

# Line-up of FLIP Programs (English version)

★ For flip rose ver.7.4 and ver.8.0 series

★ For flip rose ver.7.2 series or earlier version

(As of April 2025)

Program		Description	FLIP ROSE ver.7 Series Academic Discount Version  [Number of computers] Stand-alone	FLIP ROSE ver.7 Series Subscription Version  [Number of computers] Stand-alone	FLIP ROSE 3D Subscription Version  [Number of computers] Stand-alone	FLIP Consortium User Member & Overseas Member  [Number of computers] Maximum of ten computers connected through LAN	Category
F L I P  R O S E  2 D	★ flip rose 8.0 series  Latest version: ver.8.1.0	(FLIP ROSE Ver. 8.0 Series have the functions of FLIP ROSE Ver.7.4 Series with the following addition and modification.) ① Cookie model element (cohesive soil behavior has been idealized) ② Change DBSW command ③ Allow use of pore water element (drained) in conjunction with cookie model element (Allow to consider void ratio dependency of coefficient of permeability) ④ Modify the specification in FLIP ROSE ver.8.0.0 that cohesion c was proportional to p <sub>n0</sub> (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. ⑤ Allow pile-soil interaction spring element applicable to cookie model element ⑥ Debugging output setting of linear plane element ⑦ Change the name "qus" in cocktail glass model element and "qusa" in cookie model element to "Sus" and "Susa", respectively. ⑧ Fix a bug in cookie model element and introduce a new input parameter rpn0c				○	Main Program
	★ flip rose 7.4 series  Latest version: ver.7.4.6	(FLIP ROSE Ver.7.4 Series have the functions of FLIP ROSE Ver.7.2 Series with the following addition and modification.) ① Incorporate the function to represent pile skin friction to pile-soil interaction spring element ② Introduce Hirayama's pile end bearing capacity model as a nonlinear spring element ③ Improve the axial force dependency of trilinear M-φ relationship in nonlinear beam element (IEL=16) ④ Add components of output elements and modify formats of output data ⑤ Add a function of output flow velocity vector (added in ver.7.3.1) ⑥ Add plane stress element as one of linear plane elements (added in ver.7.4.0) ⑦ Introduce the bilinear model corresponding to the Revised Technical Standards and Commentaries for Port and Harbour Facilities (2018) (IHT=2 and IAX=5) (added in ver.7.4.0) ⑧ Allow to output pore water element - soil element correspondence table to the file (#07) ⑨ Fix the bug in Hirayama Model of pile-soil interaction spring model (IHN=-4) and the bug in Rayleigh damping matrix of pile skin friction simulating function ⑩ 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) when FLOW command for output flow velocity vector is executed ⑪ Fix the bug in FLOW command from STAT command ⑫ Fix the bug in INIT command in partially drained analysis ⑬ Update the error treatment when the rounding error occurs in the routine for cocktail glass model element ⑭ Modify the file open function as measures for Intel compiler update	○	○		○	Main Program
	flipsim 5.1 series ★ (Latest version: ver.5.1.1)	Program for determination of liquefaction parameters (multi-spring model element) (with drawing figure function) (for FLIP ROSE ver.7.3 or later)	○	○		○	Pre-Processor
	flipgen 5.4 series ★ (Latest version: ver.5.4.3)	Program implemented with the advanced function specialized for use in FLIP analysis which are different from commercially available mesh generators (with basic function used for mesh generation of standard analysis model) (for FLIP ROSE ver.7.4 or later)	○	○		○	Pre-Processor
	flipcsim 5.2 series ★ (Latest version: ver.5.2.0)	Program for determination of liquefaction parameters (cocktail glass model element) (with simplified setup function of parameters and drawing figure function) (for FLIP ROSE ver.7.3 or later)	○	○		○	Pre-Processor
	fileconv10 ★	File format conversion program for drawing figures of time histories, stress paths, stress-strain relations by Excel (for FLIP ROSE Ver.7.3 or later)	○	○		○	Post-Processor
	flip2dtomavs201 ★	File format conversion program for 2D animation (MicroAVS) (for FLIP ROSE Ver.7.3 or later)	○			○	Post-Processor
	flip2dtomavs201_eign ★	File format conversion program for 2D animation (MicroAVS) for eigen mode (for FLIP ROSE Ver.7.3 or later)	○			○	Post-Processor
	fliphist30 ★	Time series data extraction program for drawing figures of time histories, stress paths and stress-strain relations (for FLIP ROSE Ver.7.3 or later)	○	○		○	Post-Processor
	flipsect30 ★	Spatial distribution data extraction program for drawing figures of deformation and excess pore water pressure distribution (for FLIP ROSE Ver.7.3 or later)	○	○		○	Post-Processor
	★ flip rose 7.2 series  (Latest version: ver.7.2.3_7)	2D dynamic effective stress analysis program Undrained/partially drainage analysis (settlement due to dissipation of pore water pressure) Incorporated asymmetric modified Takeda model element to nonlinear beam element, etc.	○			○	Main Program
	flipsim 4.0 series ★ (Latest version: ver.4.0.1)	Program for determination of liquefaction parameters (multi-spring model element) (with drawing figure function) (for FLIP ROSE ver.7.2 series)	○			○	Pre-Processor

# Line-up of FLIP Programs (English version)

★ For flip rose ver.7.4 and ver.8.0 series

★ For flip rose ver.7.2 series

(As of April 2025)

Program		Description	FLIP ROSE ver.7 series Academic Discount Version  [Number of computers] Stand-alone	FLIP ROSE ver.7 Series Subscription Version  [Number of computers] Stand-alone	FLIP ROSE 3D Subscription Version  [Number of computers] Stand-alone	FLIP Consortium User Member & Overseas Member  [Number of computers] Maximum of ten computers connected through LAN	Category
F L I P  R O S E  2 D	flipgen 5.0 series ★ (Latest version: ver.5.0.5)	Program implemented with the advanced function specialized for use in FLIP analysis which are different from commercially available mesh generators (with basic function used for mesh generation of standard analysis model) (for FLIP ROSE ver.7.2 series)	○			○	Pre-Processor
	flipcsim 4.0 series ★ (Latest version: ver.4.0.2)	Program for determination of liquefaction parameters (cocktail glass model element) (with drawing figure function) (for FLIP ROSE ver.7.2 series)	○			○	Pre-Processor
	fileconv6 ★	File format conversion program for drawing figures of time histories, stress paths, stress-strain relations by Excel (for FLIP ROSE ver.7.2 series)	○		○	○	Post-Processor
	flip2dtomavs17 ★	File format conversion program for 2D animation (MicroAVS) (for FLIP ROSE ver.7.2 series)	○			○	Post-Processor
	fliphist23 ★	Time series data extraction program for drawing figures of time histories, stress paths and stress-strain relations (FLIP ROSE ver.7.2 series)	○			○	Post-Processor
	flipsect25 ★	Spatial distribution data extraction program for drawing figures of deformation and excess pore water pressure distribution (for FLIP ROSE ver.7.2 series)	○			○	Post-Processor
	pickupdata6 ★ ★	Spatial distribution data selection program for drawing figures of bending moment distribution (section force) of structure members, piles and sheet piles	○	○	○	○	Post-Processor
	waveconv33 ★ ★	Tool for format conversion among the files of wave data (*available in FLIP ROSE ver.7.4 or later in case of file conversion associated with #24 file)	○			○	Post-Processor
	flowplot ★	*For FLIP ROSE ver.7.4.2 or later Tool for drawing flow velocity vectors from structural file (#30) and flow velocity vector file (#40)	○			○	Post-Processor
F L I P  R O S E  3 D	VtkConv111 2D ★ ★ (Latest version: ver.1.1.1)	Tool for converting spatial distribution data of displacement, acceleration, strain, stress, excess pore water pressure, dynamic water pressure and flow velocity vector (including eigen mode) output by FLIP ROSE 2D to the data for drawing figure by ParaView (applicable to the data of FLIP TULIP)	○	○		○	Post-Processor
	flip rose 3d 2.0 series (Latest version -Members: ver.2.0.1 -Subscription: ver.2.0.0)	3D dynamic effective stress analysis program (cocktail glass model element and seepage analysis functions implemented)			○	○	Main Program
	flipmesh20 (Latest version: ver.2.0)	Input data generator for FLIP ROSE 3D with limited function (Supported version for AutoCAD data)			○	○	Pre-Processor
	flip3dtomavs20	File format conversion program from data output FLIP to 3D animation				○	Post-Processor
	flip3dtomavs17_eign	File format conversion program for 3D animation for eigen mode				○	Post-Processor
	flip3dtomavs17_eign_fluid	File format conversion program for 3D animation for fluid freedom eigen vector				○	Post-Processor
	flip3dhist21	Time series data extraction program for drawing figures of time histories, stress paths and stress-strain relations for FLIP ROSE 3D			○	○	Post-Processor
	flip3dsect21	Spatial distribution data extraction program for drawing figures of deformation and excess pore water pressure distribution for FLIP ROSE 3D			○	○	Post-Processor
T U L I P	VtkConv111 3D (Latest version: ver.1.1.1)	(FLIP ROSE 3D version of VtkConv 2D)			○	○	Post-Processor
	flip tulip 6.6 series (Latest version: ver.6.6.1)	2D dynamic effective stress analysis program based on the Total and Updated Lagrangian methods (for Windows 64 bit)				○	Main Program
	tuliphist10	Time series data extraction program for drawing figures of time histories, stress paths and stress-strain relations for FLIP TULIP				○	Post-Processor
T U L I P	tulipsect10	Spatial distribution data extraction program for drawing figures of deformation and excess pore water pressure distribution for FLIP TULIP				○	Post-Processor

## System requirements:

The executable modules of FLIP main programs and pre-/post- processors are compiled by Intel Visual Fortran to run on 64 bit Windows® 8 or later with Intel Core i series 2nd generation or later.

## Bugs:

FLIP Consortium will provide the bug fix release to FLIP Consortium User Members and Overseas Members and FLIP ROSE Ver.7 series Support Service Members as soon as the bug has been fixed. If a serious bug is found in a program, FLIP Consortium will arrange so that the bug fix release can be obtained by all the customers who have purchased FLIP ROSE Ver. 7 Series, including those who are not Support Service Members.