

FLIP ROSE® 2D (ver.7.2 Series, ver.7.4 Series and ver.8 Series) Program Function Comparison Chart (English version)

(As of September 2025)

Program		FLIP ROSE ver.7.2 Series (Latest version) FLIP ROSE ver.7.2.3_7	FLIP ROSE ver.7.4 Series (Latest version) FLIP ROSE ver.7.4.6	FLIP ROSE ver.8 Series (Latest version) FLIP ROSE ver.8.2.0
Features		<p>(1) 2D dynamic effective stress analysis program</p> <p>(2) Undrained and partially drainage analyses (settlement due to dissipation of pore water pressure)</p> <p>(3) Incorporated "Asymmetric Modified Takeda Model" to nonlinear beam element</p> <p>(4) Incorporated forced displacement analysis function on steel members consideration of cross section force in the steel members induced by long term deformation of ground before earthquakes)</p> <p>(5) Incorporated Steady State of undrained shear of sand (consideration of flow failure phenomenon induced by liquefaction)</p> <p>(6) Incorporated Eigen value analysis function (allowed eigen frequency and eigen mode analysis of soil-structure systems)</p> <p>* FLIP ROSE Ver.7 series Support Service Members can download FLIP ROSE Ver.7.2 Series from Support Member website.</p> <p>* FLIP ROSE Ver.7 Series Academic Discount Version can run on one computer (Stand-alone license).</p> <p>* FLIP programs for User Members and Overseas Members can run on a maximum of ten computers connected through LAN.</p>	<p>In addition to FLIP ROSE ver. 7.2 Series (1)~(6),</p> <p>(7) Added the function of simulating pile skin friction to pile-soil interaction spring element</p> <p>(8) Added the function of simulating behavior of pile tip end bearing capacity by nonlinear spring element</p> <p>(9) Modified specification of $M \sim \phi$ relation for axial force dependency of trilinear model of nonlinear beam element</p> <p>(10) Added components of output elements and modified format of output data</p> <p>(11) Added the output function of flow velocity vector (Added in ver.7.3.1)</p> <p>(12) Added plane stress element to linear plane element (Added in ver.7.4.0)</p> <p>(13) Introduced bilinear model corresponding to Revised Technical Standards and Commentaries for Port and Harbour Facilities (2018) (IHT=2,IAX=5) (Added in ver.7.4.0)</p> <p>(14) Modified to output correspondence table of pore water element - soil element to file (#07) (Added in ver.7.4.0)</p> <p>(15) Bug-fix is applied on the fact that flow velocity vector file (#40) erroneously includes response data of elements other than pore water element (drained)</p> <p>(16) Fixed the bug in FLOW command from STAT command</p> <p>(17) Fixed the bug in INIT command in partially drained analysis</p> <p>(18) Updated the error treatment when the rounding error occurs in the routine for cocktail glass model element</p> <p>(19) Modified the file open function as measures for Intel compiler update</p> <p>* FLIP ROSE Ver.7 Series Academic Discount Version and Subscription Version can run on one computer. (Stand-alone license)</p> <p>* FLIP programs for User Members and Overseas Members can run on a maximum of ten computers connected through LAN.</p>	<p>In addition to FLIP ROSE ver.7.2 Series (1)~(6) and FLIP ROSE ver.7.4 Series (7)~(19),</p> <p>(20) Implemented cookie model for idealizing behavior of cohesive soil</p> <p>(21) Changed DBSW command related to the update method of stiffness matrix K used for computation of Rayleigh damping and element which considers Isotach damping in cookie model element</p> <p>(22) Allowed to consider void ratio dependency of coefficient of permeability in pore water element (drained) in conjunction with cookie model element</p> <p>(23) Modified the specification in FLIP ROSE ver.8.0.0 that cohesion c was proportional to p_n0 (initial value on normal consolidation curve) in cookie model element in consolidation settlement analysis under the conditions of simultaneous specification of overconsolidation and cohesion $Ca > 0$.</p> <p>(24) Allowed pile-soil interaction spring element applicable to cookie model element</p> <p>(25) Updated the error treatment when the rounding error occurs in the routine for cookie model element</p> <p>(26) Debugging output setting of linear plane element</p> <p>(27) Changed the name "qus" in cocktail glass model element and "qusa" in cookie model element to "Sus" and "Susa", respectively</p> <p>(28) Fixed a bug in cookie model element and introduced new input parameter $rpn0c$ so that the quasi-overconsolidation condition due to secondary consolidation (i.e. creep) can be specified</p> <p>(29) Added eigenvalue analysis function for cocktail glass model elements and cookie model elements</p> <p>(30) Fixed bugs related to Isotach damping in cookie model element and error message "I000"</p> <p>* FLIP ROSE ver.8.0 Series are not available in Academic Discount Version and Subscription Version.</p> <p>* FLIP programs for User Members and Overseas Members can run on a maximum of ten computers connected through LAN.</p>
Element	Fluid element	○	○	○
	Linear beam element	○	○	○
	Linear plane element	○	○	○
	Pore water element (undrained)	○	○	○
	Joint element	○	○	○
	Lateral ground element (Lateral viscous boundary)	○	○	○
	Bottom ground element (Bottom viscous)	○	○	○
	Fluid-structure interface element	○	○	○
	Multi-spring model element	○	○	○
	Linear spring element	○	○	○
	Lumped mass element	○	○	○
	Dashpot element	○	○	○
	Nonlinear beam element	△(※except for the function added in FLIP ROSE ver.7.3)	○	○
	Nonlinear spring element	△(※except for the function added in FLIP ROSE ver.7.3)	○	○
	Pile-soil interaction spring element	△(※except for the function added in FLIP ROSE ver.7.3)	○	○
	Cocktail glass model element	○	○	○
	Pore water element (drained)	○	○	○
	Cookie model element			○
	Nonlinear beam element (Asymmetric modified Takeda model)	○	○	○
	User-defined nonlinear beam element			
	Plane stress element (Added to linear plane element)		○	○