

OPTIMOOR Diary of Principal Developments

- 6.9.1 Release**
16-12-2024
Disabled wave motions forces when no wave file is selected.
Improved file save handling
Ability to specify a Minimum Winch Tension at which it will pull in line to maintain the specified minimum tension.
Added optional user settings for Optimoor.ini and .dat files
Updated Demo version of Optimoor to align with latest release
Added beta version of Optimoor 3D viewer, primarily for visualisation, but does include line measurement and line crossing tools
Increased no of characters available in remarks section on the General environment window
Added Sweep Graphic to arrangement plan for current & wave.
Added option to present Motions Limits on roses as calculated relative to pretensioned position.
Added browse pop-up to export dialog
Added Fender Pressure Table to Batch
Initialisation (by default) happens twice
Fixed Optimoor help files, now in CHM format, context sensitive and searchable
Added control points to arrangement plan for more accurate deck shapes
Added InternetGetConnectedStateEx if ping fails for online state
- 6.8.6 Release**
17-May-24
Add Optimoor archive facility for easier file exchange
Fix file handling so empty .bth & .vsl files are not created
Fix to Fatigue Life feature
Update Wind Rose plot to handle double lines
Remove the decimal comma from the Dynamic form
Add an option to disable the mouse wheel
Update the header field for Fender table on the export of CSV
Updated header columns in the sim file
Updates to Windcoeff.dat, correct sign errors in 170k FSRU and dry dock
Updates to Currentcoeff.dat
Minor update for Fender contact percentage with Fender area above the main deck
- 6.8.5 Release**
16 Oct 23
Fix for Fender contacts at different depths
Update for online detection for licensing
Fix for Fender contact percent with Fender area above the main deck
added option to configure Sea Keeping folder location (possible to share between installs)
allow server status in Optimoor.ini to be set to USB for legacy licensing
18 Sep 23
fix batch menu availability is correct if you load a new case file
fix now handles opt file with full path to batch; if the batch does not exist
aligned tide fields on the General Environment form
changed GM on General Environment form to 2 D.P.
fix for cb not displaying correctly with user RAOs
fix for batch form changing General Environment window
fix for pull-in bug
various fixes to ensure batch results are the same as manual
fix to use max bottom heave for clearance on sweep
30 Aug 23
updated ground heave calculation so worst-case value is used when calculating bottom clearance
18 Aug 23
Fixed restore environment when closing batch window
Fix the ping module response to detect if it is online.
5 Jun 23
Tidied up Optimoor shutdown (cleaner shutdown)

- 22 Apr 23 Fix batch initialisation
Fix stale headers in batch reports.
Fix height above pier in batch.
- 18 Apr 23 Includes JONSAWP Gamma in .opt file
- 12-Apr-23 Changed JONSWAP calculation of wave period conversion from user input (Tz) to Tp, now uses equation from curve fit to external data source.
Added Optimoor.ini config file
Added JONSWAP wave spectra
Changed config to default to show report headers
- 23 Mar 23 Fix the imperial conversion bug
Fix excursion bug for guest ship
Mooring stiffness is now called for WRD files (as well as HCF)
Fix Adjust length to cut excursion for symmetrical load case
- 17 Oct 22 updates to SWAN Spectrum
Passing ship initialization on Dynamic restart

6.8.4

- 9 Aug 22 Add configuration file for the license handling
- 18 Jul 22 fix reading of RAO and LST handling
- 24 Jun 22 Allow negative value to load from Vessel file, to cater for a buoy inline
- 18 Jun 22 Stop file save prompt when self-running
- 11 May 22 Fix CatenaryGraph plot (reverted to version 6.8.0)
- 22 Apr 22 Fix missing values in sim file
- 4 Apr 22 Fix LCA wind bug
- 8 Feb 22 Fix 360 adjustment on reading True Wind Direction from case file
- 28 Jan 22 Fix errors on Batch Summary table
- 25 Jan 22 Handle LF & CRLF line endings when reading .LST file
- 21 Jan 22 Add maintenance date check for server license
- 20 Jan 22 Populate HCF list from server as well as .LST files.
- 14 Jan 22 Fixed loading of files with Network paths

6.8.3

- 25 Nov 21 Release
- 15 Nov 21 Improved file handling for batch files
- 21 Sep 21 Fix report corruption if RTF locked, store tmp file to TEMP folder
- 19 Sep 21 Update batch report to optionally include site plan
- 1 Sep 21 Amend guest offset calculation

6.8.2

- 26 Mar 21 Minor errors in batch display fixed (Plus)
- 19 Feb 21 Fender contact area outside flat contour never falls below 48%
- 18 Feb 21 Add parameter (SlopeAtAnchor#) to specify seabed slope at anchor catenary touch down (Plus)

6.8.0

- 10 Feb 21 Excursion limits set to the smaller of either Host or Berth, and smaller of Host or Guest for S2S
- 9 Feb 21 Fixed problem with if negative lump wt (buoy) in line and seabed not horizontal (Plus)
- 27 Jan 21 Report windage above deck for Loadout (Plus)
- 13 Jan 21 Fixed failure to mark selection of 2 mins interval at startup (Dynamic)
- 11 Jan 21 Fixed bug when connecting S2S lines at a floating pier (Ship2Ship)
- 9 Jan 21 Allow high fenders to act until entirely above deck level
- 5 Jan 21 Fixed bug with time sweep for Ship2Ship
- 3 Dec 20 Corrections to modelling of flatside curve and curvature near contour edge
- 11 Nov 20 Negative lump weight (buoy) in line now shown as red (not black) on site arrangement
- 16 Oct 20 Fixed bug in display of unused bollard forces on mooring window table
- 13 Oct 20 Fixed bug in longitudinal offset when changing target position on loadout vessel at zero angle to berth (Plus)
- 9 Oct 20 Corrected sign error in CurrCoef.dat for MEG-4 longitudinal drag when current 180°

- 29 Sep 20 Add tsunami model (requires tsunami data) (Dynamic)
- 27 Sep 20 Option to separate display of speed & direction wind & current in simulation plot (Dynamic)

6.7.9

- 20 Sep 20 Fixed error in fender contact when it lies forward of fwd end of flatside
- 27 Aug 20 Add option to select/deselect all fenders to plot (Dynamic)
- 26 Aug 20 Wave environment reported in .sim printout (Dynamic)
- 24 Aug 20 Add roll motion to .sim file (Dynamic)
- 23 Aug 20 Tidied up calculation and display of proportion of fender over flatside
- 21 Aug 20 Always show wind & current data in .sim file, and add \pm wave response to target motions (Dynamic)
- 19 Aug 20 Bottom clearance now displayed to 1 decimal place to avoid rounding errors on water depth displayed to 1 decimal
- 15 Aug 20 Max characters for Draft & Trim in Batch spreadsheet increased from 4 to 5 (Plus)
- 9 Aug 20 Fixed bug not always showing BollardName when reporting Bollard forces in Batch (Plus)
- 7 Aug 20 Option to hide headers when reporting mooring, vessel and berth data
- 5 Aug 20 Reduced time sweep step from 10 to 5 minutes, and ensure final time always covered
- 4 Aug 20 Catenaries re-calculated when WaterLevel or Tc/Trim changes (Plus)
- 3 Aug 20 Add decimal to windspeed in simulation printout and tidy up display times (Dynamic)
- 29 Jul 20 Correction to 15 Feb 20 for start PlotTension (Dynamic)
- 17 Jul 20 WIP fix bug showing fender pressure screen & report
- 2 Jul 20 Fix bug calculating bollard force for loadout with bight lines (Plus)
- 30 Jun 20 Fix bug in display of buoys for loadout berth (Plus)
- 26 Jun 20 Fix problems with out of bound limits for definition of flatside contour
- 2 Jun 20 Shortest display interval raised from 0.1 to 0.5 secs (Dynamic)

6.7.8

- 21 Apr 20 User option to correct cone type fenders specifically for change of angle of application beyond flatside
- 25 Mar 20 Suppress all waves unless WRM licenced
- 19 Mar 20 Fix bug displaying max fender pressure during sweep
- 18 Mar 20 Improved calculation of thrust from fender beyond flatside contour

6.7.7

- 11 Mar 20 Fixed minor bugs on Multiple Case routine (Dynamic)
- 6 Mar 20 Refinement to calculation of thrust from fender straddling flatside contour (see 9 Aug 19)
- 2 Mar 20 Report Draft/Trim/WL for initialisation in Batch mode (Plus)
- 15 Feb 20 Excursions at target now saved to .sim report \pm wave motion (see 31 Jul 19 & 28 Aug 19) (Dynamic with WRM)
- 4 Feb 20 Areas of bollards now proportional to their load limits (if set)

6.7.6

- 23 Jan 20 Option to hide unconnected bollards
- 17 Jan 20 Line length now calculated from a base of initial values used at time of latest Initialisation, not current initial values
- 15 Jan 20 Fixed bug in batch option failing to remove each line one at a time (Plus)
- 12 Jan 30 If top of fender above deck its contact area is reduced by the overlap, and completely ignored if deck is below fender centre
- 9 Jan 20 Line inclination flagged if greater than 25°

6.7.5

- 18 Dec 19 Fixed bugs in CSV output for Rose (Plus)
- 16 Dec 19 Ensure GM is not disabled in Guest ship if Host ship motions calculated by RAO file instead of HCF file (WRM)
- 15 Dec 19 Added wave data to CSV output for mooring window results (Plus)
- 4 Dec 19 Now reporting level of target rather than level of deck

6.7.4

- 31 Oct 19 Make space key have same effect as delete on STSFender grid (Ship2Ship)
- 22 Oct 19 Suppress all messages when running multiple cases (Dynamic)

6.7.3

- 4 Oct 19 Fixed glitch re-starting simulation at end of prescribed time (Dynamic)
- 12 Sep 19 Minor Improvement to graphical positioning of winch and guidepost

8 Sep 19 Now reporting Bollard load

27 Aug 19 Removed use of Small Font, no longer supported by latest version MS and causing crash when drawing rose

9 Aug 19 Fender force and pressure now allowed to wrap around edge of flatside co

6.7.2

6 Aug 19 More realistic allowance for reduced thrust and increased pressure when fender plate straddles edge of flat side

31 Jul 19 Excursions now plotted with statistical peak wave motions included (Dynamic with WRM)

29 Jul 19 Display target limit on Host/Guest rather than Berth/Host target

27 Jul 19 Fixed bug setting friction coefficient for S2S fenders (Dynamic with Ship2Ship)

15 Jul 19 Option to save Rose data as CSV (spreadsheet) file (Plus)

30 Jun 19 Typo in batch display of direction for worst wind/current (Plus)

20 Jun 19 Allow wind shielding of windage area above deck (important for small Guest ships) (Ship2Ship)

14 Jun 19 Option to restrict simulation plot to display Host or Guest only (Dynamic with Ship2Ship)

12 Jun 19 Rose now calculates total bollard force, not just horizontal component

6.7.1

30 May 19 Fixed error in display of fairlead ship coordinates on Guest (no effect on actual data)

16 May 19 Fixed display of line connection menu on simulation plot (Dynamic)

26 Apr 19 Dynamic batch option added (Dynamic)

23 Apr 19 Occasional error fixed in sign of friction (Dynamic)

6.6.2

15 Apr 19 Fixed bug in option to enter line data or make bitt without line

14 Apr 19 Fixed bug after unlocking vessel data not showing Save on menu

5 Apr 19 Fixed bug in display of CALM anchor lines (Dynamic)

4 Apr 19 Strength of weakest segment not always reset when loading new case

3 Apr 19 Sort problem if 2nd and/or 3rd row in external load in dynamic set up left blank (Dynamic)

20 Mar 19 Wave shielding from Loadout berth now corrects for angle of Loadout (Plus & WRM)

19 Mar 19 Fixed bug in reporting loads in batch when wave direction locked to wind direction (Plus)

15 Mar 19 Fixed error calculating target excursion limit in Rose for loadout (Plus)

6 Mar 19 Fixed bug if Guest connected to Host with a Bight (S2S)

4 Mar 19 Sweep worst direction now reported both True and to Berth

23 Feb 19 Check connections remain possible after changing vessel

22 Feb 19 Check STS fenders have non-zero dimensions, and compression always increases in compression curve (STS)

21 Feb 19 Bug fixed in wave phase lag between STS ships if Guest on stbd side of Host (STS & WRM)

9 Feb 19 Display both Guest and Host without recalculating

8 Feb 19 Specify and save specific line for rose limit (rather than all lines)

7 Feb 19 Fixed failure to recognise STS fenders when adding Guest (S2S)

6.6.1

10 Jan 19 Add column for Allowable Anchor Load in report of spread mooring berth data (Plus)

8 Jan 19 Pressing Ctrl-I in Dynamic mode now defaults to Start F5 (Dynamic)

6.6.0

15 Dec 18 Option for server licence introduced

6.5.4

14 Nov 18 Fixed glitch editing STS gap on vessel window (S2S)

13 Nov 18 Changes to date/time on Mooring window now properly displayed and implemented

6.5.3

24 Oct 18 Automatically recalculate wave motions and dynamic setup immediately after changing HCF file (WRM)

23 Oct 18 Option to specify time at which passing ship is closest (Dynamic)

22 Oct 18 Fixed failure to report Guest results after sweep (S2S)

20 Oct 18 Show original fixed position of collar on site plan (Dynamic)

19 Oct 18 Sort problem of instability with collar at large yaw angles (Dynamic)

6.5.2

- 7 Oct 18 Fix error identifying max transverse excursion in batch report (Plus)
- 6 Oct 18 Fix error when bollard/anchor strength set to zero
- 5 Oct 18 Fix failure to display MBM buoys before initialisation (Plus)
- 4 Oct 18 Fix failure to display all fairleads after reconnecting (S2S)
- 16 Sep 18 Fixed error on sign of angle of inclination (WRM) see 10 Dec 17
- 14 Sep 18 Remove unnecessary warning to check windage area after changing wind drag
- 15 Sep 18 Check if 40 char name for drag data has been saved to older version file limited to 30 chars
- 8 Sep 18 Restore default strength of line after changing diameter

6.5.1

- 8 Aug 18 Fixed problem with limits on range of angles for setting up external forces in dynamic simulation (Dynamic)
- 6 Aug 18 Fixed failure to automatically update line strength after changing its diameter
- 1 Aug 18 Updated OCIMF drag data for MEG-4 (wind drag for gas carriers, current drag for tankers and gas carriers)
- 11 Jul 18 Make sure all mutual connections between ships are consistent (S2S)
- 30 Apr 18 Add guide post to winch lead to fairlead

6.5.0

- 8 Apr 18 Option to select all Guest or all Host lines only in dynamic simulation plot (Dynamic with S2S)
- 7 Apr 18 Fixed bug in STS fender contact area when Guest starts at large angle (Dynamic with S2S)
- 3 Apr 18 Fine adjustment of position and scale of background image improved by using arrow cursor keys
- 31 Mar 18 Minimising General environment now also minimises other windows
- 30 Mar 18 Option for user to give each bollard any name up to 6 characters
- 29 Mar 18 Reporting vessel data now first ensures flatside image is up-to-date
- 28 Mar 18 Fixed problem saving graphics image after rotating by 180° (bug introduced 10 Oct 17)
- 27 Mar 18 Winch can now be moved graphically like fairlead, with option to keep winch lead constant
- 21 Mar 18 Code to prevent deletion of an incoming STS line from other ship (S2S)
- 20 Mar 18 Option to hide/show shore-side targets and STS targets separately (S2S)
- 19 Mar 18 Hovering over STS fender now prompts to drag it to new position (same as berth fender) (S2S)
- 16 Mar 18 Option to swing layout of bollards/anchors about berth origin, bringing vessel to settle naturally across screen (Plus)
- 14 Mar 18 Fixed bug in pre-tensioning which disconnected lines from Host to Guest (S2S)
- 13 Mar 18 Display of fluid drag and forces on General window now automatically updated during simulation (Dynamic)
- 12 Mar 18 Adjusted rate of panning site arrangement to suit scale better. Improved display of targets
- 8 Mar 18 Fixed bug selecting wind drag basis with names longer than 30 characters, introduced 27 Aug 17
- 4 Mar 18 Improved handling of missing data files
- 27 Feb 18 Rearranged layout of vessel window to make easier handling flatside
- 20 Feb 18 Line data not automatically set when adding fairleads graphically for Quick Release Hook's (S2S)
- 19 Feb 18 Allow separate surge/sway limits for Guest and Host using TargetVslEnvelope (S2S)
- 18 Feb 18 Allow separate friction limits for berth and Ship2Ship fenders (Dynamic with S2S)
- 15 Feb 18 S2S fenders rotate with Host heading to show staying flat against side when it yaws (S2S)

6.4.8

- 27 Jun 18 Fixed bug where wind or current rose failed to take into account wave motion (WRM)
- 1 Apr 18 Sweep no longer initialises time or Pull-in, allowing sweep for any condition between initial and final time
- 15 Mar 18 Fixed minor difference after sweep between max tensions displayed and max tensions reported
- 9 Mar 18 Removed glitch in deleting segment with lump Wt (Plus)

6.4.7

- 22 Feb 18 Fixed bug introduced version 6.4.5 causing failure to recover file names on list of previous cases at start up

6.4.6

- 5 Feb 18 Value of loaded Cb now correctly reported (Dynamic with WRM)
- 25 Jan 18 Fixed bugs in setting up tug forces on Guest ship (Dynamic with S2S)
- 23 Jan 18 Anomaly fixed when current drag data for cruise ship is extrapolated beyond its range of draft to water depth ratios

6.4.5

- 20 Dec 17 Fixed incorrect display of STS fender positions if Guest yaws. Results are unaffected (Plus with S2S)
- 16 Dec 17 Removed anomalies on menu for choosing lines to display when plotting simulation (Dynamic)
- 14 Dec 17 Fixed occasional failure to display fender pressure

- 13 Dec 17 Correct for moment due to offset friction between ships (Dynamic with S2S)
- 12 Dec 17 Fixed failure to suppress any velocity inherited from dynamic mode after changing to static mode (Dynamic)
- 11 Dec 17 Report velo at target in dynamic simulation (Dynamic)
- 10 Dec 17 Correct phase of heave motion between ends of S2S lines (WRM with S2S)
- 4 Dec 17 Fixed overflow problem calculating fender contact areas when fenders defined far beyond ends of vessel
- 3 Dec 17 Warning shown if LAN is searched for berth or vessel files (very slow if not found)
- 2 Dec 17 Fixed inconsistency in sweep results for fender forces

6.4.4

- 4 Oct 17 Fixed bug in dynamic wave drift force, failing to update sufficiently frequently (Dynamic with WRM)
- 3 Oct 17 Increase maximum collar deflection from 1m to 10m (Plus)
- 2 Oct 17 Width or height of fenders cannot be zero, but default to 3m (10ft) and ½width respectively

6.4.3

- 22 Sep 17 Improved access to default folder for batch files (Plus)
- 13 Sep 17 Enable graphical positioning of S2S fenders
- 11 Sep 17 Remove restriction on transverse position of ship manifold target
- 6 Sep 17 Improvements to area of fender contact
- 29 Aug 17 Targets on loadout vessel now chosen by user, same as for normal ship (Plus)
- 28 Aug 17 Allow encrypted drag data

6.4.2

- 16 Aug 17 Now always report which bollards are in use even if no force on them
- 8 Aug 17 Fixed problem displaying min clearance under Guest (Dynamic with S2S)
- 19 Jul 17 Smoothed display of wave motion limits for rose and limit curve (WRM)
- 18 Jul 17 Sharpen bow of hull drawn in Site Arrangement and reduced step used to move and scale background image if used

6.4.1

- 14 Jun 17 Fixed bug not identifying worst line loads in Time Sweep
- 8 Jun 17 Fixed occasional failure to display pier markers
- 1 Jun 17 Option added for own user-defined RAO's (WRM)

6.4.0

- 29 May 17 Fixed intermittent error shielding waves locked to wind when the shielding option switched on in berth window
- 22 May 17 Fixed bug in calculating relative wave motion between targets (WRM with S2S)
- 14 May 17 Now displays total bollard/anchor load and percentage of strength
- 12 May 17 Fixed problem with removal of single lines in batch mode for sweep and rose (Plus)
- 11 May 17 Fixed inconsistency of sign convention in simulation of sway excursion (Dynamic)
- 3 May 17 Option to allow fender to float automatically at WL
- 23 Apr 17 Start-up position for Guest ship now specified relative to Host, not berth coordinates (Dynamic with S2S)
- 13 Apr 17 Fixed bug in calculating drag of ship through water with current in dynamic simulation (Dynamic)
- 11 Apr 17 Fixed failure to trigger wave response in batch mode (Plus with WRM)
- 4 Apr 17 Legend on simulation plot indicated excursion at centre, changed to excursion at target
- 20 Mar 17 Fixed bug at start-up which indicated fairleads measured from midship but displayed from AP
- 17 Mar 17 Fixed position error when transom of loadout vessel not same as AP (Plus)

6.3.10

- 28 Feb 17 Maximum bollard/anchor uplift now reported after sweep
- 27 Feb 17 Option to specify if winch brakes fade (fail) after slippage = 33% of vessel breadth (Dynamic)
- 22 Feb 17 Fixed glitch on display of maximum permitted bollard/buoy load
- 21 Feb 17 Fixed failure to specify friction on Ship2Ship fenders (Dynamic with S2S)
- 14 Feb 17 Fixed glitch plotting forces on undefined fenders (Dynamic)
- 13 Feb 17 Corrected interchange of direction and period in dynamic set up of waves (Dynamic)
- 10 Feb 17 Fixed bug in selection of bollard forces in simulation plot (Dynamic)

6.3.9

- 24 Jan 17 Fixed bug caused if tail is longer than distance from bollard to fairlead
- 20 Jan 17 Smoothed some curves on capability roses by interpolation

12 Jan 17 Anomalous spikes on capability roses reduced by re-setting slippage on lines for each increment

6.3.8

14 Dec 16 Batch jobs speeded up by temporarily suppressing display of mooring window (Plus)
13 Dec 16 Fixed occasional failure to recalculate spectrum after changing wave period (WRM)
10 Dec 16 Fixed problem identifying worst excursions in batch mode (Plus)
6 Dec 16 Option to exclude/include chain lines when automatically removing lines sequentially in batch (Plus)
5 Dec 16 Changing units now automatically changes batch data to match (Plus)
4 Dec 16 Fixed failure to save newly-typed data unless cursor moved after updating (spreadsheets OK)
2 Dec 16 Target on correct side of Host now used to report Host offset when starboard to side (S2S)
30 Nov 16 Fixed failure to display worst directions for current and sea-wave sweep
21 Nov 16 Automatically cleans up corrupted vessel files where feasible
11 Nov 16 Fixed bug preventing initialisation after plotting wave rose if wave height zero (WRM)
5 Nov 16 Latest batch file automatically loaded (Plus)
3 Nov 16 Fixed various bugs with using sweep in batch mode (Plus)
10 Oct 16 Made fibre tail colours alternate to identify the segment lengths
7 Oct 16 Max allowable load can now be specified for buoy as well as bollard (Plus)
6 Oct 16 Limit on gap between Host & Guest increased from 10 m to maximum 100 m (S2S)
5 Oct 16 Option to hide display of pier
6 Sep 16 Height of anchor above seabed now correctly reported when USA units chosen (Plus)
3 Sep 16 Adjustable pier can now be shown on loadout site arrangement (Plus)

6.3.7

26 Aug 16 Ship2Ship fender load-compression curves now display properly (S2S)
16 Jul 16 Equilibrium start in Dynamic mode now properly allows for Other Forces (Dynamic)
15 Jul 16 Exceeding bollard limit no longer disconnects attached lines (Dynamic)
14 Jul 16 Correction to scale for wind & current rose in USA units
13 Jul 16 Static Other Force is now added Other Forces in Dynamic setup (Dynamic)
29 Apr 16 Double clicking on Guest ship now generates new fairlead on Guest, not incorrectly on Host (S2S)

6.3.6

19 Apr 16 Fixed various glitches in display of lines, no change to numerical results
15 Apr 16 Fixed error reporting percent of bollard strength in USA units.

6.3.5

29 Mar 16 Fixed failure to display all wave motions at targets (WRM)

6.3.4

28 Mar 16 Presence of Other External Force noted on Rose and Sea State Limit diagrams
22 Mar 16 Fixed errors (introduced version 6.3.0) in calculating wave drift force (WRM)
21 Mar 16 Fixed bug with shielding waves locked to wind direction during wind sweep
11 Mar 16 New batch feature to remove each line in turn automatically, one at a time (Plus)

6.3.3

27 Feb 16 Improved accuracy at large yaw angles for end-on loadout (Plus)
24 Feb 16 Clarified display of excursions for loadout (Plus)
10 Feb 16 Other Static Force now retained irrespective of any others set up in dynamic Force History (Dynamic)

6.3.2

28 Jan 16 Bug fixed setting default data on opening batch window (Plus)
25 Jan 16 Rose now allowed for times after initial, without forcing any re-initialisation
22 Jan 16 Sweep now allowed for times after initial, without (as previously) forcing re-initialisation

6.3.1

4 Jan 16 Streamline output from batch sweep (Plus)
31 Dec 15 Flag note if pre-tension not specified
18 Dec 15 Trap out waves steeper than about 0.1 of wavelength (WRM)
12 Dec 15 Cured problem of spikes to dynamic simulation with waves and changing draft (WRM)

- 9 Dec 15 Draft and trim etc now displayed to 2 decimals
- 8 Dec 15 Clean up repetition of error warnings when starting dynamic simulation (Dynamic)
- 26 Oct 15 Wave motion at target of Host displayed wrt berth axes, and for Guest wrt Host axes (Ship2Ship with WRM)
- 19 Oct 15 Remove all “new” rope data as misleading and only applicable for setting up new permanent moorings
- 14 Oct 15 Line tension limits associated with vessel data, not the case data.
- 9 Oct 15 Batch window now cannot be exited during batch run (Plus)
- 8 Oct 15 Excursion less than 10 displayed to 2 decimal points
- 5 Oct 15 Sweep in batch now calculates at 5° intervals not 10° (Plus)

6.3.0

- 7 Jul 15 Horizontal bollard force as percent of strength added to report
- 13 Jun 15 Removed restrictions on tail connections going through a fairlead – tails can now be any length
- 14 May 15 Contact area corrected if fender partially above deck level
- 28 Feb 15 Force history can now be applied to both Guest and Host (Dynamic)
- 20 Feb 15 Display relative excursions at Guest target (Ship2Ship)
- 19 Feb 15 Show mode of analysis on Arrangement plan
- 22 Oct 14 Converted current from m/s to knots when displayed at top of dynamic simulation output file (Dynamic)
- 18 Sep 14 Small improvement to formula for natural roll period
- 29 Aug 14 Differentiate port & stbd targets on vessel
- 20 Jun 14 Relative motions between targets implemented (WRM with Ship2Ship)
- 17 May 14 Allow for phasing of wave motions in S2S moorings, previously random phasing (WRM with Ship2Ship)
- 27 Apr 14 Option to set up OCIMF conditions in batch mode (Plus)
- 20 Apr 14 Option for bight to sheave on buoy (effectively 3 lines from ship to buoy controlled by one line from shore to buoy)
- 21 Jan 14 Zero line diameter no longer defaults to 50mm
- 18 Aug 13 Now allows deletion of line diameter in vessel file without it automatically being restored to 30mm
- 8 Jul 13 Allow flat side to extend 20% outside Lpp
- 19 Jun 13 Right click popup menu to copy/paste added to Dynamic setup window (Dynamic)
- 1 May 13 If wave period not set, now defaults to 6 for wave, 10 for swell, 25 for seiche

6.2.9

- 20 May 14 If Bollard strength exceeded now all lines to that bollard are disconnected (Dynamic)
- 7 Apr 13 Fixed bug displaying wave component of excursion at target in Dynamic mode (Dynamic with WRM)

6.2.8

- 31 Mar 13 Increased default roll damping from 5% to 10% (WRM)
- 25 Mar 13 Bug fixed when deleting/removing bight lines

6.2.7

- 17 Mar 13 Seiche now simulated as sinusoidally varying force, not constant (Dynamic)
- 16 Mar 13 Direction of seiche force now set by user (not automatic ±)
- 19 Feb 13 Display of red line on rose suppressed if the winch brake is set lower than the permissible tension
- 2 Feb 13 Improve numerical stability by predicting mooring reactions at end of each TimeStep (Dynamic)
- 20 Jan 13 Environmental forces only updated every second, no longer every TimeStep (Dynamic)

6.2.6

- 5 Jan 13 More menu options for displaying forces in simulation plot (Dynamic)
- 4 Jan 13 Added terms in wave drift spectrum to ensure non-repetition of force pattern (Dynamic with WRM)
- 17 Nov 12 Key dongle software updated to solve problem of USB v.3 port
- 12 Sep 12 Pan simulation plot display with left click hand pointer, and zoom with mouse wheel (Dynamic)
- 5 Sep 12 Removed scroll bars from site plan as superseded by mouse drag
- 4 Sep 12 Pan site display with left click hand pointer, and zoom with mouse wheel. Left double click to centre Host vessel
- 22 Jun 12 Narrowband for sea waves now means regular sinusoidal wave (Longuet-Higgins retained for swell) (WRM)
- 9 Mar 12 Option to change shape of pier on site plan
- 13 Nov 11 Option to adjust scale of capability rose

Points Regarding USB Port v.3 Compatibility:

- 1 USB keys supplied before 2013 are not compatible with the new USB port v.3 (these are usually blue on the inside).
- 2 Keys supplied after 2012 are compatible with both v.3 and older v.2 ports (these are usually black on the inside).
- 3 Optimoor versions earlier than 6.2 will not recognise any key in the new USB port v.3.
- 4 Optimoor versions from 6.2 onward will recognise all keys of any age, subject to point 1 above.

6.1.19

6 Sep 12 Small increase in damping based on mooring reactions for numerical stability (Dynamic version)

6.1.17

3 Aug 12 Option to lease by date. Automatic reminder when maintenance about to expire

6.1.16

11 May 12 fixed bug introduced 8 Jan 12 causing wrong sign of yaw drag (Dynamic version)

6.1.15

8 Jan 12 Integration timestep reduced from 0.2 to 0.1 (Dynamic version)

6.1.13

19 Dec 11 Fixed error arising if large angles yaw angles occur with large longitudinal offsets between S2S vessels (S2S)

6.1.12

14 Dec 11 Fixed error if current used with S2S and both ships lock due to friction (Dynamic with S2S module)

6.1.11

7 Dec 11 Fixed bug using constant tension winch in dynamic mode (Dynamic version)

28 Nov 11 Fixed bug in tracking rope hysteresis (Dynamic version)

15 Aug 11 Display of end fenders moved from AP to transom (or FP to bow) (Plus version)

6.1.10

5 Aug 11 Installation problem under XP fixed (only affects XP installation since version 6.1.8, not Optimoor itself)

4 Aug 11 Fixed bug in STS if the Host is starboard to berth and STS fenders not symmetrical about midship (Ship2Ship)

6.1.9

25 Jul 11 Minor improvements in display of summary of batch results (Plus version)

24 Jul 11 Fixed summary results from batch runs sometimes displaying metric when using USA units (Plus version)

6.1.8

17 Jul 11 Bug fixed when using time history to change current direction in dynamic setup (Dynamic)

18 May 11 Type of wave spectrum (if used) now displayed on wind rose (WRM)

17 May 11 Corrected display of bollard limits when using Loadout option in USA units. Batch data amended for Loadouts (Plus)

16 May 11 Batch data now automatically updated when units changed (Plus version)

12 May 11 Flag warning in batch data if trying to set wave data without Wave Response Module (Plus)

7 Apr 11 Small improvement to convergence reliability

1 Apr 11 Directional sweep now made for the condition at the specified time (previously it always reverted to initial time)

28 Mar 11 Fixed bug using Wave Response Module with collar vessel restraint (WRM)

Jan/Feb 11 New batch feature introduced (Plus version)

6.0.15

17 Mar 11 Fixed bug in display of pressure in S2S fenders (S2S)

6.0.14

27 Feb 11 Rose re-initialised at every increment to help convergence in extreme conditions of wind and wave

6.0.13

29 Jan 11 Restored bight connection (lost in version 6.0.4) and fixed errors arising from not recognising bight

19 Jan 11 Line flexibility/stiffness for Wave Response Module now taken as tangent at 50% strength, independent of actual tension (WRM)

6.0.12

13 Jan 11 If compressed beyond buckling point, max fender thrust now reported as peak, not corresponding to max compression

6.0.11

15 Dec 10 Flag on longitudinal excursion now excludes OffsetX

6.0.10

20 Nov 10 Disable passing ship option with Guest ship (Dynamic with S2S)

19 Nov 10 Fixed occasional failure after sweep to report line tensions with previous winch slippage (display OK)

7 Nov 10 Fix error in report of catenary top angle, although display OK (Plus)

6.0.9

26 Oct 10 Fixed various glitches associated with sweep where brake slippage occurs

25 Oct 10 Made it clearer how to add S2S fenders (S2S)

6.0.8

30 Sep 10 Fixed bug calculating relative wave motions between Host & Guest (WRM with S2S)

21 Sep 10 Data lock for Guest vessel now working properly (S2S module)

6.0.7

19 Sep 10 Calculator now always displayed on top

18 Sep 10 Tension-Strain curve now correctly displays effect of changing rope diameter (bug introduced 5.6.10 on 4 May 10)

16 Sep 10 S2S fenders can now be moved graphically on Arrangement window (S2S module)

15 Sep 10 Simulation plot of fender compression now reported additionally alongside thrust in csv file (Dynamic version)

14 Sep 10 Fixed bug showing maximum excursions in one direction only (since introduction version 6)

6.0.6

12 Sep 10 Fixed convergence bug when lines run Guest to shore and Guest/Host in opposite directions (S2S)

10 Sep 10 Fixed bug calculating wave motions when initialising (WRM with S2S)

9 Sep 10 Fixed error in reporting roll angle (WRM with S2S)

6 Sep 10 Fixed bug causing error in load draft for Host ship when Guest present (WRM with S2S)

3 Sep 10 Time sweep now working properly

6.0.5

16 Aug 10 Fixed problem with catenary not using dynamic stiffness (Plus version)

13 Aug 10 Fixed errors in display of S2S lines (S2S module)

11 Aug 10 "Missing Kechk32.dll" error now trapped, allowing Optidata to run without crashing

20 Jul 10 Fixed problem with redundant Wave Response Module motion calcs during Sweep (WRM)

6.0.4

12 July 10 Two major unrelated changes are introduced in Version 6, affecting (1) users of the Wave Response Module, and separately (2) users who need to model two ships moored side-by-side.

(1) Research by TTI and others shows that the cyclic loading of ropes (such as that produced by wave loading) effectively causes a temporary increase of rope stiffness compared with the rope property for more gradual load increase. Line tension variations attributable to given wave motions are typically doubled in version 6 where this effect is allowed for, as compared with the tension variations obtained in version 5 and earlier, where no allowance for the additional stiffness under cyclic loading was made. This is true for both dynamic and static mooring analyses where wave motions are present. The mean tensions due to wind, current, or other non-cyclic forces are unaffected, and if you do not have any wave motion, version 6 should give the same results as version 5.

(2) A new optional Ship2Ship module has been added which allows a "Guest" vessel to be moored alongside the primary or "Host" vessel, with mooring lines running from Host to Guest, or from Guest to Host, or from either vessel to shore/sea-bed. If you do not use the Ship2Ship Module, version 6 has required some coding changes for compatibility, but should give the same results as version 5, except with regard to the cyclic stiffness effect associated with wave loading (1) described above. In that case, you may prefer to continue using the latest version 5.6.15 for the present, as this seems to be fairly stable.

5.6.15

16 Jul 10 Pre-tension made more repeatable by automatically re-setting initial Pull-in to zero before estimating.

5.6.14

10 Jul 10 Bug fixed in display of Capability Rose after excessive brake slippage

5.6.13

22 Jun 10 Option to print catenary curve .csv file (Plus)

21 Jun 10 Fixed bug in display of catenary when tension exceeds 10 x total wt (Plus version)

5.6.12

25 May 10 Corrected error in catenary calculation introduced 4 May 10 (Plus version)

5.6.11

7 May 10 Trap errors if catenary too short (Plus version)

5.6.10

4 May 10 Fixed bug causing occasional error in calculating % of line strength

5.6.9

5 Apr 10 Fixed bug not properly recording change of vessel type for wind drag

23 Mar 10 If tail is too long (not clear of fairlead) it is now automatically shortened, if user allows calculation to continue

5.6.8

15 Feb 10 Minor improvements made to convergence in static mode

14 Feb 10 Correction to catenary if completely slack (Plus version)

14 Feb 10 Bug corrected in hydrodynamic drag in zero current (Dynamic version)

13 Feb 10 Brakes for chain assumed to fade after slipping LBP/3 (kept at B/3 for other lines) (Dynamic version)

5.6.7

12 Feb 10 Starting simulation now forces initialisation of line pre-tensions, to avoid unintended line pull-in (Dynamic version)

11 Feb 10 Fixed bug in display of seabed slope with shape of catenary for buoy chain at pierside mooring only (Plus version)

2 Feb 10 Further minor improvements made to convergence in static mode

5.6.5

24 Jan 10 Some improvements made to convergence in static mode

5.6.4

20 Jan 10 Fixed bug in repeat cycling option in dynamic setup (Dynamic version)

20 Jan 10 Fixed bug in time varying current if wind also varies with time (Dynamic version)

5.6.3

30 Oct 09 Catenaries now allowed in wire lines at fixed pier berths (Plus version)

29 Oct 09 If case file not found, option to browse now offered

17 Oct 09 Ctrl-U shortcut for changing units now removed (to reduce keyboard error when initialising with Ctrl-I)

10 Oct 09 Fixed bug suppressing fatigue-life calculation, introduced 30 Jun 09 (WRM)

5 Oct 09 Added bollard/anchor forces to simulation plot and corrected in the simulation output results (Dynamic version)

2 Oct 09 Added length of catenary line lying on seabed to the simulation output results (Dynamic version)

30 Sep 09 Trap out potential error if line strength not specified. Removed display glitch introduced 25 Aug 09

5.6.2

31 Aug 09 Dolphin/bollard allowable load now reported

25 Aug 09 Draft, trim, waterlevel and GM at intermediate time now determined from initial/final values, and not set directly

14 Aug 09 Correct speed through water after change of current or direction (Dynamic version)

6 Aug 09 Fixed bug defining wind/current/wave direction to X-axis in load-out berth (Plus version)

3 Aug 09 Fixed bug using constant tension winch (introduced 4 May 09)

2 Aug 09 Fixed bug not zeroing wave drift force for zero wave height

27 Jul 09 Pre-tension can now be set to nearest 0.1 tonne (or kip) if less than 2 tonnes (or kips)

- 5.6.1**
10 Jul 09 Fender stiffness treated as constant, to make frequency domain motion results more stable (WRM)
8 Jul 09 Fixed error in display of max/min vertical motions at target during wind/wave sweep (WRM)
5 Jul 09 Fixed glitch sometimes not capturing changes on environment fields when initialising mooring window
- 5.6.0**
2 Jul 09 Option to lock berth and vessel data with password
1 Jul 09 Drift force now varies in dynamic simulation (Dynamic version with WRM)
- 5.5.12**
29 Jun 09 Minor improvement in numerical stability and convergence with very stiff fenders
28 Jun 09 Fixed lock on shielding box on berth window
- 5.5.11**
25 Jun 09 Fixed error in display of max/min excursions during sweep at loadout berth (Plus version)
24 Jun 09 Bugs fixed in capture of position and display of required forces in Position mode (Plus version)
22 Jun 09 Flag warning if Wave Response Module disabled
- 5.5.10**
16 Jun 09 Fixed error modelling line hysteresis when ship moored starboard to berth (Dynamic version)
- 5.5.9**
12 Jun 09 Fixed bug disabling end fenders for loadout berth (Plus version)
11 Jun 09 Setting time (as opposed to incrementing it) now automatically interpolates trim and WL
10 Jun 09 Display of catenary shapes for lines no longer requires initialisation before becoming visible (Plus version)
- 5.5.8**
6 Jun 09 Fixed bug suppressing display of maximum bollard force in berth window (Standard version only)
- 5.5.7**
5 Jun 09 Fixed error in display of max/min excursions if large yaw angles occur during sweep
4 Jun 09 Fixed bug introduced version 5.5.3 causing errors in wave drift force
- 5.5.6**
3 Jun 09 Fixed spurious transients in continuous dynamic simulation when moving focus between windows (Dynamic version)
2 Jun 09 Bug fixed which blanked out fender force display if coming out of range during a sweep
1 Jun 09 Password in PIN file on USB key automatically copied to clipboard when updating from website
- 5.5.5**
31 May 09 RTF report file now directly printable. Print menus on all other windows removed as redundant
29 May 09 Improvement reporting user specified wave-induced circular motion in RTF file
- 5.5.4**
24 May 09 Correction of bugs in rope hysteresis model introduced 14 Apr 09 & 4 May 09 (Dynamic version)
- 5.5.3**
21 May 09 Water level cannot be set directly, only in terms of initial and final values
19 May 09 Standard version now can access Rope.dat file (bug from 28 Jun 07)
14 May 09 Old bug fixed in calculating minimum bottom clearance
13 May 09 Fatigue menus now hidden if no Wave Response Module
- 5.5.2**
6 May 09 Correction to load-extension curve for Dynamax 12-strand
5 May 09 Fixed bug in partial fender contact area not allowing for excursion when initialising
21 Apr 09 Corrected bug introduced 14 Feb 09 editing end fenders for loadout berth (Plus version)
15 Apr 09 Fixed bug introduced 18 Feb 09 displaying azimuth angle of spread mooring lines on berth window (Plus version)
14 Apr 09 New internal friction model for rope and fender hysteresis (Dynamic version)

5.5.1

- 22 Mar 09 Fixed bug reading date on non-English PC's
- 23 Feb 09 Make site plan more isotropic
- 22 Feb 09 Other Force now applied at specific point, rather than as moment
- 18 Feb 09 Fixed bug pre-tensioning loadout barges (Plus version)

5.5.0

- 19 Jan 09 Fixed bug on wind rose reporting -ve water levels as +ve above datum
- 5 Jan 09 Code implemented for new system of security key on flash memory drive
- 30 Dec 08 Bug fixed in displaying recess for loadout option after saving (Plus version)

5.4.2

- 14 Dec 08 Optidata now allows entry of sea-state statistics for fatigue analysis (WRM)
- 13 Dec 08 Minor glitch fixed in display of wave motion table on mooring results window (WRM)
- 5 Dec 08 Flatside limits always reported from midship
- 4 Dec 08 Seiche wave height now treated as actual value, not significant (see 18 Jan 08)
- 26 Nov 08 Vertical force on bollard added to CSV output of dynamic simulation (Dynamic version)
- 22 Nov 08 Fender pressure now shown for end fenders in loadout option (Plus version)
- 21 Nov 08 Wind & wave direction to berth not always reported correctly in loadout option (Plus version)
- 18 Nov 08 Removed restriction on fender height below datum
- 5 Nov 08 Norwegian Petroleum Directorate wind spectrum added (Dynamic version)

5.4.1

- 28 Oct 08 Fender friction adjusted to allow for wave surging calculated in the frequency domain (Dynamic version)
- 27 Oct 08 Improved pre-tension calculation for high pre-tensions combined with non-linear fenders
- 26 Oct 08 Line hysteresis modelled by using 101% of increasing tensions and 99% of decreasing tensions.
Fender hysteresis similarly but 102% and 98% respectively (superseded 14 Apr 09 Dynamic version)
- 25 Oct 08 Improved accuracy and minor adjustments to CSV printout of statistical results of simulation (Dynamic version)
- 23 Oct 08 Fixed glitches in data lock for vessel window

5.4.0

- 14 Oct 08 Bug fixed in displaying end fenders for loadout berth (Plus version)
- 11 Oct 08 Glitch removed where loading new case without background image failed to remove image from previous case
- 10 Oct 08 Fixed bug not saving dynamic setup data properly (Dynamic version)
- 9 Oct 08 Fixed bug not displaying grounded length on sloping sea-bed (Plus version)
- 6 Oct 08 If case saved without broken lines being restored, they are now automatically re-connected when case reloaded
- 5 Oct 08 Dynamic initialisation ignores initial gusting for equilibrium (Dynamic version)
- 26 Sep 08 Fixed bug which involuntarily displayed the flatside window on opening a new file
- 20 Sep 08 Broken lines automatically removed in rose calcs. Lines also removed if slippage > 0.33 Breadth
- 16 Sep 08 Modify spreadsheet output to show mean, sig and peak values (WRM)
- 14 Sep 08 Improved estimate of Iyy variation with Cwp (WRM)
- 8 Sep 08 Option to toggle display of significant & maximum wave motions (WRM)
- 31 Aug 08 Changed narrowband spectrum from single frequency to Longuet-Higgins swell spectrum (WRM)

5.3.7

- 27 Aug 08 Fixed bug introduced 8 Jun 08 preventing Wave Capability Rose (WRM)
- 16 Aug 08 Refined integration algorithm to limit numerical instability in dynamic simulation (Dynamic only)
- 15 Aug 08 Glitch removed on Capability Rose, suggesting some non-applicable limits may be exceeded

5.3.6

- 13 Aug 08 Horizontal scale of wave limit curve automatically adjusted for ship size (WRM)
- 12 Aug 08 Default windage option indicated when relevant
- 11 Aug 08 Speed up interpolation of long tables in dynamic simulation (Dynamic version)
- 24 Jul 08 Fixed glitches deleting, pasting and updating blocks of data in setup of force history (Dynamic version)
- 18 Jul 08 Fixed bug not always recalculating motions for waves less than 1 (WRM)

5.3.5

- 10 Jul 08 Fixed bug in flatside definition using USA units
- 14 Jun 08 Fixed glitch sometimes causing failure to flag with \$ sign the loss of fender contact in waves (WRM)
- 11 Jun 08 Upper limit on case file size removed to allow large simulation data (Dynamic version)
- 9 Jun 08 Fixed bug calculating hawser angle to CALM buoy (Dynamic version)
- 8 Jun 08 Fixed bug (from 5.1.7) failing to correct wave forces for changing ship heading in dynamic simulation
- 7 Jun 08 Trap division by zero when calculating natural period
- 6 Jun 08 Increase maximum no of columns to 50000 defining loading for dynamic load simulation
Pasting data automatically transposes rows to cols (Dynamic version)

5.3.4

- 14 May 08 Cosmetic changes to display of catenary for CALM (Dynamic version)
- 13 May 08 Fixed bug (from 5.1.10) displaying incorrect excursion aft (fwd OK) after a wind sweep if waves are present
- 12 May 08 Fixed bug (from 5.1.10) setting up excursion properties of CALM (Dynamic version)

5.3.3

- 9 Mar 08 Rayleigh reverted to basic classical formula. (Previous versions used BS variant giving about 9% higher maxima).
- 8 Mar 08 Empirical roll period formula tweaked to agree better with RAO curve (WRM)
- 7 Mar 08 Fixed bug in Wave Response Module when HCF file alongside solid quay and ship is stbd to berth (port side OK)
- 6 Mar 08 Warning on loading later file prompts supplier to save in an earlier version format

5.3.2

- 28 Feb 08 Fixed bug disconnecting lines after reading case file with bights in lines
- 26 Feb 08 Option to set fender contact pressure limit on hull side
- 20 Feb 08 Hull pressure now corrected (increased) for partial fender contact at boundary of flat side
- 18 Feb 08 Vessel report now shows fender positions relative to flatside graphically

5.3.1

- 13 Feb 08 Increased displayed depth of fenders for clarity
- 11 Feb 08 Current drag data now all held in memory, reading data file just once
- 10 Feb 08 Target motions automatically displayed/hidden if waves present/absent (WRM)
- 8 Feb 08 Improved catenary shape display (Plus version)
- 7 Feb 08 Warning if rope type not recognised. Warning if line inclination (without catenary) exceeds 35°
- 6 Feb 08 Fixed bug introduced 4.9.4 (9 Mar 06) on requesting continuous reporting of each step (Dynamic version)

5.3.0

- 2 Feb 08 Problem with mouse wheel under Vista fixed
- 1 Feb 08 Warning displayed if fender compression not always increasing.
- 18 Jan 08 Seiche force treated as peak static force using Morison equation in long period wave (see 4 Dec 08).

5.2.6

- 25 Jan 08 Fixed zero motion along line with user-specified wave motion (bug introduced 9 Nov 07 5.2.2)
- 24 Jan 08 Fixed bug initialising mooring (introduced 19 Jan 08) and minor changes to convergence

5.2.5

- 19 Jan 08 Fixed bug in changing wave shielding unintentionally when activating Berth window

5.2.4

- 10 Jan 08 Flatside contour now defined by actual distances (previously ratios of LBP and Depth)
- 3 Jan 08 Fixed bug in catenary with lump weights/buoys (Plus version)

5.2.3

- 5 Dec 07 Fixed display of bollard ID on rose

5.2.2

- 9 Nov 07 Option to designate vessel fairlead as collar sliding vertically on elastic pile
- 5 Nov 07 Increased number of periods used to draw wave limit curve (WRM)
- 13 Oct 07 Display roll damping coeff when reporting vessel data (WRM)

5.2.1

- 15 Aug 07 Wave motion RAO's now calculated allowing for mooring stiffness (WRM)
- 12 Aug 07 Option to vary wave direction for RAO display independently from actual wave direction (WRM)
- 10 Aug 07 Option to vary roll damping coefficient (WRM)
- 4 Aug 07 Option to calculate wave motions (including velo and accel) at any 5 positions on ship (WRM)

5.1.11

- 8 Jul 07 Clarification of zoom options for background image

5.1.10

- 28 Jun 07 Standard version now accesses rope data file
- 26 Jun 07 Fender pressure now reported/printed
- 23 Jun 07 Allow entry of 0.75 knot current (to be consistent with OCIMF)
- 16 Apr 07 Add option to plot bollard forces (Dynamic version)

5.1.9

- 6 Apr 07 Clarified fatigue life menus (WRM)
- 5 Apr 07 Adjusted TimeStep to speed up long dynamic simulations (Dynamic version)

5.1.8

- 12 Mar 07 Minor safeguards when trying to read corrupted data files
- 25 Feb 07 Option to adjust y-scale (aspect ratio) of background image with wheel

5.1.6

- 28 Jan 07 Simulation now updates interpolation of draft , trim, WL, GM etc (Dynamic version)
- 19 Jan 07 Warning about no shelter given if normal ship drag data used as opposed to generic used for loadout with recess

5.1.5

- 3 Jan 07 Option to suppress catenary calculations for steel and chain lines (Plus version)
- 12 Dec 06 Option to specify height of target above deck

5.1.4

- 29 Oct 06 Option to import graphic images as background to arrangement plan

5.1.3

- 9 Oct 06 All data on berth file now lockable
- 2 Oct 06 Mouse wheel implemented

5.1.0

- 9 Sep 06 Streamlined fatigue calculation (WRM)
- 7 Sep 06 Option to hide force arrow on site plan

5.0.9

- 29 Aug 06 Automatically remove brake limits for fatigue life (WRM)
- 23 Aug 06 Improvements to flat-side data entry
- 17 Aug 06 Program now reverts to OptiData automatically if no authorisation (for data entry only - no mooring analysis)

5.0.7

- 12 Aug 06 Option to toggle freq/period on RAO plot (WRM)

5.0.5

- 28 Jul 06 Improved consistency of editing keystrokes
- 15 Jul 06 Calculate RAO's from Hydrodynamic Coeff (HCF) file allowing option to define GM (WRM)
- 24 Jun 06 Improved flatside data entry and made FenderLimitAft -ve to be consistent with table of flatside
- 14 Jun 06 Connections automatically restored when restarting F5 after breakage (Dynamic version)
- 13 Jun 06 Prevent entry of too short a chain length to buoy anchor (Plus version)
- 12 Jun 06 Disable static mode for CALM berth (Dynamic version)

5.0.4

- May 06 RAO and drift force curves displayed. Option to change GM (WRM)
- 12 Mar 06 Option to save earlier version format
- 11 Mar 06 Add fender pressure option

5.0.2

- 29 Jan 06 Fatigue T-N data and life added (Plus version required with WRM)
- 14 Jan 06 Increase rope codes from 2 to 3 chars (e.g. to allow for wet/dry)

4.9.8

- 9 Jul 06 Option to zoom view of simulation plot (Dynamic version)

4.9.7

- 21 Jun 06 Enabled = operation for fairlead ht above deck
- 18 Jun 06 Euroflex rope data coded into Standard version
- 15 Jun 06 Warning if CALM anchor leg too short (Dynamic)

4.9.5

- 15 Apr 06 Lines automatically disconnected in dynamic mode on reaching MBL (Dynamic only)

4.9.3

- 11 Feb 06 Changing spectrum now automatically updates motion calcs (WRM)
- 9 Feb 06 Anchor chains to CALM now only shown if properly entered and stopper chain entry clarified (Plus only)

4.9.2

- 10 Jan 06 Improved positioning of N arrow on site plan
- 6 Jan 06 Wave shielding cancelled as soon as non-pierside berth chosen

4.9.1

- 11 Oct 05 Automatically override wave direction locked to wind, when wave data entered in dynamic setup
- 15 Aug 05 Add yaw angle in simulation plot (Dynamic version)

4.9.0

- 19 Jul 05 Catenary shape window shows grounded length or anchor uplift force (Plus version)
- 14 Jul 05 Options to zoom and pan simulation results plot (Dynamic version)
- 5 Jul 05 Implemented option to define flat-side shape
- 30 Jun 05 Options to set fender heights individually, and to set bollard load limits
- 7 Jun 05 Wind spectra added (Dynamic only)

4.8.15

- 10 May 05 Changed fonts to display better on LCD monitors

4.8.12

- 23 Mar 05 Allow asymmetric wind drag coeffs

4.8.9

- 10 Feb 05 Add option for current sweep and capability rose
- 8 Feb 05 Option to append sweep data to csv file as well as replace

4.8.8

- 15 Jan 05 Warning trap if rope type or drag type cannot be found
- 29 Dec 04 Option to plot dynamic actual line tensions or as % of MBL (Dynamic version)
- 22 Dec 04 Fenders in longitudinal range corrected for surge
- 16 Dec 04 Berth and vessel files automatically searched in folder above if not found.
- 11 Dec 04 Constant tension winch defined by negative brake limit

4.8.6

- 25 Oct 04 Export vessel data to xml file. Command line /Berth/Ship/Side/Lpp/B

- 4.8.5**
25 Sep 04 Option to export sweep results to csv file for Excel input
- 4.8.2**
4 Sep 04 Simulation plot improvements to start values, scaling and legends (Dynamic version)
4 Sep 04 Tension variation due to wave motion now calculated more accurately from actual load-extension curve, not its slope.
- 4.8.1**
3 Sep 04 Increased max wind drag data sets from 14 to 100, and current data sets from 14 to 20
- 4.8.0**
28 Aug 04 Increased max bollards to 52 and max lines to 99
26 Aug 04 Value for berth orientation now points left to right to conform to mariner perception
25 Aug 04 Wind sweep now shows max in-line motion and excursion
24 Aug 04 Option to adjust hull shape
- 4.7.5**
1 Jul 04 Option to change display of directions from berth to true on Mooring window
- 4.7.2**
27 May 04 Improved printout of vessel and mooring results data
- 4.6.0**
1 Apr 04 Option to set fender friction coefficient (Dynamic version)
16 Feb 04 Up to 10 points on non-linear fender load-compression curve
- 4.5.4**
21 Jan 04 Introduced hysteresis in dynamic simulation, superseded 14 Apr 09 (Dynamic version)
30 Dec 03 Rose shows governing line number for max load
- 4.5.1**
24 Nov 03 Total windage areas shown on printout of results
3 Nov 03 Estimate Hs & Tp from wind & fetch (page 113 of Volker Bertram - Practical Ship Hydrodynamics)
2 Nov 03 Option to use secs/mins/hours/days in dynamic setup tables (Dynamic version)
1 Nov 03 Wave and swell separated
- 4.5.0**
25 Oct 03 Choice of criteria plotted on capability rose and sea-state limits (WRM)
22 Oct 03 Option to continue reading newer version files, instead of aborting automatically.
19 Oct 03 Improved calculation of fender bouncing
- 4.4.6**
24 Apr 03 Total tails too long warning allows option to abort.
- 4.4.5**
23 Apr 03 Option to ignore if no convergence.
21 Apr 03 If total tails too long then warning displayed.
- 4.4.4**
16 Apr 03 Brake limit for catenary is applied to component of tension acting in straight line from fairlead to anchor (Plus version)
- 4.4.1**
17 Mar 03 Show true wind/wave direction as well as direction to berth
- 4.4.0**
27 Feb 03 Show down-load on buoys (Plus version)

- 4.3.2**
22 Feb 03 Natural periods of surge & sway calculated
- 4.3.1**
2 Feb 03 Water level now varies (like draft) if no tide
- 4.3.0**
Jan 03 Consolidation of General & Environment windows.
- 4.2.9**
29 Dec 02 Improved reliability reading old version files
- 4.2.8**
23 Dec 02 Tide Table now displays adjusted tides and currents
21 Dec 02 Wind & Wave shielding indicated by check boxes on berth window, menu options removed.
- 4.2.7**
16 Dec 02 Removed menu option for yaw correction (now always made)
15 Dec 02 Moved berth target position input from Case to Berth window
- 4.2.5**
4 Dec 02 Option for up to 3 independent Other Force tables in dynamic setup (Dynamic version)
- 4.2.3**
27 Oct 02 Show permitted movement at target on site arrangement
25 Oct 02 Site arrangement, double click on vessel will add a fairlead. Can now delete items graphically
- 4.2.2**
26 Sep 02 Highlight peak passing ship forces (Dynamic version)
- 4.1.1**
14 Aug 02 Option to set new dynamic start to existing position & velo (Dynamic version)
13 Aug 02 Automatic reporting option for each dynamic simulation step (Dynamic version)
- 3.9.11**
9 Jul 02 Check for touching bottom with wave motion
- 3.9.8**
5 Jun 02 Improved LogFile to ignore duplications. Reduced font sizes on printouts to fit page better and added inline motion
- 3.9.7**
3 Jun 02 Fender forces added to plot (Dynamic version)
- 3.9.6**
28 May 02 .Wave rose at pier
- 3.9.3**
11 May 02 Show fender limit on Wind Rose. Option to save all files one go.
- 3.9.2**
28 Feb 02 Wave response RAO's added (WRM)
- 3.8.3**
17 Oct 01 Record kept of version used to save each file.
- 3.8.0**

30/31 Aug 01 Tidal current revamped to make easier to understand

3.7.1

13 Aug 01 Up to 17 tails allowed for pierside moorings (Plus version)

3.7.0

3 Aug 01 Loadout berth option (Plus version)

3.6.0

Dec 00 Development of CALM simulation (Dynamic version only).

3.5.8

13 Nov 00 Friction on fenders in dynamic version (Dynamic version only).

3.5.6

25 Oct 00 Catenary now handles sloping seabed (Plus version only).

3.5.2

2 Oct 00 Option to set colour limits on line tension

21 Sep 00 Line length on mooring screen now includes all segments, slippage, dist to winch, and bight

19 Sep 00 Initial vessel/berth directories set same as case file

15 Sep 00 Zero pre-tension now allowed. Blank pre-tension suppresses any change to pull-in when initialising

3.5.1

9 Aug 00 Wind coeffs no longer extrapolated outside range of A/L^2

3.4.6

17 Mar 00 Buoys allowed with fenders in Plus version.

3.4.1

15 Dec 99 Load-extension curve now linearly extrapolated beyond breaking strength

14 Dec 99 Pull-in corrected for length after pre-tension

8 Dec 99 Optional position mode (Plus version only)

3.3.1

4 Jun 99 EverKey option.

3.2.20

11 May 99 Air density set to 1.28 (0°C & 1 bar as per OCIMF, from 1.295 at 76cm Hg).

3.2.16

15 Apr 99 Decimal comma now recognised.

3.2.11

31 Mar 99 USA units for load-extension curves.

3.2.6

9 Jan 99 Wind Rose feature.

3.2.5

7 Jan 99 Wind and current drag now given for specified height above water and depth respectively (see Berth window).

3.2.4

5 Jan 99 Load-extension curves can be displayed, and in Plus version edited.

3.2.1

15 Dec 98 Implement Plus version with catenaries

3.1.16

16 Sep 98 Ctrl-Arrow on site window offsets ship along berth

15 Sep 98 Separate locks for fairleads, bollards & fenders, operable from site, vessel or berth windows

15 Sep 98 Ctrl-Z to remove slack acts on all lines

17 Jul 98 Equalise pull-in by pressing =

16 Jul 98 Regular tide option