

# QDYN Config Reference Card

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<b>bwr</b> (lines)	op_surf_2 [0]; op_type ['']; op_unit ['iu']; pulse_id [0]; pulse_pol ['']; r_star [zero]; r_unit ['iu']; rat_r_0 [zero]; rc [zero]; real_op [.true.]; rotbarr_j [0]; rshift [zero]; sort_by_energy [.false.]; sparsity_model ['']; specrad_method ['']; step_ex [1]; subspace ['total']; type ['']; velocity_gauge [.false.]; w_0 [zero]; width [zero]	g_a ['delta_eps_sq']; grad_order [2]; iter_dat ['']; iter_start [1]; iter_stop [0]; keep_pulses ['']; krotov2_conv_dat ['']; lambda_b [zero]; lbfgs_memory [0]; limit_pulses [.false.]; linesearch [0]; lnsrch_la_stepsize [2]; lnsrch_mode ['log-full']; lnsrch_nrsteps [15]; max_disk_mb [0]; max_pulse_iter [1]; max_ram_mb [0]; max_seconds [0]; method ['']; params_file ['']; pulse_relerr [1.0d-5]; re_init_prop [.true.]; sigma_form ['']; storage_folder ['']; strict_convergence [.false.]; tau_dat ['']; tf_self_cons_max [10]; tf_self_cons_min [1]; transf_func_file ['']; undist_diff_conv [1.0d-5]; use_krotov_line_search [.false.]	oct_parametrization ['']; oct_phi_max [zero]; oct_phi_min [zero]; oct_pulse_max [zero]; oct_pulse_min [zero]; oct_shape ['']; oct_shapefile ['']; oct_specfil_frq_thld [1e-12]; oct_spectral_filter ['']; oct_t_0_max [zero]; oct_t_0_min [zero]; oct_wL_max [zero]; oct_wL_min [zero]; optimize [.true.]; phi [zero]; rwa [.false.]; scale [zero]; shape_t_start [zero]; shape_t_stop [zero]; t_0 [zero]; t_FWHM [zero]; t_fall [zero]; t_rise [zero]; t_start [zero]; t_stop [zero]; time_unit ['iu']; transf_func_file ['']; type ['']; wL [zero]; w_flip [zero]; w_step [zero]
<b>dissipator</b> (lines)	add_to_H_jump ['']; conjg_pulse [.false.]; conv_to_superop [.true.]; expand_hermitian [.false.]; filename ['']; label ['']; n_photons [1]; op_unit ['iu']; pulse_id [0]; real_op [.true.]; sparsity_model ['']; type ['']	<b>observables</b> (lines)	<b>scattering</b> (items)
<b>eigensystem</b> (lines)	diagtype ['']; label ['']; nev [0]; nev_fac [zero]; pulse_val_i [0]; read_dump ['']; write_dump ['']	C12 [zero]; C3 [zero]; E_0 [zero]; V_max [huge(zero)]; V_min [-huge(zero)]; asym_S0 [zero]; asym_stark [zero]; column_label ['']; conjg_pulse [.false.]; cos_theta [.false.]; depth [zero]; deriv_before [.false.]; eta [zero]; exp_surf [0]; exp_unit ['iu']; expand_hermitian [.false.]; filename ['']; from_time_index [1]; fwhm [zero]; imag_op [.false.]; in_lab_frame [.false.]; is_real [.true.]; kin_base ['']; label ['']; laser_I [zero]; lin_grad [zero]; map_to_j [-1]; mass [one]; n_photons [1]; n_surf [0]; no_asymptote_check [.false.]; no_splining [.false.]; offset [zero]; op_form ['']; op_surf [0]; op_surf_1 [0]; op_surf_2 [0]; op_type ['']; op_unit ['iu']; outfile ['']; pulse_id [0]; r_star [zero]; r_unit ['iu']; rat_r_0 [zero]; rc [zero]; real_op [.true.]; rotbarr_j [0]; rshift [zero]; sparsity_model ['']; square ['']; step [1]; subspace ['total']; time_unit ['iu']; to_time_index [-1]; type ['']; velocity_gauge [.false.]; w_0 [zero]; width [zero]	A1 [zero]; A2 [zero]; B_static [zero]; E_grid_type ['']; E_max [zero]; E_min [zero]; E_static [zero]; I [zero]; R1 [zero]; R2 [zero]; beta1 [zero]; beta2 [zero]; coup_al [.false.]; coup_d [.false.]; coup_ils1 [.false.]; coup_i2s1 [.false.]; coup_i2s2 [.false.]; coup_s1s2 [.false.]; coup_sl [.false.]; diff_cross_section [.false.]; energy [zero]; energy_unit ['iu']; entrance_channel [0]; entrance_surf [1]; filename ['']; g1 [zero]; g2 [zero]; i1 [zero]; i2 [zero]; l [0]; l_max [0]; method ['']; mi1 [zero]; mi2 [zero]; ml [0]; ms1 [zero]; ms2 [zero]; nE [0]; ntheta [0]; s1 [zero]; s2 [zero]; scat_length [.false.]; scat_phase [.false.]; system ['']; wavefunctions [.false.]; wigner_tables [.false.]; zeta1 [zero]; zeta2 [zero]
<b>grid</b> (lines)	E_max [zero]; beta [zero]; coord_type ['']; dim [0]; dr_max [huge(zero)]; label ['']; m [0]; m1 [0]; m2 [0]; matype ['']; moveable [.false.]; n1 [0]; npt [0]; nr [0]; r_max [zero]; r_max1 [zero]; r_max2 [zero]; r_min [zero]; read_envelope ['']; spher_method ['']; write_envelope ['']	<b>prop</b> (items)	<b>scint</b> (items)
<b>ham</b> (lines)	A [zero]; B [zero]; C [zero]; C12 [zero]; C3 [zero]; D [zero]; E_0 [zero]; E_min [zero]; V_max [huge(zero)]; V_min [-huge(zero)]; asym_S0 [zero]; asym_stark [zero]; conjg_pulse [.false.]; cos_theta [.false.]; depth [zero]; deriv_before [.false.]; energy_cutoff [huge(zero)]; eta [zero]; expand_hermitian [.false.]; filename ['']; filename_int ['']; filename_spinops ['']; fwhm [zero]; imag_op [.false.]; int_model ['']; is_periodic [.false.]; jmax [0]; kin_base ['']; label ['']; laser_I [zero]; levelfile ['']; lin_grad [zero]; map_to_j [-1]; mass [one]; max_rotbarr [huge(zero)]; memoize_ops [.false.]; mirror_ex [.false.]; mu_a [zero]; mu_b [zero]; mu_c [zero]; n_ex_max [0]; n_ex_min [0]; n_photons [1]; n_spins [0]; n_surf [0]; no_asymptote_check [.false.]; no_splining [.false.]; offset [zero]; op_form ['']; op_surf [0]; op_surf_1 [0];	ITO_do_iter [.true.]; ITO_guess_method ['extrapol']; cheby_prec [zero]; inhom_expan_err [1.0d-12]; inhom_max_order [5]; inhom_method ['']; mcwf_order [2]; method ['']; n_taylor [20]; newton_arnoldi_order [4]; newton_max_restarts [1000]; newton_norm_min [1.0d-15]; newton_relerr [1.0d-13]; rk45_abserr [1.0d-15]; rk45_relerr [1.0d-11]; use_mcwf [.false.]	Z [0]; field_comp ['']; field_gauge ['']; imag_spharm [.false.]; l_max [0]; n_frozen [0]; n_max [0]; numeric_2e [.false.]; orbital_ints [.true.]; prim_integrals [.false.]
	<b>oct</b> (items)	<b>psi</b> (lines)	<b>strgrid</b> (items)
	A [zero]; ABC_dat ['']; B [zero]; C [zero]; J_T_conv [zero]; alpha1_split [0.5]; alpha2_split [0.5]; bwr_base ['']; bwr_nint [0]; continue [.true.]; delta_J_T_conv [zero]; delta_J_conv [zero]; dynamic_la_marginfac [2.0]; dynamic_la_wait [10]; dynamic_lambda_a [zero]; dynamic_sigma [.false.]; ema_alpha [0.3];	a [zero]; filename ['']; fromE [-huge(zero)]; j [0]; k_0 [zero]; label ['']; m [0]; n [1]; phase [zero]; r_0 [zero]; sigma [zero]; spin [1]; surf [1]; type ['']; w_0 [zero]	dt [zero]; fixed [.false.]; nt [0]; t_start [zero]; t_stop [zero]