

Two major unrelated changes are introduced in Version 6, affecting (1) users of the Seakeeping 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.**