Software map in chronological order

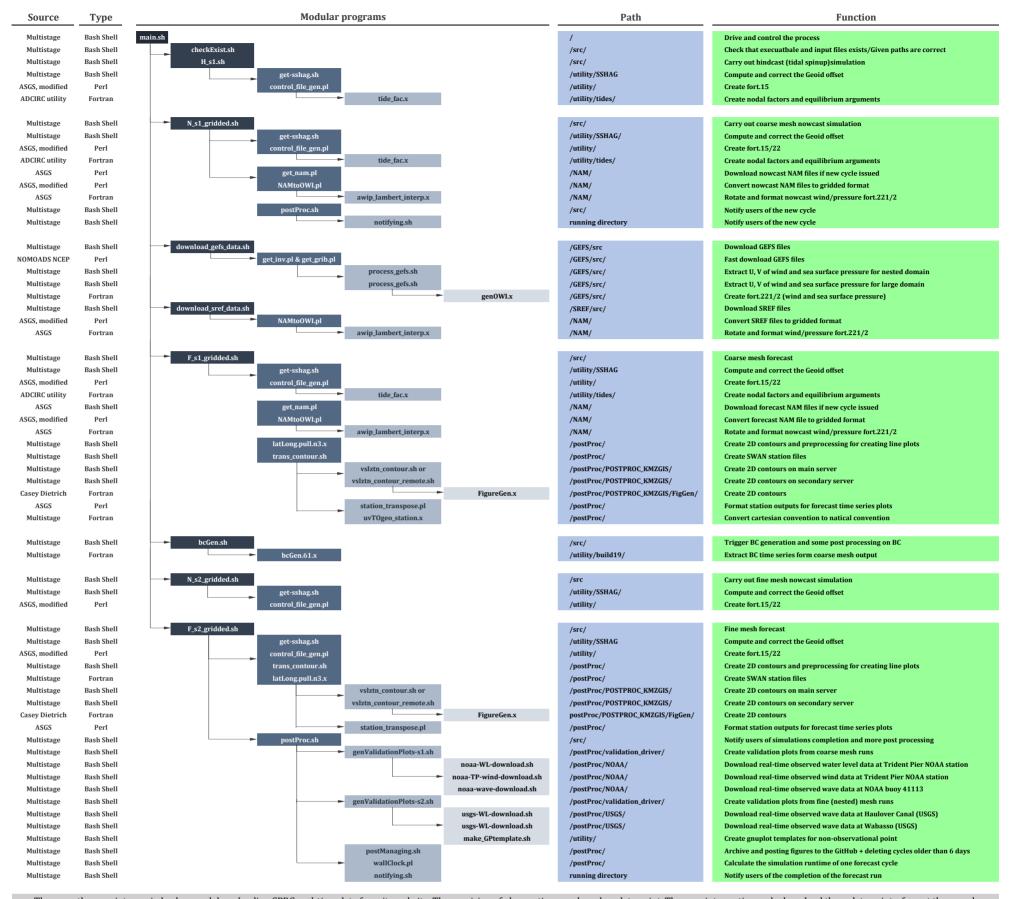| Source	Type	Modular programs	Path	Function
Multistage	Bash Shell	main.sh	/	Drive and control the process
Multistage	Bash Shell	checkExist.sh	/src/	Check that execuatbale and input files exists/Given paths are correct
Multistage	Bash Shell	H_s1.sh	/src/	Carry out hindcast (tidal spinup)simulation
Multistage	Bash Shell	get-sshag.sh	/utility/SSHAG	Compute and correct the Geoid offset
ASGS, modified	Perl	control_file_gen.pl	/utility/	Create fort.15
ADCIRC utility	Fortran	tide_fac.x	/utility/tides/	Create nodal factors and equilibrium arguments
Multistage	Bash Shell	N_s1_gridded.sh	/src/	Carry out coarse mesh nowcast simulation
Multistage	Bash Shell	get-sshag.sh	/utility/SSHAG/	Compute and correct the Geoid offset
ASGS, modified	Perl	control_file_gen.pl	/utility/	Create fort.15/22
ADCIRC utility	Fortran	tide_fac.x	/utility/tides/	Create nodal factors and equilibrium arguments
ASGS	Perl	get_nam.pl	/NAM/	Download nowcast NAM files if new cycle issued
ASGS, modified	Perl	NAMtoOWI.pl	/NAM/	Convert nowcast NAM files to gridded format
ASGS	Fortran	awip_lambert_interp.x	/NAM/	Rotate and format nowcast wind/pressure fort.221/2
Multistage	Bash Shell	postProc.sh	/src/	Notify users of the new cycle
Multistage	Bash Shell	notifying.sh	running directory	Notify users of the new cycle
Multistage	Bash Shell	download_gefs_data.sh	/GEFS/src	Download GEFS files
NOMOADS NCEP	Perl	get_inv.pl & get_grib.pl	/GEFS/src/	Fast download GEFS files
Multistage	Bash Shell	process_gefs.sh	/GEFS/src/	Extract U, V of wind and sea surface pressure for nested domain
Multistage	Bash Shell	process_gefs.sh	/GEFS/src/	Extract U, V of wind and sea surface pressure for large domain
Multistage	Fortran	genOWI.x	/GEFS/src/	Create fort.221/2 (wind and sea surface pressure)
Multistage	Bash Shell	download_sref_data.sh	/SREF/src/	Download SREF files
ASGS, modified	Perl	NAMtoOWI.pl	/NAM/	Convert SREF files to gridded format
ASGS	Fortran	awip_lambert_interp.x	/NAM/	Rotate and format wind/pressure fort.221/2
Multistage	Bash Shell	F_s1_gridded.sh	/src/	Coarse mesh forecast
Multistage	Bash Shell	get-sshag.sh	/utility/SSHAG	Compute and correct the Geoid offset
ASGS, modified	Perl	control_file_gen.pl	/utility/	Create fort.15/22
ADCIRC utility	Fortran	tide_fac.x	/utility/tides/	Create nodal factors and equilibrium arguments
ASGS	Bash Shell	get_nam.pl	/NAM/	Download forecast NAM files if new cycle issued
ASGS, modified	Perl	NAMtoOWI.pl	/NAM/	Convert forecast NAM file to gridded format
ASGS	Fortran	awip_lambert_interp.x	/NAM/	Rotate and format nowcast wind/pressure fort.221/2
Multistage	Bash Shell	latLong.pull.n3.x	/postProc/	Create 2D contours and preprocessing for creating line plots
Multistage	Bash Shell	trans_contour.sh	/postProc/	Create SWAN station files
Multistage	Bash Shell	vslztn_contour.sh or	/postProc/POSTPROC_KMZGIS/	Create 2D contours on main server
Multistage	Bash Shell	vslztn_contour_remote.sh	/postProc/POSTPROC_KMZGIS/	Create 2D contours on secondary server
Casey Dietrich	Fortran	FigureGen.x	/postProc/POSTPROC_KMZGIS/FigGen/	Create 2D contours
ASGS	Perl	station_transpose.pl	/postProc/	Format station outputs for forecast time series plots
Multistage	Fortran	uvTOgeo_station.x	/postProc/	Convert cartesian convention to natical convention
Multistage	Bash Shell	bcGen.sh	/src/	Trigger BC generation and some post processing on BC
Multistage	Fortran	bcGen.61.x	/utility/build19/	Extract BC time series form coarse mesh output
Multistage	Bash Shell	N_s2_gridded.sh	/src	Carry out fine mesh nowcast simulation
Multistage	Bash Shell	get-sshag.sh	/utility/SSHAG/	Compute and correct the Geoid offset
ASGS, modified	Perl	control_file_gen.pl	/utility/	Create fort.15/22
Multistage	Bash Shell	F_s2_gridded.sh	/src/	Fine mesh forecast
Multistage	Bash Shell	get-sshag.sh	/utility/SSHAG	Compute and correct the Geoid offset
ASGS, modified	Perl	control_file_gen.pl	/utility/	Create fort.15/22
Multistage	Bash Shell	trans_contour.sh	/postProc/	Create 2D contours and preprocessing for creating line plots
Multistage	Fortran	latLong.pull.n3.x	/postProc/	Create SWAN station files
Multistage	Bash Shell	vslztn_contour.sh or	/postProc/POSTPROC_KMZGIS/	Create 2D contours on main server
Multistage	Bash Shell	vslztn_contour_remote.sh	/postProc/POSTPROC_KMZGIS/	Create 2D contours on secondary server
Casey Dietrich	Fortran	FigureGen.x	postProc/POSTPROC_KMZGIS/FigGen/	Create 2D contours
ASGS	Perl	station_transpose.pl	/postProc/	Format station outputs for forecast time series plots
Multistage	Bash Shell	postProc.sh	/src/	Notify users of simulations completion and more post processing
Multistage	Bash Shell	genValidationPlots-s1.sh	/postProc/validation_driver/	Create validation plots from coarse mesh runs
Multistage	Bash Shell	noaa-WL-download.sh	/postProc/NOAA/	Download real-time observed water level data at Trident Pier NOAA station
Multistage	Bash Shell	noaa-TP-wind-download.sh	/postProc/NOAA/	Download real-time observed wind data at Trident Pier NOAA station
Multistage	Bash Shell	noaa-wave-download.sh	/postProc/NOAA/	Download real-time observed wave data at NOAA buoy 41113
Multistage	Bash Shell	genValidationPlots-s2.sh	/postProc/validation_driver/	Create validation plots from fine (nested) mesh runs
Multistage	Bash Shell	usgs-WL-download.sh	/postProc/USGS/	Download real-time observed wave data at Haulover Canal (USGS)
Multistage	Bash Shell	usgs-WL-download.sh	/postProc/USGS/	Download real-time observed wave data at Wabasso (USGS)
Multistage	Bash Shell	make_GPtemplate.sh	/utility/	Create gnuplot templates for non-observational point
Multistage	Bash Shell	postManaging.sh	/postProc/	Archive and posting figures to the GitHub + deleting cycles older than 6 days
Multistage	Bash Shell	wallClock.pl	/postProc/	Calculate the simulation runtime of one forecast cycle
Multistage	Bash Shell	notifying.sh	running directory	Notify users of the completion of the forecast run

There are three scripts run in background downloading CPRG real-time data from its website. The provision of observations are based on data point. These scripts continuously download these data points, format them, and store them in text files located in /postProc/CPRG driectory.