

- [serv](#)
- [serv\\_topic](#)

### 6.37.1 Detailed Description

The mysql wrapper ros node.

Definition at line 49 of file mysql\_wrapper\_old.py.

### 6.37.2 Constructor & Destructor Documentation

#### 6.37.2.1 `def mysql_wrapper_old.MySQLdbWrapper.__init__( self )`

Default constructor.

Declares the callbacks of the node's services

Definition at line 54 of file mysql\_wrapper\_old.py.

### 6.37.3 Member Function Documentation

#### 6.37.3.1 `def mysql_wrapper_old.MySQLdbWrapper.authTokenByService( self, req )`

Definition at line 418 of file mysql\_wrapper\_old.py.

#### 6.37.3.2 `def mysql_wrapper_old.MySQLdbWrapper.authTokenByServiceDataHandler( self, req )`

The authTokenByService service callback.

Parameters

<i>req</i>	[rapp_platform_ros_communications::authTokenByServiceSrvResponse::Request&] The R-OS service request
------------	--

<i>res</i>	[rapp_platform_ros_communications::authTokenByServiceSrvRequest::Response&] The R-OS service response
------------	---

Definition at line 738 of file mysql\_wrapper\_old.py.

#### 6.37.3.3 def mysql\_wrapper\_old.MySQLdbWrapper.checkConnection ( *self* )

Checks connectivity to the DB.

##### Returns

[ void ] Connection performed successfully

Definition at line 515 of file mysql\_wrapper\_old.py.

#### 6.37.3.4 def mysql\_wrapper\_old.MySQLdbWrapper.constructAndQuery ( *self*, *cols* )

Construcs the where= ..and where=...

clause

##### Parameters

<i>cols</i>	[list] the columns needed to construct the clause
-------------	---

##### Returns

returnquery [string] the And clause

Definition at line 474 of file mysql\_wrapper\_old.py.

#### 6.37.3.5 def mysql\_wrapper\_old.MySQLdbWrapper.constructCommaColumns ( *self*, *cols* )

Places commas between columns and constructs a string.

##### Parameters

<i>cols</i>	[list] the input columns
-------------	--------------------------

##### Returns

returncols [string] the output string

Definition at line 456 of file mysql\_wrapper\_old.py.

#### 6.37.3.6 def mysql\_wrapper\_old.MySQLdbWrapper.deleteData ( *self*, *req*, *tblName* )

Implements the general delete data from table function.

##### Parameters

<i>req</i>	[rapp_platform_ros_communications::deleteDataSrvRequest::Request&] The ROS service request
<i>tblName</i>	[string] the table name
<i>res</i>	[rapp_platform_ros_communications::deleteDataSrvResponse::Response&] The ROS service response

Definition at line 276 of file mysql\_wrapper\_old.py.



6.37.3.7 `def mysql_wrapper_old.MySQLdbWrapper.fetchData ( self, req, tblName )`

Implements the general fetch data from table function.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::fetchDataSrvRequest::Request&] The ROS service request
<i>tblName</i>	[string] the table name
<i>res</i>	[rapp_platform_ros_communications::fetchDataSrvResponse::Response&] The ROS service response

Definition at line 342 of file mysql\_wrapper\_old.py.

#### 6.37.3.8 `def mysql_wrapper_old.MySQLdbWrapper.getLogin ( self )`

Loads login details from file.

**Returns**

[ void ] Login details loaded successfully

Definition at line 505 of file mysql\_wrapper\_old.py.

#### 6.37.3.9 `def mysql_wrapper_old.MySQLdbWrapper.getTableColumnNames ( self, tblName )`

Gets the columns of the table.

**Returns**

Columns [list] the columns of the table

Definition at line 489 of file mysql\_wrapper\_old.py.

#### 6.37.3.10 `def mysql_wrapper_old.MySQLdbWrapper.tblAppsRobotsDeleteDataHandler ( self, req )`

The tbl appsRobots delete data service callback.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::deleteDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::deleteDataSrvResponse::Response&] The ROS service response

Definition at line 674 of file mysql\_wrapper\_old.py.

#### 6.37.3.11 `def mysql_wrapper_old.MySQLdbWrapper.tblAppsRobotsFetchDataHandler ( self, req )`

The tbl appsRobots fetch data service callback.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::fetchDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::fetchDataSrvResponse::Response&] The ROS service response

Definition at line 658 of file mysql\_wrapper\_old.py.

#### 6.37.3.12 `def mysql_wrapper_old.MySQLdbWrapper.tblAppsRobotsUpdateDataHandler ( self, req )`

The tbl appsRobots update data service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::updateDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::updateDataSrvResponse::Response&] The ROS service response

Definition at line 682 of file mysql\_wrapper\_old.py.

#### 6.37.3.13 def mysql\_wrapper\_old.MySQLdbWrapper.tblAppsRobotsWriteDataHandler ( *self*, *req* )

The tbl appsRobots write data service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::writeDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::writeDataSrvResponse::Response&] The ROS service response

Definition at line 666 of file mysql\_wrapper\_old.py.

#### 6.37.3.14 def mysql\_wrapper\_old.MySQLdbWrapper.tblCloudAgentDeleteDataHandler ( *self*, *req* )

The tbl cloud\_agent delete data service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::deleteDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::deleteDataSrvResponse::Response&] The ROS service response

Definition at line 764 of file mysql\_wrapper\_old.py.

#### 6.37.3.15 def mysql\_wrapper\_old.MySQLdbWrapper.tblCloudAgentFetchDataHandler ( *self*, *req* )

The tbl cloud\_agent fetch data service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::fetchDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::fetchDataSrvResponse::Response&] The ROS service response

Definition at line 748 of file mysql\_wrapper\_old.py.

#### 6.37.3.16 def mysql\_wrapper\_old.MySQLdbWrapper.tblCloudAgentServiceArgumentsDeleteDataHandler ( *self*, *req* )

The tbl cloud\_agent\_service\_arguments delete data service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::deleteDataSrvRequest::Request&] The ROS service request
------------	--

<i>res</i>	[rapp_platform_ros_communications::deleteDataSrvResponse::Response&] The ROS service response
------------	---

Definition at line 828 of file mysql\_wrapper\_old.py.

#### 6.37.3.17 `def mysql_wrapper_old.MySQLdbWrapper.tblCloudAgentServiceArgumentsFetchDataHandler ( self, req )`

The tbl cloud\_agent\_service\_arguments fetch data service callback.

##### Parameters

<i>req</i>	[rapp_platform_ros_communications::fetchDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::fetchDataSrvResponse::Response&] The ROS service response

Definition at line 812 of file mysql\_wrapper\_old.py.

#### 6.37.3.18 `def mysql_wrapper_old.MySQLdbWrapper.tblCloudAgentServiceArgumentsUpdateDataHandler ( self, req )`

The tbl cloud\_agent\_service\_arguments update data service callback.

##### Parameters

<i>req</i>	[rapp_platform_ros_communications::updateDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::updateDataSrvResponse::Response&] The ROS service response

Definition at line 836 of file mysql\_wrapper\_old.py.

#### 6.37.3.19 `def mysql_wrapper_old.MySQLdbWrapper.tblCloudAgentServiceArgumentsWriteDataHandler ( self, req )`

The tbl cloud\_agent\_service\_arguments write data service callback.

##### Parameters

<i>req</i>	[rapp_platform_ros_communications::writeDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::writeDataResponse::Response&] The ROS service response

Definition at line 820 of file mysql\_wrapper\_old.py.

#### 6.37.3.20 `def mysql_wrapper_old.MySQLdbWrapper.tblCloudAgentServiceDeleteDataHandler ( self, req )`

The tbl cloud\_agent\_service delete data service callback.

##### Parameters

<i>req</i>	[rapp_platform_ros_communications::deleteDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::deleteDataSrvResponse::Response&] The ROS service response

Definition at line 796 of file mysql\_wrapper\_old.py.

6.37.3.21 `def mysql_wrapper_old.MySQLdbWrapper.tblCloudAgentServiceFetchDataHandler ( self, req )`

The tbl cloud\_agent\_service fetch data service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::fetchDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::fetchDataSrvResponse::Response&] The ROS service response

Definition at line 780 of file mysql\_wrapper\_old.py.

### 6.37.3.22 `def mysql_wrapper_old.MySQLdbWrapper.tblCloudAgentServiceUpdateDataHandler ( self, req )`

The tbl cloud\_agent\_service update data service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::updateDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::updateDataSrvResponse::Response&] The ROS service response

Definition at line 804 of file mysql\_wrapper\_old.py.

### 6.37.3.23 `def mysql_wrapper_old.MySQLdbWrapper.tblCloudAgentServiceWriteDataHandler ( self, req )`

The tbl cloud\_agent\_service write data service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::writeDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::writeDataResponse::Response&] The ROS service response

Definition at line 788 of file mysql\_wrapper\_old.py.

### 6.37.3.24 `def mysql_wrapper_old.MySQLdbWrapper.tblCloudAgentUpdateDataHandler ( self, req )`

The tbl cloud\_agent update data service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::updateDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::updateDataSrvResponse::Response&] The ROS service response

Definition at line 772 of file mysql\_wrapper\_old.py.

### 6.37.3.25 `def mysql_wrapper_old.MySQLdbWrapper.tblCloudAgentWriteDataHandler ( self, req )`

The tbl cloud\_agent write data service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::writeDataSrvRequest::Request&] The ROS service request
------------	---

<i>res</i>	[rapp_platform_ros_communications::writeDataResponse::Response&] The ROS service response
------------	---

Definition at line 756 of file mysql\_wrapper\_old.py.

#### 6.37.3.26 def mysql\_wrapper\_old.MySQLdbWrapper.tblModelDeleteDataHandler ( *self*, *req* )

The tbl model delete data service callback.

Parameters

<i>req</i>	[rapp_platform_ros_communications::deleteDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::deleteDataSrvResponse::Response&] The ROS service response

Definition at line 578 of file mysql\_wrapper\_old.py.

#### 6.37.3.27 def mysql\_wrapper\_old.MySQLdbWrapper.tblModelFetchDataHandler ( *self*, *req* )

The tbl model fetch data service callback.

Parameters

<i>req</i>	[rapp_platform_ros_communications::fetchDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::fetchDataSrvResponse::Response&] The ROS service response

Definition at line 562 of file mysql\_wrapper\_old.py.

#### 6.37.3.28 def mysql\_wrapper\_old.MySQLdbWrapper.tblModelUpdateDataHandler ( *self*, *req* )

The tbl model update data service callback.

Parameters

<i>req</i>	[rapp_platform_ros_communications::updateDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::updateDataSrvResponse::Response&] The ROS service response

Definition at line 586 of file mysql\_wrapper\_old.py.

#### 6.37.3.29 def mysql\_wrapper\_old.MySQLdbWrapper.tblModelWriteDataHandler ( *self*, *req* )

The tbl model write data service callback.

Parameters

<i>req</i>	[rapp_platform_ros_communications::writeDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::writeDataSrvResponse::Response&] The ROS service response

Definition at line 570 of file mysql\_wrapper\_old.py.

#### 6.37.3.30 def mysql\_wrapper\_old.MySQLdbWrapper.tblRappDeleteDataHandler ( *self*, *req* )

The tbl rapp delete data service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::deleteDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::deleteDataSrvResponse::Response&] The ROS service response

Definition at line 610 of file mysql\_wrapper\_old.py.

6.37.3.31 `def mysql_wrapper_old.MySQLdbWrapper.tblRappFetchDataHandler ( self, req )`

The tbl rapp fetch data service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::fetchDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::fetchDataSrvResponse::Response&] The ROS service response

Definition at line 594 of file mysql\_wrapper\_old.py.

6.37.3.32 `def mysql_wrapper_old.MySQLdbWrapper.tblRappUpdateDataHandler ( self, req )`

The tbl rapp update data service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::updateDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::updateDataSrvResponse::Response&] The ROS service response

Definition at line 618 of file mysql\_wrapper\_old.py.

6.37.3.33 `def mysql_wrapper_old.MySQLdbWrapper.tblRappWriteDataHandler ( self, req )`

The tbl rapp write data service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::writeDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::writeDataResponse::Response&] The ROS service response

Definition at line 602 of file mysql\_wrapper\_old.py.

6.37.3.34 `def mysql_wrapper_old.MySQLdbWrapper.tblRobotDeleteDataHandler ( self, req )`

The tbl robot delete data service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::deleteDataSrvRequest::Request&] The ROS service request
------------	--



<i>res</i>	[rapp_platform_ros_communications::deleteDataSrvResponse::Response&] The ROS service response
------------	---

Definition at line 642 of file mysql\_wrapper\_old.py.

#### 6.37.3.35 def mysql\_wrapper\_old.MySQLdbWrapper.tblRobotFetchDataHandler ( *self*, *req* )

The tbl robot fetch data service callback.

Parameters

<i>req</i>	[rapp_platform_ros_communications::fetchDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::fetchDataSrvResponse::Response&] The ROS service response

Definition at line 626 of file mysql\_wrapper\_old.py.

#### 6.37.3.36 def mysql\_wrapper\_old.MySQLdbWrapper.tblRobotUpdateDataHandler ( *self*, *req* )

The tbl robot update data service callback.

Parameters

<i>req</i>	[rapp_platform_ros_communications::updateDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::updateDataSrvResponse::Response&] The ROS service response

Definition at line 650 of file mysql\_wrapper\_old.py.

#### 6.37.3.37 def mysql\_wrapper\_old.MySQLdbWrapper.tblRobotWriteDataHandler ( *self*, *req* )

The tbl robot write data service callback.

Parameters

<i>req</i>	[rapp_platform_ros_communications::writeDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::writeDataResponse::Response&] The ROS service response

Definition at line 634 of file mysql\_wrapper\_old.py.

#### 6.37.3.38 def mysql\_wrapper\_old.MySQLdbWrapper.tblUserDeleteDataHandler ( *self*, *req* )

The tbl user delete data service callback.

Parameters

<i>req</i>	[rapp_platform_ros_communications::deleteDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::deleteDataSrvResponse::Response&] The ROS service response

Definition at line 546 of file mysql\_wrapper\_old.py.

#### 6.37.3.39 def mysql\_wrapper\_old.MySQLdbWrapper.tblUserFetchDataHandler ( *self*, *req* )

The tbl user fetch data service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::fetchDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::fetchDataSrvResponse::Response&] The ROS service response

Definition at line 530 of file mysql\_wrapper\_old.py.

6.37.3.40 `def mysql_wrapper_old.MySQLdbWrapper.tblUsersOntologyInstancesDeleteDataHandler ( self, req )`

The tbl usersOntologyInstances delete data service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::deleteDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::deleteDataSrvResponse::Response&] The ROS service response

Definition at line 706 of file mysql\_wrapper\_old.py.

6.37.3.41 `def mysql_wrapper_old.MySQLdbWrapper.tblUsersOntologyInstancesFetchDataHandler ( self, req )`

The tbl usersOntologyInstances fetch data service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::fetchDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::fetchDataSrvResponse::Response&] The ROS service response

Definition at line 690 of file mysql\_wrapper\_old.py.

6.37.3.42 `def mysql_wrapper_old.MySQLdbWrapper.tblUsersOntologyInstancesUpdateDataHandler ( self, req )`

The tbl usersOntologyInstances update data service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::updateDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::updateDataSrvResponse::Response&] The ROS service response

Definition at line 714 of file mysql\_wrapper\_old.py.

6.37.3.43 `def mysql_wrapper_old.MySQLdbWrapper.tblUsersOntologyInstancesWriteDataHandler ( self, req )`

The tbl usersOntologyInstances write data service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::writeDataSrvRequest::Request&] The ROS service request
------------	---

<i>res</i>	[rapp_platform_ros_communications::writeDataResponse::Response&] The ROS service response
------------	---

Definition at line 698 of file mysql\_wrapper\_old.py.

#### 6.37.3.44 def mysql\_wrapper\_old.MySQLdbWrapper.tblUserUpdateDataHandler ( *self*, *req* )

The tbl user update data service callback.

##### Parameters

<i>req</i>	[rapp_platform_ros_communications::updateDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::updateDataSrvResponse::Response&] The ROS service response

Definition at line 554 of file mysql\_wrapper\_old.py.

#### 6.37.3.45 def mysql\_wrapper\_old.MySQLdbWrapper.tblUserWriteDataHandler ( *self*, *req* )

The tbl user write data service callback.

##### Parameters

<i>req</i>	[rapp_platform_ros_communications::writeDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::writeDataResponse::Response&] The ROS service response

Definition at line 538 of file mysql\_wrapper\_old.py.

#### 6.37.3.46 def mysql\_wrapper\_old.MySQLdbWrapper.updateData ( *self*, *req*, *tblName* )

Implements the general update data from table function.

##### Parameters

<i>req</i>	[rapp_platform_ros_communications::updateDataSrvRequest::Request&] The ROS service request
<i>tblName</i>	[string] the table name
<i>res</i>	[rapp_platform_ros_communications::updateDataSrvResponse::Response&] The ROS service response

Definition at line 308 of file mysql\_wrapper\_old.py.

#### 6.37.3.47 def mysql\_wrapper\_old.MySQLdbWrapper.viewUsersRobotsAppsFetchDataHandler ( *self*, *req* )

The view usersRobotsApps fetch data service callback.

##### Parameters

<i>req</i>	[rapp_platform_ros_communications::fetchDataSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::fetchDataSrvResponse::Response&] The ROS service response

Definition at line 722 of file mysql\_wrapper\_old.py.

6.37.3.48 `def mysql_wrapper_old.MySQLdbWrapper.whatRappsCanRun ( self, req, tblName )`

Implements the whatRappsCanRun service.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::whatRappsCanRunSrvResponse::Request&] The ROS service request
<i>tblName</i>	[string] the table name
<i>res</i>	[rapp_platform_ros_communications::whatRappsCanRunSrvResponse::Response&] The ROS service response

Definition at line 386 of file mysql\_wrapper\_old.py.

6.37.3.49 `def mysql_wrapper_old.MySQLdbWrapper.whatRappsCanRunDataHandler ( self, req )`

The what rappRappCanRun service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::whatRappsCanRunSrvResponse::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::whatRappsCanRunSrvRequest::Response&] The ROS service response

Definition at line 730 of file mysql\_wrapper\_old.py.

6.37.3.50 `def mysql_wrapper_old.MySQLdbWrapper.writeData ( self, req, tblName )`

Implements the general write data to table function.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::writeDataSrvRequest::Request&] The ROS service request
<i>tblName</i>	[string] the table name
<i>res</i>	[rapp_platform_ros_communications::writeDataResponse::Response&] The ROS service response

Definition at line 233 of file mysql\_wrapper\_old.py.

## 6.37.4 Member Data Documentation

6.37.4.1 `mysql_wrapper_old.MySQLdbWrapper.serv`

Definition at line 59 of file mysql\_wrapper\_old.py.

6.37.4.2 `mysql_wrapper_old.MySQLdbWrapper.serv_topic`

Definition at line 56 of file mysql\_wrapper\_old.py.

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

- [/home/travis/rapp\\_temp/rapp-platform/rapp\\_mysql\\_wrapper/src/mysql\\_wrapper\\_old.py](#)

## 6.38 mysql\_wrapper.MySQLdbWrapper Class Reference

The mysql wrapper ros node.

## Public Member Functions

- def [`\_\_init\_\_`](#)  
*Default constructor.*
- def [`addStoreTokenToDevice`](#)  
*Implements the `addStoreTokenToDevice` service main function.*
- def [`addStoreTokenToDeviceDataHandler`](#)  
*The `addStoreTokenToDeviceSrv` service callback.*
- def [`checkActiveApplicationToken`](#)  
*Implements the `checkActiveRobotSession` service main function.*
- def [`checkActiveApplicationTokenDataHandler`](#)  
*The `checkActiveApplicationTokenSrv` service callback.*
- def [`checkActiveRobotSession`](#)  
*Implements the `checkActiveRobotSession` service main function.*
- def [`checkActiveRobotSessionDataHandler`](#)  
*The `checkActiveRobotSessionSrv` service callback.*
- def [`checkConnection`](#)  
*Checks connectivity to the DB.*
- def [`checkIfUserExists`](#)  
*Implements the `checkIfUserExists` service main function.*
- def [`checkIfUserExistsDataHandler`](#)  
*The `checkIfUserExistsSrv` service callback.*
- def [`createNewApplicationToken`](#)  
*Implements the `createNewApplicationToken` service main function.*
- def [`createNewApplicationTokenDataHandler`](#)  
*The `createNewApplicationTokenSrv` service callback.*
- def [`createNewCloudAgent`](#)  
*Implements the `createNewCloudAgent` service main function.*
- def [`createNewCloudAgentDataHandler`](#)  
*The `createNewCloudAgentSrv` service callback.*
- def [`createNewCloudAgentService`](#)  
*Implements the `createNewCloudAgentService` service main function.*
- def [`createNewCloudAgentServiceDataHandler`](#)  
*The `createNewCloudAgentServiceSrv` service callback.*
- def [`createNewPlatformUser`](#)  
*Implements the `createNewPlatformUser` service main function.*
- def [`createNewPlatformUserDataHandler`](#)  
*The `createNewPlatformUserSrv` service callback.*
- def [`getCloudAgentServiceTypeAndHostPort`](#)  
*Implements the `getCloudAgentServiceTypeAndHostPort` service main function.*
- def [`getCloudAgentServiceTypeAndHostPortDataHandler`](#)  
*The `getCloudAgentServiceTypeAndHostPortSrv` service callback.*
- def [`getLogin`](#)  
*Loads login details from file.*
- def [`getTableColumnNames`](#)  
*Gets the columns of the table.*
- def [`getUserLanguage`](#)  
*Implements the `getUserLanguage` service main function.*
- def [`getUserLanguageDataHandler`](#)  
*The `getUserLanguage` service callback.*
- def [`getUsernameAssociatedWithApplicationToken`](#)

- Implements the getUsernameAssociatedWithApplicationToken service main function.*

  - def [getUsernameAssociatedWithApplicationTokenDataHandler](#)  
*The getUsernameAssociatedWithApplicationTokenSrv service callback.*
- def [getUserOntologyAlias](#)  
*Implements the getUserOntologyAlias service main function.*

  - def [getUserOntologyAliasDataHandler](#)  
*The getUserOntologyAlias service callback.*
- def [getUserPassword](#)  
*Implements the getUserPassword service main function.*

  - def [getUserPasswordDataHandler](#)  
*The getUserPasswordSrv service callback.*
- def [registerNewTokenDataHandler](#)  
*The registerNewTokenSrv service callback.*
- def [registerUserOntologyAlias](#)  
*Implements the registerUserOntologyAlias service main function.*

  - def [registerUserOntologyAliasDataHandler](#)  
*The registerUserOntologyAliasSrv service callback.*
- def [removePlatformUser](#)  
*Implements the removePlatformUser service main function.*

  - def [removePlatformUserDataHandler](#)  
*The removePlatformUserSrv service callback.*
- def [validateExistingPlatformDeviceToken](#)  
*Implements the validateExistingPlatformDeviceToken service main function.*

  - def [validateExistingPlatformDeviceTokenDataHandler](#)  
*The validateExistingPlatformDeviceTokenSrv service callback.*
- def [validateUserRole](#)  
*Implements the validateUserRole service main function.*

  - def [validateUserRoleDataHandler](#)  
*The validateUserRoleSrv service callback.*

## Public Attributes

- [serv](#)
- [serv\\_topic](#)

### 6.38.1 Detailed Description

The mysql wrapper ros node.

Definition at line 79 of file mysql\_wrapper.py.

### 6.38.2 Constructor & Destructor Documentation

#### 6.38.2.1 def mysql\_wrapper.MySQLdbWrapper.\_\_init\_\_( self )

Default contructor.

Declares the callbacks of the node's services

Definition at line 84 of file mysql\_wrapper.py.

### 6.38.3 Member Function Documentation

#### 6.38.3.1 `def mysql_wrapper.MySQLdbWrapper.addStoreTokenToDevice ( self, req )`

Implements the addStoreTokenToDevice service main function.



## Parameters

<i>req</i>	[rapp_platform_ros_communications::addStoreTokenToDeviceSrvRequest::Request&] The ROS service request
------------	---

## Returns

res [rapp\_platform\_ros\_communications::addStoreTokenToDeviceSrvResponse::Response&] The ROS service response

## Exceptions

<i>Exception</i>	IndexError
<i>Exception</i>	IOError
<i>Exception</i>	mdbError

Definition at line 507 of file mysql\_wrapper.py.

### 6.38.3.2 def mysql\_wrapper.MySQLdbWrapper.addStoreTokenToDeviceDataHandler ( *self*, *req* )

The addStoreTokenToDeviceSrv service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::addStoreTokenToDeviceSrvRequest::Request&] The ROS service request
------------	---

## Returns

res [rapp\_platform\_ros\_communications::addStoreTokenToDeviceSrvResponse::Response&] The ROS service response

Definition at line 924 of file mysql\_wrapper.py.

### 6.38.3.3 def mysql\_wrapper.MySQLdbWrapper.checkActiveApplicationToken ( *self*, *req* )

Implements the checkActiveRobotSession service main function.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::checkActiveRobotSessionSrvRequest::Request&] The ROS service request
------------	---

## Returns

res [rapp\_platform\_ros\_communications::checkActiveRobotSessionSrvResponse::Response&] The ROS service response

## Exceptions

<i>Exception</i>	IndexError
<i>Exception</i>	IOError
<i>Exception</i>	mdbError

Definition at line 613 of file mysql\_wrapper.py.

### 6.38.3.4 def mysql\_wrapper.MySQLdbWrapper.checkActiveApplicationTokenDataHandler ( *self*, *req* )

The checkActiveApplicationTokenSrv service callback.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::checkActiveApplicationTokenSrvResponse::Request&] The ROS service request
------------	--

**Returns**

res [rapp\_platform\_ros\_communications::checkActiveApplicationTokenSrvRequest::Response&] The ROS service response

Definition at line 908 of file mysql\_wrapper.py.

### 6.38.3.5 def mysql\_wrapper.MySQLdbWrapper.checkActiveRobotSession ( self, req )

Implements the checkActiveRobotSession service main function.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::checkActiveRobotSessionSrvRequest::Request&] The ROS service request
------------	---

**Returns**

res [rapp\_platform\_ros\_communications::checkActiveRobotSessionSrvResponse::Response&] The ROS service response

**Exceptions**

<i>Exception</i>	IndexError
<i>Exception</i>	IOError
<i>Exception</i>	mdbError

Definition at line 576 of file mysql\_wrapper.py.

### 6.38.3.6 def mysql\_wrapper.MySQLdbWrapper.checkActiveRobotSessionDataHandler ( self, req )

The checkActiveRobotSessionSrv service callback.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::checkActiveRobotSessionSrvRequest::Request&] The ROS service request
------------	---

**Returns**

res [rapp\_platform\_ros\_communications::checkActiveRobotSessionSrvResponse::Response&] The ROS service response

Definition at line 916 of file mysql\_wrapper.py.

### 6.38.3.7 def mysql\_wrapper.MySQLdbWrapper.checkConnection ( self )

Checks connectivity to the DB.

**Returns**

[ void ] Connection performed successfully

Definition at line 821 of file mysql\_wrapper.py.

6.38.3.8 `def mysql_wrapper.MySQLdbWrapper.checkIfUserExists ( self, req )`

Implements the checkIfUserExists service main function.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::checkIfUserExistsSrvRequest::Request&] The ROS service request
------------	---

**Returns**

res [rapp\_platform\_ros\_communications::checkIfUserExistsSrvResponse::Response&] The ROS service response

**Exceptions**

<i>Exception</i>	IndexError
<i>Exception</i>	IOError
<i>Exception</i>	mdbError

Definition at line 291 of file mysql\_wrapper.py.

6.38.3.9 `def mysql_wrapper.MySQLdbWrapper.checkIfUserExistsDataHandler ( self, req )`

The checkIfUserExistsSrv service callback.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::checkIfUserExistsSrvResponse::Request&] The ROS service request
------------	--

**Returns**

res [rapp\_platform\_ros\_communications::checkIfUserExistsSrvRequest::Response&] The ROS service response

Definition at line 868 of file mysql\_wrapper.py.

6.38.3.10 `def mysql_wrapper.MySQLdbWrapper.createNewApplicationToken ( self, req )`

Implements the createNewApplicationToken service main function.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::createNewApplicationTokenSrvRequest::Request&] The ROS service request
------------	--

**Returns**

res [rapp\_platform\_ros\_communications::createNewApplicationTokenSrvResponse::Response&] The ROS service response

**Exceptions**

<i>Exception</i>	IndexError
<i>Exception</i>	IOError
<i>Exception</i>	mdbError

Definition at line 472 of file mysql\_wrapper.py.

6.38.3.11 `def mysql_wrapper.MySQLdbWrapper.createNewApplicationTokenDataHandler ( self, req )`

The createNewApplicationTokenSrv service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::createNewApplicationTokenSrvResponse::Request&] The ROS service request
------------	--

## Returns

res [rapp\_platform\_ros\_communications::createNewApplicationTokenSrvRequest::Response&] The ROS service response

Definition at line 900 of file mysql\_wrapper.py.

#### 6.38.3.12 def mysql\_wrapper.MySQLdbWrapper.createNewCloudAgent ( self, req )

Implements the createNewCloudAgent service main function.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::createNewCloudAgentSrvRequest::Request&] The ROS service request
------------	---

## Returns

res [rapp\_platform\_ros\_communications::createNewCloudAgentSrvResponse::Response&] The ROS service response

## Exceptions

<i>Exception</i>	IndexError
<i>Exception</i>	IOError
<i>Exception</i>	mdbError

Definition at line 688 of file mysql\_wrapper.py.

#### 6.38.3.13 def mysql\_wrapper.MySQLdbWrapper.createNewCloudAgentDataHandler ( self, req )

The createNewCloudAgentSrv service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::createNewCloudAgentSrvRequest::Request&] The ROS service request
------------	---

## Returns

res [rapp\_platform\_ros\_communications::createNewCloudAgentSrvResponse::Response&] The ROS service response

Definition at line 956 of file mysql\_wrapper.py.

#### 6.38.3.14 def mysql\_wrapper.MySQLdbWrapper.createNewCloudAgentService ( self, req )

Implements the createNewCloudAgentService service main function.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::createNewCloudAgentServiceSrvRequest::Request& The ROS service request
------------	--

**Returns**

res [rapp\_platform\_ros\_communications::createNewCloudAgentServiceSrvResponse::Response&] The ROS service response

**Exceptions**

<i>Exception</i>	IndexError
<i>Exception</i>	IOError
<i>Exception</i>	mdbError

Definition at line 723 of file mysql\_wrapper.py.

6.38.3.15 `def mysql_wrapper.MySQLdbWrapper.createNewCloudAgentServiceDataHandler ( self, req )`

The createNewCloudAgentServiceSrv service callback.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::createNewCloudAgentServiceSrvRequest::Request& The ROS service request
------------	--

**Returns**

res [rapp\_platform\_ros\_communications::createNewCloudAgentServiceSrvResponse::Response&] The ROS service response

Definition at line 964 of file mysql\_wrapper.py.

6.38.3.16 `def mysql_wrapper.MySQLdbWrapper.createNewPlatformUser ( self, req )`

Implements the createNewPlatformUser service main function.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::createNewPlatformUserSrvRequest::Request&] The ROS service request
------------	---

**Returns**

res [rapp\_platform\_ros\_communications::createNewPlatformUserSrvResponse::Response&] The ROS service response

**Exceptions**

<i>Exception</i>	IndexError
<i>Exception</i>	IOError
<i>Exception</i>	mdbError

Definition at line 402 of file mysql\_wrapper.py.

6.38.3.17 `def mysql_wrapper.MySQLdbWrapper.createNewPlatformUserDataHandler ( self, req )`

The createNewPlatformUserSrv service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::createNewPlatformUserSrvResponse::Request&] The ROS service request
------------	--

## Returns

res [rapp\_platform\_ros\_communications::createNewPlatformUserSrvRequest::Response&] The ROS service response

Definition at line 892 of file mysql\_wrapper.py.

6.38.3.18 def mysql\_wrapper.MySQLdbWrapper.getCloudAgentServiceTypeAndHostPort ( *self*, *req* )

Implements the getCloudAgentServiceTypeAndHostPort service main function.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::getCloudAgentServiceTypeAndHostPortSrvRequest::Request&] The ROS service request
------------	---

## Returns

res [rapp\_platform\_ros\_communications::getCloudAgentServiceTypeAndHostPortSrvResponse::Response&]  
The ROS service response

## Exceptions

<i>Exception</i>	IndexError
<i>Exception</i>	IOError
<i>Exception</i>	mdbError

Definition at line 759 of file mysql\_wrapper.py.

6.38.3.19 def mysql\_wrapper.MySQLdbWrapper.getCloudAgentServiceTypeAndHostPortDataHandler ( *self*, *req* )

The getCloudAgentServiceTypeAndHostPortSrv service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::getCloudAgentServiceTypeAndHostPortSrvRequest::Request&] The ROS service request
------------	---

## Returns

res [rapp\_platform\_ros\_communications::getCloudAgentServiceTypeAndHostPortSrvResponse::Response&]  
The ROS service response

Definition at line 972 of file mysql\_wrapper.py.

6.38.3.20 def mysql\_wrapper.MySQLdbWrapper.getLogin ( *self* )

Loads login details from file.

## Returns

db\_username [string] the login username  
db\_password [string] the login password

Definition at line 811 of file mysql\_wrapper.py.

6.38.3.21 `def mysql_wrapper.MySQLdbWrapper.getTableColumnNames ( self, tblName )`

Gets the columns of the table.



## Parameters

<i>tblName</i>	[string] the name of the table
----------------	--------------------------------

## Returns

Columns [list] the columns of the table

Definition at line 794 of file mysql\_wrapper.py.

6.38.3.22 def mysql\_wrapper.MySQLdbWrapper.getUserLanguage ( *self*, *req* )

Implements the getUserLanguage service main function.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::getUserLanguageSrvRequest::Request&] The ROS service request
------------	---

## Returns

res [rapp\_platform\_ros\_communications::getUserLanguageSrvResponse::Response&] The ROS service response

## Exceptions

<i>Exception</i>	IndexError
<i>Exception</i>	IOError
<i>Exception</i>	mdbError

Definition at line 252 of file mysql\_wrapper.py.

6.38.3.23 def mysql\_wrapper.MySQLdbWrapper.getUserLanguageDataHandler ( *self*, *req* )

The getUserLanguage service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::getUserLanguageSrvResponse::Request&] The ROS service request
------------	--

## Returns

res [rapp\_platform\_ros\_communications::getUserLanguageSrvRequest::Response&] The ROS service response

Definition at line 852 of file mysql\_wrapper.py.

6.38.3.24 def mysql\_wrapper.MySQLdbWrapper.getUsernameAssociatedWithApplicationToken ( *self*, *req* )

Implements the getUsernameAssociatedWithApplicationToken service main function.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::getUsernameAssociatedWithApplicationTokenSrvRequest::Request&] The ROS service request
------------	---

## Returns

res [rapp\_platform\_ros\_communications::getUsernameAssociatedWithApplicationTokenSrvResponse::Response&] The ROS service response

## Exceptions

<i>Exception</i>	IndexError
<i>Exception</i>	IOError
<i>Exception</i>	mdbError

Definition at line 365 of file mysql\_wrapper.py.

### 6.38.3.25 def mysql\_wrapper.MySQLdbWrapper.getUsernameAssociatedWithApplicationTokenDataHandler ( self, req )

The getUsernameAssociatedWithApplicationTokenSrv service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::getUsernameAssociatedWithApplicationTokenSrvResponse::Request&] The ROS service request
------------	--

## Returns

res [rapp\_platform\_ros\_communications::getUsernameAssociatedWithApplicationTokenSrvRequest::Response&] The ROS service response

Definition at line 884 of file mysql\_wrapper.py.

### 6.38.3.26 def mysql\_wrapper.MySQLdbWrapper.getUserOntologyAlias ( self, req )

Implements the getUserOntologyAlias service main function.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::getUserOntologyAliasSrvRequest::Request&] The ROS service request
------------	--

## Returns

res [rapp\_platform\_ros\_communications::getUserOntologyAliasSrvResponse::Response&] The ROS service response

## Exceptions

<i>Exception</i>	IndexError
<i>Exception</i>	IOError
<i>Exception</i>	mdbError

Definition at line 179 of file mysql\_wrapper.py.

### 6.38.3.27 def mysql\_wrapper.MySQLdbWrapper.getUserOntologyAliasDataHandler ( self, req )

The getUserOntologyAlias service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::getUserOntologyAliasSrvResponse::Request&] The ROS service request
------------	---

## Returns

res [rapp\_platform\_ros\_communications::getUserOntologyAliasSrvRequest::Response&] The ROS service response

Definition at line 836 of file mysql\_wrapper.py.

## 6.38.3.28 def mysql\_wrapper.MySQLdbWrapper.getUserPassword ( self, req )

Implements the getUserPassword service main function.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::getUserPasswordSrvRequest::Request&] The ROS service request
------------	---

## Returns

res [rapp\_platform\_ros\_communications::getUserPasswordSrvResponse::Response&] The ROS service response

## Exceptions

<i>Exception</i>	IndexError
<i>Exception</i>	IOError
<i>Exception</i>	mdbError

Definition at line 328 of file mysql\_wrapper.py.

## 6.38.3.29 def mysql\_wrapper.MySQLdbWrapper.getUserPasswordDataHandler ( self, req )

The getUserPasswordSrv service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::getUserPasswordSrvResponse::Request&] The ROS service request
------------	--

## Returns

res [rapp\_platform\_ros\_communications::getUserPasswordSrvRequest::Response&] The ROS service response

Definition at line 876 of file mysql\_wrapper.py.

## 6.38.3.30 def mysql\_wrapper.MySQLdbWrapper.registerNewTokenDataHandler ( self, req )

The registerNewTokenSrv service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::registerNewTokenSrvResponse::Request&] The ROS service request
------------	---

## Returns

res [rapp\_platform\_ros\_communications::registerNewTokenSrvRequest::Response&] The ROS service response

Definition at line 860 of file mysql\_wrapper.py.

## 6.38.3.31 def mysql\_wrapper.MySQLdbWrapper.registerUserOntologyAlias ( self, req )

Implements the registerUserOntologyAlias service main function.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::registerUserOntologyAliasSrvRequest::Request&] The ROS service request
------------	--

**Returns**

res [rapp\_platform\_ros\_communications::registerUserOntologyAliasSrvResponse::Response&] The ROS service response

**Exceptions**

<i>Exception</i>	IndexError
<i>Exception</i>	IOError
<i>Exception</i>	mdbError

Definition at line 216 of file mysql\_wrapper.py.

6.38.3.32 `def mysql_wrapper.MySQLdbWrapper.registerUserOntologyAliasDataHandler ( self, req )`

The registerUserOntologyAliasSrv service callback.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::registerUserOntologyAliasSrvResponse::Request&] The ROS service request
------------	---

**Returns**

res [rapp\_platform\_ros\_communications::registerUserOntologyAliasSrvRequest::Response&] The ROS service response

Definition at line 844 of file mysql\_wrapper.py.

6.38.3.33 `def mysql_wrapper.MySQLdbWrapper.removePlatformUser ( self, req )`

Implements the removePlatformUser service main function.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::removePlatformUserSrvRequest::Request&] The ROS service request
------------	--

**Returns**

res [rapp\_platform\_ros\_communications::removePlatformUserSrvResponse::Response&] The ROS service response

**Exceptions**

<i>Exception</i>	IndexError
<i>Exception</i>	IOError
<i>Exception</i>	mdbError

Definition at line 437 of file mysql\_wrapper.py.

6.38.3.34 `def mysql_wrapper.MySQLdbWrapper.removePlatformUserDataHandler ( self, req )`

The removePlatformUserSrv service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::removePlatformUserSrvRequest::Request&] The ROS service request
------------	--

## Returns

res [rapp\_platform\_ros\_communications::removePlatformUserSrvResponse::Response&] The ROS service response

Definition at line 948 of file mysql\_wrapper.py.

6.38.3.35 def mysql\_wrapper.MySQLdbWrapper.validateExistingPlatformDeviceToken ( *self*, *req* )

Implements the validateExistingPlatformDeviceToken service main function.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::validateExistingPlatformDeviceTokenSrvRequest::Request&] The ROS service request
------------	---

## Returns

res [rapp\_platform\_ros\_communications::validateExistingPlatformDeviceTokenSrvResponse::Response&]  
The ROS service response

## Exceptions

<i>Exception</i>	IndexError
<i>Exception</i>	IOError
<i>Exception</i>	mdbError

Definition at line 650 of file mysql\_wrapper.py.

6.38.3.36 def mysql\_wrapper.MySQLdbWrapper.validateExistingPlatformDeviceTokenDataHandler ( *self*, *req* )

The validateExistingPlatformDeviceTokenSrv service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::validateExistingPlatformDeviceTokenSrvRequest::Request&] The ROS service request
------------	---

## Returns

res [rapp\_platform\_ros\_communications::validateExistingPlatformDeviceTokenSrvResponse::Response&]  
The ROS service response

Definition at line 940 of file mysql\_wrapper.py.

6.38.3.37 def mysql\_wrapper.MySQLdbWrapper.validateUserRole ( *self*, *req* )

Implements the validateUserRole service main function.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::validateUserRoleSrvRequest::Request&] The ROS service request
------------	--

**Returns**

res [rapp\_platform\_ros\_communications::validateUserRoleSrvResponse::Response&] The ROS service response

**Exceptions**

<i>Exception</i>	IndexError
<i>Exception</i>	IOError
<i>Exception</i>	mdbError

Definition at line 543 of file mysql\_wrapper.py.

**6.38.3.38** `def mysql_wrapper.MySQLdbWrapper.validateUserRoleDataHandler ( self, req )`

The validateUserRoleSrv service callback.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::validateUserRoleSrvRequest::Request&] The ROS service request
------------	--

**Returns**

res [rapp\_platform\_ros\_communications::validateUserRoleSrvResponse::Response&] The ROS service response

Definition at line 932 of file mysql\_wrapper.py.

**6.38.4 Member Data Documentation**

**6.38.4.1** `mysql_wrapper.MySQLdbWrapper.serv`

Definition at line 89 of file mysql\_wrapper.py.

**6.38.4.2** `mysql_wrapper.MySQLdbWrapper.serv_topic`

Definition at line 86 of file mysql\_wrapper.py.

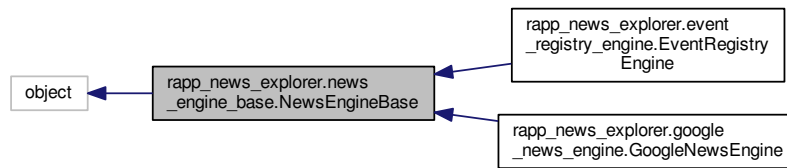
The documentation for this class was generated from the following file:

- [/home/travis/rapp\\_temp/rapp-platform/rapp\\_mysql\\_wrapper/src/mysql\\_wrapper.py](/home/travis/rapp_temp/rapp-platform/rapp_mysql_wrapper/src/mysql_wrapper.py)

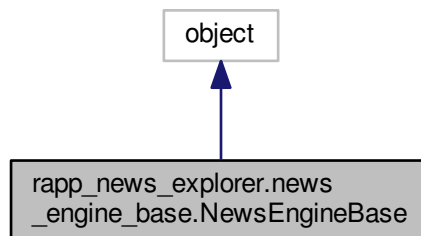
**6.39 rapp\_news\_explorer.news\_engine\_base.NewsEngineBase Class Reference**

Base class for news engines.

Inheritance diagram for rapp\_news\_explorer.news\_engine\_base.NewsEngineBase:



Collaboration diagram for rapp\_news\_explorer.news\_engine\_base.NewsEngineBase:



## Public Member Functions

- `def __init__`  
*Constructor.*
- `def fetch_news`  
*Abstract method to fetch news from news engine.*

## Public Attributes

- `rapp_http_json_parser`  
*Strips html tags from strings.*

## Private Attributes

- `__accepted_status`  
*The value of valid response status code.*
- `__http_request`  
*Perform http requests to servers.*
- `__url`  
*The base news engine url.*

## Static Private Attributes

- `__metaclass__ = abc.ABCMeta`

### 6.39.1 Detailed Description

Base class for news engines.

Definition at line 32 of file `news_engine_base.py`.

### 6.39.2 Constructor & Destructor Documentation

#### 6.39.2.1 `def rapp_news_explorer.news_engine_base.NewsEngineBase.__init__( self )`

Constructor.

Definition at line 37 of file `news_engine_base.py`.

### 6.39.3 Member Function Documentation

#### 6.39.3.1 `def rapp_news_explorer.news_engine_base.NewsEngineBase.fetch_news( self, req )`

Abstract method to fetch news from news engine.

Definition at line 52 of file `news_engine_base.py`.

### 6.39.4 Member Data Documentation

#### 6.39.4.1 `rapp_news_explorer.news_engine_base.NewsEngineBase.__metaclass__ = abc.ABCMeta` `[static]`, `[private]`

Definition at line 34 of file `news_engine_base.py`.

#### 6.39.4.2 `rapp_news_explorer.news_engine_base.NewsEngineBase._accepted_status` `[private]`

The value of valid response status code.

Definition at line 42 of file `news_engine_base.py`.

#### 6.39.4.3 `rapp_news_explorer.news_engine_base.NewsEngineBase._http_request` `[private]`

Perform http requests to servers.

Definition at line 45 of file `news_engine_base.py`.

#### 6.39.4.4 `rapp_news_explorer.news_engine_base.NewsEngineBase._url` `[private]`

The base news engine url.

Definition at line 39 of file `news_engine_base.py`.



## 6.39.4.5 rapp\_news\_explorer.news\_engine\_base.NewsEngineBase.rapp\_http\_json\_parser

Strips html tags from strings.

Definition at line 48 of file news\_engine\_base.py.

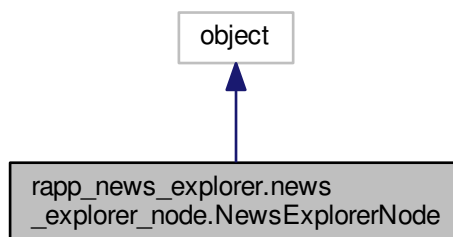
The documentation for this class was generated from the following file:

- /home/travis/rapp\_temp/rapp-platform/rapp\_news\_explorer/src/rapp\_news\_explorer/[news\\_engine\\_base.py](#)

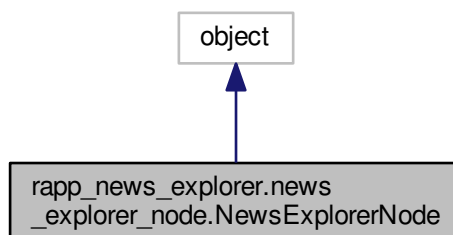
## 6.40 rapp\_news\_explorer.news\_explorer\_node.NewsExplorerNode Class Reference

Fetches news from various News sites' APIs.

Inheritance diagram for rapp\_news\_explorer.news\_explorer\_node.NewsExplorerNode:



Collaboration diagram for rapp\_news\_explorer.news\_explorer\_node.NewsExplorerNode:



### Public Member Functions

- def [\\_\\_init\\_\\_](#)  
*Constructor.*
- def [fetch\\_news\\_srv\\_callback](#)  
*The callback to fetch news.*

## Private Member Functions

- [def \\_create\\_service\\_response](#)

*The callback to fetch news.*

## Private Attributes

- [\\_engine\\_factory](#)

*Factory that returns proper news engine.*

### 6.40.1 Detailed Description

Fetches news from various News sites' APIs.

Definition at line 38 of file news\_explorer\_node.py.

### 6.40.2 Constructor & Destructor Documentation

6.40.2.1 `def rapp_news_explorer.news_explorer_node.NewsExplorerNode.__init__( self )`

Constructor.

Definition at line 41 of file news\_explorer\_node.py.

### 6.40.3 Member Function Documentation

6.40.3.1 `def rapp_news_explorer.news_explorer_node.NewsExplorerNode._create_service_response( self, results )`  
[private]

The callback to fetch news.

Parameters

<i>results</i>	[list<dict>] The server results containing the stories
----------------	--

Returns

res [rapp\_platform\_ros\_communications::NewsExplorer::NewsExplorerSrvResponse] The service response

Definition at line 88 of file news\_explorer\_node.py.

6.40.3.2 `def rapp_news_explorer.news_explorer_node.NewsExplorerNode.fetch_news_srv_callback( self, req )`

The callback to fetch news.

Parameters

<i>req</i>	[rapp_platform_ros_communications::NewsExplorer::NewsExplorerSrv] The service request
------------	---

Returns

res [rapp\_platform\_ros\_communications::NewsExplorer::NewsExplorerSrvResponse] The service response

Definition at line 65 of file news\_explorer\_node.py.

## 6.40.4 Member Data Documentation

### 6.40.4.1 rapp\_news\_explorer.news\_explorer\_node.NewsExplorerNode.\_engine\_factory [private]

Factory that returns proper news engine.

Definition at line 43 of file news\_explorer\_node.py.

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

- /home/travis/rapp\_temp/rapp-platform/rapp\_news\_explorer/src/rapp\_news\_explorer/news\_explorer\_node.py

## 6.41 ontology\_class\_bridge.OntologyClassBridge Class Reference

Contains the necessary functions for translating caffe classes to ontology classes.

### Public Member Functions

- def [getOntologyClassEquivalent](#)  
*Implements the getOntologyClassEquivalent service main function.*
- def [loadMappingIntoDictionary](#)  
*Loads the caffeToOntologyClasses file into a dictionary.*

### 6.41.1 Detailed Description

Contains the necessary functions for translating caffe classes to ontology classes.

Definition at line 31 of file ontology\_class\_bridge.py.

### 6.41.2 Member Function Documentation

#### 6.41.2.1 def ontology\_class\_bridge.OntologyClassBridge.getOntologyClassEquivalent ( self, req )

Implements the getOntologyClassEquivalent service main function.

Parameters

<i>req</i>	[rapp_platform_ros_communications::ontologyClassBridgeSrvRequest::Request&] The ROS service request
------------	---

Returns

res [rapp\_platform\_ros\_communications::ontologyClassBridgeSrvResponse::Response&] The ROS service response

Exceptions

<i>Exception</i>	KeyError
------------------	----------

Definition at line 38 of file ontology\_class\_bridge.py.

#### 6.41.2.2 def ontology\_class\_bridge.OntologyClassBridge.loadMappingIntoDictionary ( self, mapFilePath )

Loads the caffeToOntologyClasses file into a dictionary.

## Parameters

<i>mapFilePath</i>	[string] The path to the file containing the caffe to ontology classes equivalencies
--------------------	--

## Returns

caffeToOntologyClassesDict [dictionary] The dictionary containing the caffe to ontology classes

Definition at line 61 of file ontology\_class\_bridge.py.

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

- /home/travis/rapp\_temp/rapp-platform/rapp\_caffe\_wrapper/src/ontology\_class\_bridge.py

## 6.42 PathPlanner Class Reference

Class that implements a path planning algorithm based on global\_planner and [map\\_server](#) ROS nodes.

```
#include <path_planner.h>
```

### Public Member Functions

- [PathPlanner](#) (void)  
*Default constructor.*
- bool [configureSequence](#) (std::string seq\_nr, std::string map\_path, std::string robot\_type, std::string algorithm, ros::NodeHandle &nh\_)  
*Configures sequence. Sets map, appropriate costmap parameters for specified robot type, sets global\_planner to use determined algorithm.*
- std::string [setSequenceNR](#) (ros::NodeHandle &nh\_, int pathPlanningThreads\_)  
*Determines next planning sequence (which global\_planner and [map\\_server](#) should be used)*
- navfn::MakeNavPlanResponse [startSequence](#) (std::string seq\_nr, geometry\_msgs::PoseStamped request\_start, geometry\_msgs::PoseStamped request\_goal, ros::NodeHandle &nh\_)  
*Starts planning service of determined planning sequence.*

### 6.42.1 Detailed Description

Class that implements a path planning algorithm based on global\_planner and [map\\_server](#) ROS nodes.

Definition at line 12 of file path\_planner.h.

### 6.42.2 Constructor & Destructor Documentation

#### 6.42.2.1 PathPlanner::PathPlanner ( void )

Default constructor.

Definition at line 4 of file path\_planner.cpp.

### 6.42.3 Member Function Documentation

#### 6.42.3.1 bool PathPlanner::configureSequence ( std::string seq\_nr, std::string map\_path, std::string robot\_type, std::string algorithm, ros::NodeHandle & nh\_ )

Configures sequence. Sets map, appropriate costmap parameters for specified robot type, sets global\_planner to use determined algorithm.

## Parameters

<i>seq_nr</i>	[std::string] ID of current sequence,
<i>map_path</i>	[std::string] Path to the map that should be passed to global_planner,
<i>robot_type</i>	[std::string] Name of robot_type. It is used to configure costmap,
<i>algorithm</i>	[std::string] Name of algorithm that should be used by global_planner,
<i>&amp;nh_</i>	[ros::NodeHandle] node handler for getParam() method,

## Returns

[bool] Returns if sequence was configured correctly. Returns false if [PathPlanner](#) could not configure sequence in 5 sec.

Definition at line 26 of file path\_planner.cpp.

#### 6.42.3.2 std::string PathPlanner::setSequenceNR ( ros::NodeHandle & nh\_, int pathPlanningThreads\_ )

Determines next planning sequence (which global\_planner and [map\\_server](#) should be used)

## Parameters

<i>&amp;nh_</i>	[ros::NodeHandle] node handler for getParam() method,
<i>pathPlanning-Threads_</i>	[int] Number of planning sequences,

## Returns

[std::string] Next sequence nr.

Definition at line 9 of file path\_planner.cpp.

#### 6.42.3.3 navfn::MakeNavPlanResponse PathPlanner::startSequence ( std::string seq\_nr, geometry\_msgs::PoseStamped request\_start, geometry\_msgs::PoseStamped request\_goal, ros::NodeHandle & nh\_ )

Starts planning service of determined planning sequence.

## Parameters

<i>start</i>	[geometry_msgs::PoseStamped] Robot start pose,
<i>finish</i>	[geometry_msgs::PoseStamped] Robot goal pose.

## Returns

[navfn::MakeNavPlanResponse]: -> plan\_found: 0 : path cannot be planned. 1 : path found 2 : wrong map name 3 : wrong robot type 4 : wrong algorithm -> error\_message : error explanation -> path : if plan\_found is true, this is an array of waypoints from start to goal, where the first one equals start and the last one equals goal vector of PoseStamped objects

Definition at line 137 of file path\_planner.cpp.

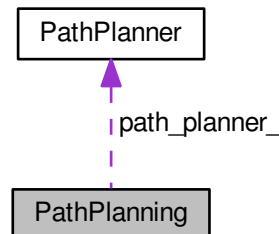
The documentation for this class was generated from the following files:

- /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_path\_planning/include/path\_planning/[path\\_planner.h](#)
- /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_path\_planning/src/[path\\_planner.cpp](#)

## 6.43 PathPlanning Class Reference

```
#include <path_planning.h>
```

Collaboration diagram for PathPlanning:



### Public Member Functions

- [PathPlanning](#) (void)  
*Default constructor.*
- [~PathPlanning](#) (void)
- bool [pathPlanningCallback](#) (rapp\_platform\_ros\_communications::PathPlanningRosSrv::Request &req, rapp\_platform\_ros\_communications::PathPlanningRosSrv::Response &res)  
*Determines next planning sequence (which global\_planner and [map\\_server](#) should be used)*
- bool [uploadMapCallback](#) (rapp\_platform\_ros\_communications::MapServerUploadMapRosSrv::Request &req, rapp\_platform\_ros\_communications::MapServerUploadMapRosSrv::Response &res)  
*Upload map to RAPP Platform.*

### Private Attributes

- std::vector< pid\_t > [GP\\_pIDs](#)
- const char \* [homedir](#)
- std::vector< pid\_t > [MS\\_pIDs](#)
- std::vector  
< geometry\_msgs::PoseStamped > [new\\_path](#)
- ros::NodeHandle [nh\\_](#)
- [PathPlanner](#) [path\\_planner\\_](#)
- ros::ServiceServer [pathPlanningService\\_](#)
- int [pathPlanningThreads\\_](#)
- std::vector< ros::ServiceServer > [pathPlanningThreadServices\\_](#)
- std::string [pathPlanningTopic\\_](#)
- double [pose\\_dist\\_](#)
- pid\_t [TP\\_pID](#)
- ros::ServiceServer [uploadMapService\\_](#)
- std::string [uploadMapTopic\\_](#)

#### 6.43.1 Detailed Description

Definition at line 23 of file path\_planning.h.

## 6.43.2 Constructor & Destructor Documentation

### 6.43.2.1 PathPlanning::PathPlanning ( void )

Default constructor.

Definition at line 181 of file path\_planning.cpp.

### 6.43.2.2 PathPlanning::~~PathPlanning ( void )

Definition at line 31 of file path\_planning.cpp.

## 6.43.3 Member Function Documentation

### 6.43.3.1 bool PathPlanning::pathPlanningCallback ( rapp\_platform\_ros\_communications::PathPlanningRosSrv::Request & req, rapp\_platform\_ros\_communications::PathPlanningRosSrv::Response & res )

Determines next planning sequence (which global\_planner and [map\\_server](#) should be used)

Parameters

<i>[navfn::MakeNavPlan-Request]</i>	&req: [std::string] req.user_name - Determine user name - owner of the environment map [std::string] req.map_name - Contains path to the desired map [std::string] req.robot_type - Contains type of the robot. It is required to determine it's parameters (footprint etc.) [std::string] req.algorithm - Contains path planning algorithm name [geometry_msgs/PoseStamped] req.start - Contains start pose of the robot [geometry_msgs/PoseStamped] req.goal - Contains goal pose of the robot
<i>[navfn::MakeNavPlan-Response]</i>	&res: [uint8] res.plan_found: 0 : path cannot be planned. 1 : path found 2 : wrong map name 3 : wrong robot type 4 : wrong algorithm [std::string] res.error_message : error explanation [geometry_msgs/PoseStamped[]] res.path : if plan_found is true, this is an array of waypoints from start to goal, where the first one equals start and the last one equals goal vector of PoseStamped objects

Definition at line 302 of file path\_planning.cpp.

### 6.43.3.2 bool PathPlanning::uploadMapCallback ( rapp\_platform\_ros\_communications::MapServerUploadMapRosSrv::Request & req, rapp\_platform\_ros\_communications::MapServerUploadMapRosSrv::Response & res )

Upload map to RAPP Platform.

Parameters

<i>&amp;req</i>	[std::string] user_name, [std::string] map_name, [float32] resolution, [float32[]] origin, int16 negate, [float32] occupied_thresh, [float32] free_thresh, [uint32] file_size, [char[]] data,
<i>&amp;res</i>	[byte] status ,

Returns

[bool] true-> success, false-> failure.

Definition at line 242 of file path\_planning.cpp.

## 6.43.4 Member Data Documentation

### 6.43.4.1 std::vector<pid\_t> PathPlanning::GP\_pIDs [private]

Definition at line 74 of file path\_planning.h.

**6.43.4.2** `const char* PathPlanning::homedir` `[private]`

Definition at line 69 of file `path_planning.h`.

**6.43.4.3** `std::vector<pid_t> PathPlanning::MS_pIDs` `[private]`

Definition at line 75 of file `path_planning.h`.

**6.43.4.4** `std::vector<geometry_msgs::PoseStamped> PathPlanning::new_path` `[private]`

Definition at line 82 of file `path_planning.h`.

**6.43.4.5** `ros::NodeHandle PathPlanning::nh_` `[private]`

Definition at line 67 of file `path_planning.h`.

**6.43.4.6** `PathPlanner PathPlanning::path_planner_` `[private]`

Definition at line 83 of file `path_planning.h`.

**6.43.4.7** `ros::ServiceServer PathPlanning::pathPlanningService_` `[private]`

Definition at line 71 of file `path_planning.h`.

**6.43.4.8** `int PathPlanning::pathPlanningThreads_` `[private]`

Definition at line 80 of file `path_planning.h`.

**6.43.4.9** `std::vector<ros::ServiceServer> PathPlanning::pathPlanningThreadServices_` `[private]`

Definition at line 73 of file `path_planning.h`.

**6.43.4.10** `std::string PathPlanning::pathPlanningTopic_` `[private]`

Definition at line 78 of file `path_planning.h`.

**6.43.4.11** `double PathPlanning::pose_dist_` `[private]`

Definition at line 81 of file `path_planning.h`.

**6.43.4.12** `pid_t PathPlanning::TP_pid` `[private]`

Definition at line 76 of file `path_planning.h`.

**6.43.4.13** `ros::ServiceServer PathPlanning::uploadMapService_` `[private]`

Definition at line 72 of file `path_planning.h`.



#### 6.43.4.14 std::string PathPlanning::uploadMapTopic\_ [private]

Definition at line 79 of file path\_planning.h.

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

- /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_path\_planning/include/path\_planning/path\_planning.h
- /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_path\_planning/src/path\_planning.cpp

## 6.44 QrCode Class Reference

Structure holding the essential info for a QR code.

```
#include <qr_detector.h>
```

### Public Attributes

- cv::Point [center](#)
- std::string [message](#)

#### 6.44.1 Detailed Description

Structure holding the essential info for a QR code.

Definition at line 35 of file qr\_detector.h.

#### 6.44.2 Member Data Documentation

##### 6.44.2.1 cv::Point QrCode::center

Definition at line 37 of file qr\_detector.h.

##### 6.44.2.2 std::string QrCode::message

Definition at line 38 of file qr\_detector.h.

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

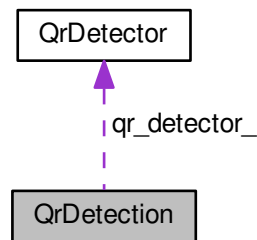
- /home/travis/rapp\_temp/rapp-platform/rapp\_qr\_detection/include/qr\_detection/qr\_detector.h

## 6.45 QrDetection Class Reference

Uptakes the task of setting up the ROS service callbacks towards qr detection.

```
#include <qr_detection.h>
```

Collaboration diagram for QrDetection:



## Public Member Functions

- [QrDetection](#) (void)  
*Default constructor.*
- bool [qrDetectionCallback](#) (rapp\_platform\_ros\_communications::QrDetectionRosSrv::Request &req, rapp\_platform\_ros\_communications::QrDetectionRosSrv::Response &res)  
*The qr detection ROS service callback.*

## Private Attributes

- ros::NodeHandle [nh\\_](#)
- [QrDetector](#) [qr\\_detector\\_](#)
- ros::ServiceServer [qrDetectionService\\_](#)
- std::string [qrDetectionTopic\\_](#)

### 6.45.1 Detailed Description

Uptakes the task of setting up the ROS service callbacks towards qr detection.

Definition at line 31 of file qr\_detection.h.

### 6.45.2 Constructor & Destructor Documentation

#### 6.45.2.1 QrDetection::QrDetection ( void )

Default constructor.

Definition at line 23 of file qr\_detection.cpp.

### 6.45.3 Member Function Documentation

#### 6.45.3.1 bool QrDetection::qrDetectionCallback ( rapp\_platform\_ros\_communications::QrDetectionRosSrv::Request & req, rapp\_platform\_ros\_communications::QrDetectionRosSrv::Response & res )

The qr detection ROS service callback.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::QrDetectionRosSrv::Request&] The service request
<i>res</i>	[rapp_platform_ros_communications::QrDetectionRosSrv::Response&] The service response

## Returns

bool - The success status of the call

Definition at line 40 of file qr\_detection.cpp.

## 6.45.4 Member Data Documentation

## 6.45.4.1 ros::NodeHandle QrDetection::nh\_ [private]

< The ROS node handle The service server

Definition at line 53 of file qr\_detection.h.

## 6.45.4.2 QrDetector QrDetection::qr\_detector\_ [private]

Definition at line 62 of file qr\_detection.h.

## 6.45.4.3 ros::ServiceServer QrDetection::qrDetectionService\_ [private]

Topic nomeclarure. Holds the qr detection ROS service topic URI

Definition at line 56 of file qr\_detection.h.

## 6.45.4.4 std::string QrDetection::qrDetectionTopic\_ [private]

Object of [QrDetection](#) type

Definition at line 59 of file qr\_detection.h.

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

- /home/travis/rapp\_temp/rapp-platform/rapp\_qr\_detection/include/qr\_detection/[qr\\_detection.h](#)
- /home/travis/rapp\_temp/rapp-platform/rapp\_qr\_detection/src/[qr\\_detection.cpp](#)

## 6.46 QrDetector Class Reference

Provides the QR detection functionality.

```
#include <qr_detector.h>
```

## Public Member Functions

- [QrDetector](#) (void)  
*Default constructor.*
- std::vector< [QrCode](#) > [detectQrs](#) (const cv::Mat &img)  
*Detects QRs in a cv::Mat.*
- std::vector< [QrCode](#) > [findQrs](#) (std::string file\_name)  
*Detects QRs in an image file.*

## Private Member Functions

- `cv::Mat loadImage (std::string file_name)`  
*Loads an image into a cv::Mat structure.*

### 6.46.1 Detailed Description

Provides the QR detection functionality.

Definition at line 45 of file qr\_detector.h.

### 6.46.2 Constructor & Destructor Documentation

#### 6.46.2.1 QrDetector::QrDetector ( void )

Default constructor.

Definition at line 23 of file qr\_detector.cpp.

### 6.46.3 Member Function Documentation

#### 6.46.3.1 std::vector< QrCode > QrDetector::detectQrs ( const cv::Mat & input\_frame )

Detects QRs in a cv::Mat.

Parameters

<i>img</i>	[const cv::Mat&] The input image in cv::Mat form
------------	--

Returns

std::vector<QrCode> The detected QR codes

< [QrCode](#) scanner

Definition at line 43 of file qr\_detector.cpp.

#### 6.46.3.2 std::vector< QrCode > QrDetector::findQrs ( std::string file\_name )

Detects QRs in an image file.

Parameters

<i>file_name</i>	[std::string] The input image URI
------------------	-----------------------------------

Returns

std::vector<QrCode> The detected QR codes

Definition at line 101 of file qr\_detector.cpp.

#### 6.46.3.3 cv::Mat QrDetector::loadImage ( std::string file\_name ) [private]

Loads an image into a cv::Mat structure.

## Parameters

<code>file_name</code>	[std::string] The file URI
------------------------	----------------------------

## Returns

`cv::Mat`

Definition at line 32 of file `qr_detector.cpp`.

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

- `/home/travis/rapp_temp/rapp-platform/rapp_qr_detection/include/qr_detection/qr_detector.h`
- `/home/travis/rapp_temp/rapp-platform/rapp_qr_detection/src/qr_detector.cpp`

## 6.47 `caffe_wrapper.RappCaffeWrapper` Class Reference

The `RappCaffeWrapper` ros node.

### Public Member Functions

- `def __init__`  
*Default constructor.*
- `def imageClassificationDataHandler`  
*The imageClassificationSrv service callback.*
- `def ontologyClassBridgeDataHandler`  
*The ontologyClassBridgeSrv service callback.*
- `def registerImageToOntologyDataHandler`  
*The registerImageToOntologySrv service callback.*

### Public Attributes

- `serv`
- `serv_topic`

#### 6.47.1 Detailed Description

The `RappCaffeWrapper` ros node.

Definition at line 47 of file `caffe_wrapper.py`.

#### 6.47.2 Constructor & Destructor Documentation

##### 6.47.2.1 `def caffe_wrapper.RappCaffeWrapper.__init__( self )`

Default constructor.

Waits for services the node depends on and declares the callbacks of the node's services

Definition at line 52 of file `caffe_wrapper.py`.

### 6.47.3 Member Function Documentation

6.47.3.1 `def caffe_wrapper.RappCaffeWrapper.imageClassificationDataHandler ( self, req )`

The imageClassificationSrv service callback.

## Parameters

<i>req</i>	[ <code>rapp_platform_ros_communications::imageClassificationSrvRequest::Request&amp;</code> ] The ROS service request
------------	--

## Returns

`res` [`rapp_platform_ros_communications::imageClassificationSrvResponse::Response&`] The ROS service response

Definition at line 84 of file `caffe_wrapper.py`.

#### 6.47.3.2 `def caffe_wrapper.RappCaffeWrapper.ontologyClassBridgeDataHandler ( self, req )`

The `ontologyClassBridgeSrv` service callback.

## Parameters

<i>req</i>	[ <code>rapp_platform_ros_communications::ontologyClassBridgeSrvRequest::Request&amp;</code> ] The ROS service request
------------	--

## Returns

`res` [`rapp_platform_ros_communications::ontologyClassBridgeSrvResponse::Response&`] The ROS service response

Definition at line 93 of file `caffe_wrapper.py`.

#### 6.47.3.3 `def caffe_wrapper.RappCaffeWrapper.registerImageToOntologyDataHandler ( self, req )`

The `registerImageToOntologySrv` service callback.

## Parameters

<i>req</i>	[ <code>rapp_platform_ros_communications::registerImageToOntologySrvRequest::Request&amp;</code> ] The ROS service request
------------	--

## Returns

`res` [`rapp_platform_ros_communications::registerImageToOntologySrvResponse::Response&`] The ROS service response

Definition at line 102 of file `caffe_wrapper.py`.

## 6.47.4 Member Data Documentation

### 6.47.4.1 `caffe_wrapper.RappCaffeWrapper.serv`

Definition at line 69 of file `caffe_wrapper.py`.

### 6.47.4.2 `caffe_wrapper.RappCaffeWrapper.serv_topic`

Definition at line 55 of file `caffe_wrapper.py`.

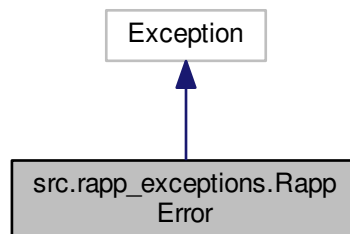
The documentation for this class was generated from the following file:

- `/home/travis/rapp_temp/rapp-platform/rapp_caffe_wrapper/src/caffe_wrapper.py`

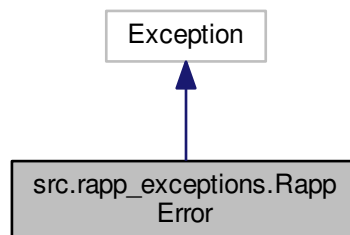
## 6.48 `src.rapp_exceptions.RappError` Class Reference

Provides a RAPP specific exception.

Inheritance diagram for `src.rapp_exceptions.RappError`:



Collaboration diagram for `src.rapp_exceptions.RappError`:



### Public Member Functions

- `def __init__`
- `def __str__`

### Public Attributes

- `value`

### 6.48.1 Detailed Description

Provides a RAPP specific exception.

Error handling in RAPP

Definition at line 19 of file `rapp_exceptions.py`.



### 6.48.2 Constructor & Destructor Documentation

6.48.2.1 `def src.rapp_exceptions.RappError.__init__( self, value )`

Definition at line 22 of file `rapp_exceptions.py`.

### 6.48.3 Member Function Documentation

6.48.3.1 `def src.rapp_exceptions.RappError.__str__( self )`

Definition at line 25 of file `rapp_exceptions.py`.

### 6.48.4 Member Data Documentation

6.48.4.1 `src.rapp_exceptions.RappError.value`

Definition at line 23 of file `rapp_exceptions.py`.

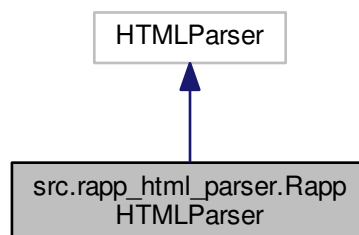
The documentation for this class was generated from the following file:

- `/home/travis/rapp_temp/rapp-platform/rapp_utilities/src/rapp_exceptions.py`

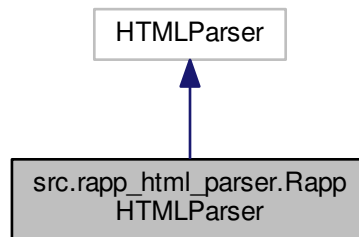
## 6.49 src.rapp\_html\_parser.RappHTMLParser Class Reference

Strips html from input string.

Inheritance diagram for `src.rapp_html_parser.RappHTMLParser`:



Collaboration diagram for `src.rapp_html_parser.RappHTMLParser`:



## Public Member Functions

- `def \_\_init\_\_`  
*Constructor.*
- `def get\_data`  
*Returns the processed string.*
- `def handle\_data`  
*Handles the provided string.*

## Public Attributes

- `fed`

### 6.49.1 Detailed Description

Strips html from input string.

Definition at line 27 of file `rapp_html_parser.py`.

### 6.49.2 Constructor & Destructor Documentation

6.49.2.1 `def src.rapp_html_parser.RappHTMLParser.__init__ ( self )`

Constructor.

Definition at line 30 of file `rapp_html_parser.py`.

### 6.49.3 Member Function Documentation

6.49.3.1 `def src.rapp_html_parser.RappHTMLParser.get_data ( self )`

Returns the processed string.

#### Returns

`final_str [string]` The string without the html tags

Definition at line 44 of file `rapp_html_parser.py`.

6.49.3.2 `def src.rapp_html_parser.RappHTMLParser.handle_data ( self, input_str )`

Handles the provided string.

Parameters

<i>input_str</i>	[string] The string containing html tags
------------------	--

Definition at line 38 of file `rapp_html_parser.py`.

## 6.49.4 Member Data Documentation

6.49.4.1 `src.rapp_html_parser.RappHTMLParser.fed`

Definition at line 33 of file `rapp_html_parser.py`.

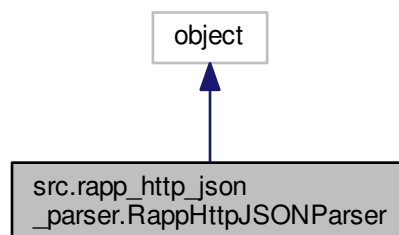
The documentation for this class was generated from the following file:

- `/home/travis/rapp_temp/rapp-platform/rapp_utilities/src/rapp_html_parser.py`

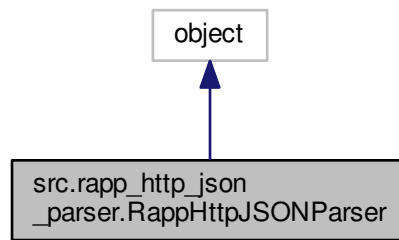
## 6.50 src.rapp\_http\_json\_parser.RappHttpJSONParser Class Reference

Retrieves key:value pairs from JSON responses.

Inheritance diagram for `src.rapp_http_json_parser.RappHttpJSONParser`:



Collaboration diagram for `src.rapp_http_json_parser.RappHttpJSONParser`:



### Public Member Functions

- `def \_\_init\_\_`  
*Constructor.*
- `def find\_values`  
*Creates key:value pairs from JSON responses.*

### Private Attributes

- `\_html\_parser`

#### 6.50.1 Detailed Description

Retrieves key:value pairs from JSON responses.

Definition at line 26 of file `rapp_http_json_parser.py`.

#### 6.50.2 Constructor & Destructor Documentation

6.50.2.1 `def src.rapp_http_json_parser.RappHttpJSONParser.__init__( self )`

Constructor.

Definition at line 29 of file `rapp_http_json_parser.py`.

#### 6.50.3 Member Function Documentation

6.50.3.1 `def src.rapp_http_json_parser.RappHttpJSONParser.find_values( self, key_dict, json_data )`

Creates key:value pairs from JSON responses.

Accepts a `json_key:final_key` dictionary and returns a dictionary with values `final_key[i]:value[i]` where `json_key[i]:final_key[i]` and `json_key[i]:value[i]`

## Parameters

<i>key_dict</i>	[dictionary] The keys dictionary
<i>json_data</i>	[dictionary] The JSON data dictionary

## Returns

result [dictionary] The final dictionary

Definition at line 42 of file rapp\_http\_json\_parser.py.

## 6.50.4 Member Data Documentation

### 6.50.4.1 src.rapp\_http\_json\_parser.RappHttpJSONParser.\_html\_parser [private]

Definition at line 30 of file rapp\_http\_json\_parser.py.

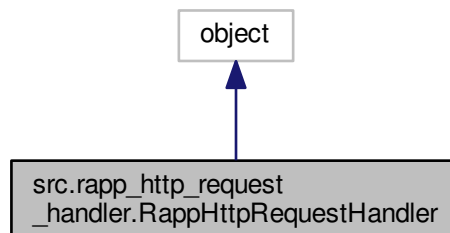
The documentation for this class was generated from the following file:

- /home/travis/rapp\_temp/rapp-platform/rapp\_utilities/src/[rapp\\_http\\_json\\_parser.py](#)

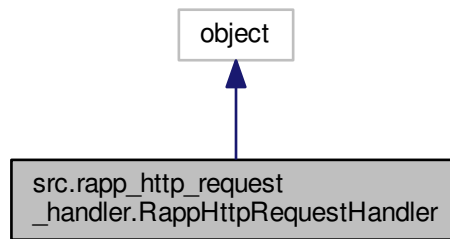
## 6.51 src.rapp\_http\_request\_handler.RappHttpRequestHandler Class Reference

Performs http requests.

Inheritance diagram for src.rapp\_http\_request\_handler.RappHttpRequestHandler:



Collaboration diagram for `src.rapp_http_request_handler.RappHttpRequestHandler`:



### Public Member Functions

- `def __init__`
- `def perform_request`  
*Execute the request and verify response.*

### Private Member Functions

- `def _modify_response`  
*Return the proper response format.*

### Private Attributes

- `_accepted_status`  
*The value of valid response status code.*
- `_headers`  
*The request additional headers.*
- `_params`  
*The request parameters.*
- `_response_format`  
*The required response format.*
- `_server_timeout`  
*Seconds to wait for any server response.*
- `_url`  
*The server url.*

### 6.51.1 Detailed Description

Performs http requests.

Definition at line 30 of file `rapp_http_request_handler.py`.

## 6.51.2 Constructor & Destructor Documentation

### 6.51.2.1 `def src.rapp_http_request_handler.RappHttpRequestHandler.__init__( self )`

Definition at line 32 of file `rapp_http_request_handler.py`.

## 6.51.3 Member Function Documentation

### 6.51.3.1 `def src.rapp_http_request_handler.RappHttpRequestHandler._modify_response( self, response, form=None )` [private]

Return the proper response format.

Parameters

<i>response</i>	[request module response] The servers response
<i>form</i>	[string] The required response format

RappError Format transformation error

Definition at line 97 of file `rapp_http_request_handler.py`.

### 6.51.3.2 `def src.rapp_http_request_handler.RappHttpRequestHandler.perform_request( self, url_add=None, params_dict=None, headers_dict=None )`

Execute the request and verify response.

Parameters

<i>url_add</i>	[string] The server url
<i>params_dict</i>	[dict] The request's parameters
<i>headers_dict</i>	[dict] The request's additional headers dictionary

Returns

response [request module response] The servers response

RappError Request error

Definition at line 60 of file `rapp_http_request_handler.py`.

## 6.51.4 Member Data Documentation

### 6.51.4.1 `src.rapp_http_request_handler.RappHttpRequestHandler._accepted_status` [private]

The value of valid response status code.

Definition at line 46 of file `rapp_http_request_handler.py`.

### 6.51.4.2 `src.rapp_http_request_handler.RappHttpRequestHandler._headers` [private]

The request additional headers.

Definition at line 38 of file `rapp_http_request_handler.py`.

### 6.51.4.3 `src.rapp_http_request_handler.RappHttpRequestHandler._params` [private]

The request parameters.

Definition at line 36 of file `rapp_http_request_handler.py`.

#### 6.51.4.4 `src.rapp_http_request_handler.RappHttpRequestHandler._response_format` [private]

The required response format.

Definition at line 41 of file `rapp_http_request_handler.py`.

#### 6.51.4.5 `src.rapp_http_request_handler.RappHttpRequestHandler._server_timeout` [private]

Seconds to wait for any server response.

Definition at line 44 of file `rapp_http_request_handler.py`.

#### 6.51.4.6 `src.rapp_http_request_handler.RappHttpRequestHandler._url` [private]

The server url.

Definition at line 34 of file `rapp_http_request_handler.py`.

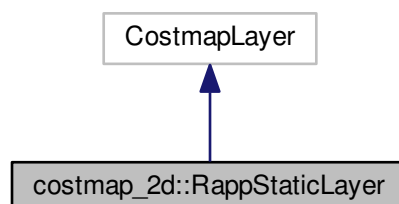
The documentation for this class was generated from the following file:

- [/home/travis/rapp\\_temp/rapp-platform/rapp\\_utilities/src/rapp\\_http\\_request\\_handler.py](#)

## 6.52 `costmap_2d::RappStaticLayer` Class Reference

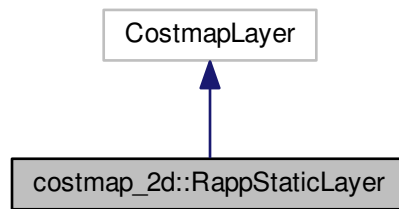
```
#include <rapp_static_layer.h>
```

Inheritance diagram for `costmap_2d::RappStaticLayer`:





Collaboration diagram for costmap\_2d::RappStaticLayer:



### Public Member Functions

- [RappStaticLayer](#) ()
- virtual [~RappStaticLayer](#) ()
- virtual void [activate](#) ()
- virtual void [deactivate](#) ()
- virtual void [matchSize](#) ()
- virtual void [onInitialize](#) ()
- virtual void [reset](#) ()
- virtual void [updateBounds](#) (double robot\_x, double robot\_y, double robot\_yaw, double \*min\_x, double \*min\_y, double \*max\_x, double \*max\_y)
- virtual void [updateCosts](#) (costmap\_2d::Costmap2D &master\_grid, int min\_i, int min\_j, int max\_i, int max\_j)

### Private Member Functions

- void [incomingMap](#) (const nav\_msgs::OccupancyGridConstPtr &new\_map)  
*Callback to update the costmap's map from the [map\\_server](#).*
- void [incomingUpdate](#) (const map\_msgs::OccupancyGridUpdateConstPtr &update)
- bool [incomingUpdateService](#) (rapp\_platform\_ros\_communications::Costmap2dRosSrvRequest &req, rapp\_platform\_ros\_communications::Costmap2dRosSrvResponse &res)
- unsigned char [interpretValue](#) (unsigned char value)
- void [reconfigureCB](#) (costmap\_2d::GenericPluginConfig &config, uint32\_t level)

### Private Attributes

- ros::ServiceServer [costmap\\_update\\_service](#)
- dynamic\_reconfigure::Server  
 < costmap\_2d::GenericPluginConfig > \* [dsrv\\_](#)
- std::string [global\\_frame\\_](#)  
*The global frame for the costmap.*
- bool [has\\_updated\\_data\\_](#)
- unsigned int [height\\_](#)
- unsigned char [lethal\\_threshold\\_](#)
- boost::recursive\_mutex [lock\\_](#)
- bool [map\\_received\\_](#)
- ros::Subscriber [map\\_sub\\_](#)
- ros::Subscriber [map\\_update\\_sub\\_](#)

- bool [subscribe\\_to\\_updates\\_](#)
- bool [track\\_unknown\\_space\\_](#)
- bool [trinary\\_costmap\\_](#)
- unsigned char [unknown\\_cost\\_value\\_](#)
- bool [use\\_maximum\\_](#)
- unsigned int [width\\_](#)
- unsigned int [x\\_](#)
- unsigned int [y\\_](#)

### 6.52.1 Detailed Description

Definition at line 57 of file `rapp_static_layer.h`.

### 6.52.2 Constructor & Destructor Documentation

#### 6.52.2.1 `costmap_2d::RappStaticLayer::RappStaticLayer ( )`

Definition at line 50 of file `rapp_static_layer.cpp`.

#### 6.52.2.2 `costmap_2d::RappStaticLayer::~~RappStaticLayer ( )` `[virtual]`

Definition at line 52 of file `rapp_static_layer.cpp`.

### 6.52.3 Member Function Documentation

#### 6.52.3.1 `void costmap_2d::RappStaticLayer::activate ( )` `[virtual]`

Definition at line 257 of file `rapp_static_layer.cpp`.

#### 6.52.3.2 `void costmap_2d::RappStaticLayer::deactivate ( )` `[virtual]`

Definition at line 262 of file `rapp_static_layer.cpp`.

#### 6.52.3.3 `void costmap_2d::RappStaticLayer::incomingMap ( const nav_msgs::OccupancyGridConstPtr & new_map )` `[private]`

Callback to update the costmap's map from the [map\\_server](#).

Parameters

<i>new_map</i>	The map to put into the costmap. The origin of the new map along with its size will determine what parts of the costmap's static map are overwritten.
----------------	---

Definition at line 194 of file `rapp_static_layer.cpp`.

#### 6.52.3.4 `void costmap_2d::RappStaticLayer::incomingUpdate ( const map_msgs::OccupancyGridUpdateConstPtr & update )` `[private]`

Definition at line 238 of file `rapp_static_layer.cpp`.

6.52.3.5 `bool costmap_2d::RappStaticLayer::incomingUpdateService ( rapp_platform_ros_communications::Costmap2dRosSrvRequest & req, rapp_platform_ros_communications::Costmap2dRosSrvResponse & res )` [private]

Definition at line 148 of file `rapp_static_layer.cpp`.

6.52.3.6 `unsigned char costmap_2d::RappStaticLayer::interpretValue ( unsigned char value )` [private]

Definition at line 180 of file `rapp_static_layer.cpp`.

6.52.3.7 `void costmap_2d::RappStaticLayer::matchSize ( )` [virtual]

Definition at line 173 of file `rapp_static_layer.cpp`.

6.52.3.8 `void costmap_2d::RappStaticLayer::onInitialize ( )` [virtual]

Definition at line 58 of file `rapp_static_layer.cpp`.

6.52.3.9 `void costmap_2d::RappStaticLayer::reconfigureCB ( costmap_2d::GenericPluginConfig & config, uint32_t level )` [private]

Definition at line 161 of file `rapp_static_layer.cpp`.

6.52.3.10 `void costmap_2d::RappStaticLayer::reset ( )` [virtual]

Definition at line 269 of file `rapp_static_layer.cpp`.

6.52.3.11 `void costmap_2d::RappStaticLayer::updateBounds ( double robot_x, double robot_y, double robot_yaw, double * min_x, double * min_y, double * max_x, double * max_y )` [virtual]

Definition at line 275 of file `rapp_static_layer.cpp`.

6.52.3.12 `void costmap_2d::RappStaticLayer::updateCosts ( costmap_2d::Costmap2D & master_grid, int min_i, int min_j, int max_i, int max_j )` [virtual]

Definition at line 296 of file `rapp_static_layer.cpp`.

## 6.52.4 Member Data Documentation

6.52.4.1 `ros::ServiceServer costmap_2d::RappStaticLayer::costmap_update_service` [private]

Definition at line 96 of file `rapp_static_layer.h`.

6.52.4.2 `dynamic_reconfigure::Server<costmap_2d::GenericPluginConfig>* costmap_2d::RappStaticLayer::dsrv_` [private]

Definition at line 100 of file `rapp_static_layer.h`.

**6.52.4.3** `std::string costmap_2d::RappStaticLayer::global_frame_` `[private]`

The global frame for the costmap.

Definition at line 87 of file `rapp_static_layer.h`.

**6.52.4.4** `bool costmap_2d::RappStaticLayer::has_updated_data_` `[private]`

Definition at line 90 of file `rapp_static_layer.h`.

**6.52.4.5** `unsigned int costmap_2d::RappStaticLayer::height_` `[private]`

Definition at line 91 of file `rapp_static_layer.h`.

**6.52.4.6** `unsigned char costmap_2d::RappStaticLayer::lethal_threshold_` `[private]`

Definition at line 97 of file `rapp_static_layer.h`.

**6.52.4.7** `boost::recursive_mutex costmap_2d::RappStaticLayer::lock_` `[mutable], [private]`

Definition at line 99 of file `rapp_static_layer.h`.

**6.52.4.8** `bool costmap_2d::RappStaticLayer::map_received_` `[private]`

Definition at line 89 of file `rapp_static_layer.h`.

**6.52.4.9** `ros::Subscriber costmap_2d::RappStaticLayer::map_sub_` `[private]`

Definition at line 95 of file `rapp_static_layer.h`.

**6.52.4.10** `ros::Subscriber costmap_2d::RappStaticLayer::map_update_sub_` `[private]`

Definition at line 95 of file `rapp_static_layer.h`.

**6.52.4.11** `bool costmap_2d::RappStaticLayer::subscribe_to_updates_` `[private]`

Definition at line 88 of file `rapp_static_layer.h`.

**6.52.4.12** `bool costmap_2d::RappStaticLayer::track_unknown_space_` `[private]`

Definition at line 92 of file `rapp_static_layer.h`.

**6.52.4.13** `bool costmap_2d::RappStaticLayer::trinary_costmap_` `[private]`

Definition at line 94 of file `rapp_static_layer.h`.

**6.52.4.14** `unsigned char costmap_2d::RappStaticLayer::unknown_cost_value_` `[private]`

Definition at line 97 of file `rapp_static_layer.h`.

6.52.4.15 `bool costmap_2d::RappStaticLayer::use_maximum_` `[private]`

Definition at line 93 of file `rapp_static_layer.h`.

6.52.4.16 `unsigned int costmap_2d::RappStaticLayer::width_` `[private]`

Definition at line 91 of file `rapp_static_layer.h`.

6.52.4.17 `unsigned int costmap_2d::RappStaticLayer::x_` `[private]`

Definition at line 91 of file `rapp_static_layer.h`.

6.52.4.18 `unsigned int costmap_2d::RappStaticLayer::y_` `[private]`

Definition at line 91 of file `rapp_static_layer.h`.

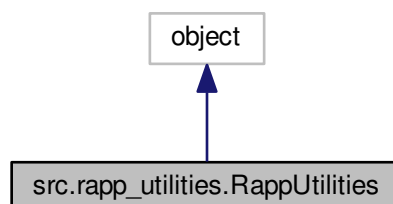
The documentation for this class was generated from the following files:

- `/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_costmap2d/include/rapp_costmap_2d/rapp-static_layer.h`
- `/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_costmap2d/plugins/rapp_static_layer.cpp`

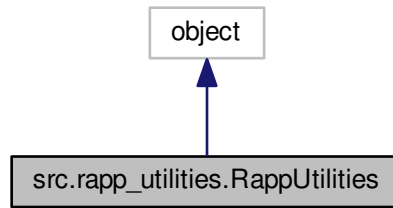
## 6.53 src.rapp\_utilities.RappUtilities Class Reference

Provides various utility functionalities.

Inheritance diagram for `src.rapp_utilities.RappUtilities`:



Collaboration diagram for `src.rapp_utilities.RappUtilities`:



### Public Member Functions

- `def \_\_init\_\_`

### Static Public Member Functions

- `def rapp\_print`  
*Prints ROS log messages with the specified verbosity.*

#### 6.53.1 Detailed Description

Provides various utility functionalities.

Definition at line 26 of file `rapp_utilities.py`.

#### 6.53.2 Constructor & Destructor Documentation

6.53.2.1 `def src.rapp_utilities.RappUtilities.__init__( self )`

Definition at line 28 of file `rapp_utilities.py`.

#### 6.53.3 Member Function Documentation

6.53.3.1 `def src.rapp_utilities.RappUtilities.rapp_print( var, verbosity = 'DEBUG' ) [static]`

Prints ROS log messages with the specified verbosity.

Definition at line 33 of file `rapp_utilities.py`.

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

- `/home/travis/rapp_temp/rapp-platform/rapp_utilities/src/rapp\_utilities.py`

## 6.54 `rapp_audio_processing.rapp_set_noise_profile.SetNoiseProfile` Class Reference

Evaluates the noise profile for an audio file.

## Public Member Functions

- `def __init__`  
*Performs initializations.*
- `def setNoise_profile`  
*Evaluates the audio profile.*

## Public Attributes

- `utilities`

### 6.54.1 Detailed Description

Evaluates the noise profile for an audio file.

Definition at line 31 of file `rapp_set_noise_profile.py`.

### 6.54.2 Constructor & Destructor Documentation

6.54.2.1 `def rapp_audio_processing.rapp_set_noise_profile.SetNoiseProfile.__init__( self )`

Performs initializations.

Definition at line 34 of file `rapp_set_noise_profile.py`.

### 6.54.3 Member Function Documentation

6.54.3.1 `def rapp_audio_processing.rapp_set_noise_profile.SetNoiseProfile.setNoise_profile( self, user, noise_audio_file, audio_file_type )`

Evaluates the audio profile.

Handles service callback `rapp_audio_processing.AudioProcessing::setNoiseProfileCallback`

Parameters

<i>user</i>	[string] The system user, for environmental variable access
<i>noise_audio_file</i>	[string] Noise audio file path
<i>audio_type</i>	[string] Noise audio file's type

Definition at line 45 of file `rapp_set_noise_profile.py`.

### 6.54.4 Member Data Documentation

6.54.4.1 `rapp_audio_processing.rapp_set_noise_profile.SetNoiseProfile.utilities`

Definition at line 35 of file `rapp_set_noise_profile.py`.

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

- `/home/travis/rapp_temp/rapp-platform/rapp_audio_processing/src/rapp_audio_processing/rapp_set_noise_profile.py`

## 6.55 rapp\_audio\_processing.rapp\_sox\_denoise.SoxDenoise Class Reference

Performs denoising on an audio file employing Sox application.

### Public Member Functions

- def [soxDenoise](#)  
*Performs denoising employing Sox application.*

#### 6.55.1 Detailed Description

Performs denoising on an audio file employing Sox application.

Definition at line 29 of file rapp\_sox\_denoise.py.

#### 6.55.2 Member Function Documentation

6.55.2.1 `def rapp_audio_processing.rapp_sox_denoise.SoxDenoise.soxDenoise ( self, user, audio_type, audio_file, denoised_audio_file, scale )`

Performs denoising employing Sox application.

Handles service callback [rapp\\_audio\\_processing.AudioProcessing::denoiseCallback](#)

Parameters

<i>user</i>	[string] The system user, for environmental variable access
<i>audio_file</i>	[string] Audio file path
<i>audio_type</i>	[string] Audio file's type
<i>denoised_audio_file</i>	[string] Path to write denoised audio file
<i>scale</i>	[float] Energy denoise scale

Definition at line 41 of file rapp\_sox\_denoise.py.

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

- /home/travis/rapp\_temp/rapp-platform/rapp\_audio\_processing/src/rapp\_audio\_processing/[rapp\\_sox\\_denoise.py](#)

## 6.56 rapp\_speech\_detection\_sphinx4.speech\_recognition\_sphinx4.SpeechRecognition-Sphinx4 Class Reference

Provides a complete Rapp Sphinx Entity.

### Public Member Functions

- def [\\_\\_init\\_\\_](#)  
*Constructor performing initializations.*
- def [getConfigurationHash](#)  
*Requests the configuration's sha1 hash.*
- def [speechRecognitionBatch](#)  
*Performs [Sphinx4](#) configuration and speech recognition.*



## Private Member Functions

- [def \\_configureSpeechRecognition](#)  
*Performs [Sphinx4](#) configuration.*
- [def \\_createPreconfiguration](#)  
*Create the requested preconfiguration.*
- [def \\_createSupportConfiguration](#)  
*Get Sphinx configuration paths from Language Support.*
- [def \\_selectLanguageSupport](#)  
*Choose the language support based on the request language.*
- [def \\_speechRecognition](#)  
*Performs [Sphinx4](#) speech recognition.*

## Private Attributes

- [\\_configuration\\_params](#)  
*The Sphinx configuration parameters.*
- [\\_english\\_support](#)  
*English creates necessary files for english speech recognition.*
- [\\_globalParams](#)  
*Contains global Sphinx parameters.*
- [\\_greek\\_support](#)  
*Greek\_support creates necessary files for Greek speech recognition.*
- [\\_sphinx4](#)  
*The sphinx wrapper communicates with the actual Sphinx.java process.*
- [\\_word\\_mapping](#)  
*A dictionary to transform the englified greek words to actual greek words.*

### 6.56.1 Detailed Description

Provides a complete Rapp Sphinx Entity.

Maintains a complete Rapp Sphinx Entity for the [speech\\_recognition\\_sphinx4\\_handler\\_node.SpeechRecognitionSphinx4HandlerNode](#) to perform the speech recognition.

Definition at line 61 of file `speech_recognition_sphinx4.py`.

### 6.56.2 Constructor & Destructor Documentation

6.56.2.1 `def rapp_speech_detection_sphinx4.speech_recognition_sphinx4.SpeechRecognitionSphinx4.__init__( self, configurationName=None )`

Constructor performing initializations.

Definition at line 64 of file `speech_recognition_sphinx4.py`.

### 6.56.3 Member Function Documentation

6.56.3.1 `def rapp_speech_detection_sphinx4.speech_recognition_sphinx4.SpeechRecognitionSphinx4._configureSpeechRecognition( self, req )` [private]

Performs [Sphinx4](#) configuration.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::SpeechDetectionSphinx4Wrapper::SpeechRecognitionSphinx4ConfigureSrvRequest] The sphinx configuration request
------------	---

## Returns

*res* [rapp\_platform\_ros\_communications::SpeechDetectionSphinx4Wrapper::SpeechRecognitionSphinx4ConfigureSrvRequest] The sphinx configuration response

Definition at line 189 of file speech\_recognition\_sphinx4.py.

```
6.56.3.2 def rapp_speech_detection_sphinx4.speech_recognition_sphinx4.SpeechRecognitionSphinx4._createPreconfiguration
( self, configurationName ) [private]
```

Create the requested preconfiguration.

Creates the configuration via the name requested from rapp\_speech\_detection\_sphinx4::cfg::sphinx4\_wrapper\_params.yaml

## Parameters

<i>configuration-Name</i>	[string] The preconfiguration name
---------------------------	------------------------------------

Definition at line 112 of file speech\_recognition\_sphinx4.py.

```
6.56.3.3 def rapp_speech_detection_sphinx4.speech_recognition_sphinx4.SpeechRecognitionSphinx4._createSupport-
Configuration ( self, support, res ) [private]
```

Get Sphinx configuration paths from Language Support.

## Parameters

<i>support</i>	[ <a href="#">language_support::LanguageSupport</a> ] A child class of the LanguageSupport depending on the requested language
<i>req</i>	[rapp_platform_ros_communications::SpeechDetectionSphinx4Wrapper::SpeechRecognitionSphinx4ConfigureSrvRequest] The sphinx configuration request

## Returns

*conf* [dictionary] The Sphinx configuration files' paths

Definition at line 229 of file speech\_recognition\_sphinx4.py.

```
6.56.3.4 def rapp_speech_detection_sphinx4.speech_recognition_sphinx4.SpeechRecognitionSphinx4._selectLanguage-
Support ( self, req ) [private]
```

Choose the language support based on the request language.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::SpeechDetectionSphinx4Wrapper::SpeechRecognitionSphinx4ConfigureSrvRequest] The sphinx configuration request
------------	---

## Returns

*support* [[language\\_support::LanguageSupport](#)] A child class of the LanguageSupport depending on the requested language

Definition at line 175 of file speech\_recognition\_sphinx4.py.

6.56.3.5 `def rapp_speech_detection_sphinx4.speech_recognition_sphinx4.SpeechRecognitionSphinx4._speechRecognition ( self, req ) [private]`

Performs [Sphinx4](#) speech recognition.

Parameters

<i>req</i>	[rapp_platform_ros_communications::SpeechDetectionSphinx4Wrapper::SpeechRecognitionSphinx4SrvRequest] The speech recognition request
------------	--

Returns

res [rapp\_platform\_ros\_communications::SpeechDetectionSphinx4Wrapper::SpeechRecognitionSphinx4SrvResponse] The speech recognition response

Definition at line 152 of file `speech_recognition_sphinx4.py`.

6.56.3.6 `def rapp_speech_detection_sphinx4.speech_recognition_sphinx4.SpeechRecognitionSphinx4.getConfigurationHash ( self )`

Requests the configuration's sha1 hash.

Hash is used to identify common request configurations for proper subprocess selection. (Requests with common requests do not require reconfiguration reducing computation time)

Returns

hexdigest [string] The hash digest containing only hexadecimal digits

Definition at line 103 of file `speech_recognition_sphinx4.py`.

6.56.3.7 `def rapp_speech_detection_sphinx4.speech_recognition_sphinx4.SpeechRecognitionSphinx4.speechRecognitionBatch ( self, req )`

Performs [Sphinx4](#) configuration and speech recognition.

Parameters

<i>req</i>	[rapp_platform_ros_communications::SpeechDetectionSphinx4Wrapper::SpeechRecognitionSphinx4TotalSrvRequest] The speech recognition request
------------	---

Returns

res [rapp\_platform\_ros\_communications::SpeechDetectionSphinx4Wrapper::SpeechRecognitionSphinx4TotalSrvResponse] The speech recognition response

Definition at line 128 of file `speech_recognition_sphinx4.py`.

## 6.56.4 Member Data Documentation

6.56.4.1 `rapp_speech_detection_sphinx4.speech_recognition_sphinx4.SpeechRecognitionSphinx4._configuration_params [private]`

The Sphinx configuration parameters.

(see [sphinx4\\_configuration\\_params.SphinxConfigurationParams](#))

Definition at line 86 of file `speech_recognition_sphinx4.py`.

#### 6.56.4.2 `rapp_speech_detection_sphinx4.speech_recognition_sphinx4.SpeechRecognitionSphinx4_english_support` [private]

English creates necessary files for english speech recognition.

(see [english\\_support.EnglishSupport](#))

Definition at line 82 of file `speech_recognition_sphinx4.py`.

#### 6.56.4.3 `rapp_speech_detection_sphinx4.speech_recognition_sphinx4.SpeechRecognitionSphinx4_globalParams` [private]

Contains global Sphinx parameters.

(see [global\\_parameters.GlobalParams](#))

Definition at line 69 of file `speech_recognition_sphinx4.py`.

#### 6.56.4.4 `rapp_speech_detection_sphinx4.speech_recognition_sphinx4.SpeechRecognitionSphinx4_greek_support` [private]

Greek\_support creates necessary files for Greek speech recognition.

(see [greek\\_support.GreekSupport](#))

Definition at line 78 of file `speech_recognition_sphinx4.py`.

#### 6.56.4.5 `rapp_speech_detection_sphinx4.speech_recognition_sphinx4.SpeechRecognitionSphinx4_sphinx4` [private]

The sphinx wrapper communicates with the actual Sphinx.java process.

(see [sphinx4\\_wrapper.Sphinx4Wrapper](#))

Definition at line 74 of file `speech_recognition_sphinx4.py`.

#### 6.56.4.6 `rapp_speech_detection_sphinx4.speech_recognition_sphinx4.SpeechRecognitionSphinx4_word_mapping` [private]

A dictionary to transform the englified greek words to actual greek words.

Definition at line 89 of file `speech_recognition_sphinx4.py`.

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

- `/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_sphinx4/speech_recognition_sphinx4.py`

### 6.57 `rapp_speech_detection_sphinx4.speech_recognition_sphinx4_handler_node.SpeechRecognitionSphinx4HandlerNode` Class Reference

Maintains Sphinx instances to perform speech recognition.

#### Public Member Functions

- `def __init__`  
*Initializes the subprocesses and the services (constructor)*
- `def handleSpeechRecognitionCallback`

---

*The callback to perform speech recognition.*

## Private Member Functions

- [def \\_calculateRequestHash](#)  
*Calculates the service request sha1 hash for process handling purposes.*
- [def \\_getPreconfigurationNames](#)  
*Specifies the requested preconfiguration names.*

## Private Attributes

- [\\_availableProcesses](#)  
*The subprocesses structure that contains information used for the subprocess handling.*
- [\\_lock](#)  
*Thread conditional variable used for the subprocess scheduling.*
- [\\_speech\\_recognition\\_batch\\_service](#)  
*Ros service server for sphinx speech recognition.*
- [\\_threadCounter](#)  
*Total service callback threads waiting to execute.*
- [\\_threads](#)  
*The number of child subprocesses.*

### 6.57.1 Detailed Description

Maintains Sphinx instances to perform speech recognition.

Maintains a number of child processes to perform speech recognition utilizing [Sphinx4](#) ([rapp\\_speech\\_detection\\_sphinx4.speech\\_recognition\\_sphinx4.SpeechRecognitionSphinx4](#)). Provides ros services and handles the requests according to the child processes' status.

Definition at line 47 of file `speech_recognition_sphinx4_handler_node.py`.

### 6.57.2 Constructor & Destructor Documentation

6.57.2.1 `def rapp_speech_detection_sphinx4.speech_recognition_sphinx4_handler_node.SpeechRecognitionSphinx4HandlerNode.__init__( self )`

Initializes the subprocesses and the services (constructor)

Definition at line 50 of file `speech_recognition_sphinx4_handler_node.py`.

### 6.57.3 Member Function Documentation

6.57.3.1 `def rapp_speech_detection_sphinx4.speech_recognition_sphinx4_handler_node.SpeechRecognitionSphinx4HandlerNode._calculateRequestHash( self, req ) [private]`

Calculates the service request sha1 hash for process handling purposes.

Hash is used to identify common request configurations for proper subprocess selection. (Requests with common requests do not require reconfiguration reducing computation time)

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::SpeechDetectionSphinx4Wrapper::SpeechRecognitionSphinx4TotalSrvRequest] The service request
------------	--

**Returns**

hexdigest [string] The hash digest containing only hexadecimal digits

Definition at line 198 of file speech\_recognition\_sphinx4\_handler\_node.py.

**6.57.3.2** `def rapp_speech_detection_sphinx4.speech_recognition_sphinx4_handler_node.SpeechRecognitionSphinx4HandlerNode._getPreconfigurationNames ( self ) [private]`

Specifies the requested preconfiguration names.

Reads and creates a matrix with the configuration name requested from rapp\_speech\_detection\_sphinx4::cfg::sphinx4\_wrapper\_params.yaml

**Returns**

preconf [ list<string> ] The preconfiguration names for all subprocesses

Definition at line 96 of file speech\_recognition\_sphinx4\_handler\_node.py.

**6.57.3.3** `def rapp_speech_detection_sphinx4.speech_recognition_sphinx4_handler_node.SpeechRecognitionSphinx4HandlerNode.handleSpeechRecognitionCallback ( self, req )`

The callback to perform speech recognition.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::SpeechDetectionSphinx4Wrapper::SpeechRecognitionSphinx4TotalSrvRequest] The service request
------------	--

**Returns**

res [rapp\_platform\_ros\_communications::SpeechDetectionSphinx4Wrapper::SpeechRecognitionSphinx4TotalSrvResponse] The service response

Definition at line 138 of file speech\_recognition\_sphinx4\_handler\_node.py.

**6.57.4 Member Data Documentation**

**6.57.4.1** `rapp_speech_detection_sphinx4.speech_recognition_sphinx4_handler_node.SpeechRecognitionSphinx4HandlerNode._availableProcesses [private]`

The subprocesses structure that contains information used for the subprocess handling.

Definition at line 60 of file speech\_recognition\_sphinx4\_handler\_node.py.

**6.57.4.2** `rapp_speech_detection_sphinx4.speech_recognition_sphinx4_handler_node.SpeechRecognitionSphinx4HandlerNode._lock [private]`

Thread conditional variable used for the subprocess scheduling.

Definition at line 75 of file speech\_recognition\_sphinx4\_handler\_node.py.

6.57.4.3 `rapp_speech_detection_sphinx4.speech_recognition_sphinx4_handler_node.SpeechRecognitionSphinx4Handler-Node.speech_recognition_batch_service` [private]

Ros service server for sphinx speech recognition.

Definition at line 85 of file `speech_recognition_sphinx4_handler_node.py`.

6.57.4.4 `rapp_speech_detection_sphinx4.speech_recognition_sphinx4_handler_node.SpeechRecognitionSphinx4Handler-Node.threadCounter` [private]

Total service callback threads waiting to execute.

Definition at line 77 of file `speech_recognition_sphinx4_handler_node.py`.

6.57.4.5 `rapp_speech_detection_sphinx4.speech_recognition_sphinx4_handler_node.SpeechRecognitionSphinx4Handler-Node.threads` [private]

The number of child subprocesses.

Definition at line 53 of file `speech_recognition_sphinx4_handler_node.py`.

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

- `/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_sphinx4/speech_recognition_sphinx4_handler_node.py`

## 6.58 speech\_recognition\_google.SpeechToTextGoogle Class Reference

Implements calls the Google ASR API.

### Public Member Functions

- `def __init__`  
*Default constructor.*
- `def speech_to_text`  
*Performs the call to Google API.*
- `def speech_to_text_callback`  
*The service callback.*

### Public Attributes

- `serv`
- `serv_topic`

### 6.58.1 Detailed Description

Implements calls the Google ASR API.

Definition at line 52 of file `speech_recognition_google.py`.

## 6.58.2 Constructor & Destructor Documentation

### 6.58.2.1 `def speech_recognition_google.SpeechToTextGoogle.__init__( self )`

Default constructor.

Declares the service callback

Definition at line 55 of file `speech_recognition_google.py`.

## 6.58.3 Member Function Documentation

### 6.58.3.1 `def speech_recognition_google.SpeechToTextGoogle.speech_to_text( self, file_path, user, audio_file_type, language )`

Performs the call to Google API.

Parameters

<i>file_path</i>	[string] The audio file
<i>user</i>	[string] The username
<i>audio_type</i>	[string] Used to check if denoising is needed. Can be one of headset, nao_ogg, nao_wav_1-_ch, nao_wav_4_ch
<i>language</i>	[string] The language in which the ASR will be performed

Returns

The transcript from Google

Definition at line 122 of file `speech_recognition_google.py`.

### 6.58.3.2 `def speech_recognition_google.SpeechToTextGoogle.speech_to_text_callback( self, req )`

The service callback.

Parameters

<i>req</i>	[SpeechToTextSrvRequest] The ROS service request
------------	--

Definition at line 66 of file `speech_recognition_google.py`.

## 6.58.4 Member Data Documentation

### 6.58.4.1 `speech_recognition_google.SpeechToTextGoogle.serv`

Definition at line 61 of file `speech_recognition_google.py`.

### 6.58.4.2 `speech_recognition_google.SpeechToTextGoogle.serv_topic`

Definition at line 57 of file `speech_recognition_google.py`.

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

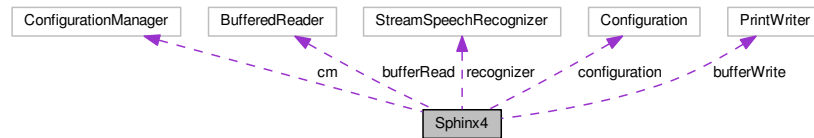
- `/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_google/src/speech_recognition_google.py`



## 6.59 Sphinx4 Class Reference

Performs speech recognition employing Sphinx.

Collaboration diagram for Sphinx4:



### Static Public Member Functions

- static void [main](#) (String[] args) throws IOException  
*The main function.*
- static void [updateConfiguration](#) () throws IOException  
*Updates the Sphinx configuration.*

### Static Public Attributes

- static String [acoustic\\_model\\_path](#) = ""
- static String [acoustic\\_model\\_path\\_prev](#) = ""
- static BufferedReader [bufferRead](#)
- static PrintWriter [bufferWrite](#)
- static ConfigurationManager [cm](#)
- static Configuration [configuration](#) = new Configuration()
- static String [configuration\\_model\\_path](#) = ""
- static String [configuration\\_model\\_path\\_prev](#) = ""
- static String [dictionary\\_path](#) = ""
- static String [dictionary\\_path\\_prev](#) = ""
- static boolean [grammar\\_enabled](#) = false
- static boolean [grammar\\_enabled\\_prev](#) = false
- static String [grammar\\_model\\_file\\_path](#) = ""
- static String [grammar\\_model\\_file\\_path\\_prev](#) = ""
- static String [grammar\\_model\\_folder\\_path](#) = ""
- static String [grammar\\_model\\_folder\\_path\\_prev](#) = ""
- static String [language\\_path](#) = ""
- static String [language\\_path\\_prev](#) = ""
- static StreamSpeechRecognizer [recognizer](#)

#### 6.59.1 Detailed Description

Performs speech recognition employing Sphinx.

Communicates with [rapp\\_speech\\_detection\\_sphinx4.sphinx4\\_wrapper.Sphinx4Wrapper](#) via socket to configure Sphinx and perform the speech recognition and returns the result.

Definition at line 49 of file Sphinx4.java.

## 6.59.2 Member Function Documentation

**6.59.2.1** `static void Sphinx4.main ( String[] args ) throws IOException` `[inline]`, `[static]`

The main function.

Creates the Sphinx process and awaits commands from [rapp\\_speech\\_detection\\_sphinx4.sphinx4\\_wrapper.Sphinx4Wrapper](#) to update the cconfiguration or perform the recognition.

Definition at line 134 of file Sphinx4.java.

**6.59.2.2** `static void Sphinx4.updateConfiguration ( ) throws IOException` `[inline]`, `[static]`

Updates the Sphinx configuration.

Definition at line 79 of file Sphinx4.java.

## 6.59.3 Member Data Documentation

**6.59.3.1** `String Sphinx4.acoustic_model_path = ""` `[static]`

Definition at line 57 of file Sphinx4.java.

**6.59.3.2** `String Sphinx4.acoustic_model_path_prev = ""` `[static]`

Definition at line 58 of file Sphinx4.java.

**6.59.3.3** `BufferedReader Sphinx4.bufferRead` `[static]`

Definition at line 72 of file Sphinx4.java.

**6.59.3.4** `PrintWriter Sphinx4.bufferWrite` `[static]`

Definition at line 73 of file Sphinx4.java.

**6.59.3.5** `ConfigurationManager Sphinx4.cm` `[static]`

Definition at line 69 of file Sphinx4.java.

**6.59.3.6** `Configuration Sphinx4.configuration = new Configuration()` `[static]`

Definition at line 68 of file Sphinx4.java.

**6.59.3.7** `String Sphinx4.configuration_model_path = ""` `[static]`

Definition at line 65 of file Sphinx4.java.

**6.59.3.8** `String Sphinx4.configuration_model_path_prev = ""` `[static]`

Definition at line 66 of file Sphinx4.java.

**6.59.3.9** `String Sphinx4.dictionary_path = ""` `[static]`

Definition at line 51 of file Sphinx4.java.

**6.59.3.10** `String Sphinx4.dictionary_path_prev = ""` `[static]`

Definition at line 52 of file Sphinx4.java.

**6.59.3.11** `boolean Sphinx4.grammar_enabled = false` `[static]`

Definition at line 75 of file Sphinx4.java.

**6.59.3.12** `boolean Sphinx4.grammar_enabled_prev = false` `[static]`

Definition at line 76 of file Sphinx4.java.

**6.59.3.13** `String Sphinx4.grammar_model_file_path = ""` `[static]`

Definition at line 60 of file Sphinx4.java.

**6.59.3.14** `String Sphinx4.grammar_model_file_path_prev = ""` `[static]`

Definition at line 61 of file Sphinx4.java.

**6.59.3.15** `String Sphinx4.grammar_model_folder_path = ""` `[static]`

Definition at line 62 of file Sphinx4.java.

**6.59.3.16** `String Sphinx4.grammar_model_folder_path_prev = ""` `[static]`

Definition at line 63 of file Sphinx4.java.

**6.59.3.17** `String Sphinx4.language_path = ""` `[static]`

Definition at line 54 of file Sphinx4.java.

**6.59.3.18** `String Sphinx4.language_path_prev = ""` `[static]`

Definition at line 55 of file Sphinx4.java.

**6.59.3.19** `StreamSpeechRecognizer Sphinx4.recognizer` `[static]`

Definition at line 70 of file Sphinx4.java.

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

- [/home/travis/rapp\\_temp/rapp-platform/rapp\\_speech\\_detection\\_sphinx4/src/Sphinx4.java](#)

## 6.60 rapp\_speech\_detection\_sphinx4.sphinx4\_wrapper.Sphinx4Wrapper Class Reference

Contains the Sphinx subprocess and is responsible for configuring Sphinx and performing the recognition request.

### Public Member Functions

- def [\\_\\_init\\_\\_](#)  
*Constructor Initiates service clients.*
- def [configureSphinx](#)  
*Perform [Sphinx4](#) configuration.*
- def [performSpeechRecognition](#)  
*Performs the speech recognition and returns a list of words.*

### Private Member Functions

- def [\\_callSphinxJava](#)  
*Communicate with Sphinx subprocess to initiate recognition and fetch results.*
- def [\\_createProcessingProfile](#)  
*Creates audio profile based on the audio type for processing purposes.*
- def [\\_createSocket](#)  
*Creates socket IPC between self and Sphinx subprocess Creates the socket server with a system provided port, which is pass as an argument to the created subprocess.*
- def [\\_initializeSphinxProcess](#)  
*Perform [Sphinx4](#) initialization Initiates Sphinx subprocess, sets up socket IPC and configures Sphinx subprocess.*
- def [\\_performEnergyDenoising](#)  
*Perform energy denoise.*
- def [\\_readLine](#)  
*Helper function for getting input from IPC with Sphinx subprocess.*
- def [\\_respawnSphinx](#)  
*Respawns Sphinx subprocess, if it terminates abruptly.*

### Private Attributes

- [\\_audio\\_transform\\_srv](#)  
*Transform audio service client.*
- [\\_conf](#)  
*Sphinx configuration.*
- [\\_denoise\\_service](#)  
*Denoise service client.*
- [\\_detect\\_silence\\_service](#)  
*Detect silence service client.*
- [\\_energy\\_denoise\\_service](#)  
*Energy denoise service client.*
- [\\_globalParams](#)  
*Contains global Sphinx parameters.*
- [\\_jar\\_path](#)  
*Contains the absolute path for the Sphinx jar file.*
- [\\_sphinx\\_socket](#)  
*The IPC socket.*

- [\\_sphinx\\_socket\\_PORT](#)  
*The IPC socket port.*
- [\\_sphinxDied](#)  
*Sphinx status flag.*
- [\\_sphinxSubprocess](#)  
*The Sphinx subprocess.*

### 6.60.1 Detailed Description

Contains the Sphinx subprocess and is responsible for configuring Sphinx and performing the recognition request.

Initializes a Sphinx.java subprocess and creates an IPC using sockets. It is responsible for interacting with Sphinx via the socket to send configuration params/instructions and initialize a recognition procedure.

Definition at line 48 of file sphinx4\_wrapper.py.

### 6.60.2 Constructor & Destructor Documentation

#### 6.60.2.1 `def rapp_speech_detection_sphinx4.sphinx4_wrapper.Sphinx4Wrapper.__init__( self )`

Constructor Initiates service clients.

Definition at line 52 of file sphinx4\_wrapper.py.

### 6.60.3 Member Function Documentation

#### 6.60.3.1 `def rapp_speech_detection_sphinx4.sphinx4_wrapper.Sphinx4Wrapper.callSphinxJava( self, audio_file )` [private]

Communicate with Sphinx subprocess to initiate recognition and fetch results.

Parameters

<i>audio_file</i>	[string] The audio file path
-------------------	------------------------------

Returns

words [list::string] The Sphinx result

Definition at line 410 of file sphinx4\_wrapper.py.

#### 6.60.3.2 `def rapp_speech_detection_sphinx4.sphinx4_wrapper.Sphinx4Wrapper.createProcessingProfile( self, audio_type )` [private]

Creates audio profile based on the audio type for processing purposes.

Defines a set of audio processing procedures (i.e. denoising) to be performed on the audio file and the parameters of the procedures. Aims to improve to audio file quality to improve speech recognition results.

Parameters

<i>audio_type</i>	[string] The audio type
-------------------	-------------------------

Returns

processingProfile [dictionary] The profile attributes

Definition at line 211 of file sphinx4\_wrapper.py.

6.60.3.3 `def rapp_speech_detection_sphinx4.sphinx4_wrapper.Sphinx4Wrapper._createSocket ( self ) [private]`

Creates socket IPC between self and Sphinx subprocess Creates the socket server with a system provided port, which is pass as an argument to the created subprocess.

Definition at line 169 of file sphinx4\_wrapper.py.

6.60.3.4 `def rapp_speech_detection_sphinx4.sphinx4_wrapper.Sphinx4Wrapper._initializeSphinxProcess ( self, conf = None ) [private]`

Perform [Sphinx4](#) initialization Initiates Sphinx subprocess, sets up socket IPC and configures Sphinx subprocess.

Parameters

<i>conf</i>	[dictionary] Contains the configuration parameters
-------------	--

Definition at line 136 of file sphinx4\_wrapper.py.

6.60.3.5 `def rapp_speech_detection_sphinx4.sphinx4_wrapper.Sphinx4Wrapper._performEnergyDenoising ( self, next_audio_file, audio_file, scale ) [private]`

Perform energy denoise.

Calls energy denoise service `rapp_audio_processing.rapp_audio_processing.AudioProcessing::energy_denoise` (see also [rapp\\_audio\\_processing.rapp\\_energy\\_denoise.EnergyDenoise::energyDenoise](#))

Parameters

<i>audio_file</i>	[string] The audio file path
<i>scale</i>	[float] The scale parameter for the denoising procedure

Returns

`file_path` [string] The path of the denoised file

Definition at line 397 of file sphinx4\_wrapper.py.

6.60.3.6 `def rapp_speech_detection_sphinx4.sphinx4_wrapper.Sphinx4Wrapper._readLine ( self ) [private]`

Helper function for getting input from IPC with Sphinx subprocess.

Returns

`line` [string] A buffer read from socket

Definition at line 126 of file sphinx4\_wrapper.py.

6.60.3.7 `def rapp_speech_detection_sphinx4.sphinx4_wrapper.Sphinx4Wrapper._respawnSphinx ( self ) [private]`

Respawns Sphinx subprocess, if it terminates abruptly.

Definition at line 437 of file sphinx4\_wrapper.py.

6.60.3.8 `def rapp_speech_detection_sphinx4.sphinx4_wrapper.Sphinx4Wrapper.configureSphinx ( self, conf )`

Perform [Sphinx4](#) configuration.

## Parameters

<i>conf</i>	[dictionary] Contains the configuration parameters
-------------	--

Definition at line 182 of file sphinx4\_wrapper.py.

6.60.3.9 `def rapp_speech_detection_sphinx4.sphinx4_wrapper.Sphinx4Wrapper.performSpeechRecognition ( self, audio_file, audio_type, user )`

Performs the speech recognition and returns a list of words.

## Parameters

<i>audio_file</i>	[string] The audio file's name
<i>audio_type</i>	[string] The audio file's type

## Returns

words [list::string] The result words

## Exceptions

<i>RappError</i>	Audio transformation error
------------------	----------------------------

Definition at line 271 of file sphinx4\_wrapper.py.

## 6.60.4 Member Data Documentation

6.60.4.1 `rapp_speech_detection_sphinx4.sphinx4_wrapper.Sphinx4Wrapper._audio_transform_srv` [private]

Transform audio service client.

`rapp_audio_processing.rapp_audio_processing.AudioProcessing::transform_audio`

Definition at line 113 of file sphinx4\_wrapper.py.

6.60.4.2 `rapp_speech_detection_sphinx4.sphinx4_wrapper.Sphinx4Wrapper._conf` [private]

Sphinx configuration.

Definition at line 59 of file sphinx4\_wrapper.py.

6.60.4.3 `rapp_speech_detection_sphinx4.sphinx4_wrapper.Sphinx4Wrapper._denoise_service` [private]

Denoise service client.

`rapp_audio_processing.rapp_audio_processing.AudioProcessing::denoise`

Definition at line 95 of file sphinx4\_wrapper.py.

6.60.4.4 `rapp_speech_detection_sphinx4.sphinx4_wrapper.Sphinx4Wrapper._detect_silence_service` [private]

Detect silence service client.

`rapp_audio_processing.rapp_audio_processing.AudioProcessing::detect_silence`

Definition at line 107 of file sphinx4\_wrapper.py.

#### 6.60.4.5 `rapp_speech_detection_sphinx4.sphinx4_wrapper.Sphinx4Wrapper._energy_denoise_service` [private]

Energy denoise service client.

`rapp_audio_processing.rapp_audio_processing.AudioProcessing::energy_denoise`

Definition at line 101 of file `sphinx4_wrapper.py`.

#### 6.60.4.6 `rapp_speech_detection_sphinx4.sphinx4_wrapper.Sphinx4Wrapper._globalParams` [private]

Contains global Sphinx parameters.

(see [global\\_parameters.GlobalParams](#))

Definition at line 56 of file `sphinx4_wrapper.py`.

#### 6.60.4.7 `rapp_speech_detection_sphinx4.sphinx4_wrapper.Sphinx4Wrapper._jar_path` [private]

Contains the absolute path for the Sphinx jar file.

Definition at line 117 of file `sphinx4_wrapper.py`.

#### 6.60.4.8 `rapp_speech_detection_sphinx4.sphinx4_wrapper.Sphinx4Wrapper._sphinx_socket` [private]

The IPC socket.

Definition at line 64 of file `sphinx4_wrapper.py`.

#### 6.60.4.9 `rapp_speech_detection_sphinx4.sphinx4_wrapper.Sphinx4Wrapper._sphinx_socket_PORT` [private]

The IPC socket port.

Definition at line 66 of file `sphinx4_wrapper.py`.

#### 6.60.4.10 `rapp_speech_detection_sphinx4.sphinx4_wrapper.Sphinx4Wrapper._sphinxDied` [private]

Sphinx status flag.

Definition at line 61 of file `sphinx4_wrapper.py`.

#### 6.60.4.11 `rapp_speech_detection_sphinx4.sphinx4_wrapper.Sphinx4Wrapper._sphinxSubprocess` [private]

The Sphinx subprocess.

Definition at line 69 of file `sphinx4_wrapper.py`.

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

- `/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_sphinx4/sphinx4_wrapper.py`

## 6.61 `rapp_speech_detection_sphinx4.sphinx4_configuration_params.SphinxConfigurationParams` Class Reference

Contains the parameters required for the Sphinx configuration.



## Public Member Functions

- def [\\_\\_init\\_\\_](#)  
*Initializes an empty configuration (constructor)*
- def [equalsRequest](#)  
*Checks if a [SphinxConfigurationParams](#) instance equals self.*
- def [getHash](#)  
*Calculates the configuration's sha1 hash.*
- def [makeEqualToInstance](#)  
*Change attributes to those specified by the Class instance.*
- def [makeEqualToRequest](#)  
*Change attributes to those specified by the request.*

## Private Member Functions

- def [\\_readConfigurationYaml](#)  
*Read the configuration from configuration yaml.*

## Private Attributes

- [\\_globalParams](#)  
*Contains global Sphinx parameters.*
- [\\_grammar](#)  
*Sphinx grammar attribute.*
- [\\_language](#)  
*The language of the request.*
- [\\_sentences](#)  
*Sphinx sentence attribute.*
- [\\_words](#)  
*The words to be identified.*

### 6.61.1 Detailed Description

Contains the parameters required for the Sphinx configuration.

Definition at line 30 of file sphinx4\_configuration\_params.py.

### 6.61.2 Constructor & Destructor Documentation

6.61.2.1 `def rapp_speech_detection_sphinx4.sphinx4_configuration_params.SphinxConfigurationParams.__init__( self, configuration = None )`

Initializes an empty configuration (constructor)

Definition at line 33 of file sphinx4\_configuration\_params.py.

### 6.61.3 Member Function Documentation

6.61.3.1 `def rapp_speech_detection_sphinx4.sphinx4_configuration_params.SphinxConfigurationParams._readConfigurationYaml( self, confName ) [private]`

Read the configuration from configuration yaml.

## Parameters

<i>confName</i>	[string] The name of the requested configuration
-----------------	--

Definition at line 73 of file sphinx4\_configuration\_params.py.

**6.61.3.2** `def rapp_speech_detection_sphinx4.sphinx4_configuration_params.SphinxConfigurationParams.equalsRequest ( self, params )`

Checks if a [SphinxConfigurationParams](#) instance equals self.

## Parameters

<i>params</i>	[ <a href="#">SphinxConfigurationParams</a> ] The class instance
<i>status</i>	[bool] True if configurations match

Definition at line 134 of file sphinx4\_configuration\_params.py.

**6.61.3.3** `def rapp_speech_detection_sphinx4.sphinx4_configuration_params.SphinxConfigurationParams.getHash ( self )`

Calculates the configuration's sha1 hash.

Hash is used to identify common request configurations for proper subprocess selection. (Requests with common requests do not require reconfiguration reducing computation time)

## Returns

hexdigest [string] The hash digest containing only hexadecimal digits

Definition at line 152 of file sphinx4\_configuration\_params.py.

**6.61.3.4** `def rapp_speech_detection_sphinx4.sphinx4_configuration_params.SphinxConfigurationParams.makeEqualToInstance ( self, instance )`

Change attributes to those specified by the Class instance.

## Parameters

<i>params</i>	[ <a href="#">SphinxConfigurationParams</a> ] The class instance
---------------	--

Definition at line 64 of file sphinx4\_configuration\_params.py.

**6.61.3.5** `def rapp_speech_detection_sphinx4.sphinx4_configuration_params.SphinxConfigurationParams.makeEqualToRequest ( self, params )`

Change attributes to those specified by the request.

## Parameters

<i>params</i>	[rapp_platform_ros_communications::SpeechDetectionSphinx4Wrapper::SpeechRecognitionSphinx4TotalSrvRequest] The service request
---------------	--

Definition at line 55 of file sphinx4\_configuration\_params.py.

**6.61.4 Member Data Documentation**

**6.61.4.1** `rapp_speech_detection_sphinx4.sphinx4_configuration_params.SphinxConfigurationParams._globalParams`  
[private]

Contains global Sphinx parameters.

(see [global\\_parameters.GlobalParams](#))

Definition at line 38 of file sphinx4\_configuration\_params.py.

#### 6.61.4.2 rapp\_speech\_detection\_sphinx4.sphinx4\_configuration\_params.SphinxConfigurationParams.\_grammar [private]

Sphinx grammar attribute.

Definition at line 45 of file sphinx4\_configuration\_params.py.

#### 6.61.4.3 rapp\_speech\_detection\_sphinx4.sphinx4\_configuration\_params.SphinxConfigurationParams.\_language [private]

The language of the request.

Definition at line 41 of file sphinx4\_configuration\_params.py.

#### 6.61.4.4 rapp\_speech\_detection\_sphinx4.sphinx4\_configuration\_params.SphinxConfigurationParams.\_sentences [private]

Sphinx sentence attribute.

Definition at line 47 of file sphinx4\_configuration\_params.py.

#### 6.61.4.5 rapp\_speech\_detection\_sphinx4.sphinx4\_configuration\_params.SphinxConfigurationParams.\_words [private]

The words to be identified.

Definition at line 43 of file sphinx4\_configuration\_params.py.

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

- /home/travis/rapp\_temp/rapp-platform/rapp\_speech\_detection\_sphinx4/src/rapp\_speech\_detection\_sphinx4/[sphinx4-configuration\\_params.py](#)

## 6.62 text\_to\_speech\_espeak.TextToSpeechEspeak Class Reference

### Public Member Functions

- def [\\_\\_init\\_\\_](#)
- def [text\\_to\\_speech\\_callback](#)

### Public Attributes

- [serv](#)
- [serv\\_topic](#)

### 6.62.1 Detailed Description

Definition at line 33 of file text\_to\_speech\_espeak.py.

## 6.62.2 Constructor & Destructor Documentation

### 6.62.2.1 `def text_to_speech_espeak.TextToSpeechEspeak.__init__( self )`

Definition at line 35 of file `text_to_speech_espeak.py`.

## 6.62.3 Member Function Documentation

### 6.62.3.1 `def text_to_speech_espeak.TextToSpeechEspeak.text_to_speech_callback( self, req )`

Definition at line 45 of file `text_to_speech_espeak.py`.

## 6.62.4 Member Data Documentation

### 6.62.4.1 `text_to_speech_espeak.TextToSpeechEspeak.serv`

Definition at line 41 of file `text_to_speech_espeak.py`.

### 6.62.4.2 `text_to_speech_espeak.TextToSpeechEspeak.serv_topic`

Definition at line 37 of file `text_to_speech_espeak.py`.

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

- `/home/travis/rapp_temp/rapp-platform/rapp_text_to_speech_espeak/src/text_to_speech_espeak.py`

## 6.63 `rapp_audio_processing.rapp_transform_audio.TransformAudio` Class Reference

Provides audio type tranformation functionalities.

### Public Member Functions

- `def transform_audio`  
*Performs the audio transformation.*

### Private Member Functions

- `def _assertArgs`  
*Verifies the existence of the required arguments.*
- `def _convertType`  
*Performs audio conversion.*
- `def _validateSourceType`  
*Validates that the provided audio type match the file extension.*

### 6.63.1 Detailed Description

Provides audio type tranformation functionalities.

Allows the transformation of an audio file to a different format. Supports the alteration of the type (i.e. headset, nao\_wav\_1\_ch etc.), the sample rate, the audio channel number, the audio format and the audio name. Handles transform audio service callback (`rapp_audio_processing.rapp_audio_processing.AudioProcessing::transform_audio`)

Definition at line 32 of file `rapp_transform_audio.py`.

## 6.63.2 Member Function Documentation

6.63.2.1 `def rapp_audio_processing.rapp_transform_audio.TransformAudio._assertArgs ( self, source_type, source_name, target_type, target_name, target_channels, target_rate ) [private]`

Verifies the existence of the required arguments.

### Parameters

<i>source_type</i>	[string] The source audio file's type
<i>source_name</i>	[string] The source audio file's name
<i>target_type</i>	[string] The target audio file's type
<i>target_name</i>	[string] The target audio file's name
<i>target_channels</i>	[string] The target audio's channel number
<i>target_rate</i>	[string] The target audio's sample rate

### Exceptions

<i>Exception</i>	Arguments are invalid
------------------	-----------------------

Definition at line 76 of file rapp\_transform\_audio.py.

6.63.2.2 `def rapp_audio_processing.rapp_transform_audio.TransformAudio._convertType ( self, source_type, source_name, target_type, target_name, target_channels, target_rate ) [private]`

Performs audio conversion.

### Parameters

<i>source_type</i>	[string] The source audio file's type
<i>source_name</i>	[string] The source audio file's name
<i>target_type</i>	[string] The target audio file's type
<i>target_name</i>	[string] The target audio file's name
<i>target_channels</i>	[string] The target audio's channel number
<i>target_rate</i>	[string] The target audio's sample rate

### Exceptions

<i>Exception</i>	Conversion malfunction
------------------	------------------------

Definition at line 101 of file rapp\_transform\_audio.py.

6.63.2.3 `def rapp_audio_processing.rapp_transform_audio.TransformAudio._validateSourceType ( self, source_type, name ) [private]`

Validates that the provided audio type match the file extension.

### Parameters

<i>source_type</i>	[string] The source audio file's type
<i>name</i>	[string] The source audio file's name

### Exceptions

<i>Exception</i>	Audio type/file type mismatch
------------------	-------------------------------

Definition at line 139 of file rapp\_transform\_audio.py.

6.63.2.4 `def rapp_audio_processing.rapp_transform_audio.TransformAudio.transform_audio ( self, source_type, source_name, target_type, target_name, target_channels, target_rate )`

Performs the audio transformation.

## Parameters

<i>source_type</i>	[string] The source audio file's type
<i>source_name</i>	[string] The source audio file's name
<i>target_type</i>	[string] The target audio file's type
<i>target_name</i>	[string] The target audio file's name
<i>target_channels</i>	[string] The target audio's channel number
<i>target_rate</i>	[string] The target audio's sample rate

## Returns

status [string] The status of the transformation procedure  
 filename [string] The name of the produced file

Definition at line 45 of file rapp\_transform\_audio.py.

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

- /home/travis/rapp\_temp/rapp-platform/rapp\_audio\_processing/src/rapp\_audio\_processing/[rapp\\_transform\\_audio.py](#)

## 6.64 userScoreHistoryForAllCategories.UserScoreHistoryForAllCategories Class Reference

Provides the necessary functions for returning the history of user scores.

### Public Member Functions

- def [assignTestHistoryForTestCategoriesToSrv](#)  
*Retrieves the test history of the user for the provided test categories.*
- def [returnUserHistory](#)  
*The callback function of the cognitive exercise user score history for all categories service.*
- def [validateTimeRange](#)  
*Validates the fromTime and toTime variables.*

#### 6.64.1 Detailed Description

Provides the necessary functions for returning the history of user scores.

It implements the cognitive exercise return user score history for all categories service

Definition at line 39 of file userScoreHistoryForAllCategories.py.

#### 6.64.2 Member Function Documentation

- 6.64.2.1 def userScoreHistoryForAllCategories.UserScoreHistoryForAllCategories.assignTestHistoryForTestCategoriesToSrv ( *self*, *testTypesList*, *userOntologyAlias*, *fromTime*, *toTime*, *res* )

Retrieves the test history of the user for the provided test categories.

## Parameters

<i>testTypesList</i>	[list] The list of the available tests as they were read from the ontology
<i>userOntology-Alias</i>	[string] The user's ontology alias
<i>fromTime</i>	[long] The time from which the user's performance records are taken into account
<i>toTime</i>	[long] The time up to which the user's performance records are taken into account

## Returns

res [rapp\_platform\_ros\_communications::userScoreHistoryForAllCategoriesSrvResponse::Response&] The output arguments of the service as defined in the userScoreHistoryForAllCategoriesSrv

Definition at line 82 of file userScoreHistoryForAllCategories.py.

#### 6.64.2.2 def userScoreHistoryForAllCategories.UserScoreHistoryForAllCategories.returnUserHistory ( self, req )

The callback function of the cognitive exercise user score history for all categories service.

## Parameters

<i>req</i>	[rapp_platform_ros_communications::userScoreHistoryForAllCategoriesSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::userScoreHistoryForAllCategoriesSrvResponse::Response&] The ROS service response

## Exceptions

<i>Exception</i>	ValueError
<i>Exception</i>	IndexError
<i>Exception</i>	AppError

Definition at line 47 of file userScoreHistoryForAllCategories.py.

#### 6.64.2.3 def userScoreHistoryForAllCategories.UserScoreHistoryForAllCategories.validateTimeRange ( self, fromTime, toTime )

Validates the fromTime and toTime variables.

## Parameters

<i>fromTime</i>	[long] The time from which the performance records are evaluated
<i>toTime</i>	[long] The time up to which the performance records are evaluated

## Returns

fromTime [long] The time from which the performance records are evaluated  
toTime [long] The time up to which the performance records are evaluated

## Exceptions

<i>Exception</i>	AppError
------------------	----------

Definition at line 121 of file userScoreHistoryForAllCategories.py.

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

- /home/travis/rapp\_temp/rapp-platform/rapp\_cognitive\_exercise/src/[userScoreHistoryForAllCategories.py](#)



## 6.65 userScoresForAllCategories.UserScoresForAllCategories Class Reference

Provides the necessary functions for returning the user scores.

### Public Member Functions

- def [calculateUserScoresForCategories](#)  
*Calculates and returns the user's scores for the provided test types.*
- def [returnUserScores](#)  
*The callback function of the cognitive exercise user scores for all categories service.*

### 6.65.1 Detailed Description

Provides the necessary functions for returning the user scores.

It implements the user scores for all categories service

Definition at line 33 of file userScoresForAllCategories.py.

### 6.65.2 Member Function Documentation

6.65.2.1 `def userScoresForAllCategories.UserScoresForAllCategories.calculateUserScoresForCategories ( self, testTypesList, userOntologyAlias, upToTime )`

Calculates and returns the user's scores for the provided test types.

#### Parameters

<i>testTypesList</i>	[list] The list of the available tests as they were read from the ontology
<i>userOntologyAlias</i>	[string] The user's ontology alias
<i>upToTime</i>	[long] The time up to which the user's performance records are taken into account

#### Returns

testScores [list] The test scores for each category

Definition at line 72 of file userScoresForAllCategories.py.

6.65.2.2 `def userScoresForAllCategories.UserScoresForAllCategories.returnUserScores ( self, req )`

The callback function of the cognitive exercise user scores for all categories service.

#### Parameters

<i>req</i>	[rapp_platform_ros_communications::userScoresForAllCategoriesSrvRequest::Request&] The ROS service request
<i>res</i>	[rapp_platform_ros_communications::userScoresForAllCategoriesSrvResponse::-Response&] The ROS service response

#### Exceptions

<i>Exception</i>	ValueError
<i>Exception</i>	IndexError
<i>Exception</i>	AppError

Definition at line 41 of file `userScoresForAllCategories.py`.

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

- `/home/travis/rapp_temp/rapp-platform/rapp_cognitive_exercise/src/userScoresForAllCategories.py`

## 6.66 rapp\_audio\_processing.rapp\_utilities.Utilities Class Reference

Provides audio processing utilities.

### Public Member Functions

- def `cleanup`

*Removes a number of files.*

### 6.66.1 Detailed Description

Provides audio processing utilities.

Definition at line 27 of file `rapp_utilities.py`.

### 6.66.2 Member Function Documentation

#### 6.66.2.1 def rapp\_audio\_processing.rapp\_utilities.Utilities.cleanup ( self, files )

Removes a number of files.

Parameters

<i>files</i>	[list::string] The to be deleted files' paths
--------------	---

Definition at line 32 of file `rapp_utilities.py`.

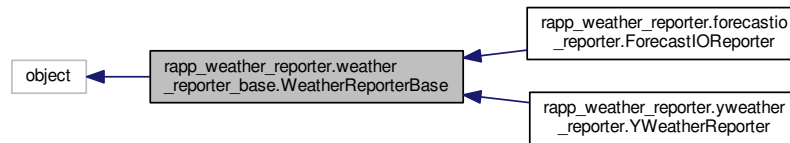
The documentation for this class was generated from the following file:

- `/home/travis/rapp_temp/rapp-platform/rapp_audio_processing/src/rapp_audio_processing/rapp_utilities.py`

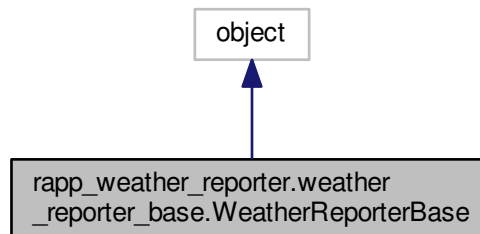
## 6.67 rapp\_weather\_reporter.weather\_reporter\_base.WeatherReporterBase Class Reference

Base class for weather reporters.

Inheritance diagram for rapp\_weather\_reporter.weather\_reporter\_base.WeatherReporterBase:



Collaboration diagram for rapp\_weather\_reporter.weather\_reporter\_base.WeatherReporterBase:



## Public Member Functions

- `def __init__`  
*Constructor.*
- `def fetch_current_weather`  
*Abstract method to fetch weather report.*
- `def fetch_weather_forecast`  
*Abstract method to fetch weather forecast.*

## Public Attributes

- `rapp_http_json_parser`  
*Strips html tags from strings.*

## Private Attributes

- `_accepted_status`  
*The value of valid response status code.*
- `_http_request`  
*Perform http requests to servers.*
- `_url`  
*The base weather reporter url.*

## Static Private Attributes

- `__metaclass__ = abc.ABCMeta`

### 6.67.1 Detailed Description

Base class for weather reporters.

Definition at line 32 of file `weather_reporter_base.py`.

### 6.67.2 Constructor & Destructor Documentation

#### 6.67.2.1 `def rapp_weather_reporter.weather_reporter_base.WeatherReporterBase.__init__( self )`

Constructor.

Definition at line 37 of file `weather_reporter_base.py`.

### 6.67.3 Member Function Documentation

#### 6.67.3.1 `def rapp_weather_reporter.weather_reporter_base.WeatherReporterBase.fetch_current_weather( self, req )`

Abstract method to fetch weather report.

Definition at line 52 of file `weather_reporter_base.py`.

#### 6.67.3.2 `def rapp_weather_reporter.weather_reporter_base.WeatherReporterBase.fetch_weather_forecast( self, req )`

Abstract method to fetch weather forecast.

Definition at line 58 of file `weather_reporter_base.py`.

### 6.67.4 Member Data Documentation

#### 6.67.4.1 `rapp_weather_reporter.weather_reporter_base.WeatherReporterBase.__metaclass__ = abc.ABCMeta` `[static]`, `[private]`

Definition at line 34 of file `weather_reporter_base.py`.

#### 6.67.4.2 `rapp_weather_reporter.weather_reporter_base.WeatherReporterBase._accepted_status` `[private]`

The value of valid response status code.

Definition at line 42 of file `weather_reporter_base.py`.

#### 6.67.4.3 `rapp_weather_reporter.weather_reporter_base.WeatherReporterBase._http_request` `[private]`

Perform http requests to servers.

Definition at line 45 of file `weather_reporter_base.py`.

#### 6.67.4.4 rapp\_weather\_reporter.weather\_reporter\_base.WeatherReporterBase.\_url [private]

The base weather reporter url.

Definition at line 39 of file weather\_reporter\_base.py.

#### 6.67.4.5 rapp\_weather\_reporter.weather\_reporter\_base.WeatherReporterBase.rapp\_http\_json\_parser

Strips html tags from strings.

Definition at line 48 of file weather\_reporter\_base.py.

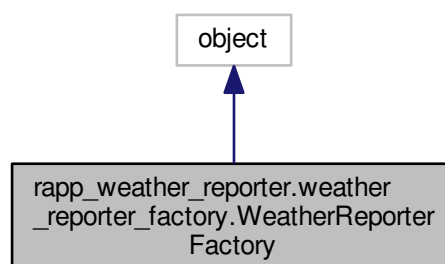
The documentation for this class was generated from the following file:

- [/home/travis/rapp\\_temp/rapp-platform/rapp\\_weather\\_reporter/src/rapp\\_weather\\_reporter/weather\\_reporter\\_base.py](#)

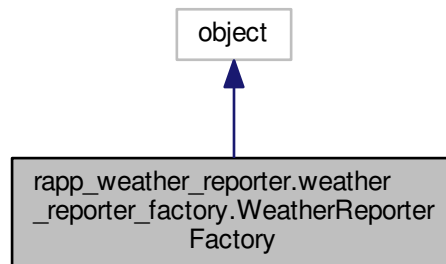
## 6.68 rapp\_weather\_reporter.weather\_reporter\_factory.WeatherReporterFactory Class Reference

Creates and returns the class of the weather reporter requested.

Inheritance diagram for rapp\_weather\_reporter.weather\_reporter\_factory.WeatherReporterFactory:



Collaboration diagram for `rapp_weather_reporter.weather_reporter_factory.WeatherReporterFactory`:



## Public Member Functions

- `def select_weather_reporter`  
*Select proper weather reporter according to request.*

### 6.68.1 Detailed Description

Creates and returns the class of the weather reporter requested.

Implements a factory pattern.

Definition at line 31 of file `weather_reporter_factory.py`.

### 6.68.2 Member Function Documentation

6.68.2.1 `def rapp_weather_reporter.weather_reporter_factory.WeatherReporterFactory.select_weather_reporter ( self, weather_reporter = " )`

Select proper weather reporter according to request.

#### Parameters

<i>weather_reporter</i>	[string] The name of the weather reporter
-------------------------	---

#### Returns

res [rapp\_weather\_reporter.rapp\_weather\_reporter.WeatherReporterBase] The weather reporter

RappError Wrong weather reporter provided by user

Definition at line 42 of file `weather_reporter_factory.py`.

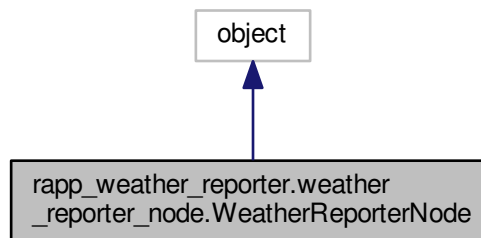
The documentation for this class was generated from the following file:

- `/home/travis/rapp_temp/rapp-platform/rapp_weather_reporter/src/rapp_weather_reporter/weather_reporter_factory.py`

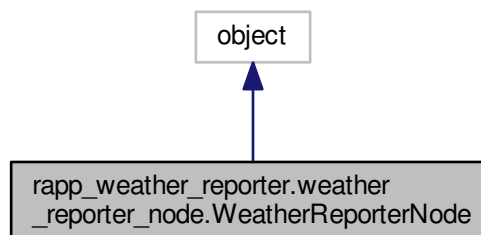
## 6.69 rapp\_weather\_reporter.weather\_reporter\_node.WeatherReporterNode Class Reference

Evaluates weather conditions.

Inheritance diagram for rapp\_weather\_reporter.weather\_reporter\_node.WeatherReporterNode:



Collaboration diagram for rapp\_weather\_reporter.weather\_reporter\_node.WeatherReporterNode:



### Public Member Functions

- `def __init__`  
*Constructor.*
- `def fetch_current_weather_srv_callback`  
*The callback to fetch current weather.*
- `def fetch_forecast_srv_callback`  
*The callback to fetch weather forecast.*

### Private Member Functions

- `def _create_current_service_response`  
*Creates proper response.*
- `def _create_forecast_service_response`

## Private Attributes

- [\\_weather\\_reporter\\_factory](#)  
*Factory that returns proper weather\_reporter.*

### 6.69.1 Detailed Description

Evaluates weather conditions.

Definition at line 40 of file weather\_reporter\_node.py.

### 6.69.2 Constructor & Destructor Documentation

#### 6.69.2.1 `def rapp_weather_reporter.weather_reporter_node.WeatherReporterNode.__init__( self )`

Constructor.

Definition at line 43 of file weather\_reporter\_node.py.

### 6.69.3 Member Function Documentation

#### 6.69.3.1 `def rapp_weather_reporter.weather_reporter_node.WeatherReporterNode._create_current_service_response( self, result ) [private]`

Creates proper response.

Parameters

<i>results</i>	[dict] The server results containing the weather information
----------------	--

Returns

res [rapp\_platform\_ros\_communications::WeatherReporter::WeatherReporterCurrentSrvResponse] The service response

Definition at line 129 of file weather\_reporter\_node.py.

#### 6.69.3.2 `def rapp_weather_reporter.weather_reporter_node.WeatherReporterNode._create_forecast_service_response( self, result ) [private]`

Definition at line 144 of file weather\_reporter\_node.py.

#### 6.69.3.3 `def rapp_weather_reporter.weather_reporter_node.WeatherReporterNode.fetch_current_weather_srv_callback( self, req )`

The callback to fetch current weather.

Parameters

<i>req</i>	[rapp_platform_ros_communications::WeatherReporter::WeatherReporterCurrentSrv] The service request
------------	--

Returns

res [rapp\_platform\_ros\_communications::WeatherReporter::WeatherReporterCurrentSrvResponse] The service response

Definition at line 78 of file weather\_reporter\_node.py.



6.69.3.4 `def rapp_weather_reporter.weather_reporter_node.WeatherReporterNode.fetch_forecast_srv_callback ( self, req )`

The callback to fetch weather forecast.

Parameters

<i>req</i>	[rapp_platform_ros_communications::WeatherReporter::WeatherReporterForecastSrv] The service request
------------	---

Returns

`res [rapp_platform_ros_communications::WeatherReporter::WeatherReporterCurrentSrvResponse]` The service response

Definition at line 104 of file `weather_reporter_node.py`.

## 6.69.4 Member Data Documentation

6.69.4.1 `rapp_weather_reporter.weather_reporter_node.WeatherReporterNode._weather_reporter_factory` [private]

Factory that returns proper `weather_reporter`.

Definition at line 45 of file `weather_reporter_node.py`.

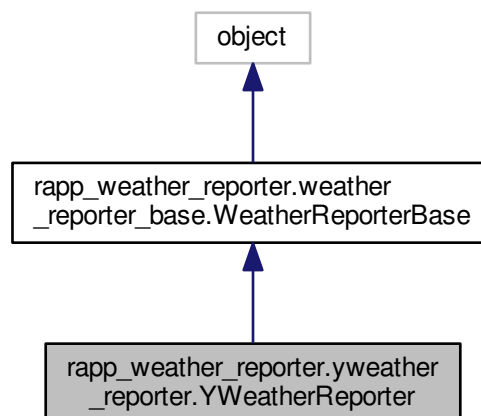
The documentation for this class was generated from the following file:

- `/home/travis/rapp_temp/rapp-platform/rapp_weather_reporter/src/rapp_weather_reporter/weather_reporter_node.py`

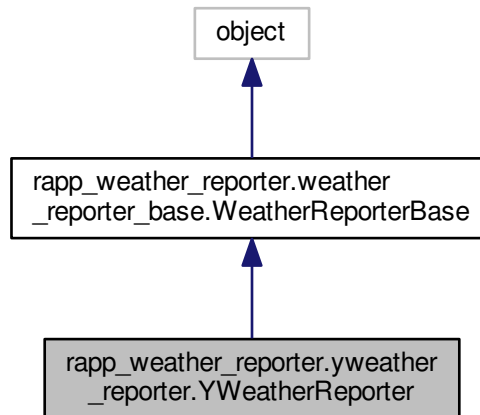
## 6.70 rapp\_weather\_reporter.yweather\_reporter.YWeatherReporter Class Reference

Yweather weather reporter.

Inheritance diagram for `rapp_weather_reporter.yweather_reporter.YWeatherReporter`:



Collaboration diagram for rapp\_weather\_reporter.yweather\_reporter.YWeatherReporter:



### Public Member Functions

- `def __init__`  
*Constructor.*
- `def fetch_current_weather`  
*Fetch the current weather.*
- `def fetch_weather_forecast`  
*Fetch the current weather.*

### Private Member Functions

- `def _fetch_city_id`
- `def _fetch_yweather_report`
- `def _handle_current_weather_report`  
*Handles the server's response.*
- `def _handle_weather_forecast_report`

### Private Attributes

- `_client`

### Additional Inherited Members

#### 6.70.1 Detailed Description

Yweather weather reporter.

Definition at line 34 of file `yweather_reporter.py`.

## 6.70.2 Constructor & Destructor Documentation

6.70.2.1 `def rapp_weather_reporter.yweather_reporter.YWeatherReporter.__init__( self )`

Constructor.

Definition at line 37 of file yweather\_reporter.py.

## 6.70.3 Member Function Documentation

6.70.3.1 `def rapp_weather_reporter.yweather_reporter.YWeatherReporter._fetch_city_id( self, city_str ) [private]`

Definition at line 42 of file yweather\_reporter.py.

6.70.3.2 `def rapp_weather_reporter.yweather_reporter.YWeatherReporter._fetch_yweather_report( self, city_id, param_metric = 'True' ) [private]`

Definition at line 67 of file yweather\_reporter.py.

6.70.3.3 `def rapp_weather_reporter.yweather_reporter.YWeatherReporter._handle_current_weather_report( self, report ) [private]`

Handles the server's response.

Parameters

<i>response</i>	[] The server's response to the request module.
-----------------	---

Returns

values [dict] The final values

Definition at line 104 of file yweather\_reporter.py.

6.70.3.4 `def rapp_weather_reporter.yweather_reporter.YWeatherReporter._handle_weather_forecast_report( self, report ) [private]`

Definition at line 119 of file yweather\_reporter.py.

6.70.3.5 `def rapp_weather_reporter.yweather_reporter.YWeatherReporter.fetch_current_weather( self, req )`

Fetch the current weather.

Parameters

<i>req</i>	[rapp_platform_ros_communications::WeatherReporter::WeatherReporterCurrentSrv] The service request
------------	--

Returns

[dict] The server results

Definition at line 81 of file yweather\_reporter.py.

6.70.3.6 `def rapp_weather_reporter.yweather_reporter.YWeatherReporter.fetch_weather_forecast( self, req )`

Fetch the current weather.

**Parameters**

<i>req</i>	[rapp_platform_ros_communications::WeatherReporter::WeatherReporterCurrentSrv] The service request
------------	--

**Returns**

[dict] The server results

Definition at line 94 of file yweather\_reporter.py.

## 6.70.4 Member Data Documentation

### 6.70.4.1 rapp\_weather\_reporter.yweather\_reporter.YWeatherReporter\_client [private]

Definition at line 39 of file yweather\_reporter.py.

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

- /home/travis/rapp\_temp/rapp-platform/rapp\_weather\_reporter/src/rapp\_weather\_reporter/yweather\_reporter.py

## Chapter 7

# File Documentation

### 7.1 `/home/travis/rapp_temp/rapp-platform/rapp_application_authentication_manager/src/rapp_application_authentication_manager/__init__.py` File Reference

#### Namespaces

- [rapp\\_application\\_authentication\\_manager](#)

### 7.2 `/home/travis/rapp_temp/rapp-platform/rapp_audio_processing/src/rapp_audio_processing/__init__.py` File Reference

#### Namespaces

- [rapp\\_audio\\_processing](#)

### 7.3 `/home/travis/rapp_temp/rapp-platform/rapp_email/src/rapp_email/__init__.py` File Reference

#### Namespaces

- [rapp\\_email](#)

### 7.4 `/home/travis/rapp_temp/rapp-platform/rapp_geolocator/src/rapp_geolocator/__init__.py` File Reference

#### Namespaces

- [rapp\\_geolocator](#)

### 7.5 `/home/travis/rapp_temp/rapp-platform/rapp_news_explorer/src/rapp_news_explorer/__init__.py` File Reference

## Namespaces

- [rapp\\_news\\_explorer](#)

## 7.6 /home/travis/rapp\_temp/rapp-platform/rapp\_speech\_detection\_sphinx4/src/rapp\_speech\_detection\_sphinx4/\_\_init\_\_.py File Reference

## Namespaces

- [rapp\\_speech\\_detection\\_sphinx4](#)

## 7.7 /home/travis/rapp\_temp/rapp-platform/rapp\_utilities/src/\_\_init\_\_.py File Reference

## Namespaces

- [src](#)

## 7.8 /home/travis/rapp\_temp/rapp-platform/rapp\_weather\_reporter/src/rapp\_weather\_reporter/\_\_init\_\_.py File Reference

## Namespaces

- [rapp\\_weather\\_reporter](#)

## 7.9 /home/travis/rapp\_temp/rapp-platform/rapp\_application\_authentication\_manager/src/rapp\_application\_authentication\_manager/application\_authentication\_node.py File Reference

## Classes

- class [rapp\\_application\\_authentication\\_manager.application\\_authentication\\_node.ApplicationAuthenticationManager](#)

*Provides user management features.*

## Namespaces

- [rapp\\_application\\_authentication\\_manager.application\\_authentication\\_node](#)

## Variables

- tuple [rapp\\_application\\_authentication\\_manager.application\\_authentication\\_node.application\\_authentication\\_node.\\_ros\\_node](#) = [ApplicationAuthenticationManager\(\)](#)

7.10 /home/travis/rapp\_temp/rapp-platform/rapp\_application\_authentication\_manager/src/rapp\_application\_authentication\_manager/database\_handler.py File

Reference

245

7.10 /home/travis/rapp\_temp/rapp-platform/rapp\_application\_authentication\_manager/src/rapp\_application\_authentication\_manager/database\_handler.py File Reference

## Classes

- class [rapp\\_application\\_authentication\\_manager.database\\_handler.DatabaseHandler](#)  
*Handles database functions for authentication manager.*

## Namespaces

- [rapp\\_application\\_authentication\\_manager.database\\_handler](#)

7.11 /home/travis/rapp\_temp/rapp-platform/rapp\_audio\_processing/src/rapp\_audio\_processing/rapp\_audio\_processing.py File Reference

## Classes

- class [rapp\\_audio\\_processing.rapp\\_audio\\_processing.AudioProcessing](#)  
*Provides audio processing utilities.*

## Namespaces

- [rapp\\_audio\\_processing.rapp\\_audio\\_processing](#)

## Variables

- tuple [rapp\\_audio\\_processing.rapp\\_audio\\_processing.AudioProcessingNode](#) = [AudioProcessing\(\)](#)

7.12 /home/travis/rapp\_temp/rapp-platform/rapp\_audio\_processing/src/rapp\_audio\_processing/rapp\_detect\_silence.py File Reference

## Classes

- class [rapp\\_audio\\_processing.rapp\\_detect\\_silence.DetectSilence](#)  
*Performs silence detection on an audio file.*

## Namespaces

- [rapp\\_audio\\_processing.rapp\\_detect\\_silence](#)

7.13 /home/travis/rapp\_temp/rapp-platform/rapp\_audio\_processing/src/rapp\_audio\_processing/rapp\_energy\_denoise.py File Reference

## Classes

- class [rapp\\_audio\\_processing.rapp\\_energy\\_denoise.EnergyDenoise](#)  
*Performs energy denoising on an audio file.*

## Namespaces

- [rapp\\_audio\\_processing.rapp\\_energy\\_denoise](#)

### 7.14 /home/travis/rapp\_temp/rapp-platform/rapp\_audio\_processing/src/rapp\_audio\_processing/rapp\_set\_noise\_profile.py File Reference

#### Classes

- class [rapp\\_audio\\_processing.rapp\\_set\\_noise\\_profile.SetNoiseProfile](#)  
*Evaluates the noise profile for an audio file.*

## Namespaces

- [rapp\\_audio\\_processing.rapp\\_set\\_noise\\_profile](#)

### 7.15 /home/travis/rapp\_temp/rapp-platform/rapp\_audio\_processing/src/rapp\_audio\_processing/rapp\_sox\_denoise.py File Reference

#### Classes

- class [rapp\\_audio\\_processing.rapp\\_sox\\_denoise.SoxDenoise](#)  
*Performs denoising on an audio file employing Sox application.*

## Namespaces

- [rapp\\_audio\\_processing.rapp\\_sox\\_denoise](#)

### 7.16 /home/travis/rapp\_temp/rapp-platform/rapp\_audio\_processing/src/rapp\_audio\_processing/rapp\_transform\_audio.py File Reference

#### Classes

- class [rapp\\_audio\\_processing.rapp\\_transform\\_audio.TransformAudio](#)  
*Provides audio type tranformation functionalities.*

## Namespaces

- [rapp\\_audio\\_processing.rapp\\_transform\\_audio](#)

### 7.17 /home/travis/rapp\_temp/rapp-platform/rapp\_audio\_processing/src/rapp\_audio\_processing/rapp\_utilities.py File Reference

#### Classes

- class [rapp\\_audio\\_processing.rapp\\_utilities.Utilities](#)  
*Provides audio processing utilities.*



## Namespaces

- [rapp\\_audio\\_processing.rapp\\_utilities](#)

## 7.18 /home/travis/rapp\_temp/rapp-platform/rapp\_utilities/src/rapp\_utilities.py File Reference

### Classes

- class [src.rapp\\_utilities.RappUtilities](#)  
*Provides various utility functionalities.*

## Namespaces

- [src.rapp\\_utilities](#)

## 7.19 /home/travis/rapp\_temp/rapp-platform/rapp\_caffe\_wrapper/src/app\_error\_exception.py File Reference

### Classes

- class [app\\_error\\_exception.AppError](#)  
*Exception compliant with the ros error and trace srvs.*

## Namespaces

- [app\\_error\\_exception](#)

## 7.20 /home/travis/rapp\_temp/rapp-platform/rapp\_cognitive\_exercise/src/app\_error\_exception.py File Reference

### Classes

- class [app\\_error\\_exception.AppError](#)  
*Exception compliant with the ros error and trace srvs.*

## Namespaces

- [app\\_error\\_exception](#)

## 7.21 /home/travis/rapp\_temp/rapp-platform/rapp\_caffe\_wrapper/src/caffe\_wrapper.py File Reference

### Classes

- class [caffe\\_wrapper.RappCaffeWrapper](#)  
*The [RappCaffeWrapper](#) ros node.*

## Namespaces

- [caffe\\_wrapper](#)

## 7.22 /home/travis/rapp\_temp/rapp-platform/rapp\_caffe\_wrapper/src/caffe\_wrapper\_main.py File Reference

### Namespaces

- [caffe\\_wrapper\\_main](#)

### Variables

- tuple [caffe\\_wrapper\\_main.RappCaffeWrapperNode](#) = RappCaffeWrapper()  
*The main function that initiates the rapp\_caffe\_wrapper ROS Node.*

## 7.23 /home/travis/rapp\_temp/rapp-platform/rapp\_caffe\_wrapper/src/image\_classification.py File Reference

### Classes

- class [image\\_classification.ImageClassification](#)  
*Contains the necessary functions for classifying an images and requesting registration to the ontology.*

### Namespaces

- [image\\_classification](#)

## 7.24 /home/travis/rapp\_temp/rapp-platform/rapp\_caffe\_wrapper/src/image\_registration\_to\_ontology.py File Reference

### Classes

- class [image\\_registration\\_to\\_ontology.ImageRegistrationToOntology](#)  
*Contains the necessary functions for registering images to the ontology.*

### Namespaces

- [image\\_registration\\_to\\_ontology](#)

## 7.25 /home/travis/rapp\_temp/rapp-platform/rapp\_caffe\_wrapper/src/ontology\_class\_bridge.py File Reference

### Classes

- class [ontology\\_class\\_bridge.OntologyClassBridge](#)  
*Contains the necessary functions for translating caffe classes to ontology classes.*

## Namespaces

- [ontology\\_class\\_bridge](#)

## 7.26 /home/travis/rapp\_temp/rapp-platform/rapp\_cognitive\_exercise/src/cognitive\_exercise.py File Reference

### Classes

- class [cognitive\\_exercise.CognitiveExercise](#)  
*The Cognitive exercise ros node.*

## Namespaces

- [cognitive\\_exercise](#)

## 7.27 /home/travis/rapp\_temp/rapp-platform/rapp\_cognitive\_exercise/src/cognitive\_exercise\_main.py File Reference

## Namespaces

- [cognitive\\_exercise\\_main](#)

## Variables

- tuple [cognitive\\_exercise\\_main.CognitiveExerciseNode](#) = [CognitiveExercise\(\)](#)  
*The main function that initiates the CognitiveExercise ROS Node.*

## 7.28 /home/travis/rapp\_temp/rapp-platform/rapp\_cognitive\_exercise/src/helper\_functions.py File Reference

## Classes

- class [helper\\_functions.CognitiveExerciseHelperFunctions](#)

## Namespaces

- [helper\\_functions](#)

## 7.29 /home/travis/rapp\_temp/rapp-platform/rapp\_cognitive\_exercise/src/userScoreHistoryForAllCategories.py File Reference

## Classes

- class [userScoreHistoryForAllCategories.UserScoreHistoryForAllCategories](#)  
*Provides the necessary functions for returning the history of user scores.*

## Namespaces

- [userScoreHistoryForAllCategories](#)

### 7.30 /home/travis/rapp\_temp/rapp-platform/rapp\_cognitive\_exercise/src/userScoresForAllCategories.py File Reference

#### Classes

- class [userScoresForAllCategories.UserScoresForAllCategories](#)  
*Provides the necessary functions for returning the user scores.*

## Namespaces

- [userScoresForAllCategories](#)

### 7.31 /home/travis/rapp\_temp/rapp-platform/rapp\_email/src/rapp\_email/email\_node.py File Reference

#### Namespaces

- [rapp\\_email.email\\_node](#)

#### Variables

- tuple [rapp\\_email.email\\_node.emailReceiver](#) = EmailReceiver()
- tuple [rapp\\_email.email\\_node.emailSender](#) = EmailSender()

### 7.32 /home/travis/rapp\_temp/rapp-platform/rapp\_email/src/rapp\_email/email\_receiver.py File Reference

#### Classes

- class [rapp\\_email.email\\_receiver.EmailReceiver](#)  
*Fetches emails from user's email account.*

## Namespaces

- [rapp\\_email.email\\_receiver](#)

### 7.33 /home/travis/rapp\_temp/rapp-platform/rapp\_email/src/rapp\_email/email\_sender.py File Reference

#### Classes

- class [rapp\\_email.email\\_sender.EmailSender](#)

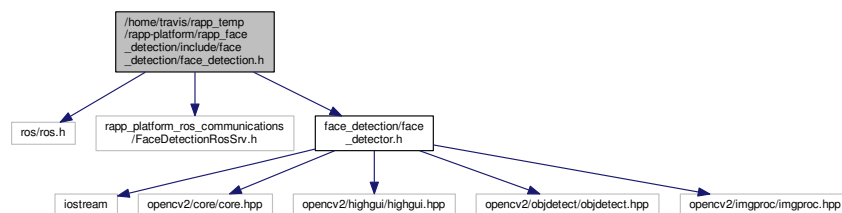
## Namespaces

- [rapp\\_email.email\\_sender](#)

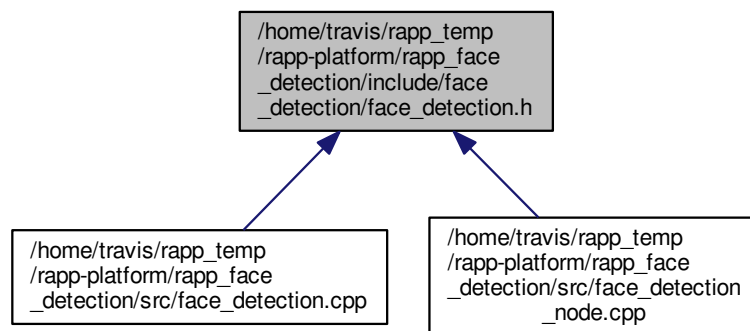
7.34 /home/travis/rapp\_temp/rapp-platform/rapp\_face\_detection/include/face\_detection/face-  
\_detection.h File Reference

```
#include "ros/ros.h"  
#include <rapp_platform_ros_communications/FaceDetectionRosSrv.h>  
#include <face_detection/face_detector.h>
```

Include dependency graph for face\_detection.h:



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



## Classes

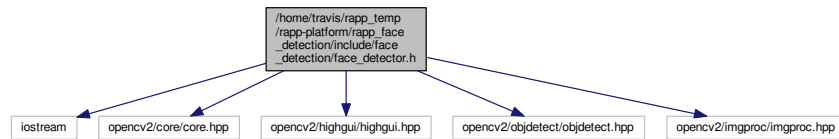
- class [FaceDetection](#)  
Class [FaceDetection](#) uptakes the task of handling the ROS service callbacks.

7.35 /home/travis/rapp\_temp/rapp-platform/rapp\_face\_detection/include/face\_detection/face-  
\_detector.h File Reference

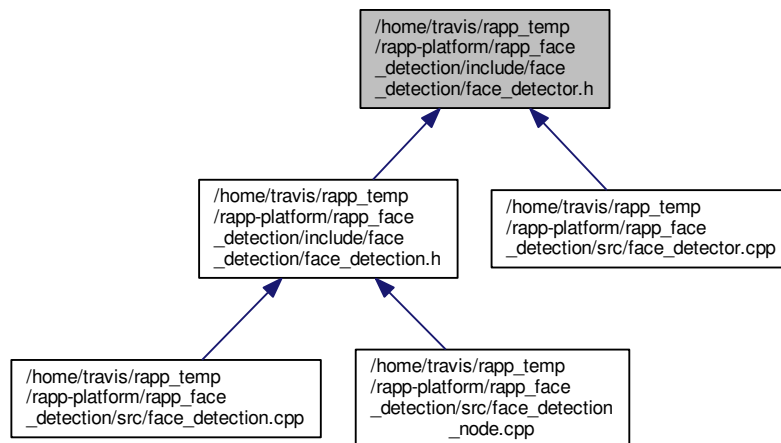
```
#include <iostream>
```

```
#include <opencv2/core/core.hpp>
#include <opencv2/highgui/highgui.hpp>
#include <opencv2/objdetect/objdetect.hpp>
#include <opencv2/imgproc/imgproc.hpp>
```

Include dependency graph for face\_detector.h:



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



## Classes

- class [FaceDetector](#)

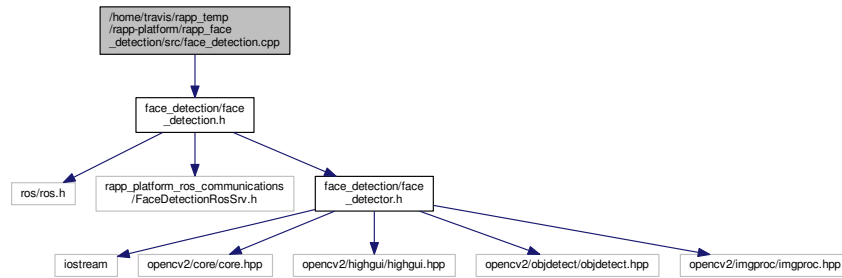
*Class that implements a face detection algorithm based on a Haar cascade classifier.*

## 7.36 /home/travis/rapp\_temp/rapp-platform/rapp\_face\_detection/src/face\_detection.cpp

### File Reference

```
#include <face_detection/face_detection.h>
```

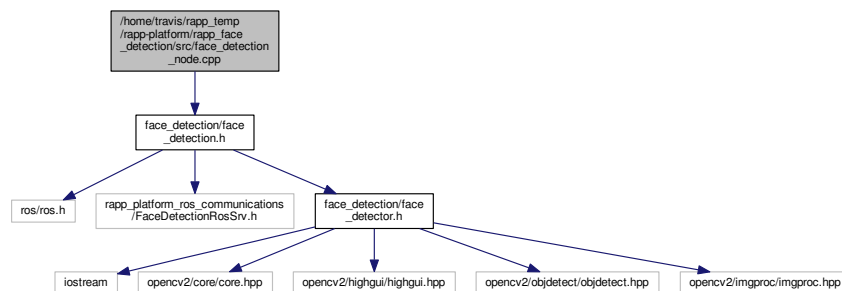
Include dependency graph for face\_detection.cpp:



## 7.37 /home/travis/rapp\_temp/rapp-platform/rapp\_face\_detection/src/face\_detection\_node.cpp File Reference

```
#include <face_detection/face_detection.h>
```

Include dependency graph for face\_detection\_node.cpp:



## Functions

- int [main](#) (int argc, char \*\*argv)

The executable's main function. Creates a ROS multispinner to enable concurrent requests and declares a [Face-Detection](#) object.

### 7.37.1 Function Documentation

#### 7.37.1.1 int main ( int argc, char \*\* argv )

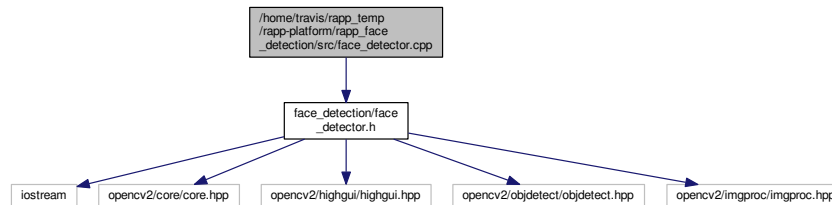
The executable's main function. Creates a ROS multispinner to enable concurrent requests and declares a [Face-Detection](#) object.

Definition at line 24 of file face\_detection\_node.cpp.

### 7.38 /home/travis/rapp\_temp/rapp-platform/rapp\_face\_detection/src/face\_detector.cpp File Reference

```
#include <face_detection/face_detector.h>
```

Include dependency graph for face\_detector.cpp:



### 7.39 /home/travis/rapp\_temp/rapp-platform/rapp\_geolocator/src/rapp\_geolocator/geolocator\_base.py File Reference

#### Classes

- class [rapp\\_geolocator.geolocator\\_base.GeolocatorBase](#)  
*Base class for geolocators.*

#### Namespaces

- [rapp\\_geolocator.geolocator\\_base](#)

### 7.40 /home/travis/rapp\_temp/rapp-platform/rapp\_geolocator/src/rapp\_geolocator/geolocator\_factory.py File Reference

#### Classes

- class [rapp\\_geolocator.geolocator\\_factory.GeolocatorFactory](#)

#### Namespaces

- [rapp\\_geolocator.geolocator\\_factory](#)

### 7.41 /home/travis/rapp\_temp/rapp-platform/rapp\_geolocator/src/rapp\_geolocator/geolocator\_node.py File Reference

#### Classes

- class [rapp\\_geolocator.geolocator\\_node.GeolocatorNode](#)  
*Calculates geolocation via IP.*



### Namespaces

- [rapp\\_geolocator.geolocator\\_node](#)

### Variables

- tuple [rapp\\_geolocator.geolocator\\_node.geolocator\\_node](#) = GeolocatorNode()

## 7.42 /home/travis/rapp\_temp/rapp-platform/rapp\_geolocator/src/rapp\_geolocator/ip\_api\_locator.py File Reference

### Classes

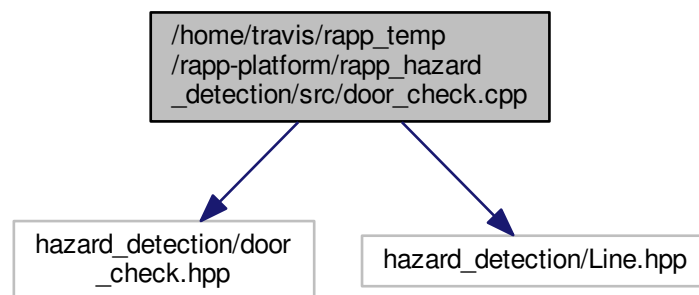
- class [rapp\\_geolocator.ip\\_api\\_locator.IpAPILocator](#)  
*IP-API locator.*

### Namespaces

- [rapp\\_geolocator.ip\\_api\\_locator](#)

## 7.43 /home/travis/rapp\_temp/rapp-platform/rapp\_hazard\_detection/src/door\_check.cpp File Reference

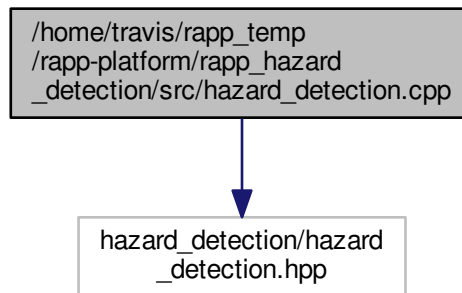
```
#include <hazard_detection/door_check.hpp>
#include <hazard_detection/Line.hpp>
Include dependency graph for door_check.cpp:
```



## 7.44 /home/travis/rapp\_temp/rapp-platform/rapp\_hazard\_detection/src/hazard\_detection.cpp File Reference

```
#include <hazard_detection/hazard_detection.hpp>
```

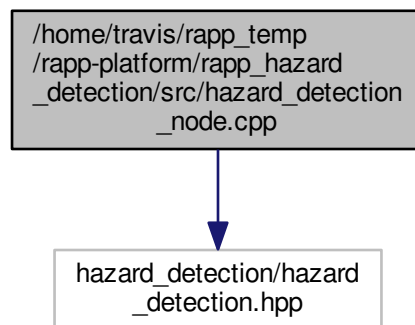
Include dependency graph for hazard\_detection.cpp:



## 7.45 /home/travis/rapp\_temp/rapp-platform/rapp\_hazard\_detection/src/hazard\_detection\_node.cpp File Reference

```
#include <hazard_detection/hazard_detection.hpp>
```

Include dependency graph for hazard\_detection\_node.cpp:



## Functions

- `int main (int argc, char **argv)`

*The executable's main function. Creates a ROS multispinner to enable concurrent requests and declares a Hazard-Detection object.*

### 7.45.1 Function Documentation

7.45.1.1 `int main ( int argc, char ** argv )`

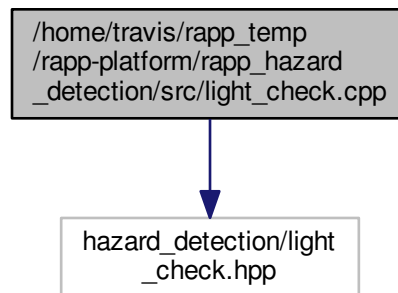
The executable's main function. Creates a ROS multispinner to enable concurrent requests and declares a Hazard-Detection object.

Definition at line 24 of file hazard\_detection\_node.cpp.

## 7.46 /home/travis/rapp\_temp/rapp-platform/rapp\_hazard\_detection/src/light\_check.cpp File Reference

```
#include <hazard_detection/light_check.hpp>
```

Include dependency graph for light\_check.cpp:



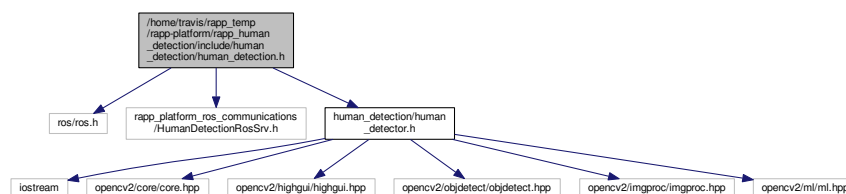
## 7.47 /home/travis/rapp\_temp/rapp-platform/rapp\_human\_detection/include/human\_detection/human\_detection.h File Reference

```
#include "ros/ros.h"
```

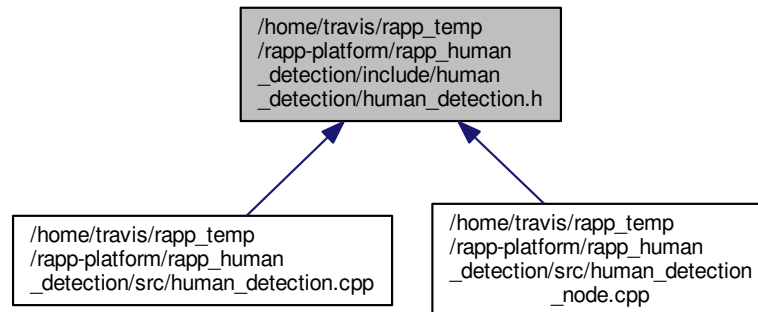
```
#include <rapp_platform_ros_communications/HumanDetectionRosSrv.h>
```

```
#include <human_detection/human_detector.h>
```

Include dependency graph for human\_detection.h:



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



## Classes

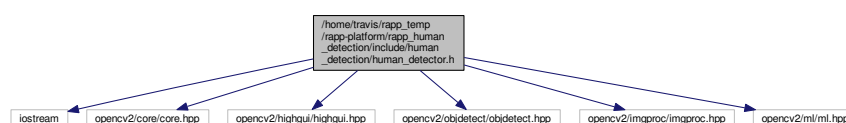
- class [HumanDetection](#)

Class [HumanDetection](#) uptakes the task of handling the ROS service callbacks.

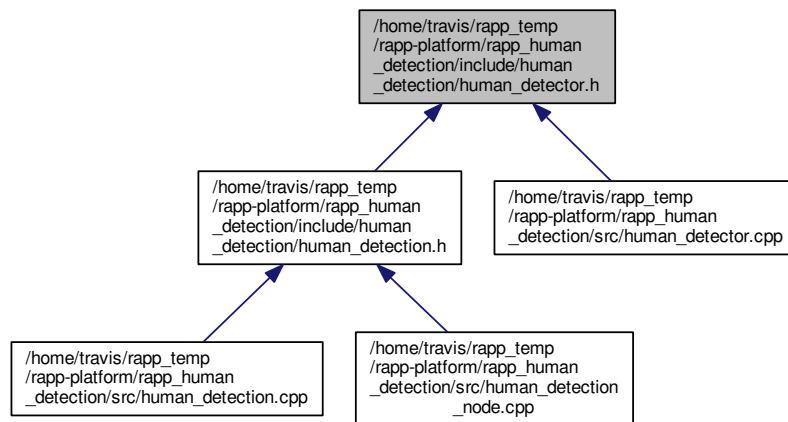
## 7.48 /home/travis/rapp\_temp/rapp-platform/rapp\_human\_detection/include/human\_detection/human\_detector.h File Reference

```
#include <iostream>
#include <opencv2/core/core.hpp>
#include <opencv2/highgui/highgui.hpp>
#include <opencv2/objdetect/objdetect.hpp>
#include <opencv2/imgproc/imgproc.hpp>
#include <opencv2/ml/ml.hpp>
```

Include dependency graph for `human_detector.h`:



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



## Classes

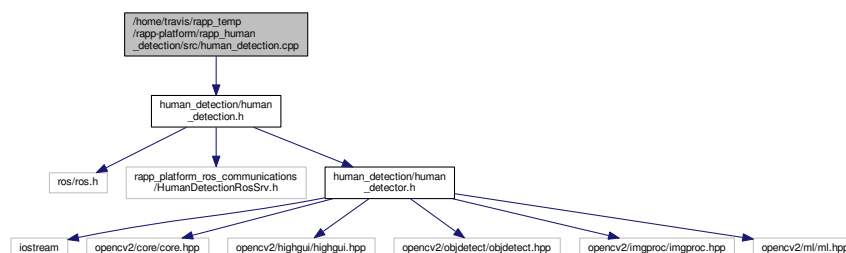
- class [HumanDetector](#)

*Class that implements a human detection algorithm based on a Haar cascade classifier.*

## 7.49 /home/travis/rapp\_temp/rapp-platform/rapp\_human\_detection/src/human\_detection.cpp File Reference

```
#include <human_detection/human_detection.h>
```

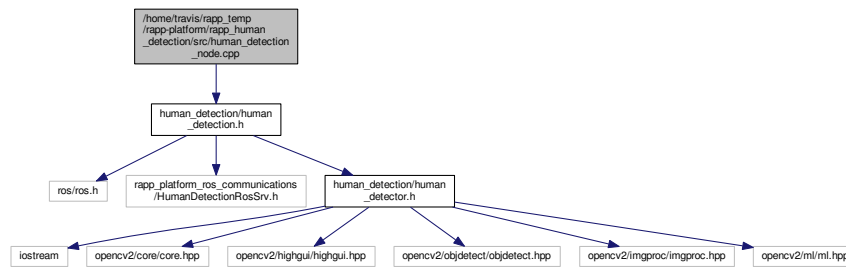
Include dependency graph for human\_detection.cpp:



## 7.50 /home/travis/rapp\_temp/rapp-platform/rapp\_human\_detection/src/human\_detection\_node.cpp File Reference

```
#include <human_detection/human_detection.h>
```

Include dependency graph for `human_detection_node.cpp`:



## Functions

- `int main (int argc, char **argv)`

The executable's main function. Creates a ROS multispinner to enable concurrent requests and declares a [Human-Detection](#) object.

### 7.50.1 Function Documentation

#### 7.50.1.1 `int main ( int argc, char ** argv )`

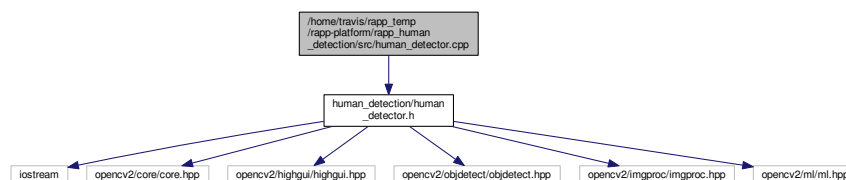
The executable's main function. Creates a ROS multispinner to enable concurrent requests and declares a [Human-Detection](#) object.

Definition at line 24 of file `human_detection_node.cpp`.

## 7.51 /home/travis/rapp\_temp/rapp-platform/rapp\_human\_detection/src/human\_detector.cpp File Reference

```
#include <human_detection/human_detector.h>
```

Include dependency graph for `human_detector.cpp`:



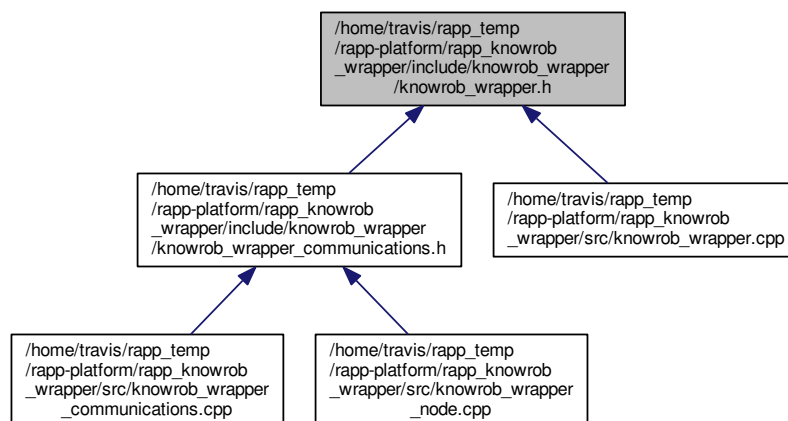
## 7.52 /home/travis/rapp\_temp/rapp-platform/rapp\_knowrob\_wrapper/include/knowrob\_wrapper/knowrob\_wrapper.h File Reference

```
#include <string>
```

```
#include <iostream>
#include <json_prolog/prolog.h>
#include <rapp_platform_ros_communications/registerUserOntologyAliasSrv.h>
#include <rapp_platform_ros_communications/getUserOntologyAliasSrv.h>
#include <rapp_platform_ros_communications/StringArrayMsg.h>
#include <rapp_platform_ros_communications/createInstanceSrv.h>
#include <rapp_platform_ros_communications/ontologyInstancesOfSrv.h>
#include <rapp_platform_ros_communications/ontologyLoadDumpSrv.h>
#include <rapp_platform_ros_communications/ontologySubSuperClassesOfSrv.h>
#include <rapp_platform_ros_communications/assertRetractAttributeSrv.h>
#include <rapp_platform_ros_communications/ontologyIsSubSuperClassOfSrv.h>
#include <rapp_platform_ros_communications/returnUserInstancesOfClassSrv.h>
#include <rapp_platform_ros_communications/createOntologyAliasSrv.h>
#include <rapp_platform_ros_communications/userPerformanceCognitiveTests-
Srv.h>
#include <rapp_platform_ros_communications/createCognitiveExerciseTestSrv.-
h>
#include <rapp_platform_ros_communications/cognitiveTestsOfTypeSrv.h>
#include <rapp_platform_ros_communications/recordUserPerformanceCognitive-
TestsSrv.h>
#include <rapp_platform_ros_communications/clearUserPerformanceCognitive-
TestsSrv.h>
#include <rapp_platform_ros_communications/registerImageObjectToOntology-
Srv.h>
#include <rapp_platform_ros_communications/retractUserOntologyAliasSrv.h>
Include dependency graph for knowrob_wrapper.h:
```



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



## Classes

- class [KnowrobWrapper](#)

Class [KnowrobWrapperCommunications](#) contains all the necessary knowrob wrapper functions.

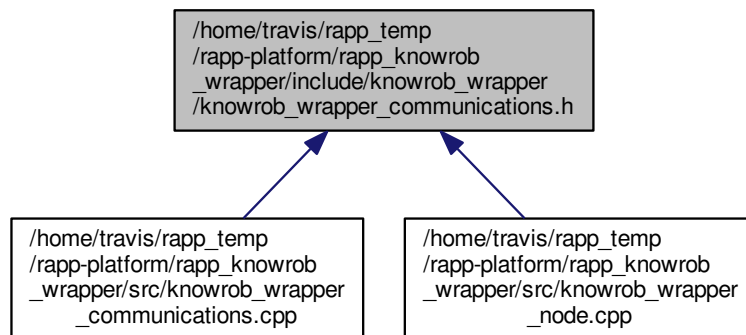
### 7.53 /home/travis/rapp\_temp/rapp-platform/rapp\_knowrob\_wrapper/include/knowrob\_wrapper/knowrob\_wrapper\_communications.h File Reference

```
#include <knowrob_wrapper/knowrob_wrapper.h>
#include <ros/ros.h>
```

Include dependency graph for knowrob\_wrapper\_communications.h:



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



#### Classes

- class [KnowrobWrapperCommunications](#)

Class [KnowrobWrapperCommunications](#) uptakes the task of handling the ROS service callbacks.

### 7.54 /home/travis/rapp\_temp/rapp-platform/rapp\_knowrob\_wrapper/src/knowrob\_wrapper.cpp File Reference

```
#include <knowrob_wrapper/knowrob_wrapper.h>
#include <sys/stat.h>
#include <unistd.h>
#include <sstream>
#include <ros/package.h>
#include <fstream>
```

Include dependency graph for knowrob\_wrapper.cpp:





## Functions

- bool [checkIfFileExists](#) (const char \*fileName)  
*Checks if path exists.*
- bool [checkIfStringContainsString](#) (std::string a, std::string b)  
*Checks if the second string is contained within the first string.*
- bool [checkIfStringVectorContainsString](#) (std::vector< std::string > vec, std::string a)  
*Check if a string is contained in a vector string.*
- std::string [intToString](#) (int a)  
*Converts integer to string.*
- std::vector< std::string > [split](#) (std::string str, std::string sep)  
*Splits string by delimiter.*
- std::string [SplitFilename](#) (const std::string &str)  
*Keeps only the final folder or file from a path.*

### 7.54.1 Function Documentation

#### 7.54.1.1 bool checkIfFileExists ( const char \* fileName )

Checks if path exists.

##### Parameters

<i>fileName</i>	[char*] The input path
-----------------	------------------------

##### Returns

out [bool] True if file exists

Definition at line 103 of file knowrob\_wrapper.cpp.

#### 7.54.1.2 bool checkIfStringContainsString ( std::string a, std::string b )

Checks if the second string is contained within the first string.

##### Parameters

<i>a</i>	[string] The first string
----------	---------------------------

##### Returns

b [string] The second String

Definition at line 68 of file knowrob\_wrapper.cpp.

#### 7.54.1.3 bool checkIfStringVectorContainsString ( std::vector< std::string > vec, std::string a )

Check if a string is contained in a vector string.

##### Parameters

<i>vec</i>	[vector<string>] The vector containing strings
------------	--

##### Returns

a [string] The string to check if it is contained

Definition at line 52 of file knowrob\_wrapper.cpp.

#### 7.54.1.4 `std::string intToString ( int a )`

Converts integer to string.

$a$	[int] The input integer
-----	-------------------------

## Returns

out [string] The output string

Definition at line 81 of file knowrob\_wrapper.cpp.

#### 7.54.1.5 `std::vector<std::string> split ( std::string str, std::string sep )`

Splits string by delimiter.

## Parameters

<i>str</i>	[string] The input string
<i>sep</i>	[string] The delimiter

## Returns

`arr [vector<string>]` A vector with the string parts as splitted by the delimiter

Definition at line 114 of file knowrob\_wrapper.cpp.

#### 7.54.1.6 `std::string SplitFilename ( const std::string & str )`

Keeps only the final folder or file from a path.

## Parameters

<i>str</i>	[string&] The input path
------------	--------------------------

## Returns

out [string] The output filename

Definition at line 92 of file knowrob\_wrapper.cpp.

7.55 /home/travis/rapp\_temp/rapp-platform/rapp-knowrob-wrapper/src/knownrob\_wrapper-  
\_communications.cpp File Reference

```
#include <knowrob_wrapper/knowrob_wrapper_communications.h>
```

```
#include <ros/package.h>
```

Include dependency graph for knowrob\_wrapper\_communications.cpp:



## 7.56 /home/travis/rapp\_temp/rapp-platform/rapp\_knowrob\_wrapper/src/knowrob\_wrapper\_node.cpp File Reference

```
#include <knowrob_wrapper/knowrob_wrapper_communications.h>
```

Include dependency graph for knowrob\_wrapper\_node.cpp:



### Functions

- `int main (int argc, char **argv)`  
*The executable's main function. Creates a ROS multispinner to enable concurrent requests and declares a [KnowrobWrapperCommunications](#) object.*

#### 7.56.1 Function Documentation

##### 7.56.1.1 `int main ( int argc, char ** argv )`

The executable's main function. Creates a ROS multispinner to enable concurrent requests and declares a [KnowrobWrapperCommunications](#) object.

Definition at line 27 of file knowrob\_wrapper\_node.cpp.

## 7.57 /home/travis/rapp\_temp/rapp-platform/rapp\_mysql\_wrapper/src/mysql\_wrapper.py File Reference

### Classes

- class `mysql_wrapper.MySQLdbWrapper`  
*The mysql wrapper ros node.*

### Namespaces

- `mysql_wrapper`

## 7.58 /home/travis/rapp\_temp/rapp-platform/rapp\_mysql\_wrapper/src/mysql\_wrapper\_main.py File Reference

### Namespaces

- `mysql_wrapper_main`

### Variables

- tuple `mysql_wrapper_main.MySQLWrapperNode = MySQLdbWrapper()`  
*The main function that initiates the rapp mysql wrapper ROS Node.*

## 7.59 /home/travis/rapp\_temp/rapp-platform/rapp\_mysql\_wrapper/src/mysql\_wrapper\_old.py File Reference

### Classes

- class [mysql\\_wrapper\\_old.MySQLdbWrapper](#)  
*The mysql wrapper ros node.*

### Namespaces

- [mysql\\_wrapper\\_old](#)

## 7.60 /home/travis/rapp\_temp/rapp-platform/rapp\_news\_explorer/src/rapp\_news\_explorer/engine\_factory.py File Reference

### Classes

- class [rapp\\_news\\_explorer.engine\\_factory.EngineFactory](#)  
*Creates and returns the class of the news engine requested.*

### Namespaces

- [rapp\\_news\\_explorer.engine\\_factory](#)

## 7.61 /home/travis/rapp\_temp/rapp-platform/rapp\_news\_explorer/src/rapp\_news\_explorer/event\_registry\_engine.py File Reference

### Classes

- class [rapp\\_news\\_explorer.event\\_registry\\_engine.EventRegistryEngine](#)  
*EventRegistry news engine hndler.*

### Namespaces

- [rapp\\_news\\_explorer.event\\_registry\\_engine](#)

## 7.62 /home/travis/rapp\_temp/rapp-platform/rapp\_news\_explorer/src/rapp\_news\_explorer/google\_news\_engine.py File Reference

### Classes

- class [rapp\\_news\\_explorer.google\\_news\\_engine.GoogleNewsEngine](#)  
*Google news engine hndler.*

### Namespaces

- [rapp\\_news\\_explorer.google\\_news\\_engine](#)

## 7.63 /home/travis/rapp\_temp/rapp-platform/rapp\_news\_explorer/src/rapp\_news\_explorer/news\_engine\_base.py File Reference

### Classes

- class [rapp\\_news\\_explorer.news\\_engine\\_base.NewsEngineBase](#)  
*Base class for news engines.*

### Namespaces

- [rapp\\_news\\_explorer.news\\_engine\\_base](#)

## 7.64 /home/travis/rapp\_temp/rapp-platform/rapp\_news\_explorer/src/rapp\_news\_explorer/news\_explorer\_node.py File Reference

### Classes

- class [rapp\\_news\\_explorer.news\\_explorer\\_node.NewsExplorerNode](#)  
*Fetches news from various News sites' APIs.*

### Namespaces

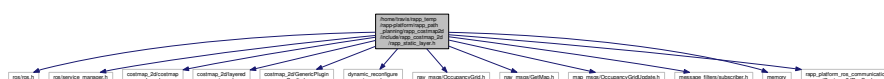
- [rapp\\_news\\_explorer.news\\_explorer\\_node](#)

### Variables

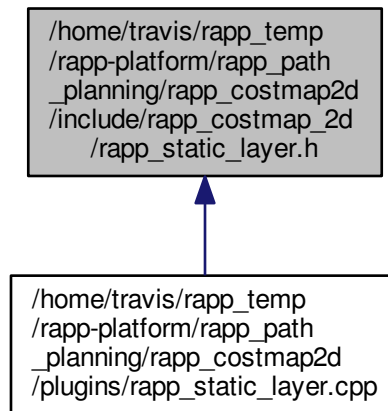
- tuple [rapp\\_news\\_explorer.news\\_explorer\\_node.news\\_explorer\\_node](#) = `NewsExplorerNode()`

## 7.65 /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_costmap2d/include/rapp\_costmap\_2d/rapp\_static\_layer.h File Reference

```
#include <ros/ros.h>
#include <ros/service_manager.h>
#include <costmap_2d/costmap_layer.h>
#include <costmap_2d/layered_costmap.h>
#include <costmap_2d/GenericPluginConfig.h>
#include <dynamic_reconfigure/server.h>
#include <nav_msgs/OccupancyGrid.h>
#include <nav_msgs/GetMap.h>
#include <map_msgs/OccupancyGridUpdate.h>
#include <message_filters/subscriber.h>
#include <memory>
#include <rapp_platform_ros_communications/Costmap2dRosSrv.h>
Include dependency graph for rapp_static_layer.h:
```



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



## Classes

- class `costmap_2d::RappStaticLayer`

## Namespaces

- costmap\_2d

7.66 /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_costmap2d/plugins/rapp-  
\_static\_layer.cpp File Reference

```
#include <rapp_costmap_2d/rapp_static_layer.h>
```

```
#include <costmap_2d/costmap_math.h>
```

```
#include <pluginlib/class_list_macros.h>
```

Include dependency graph for rapp\_static\_layer.cpp:



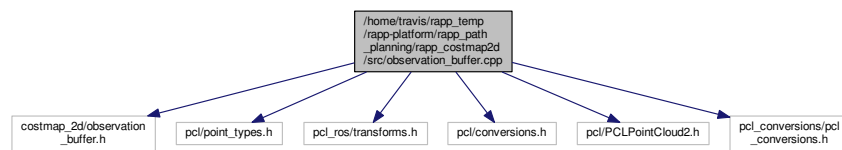
## Namespaces

- costmap\_2d

## 7.67 /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_costmap2d/src/observation\_buffer.cpp File Reference

```
#include <costmap_2d/observation_buffer.h>
#include <pcl/point_types.h>
#include <pcl_ros/transforms.h>
#include <pcl/conversions.h>
#include <pcl/PCLPointCloud2.h>
#include <pcl_conversions/pcl_conversions.h>
```

Include dependency graph for observation\_buffer.cpp:



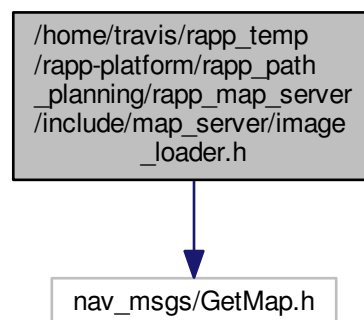
### Namespaces

- [costmap\\_2d](#)

## 7.68 /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_map\_server/include/map\_server/image\_loader.h File Reference

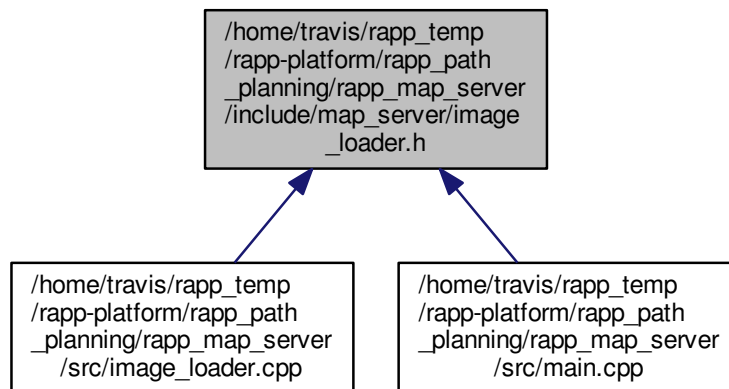
```
#include "nav_msgs/GetMap.h"
```

Include dependency graph for image\_loader.h:





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



## Namespaces

- [map\\_server](#)

## Functions

- void [map\\_server::loadMapFromFile](#) (nav\_msgs::GetMap::Response \*resp, const char \*fname, double res, bool negate, double occ\_th, double free\_th, double \*origin, bool trinary=true)

## 7.69 /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_map\_server/scripts/crop\_map.py File Reference

## Namespaces

- [crop\\_map](#)

## Functions

- def [crop\\_map.computed\\_cropped\\_origin](#)
- def [crop\\_map.find\\_bounds](#)

## Variables

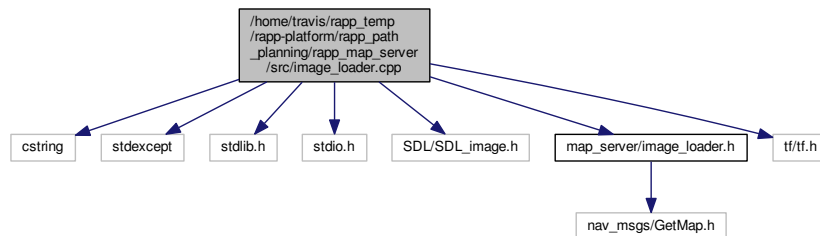
- tuple [crop\\_map.bounds](#) = [find\\_bounds](#)(map\_image)
- string [crop\\_map.crop\\_image](#) = crop\_name+".pgm"
- list [crop\\_map.crop\\_name](#) = sys.argv[2]
- string [crop\\_map.crop\\_yaml](#) = crop\_name+".yaml"
- tuple [crop\\_map.cropped\\_image](#) = map\_image.crop((bounds[0], bounds[2], bounds[1] + 1, bounds[3] + 1))
- tuple [crop\\_map.map\\_data](#) = [yaml.safe\\_load](#)(f)
- tuple [crop\\_map.map\\_image](#) = [Image.open](#)(map\_image\_file)

- list `crop_map.map_image_file` = `map_data["image"]`
- list `crop_map.origin` = `map_data["origin"]`
- list `crop_map.resolution` = `map_data["resolution"]`

## 7.70 /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_map\_server/src/image\_loader.cpp File Reference

```
#include <cstring>
#include <stdexcept>
#include <stdlib.h>
#include <stdio.h>
#include <SDL/SDL_image.h>
#include "map_server/image_loader.h"
#include <tf/tf.h>
```

Include dependency graph for image\_loader.cpp:



### Namespaces

- `map_server`

### Macros

- `#define MAP_IDX(sx, i, j) ((sx) * (j) + (i))`

### Functions

- void `map_server::loadMapFromFile` (`nav_msgs::GetMap::Response *resp`, `const char *fname`, `double res`, `bool negate`, `double occ_th`, `double free_th`, `double *origin`, `bool trinary=true`)

#### 7.70.1 Macro Definition Documentation

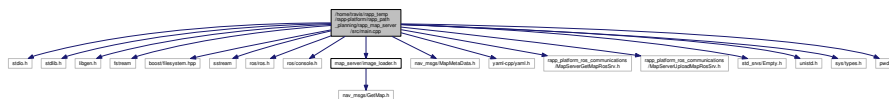
7.70.1.1 `#define MAP_IDX( sx, i, j ) ((sx) * (j) + (i))`

Definition at line 49 of file `image_loader.cpp`.

## 7.71 /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_map\_server/src/main.cpp File Reference

```
#include <stdio.h>
#include <stdlib.h>
#include <libgen.h>
#include <fstream>
#include <boost/filesystem.hpp>
#include <sstream>
#include "ros/ros.h"
#include "ros/console.h"
#include "map_server/image_loader.h"
#include "nav_msgs/MapMetaData.h"
#include "yaml-cpp/yaml.h"
#include "rapp_platform_ros_communications/MapServerGetMapRosSrv.h"
#include "rapp_platform_ros_communications/MapServerUploadMapRosSrv.h"
#include "std_srvs/Empty.h"
#include <unistd.h>
#include <sys/types.h>
#include <pwd.h>
```

Include dependency graph for main.cpp:



## Classes

- class [MapServer](#)

## Macros

- `#define` [USAGE](#)

## Functions

- int [main](#) (int argc, char \*\*argv)

### 7.71.1 Macro Definition Documentation

#### 7.71.1.1 `#define` [USAGE](#)

#### Value:

```
"\nUSAGE: map_server <map.yaml>\n" \
"  map.yaml: map description file\n" \
"DEPRECATED USAGE: map_server <map> <resolution>\n" \
"  map: image file to load\n" \
"  resolution: map resolution [meters/pixel]"
```

Definition at line 38 of file main.cpp.

## 7.71.2 Function Documentation

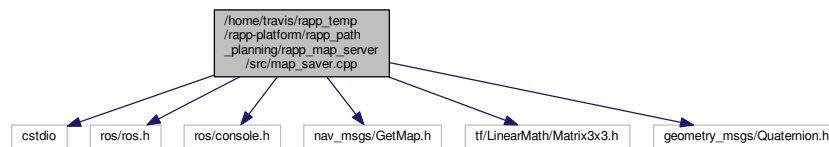
### 7.71.2.1 `int main ( int argc, char ** argv )`

Definition at line 288 of file `main.cpp`.

## 7.72 `/home/travis/rapp_temp/rapp-platform/rapp_path_planning/rapp_map_server/src/map_saver.cpp` File Reference

```
#include <cstdio>
#include "ros/ros.h"
#include "ros/console.h"
#include "nav_msgs/GetMap.h"
#include "tf/LinearMath/Matrix3x3.h"
#include "geometry_msgs/Quaternion.h"
```

Include dependency graph for `map_saver.cpp`:



## Classes

- class [MapGenerator](#)  
*Map generation node.*

## Macros

- `#define` [USAGE](#)

## Functions

- `int` [main](#) (int argc, char \*\*argv)

## 7.72.1 Macro Definition Documentation

### 7.72.1.1 `#define USAGE`

**Value:**

```
"Usage: \n" \
    "  map_saver -h\n" \
    "  map_saver [-f <mapname>] [ROS remapping args]"
```

Definition at line 124 of file `map_saver.cpp`.

## 7.72.2 Function Documentation

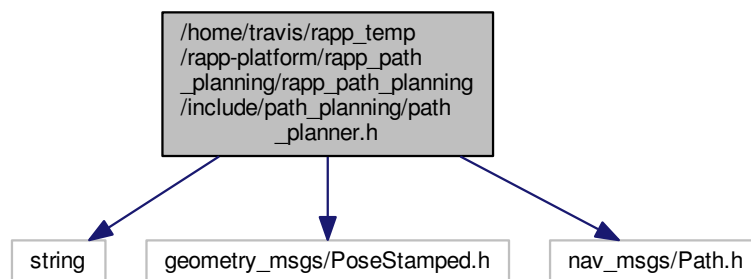
### 7.72.2.1 int main ( int argc, char \*\* argv )

Definition at line 128 of file map\_saver.cpp.

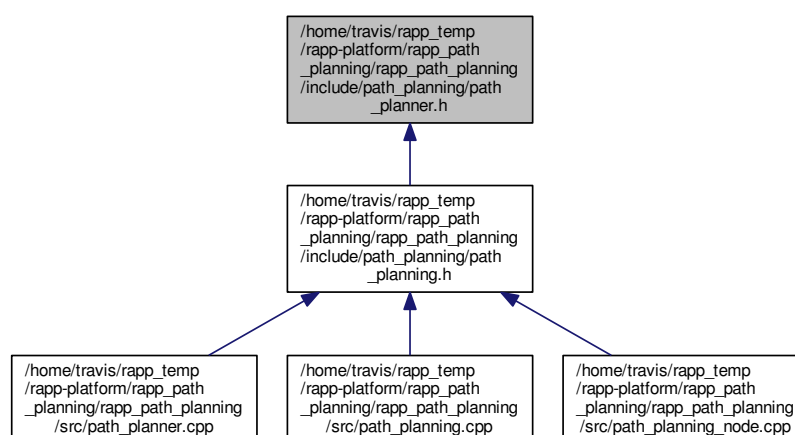
## 7.73 /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_path\_planning/include/path\_planning/path\_planner.h File Reference

```
#include <string>
#include <geometry_msgs/PoseStamped.h>
#include <nav_msgs/Path.h>
```

Include dependency graph for path\_planner.h:



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



## Classes

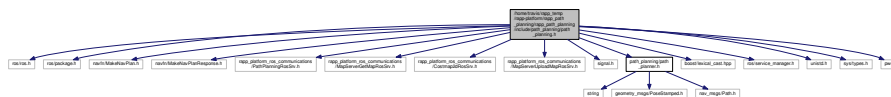
- class [PathPlanner](#)

Class that implements a path planning algorithm based on `global_planner` and `map_server` ROS nodes.

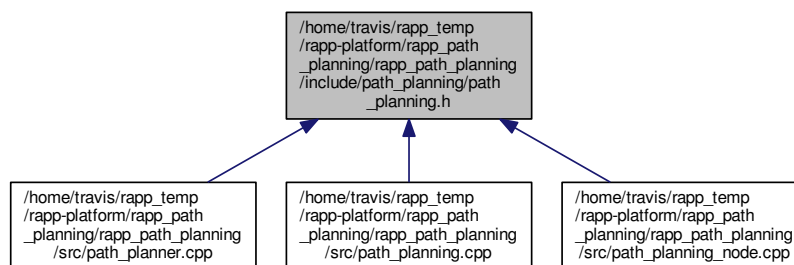
## 7.74 /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_path\_planning/include/path\_planning/path\_planning.h File Reference

```
#include "ros/ros.h"
#include "ros/package.h"
#include <navfn/MakeNavPlan.h>
#include <navfn/MakeNavPlanResponse.h>
#include <rapp_platform_ros_communications/PathPlanningRosSrv.h>
#include "rapp_platform_ros_communications/MapServerGetMapRosSrv.h"
#include "rapp_platform_ros_communications/Costmap2dRosSrv.h"
#include "rapp_platform_ros_communications/MapServerUploadMapRosSrv.h"
#include <signal.h>
#include <path_planning/path_planner.h>
#include <boost/lexical_cast.hpp>
#include <ros/service_manager.h>
#include <unistd.h>
#include <sys/types.h>
#include <pwd.h>
```

Include dependency graph for `path_planning.h`:



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



## Classes

- class [PathPlanning](#)

## 7.75 /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_path\_planning/src/path\_planner.cpp File Reference

```
#include <path_planning/path_planning.h>
```







## 7.77.2 Variable Documentation

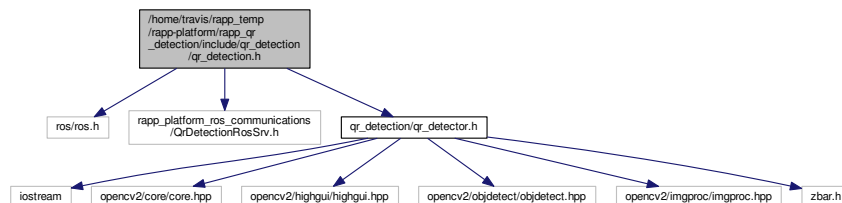
## 7.77.2.1 PathPlanning\* path\_planning\_

Definition at line 3 of file path\_planning\_node.cpp.

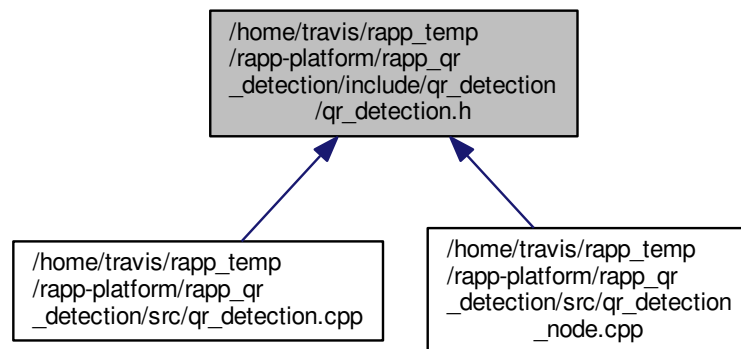
## 7.78 /home/travis/rapp\_temp/rapp-platform/rapp\_qr\_detection/include/qr\_detection/qr\_detection.h File Reference

```
#include "ros/ros.h"
#include <rapp_platform_ros_communications/QrDetectionRosSrv.h>
#include <qr_detection/qr_detector.h>
```

Include dependency graph for qr\_detection.h:



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



## Classes

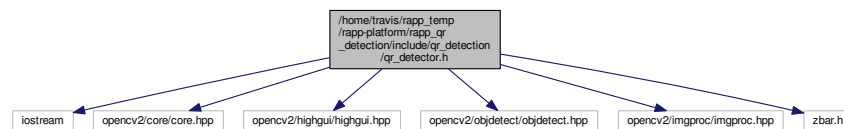
- class [QrDetection](#)

*Uptakes the task of setting up the ROS service callbacks towards qr detection.*

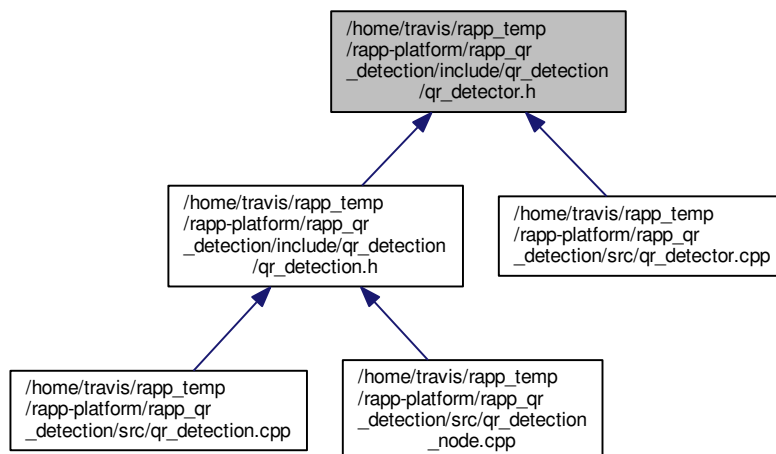
## 7.79 /home/travis/rapp\_temp/rapp-platform/rapp\_qr\_detection/include/qr\_detection/qr\_detector.h File Reference

```
#include <iostream>
#include <opencv2/core/core.hpp>
#include <opencv2/highgui/highgui.hpp>
#include <opencv2/objdetect/objdetect.hpp>
#include <opencv2/imgproc/imgproc.hpp>
#include <zbar.h>
```

Include dependency graph for qr\_detector.h:



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



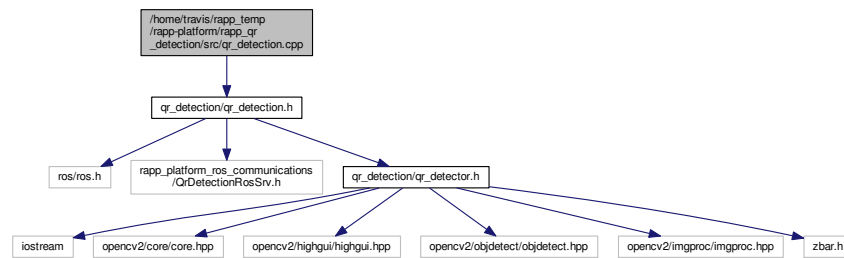
### Classes

- class [QRCode](#)  
*Structure holding the essential info for a QR code.*
- class [QRDetector](#)  
*Provides the QR detection functionality.*

## 7.80 /home/travis/rapp\_temp/rapp-platform/rapp\_qr\_detection/src/qr\_detection.cpp File Reference

```
#include <qr_detection/qr_detection.h>
```

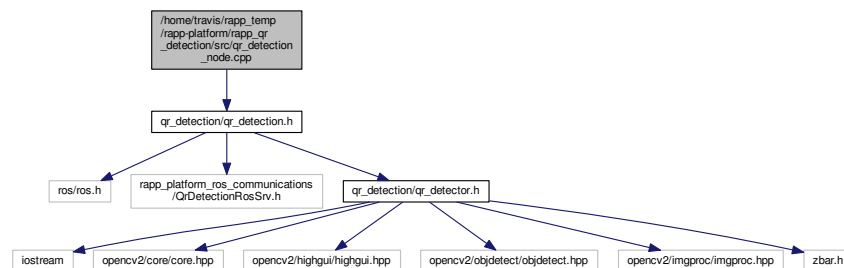
Include dependency graph for qr\_detection.cpp:



## 7.81 /home/travis/rapp\_temp/rapp-platform/rapp\_qr\_detection/src/qr\_detection\_node.cpp File Reference

```
#include <qr_detection/qr_detection.h>
```

Include dependency graph for qr\_detection\_node.cpp:



## Functions

- int [main](#) (int argc, char \*\*argv)

*The main function. Retrieves the threads parameter in order to enable concurrent service invocation.*

### 7.81.1 Function Documentation

#### 7.81.1.1 int main ( int argc, char \*\* argv )

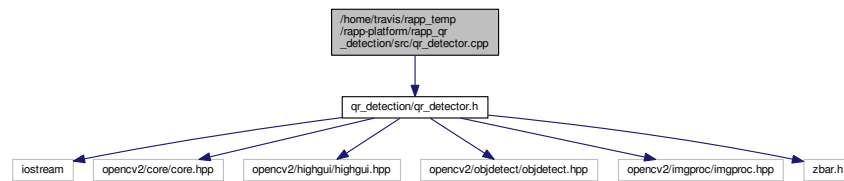
The main function. Retrieves the threads parameter in order to enable concurrent service invocation.

Definition at line 25 of file qr\_detection\_node.cpp.

## 7.82 /home/travis/rapp\_temp/rapp-platform/rapp\_qr\_detection/src/qr\_detector.cpp File Reference

```
#include <qr_detection/qr_detector.h>
```

Include dependency graph for `qr_detector.cpp`:



## 7.83 `/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_google/src/speech_recognition_google.py` File Reference

### Classes

- class [speech\\_recognition\\_google.SpeechToTextGoogle](#)  
*Implements calls the Google ASR API.*

### Namespaces

- [speech\\_recognition\\_google](#)

### Variables

- tuple [speech\\_recognition\\_google.speech\\_to\\_text\\_node](#) = `SpeechToTextGoogle()`  
*The main function.*

## 7.84 `/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_sphinx4/english_support.py` File Reference

### Classes

- class [rapp\\_speech\\_detection\\_sphinx4.english\\_support.EnglishSupport](#)  
*Allows the creation of configuration files for English Sphinx speech recognition.*

### Namespaces

- [rapp\\_speech\\_detection\\_sphinx4.english\\_support](#)

## 7.85 `/home/travis/rapp_temp/rapp-platform/rapp_speech_detection_sphinx4/src/rapp_speech_detection_sphinx4/global_parameters.py` File Reference

### Classes

- class [rapp\\_speech\\_detection\\_sphinx4.global\\_parameters.GlobalParams](#)  
*Contains global Sphinx parameters.*

## Namespaces

- [rapp\\_speech\\_detection\\_sphinx4.global\\_parameters](#)

## 7.86 /home/travis/rapp\_temp/rapp-platform/rapp\_speech\_detection\_sphinx4/src/rapp\_speech\_detection\_sphinx4/greek\_english\_support.py File Reference

### Classes

- class [rapp\\_speech\\_detection\\_sphinx4.greek\\_english\\_support.GreekEnglishSupport](#)

## Namespaces

- [rapp\\_speech\\_detection\\_sphinx4.greek\\_english\\_support](#)

## 7.87 /home/travis/rapp\_temp/rapp-platform/rapp\_speech\_detection\_sphinx4/src/rapp\_speech\_detection\_sphinx4/greek\_support.py File Reference

### Classes

- class [rapp\\_speech\\_detection\\_sphinx4.greek\\_support.GreekSupport](#)  
*Allows the creation of configuration files for Greek Sphinx speech recognition.*

## Namespaces

- [rapp\\_speech\\_detection\\_sphinx4.greek\\_support](#)

## 7.88 /home/travis/rapp\_temp/rapp-platform/rapp\_speech\_detection\_sphinx4/src/rapp\_speech\_detection\_sphinx4/language\_support.py File Reference

### Classes

- class [rapp\\_speech\\_detection\\_sphinx4.language\\_support.LanguageSupport](#)  
*Allows the creation of configuration files for Sphinx speech recognition.*

## Namespaces

- [rapp\\_speech\\_detection\\_sphinx4.language\\_support](#)

## 7.89 /home/travis/rapp\_temp/rapp-platform/rapp\_speech\_detection\_sphinx4/src/rapp\_speech\_detection\_sphinx4/limited\_vocabulary\_creator.py File Reference

### Classes

- class [rapp\\_speech\\_detection\\_sphinx4.limited\\_vocabulary\\_creator.LimitedVocabularyCreator](#)  
*Creates temporary configuration files for the input limited vocabulary.*

## Namespaces

- [rapp\\_speech\\_detection\\_sphinx4.limited\\_vocabulary\\_creator](#)

## 7.90 /home/travis/rapp\_temp/rapp-platform/rapp\_speech\_detection\_sphinx4/src/rapp\_speech\_detection\_sphinx4/speech\_recognition\_sphinx4.py File Reference

### Classes

- class [rapp\\_speech\\_detection\\_sphinx4.speech\\_recognition\\_sphinx4.SpeechRecognitionSphinx4](#)  
*Provides a complete Rapp Sphinx Entity.*

### Namespaces

- [rapp\\_speech\\_detection\\_sphinx4.speech\\_recognition\\_sphinx4](#)

### Variables

- tuple [rapp\\_speech\\_detection\\_sphinx4.speech\\_recognition\\_sphinx4.SpeechRecognitionSphinx4Node](#) = [SpeechRecognitionSphinx4\(\)](#)

## 7.91 /home/travis/rapp\_temp/rapp-platform/rapp\_speech\_detection\_sphinx4/src/rapp\_speech\_detection\_sphinx4/speech\_recognition\_sphinx4\_handler\_node.py File Reference

### Classes

- class [rapp\\_speech\\_detection\\_sphinx4.speech\\_recognition\\_sphinx4\\_handler\\_node.SpeechRecognitionSphinx4HandlerNode](#)  
*Maintains Sphinx instances to perform speech recognition.*

### Namespaces

- [rapp\\_speech\\_detection\\_sphinx4.speech\\_recognition\\_sphinx4\\_handler\\_node](#)

### Variables

- tuple [rapp\\_speech\\_detection\\_sphinx4.speech\\_recognition\\_sphinx4\\_handler\\_node.rospack](#) = [rospkg.RosPack\(\)](#)
- tuple [rapp\\_speech\\_detection\\_sphinx4.speech\\_recognition\\_sphinx4\\_handler\\_node.SpeechRecognitionSphinx4HandlerNode](#) = [SpeechRecognitionSphinx4HandlerNode\(\)](#)
- tuple [rapp\\_speech\\_detection\\_sphinx4.speech\\_recognition\\_sphinx4\\_handler\\_node.sphinx\\_class](#) = [rospack.get\\_path\('rapp\\_speech\\_detection\\_sphinx4'\)](#)

## 7.92 /home/travis/rapp\_temp/rapp-platform/rapp\_speech\_detection\_sphinx4/src/rapp\_speech\_detection\_sphinx4/sphinx4\_configuration\_params.py File Reference

Reference

285

## 7.92 /home/travis/rapp\_temp/rapp-platform/rapp\_speech\_detection\_sphinx4/src/rapp\_speech\_detection\_sphinx4/sphinx4\_configuration\_params.py File Reference

### Classes

- class [rapp\\_speech\\_detection\\_sphinx4.sphinx4\\_configuration\\_params.SphinxConfigurationParams](#)  
*Contains the parameters required for the Sphinx configuration.*

### Namespaces

- [rapp\\_speech\\_detection\\_sphinx4.sphinx4\\_configuration\\_params](#)

## 7.93 /home/travis/rapp\_temp/rapp-platform/rapp\_speech\_detection\_sphinx4/src/rapp\_speech\_detection\_sphinx4/sphinx4\_wrapper.py File Reference

### Classes

- class [rapp\\_speech\\_detection\\_sphinx4.sphinx4\\_wrapper.Sphinx4Wrapper](#)  
*Contains the Sphinx subprocess and is responsible for configuring Sphinx and performing the recognition request.*

### Namespaces

- [rapp\\_speech\\_detection\\_sphinx4.sphinx4\\_wrapper](#)

## 7.94 /home/travis/rapp\_temp/rapp-platform/rapp\_speech\_detection\_sphinx4/src/Sphinx4.java File Reference

### Classes

- class [Sphinx4](#)  
*Performs speech recognition employing Sphinx.*

## 7.95 /home/travis/rapp\_temp/rapp-platform/rapp\_text\_to\_speech\_espeak/src/text\_to\_speech\_espeak.py File Reference

### Classes

- class [text\\_to\\_speech\\_espeak.TextToSpeechEspeak](#)

### Namespaces

- [text\\_to\\_speech\\_espeak](#)

### Variables

- tuple [text\\_to\\_speech\\_espeak.text\\_to\\_speech\\_espeak\\_ros\\_node](#) = [TextToSpeechEspeak\(\)](#)

## 7.96 [/home/travis/rapp\\_temp/rapp-platform/rapp\\_utilities/src/rapp\\_exceptions.py](#) File Reference

### Classes

- class [src.rapp\\_exceptions.RappError](#)  
*Provides a RAPP specific exception.*

### Namespaces

- [src.rapp\\_exceptions](#)

## 7.97 [/home/travis/rapp\\_temp/rapp-platform/rapp\\_utilities/src/rapp\\_html\\_parser.py](#) File Reference

### Classes

- class [src.rapp\\_html\\_parser.RappHTMLParser](#)  
*Strips html from input string.*

### Namespaces

- [src.rapp\\_html\\_parser](#)

## 7.98 [/home/travis/rapp\\_temp/rapp-platform/rapp\\_utilities/src/rapp\\_http\\_json\\_parser.py](#) File Reference

### Classes

- class [src.rapp\\_http\\_json\\_parser.RappHttpJSONParser](#)  
*Retrieves key:value pairs from JSON responses.*

### Namespaces

- [src.rapp\\_http\\_json\\_parser](#)

## 7.99 [/home/travis/rapp\\_temp/rapp-platform/rapp\\_utilities/src/rapp\\_http\\_request\\_handler.py](#) File Reference

### Classes

- class [src.rapp\\_http\\_request\\_handler.RappHttpRequestHandler](#)  
*Performs http requests.*

### Namespaces

- [src.rapp\\_http\\_request\\_handler](#)



## 7.100 /home/travis/rapp\_temp/rapp-platform/rapp\_weather\_reporter/src/rapp\_weather\_reporter/forecastio\_reporter.py File Reference

### Classes

- class [rapp\\_weather\\_reporter.forecastio\\_reporter.ForecastIOReporter](#)  
*ForecastIO weather reporter.*

### Namespaces

- [rapp\\_weather\\_reporter.forecastio\\_reporter](#)

## 7.101 /home/travis/rapp\_temp/rapp-platform/rapp\_weather\_reporter/src/rapp\_weather\_reporter/weather\_reporter\_base.py File Reference

### Classes

- class [rapp\\_weather\\_reporter.weather\\_reporter\\_base.WeatherReporterBase](#)  
*Base class for weather reporters.*

### Namespaces

- [rapp\\_weather\\_reporter.weather\\_reporter\\_base](#)

## 7.102 /home/travis/rapp\_temp/rapp-platform/rapp\_weather\_reporter/src/rapp\_weather\_reporter/weather\_reporter\_factory.py File Reference

### Classes

- class [rapp\\_weather\\_reporter.weather\\_reporter\\_factory.WeatherReporterFactory](#)  
*Creates and returns the class of the weather reporter requested.*

### Namespaces

- [rapp\\_weather\\_reporter.weather\\_reporter\\_factory](#)

## 7.103 /home/travis/rapp\_temp/rapp-platform/rapp\_weather\_reporter/src/rapp\_weather\_reporter/weather\_reporter\_node.py File Reference

### Classes

- class [rapp\\_weather\\_reporter.weather\\_reporter\\_node.WeatherReporterNode](#)  
*Evaluates weather conditions.*

### Namespaces

- [rapp\\_weather\\_reporter.weather\\_reporter\\_node](#)

## Variables

- tuple [rapp\\_weather\\_reporter.weather\\_reporter\\_node.weather\\_reporter\\_node](#) = WeatherReporterNode()

## 7.104 /home/travis/rapp\_temp/rapp-platform/rapp\_weather\_reporter/src/rapp\_weather\_reporter/yweather\_reporter.py File Reference

## Classes

- class [rapp\\_weather\\_reporter.yweather\\_reporter.YWeatherReporter](#)  
*Yweather weather reporter.*

## Namespaces

- [rapp\\_weather\\_reporter.yweather\\_reporter](#)

# Index

~PathPlanning  
    PathPlanning, 178  
~RappStaticLayer  
    costmap\_2d::RappStaticLayer, 197  
/home/travis/rapp\_temp/rapp-platform/rapp\_audio\_  
    processing/src/rapp\_audio\_processing/rapp\_  
    audio\_processing.py, 243  
/home/travis/rapp\_temp/rapp-platform/rapp\_audio\_  
    processing/src/rapp\_audio\_processing/rapp\_  
    detect\_silence.py, 243  
/home/travis/rapp\_temp/rapp-platform/rapp\_audio\_  
    processing/src/rapp\_audio\_processing/rapp\_  
    energy\_denoise.py, 243  
/home/travis/rapp\_temp/rapp-platform/rapp\_audio\_  
    processing/src/rapp\_audio\_processing/rapp\_  
    set\_noise\_profile.py, 244  
/home/travis/rapp\_temp/rapp-platform/rapp\_audio\_  
    processing/src/rapp\_audio\_processing/rapp\_  
    sox\_denoise.py, 244  
/home/travis/rapp\_temp/rapp-platform/rapp\_audio\_  
    processing/src/rapp\_audio\_processing/rapp\_  
    transform\_audio.py, 244  
/home/travis/rapp\_temp/rapp-platform/rapp\_audio\_  
    processing/src/rapp\_audio\_processing/rapp\_  
    utilities.py, 244  
/home/travis/rapp\_temp/rapp-platform/rapp\_caffe\_  
    wrapper/src/app\_error\_exception.py, 245  
/home/travis/rapp\_temp/rapp-platform/rapp\_caffe\_  
    wrapper/src/caffe\_wrapper.py, 245  
/home/travis/rapp\_temp/rapp-platform/rapp\_caffe\_  
    wrapper/src/caffe\_wrapper\_main.py, 246  
/home/travis/rapp\_temp/rapp-platform/rapp\_caffe\_  
    wrapper/src/image\_classification.py, 246  
/home/travis/rapp\_temp/rapp-platform/rapp\_caffe\_  
    wrapper/src/image\_registration\_to\_ontology.  
    py, 246  
/home/travis/rapp\_temp/rapp-platform/rapp\_caffe\_  
    wrapper/src/ontology\_class\_bridge.py, 246  
/home/travis/rapp\_temp/rapp-platform/rapp\_cognitive\_  
    exercise/src/app\_error\_exception.py, 245  
/home/travis/rapp\_temp/rapp-platform/rapp\_cognitive\_  
    exercise/src/cognitive\_exercise.py, 247  
/home/travis/rapp\_temp/rapp-platform/rapp\_cognitive\_  
    exercise/src/cognitive\_exercise\_main.py, 247  
/home/travis/rapp\_temp/rapp-platform/rapp\_cognitive\_  
    exercise/src/helper\_functions.py, 247  
/home/travis/rapp\_temp/rapp-platform/rapp\_cognitive\_  
    exercise/src/userScoreHistoryForAllCategories.  
    py, 247  
/home/travis/rapp\_temp/rapp-platform/rapp\_cognitive\_  
    exercise/src/userScoresForAllCategories.py,  
    248  
/home/travis/rapp\_temp/rapp-platform/rapp\_email/src/rapp\_  
    email/\_\_init\_\_.py, 241  
/home/travis/rapp\_temp/rapp-platform/rapp\_email/src/rapp\_  
    email/email\_node.py, 248  
/home/travis/rapp\_temp/rapp-platform/rapp\_email/src/rapp\_  
    email/email\_receiver.py, 248  
/home/travis/rapp\_temp/rapp-platform/rapp\_email/src/rapp\_  
    email/email\_sender.py, 248  
/home/travis/rapp\_temp/rapp-platform/rapp\_face\_  
    detection/include/face\_detection/face\_  
    detection.h, 249  
/home/travis/rapp\_temp/rapp-platform/rapp\_face\_  
    detection/include/face\_detection/face\_  
    detector.h, 249  
/home/travis/rapp\_temp/rapp-platform/rapp\_face\_  
    detection/src/face\_detection.cpp, 250  
/home/travis/rapp\_temp/rapp-platform/rapp\_face\_  
    detection/src/face\_detection\_node.cpp, 251  
/home/travis/rapp\_temp/rapp-platform/rapp\_face\_  
    detection/src/face\_detector.cpp, 252  
/home/travis/rapp\_temp/rapp-platform/rapp\_geolocator/src/rapp\_  
    geolocator/\_\_init\_\_.py, 241  
/home/travis/rapp\_temp/rapp-platform/rapp\_geolocator/src/rapp\_  
    geolocator/geolocator\_base.py, 252  
/home/travis/rapp\_temp/rapp-platform/rapp\_geolocator/src/rapp\_  
    geolocator/geolocator\_factory.py, 252  
/home/travis/rapp\_temp/rapp-platform/rapp\_geolocator/src/rapp\_  
    geolocator/geolocator\_node.py, 252  
/home/travis/rapp\_temp/rapp-platform/rapp\_geolocator/src/rapp\_  
    geolocator/ip\_api\_locator.py, 253  
/home/travis/rapp\_temp/rapp-platform/rapp\_hazard\_  
    detection/src/door\_check.cpp, 253  
/home/travis/rapp\_temp/rapp-platform/rapp\_hazard\_  
    detection/src/hazard\_detection.cpp, 253  
/home/travis/rapp\_temp/rapp-platform/rapp\_hazard\_  
    detection/src/hazard\_detection\_node.cpp,  
    254  
/home/travis/rapp\_temp/rapp-platform/rapp\_hazard\_  
    detection/src/light\_check.cpp, 255  
/home/travis/rapp\_temp/rapp-platform/rapp\_human\_  
    detection/include/human\_detection/human\_  
    detection.h, 255  
/home/travis/rapp\_temp/rapp-platform/rapp\_human\_  
    detection/include/human\_detection/human\_  
    detector.h, 256  
/home/travis/rapp\_temp/rapp-platform/rapp\_human\_

- detection/src/human\_detection.cpp, 257
- /home/travis/rapp\_temp/rapp-platform/rapp\_human\_detection/src/human\_detection\_node.cpp, 257
- /home/travis/rapp\_temp/rapp-platform/rapp\_human\_detection/src/human\_detector.cpp, 258
- /home/travis/rapp\_temp/rapp-platform/rapp\_knowrob\_wrapper/include/knowrob\_wrapper/knowrob\_wrapper.h, 258
- /home/travis/rapp\_temp/rapp-platform/rapp\_knowrob\_wrapper/include/knowrob\_wrapper/knowrob\_wrapper\_communications.h, 260
- /home/travis/rapp\_temp/rapp-platform/rapp\_knowrob\_wrapper/src/knowrob\_wrapper.cpp, 260
- /home/travis/rapp\_temp/rapp-platform/rapp\_knowrob\_wrapper/src/knowrob\_wrapper\_communications.cpp, 263
- /home/travis/rapp\_temp/rapp-platform/rapp\_knowrob\_wrapper/src/knowrob\_wrapper\_node.cpp, 264
- /home/travis/rapp\_temp/rapp-platform/rapp\_mysql\_wrapper/src/mysql\_wrapper.py, 264
- /home/travis/rapp\_temp/rapp-platform/rapp\_mysql\_wrapper/src/mysql\_wrapper\_main.py, 264
- /home/travis/rapp\_temp/rapp-platform/rapp\_mysql\_wrapper/src/mysql\_wrapper\_old.py, 265
- /home/travis/rapp\_temp/rapp-platform/rapp\_news\_explorer/src/rapp\_news\_explorer/engine\_factory.py, 265
- /home/travis/rapp\_temp/rapp-platform/rapp\_news\_explorer/src/rapp\_news\_explorer/event\_registry\_engine.py, 265
- /home/travis/rapp\_temp/rapp-platform/rapp\_news\_explorer/src/rapp\_news\_explorer/google\_news\_engine.py, 265
- /home/travis/rapp\_temp/rapp-platform/rapp\_news\_explorer/src/rapp\_news\_explorer/news\_engine\_base.py, 266
- /home/travis/rapp\_temp/rapp-platform/rapp\_news\_explorer/src/rapp\_news\_explorer/news\_explorer\_node.py, 266
- /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_costmap2d/include/rapp\_costmap\_2d/rapp\_static\_layer.h, 266
- /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_costmap2d/plugins/rapp\_static\_layer.cpp, 267
- /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_costmap2d/src/observation\_buffer.cpp, 268
- /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_map\_server/include/map\_server/image\_loader.h, 268
- /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_map\_server/scripts/crop\_map.py, 269
- /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_map\_server/src/image\_loader.cpp, 270
- /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_map\_server/src/main.cpp, 271
- /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_map\_server/src/map\_saver.cpp, 272
- /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_path\_planning/include/path\_planning/path\_planner.h, 273
- /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_path\_planning/include/path\_planning/path\_planning.h, 274
- /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_path\_planning/src/path\_planner.cpp, 274
- /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_path\_planning/src/path\_planning.cpp, 275
- /home/travis/rapp\_temp/rapp-platform/rapp\_path\_planning/rapp\_path\_planning/src/path\_planning\_node.cpp, 276
- /home/travis/rapp\_temp/rapp-platform/rapp\_qr\_detection/include/qr\_detection/qr\_detection.h, 277
- /home/travis/rapp\_temp/rapp-platform/rapp\_qr\_detection/include/qr\_detection/qr\_detector.h, 278
- /home/travis/rapp\_temp/rapp-platform/rapp\_qr\_detection/src/qr\_detection.cpp, 278
- /home/travis/rapp\_temp/rapp-platform/rapp\_qr\_detection/src/qr\_detection\_node.cpp, 279
- /home/travis/rapp\_temp/rapp-platform/rapp\_qr\_detection/src/qr\_detector.cpp, 279
- /home/travis/rapp\_temp/rapp-platform/rapp\_speech\_detection\_google/src/speech\_recognition\_google.py, 280
- /home/travis/rapp\_temp/rapp-platform/rapp\_speech\_detection\_sphinx4/src/Sphinx4.java, 283
- /home/travis/rapp\_temp/rapp-platform/rapp\_speech\_detection\_sphinx4/src/rapp\_speech\_detection\_sphinx4/english\_support.py, 280
- /home/travis/rapp\_temp/rapp-platform/rapp\_speech\_detection\_sphinx4/src/rapp\_speech\_detection\_sphinx4/global\_parameters.py, 280
- /home/travis/rapp\_temp/rapp-platform/rapp\_speech\_detection\_sphinx4/src/rapp\_speech\_detection\_sphinx4/greek\_support.py, 281
- /home/travis/rapp\_temp/rapp-platform/rapp\_speech\_detection\_sphinx4/src/rapp\_speech\_detection\_sphinx4/language\_support.py, 281
- /home/travis/rapp\_temp/rapp-platform/rapp\_speech\_detection\_sphinx4/src/rapp\_speech\_detection\_sphinx4/sphinx4\_wrapper.py, 283
- /home/travis/rapp\_temp/rapp-platform/rapp\_text\_to\_speech\_espeak/src/text\_to\_speech\_espeak.py, 283
- /home/travis/rapp\_temp/rapp-platform/rapp\_utilities/src/\_init\_.py, 242
- /home/travis/rapp\_temp/rapp-platform/rapp\_utilities/src/rapp\_exceptions.py, 284
- /home/travis/rapp\_temp/rapp-platform/rapp\_utilities/src/rapp

- `_html_parser.py`, 284
- `/home/travis/rapp_temp/rapp-platform/rapp_utilities/src/rapp-http_json_parser.py`, 284
- `/home/travis/rapp_temp/rapp-platform/rapp_utilities/src/rapp-http_request_handler.py`, 284
- `/home/travis/rapp_temp/rapp-platform/rapp_utilities/src/rapp_utilities.py`, 245
- `/home/travis/rapp_temp/rapp-platform/rapp_weather_reporter/src/rapp_weather_reporter/forecastio_reporter.py`, 285
- `/home/travis/rapp_temp/rapp-platform/rapp_weather_reporter/src/rapp_weather_reporter/weather_reporter_base.py`, 285
- `/home/travis/rapp_temp/rapp-platform/rapp_weather_reporter/src/rapp_weather_reporter/weather_reporter_factory.py`, 285
- `/home/travis/rapp_temp/rapp-platform/rapp_weather_reporter/src/rapp_weather_reporter/weather_reporter_node.py`, 285
- `/home/travis/rapp_temp/rapp-platform/rapp_weather_reporter/src/rapp_weather_reporter/yweather_reporter.py`, 286
- `__init__`
  - `app_error_exception::AppError`, 30
  - `caffe_wrapper::RappCaffeWrapper`, 184
  - `cognitive_exercise::CognitiveExercise`, 39
  - `image_classification::ImageClassification`, 99
  - `mysql_wrapper::MySQLdbWrapper`, 154
  - `mysql_wrapper_old::MySQLdbWrapper`, 141
  - `rapp_application_authentication_manager::application_authentication_node::ApplicationAuthenticationManager`, 32
  - `rapp_application_authentication_manager::database_handler::DatabaseHandler`, 46
  - `rapp_audio_processing::rapp_audio_processing::AudioProcessing`, 36
  - `rapp_audio_processing::rapp_set_noise_profile::SetNoiseProfile`, 202
  - `rapp_email::email_receiver::EmailReceiver`, 54
  - `rapp_email::email_sender::EmailSender`, 56
  - `rapp_geolocator::geolocator_base::GeolocatorBase`, 76
  - `rapp_geolocator::geolocator_node::GeolocatorNode`, 79
  - `rapp_geolocator::ip_api_locator::IpAPILocator`, 105
  - `rapp_news_explorer::event_registry_engine::EventRegistryEngine`, 64
  - `rapp_news_explorer::google_news_engine::GoogleNewsEngine`, 84
  - `rapp_news_explorer::news_engine_base::NewsEngineBase`, 171
  - `rapp_news_explorer::news_explorer_node::NewsExplorerNode`, 173
  - `rapp_speech_detection_sphinx4::english_support::EnglishSupport`, 61
  - `rapp_speech_detection_sphinx4::global_parameters::GlobalParams`, 81
  - `rapp_speech_detection_sphinx4::greek_english_support::GreekEnglishSupport`, 86
  - `rapp_speech_detection_sphinx4::greek_support::GreekSupport`, 91
  - `rapp_speech_detection_sphinx4::language_support::LanguageSupport`, 132
  - `rapp_speech_detection_sphinx4::limited_vocabulary_creator::LimitedVocabularyCreator`, 134
  - `rapp_speech_detection_sphinx4::speech_recognition_sphinx4::SpeechRecognitionSphinx4`, 204
  - `rapp_speech_detection_sphinx4::sphinx4_configuration_params::SphinxConfigurationParams`, 220
  - `rapp_speech_detection_sphinx4::sphinx4_wrapper::Sphinx4Wrapper`, 216
  - `rapp_weather_reporter::forecastio_reporter::ForecastIOReporter`, 73
  - `rapp_weather_reporter::weather_reporter_base::WeatherReporterBase`, 231
  - `rapp_weather_reporter::weather_reporter_node::WeatherReporterNode`, 235
  - `rapp_weather_reporter::yweather_reporter::YWeatherReporter`, 238
  - `speech_recognition_google::SpeechToTextGoogle`, 211
  - `src::rapp_exceptions::RappError`, 188
  - `src::rapp_html_parser::RappHTMLParser`, 189
  - `src::rapp_http_json_parser::RappHttpJSONParser`, 191
  - `src::rapp_http_request_handler::RappHttpRequestHandler`, 194
  - `src::rapp_utilities::RappUtilities`, 201
  - `text_to_speech_espeak::TextToSpeechEspeak`, 223
- `__metaclass__`
  - `rapp_geolocator::geolocator_base::GeolocatorBase`, 76
  - `rapp_news_explorer::news_engine_base::NewsEngineBase`, 171
  - `rapp_weather_reporter::weather_reporter_base::WeatherReporterBase`, 231
- `__str__`
  - `src::rapp_exceptions::RappError`, 188
- `__accepted_status`
  - `rapp_geolocator::geolocator_base::GeolocatorBase`, 76
  - `rapp_news_explorer::news_engine_base::NewsEngineBase`, 171
  - `rapp_weather_reporter::weather_reporter_base::WeatherReporterBase`, 231
- `src::rapp_http_request_handler::RappHttpRequestHandler`, 194
- `__acoustic_models_url`
  - `rapp_speech_detection_sphinx4::global_parameters::GlobalParams`, 81
- `__add_new_user_proxy`
  - `rapp_application_authentication_manager::database_handler::DatabaseHandler`, 50
- `__all_special_two_digit_letters`

- rapp\_speech\_detection\_sphinx4::greek\_support::-  
GreekSupport, 93
- \_allow\_sphinx\_output
- rapp\_speech\_detection\_sphinx4::global\_parameters-  
::GlobalParams, 81
- \_api\_key
- rapp\_weather\_reporter::forecastio\_reporter::-  
ForecastIOReporter, 74
- \_assertArgs
- rapp\_audio\_processing::rapp\_transform\_audio::-  
TransformAudio, 224
- \_audio\_transform\_srv
- rapp\_speech\_detection\_sphinx4::sphinx4\_-  
wrapper::Sphinx4Wrapper, 218
- \_availableProcesses
- rapp\_speech\_detection\_sphinx4::speech\_recognition-  
\_sphinx4\_handler\_node::SpeechRecognition-  
Sphinx4HandlerNode, 209
- \_calculateRequestHash
- rapp\_speech\_detection\_sphinx4::speech\_recognition-  
\_sphinx4\_handler\_node::SpeechRecognition-  
Sphinx4HandlerNode, 208
- \_callSphinxJava
- rapp\_speech\_detection\_sphinx4::sphinx4\_-  
wrapper::Sphinx4Wrapper, 216
- \_capital\_letters
- rapp\_speech\_detection\_sphinx4::greek\_support::-  
GreekSupport, 93
- \_client
- rapp\_weather\_reporter::yweather\_reporter::Y-  
WeatherReporter, 239
- \_conf
- rapp\_speech\_detection\_sphinx4::sphinx4\_-  
wrapper::Sphinx4Wrapper, 218
- \_configuration\_params
- rapp\_speech\_detection\_sphinx4::speech\_recognition-  
\_sphinx4::SpeechRecognitionSphinx4, 206
- \_configureLetters
- rapp\_speech\_detection\_sphinx4::greek\_support::-  
GreekSupport, 91
- \_configureSpeechRecognition
- rapp\_speech\_detection\_sphinx4::speech\_recognition-  
\_sphinx4::SpeechRecognitionSphinx4, 204
- \_connectAndSend
- rapp\_email::email\_sender::EmailSender, 56
- \_connectImap
- rapp\_email::email\_receiver::EmailReceiver, 54
- \_convertType
- rapp\_audio\_processing::rapp\_transform\_audio::-  
TransformAudio, 224
- \_createEmailBody
- rapp\_email::email\_sender::EmailSender, 57
- \_createPreconfiguration
- rapp\_speech\_detection\_sphinx4::speech\_recognition-  
\_sphinx4::SpeechRecognitionSphinx4, 205
- \_createProcessingProfile
- rapp\_speech\_detection\_sphinx4::sphinx4\_-  
wrapper::Sphinx4Wrapper, 216
- \_createSocket
- rapp\_speech\_detection\_sphinx4::sphinx4\_-  
wrapper::Sphinx4Wrapper, 216
- \_createSupportConfiguration
- rapp\_speech\_detection\_sphinx4::speech\_recognition-  
\_sphinx4::SpeechRecognitionSphinx4, 205
- \_create\_current\_service\_response
- rapp\_weather\_reporter::weather\_reporter\_node::-  
WeatherReporterNode, 235
- \_create\_forecast\_service\_response
- rapp\_weather\_reporter::weather\_reporter\_node::-  
WeatherReporterNode, 235
- \_create\_new\_app\_token\_proxy
- rapp\_application\_authentication\_manager::database-  
\_handler::DatabaseHandler, 50
- \_create\_service\_response
- rapp\_geolocator::geolocator\_node::Geolocator-  
Node, 79
- rapp\_news\_explorer::news\_explorer\_node::News-  
ExplorerNode, 173
- \_db\_handler
- rapp\_application\_authentication\_manager::application-  
\_authentication\_node::ApplicationAuthentication-  
Manager, 35
- \_denoise\_service
- rapp\_speech\_detection\_sphinx4::sphinx4\_-  
wrapper::Sphinx4Wrapper, 218
- \_detect\_silence\_module
- rapp\_audio\_processing::rapp\_audio\_processing::-  
AudioProcessing, 37
- \_detect\_silence\_service
- rapp\_speech\_detection\_sphinx4::sphinx4\_-  
wrapper::Sphinx4Wrapper, 218
- \_energy\_denoise\_module
- rapp\_audio\_processing::rapp\_audio\_processing::-  
AudioProcessing, 37
- \_energy\_denoise\_service
- rapp\_speech\_detection\_sphinx4::sphinx4\_-  
wrapper::Sphinx4Wrapper, 218
- \_energy\_denoising\_debug
- rapp\_audio\_processing::rapp\_audio\_processing::-  
AudioProcessing, 37
- \_engine\_factory
- rapp\_news\_explorer::news\_explorer\_node::News-  
ExplorerNode, 174
- \_englify\_words
- rapp\_speech\_detection\_sphinx4::greek\_support::-  
GreekSupport, 91
- \_english\_dict\_file
- rapp\_speech\_detection\_sphinx4::english\_support-  
::EnglishSupport, 62
- \_english\_dict\_mapping
- rapp\_speech\_detection\_sphinx4::english\_support-  
::EnglishSupport, 62
- \_english\_support
- rapp\_speech\_detection\_sphinx4::greek\_support::-  
GreekSupport, 93
- rapp\_speech\_detection\_sphinx4::speech\_recognition-

- `_sphinx4::SpeechRecognitionSphinx4`, 206
- `_event_handler`
  - `rapp_news_explorer::event_registry_engine::-`  
`EventRegistryEngine`, 64
- `_fetchEmail`
  - `rapp_email::email_receiver::EmailReceiver`, 54
- `_fetch_city_id`
  - `rapp_weather_reporter::yweather_reporter::Y-`  
`WeatherReporter`, 238
- `_fetch_yweather_report`
  - `rapp_weather_reporter::yweather_reporter::Y-`  
`WeatherReporter`, 238
- `_generic_sphinx_configuration`
  - `rapp_speech_detection_sphinx4::language_-`  
`support::LanguageSupport`, 133
- `_geolocator_factory`
  - `rapp_geolocator::geolocator_node::Geolocator-`  
`Node`, 80
- `_getPreconfigurationNames`
  - `rapp_speech_detection_sphinx4::speech_recognition-`  
`_sphinx4_handler_node::SpeechRecognition-`  
`Sphinx4HandlerNode`, 209
- `_get_fio_object`
  - `rapp_weather_reporter::forecastio_reporter::-`  
`ForecastIOReporter`, 73
- `_get_token_user_proxy`
  - `rapp_application_authentication_manager::database-`  
`_handler::DatabaseHandler`, 50
- `_get_user_passwd_proxy`
  - `rapp_application_authentication_manager::database-`  
`_handler::DatabaseHandler`, 51
- `_globalParams`
  - `rapp_speech_detection_sphinx4::language_-`  
`support::LanguageSupport`, 133
  - `rapp_speech_detection_sphinx4::limited_vocabulary-`  
`_creator::LimitedVocabularyCreator`, 135
  - `rapp_speech_detection_sphinx4::speech_recognition-`  
`_sphinx4::SpeechRecognitionSphinx4`, 207
  - `rapp_speech_detection_sphinx4::sphinx4_-`  
`configuration_params::SphinxConfiguration-`  
`Params`, 221
  - `rapp_speech_detection_sphinx4::sphinx4_-`  
`wrapper::Sphinx4Wrapper`, 219
- `_grammar`
  - `rapp_speech_detection_sphinx4::sphinx4_-`  
`configuration_params::SphinxConfiguration-`  
`Params`, 222
- `_greek_support`
  - `rapp_speech_detection_sphinx4::speech_recognition-`  
`_sphinx4::SpeechRecognitionSphinx4`, 207
- `_handleAttachment`
  - `rapp_email::email_sender::EmailSender`, 57
- `_handle_current_weather_report`
  - `rapp_weather_reporter::forecastio_reporter::-`  
`ForecastIOReporter`, 73
  - `rapp_weather_reporter::yweather_reporter::Y-`  
`WeatherReporter`, 238
- `_handle_params`
- `rapp_news_explorer::google_news_engine::-`  
`GoogleNewsEngine`, 84
- `_handle_server_response`
  - `rapp_geolocator::ip_api_locator::IpAPILocator`, 106
  - `rapp_news_explorer::google_news_engine::-`  
`GoogleNewsEngine`, 84
- `_handle_weather_forecast_report`
  - `rapp_weather_reporter::forecastio_reporter::-`  
`ForecastIOReporter`, 73
  - `rapp_weather_reporter::yweather_reporter::Y-`  
`WeatherReporter`, 238
- `_headers`
  - `src::rapp_http_request_handler::RappHttpRequest-`  
`Handler`, 194
- `_html_parser`
  - `src::rapp_http_json_parser::RappHttpJSON-`  
`Parser`, 192
- `_http_request`
  - `rapp_geolocator::geolocator_base::Geolocator-`  
`Base`, 76
  - `rapp_news_explorer::news_engine_base::News-`  
`EngineBase`, 171
  - `rapp_weather_reporter::weather_reporter_base::-`  
`WeatherReporterBase`, 231
- `_initializePath`
  - `rapp_email::email_receiver::EmailReceiver`, 54
- `_initializeSphinxProcess`
  - `rapp_speech_detection_sphinx4::sphinx4_-`  
`wrapper::Sphinx4Wrapper`, 217
- `_jar_path`
  - `rapp_speech_detection_sphinx4::sphinx4_-`  
`wrapper::Sphinx4Wrapper`, 219
- `_language`
  - `rapp_speech_detection_sphinx4::sphinx4_-`  
`configuration_params::SphinxConfiguration-`  
`Params`, 222
  - `rapp_speech_detection_sphinx4::global_parameters-`  
`::GlobalParams`, 81
- `_languages_package`
  - `rapp_speech_detection_sphinx4::limited_vocabulary-`  
`_creator::LimitedVocabularyCreator`, 135
- `_letters`
  - `rapp_speech_detection_sphinx4::greek_support::-`  
`GreekSupport`, 93
- `_literal_letters`
  - `rapp_speech_detection_sphinx4::greek_support::-`  
`GreekSupport`, 93
- `_lock`
  - `rapp_speech_detection_sphinx4::speech_recognition-`  
`_sphinx4::SpeechRecognitionSphinx4`, 207
- `_max_requests`
  - `rapp_news_explorer::event_registry_engine::-`  
`EventRegistryEngine`, 64
  - `rapp_news_explorer::google_news_engine::-`  
`GoogleNewsEngine`, 85
- `_max_stories`



- rapp\_news\_explorer::event\_registry\_engine::-  
EventRegistryEngine, [64](#)
- rapp\_news\_explorer::google\_news\_engine::-  
GoogleNewsEngine, [85](#)
- \_modify\_response
  - src::rapp\_http\_request\_handler::RappHttpRequest-  
Handler, [194](#)
- \_noise\_profiles\_url
  - rapp\_speech\_detection\_sphinx4::global\_parameters-  
::GlobalParams, [81](#)
- \_params
  - rapp\_news\_explorer::google\_news\_engine::-  
GoogleNewsEngine, [85](#)
  - src::rapp\_http\_request\_handler::RappHttpRequest-  
Handler, [194](#)
- \_password
  - rapp\_news\_explorer::event\_registry\_engine::-  
EventRegistryEngine, [64](#)
- \_performEnergyDenoising
  - rapp\_speech\_detection\_sphinx4::sphinx4\_-  
wrapper::Sphinx4Wrapper, [217](#)
- \_phonemes
  - rapp\_speech\_detection\_sphinx4::greek\_support::-  
GreekSupport, [93](#)
- \_readConfigurationYaml
  - rapp\_speech\_detection\_sphinx4::sphinx4\_-  
configuration\_params::SphinxConfiguration-  
Params, [220](#)
- \_readLine
  - rapp\_speech\_detection\_sphinx4::sphinx4\_-  
wrapper::Sphinx4Wrapper, [217](#)
- \_respawnSphinx
  - rapp\_speech\_detection\_sphinx4::sphinx4\_-  
wrapper::Sphinx4Wrapper, [217](#)
- \_response\_format
  - src::rapp\_http\_request\_handler::RappHttpRequest-  
Handler, [194](#)
- \_s\_specific\_rules
  - rapp\_speech\_detection\_sphinx4::greek\_support::-  
GreekSupport, [93](#)
- \_selectEmails
  - rapp\_email::email\_receiver::EmailReceiver, [55](#)
- \_selectLanguageSupport
  - rapp\_speech\_detection\_sphinx4::speech\_recognition-  
\_sphinx4::SpeechRecognitionSphinx4, [205](#)
- \_sentences
  - rapp\_speech\_detection\_sphinx4::sphinx4\_-  
configuration\_params::SphinxConfiguration-  
Params, [222](#)
- \_separateEngGrWords
  - rapp\_speech\_detection\_sphinx4::greek\_english\_-  
support::GreekEnglishSupport, [87](#)
- \_server\_timeout
  - src::rapp\_http\_request\_handler::RappHttpRequest-  
Handler, [195](#)
- \_set\_noise\_profile\_module
  - rapp\_audio\_processing::rapp\_audio\_processing::-  
AudioProcessing, [38](#)
- \_socket\_host
  - rapp\_speech\_detection\_sphinx4::global\_parameters-  
::GlobalParams, [81](#)
- \_sox\_denoise\_module
  - rapp\_audio\_processing::rapp\_audio\_processing::-  
AudioProcessing, [38](#)
- \_special\_two\_digit\_letters
  - rapp\_speech\_detection\_sphinx4::greek\_support::-  
GreekSupport, [93](#)
- \_speechRecognition
  - rapp\_speech\_detection\_sphinx4::speech\_recognition-  
\_sphinx4::SpeechRecognitionSphinx4, [205](#)
- \_sphinx4
  - rapp\_speech\_detection\_sphinx4::speech\_recognition-  
\_sphinx4::SpeechRecognitionSphinx4, [207](#)
- \_sphinxDied
  - rapp\_speech\_detection\_sphinx4::sphinx4\_-  
wrapper::Sphinx4Wrapper, [219](#)
- \_sphinxSubprocess
  - rapp\_speech\_detection\_sphinx4::sphinx4\_-  
wrapper::Sphinx4Wrapper, [219](#)
- \_sphinx\_configuration
  - rapp\_speech\_detection\_sphinx4::limited\_vocabulary-  
\_creator::LimitedVocabularyCreator, [135](#)
- \_sphinx\_jar\_file
  - rapp\_speech\_detection\_sphinx4::global\_parameters-  
::GlobalParams, [81](#)
- \_sphinx\_jar\_files\_url
  - rapp\_speech\_detection\_sphinx4::global\_parameters-  
::GlobalParams, [81](#)
- \_sphinx\_package\_url
  - rapp\_speech\_detection\_sphinx4::global\_parameters-  
::GlobalParams, [82](#)
- \_sphinx\_preconf
  - rapp\_speech\_detection\_sphinx4::global\_parameters-  
::GlobalParams, [82](#)
- \_sphinx\_socket
  - rapp\_speech\_detection\_sphinx4::sphinx4\_-  
wrapper::Sphinx4Wrapper, [219](#)
- \_sphinx\_socket\_PORT
  - rapp\_speech\_detection\_sphinx4::sphinx4\_-  
wrapper::Sphinx4Wrapper, [219](#)
- \_threadCounter
  - rapp\_speech\_detection\_sphinx4::speech\_recognition-  
\_sphinx4\_handler\_node::SpeechRecognition-  
Sphinx4HandlerNode, [210](#)
- \_threads
  - rapp\_speech\_detection\_sphinx4::speech\_recognition-  
\_sphinx4\_handler\_node::SpeechRecognition-  
Sphinx4HandlerNode, [210](#)
- \_tmp\_language\_models\_url
  - rapp\_speech\_detection\_sphinx4::global\_parameters-  
::GlobalParams, [82](#)
- \_transformWords
  - rapp\_speech\_detection\_sphinx4::greek\_support::-  
GreekSupport, [91](#)
- \_transform\_audio\_module
  - rapp\_audio\_processing::rapp\_audio\_processing::-



- AudioProcessing, 38
- \_two\_digit\_letters
  - rapp\_speech\_detection\_sphinx4::greek\_support::GreekSupport, 94
- \_url
  - rapp\_geolocator::geolocator\_base::GeolocatorBase, 76
  - rapp\_geolocator::ip\_api\_locator::IpAPILocator, 106
  - rapp\_news\_explorer::google\_news\_engine::GoogleNewsEngine, 85
  - rapp\_news\_explorer::news\_engine\_base::NewsEngineBase, 171
  - rapp\_weather\_reporter::weather\_reporter\_base::WeatherReporterBase, 231
  - src::rapp\_http\_request\_handler::RappHttpRequestHandler, 195
- \_username
  - rapp\_news\_explorer::event\_registry\_engine::EventRegistryEngine, 65
- \_username\_exists\_proxy
  - rapp\_application\_authentication\_manager::database\_handler::DatabaseHandler, 51
- \_utilities\_module
  - rapp\_audio\_processing::rapp\_audio\_processing::AudioProcessing, 38
- \_validateSourceType
  - rapp\_audio\_processing::rapp\_transform\_audio::TransformAudio, 224
- \_validate\_existing\_device\_token\_proxy
  - rapp\_application\_authentication\_manager::database\_handler::DatabaseHandler, 51
- \_validate\_user\_role\_proxy
  - rapp\_application\_authentication\_manager::database\_handler::DatabaseHandler, 51
- \_validate\_username\_format
  - rapp\_application\_authentication\_manager::application\_authentication\_node::ApplicationAuthenticationManager, 32
- \_verify\_appl\_token\_proxy
  - rapp\_application\_authentication\_manager::database\_handler::DatabaseHandler, 51
- \_verify\_new\_username\_uniqueness
  - rapp\_application\_authentication\_manager::application\_authentication\_node::ApplicationAuthenticationManager, 32
- \_verify\_robot\_session\_proxy
  - rapp\_application\_authentication\_manager::database\_handler::DatabaseHandler, 51
- \_verify\_user\_credentials
  - rapp\_application\_authentication\_manager::application\_authentication\_node::ApplicationAuthenticationManager, 33
- \_vocabulary
  - rapp\_speech\_detection\_sphinx4::language\_support::LanguageSupport, 133
- \_weather\_reporter\_factory
  - rapp\_weather\_reporter::weather\_reporter\_node::WeatherReporterNode, 236
- \_word\_mapping
  - rapp\_speech\_detection\_sphinx4::speech\_recognition\_sphinx4::SpeechRecognitionSphinx4, 207
- \_words
  - rapp\_speech\_detection\_sphinx4::sphinx4\_configuration\_params::SphinxConfigurationParams, 222
- acoustic\_model\_path
  - Sphinx4, 213
- acoustic\_model\_path\_prev
  - Sphinx4, 213
- activate
  - costmap\_2d::RappStaticLayer, 197
- add\_new\_user
  - rapp\_application\_authentication\_manager::database\_handler::DatabaseHandler, 46
- add\_store\_token\_to\_device
  - rapp\_application\_authentication\_manager::database\_handler::DatabaseHandler, 46
- addStoreTokenToDevice
  - mysql\_wrapper::MySQLdbWrapper, 155
- addStoreTokenToDeviceDataHandler
  - mysql\_wrapper::MySQLdbWrapper, 156
- app\_error\_exception, 13
- app\_error\_exception.AppError, 29
- app\_error\_exception::AppError
  - \_\_init\_\_, 30
- args, 31
- passErrorToRosSrv, 30
- application\_authentication\_ros\_node
  - rapp\_application\_authentication\_manager::application\_authentication\_node, 18
- args
  - app\_error\_exception::AppError, 31
- assertAttributeValue
  - KnowrobWrapper, 108
- assignTestHistoryForTestCategoriesToSrv
  - userScoreHistoryForAllCategories::UserScoreHistoryForAllCategories, 226
- AudioProcessingNode
  - rapp\_audio\_processing::rapp\_audio\_processing, 19
- authTokenByService
  - mysql\_wrapper\_old::MySQLdbWrapper, 141
- authTokenByServiceDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 141
- authenticate\_token\_callback
  - rapp\_application\_authentication\_manager::application\_authentication\_node::ApplicationAuthenticationManager, 34
- bounds
  - crop\_map, 15
- bufferRead
  - Sphinx4, 213
- bufferWrite
  - Sphinx4, 213

- caffe\_root
  - image\_classification::ImageClassification, 102
- caffe\_wrapper, 13
- caffe\_wrapper.RappCaffeWrapper, 184
- caffe\_wrapper::RappCaffeWrapper
  - \_\_init\_\_, 184
  - imageClassificationDataHandler, 185
  - ontologyClassBridgeDataHandler, 186
  - registerImageToOntologyDataHandler, 186
  - serv, 186
  - serv\_topic, 186
- caffe\_wrapper\_main, 13
  - RappCaffeWrapperNode, 13
- calculateUserScoresForCategories
  - userScoresForAllCategories::UserScoresForAllCategories, 228
- center
  - QrCode, 180
- checkActiveApplicationToken
  - mysql\_wrapper::MySQLdbWrapper, 156
- checkActiveApplicationTokenDataHandler
  - mysql\_wrapper::MySQLdbWrapper, 156
- checkActiveRobotSession
  - mysql\_wrapper::MySQLdbWrapper, 157
- checkActiveRobotSessionDataHandler
  - mysql\_wrapper::MySQLdbWrapper, 157
- checkConnection
  - mysql\_wrapper::MySQLdbWrapper, 157
  - mysql\_wrapper\_old::MySQLdbWrapper, 141
- checkIfFileExists
  - knowrob\_wrapper.cpp, 261
- checkIfStringContainsString
  - knowrob\_wrapper.cpp, 261
- checkIfStringVectorContainsString
  - knowrob\_wrapper.cpp, 261
- checkIfUserExists
  - mysql\_wrapper::MySQLdbWrapper, 157
- checkIfUserExistsDataHandler
  - mysql\_wrapper::MySQLdbWrapper, 159
- chooserDataHandler
  - cognitive\_exercise::CognitiveExercise, 39
- classifyImage
  - image\_classification::ImageClassification, 100
- cleanup
  - rapp\_audio\_processing::rapp\_utilities::Utilities, 229
- clear\_user\_cognitive\_tests\_performance\_records
  - KnowrobWrapper, 108
- clear\_user\_cognitive\_tests\_performance\_records\_-callback
  - KnowrobWrapperCommunications, 122
- clear\_user\_cognitive\_tests\_performance\_records\_-service\_
  - KnowrobWrapperCommunications, 127
- clear\_user\_cognitive\_tests\_performance\_records\_-topic\_
  - KnowrobWrapperCommunications, 127
- cm
  - Sphinx4, 213
- cognitive\_exercise, 13
- cognitive\_exercise.CognitiveExercise, 38
- cognitive\_exercise::CognitiveExercise
  - \_\_init\_\_, 39
  - chooserDataHandler, 39
  - cognitiveTestCreatorDataHandler, 39
  - recordUserCognitiveTestPerformanceDataHandler, 39
  - returnTestsOfTypeSubtypeDifficultyDataHandler, 40
  - serv, 41
  - serv\_topic, 41
  - userScoreHistoryForAllCategoriesDataHandler, 40
  - userScoresForAllCategoriesDataHandler, 40
- cognitive\_exercise\_main, 14
  - CognitiveExerciseNode, 14
- cognitive\_tests\_of\_type
  - KnowrobWrapper, 110
- cognitive\_tests\_of\_type\_callback
  - KnowrobWrapperCommunications, 123
- cognitive\_tests\_of\_type\_service\_
  - KnowrobWrapperCommunications, 128
- cognitive\_tests\_of\_type\_topic\_
  - KnowrobWrapperCommunications, 128
- CognitiveExerciseNode
  - cognitive\_exercise\_main, 14
- cognitiveTestCreatorDataHandler
  - cognitive\_exercise::CognitiveExercise, 39
- computed\_cropped\_origin
  - crop\_map, 14
- configuration
  - Sphinx4, 213
- configuration\_model\_path
  - Sphinx4, 213
- configuration\_model\_path\_prev
  - Sphinx4, 213
- configureSequence
  - PathPlanner, 175
- configureSphinx
  - rapp\_speech\_detection\_sphinx4::sphinx4\_wrapper::Sphinx4Wrapper, 217
- constructAndQuery
  - mysql\_wrapper\_old::MySQLdbWrapper, 142
- constructCommaColumns
  - mysql\_wrapper\_old::MySQLdbWrapper, 142
- costmap\_2d, 14
- costmap\_2d::RappStaticLayer, 195
  - ~RappStaticLayer, 197
- activate, 197
- costmap\_update\_service, 198
- deactivate, 197
- dsvr\_, 198
- global\_frame\_, 198
- has\_updated\_data\_, 199
- height\_, 199
- incomingMap, 197
- incomingUpdate, 197
- incomingUpdateService, 197

- interpretValue, 198
- lethal\_threshold\_, 199
- lock\_, 199
- map\_received\_, 199
- map\_sub\_, 199
- map\_update\_sub\_, 199
- matchSize, 198
- onInitialize, 198
- RappStaticLayer, 197
- reconfigureCB, 198
- reset, 198
- subscribe\_to\_updates\_, 199
- track\_unknown\_space\_, 199
- trinary\_costmap\_, 199
- unknown\_cost\_value\_, 199
- updateBounds, 198
- updateCosts, 198
- use\_maximum\_, 199
- width\_, 200
- x\_, 200
- y\_, 200
- costmap\_update\_service
  - costmap\_2d::RappStaticLayer, 198
- create\_cognitive\_tests
  - KnowrobWrapper, 110
- create\_cognitive\_tests\_callback
  - KnowrobWrapperCommunications, 123
- create\_cognitive\_tests\_service\_
  - KnowrobWrapperCommunications, 128
- create\_cognitive\_tests\_topic\_
  - KnowrobWrapperCommunications, 128
- create\_ontology\_alias
  - KnowrobWrapper, 111
- create\_ontology\_alias\_callback
  - KnowrobWrapperCommunications, 123
- create\_ontology\_alias\_for\_new\_user
  - KnowrobWrapper, 111
- create\_ontology\_alias\_service\_
  - KnowrobWrapperCommunications, 128
- create\_ontology\_alias\_topic\_
  - KnowrobWrapperCommunications, 128
- createConfigurationFiles
  - rapp\_speech\_detection\_sphinx4::limited\_vocabulary-  
\_creator::LimitedVocabularyCreator, 134
- createInstanceCallback
  - KnowrobWrapperCommunications, 124
- createInstanceQuery
  - KnowrobWrapper, 112
- createInstanceService\_
  - KnowrobWrapperCommunications, 128
- createInstanceServiceTopic\_
  - KnowrobWrapperCommunications, 128
- createNewApplicationToken
  - mysql\_wrapper::MySQLdbWrapper, 159
- createNewApplicationTokenDataHandler
  - mysql\_wrapper::MySQLdbWrapper, 159
- createNewCloudAgent
  - mysql\_wrapper::MySQLdbWrapper, 160
- createNewCloudAgentDataHandler
  - mysql\_wrapper::MySQLdbWrapper, 160
- createNewCloudAgentService
  - mysql\_wrapper::MySQLdbWrapper, 160
- createNewCloudAgentServiceDataHandler
  - mysql\_wrapper::MySQLdbWrapper, 161
- createNewPlatformUser
  - mysql\_wrapper::MySQLdbWrapper, 161
- createNewPlatformUserDataHandler
  - mysql\_wrapper::MySQLdbWrapper, 161
- crop\_image
  - crop\_map, 15
- crop\_map, 14
  - bounds, 15
  - computed\_cropped\_origin, 14
  - crop\_image, 15
  - crop\_name, 15
  - crop\_yaml, 15
  - cropped\_image, 15
  - find\_bounds, 14
  - map\_data, 15
  - map\_image, 15
  - map\_image\_file, 15
  - origin, 15
  - resolution, 15
- crop\_name
  - crop\_map, 15
- crop\_yaml
  - crop\_map, 15
- cropped\_image
  - crop\_map, 15
- deactivate
  - costmap\_2d::RappStaticLayer, 197
- deleteData
  - mysql\_wrapper\_old::MySQLdbWrapper, 142
- denoiseCallback
  - rapp\_audio\_processing::rapp\_audio\_processing:-  
AudioProcessing, 36
- deprecated
  - MapServer, 137
- detectFaces
  - FaceDetector, 68, 69
- detectHuman2D
  - HumanDetector, 97, 98
- detectQrs
  - QrDetector, 183
- detectSilence
  - rapp\_audio\_processing::rapp\_detect\_silence:-  
DetectSilence, 52
- detectSilenceCallback
  - rapp\_audio\_processing::rapp\_audio\_processing:-  
AudioProcessing, 36
- determineTestTypeListForReturningScoresOrHistory
  - helper\_functions::CognitiveExerciseHelperFunctions,  
41
- dictionary\_path
  - Sphinx4, 213
- dictionary\_path\_prev

- Sphinx4, 214
- dsrv\_
  - costmap\_2d::RappStaticLayer, 198
- dump\_ontology\_now
  - KnowrobWrapper, 112
- dumpOntologyCallback
  - KnowrobWrapperCommunications, 124
- dumpOntologyQuery
  - KnowrobWrapper, 112
- dumpOntologyService\_
  - KnowrobWrapperCommunications, 128
- dumpOntologyServiceTopic\_
  - KnowrobWrapperCommunications, 129
- emailReceiver
  - rapp\_email::email\_node, 20
- emailSender
  - rapp\_email::email\_node, 20
- energyDenoise
  - rapp\_audio\_processing::rapp\_energy\_denoise::-
    - EnergyDenoise, 58
- energyDenoiseCallback
  - rapp\_audio\_processing::rapp\_audio\_processing::-
    - AudioProcessing, 36
- equalsRequest
  - rapp\_speech\_detection\_sphinx4::sphinx4\_-
    - configuration\_params::SphinxConfiguration-
 Params, 221
- exists\_file
  - path\_planning.cpp, 275
- face\_detection\_node.cpp
  - main, 251
- face\_detector\_
  - FaceDetection, 66
- FaceDetection, 65
  - face\_detector\_, 66
  - FaceDetection, 66
  - faceDetectionCallback, 66
  - faceDetectionService\_, 66
  - faceDetectionTopic\_, 66
  - FaceDetection, 66
  - nh\_, 66
- faceDetectionCallback
  - FaceDetection, 66
- faceDetectionService\_
  - FaceDetection, 66
- faceDetectionTopic\_
  - FaceDetection, 66
- FaceDetector, 67
  - detectFaces, 68, 69
  - FaceDetector, 67
  - FaceDetector, 67
  - findFaces, 69
  - identifyUniqueFaces, 69
  - loadImage, 69
- fed
  - src::rapp\_html\_parser::RappHTMLParser, 190
- fetch\_current\_weather
  - rapp\_weather\_reporter::forecastio\_reporter::-
    - ForecastIOReporter, 73
  - rapp\_weather\_reporter::weather\_reporter\_base::-
    - WeatherReporterBase, 231
  - rapp\_weather\_reporter::yweather\_reporter::Y-
    - WeatherReporter, 238
- fetch\_current\_weather\_srv\_callback
  - rapp\_weather\_reporter::weather\_reporter\_node::-
    - WeatherReporterNode, 235
- fetch\_forecast\_srv\_callback
  - rapp\_weather\_reporter::weather\_reporter\_node::-
    - WeatherReporterNode, 235
- fetch\_geolocation
  - rapp\_geolocator::geolocator\_base::Geolocator-
 Base, 76
  - rapp\_geolocator::ip\_api\_locator::IpAPILocator, 106
- fetch\_location\_srv\_callback
  - rapp\_geolocator::geolocator\_node::Geolocator-
 Node, 79
- fetch\_news
  - rapp\_news\_explorer::event\_registry\_engine::-
 EventRegistryEngine, 64
  - rapp\_news\_explorer::google\_news\_engine::-
 GoogleNewsEngine, 85
  - rapp\_news\_explorer::news\_engine\_base::News-
 EngineBase, 171
- fetch\_news\_srv\_callback
  - rapp\_news\_explorer::news\_explorer\_node::News-
 ExplorerNode, 173
- fetch\_weather\_forecast
  - rapp\_weather\_reporter::forecastio\_reporter::-
 ForecastIOReporter, 73
  - rapp\_weather\_reporter::weather\_reporter\_base::-
 WeatherReporterBase, 231
  - rapp\_weather\_reporter::yweather\_reporter::Y-
 WeatherReporter, 238
- fetchData
  - mysql\_wrapper\_old::MySQLdbWrapper, 142
- filterTestsbyDifficultyAndSubtype
  - helper\_functions::CognitiveExerciseHelperFunctions,
 42
- find\_bounds
  - crop\_map, 14
- find\_values
  - src::rapp\_http\_json\_parser::RappHttpJSON-
 Parser, 191
- findFaces
  - FaceDetector, 69
- findHuman2D
  - HumanDetector, 98
- findQrs
  - QrDetector, 183
- fname
  - MapServer, 137
- GP\_pIDs
  - PathPlanning, 178
- geolocator\_node
  - rapp\_geolocator::geolocator\_node, 21

- get\_data
  - src::rapp\_html\_parser::RappHTMLParser, 189
- get\_ontology\_alias
  - KnowrobWrapper, 113
- get\_service
  - MapServer, 138
- get\_token\_user
  - rapp\_application\_authentication\_manager::database-  
\_handler::DatabaseHandler, 48
- get\_user\_password
  - rapp\_application\_authentication\_manager::database-  
\_handler::DatabaseHandler, 48
- getCloudAgentServiceTypeAndHostPort
  - mysql\_wrapper::MySQLdbWrapper, 162
- getCloudAgentServiceTypeAndHostPortDataHandler
  - mysql\_wrapper::MySQLdbWrapper, 162
- getCognitiveTestsOfType
  - helper\_functions::CognitiveExerciseHelperFunctions,  
42
- getConfigurationHash
  - rapp\_speech\_detection\_sphinx4::speech\_recognition-  
\_sphinx4::SpeechRecognitionSphinx4, 206
- getGenericConfiguration
  - rapp\_speech\_detection\_sphinx4::language\_  
support::LanguageSupport, 133
- getHash
  - rapp\_speech\_detection\_sphinx4::sphinx4\_  
configuration\_params::SphinxConfiguration-  
Params, 221
- getImageClass
  - image\_classification::ImageClassification, 101
- getLimitedVocebularyConfiguration
  - rapp\_speech\_detection\_sphinx4::english\_support-  
::EnglishSupport, 62
  - rapp\_speech\_detection\_sphinx4::greek\_english\_  
support::GreekEnglishSupport, 88
  - rapp\_speech\_detection\_sphinx4::greek\_support::-  
GreekSupport, 91
  - rapp\_speech\_detection\_sphinx4::language\_  
support::LanguageSupport, 133
- getLogin
  - mysql\_wrapper::MySQLdbWrapper, 162
  - mysql\_wrapper\_old::MySQLdbWrapper, 143
- getOntologyClass
  - image\_classification::ImageClassification, 101
- getOntologyClassEquivalent
  - ontology\_class\_bridge::OntologyClassBridge, 174
- getTableColumnNames
  - mysql\_wrapper::MySQLdbWrapper, 162
  - mysql\_wrapper\_old::MySQLdbWrapper, 143
- getTestLanguagesFromOntology
  - helper\_functions::CognitiveExerciseHelperFunctions,  
42
- getTestTypesFromOntology
  - helper\_functions::CognitiveExerciseHelperFunctions,  
43
- getUserLanguage
  - helper\_functions::CognitiveExerciseHelperFunctions,
- 43
  - mysql\_wrapper::MySQLdbWrapper, 164
- getUserLanguageDataHandler
  - mysql\_wrapper::MySQLdbWrapper, 164
- getUserOntologyAlias
  - helper\_functions::CognitiveExerciseHelperFunctions,  
43
- image\_registration\_to\_ontology::ImageRegistration-  
ToOntology, 103
  - mysql\_wrapper::MySQLdbWrapper, 165
- getUserOntologyAliasDataHandler
  - mysql\_wrapper::MySQLdbWrapper, 165
- getUserPassword
  - mysql\_wrapper::MySQLdbWrapper, 165
- getUserPasswordDataHandler
  - mysql\_wrapper::MySQLdbWrapper, 166
- getUserPerformanceRecordsForTestType
  - helper\_functions::CognitiveExerciseHelperFunctions,  
43
- getUsernameAssociatedWithApplicationToken
  - mysql\_wrapper::MySQLdbWrapper, 164
- getUsernameAssociatedWithApplicationTokenData-  
Handler
  - mysql\_wrapper::MySQLdbWrapper, 165
- getWordPhonemes
  - rapp\_speech\_detection\_sphinx4::english\_support-  
::EnglishSupport, 62
- global\_frame\_
  - costmap\_2d::RappStaticLayer, 198
- grammar\_enabled
  - Sphinx4, 214
- grammar\_enabled\_prev
  - Sphinx4, 214
- grammar\_model\_file\_path
  - Sphinx4, 214
- grammar\_model\_file\_path\_prev
  - Sphinx4, 214
- grammar\_model\_folder\_path
  - Sphinx4, 214
- grammar\_model\_folder\_path\_prev
  - Sphinx4, 214
- GreekSupport, 88
- handle\_data
  - src::rapp\_html\_parser::RappHTMLParser, 189
- handleSpeechRecognitionCallback
  - rapp\_speech\_detection\_sphinx4::speech\_recognition-  
\_sphinx4\_handler\_node::SpeechRecognition-  
Sphinx4HandlerNode, 209
- has\_updated\_data\_
  - costmap\_2d::RappStaticLayer, 199
- hazard\_detection\_node.cpp
  - main, 254
- height\_
  - costmap\_2d::RappStaticLayer, 199
- helper\_functions, 16
  - helper\_functions.CognitiveExerciseHelperFunctions, 41
  - helper\_functions::CognitiveExerciseHelperFunctions

- determineTestTypeListForReturningScoresOrHistory, [41](#)
- filterTestsbyDifficultyAndSubtype, [42](#)
- getCognitiveTestsOfType, [42](#)
- getTestLanguagesFromOntology, [42](#)
- getTestTypesFromOntology, [43](#)
- getUserLanguage, [43](#)
- getUserOntologyAlias, [43](#)
- getUserPerformanceRecordsForTestType, [43](#)
- organizeUserPerformanceByTimestamp, [44](#)
- homedir
  - MapServer, [138](#)
  - PathPlanning, [178](#)
- human\_detection\_node.cpp
  - main, [258](#)
- human\_detector\_
  - HumanDetection, [95](#)
- HumanDetection, [94](#)
  - human\_detector\_, [95](#)
  - HumanDetection, [95](#)
  - humanDetectionCallback, [95](#)
  - humanDetectionService\_, [95](#)
  - humanDetectionTopic\_, [95](#)
  - HumanDetection, [95](#)
  - nh\_, [95](#)
- humanDetectionCallback
  - HumanDetection, [95](#)
- humanDetectionService\_
  - HumanDetection, [95](#)
- humanDetectionTopic\_
  - HumanDetection, [95](#)
- HumanDetector, [96](#)
  - detectHuman2D, [97](#), [98](#)
  - findHuman2D, [98](#)
  - HumanDetector, [96](#)
  - HumanDetector, [96](#)
  - identifyUniqueHumans, [98](#)
  - loadImage, [98](#)
- IPLocatorFactory, [106](#)
- identifyUniqueFaces
  - FaceDetector, [69](#)
- identifyUniqueHumans
  - HumanDetector, [98](#)
- image\_classification, [16](#)
- image\_classification.ImageClassification, [99](#)
- image\_classification::ImageClassification
  - \_\_init\_\_, [99](#)
  - caffe\_root, [102](#)
  - classifyImage, [100](#)
  - getImageClass, [101](#)
  - getOntologyClass, [101](#)
  - labels, [102](#)
  - net, [102](#)
  - registerToOntology, [101](#)
  - transformer, [102](#)
- image\_loader.cpp
  - MAP\_IDX, [270](#)
- image\_registration\_to\_ontology, [16](#)
- image\_registration\_to\_ontology.ImageRegistrationToOntology, [102](#)
- image\_registration\_to\_ontology::ImageRegistrationToOntology
  - getUserOntologyAlias, [103](#)
  - registerImage, [103](#)
  - registerImageToOntology, [103](#)
- imageClassificationDataHandler
  - caffe\_wrapper::RappCaffeWrapper, [185](#)
- incomingMap
  - costmap\_2d::RappStaticLayer, [197](#)
- incomingUpdate
  - costmap\_2d::RappStaticLayer, [197](#)
- incomingUpdateService
  - costmap\_2d::RappStaticLayer, [197](#)
- input\_poses\_correct
  - path\_planning.cpp, [275](#)
- intToString
  - knowrob\_wrapper.cpp, [261](#)
- interpretValue
  - costmap\_2d::RappStaticLayer, [198](#)
- is\_subsuperclass\_of\_service\_
  - KnowrobWrapperCommunications, [129](#)
- is\_subsuperclass\_of\_service\_topic\_
  - KnowrobWrapperCommunications, [129](#)
- isSubSuperclassOfCallback
  - KnowrobWrapperCommunications, [124](#)
- isSubSuperclassOfQuery
  - KnowrobWrapper, [113](#)
- knowrob\_wrapper
  - KnowrobWrapperCommunications, [129](#)
- knowrob\_wrapper.cpp
  - checkIfFileExists, [261](#)
  - checkIfStringContainsString, [261](#)
  - checkIfStringVectorContainsString, [261](#)
  - intToString, [261](#)
  - split, [263](#)
  - SplitFilename, [263](#)
- knowrob\_wrapper\_node.cpp
  - main, [264](#)
- KnowrobWrapper, [107](#)
  - assertAttributeValue, [108](#)
  - clear\_user\_cognitive\_tests\_performance\_records, [108](#)
  - cognitive\_tests\_of\_type, [110](#)
  - create\_cognitive\_tests, [110](#)
  - create\_ontology\_alias, [111](#)
  - create\_ontology\_alias\_for\_new\_user, [111](#)
  - createInstanceQuery, [112](#)
  - dump\_ontology\_now, [112](#)
  - dumpOntologyQuery, [112](#)
  - get\_ontology\_alias, [113](#)
  - isSubSuperclassOfQuery, [113](#)
  - KnowrobWrapper, [108](#)
  - KnowrobWrapper, [108](#)
  - loadOntologyQuery, [114](#)
  - mysql\_get\_user\_ontology\_alias\_client, [119](#)
  - mysql\_register\_user\_ontology\_alias\_client, [119](#)



- nh\_, 119
- pl, 119
- record\_user\_cognitive\_tests\_performance, 114
- register\_image\_object\_to\_ontology, 115
- retract\_user\_ontology\_alias, 115
- subclassesOfQuery, 115
- superclassesOfQuery, 116
- user\_instances\_of\_class, 116
- user\_performance\_cognitive\_tests, 118
- KnowrobWrapperCommunications, 119
  - clear\_user\_cognitive\_tests\_performance\_records\_callback, 122
  - clear\_user\_cognitive\_tests\_performance\_records\_service\_, 127
  - clear\_user\_cognitive\_tests\_performance\_records\_topic\_, 127
  - cognitive\_tests\_of\_type\_callback, 123
  - cognitive\_tests\_of\_type\_service\_, 128
  - cognitive\_tests\_of\_type\_topic\_, 128
  - create\_cognitive\_tests\_callback, 123
  - create\_cognitive\_tests\_service\_, 128
  - create\_cognitive\_tests\_topic\_, 128
  - create\_ontology\_alias\_callback, 123
  - create\_ontology\_alias\_service\_, 128
  - create\_ontology\_alias\_topic\_, 128
  - createInstanceCallback, 124
  - createInstanceService\_, 128
  - createInstanceServiceTopic\_, 128
  - dumpOntologyCallback, 124
  - dumpOntologyService\_, 128
  - dumpOntologyServiceTopic\_, 129
  - is\_subsuperclass\_of\_service\_, 129
  - is\_subsuperclass\_of\_service\_topic\_, 129
  - isSubSuperclassOfCallback, 124
  - knowrob\_wrapper, 129
  - KnowrobWrapperCommunications, 121
  - KnowrobWrapperCommunications, 121
  - loadOntologyCallback, 125
  - loadOntologyService\_, 129
  - loadOntologyServiceTopic\_, 129
  - nh\_, 129
  - record\_user\_cognitive\_tests\_performance\_callback, 125
  - record\_user\_cognitive\_tests\_performance\_service\_, 129
  - record\_user\_cognitive\_tests\_performance\_topic\_, 129
  - register\_image\_object\_to\_ontology\_callback, 125
  - register\_image\_object\_to\_ontology\_service\_, 130
  - register\_image\_object\_to\_ontology\_topic\_, 130
  - retract\_user\_ontology\_alias\_callback, 126
  - retract\_user\_ontology\_alias\_service\_, 130
  - retract\_user\_ontology\_alias\_topic\_, 130
  - subclasses\_of\_service\_, 130
  - subclasses\_of\_service\_topic\_, 130
  - subclassesOfCallback, 126
  - superclasses\_of\_service\_, 130
  - superclasses\_of\_service\_topic\_, 130
  - superclassesOfCallback, 126
  - user\_instances\_of\_class\_callback, 127
  - user\_instances\_of\_class\_service\_, 130
  - user\_instances\_of\_class\_topic\_, 131
  - user\_performance\_cognitive\_tests\_callback, 127
  - user\_performance\_cognitive\_tests\_service\_, 131
  - user\_performance\_cognitive\_tests\_topic\_, 131
- labels
  - image\_classification::ImageClassification, 102
- language\_path
  - Sphinx4, 214
- language\_path\_prev
  - Sphinx4, 214
- lethal\_threshold\_
  - costmap\_2d::RappStaticLayer, 199
- loadImage
  - FaceDetector, 69
  - HumanDetector, 98
  - QrDetector, 183
- loadMapFromFile
  - map\_server, 16
- loadMappingIntoDictionary
  - ontology\_class\_bridge::OntologyClassBridge, 174
- loadOntologyCallback
  - KnowrobWrapperCommunications, 125
- loadOntologyQuery
  - KnowrobWrapper, 114
- loadOntologyService\_
  - KnowrobWrapperCommunications, 129
- loadOntologyServiceTopic\_
  - KnowrobWrapperCommunications, 129
- lock\_
  - costmap\_2d::RappStaticLayer, 199
- login\_callback
  - rapp\_application\_authentication\_manager::application\_authentication\_node::ApplicationAuthenticationManager, 34
- login\_from\_store\_callback
  - rapp\_application\_authentication\_manager::application\_authentication\_node::ApplicationAuthenticationManager, 34
- MAP\_IDX
  - image\_loader.cpp, 270
- MS\_plDs
  - PathPlanning, 179
- main
  - face\_detection\_node.cpp, 251
  - hazard\_detection\_node.cpp, 254
  - human\_detection\_node.cpp, 258
  - knowrob\_wrapper\_node.cpp, 264
  - main.cpp, 272
  - map\_saver.cpp, 273
  - path\_planning\_node.cpp, 276
  - qr\_detection\_node.cpp, 279
  - Sphinx4, 213
- main.cpp
  - main, 272

- USAGE, 271
- makeEqualToInstance
  - rapp\_speech\_detection\_sphinx4::sphinx4\_ - configuration\_params::SphinxConfiguration-Params, 221
- makeEqualToRequest
  - rapp\_speech\_detection\_sphinx4::sphinx4\_ - configuration\_params::SphinxConfiguration-Params, 221
- map\_data
  - crop\_map, 15
- map\_image
  - crop\_map, 15
- map\_image\_file
  - crop\_map, 15
- map\_pub
  - MapServer, 138
- map\_received\_
  - costmap\_2d::RappStaticLayer, 199
- map\_resp\_
  - MapServer, 138
- map\_saver.cpp
  - main, 273
  - USAGE, 272
- map\_server, 16
  - loadMapFromFile, 16
- map\_sub\_
  - costmap\_2d::RappStaticLayer, 199
  - MapGenerator, 136
- map\_update\_sub\_
  - costmap\_2d::RappStaticLayer, 199
- mapCallback
  - MapGenerator, 136
  - MapServer, 137
- MapGenerator, 135
  - map\_sub\_, 136
  - mapCallback, 136
  - MapGenerator, 136
  - MapGenerator, 136
  - mapname\_, 136
  - saved\_map\_, 136
- MapServer, 136
  - deprecated, 137
  - fname, 137
  - get\_service, 138
  - homedir, 138
  - map\_pub, 138
  - map\_resp\_, 138
  - mapCallback, 137
  - MapServer, 137
  - mapUploadCallback, 137
  - MapServer, 137
  - meta\_data\_message\_, 138
  - metadata\_pub, 138
  - n, 138
  - test\_service, 138
  - updateMap, 137
  - upload\_map\_trigger, 138
  - upload\_map\_trigger\_name, 138
  - upload\_service, 138
- mapUploadCallback
  - MapServer, 137
- mapname\_
  - MapGenerator, 136
- matchSize
  - costmap\_2d::RappStaticLayer, 198
- message
  - QrCode, 180
- meta\_data\_message\_
  - MapServer, 138
- metadata\_pub
  - MapServer, 138
- MySQLWrapperNode
  - mysql\_wrapper\_main, 17
- mySigintHandler
  - path\_planning\_node.cpp, 276
- mysql\_get\_user\_ontology\_alias\_client
  - KnowrobWrapper, 119
- mysql\_register\_user\_ontology\_alias\_client
  - KnowrobWrapper, 119
- mysql\_wrapper, 17
- mysql\_wrapper.MySQLdbWrapper, 152
- mysql\_wrapper::MySQLdbWrapper
  - \_\_init\_\_, 154
  - addStoreTokenToDevice, 155
  - addStoreTokenToDeviceDataHandler, 156
  - checkActiveApplicationToken, 156
  - checkActiveApplicationTokenDataHandler, 156
  - checkActiveRobotSession, 157
  - checkActiveRobotSessionDataHandler, 157
  - checkConnection, 157
  - checkIfUserExists, 157
  - checkIfUserExistsDataHandler, 159
  - createNewApplicationToken, 159
  - createNewApplicationTokenDataHandler, 159
  - createNewCloudAgent, 160
  - createNewCloudAgentDataHandler, 160
  - createNewCloudAgentService, 160
  - createNewCloudAgentServiceDataHandler, 161
  - createNewPlatformUser, 161
  - createNewPlatformUserDataHandler, 161
  - getCloudAgentServiceTypeAndHostPort, 162
  - getCloudAgentServiceTypeAndHostPortData-Handler, 162
  - getLogin, 162
  - getTableColumnNames, 162
  - getUserLanguage, 164
  - getUserLanguageDataHandler, 164
  - getUserOntologyAlias, 165
  - getUserOntologyAliasDataHandler, 165
  - getUserPassword, 165
  - getUserPasswordDataHandler, 166
  - getUsernameAssociatedWithApplicationToken, 164
  - getUsernameAssociatedWithApplicationToken-DataHandler, 165



- registerNewTokenDataHandler, 166
- registerUserOntologyAlias, 166
- registerUserOntologyAliasDataHandler, 167
- removePlatformUser, 167
- removePlatformUserDataHandler, 167
- serv, 169
- serv\_topic, 169
- validateExistingPlatformDeviceToken, 168
- validateExistingPlatformDeviceTokenDataHandler, 168
- validateUserRole, 168
- validateUserRoleDataHandler, 169
- mysql\_wrapper\_main, 17
  - MySQLWrapperNode, 17
- mysql\_wrapper\_old, 17
- mysql\_wrapper\_old.MySQLdbWrapper, 139
- mysql\_wrapper\_old::MySQLdbWrapper
  - \_\_init\_\_, 141
  - authTokenByService, 141
  - authTokenByServiceDataHandler, 141
  - checkConnection, 141
  - constructAndQuery, 142
  - constructCommaColumns, 142
  - deleteData, 142
  - fetchData, 142
  - getLogin, 143
  - getTableColumnNames, 143
  - serv, 152
  - serv\_topic, 152
  - tblAppsRobotsDeleteDataHandler, 143
  - tblAppsRobotsFetchDataHandler, 143
  - tblAppsRobotsUpdateDataHandler, 143
  - tblAppsRobotsWriteDataHandler, 144
  - tblCloudAgentDeleteDataHandler, 144
  - tblCloudAgentFetchDataHandler, 144
  - tblCloudAgentServiceArgumentsDeleteDataHandler, 144
  - tblCloudAgentServiceArgumentsFetchDataHandler, 144
  - tblCloudAgentServiceArgumentsUpdateDataHandler, 145
  - tblCloudAgentServiceArgumentsWriteDataHandler, 145
  - tblCloudAgentServiceDeleteDataHandler, 145
  - tblCloudAgentServiceFetchDataHandler, 145
  - tblCloudAgentServiceUpdateDataHandler, 146
  - tblCloudAgentServiceWriteDataHandler, 146
  - tblCloudAgentUpdateDataHandler, 146
  - tblCloudAgentWriteDataHandler, 146
  - tblModelDeleteDataHandler, 146
  - tblModelFetchDataHandler, 147
  - tblModelUpdateDataHandler, 147
  - tblModelWriteDataHandler, 147
  - tblRappDeleteDataHandler, 147
  - tblRappFetchDataHandler, 148
  - tblRappUpdateDataHandler, 148
  - tblRappWriteDataHandler, 148
  - tblRobotDeleteDataHandler, 148
  - tblRobotFetchDataHandler, 148
  - tblRobotUpdateDataHandler, 149
  - tblRobotWriteDataHandler, 149
  - tblUserDeleteDataHandler, 149
  - tblUserFetchDataHandler, 149
  - tblUserUpdateDataHandler, 150
  - tblUserWriteDataHandler, 151
  - tblUsersOntologyInstancesDeleteDataHandler, 150
  - tblUsersOntologyInstancesFetchDataHandler, 150
  - tblUsersOntologyInstancesUpdateDataHandler, 150
  - tblUsersOntologyInstancesWriteDataHandler, 150
  - updateData, 151
  - viewUsersRobotsAppsFetchDataHandler, 151
  - whatRappsCanRun, 151
  - whatRappsCanRunDataHandler, 152
  - writeData, 152
- n
  - MapServer, 138
- net
  - image\_classification::ImageClassification, 102
- new\_path
  - PathPlanning, 179
- news\_explorer\_node
  - rapp\_news\_explorer::news\_explorer\_node, 22
- nh\_
  - FaceDetection, 66
  - HumanDetection, 95
  - KnowrobWrapper, 119
  - KnowrobWrapperCommunications, 129
  - PathPlanning, 179
  - QrDetection, 182
- onInitialize
  - costmap\_2d::RappStaticLayer, 198
- ontology\_class\_bridge, 17
  - ontology\_class\_bridge.OntologyClassBridge, 174
  - ontology\_class\_bridge::OntologyClassBridge
    - getOntologyClassEquivalent, 174
    - loadMappingIntoDictionary, 174
- ontologyClassBridgeDataHandler
  - caffe\_wrapper::RappCaffeWrapper, 186
- organizeUserPerformanceByTimestamp
  - helper\_functions::CognitiveExerciseHelperFunctions, 44
- origin
  - crop\_map, 15
- passErrorToRosSrv
  - app\_error\_exception::AppError, 30
- path\_planner\_
  - PathPlanning, 179
- path\_planning.cpp
  - exists\_file, 275
  - input\_poses\_correct, 275
  - setPoseDist, 275
  - start\_global\_planners, 276

- start\_map\_servers, 276
  - start\_tf\_publisher, 276
- path\_planning\_
  - path\_planning\_node.cpp, 277
- path\_planning\_node.cpp
  - main, 276
  - mySigintHandler, 276
  - path\_planning\_, 277
- PathPlanner, 175
  - configureSequence, 175
  - PathPlanner, 175
  - PathPlanner, 175
  - setSequenceNR, 176
  - startSequence, 176
- PathPlanning, 177
  - ~PathPlanning, 178
  - GP\_pIDs, 178
  - homedir, 178
  - MS\_pIDs, 179
  - new\_path, 179
  - nh\_, 179
  - path\_planner\_, 179
  - PathPlanning, 178
  - pathPlanningCallback, 178
  - pathPlanningService\_, 179
  - pathPlanningThreadServices\_, 179
  - pathPlanningThreads\_, 179
  - pathPlanningTopic\_, 179
  - PathPlanning, 178
  - pose\_dist\_, 179
  - TP\_pID, 179
  - uploadMapCallback, 178
  - uploadMapService\_, 179
  - uploadMapTopic\_, 179
- pathPlanningCallback
  - PathPlanning, 178
- pathPlanningService\_
  - PathPlanning, 179
- pathPlanningThreadServices\_
  - PathPlanning, 179
- pathPlanningThreads\_
  - PathPlanning, 179
- pathPlanningTopic\_
  - PathPlanning, 179
- perform\_request
  - src::rapp\_http\_request\_handler::RappHttpRequest-  
Handler, 194
- performSpeechRecognition
  - rapp\_speech\_detection\_sphinx4::sphinx4\_-  
wrapper::Sphinx4Wrapper, 218
- pl
  - KnowrobWrapper, 119
- pose\_dist\_
  - PathPlanning, 179
- qr\_detection\_node.cpp
  - main, 279
- qr\_detector\_
  - QrDetection, 182
- QrCode, 180
  - center, 180
  - message, 180
- QrDetection, 180
  - nh\_, 182
  - qr\_detector\_, 182
  - QrDetection, 181
  - qrDetectionCallback, 181
  - qrDetectionService\_, 182
  - qrDetectionTopic\_, 182
  - QrDetection, 181
- qrDetectionCallback
  - QrDetection, 181
- qrDetectionService\_
  - QrDetection, 182
- qrDetectionTopic\_
  - QrDetection, 182
- QrDetector, 182
  - detectQrs, 183
  - findQrs, 183
  - loadImage, 183
  - QrDetector, 183
  - QrDetector, 183
- rapp\_application\_authentication\_manager, 17
- rapp\_application\_authentication\_manager.application\_ -  
authentication\_node, 17
- rapp\_application\_authentication\_manager.application\_ -  
authentication\_node.ApplicationAuthentication-  
Manager, 31
- rapp\_application\_authentication\_manager.database\_ -  
handler, 18
- rapp\_application\_authentication\_manager.database\_ -  
handler.DatabaseHandler, 44
- rapp\_application\_authentication\_manager::application\_ -  
authentication\_node
- application\_authentication\_ros\_node, 18
- rapp\_application\_authentication\_manager::application\_ -  
authentication\_node::ApplicationAuthentication-  
Manager
- login\_callback, 34
- rapp\_application\_authentication\_manager::database\_ -  
handler::DatabaseHandler
- \_username\_exists\_proxy, 51
- add\_new\_user, 46
- get\_token\_user, 48
- get\_user\_password, 48
- username\_exists, 48
- validate\_user\_role, 48
- verify\_store\_device\_token, 49
- rapp\_audio\_processing, 18
- rapp\_audio\_processing.rapp\_audio\_processing, 18
- rapp\_audio\_processing.rapp\_audio\_processing.Audio-  
Processing, 35
- rapp\_audio\_processing.rapp\_detect\_silence, 19
- rapp\_audio\_processing.rapp\_detect\_silence.Detect-  
Silence, 52
- rapp\_audio\_processing.rapp\_energy\_denoise, 19

rapp\_audio\_processing.rapp\_energy\_denoise.EnergyDenoise, 58  
 rapp\_audio\_processing.rapp\_set\_noise\_profile, 19  
 rapp\_audio\_processing.rapp\_set\_noise\_profile.SetNoiseProfile, 201  
 rapp\_audio\_processing.rapp\_sox\_denoise, 19  
 rapp\_audio\_processing.rapp\_sox\_denoise.SoxDenoise, 203  
 rapp\_audio\_processing.rapp\_transform\_audio, 19  
 rapp\_audio\_processing.rapp\_transform\_audio.TransformAudio, 223  
 rapp\_audio\_processing.rapp\_utilities, 19  
 rapp\_audio\_processing.rapp\_utilities.Utilities, 229  
 rapp\_audio\_processing::rapp\_audio\_processingAudioProcessingNode, 19  
 rapp\_audio\_processing::rapp\_audio\_processing::AudioProcessing  
   \_detect\_silence\_module, 37  
   \_energy\_denoise\_module, 37  
   \_energy\_denoising\_debug, 37  
   \_sox\_denoise\_module, 38  
   \_transform\_audio\_module, 38  
   \_utilities\_module, 38  
   denoiseCallback, 36  
   detectSilenceCallback, 36  
   energyDenoiseCallback, 36  
   setNoiseProfileCallback, 37  
   transformAudioCallback, 37  
 rapp\_audio\_processing::rapp\_detect\_silence::DetectSilence  
   detectSilence, 52  
 rapp\_audio\_processing::rapp\_energy\_denoise::EnergyDenoise  
   energyDenoise, 58  
 rapp\_audio\_processing::rapp\_set\_noise\_profile::SetNoiseProfile  
   setNoise\_profile, 202  
   utilities, 202  
 rapp\_audio\_processing::rapp\_sox\_denoise::SoxDenoise  
   soxDenoise, 203  
 rapp\_audio\_processing::rapp\_transform\_audio::TransformAudio  
   \_assertArgs, 224  
   \_convertType, 224  
   \_validateSourceType, 224  
   transform\_audio, 224  
 rapp\_audio\_processing::rapp\_utilities::Utilities  
   cleanup, 229  
 rapp\_email, 20  
 rapp\_email.email\_node, 20  
 rapp\_email.email\_receiver, 20  
 rapp\_email.email\_receiver.EmailReceiver, 52  
 rapp\_email.email\_sender, 20  
 rapp\_email.email\_sender.EmailSender, 55  
 rapp\_email::email\_node  
   emailReceiver, 20  
   emailSender, 20  
 rapp\_email::email\_receiver::EmailReceiver  
   \_\_init\_\_, 54  
   \_connectImap, 54  
   \_fetchEmail, 54  
   \_initializePath, 54  
   \_selectEmails, 55  
   receiveEmailSrvCallback, 55  
 rapp\_email::email\_sender::EmailSender  
   \_\_init\_\_, 56  
   \_connectAndSend, 56  
   \_createEmailBody, 57  
   \_handleAttachment, 57  
   sendEmailSrvCallback, 57  
 rapp\_geolocator, 20  
 rapp\_geolocator.geolocator\_base, 21  
 rapp\_geolocator.geolocator\_base.GeolocatorBase, 74  
 rapp\_geolocator.geolocator\_factory, 21  
 rapp\_geolocator.geolocator\_factory.GeolocatorFactory, 77  
 rapp\_geolocator.geolocator\_node, 21  
 rapp\_geolocator.geolocator\_node.GeolocatorNode, 78  
 rapp\_geolocator.ip\_api\_locator, 21  
 rapp\_geolocator.ip\_api\_locator.IpAPILocator, 104  
 rapp\_geolocator::geolocator\_base::GeolocatorBase  
   \_\_init\_\_, 76  
   \_\_metaclass\_\_, 76  
   \_accepted\_status, 76  
   \_http\_request, 76  
   \_url, 76  
   fetch\_geolocation, 76  
   rapp\_http\_json\_parser, 76  
 rapp\_geolocator::geolocator\_factory::GeolocatorFactory  
   select\_geolocator, 77  
 rapp\_geolocator::geolocator\_node  
   geolocator\_node, 21  
 rapp\_geolocator::geolocator\_node::GeolocatorNode  
   \_\_init\_\_, 79  
   \_create\_service\_response, 79  
   \_geolocator\_factory, 80  
   fetch\_location\_srv\_callback, 79  
 rapp\_geolocator::ip\_api\_locator::IpAPILocator  
   \_handle\_server\_response, 106  
   \_url, 106  
   fetch\_geolocation, 106  
 rapp\_http\_json\_parser  
   rapp\_geolocator::geolocator\_base::GeolocatorBase, 76  
   rapp\_news\_explorer::news\_engine\_base::NewsEngineBase, 171  
   rapp\_weather\_reporter::weather\_reporter\_base::WeatherReporterBase, 232  
 rapp\_news\_explorer, 21  
 rapp\_news\_explorer.engine\_factory, 22  
 rapp\_news\_explorer.engine\_factory.EngineFactory, 58  
 rapp\_news\_explorer.event\_registry\_engine, 22  
 rapp\_news\_explorer.event\_registry\_engine.EventRegistryEngine, 62

- rapp\_news\_explorer.google\_news\_engine, [22](#)
- rapp\_news\_explorer.google\_news\_engine.Google-NewsEngine, [82](#)
- rapp\_news\_explorer.news\_engine\_base, [22](#)
- rapp\_news\_explorer.news\_engine\_base.NewsEngine-Base, [169](#)
- rapp\_news\_explorer.news\_explorer\_node, [22](#)
- rapp\_news\_explorer.news\_explorer\_node.News-ExplorerNode, [172](#)
- rapp\_news\_explorer::engine\_factory::EngineFactory  
select\_news\_engine, [59](#)
- rapp\_news\_explorer::event\_registry\_engine::Event-RegistryEngine
  - \_event\_handler, [64](#)
  - \_max\_requests, [64](#)
  - \_max\_stories, [64](#)
  - \_password, [64](#)
  - \_username, [65](#)
  - fetch\_news, [64](#)
- rapp\_news\_explorer::google\_news\_engine::Google-NewsEngine
  - \_handle\_params, [84](#)
  - \_max\_requests, [85](#)
  - \_max\_stories, [85](#)
  - \_params, [85](#)
  - \_url, [85](#)
  - fetch\_news, [85](#)
- rapp\_news\_explorer::news\_engine\_base::NewsEngine-Base
  - \_accepted\_status, [171](#)
  - \_http\_request, [171](#)
  - \_url, [171](#)
  - fetch\_news, [171](#)
  - rapp\_http\_json\_parser, [171](#)
- rapp\_news\_explorer::news\_explorer\_node  
news\_explorer\_node, [22](#)
- rapp\_news\_explorer::news\_explorer\_node::News-ExplorerNode
  - \_engine\_factory, [174](#)
- rapp\_print
  - src::rapp\_utilities::RappUtilities, [201](#)
- rapp\_speech\_detection\_sphinx4, [23](#)
- rapp\_speech\_detection\_sphinx4.english\_support, [23](#)
- rapp\_speech\_detection\_sphinx4.english\_support.-EnglishSupport, [60](#)
- rapp\_speech\_detection\_sphinx4.global\_parameters, [23](#)
- rapp\_speech\_detection\_sphinx4.global\_parameters.-GlobalParams, [80](#)
- rapp\_speech\_detection\_sphinx4.greek\_english\_-support, [23](#)
- rapp\_speech\_detection\_sphinx4.greek\_english\_-support.GreekEnglishSupport, [86](#)
- rapp\_speech\_detection\_sphinx4.greek\_support, [23](#)
- rapp\_speech\_detection\_sphinx4.greek\_support.Greek-Support, [89](#)
- rapp\_speech\_detection\_sphinx4.language\_support, [23](#)
- rapp\_speech\_detection\_sphinx4.language\_support.-LanguageSupport, [131](#)
- rapp\_speech\_detection\_sphinx4.limited\_vocabulary\_-creator, [24](#)
- rapp\_speech\_detection\_sphinx4.limited\_vocabulary\_-creator.LimitedVocabularyCreator, [134](#)
- rapp\_speech\_detection\_sphinx4.speech\_recognition\_-sphinx4, [24](#)
- rapp\_speech\_detection\_sphinx4.speech\_recognition\_-sphinx4.SpeechRecognitionSphinx4, [203](#)
- rapp\_speech\_detection\_sphinx4.speech\_recognition\_-sphinx4\_handler\_node, [24](#)
- rapp\_speech\_detection\_sphinx4.sphinx4\_configuration-\_params, [25](#)
- rapp\_speech\_detection\_sphinx4.sphinx4\_configuration-\_params.SphinxConfigurationParams, [219](#)
- rapp\_speech\_detection\_sphinx4.sphinx4\_wrapper, [25](#)
- rapp\_speech\_detection\_sphinx4.sphinx4\_wrapper.-Sphinx4Wrapper, [215](#)
- rapp\_speech\_detection\_sphinx4::english\_support:-EnglishSupport
  - \_english\_dict\_file, [62](#)
  - \_english\_dict\_mapping, [62](#)
  - getLimitedVocebularyConfiguration, [62](#)
  - getWordPhonemes, [62](#)
- rapp\_speech\_detection\_sphinx4::global\_parameters:-GlobalParams
  - \_acoustic\_models\_url, [81](#)
  - \_allow\_sphinx\_output, [81](#)
  - \_language\_models\_url, [81](#)
  - \_noise\_profiles\_url, [81](#)
  - \_socket\_host, [81](#)
  - \_sphinx\_jar\_file, [81](#)
  - \_sphinx\_package\_url, [82](#)
  - \_sphinx\_preconf, [82](#)
  - rospack, [82](#)
- rapp\_speech\_detection\_sphinx4::greek\_support:-GreekSupport
  - \_capital\_letters, [93](#)
  - \_configureLetters, [91](#)
  - \_englify\_words, [91](#)
  - \_english\_support, [93](#)
  - \_letters, [93](#)
  - \_literal\_letters, [93](#)
  - \_phonemes, [93](#)
  - \_s\_specific\_rules, [93](#)
  - \_transformWords, [91](#)
  - \_two\_digit\_letters, [94](#)
  - getLimitedVocebularyConfiguration, [91](#)
- rapp\_speech\_detection\_sphinx4::language\_support:-LanguageSupport
  - \_generic\_sphinx\_configuration, [133](#)
  - \_globalParams, [133](#)
  - \_vocabulary, [133](#)
  - getGenericConfiguration, [133](#)
  - getLimitedVocebularyConfiguration, [133](#)
- rapp\_speech\_detection\_sphinx4::limited\_vocabulary\_-creator::LimitedVocabularyCreator
  - \_globalParams, [135](#)
  - createConfigurationFiles, [134](#)

- rapp\_speech\_detection\_sphinx4::speech\_recognition\_sphinx4
  - SpeechRecognitionSphinx4Node, [24](#)
- rapp\_speech\_detection\_sphinx4::speech\_recognition\_sphinx4::SpeechRecognitionSphinx4
  - \_globalParams, [207](#)
  - \_speechRecognition, [205](#)
  - \_sphinx4, [207](#)
  - getConfigurationHash, [206](#)
  - speechRecognitionBatch, [206](#)
- rapp\_speech\_detection\_sphinx4::speech\_recognition\_sphinx4\_handler\_node
  - rospack, [24](#)
  - sphinx\_class, [25](#)
- rapp\_speech\_detection\_sphinx4::sphinx4\_configuration\_params::SphinxConfigurationParams
  - \_globalParams, [221](#)
  - \_grammar, [222](#)
  - \_language, [222](#)
  - \_sentences, [222](#)
  - \_words, [222](#)
  - equalsRequest, [221](#)
  - getHash, [221](#)
- rapp\_speech\_detection\_sphinx4::sphinx4\_wrapper::Sphinx4Wrapper
  - \_audio\_transform\_srv, [218](#)
  - \_callSphinxJava, [216](#)
  - \_conf, [218](#)
  - \_createProcessingProfile, [216](#)
  - \_createSocket, [216](#)
  - \_denoise\_service, [218](#)
  - \_detect\_silence\_service, [218](#)
  - \_energy\_denoise\_service, [218](#)
  - \_globalParams, [219](#)
  - \_initializeSphinxProcess, [217](#)
  - \_jar\_path, [219](#)
  - \_performEnergyDenoising, [217](#)
  - \_readLine, [217](#)
  - \_respawnSphinx, [217](#)
  - \_sphinxDied, [219](#)
  - \_sphinxSubprocess, [219](#)
  - \_sphinx\_socket, [219](#)
  - configureSphinx, [217](#)
  - performSpeechRecognition, [218](#)
- rapp\_weather\_reporter, [25](#)
- rapp\_weather\_reporter.forecastio\_reporter, [25](#)
- rapp\_weather\_reporter.forecastio\_reporter.ForecastIOReporter, [71](#)
- rapp\_weather\_reporter.weather\_reporter\_base, [25](#)
- rapp\_weather\_reporter.weather\_reporter\_base.WeatherReporterBase, [229](#)
- rapp\_weather\_reporter.weather\_reporter\_factory, [26](#)
- rapp\_weather\_reporter.weather\_reporter\_factory.WeatherReporterFactory, [232](#)
- rapp\_weather\_reporter.weather\_reporter\_node, [26](#)
- rapp\_weather\_reporter.weather\_reporter\_node.WeatherReporterNode, [234](#)
- rapp\_weather\_reporter.yweather\_reporter, [26](#)
- rapp\_weather\_reporter.yweather\_reporter.YWeatherReporter, [236](#)
- rapp\_weather\_reporter::forecastio\_reporter::ForecastIOReporter
  - \_api\_key, [74](#)
  - \_get\_fio\_object, [73](#)
  - fetch\_current\_weather, [73](#)
  - fetch\_weather\_forecast, [73](#)
- rapp\_weather\_reporter::weather\_reporter\_base::WeatherReporterBase
  - \_accepted\_status, [231](#)
  - \_http\_request, [231](#)
  - \_url, [231](#)
  - fetch\_current\_weather, [231](#)
  - fetch\_weather\_forecast, [231](#)
- rapp\_weather\_reporter::weather\_reporter\_factory::WeatherReporterFactory
  - select\_weather\_reporter, [233](#)
- rapp\_weather\_reporter::weather\_reporter\_node
  - weather\_reporter\_node, [26](#)
- rapp\_weather\_reporter::yweather\_reporter::YWeatherReporter
  - \_\_init\_\_, [238](#)
  - \_client, [239](#)
  - \_fetch\_city\_id, [238](#)
  - \_fetch\_yweather\_report, [238](#)
  - fetch\_current\_weather, [238](#)
  - fetch\_weather\_forecast, [238](#)
- RappCaffeWrapperNode
  - caffe\_wrapper\_main, [13](#)
- RappStaticLayer
  - costmap\_2d::RappStaticLayer, [197](#)
- receiveEmailSrvCallback
  - rapp\_email::email\_receiver::EmailReceiver, [55](#)
- recognizer
  - Sphinx4, [214](#)
- reconfigureCB
  - costmap\_2d::RappStaticLayer, [198](#)
- record\_user\_cognitive\_tests\_performance
  - KnowrobWrapper, [114](#)
- record\_user\_cognitive\_tests\_performance\_callback
  - KnowrobWrapperCommunications, [125](#)
- record\_user\_cognitive\_tests\_performance\_service
  - KnowrobWrapperCommunications, [129](#)
- record\_user\_cognitive\_tests\_performance\_topic
  - KnowrobWrapperCommunications, [129](#)
- recordUserCognitiveTestPerformanceDataHandler
  - cognitive\_exercise::CognitiveExercise, [39](#)
- register\_image\_object\_to\_ontology
  - KnowrobWrapper, [115](#)
- register\_image\_object\_to\_ontology\_callback
  - KnowrobWrapperCommunications, [125](#)
- register\_image\_object\_to\_ontology\_service
  - KnowrobWrapperCommunications, [130](#)
- register\_image\_object\_to\_ontology\_topic
  - KnowrobWrapperCommunications, [130](#)
- registerImage

- image\_registration\_to\_ontology::ImageRegistration-  
ToOntology, 103
- registerImageToOntology
  - image\_registration\_to\_ontology::ImageRegistration-  
ToOntology, 103
- registerImageToOntologyDataHandler
  - caffe\_wrapper::RappCaffeWrapper, 186
- registerNewTokenDataHandler
  - mysql\_wrapper::MySQLdbWrapper, 166
- registerToOntology
  - image\_classification::ImageClassification, 101
- registerUserOntologyAlias
  - mysql\_wrapper::MySQLdbWrapper, 166
- registerUserOntologyAliasDataHandler
  - mysql\_wrapper::MySQLdbWrapper, 167
- removePlatformUser
  - mysql\_wrapper::MySQLdbWrapper, 167
- removePlatformUserDataHandler
  - mysql\_wrapper::MySQLdbWrapper, 167
- reset
  - costmap\_2d::RappStaticLayer, 198
- resolution
  - crop\_map, 15
- retract\_user\_ontology\_alias
  - KnowrobWrapper, 115
- retract\_user\_ontology\_alias\_callback
  - KnowrobWrapperCommunications, 126
- retract\_user\_ontology\_alias\_service\_
  - KnowrobWrapperCommunications, 130
- retract\_user\_ontology\_alias\_topic\_
  - KnowrobWrapperCommunications, 130
- returnTestsOfTypeSubtypeDifficultyDataHandler
  - cognitive\_exercise::CognitiveExercise, 40
- returnUserHistory
  - userScoreHistoryForAllCategories::UserScore-  
HistoryForAllCategories, 227
- returnUserScores
  - userScoresForAllCategories::UserScoresForAll-  
Categories, 228
- rospack
  - rapp\_speech\_detection\_sphinx4::global\_parameters-  
::GlobalParams, 82
  - rapp\_speech\_detection\_sphinx4::speech\_recognition-  
\_sphinx4\_handler\_node, 24
- saved\_map\_
  - MapGenerator, 136
- select\_geolocator
  - rapp\_geolocator::geolocator\_factory::Geolocator-  
Factory, 77
- select\_news\_engine
  - rapp\_news\_explorer::engine\_factory::Engine-  
Factory, 59
- select\_weather\_reporter
  - rapp\_weather\_reporter::weather\_reporter\_factory-  
::WeatherReporterFactory, 233
- sendEmailSrvCallback
  - rapp\_email::email\_sender::EmailSender, 57
- serv
  - caffe\_wrapper::RappCaffeWrapper, 186
  - cognitive\_exercise::CognitiveExercise, 41
  - mysql\_wrapper::MySQLdbWrapper, 169
  - mysql\_wrapper\_old::MySQLdbWrapper, 152
  - speech\_recognition\_google::SpeechToText-  
Google, 211
  - text\_to\_speech\_espeak::TextToSpeechEspeak,  
223
- serv\_topic
  - caffe\_wrapper::RappCaffeWrapper, 186
  - cognitive\_exercise::CognitiveExercise, 41
  - mysql\_wrapper::MySQLdbWrapper, 169
  - mysql\_wrapper\_old::MySQLdbWrapper, 152
  - speech\_recognition\_google::SpeechToText-  
Google, 211
  - text\_to\_speech\_espeak::TextToSpeechEspeak,  
223
- setNoise\_profile
  - rapp\_audio\_processing::rapp\_set\_noise\_profile:-  
SetNoiseProfile, 202
- setNoiseProfileCallback
  - rapp\_audio\_processing::rapp\_audio\_processing:-  
AudioProcessing, 37
- setPoseDist
  - path\_planning.cpp, 275
- setSequenceNR
  - PathPlanner, 176
- soxDenoise
  - rapp\_audio\_processing::rapp\_sox\_denoise::Sox-  
Denoise, 203
- speech\_recognition\_google, 26
  - speech\_to\_text\_node, 27
- speech\_recognition\_google.SpeechToTextGoogle, 210
- speech\_recognition\_google::SpeechToTextGoogle
  - \_\_init\_\_, 211
  - serv, 211
  - serv\_topic, 211
  - speech\_to\_text, 211
  - speech\_to\_text\_callback, 211
- speech\_to\_text
  - speech\_recognition\_google::SpeechToText-  
Google, 211
- speech\_to\_text\_callback
  - speech\_recognition\_google::SpeechToText-  
Google, 211
- speech\_to\_text\_node
  - speech\_recognition\_google, 27
- speechRecognitionBatch
  - rapp\_speech\_detection\_sphinx4::speech\_recognition-  
\_sphinx4::SpeechRecognitionSphinx4, 206
- SpeechRecognitionSphinx4HandlerNode
  - rapp\_speech\_detection\_sphinx4::speech\_recognition-  
\_sphinx4\_handler\_node, 24
- SpeechRecognitionSphinx4Node
  - rapp\_speech\_detection\_sphinx4::speech\_recognition-  
\_sphinx4, 24
- Sphinx4, 212
  - acoustic\_model\_path, 213



- acoustic\_model\_path\_prev, 213
- bufferRead, 213
- bufferWrite, 213
- cm, 213
- configuration, 213
- configuration\_model\_path, 213
- configuration\_model\_path\_prev, 213
- dictionary\_path, 213
- dictionary\_path\_prev, 214
- grammar\_enabled, 214
- grammar\_enabled\_prev, 214
- grammar\_model\_file\_path, 214
- grammar\_model\_file\_path\_prev, 214
- grammar\_model\_folder\_path, 214
- grammar\_model\_folder\_path\_prev, 214
- language\_path, 214
- language\_path\_prev, 214
- main, 213
- recognizer, 214
- updateConfiguration, 213
- sphinx\_class
  - rapp\_speech\_detection\_sphinx4::speech\_recognition-  
\_sphinx4\_handler\_node, 25
- split
  - knowrob\_wrapper.cpp, 263
- SplitFilename
  - knowrob\_wrapper.cpp, 263
- src, 27
- src.rapp\_exceptions, 27
- src.rapp\_exceptions.RappError, 187
- src.rapp\_html\_parser, 27
- src.rapp\_html\_parser.RappHTMLParser, 188
- src.rapp\_http\_json\_parser, 27
- src.rapp\_http\_json\_parser.RappHttpJSONParser, 190
- src.rapp\_http\_request\_handler, 27
- src.rapp\_http\_request\_handler.RappHttpRequest-  
Handler, 192
- src.rapp\_utilities, 28
- src.rapp\_utilities.RappUtilities, 200
- src::rapp\_exceptions::RappError
  - \_\_init\_\_, 188
  - \_\_str\_\_, 188
  - value, 188
- src::rapp\_html\_parser::RappHTMLParser
  - \_\_init\_\_, 189
  - fed, 190
  - get\_data, 189
  - handle\_data, 189
- src::rapp\_http\_json\_parser::RappHttpJSONParser
  - \_html\_parser, 192
  - find\_values, 191
- src::rapp\_http\_request\_handler::RappHttpRequest-  
Handler
  - \_accepted\_status, 194
  - \_headers, 194
  - \_modify\_response, 194
  - \_params, 194
  - \_response\_format, 194
  - \_server\_timeout, 195
  - \_url, 195
  - perform\_request, 194
- src::rapp\_utilities::RappUtilities
  - \_\_init\_\_, 201
  - rapp\_print, 201
- start\_global\_planners
  - path\_planning.cpp, 276
- start\_map\_servers
  - path\_planning.cpp, 276
- start\_tf\_publisher
  - path\_planning.cpp, 276
- startSequence
  - PathPlanner, 176
- subclasses\_of\_service\_
  - KnowrobWrapperCommunications, 130
- subclasses\_of\_service\_topic\_
  - KnowrobWrapperCommunications, 130
- subclassesOfCallback
  - KnowrobWrapperCommunications, 126
- subclassesOfQuery
  - KnowrobWrapper, 115
- subscribe\_to\_updates\_
  - costmap\_2d::RappStaticLayer, 199
- superclasses\_of\_service\_
  - KnowrobWrapperCommunications, 130
- superclasses\_of\_service\_topic\_
  - KnowrobWrapperCommunications, 130
- superclassesOfCallback
  - KnowrobWrapperCommunications, 126
- superclassesOfQuery
  - KnowrobWrapper, 116
- TP\_pID
  - PathPlanning, 179
- tblAppsRobotsDeleteDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 143
- tblAppsRobotsFetchDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 143
- tblAppsRobotsUpdateDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 143
- tblAppsRobotsWriteDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 144
- tblCloudAgentDeleteDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 144
- tblCloudAgentFetchDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 144
- tblCloudAgentServiceArgumentsDeleteDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 144
- tblCloudAgentServiceArgumentsFetchDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 144
- tblCloudAgentServiceArgumentsUpdateDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 145
- tblCloudAgentServiceArgumentsWriteDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 145
- tblCloudAgentServiceDeleteDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 145
- tblCloudAgentServiceFetchDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 145

- tblCloudAgentServiceUpdateDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 146
- tblCloudAgentServiceWriteDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 146
- tblCloudAgentUpdateDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 146
- tblCloudAgentWriteDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 146
- tblModelDeleteDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 146
- tblModelFetchDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 147
- tblModelUpdateDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 147
- tblModelWriteDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 147
- tblRappDeleteDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 147
- tblRappFetchDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 148
- tblRappUpdateDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 148
- tblRappWriteDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 148
- tblRobotDeleteDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 148
- tblRobotFetchDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 148
- tblRobotUpdateDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 149
- tblRobotWriteDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 149
- tblUserDeleteDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 149
- tblUserFetchDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 149
- tblUserUpdateDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 150
- tblUserWriteDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 151
- tblUsersOntologyInstancesDeleteDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 150
- tblUsersOntologyInstancesFetchDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 150
- tblUsersOntologyInstancesUpdateDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 150
- tblUsersOntologyInstancesWriteDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, 150
- test\_service
  - MapServer, 138
- text\_to\_speech\_callback
  - text\_to\_speech\_espeak::TextToSpeechEspeak, 223
- text\_to\_speech\_espeak, 28
  - text\_to\_speech\_espeak\_ros\_node, 28
- text\_to\_speech\_espeak.TextToSpeechEspeak, 222
- text\_to\_speech\_espeak::TextToSpeechEspeak
  - \_\_init\_\_, 223
  - serv, 223
  - serv\_topic, 223
  - text\_to\_speech\_callback, 223
- text\_to\_speech\_espeak\_ros\_node
  - text\_to\_speech\_espeak, 28
- track\_unknown\_space\_
  - costmap\_2d::RappStaticLayer, 199
- transform\_audio
  - rapp\_audio\_processing::rapp\_transform\_audio::TransformAudio, 224
- transformAudioCallback
  - rapp\_audio\_processing::rapp\_audio\_processing::AudioProcessing, 37
- transformer
  - image\_classification::ImageClassification, 102
- trinary\_costmap\_
  - costmap\_2d::RappStaticLayer, 199
- USAGE
  - main.cpp, 271
  - map\_saver.cpp, 272
- unknown\_cost\_value\_
  - costmap\_2d::RappStaticLayer, 199
- updateBounds
  - costmap\_2d::RappStaticLayer, 198
- updateConfiguration
  - Sphinx4, 213
- updateCosts
  - costmap\_2d::RappStaticLayer, 198
- updateData
  - mysql\_wrapper\_old::MySQLdbWrapper, 151
- updateMap
  - MapServer, 137
- upload\_map\_trigger
  - MapServer, 138
- upload\_map\_trigger\_name
  - MapServer, 138
- upload\_service
  - MapServer, 138
- uploadMapCallback
  - PathPlanning, 178
- uploadMapService\_
  - PathPlanning, 179
- uploadMapTopic\_
  - PathPlanning, 179
- use\_maximum\_
  - costmap\_2d::RappStaticLayer, 199
- user\_instances\_of\_class
  - KnowrobWrapper, 116
- user\_instances\_of\_class\_callback
  - KnowrobWrapperCommunications, 127
- user\_instances\_of\_class\_service\_
  - KnowrobWrapperCommunications, 130
- user\_instances\_of\_class\_topic\_
  - KnowrobWrapperCommunications, 131
- user\_performance\_cognitive\_tests
  - KnowrobWrapper, 118
- user\_performance\_cognitive\_tests\_callback
  - KnowrobWrapperCommunications, 127



- user\_performance\_cognitive\_tests\_service\_
  - KnowrobWrapperCommunications, [131](#)
- user\_performance\_cognitive\_tests\_topic\_
  - KnowrobWrapperCommunications, [131](#)
- userScoreHistoryForAllCategories, [28](#)
- userScoreHistoryForAllCategories.UserScoreHistory-  
ForAllCategories, [226](#)
- userScoreHistoryForAllCategories::UserScoreHistory-  
ForAllCategories
  - returnUserHistory, [227](#)
  - validateTimeRange, [227](#)
- userScoreHistoryForAllCategoriesDataHandler
  - cognitive\_exercise::CognitiveExercise, [40](#)
- userScoresForAllCategories, [28](#)
- userScoresForAllCategories.UserScoresForAllCategories,  
[228](#)
- userScoresForAllCategories::UserScoresForAllCategories
  - calculateUserScoresForCategories, [228](#)
  - returnUserScores, [228](#)
- userScoresForAllCategoriesDataHandler
  - cognitive\_exercise::CognitiveExercise, [40](#)
- username\_exists
  - rapp\_application\_authentication\_manager::database-  
\_handler::DatabaseHandler, [48](#)
- utilities
  - rapp\_audio\_processing::rapp\_set\_noise\_profile::-  
SetNoiseProfile, [202](#)
- validate\_user\_role
  - rapp\_application\_authentication\_manager::database-  
\_handler::DatabaseHandler, [48](#)
- validateExistingPlatformDeviceToken
  - mysql\_wrapper::MySQLdbWrapper, [168](#)
- validateExistingPlatformDeviceTokenDataHandler
  - mysql\_wrapper::MySQLdbWrapper, [168](#)
- validateTimeRange
  - userScoreHistoryForAllCategories::UserScore-  
HistoryForAllCategories, [227](#)
- validateUserRole
  - mysql\_wrapper::MySQLdbWrapper, [168](#)
- validateUserRoleDataHandler
  - mysql\_wrapper::MySQLdbWrapper, [169](#)
- value
  - src::rapp\_exceptions::RappError, [188](#)
- verify\_active\_application\_token
  - rapp\_application\_authentication\_manager::database-  
\_handler::DatabaseHandler, [49](#)
- verify\_active\_robot\_session
  - rapp\_application\_authentication\_manager::database-  
\_handler::DatabaseHandler, [49](#)
- verify\_platform\_device\_token
  - rapp\_application\_authentication\_manager::database-  
\_handler::DatabaseHandler, [49](#)
- verify\_store\_device\_token
  - rapp\_application\_authentication\_manager::database-  
\_handler::DatabaseHandler, [49](#)
- viewUsersRobotsAppsFetchDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, [151](#)
- weather\_reporter\_node
  - rapp\_weather\_reporter::weather\_reporter\_node,  
[26](#)
- whatRappsCanRun
  - mysql\_wrapper\_old::MySQLdbWrapper, [151](#)
- whatRappsCanRunDataHandler
  - mysql\_wrapper\_old::MySQLdbWrapper, [152](#)
- width\_
  - costmap\_2d::RappStaticLayer, [200](#)
- write\_new\_application\_token
  - rapp\_application\_authentication\_manager::database-  
\_handler::DatabaseHandler, [50](#)
- writeData
  - mysql\_wrapper\_old::MySQLdbWrapper, [152](#)
- x\_
  - costmap\_2d::RappStaticLayer, [200](#)
- y\_
  - costmap\_2d::RappStaticLayer, [200](#)