



ROADPAC '14

Introduction

User Guide

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1. BRIEF DESCRIPTION OF ROADPAC PACKAGE

RoadPAC is program package for complex design of roads and motorways. Program package allows calculate all necessary data for complex design of road including earthworks volumes, balance of mass-haul and calculation of setting up elements in a short time. RoadPAC also creates necessary graphic drawings as layout of centre line and its offset curves, complete longitudinal profile, corridor cross sections, complete corridor layout, perspective views and mass-haul diagrams. The drawings can be either displayed directly on screen or exported into AutoCAD or BricsCAD .DWG or DXF files before final processing in selected CAD environment.

Besides basic programs in the list, RoadPAC also includes other service functions that help to improve productivity of work and save time and expenses.

Among the most important features of ROADPAC belong to:

- * Easy use of functions of the package (program RoadpacNET7)
- * Dialog editing of input data (program RoadpacNET7)
- * Quick creation of various alternative solutions, interactivity where is useful
- * Interactive graphic control of designed road on screen
- * Independent graphic environment (RoadPAC - PLOTFILE)
- * Connection to capacitive digital terrain model (DTM) which is linked to the system
- * Interactive cooperation with AutoCAD/BricsCAD graphic software and DXF file import and export of drawings
- * The package is always ready for adding of new modules using common interface.

List of programs of RoadPAC 2014

1. Group: Calculation of Horizontal Alignment

- RP12 Horizontal Alignment
- VIAAXI + Interactive Horizontal Alignment
- RP15 Intersection of Roads and simply ramps
- RP16 Relation of two Roads.
- RP77 Boundary of Land Acquisition

2. Group: Terrain data and Geology.

- DTM Digital Terrain Model (Release 2004, Release 2013)
- RP27 Terrain Cross Sections
- RPPP Existing profile of Terrain
- RP28 Completion of Geology
- RP29 Stripping of Topsoil

3. Group: Vertical Alignment

- RP31 Vertical Alignment
- VIANIV Interactive Vertical Alignment

4. Group: Cross section arrangement

- RP41 Automatic cross section arrangement according to ČSN
- RP44 Automatic cross section arrangement according to STN
- RP42 Cross section arrangement of Junction
- RP43 Cross section arrangement details, widening, superelevation
- RP45 3D setting up of cross section arrangement
- RP46 /47 3D setting up of corridor

5. Group: Cross Sections

- RP51 Corridor Cross Sections
- RP71 Earthworks Calculation
- RP72 Volumes of Construction Layers
- RP80 Pavement Reconstruction

6. Group: Drawings

- RP34 Drawing of complete longitudinal profile
- RP53 Drawing of Cross Sections
- RP76 Drawing of Mass-haul Diagram
- RP83 Drawing of Perspective Views, Sight Distance.

2. MANAGING ROADPAC PACKAGE**2.1 Project, Road**

In program package ROADPAC the term *Project* means the set of roads that are solved together with relevant terrain data model.

The term *Road* means one road that is solved in package RoadPAC. As an example can be used solution of bypass road with one split level junction with 8 branches:

Project Name:	BYPASS	(max. 10 characters)
Name of 1.road:	MAIN	(max. 6 characters)
Name of 2.road:	ROAD2	(max. 6 characters)
Names of junction branches:	BRANCH1	(max. 6 characters)
	BRANCH2	(max. 6 characters)
	
	BRANCH8	(max. 6 characters)

Within the RoadPAC package only characters A-Z and 0-9 (without diacritics) must be used for names of Roads and Projects. It is necessary for the backward compatibility with older versions of RoadPAC.

2.2 Data base

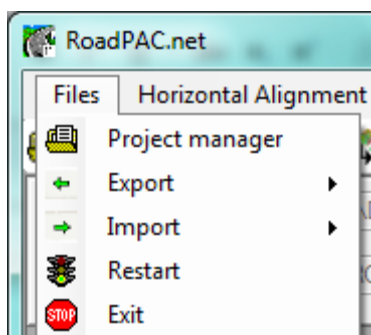
In the RoadPAC program package the term “data base” or "current directory" means directory in which are saved all data files concerning one project.

Name of data file consists of file name (default is the name of the Road) and file extension type (3 characters), which describe the type of the file. See chapter 3.1 “Data files” for more information about RoadPAC data files.

2.3 Main menu

After starting the package RoadPAC a main MDI control panel appears at the display. At this point the main parameters as Project, Road and Data Directory can be set in the first menu on the left (menu File).

In the top fixed part of the menu the actual valid Data directory, Project name, Road name and current number of program in the package are displayed all the time. There are ten buttons in line under the upper part of dialog panel. By clicking on some of those buttons you will get the access to individual groups of programs of the package. The basic programs of the package are joined into 6 groups as described in previous chapter.



2.4 Functions of menu File

Functions in this menu are used to set a Project name and to maintain file ROADPAC.JOB - list of projects. The menu includes following functions:

RESTART Emergency help function. It can be used only in cases the dialogues of program unfortunately freeze. Function unblocks all elements of panel.

EXIT Terminates the program.

Pull down menu item „**EXPORTS**“, there are concentrated all functions, which establish connections with AutoCAD (obsolete) and MX itself.

PROJECT MANAGER. Use this function to create a new project, to open existing project or to delete project from list of projects.

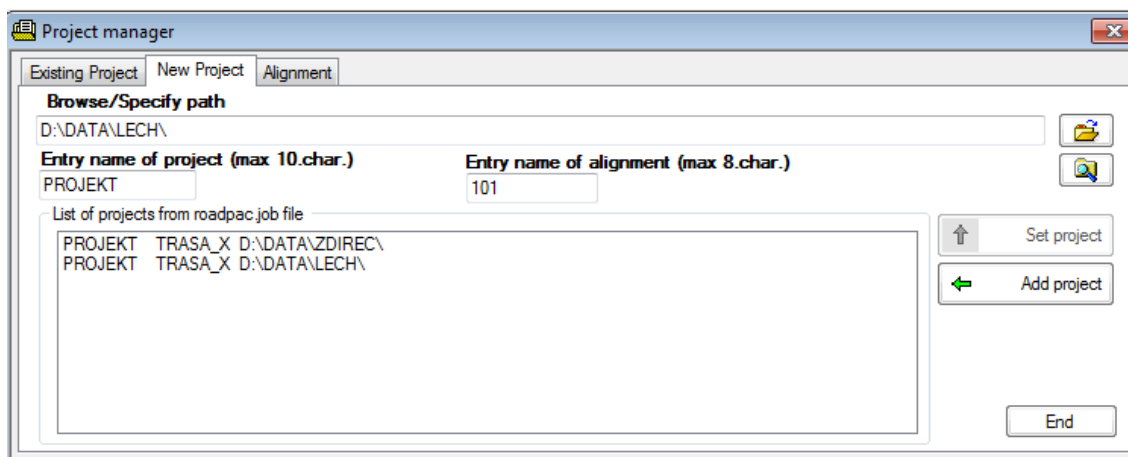
See tab “New project”.

In the top part of dialog panel is the list of existing projects. The list is read only. Each line identifies one Project and consists of 3 parameters.

Project name consists of max 10 characters (A-Z, 0-9).

Road name consists of max 6 characters (A-Z, 0-9). It is recommended to specify the main Road of the Project in the list.

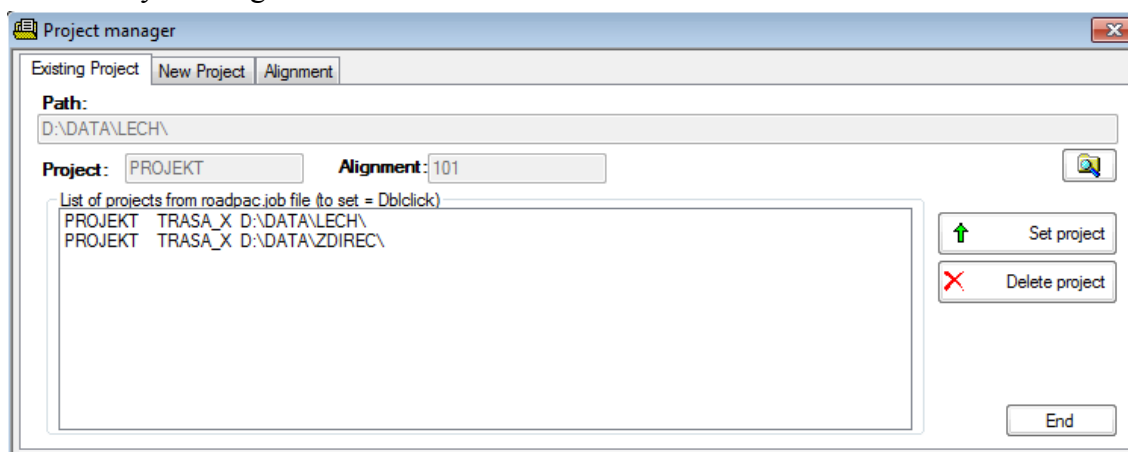
Project Directory is path to data directory where files of the Project are saved (including the \ character at the end of string). The length of string is limited up to 255 characters, but it is recommended not to use full allowed length of string.



Existence of directory is tested at the time of definition of new project. If directory does not exist a new one will be created. Click on button “Browse” to find the Data directory of the project. New project is added to the list of projects in file ROADPAC.JOB by clicking on "Add selected" button. Created attributes of project will be added to the list of the Projects and by clicking on button “Set as Active” you can immediately start to work with this project.

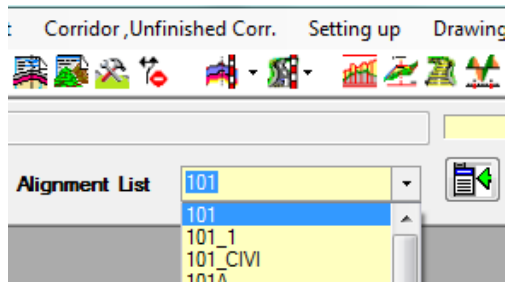
When the Project is created, the list of Roads is created with the name *Project* .TRS in data directory of the project. This list of Roads is automatically updated any time when a new name of Road in the Project is used. Combo box with list of Roads is used at Road name selection (see next text).

Existing PROJECT This function is used for selecting the active project from list in ROADPAC.JOB file. The active project can be set by clicking on proper line in the list and then by clicking on the button “Set Active”:



Delete PROJECT. Use this function to delete project from list in ROADPAC.JOB file. The program will delete the information on the Project from ROADPAC.JOB file, but the data in Data directory will be not deleted. Click on actual line of the list to choose the project and than click the button "Remove Project":

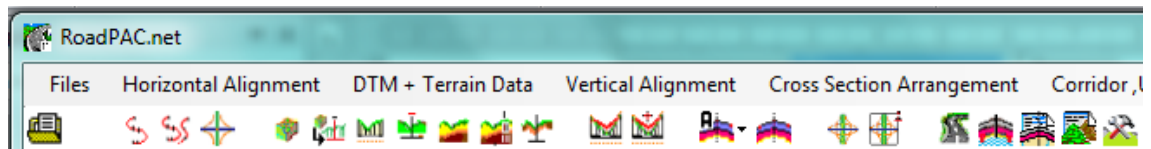
Program does not allow delete active project. It is necessary to set another Project as Active and than delete selected one.



Alignment list combo box

Active Road should be set by selecting the Road from the list in combo box and also by clicking on the button placed on the right from combo box.

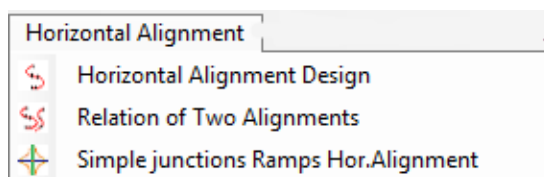
2.5 Start of individual programs of the package.



Choice of individual programs of package ROADPAC is performed either from PULLDOWN MENU BAR placed in top of main MDI dialog panel or from toolbar. Programs of first five groups are computing programs the sixth group includes the graphic programs for preparation of drawings. Typical menu of computing programs is described in paragraph 2.8, typical menu of graphic programs is described in the same paragraph.

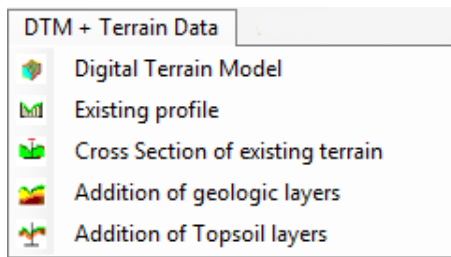
2.5.1 Horizontal Alignment

Click on menu item “Horizontal Alignment“ a pull down menu No 1 is displayed. From this menu can be selected following programs.



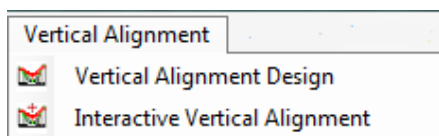
2.5.2 Terrain Data

Click on menu item “DTM + Terrain data“ a pull down menu No 2 is displayed. From this menu can be selected following programs.



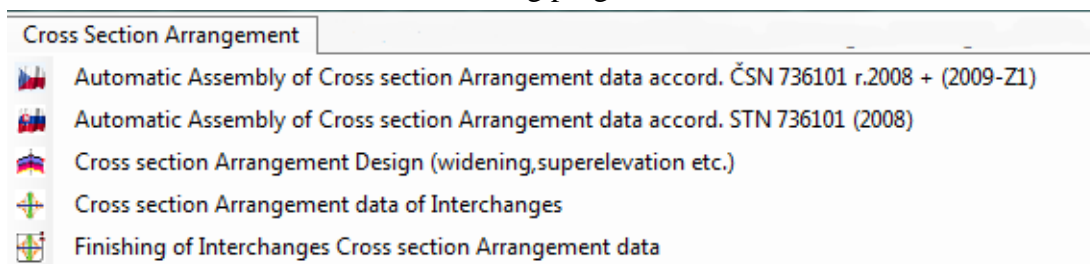
2.5.3 Vertical Alignment

Click on menu item “Vertical alignment” a pull down menu No 3 is displayed. From this menu can be selected following programs.



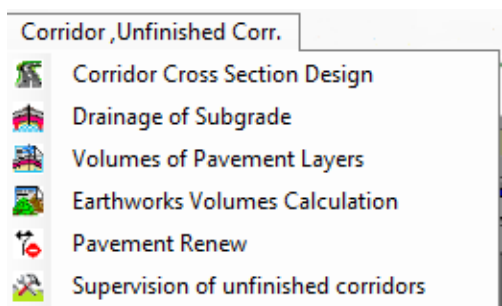
2.5.4 Cross section arrangement

Click on menu item „Cross section arrangement“ a pull down menu No 4 is displayed. From this menu can be selected following programs.



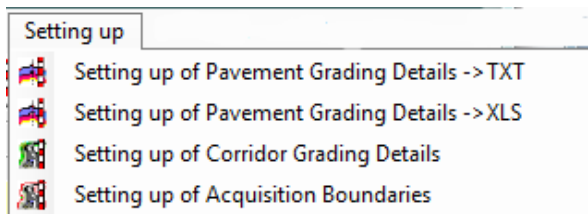
2.5.5 Corridor

Click on menu item „Corridor, unfinished cor.“ a pull down menu No 5 is displayed. From this menu can be selected following programs.



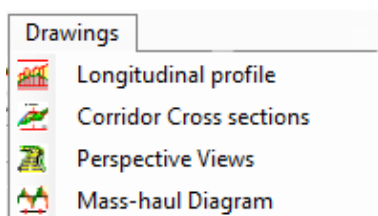
2.5.6 *Setting UP*

Click on menu item „Setting up“ a pull down menu No 6 is displayed. From this menu can be selected following programs.



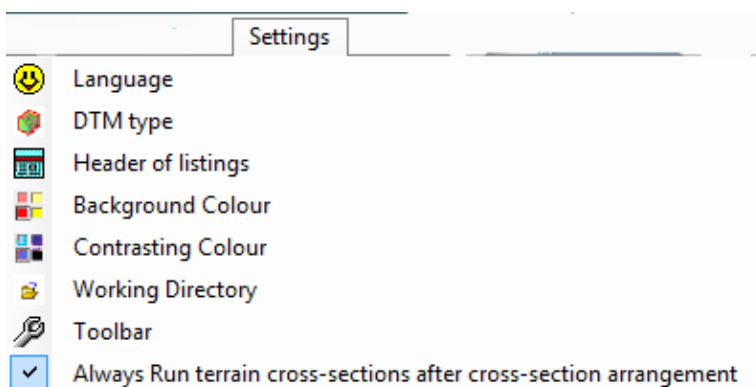
2.5.7 *Drawings*

Click on item “Drawings“ a pull down menu No 7 is displayed. From this menu can be selected following programs.



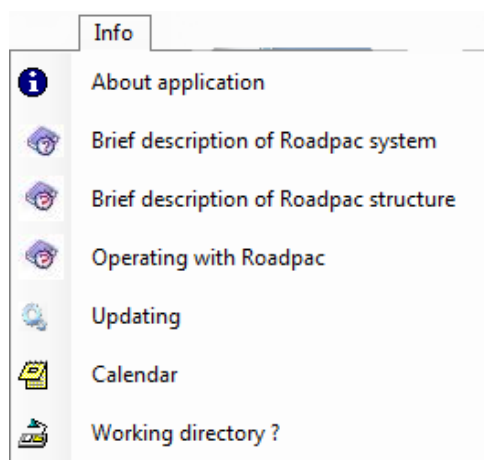
2.5.8 *Settings*

Click on item “Settings“ a pull down menu No 8 is displayed. From this menu can be selected following programs.



2.5.9 Info

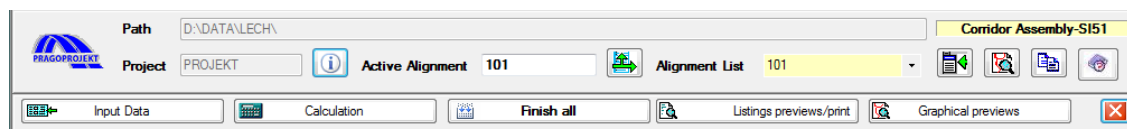
Click on the item “Info“ of pull down menu No 9 is displayed. From this menu can be selected following programs.



2.6 Typical menu of programs

2.6.1 Menubar of computing programs

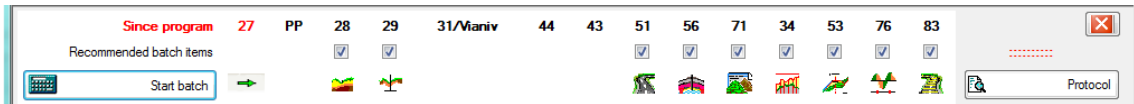
In case of selecting any of the programs from group 1 -7, the detail menubar appears. The visibility of menubar buttons be changed according purpose of selected program and is similar for all programs of this type. Menu includes following items (from the left):



Input data: Pushdown this button activates function which serve for creation and editing of input data. This function is individual for each program of package. Detailed description of input data forms is in manuals of individual programs of RoadPAC package. Input data are saved in file '*Road*' .VXX where '*Road*' is name of Road and XX is serial number of program in the package (e.g. for SI12 the name of file is "*Road.V12*").

Calculation: Pushdown this button activates calculation of chosen program. Input data file ('*Road*' .VXX) and required data files ('*Road*' .SXX) must be prepared beforehand. The listing ('*Road*' .LXX) is created during calculation. The data files describing the Road ('*Road*' .SXX) are created in accordance with the type of calculation. The data base structure is described in chapter 3.1.

Finish all: Pushdown this button activates the batch processing of programs in logical sequence. Execution of sequence will start from current program. Function is controlled by following dialog panel:



Before execution of any program the existence of input data file ('Road' .VXX) and required data files ('Road' .SXX) is tested. Listing files ('Road' .LXX) are created during the calculation and required data files ('Road' .SXX) are created or modified. User can cancel (jump) execution of some programs in sequence by unchecking the item in proper checkbox placed on form (change of default sequence).

Listing: Pushdown this button starts the standard Windows program WORDPAD and listing file 'Road' .LXX will be opened.

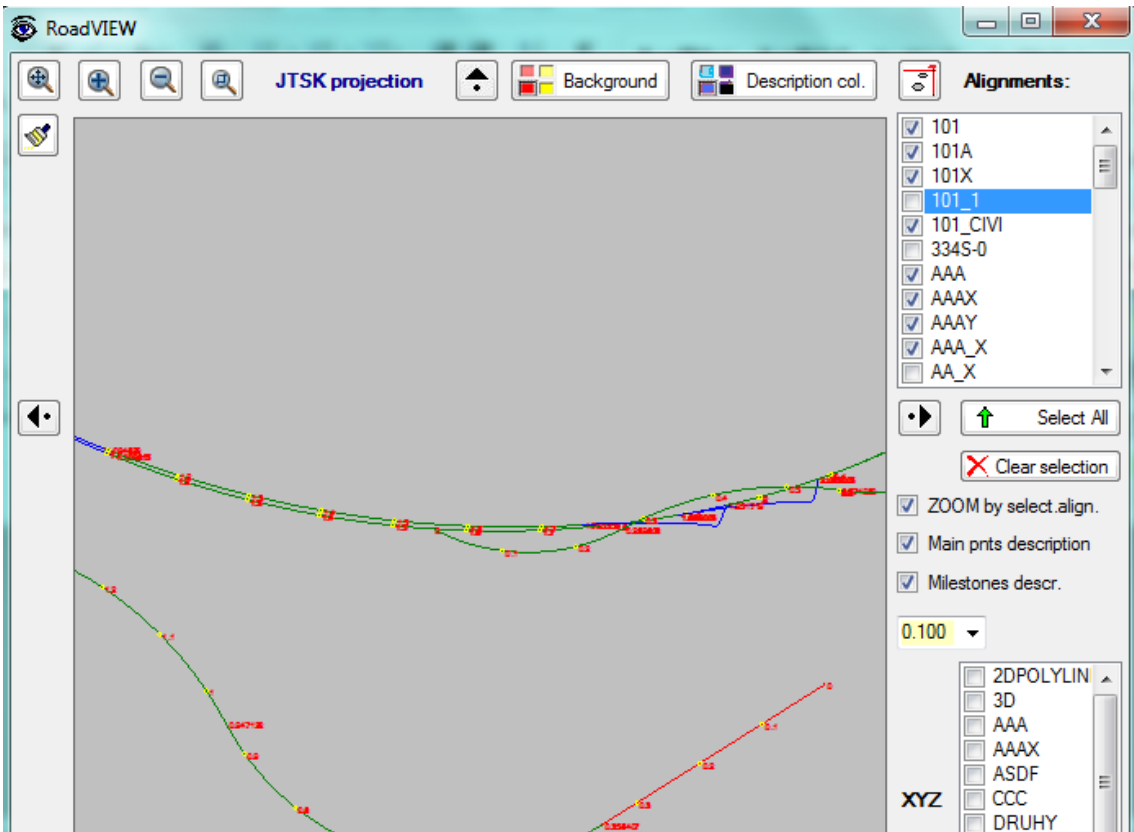
Use key PgDn, PgUp and arrow keys or mouse to navigate in text. In case of need it is necessary to change the size of font. Program WORDPAD allows printing of listing 'Road' .LXX by using all available Windows capabilities.

Graphical previews. Pushdown this button starts Common program for quick preview of all RoadPAC graphics. See chapter 2.7



Roadview

Pushdown this button starts a quick preview of selected alignments positions in active project with some extensions.



Simply check an alignment from checklist of alignments if you want to start .Scale of view is automatically set according range of first of all chosen alignments.

Note: This function serves only for basic information on horizontal alignment. For detail drawing of Road is prepared the program RoadCAD in AutoCAD /BrisCAD environment.

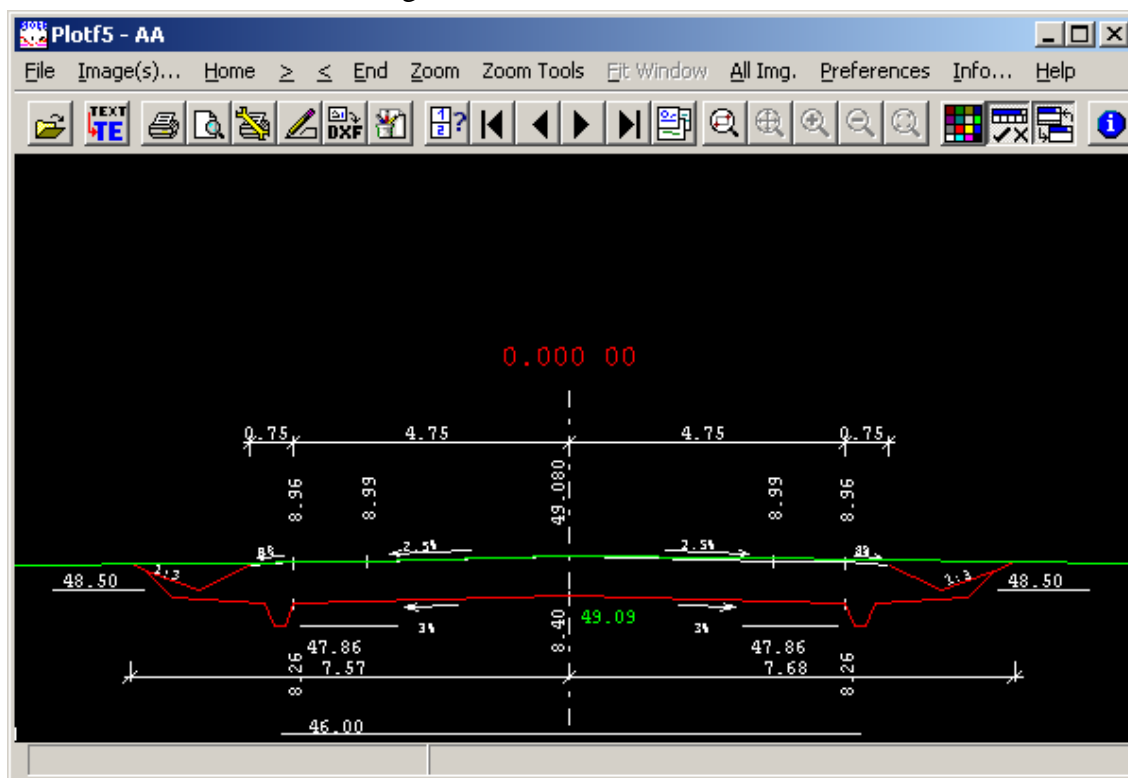
2.7 Graphic files displaying – program PLOT5

Program PLOT5 connects functions of previous program PRAGOPLT.EXE and specific display interpreter PLOT5.EXE.



Program PLOT5 allow displays or print all files of PLOTFILE type. The conversion of files .OXX type to standard DXF AutoCAD/BricsCAD files is also possible.











Program uses mouse connected with graphic cursor to select the view and to edit texts.




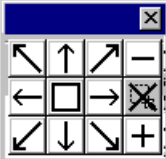




On display appears basic menu, toolbar and status line. Toolbar and status line can be hidden (see function "Settings"). Toolbar can be placed on any side of display. Program does not use scrollbars, drawing zooms to fit to current window.



Following table includes list of functions. They are listed in order of menu structure with pictures of icons and brief description of functions.

	File	Opens window with other functions. Can immediately open any file from list of last opened files.
	Open	Standard open function. Allows to choose from files of type PLOTFILE (*.O*) or all files.

	Text	Use this function to zoom up (>1.) or zoom down (<1.) texts on display. Change is valid only for current view (not permanent).
	Edit	Will be added in next version of program.
	View	Standard preview that includes actual area of display
	Print	Standard window for printing is opened. Program PLOT5 always prints only one page. Available options are printing on printer or print to file. Type of fonts and number of copies can be specified.
	Settings of printing	Standard window of print setup.
	Plotter	Prints drawing on plotter connected on-line or exports drawings to file in HPGL2 code. Plotter must be capable to use HPGL2 format. Allows to choose name of output file, scale of drawing and separately scale of texts, allows to choose between active drawing or of all group of drawings, allows to rotate by 90°, assigns pens of plotter to 16 colors of original. The chosen settings can be saved.
	DXF file	This function starts program PLOTFA.EXE that converts PLOTFILE type file or its part to file of AutoCAD DXF type. The name of file .DXF and all parameters of conversion can be given. Chosen parameters can be saved. Conversion to file DXF can be also done directly from windows of individual programs of RoadPAC, but calling Plotfile from RoadPAC assigns optimal colors according to individual programs (cross sections, longitudinal section).
	BMP file	Opens window for entering of the name of file .BMP. Only content of just chosen view (active part of display) is always saved. Created bitmap is saved as file of 16 colors. File .BMP is even processed by all usual functions of OS Windows, the most simple one is the processing by program PAINBRUSH. Black and white drawing takes 8 times less of disc space compared to colored ones. In program PAINBRUSH is easy to convert colored design to black and white: Open color file, Chose function "save as", Chose type of file "black and white drawing .BMP" and enter name of output file.
	Extract	Creates extract of file content (for details of file structure see separate documentation of package Pragoplot)
	Connect	Allows merging of files into one. Details see in separate documentation of package Pragoplot
	Designs	Opens window where a group of drawings can be defined. Selected drawings can be linked into a stream for further processing..
	Home	Shows the first drawing from the file. Use Home key placed on keyboard to perform the same function.
	≥	Shows following design. Use "arrow to the right" on keyboard to perform the same function.

-  ≤ View previous design. Use “arrow to the left” on keyboard to perform the same function.
-  **End** View the last view of file. Use key “END” on keyboard to perform the same function.
-  **Zoom** Use this function to define zoom by pulling rectangle and mouse (also is possible to double click into opposite corners of required view). Defined view is refreshed immediately and in the corner is placed small window. That allows move with the view, decreasing, increasing and widening.
- 
- Eight arrows can slide the view always about 1/2 of display in direction of arrow. Item " – " zooms out view to 50 %, item " + " zooms in view to 200 %. Item on right in middle line cancels the view.
- View** Set view stays valid at changes of drawing. If there are big differences in sizes of drawings, it can get out of the view. Shows window where are functions as in menu “Zoom” but described as menu
-  **Basic** Cancel all views and chosen drawings are shown in original size.
-  **ALL** Shows all drawings in file. Continuity is respected if it had been set in window “Designs”.
- Settings** Opens window "Settings of display" and also can show or hide status line or toolbar.
-  **Settings for display** This function allows choosing color of background for colored design, drawing by inverse color or view black and white view (black on white or white on black) and save last settings.
- Style of text** This function allows choose text style (central European or Cyrillic). Font of text can not be change – as standard is used style Courier.
Note: In file PLOTFILE is saved code page used in texts (852, 1250, 866, 1251). Interpretative program converts texts to code 1250 (Czech) or 1251 (Russian) so the texts are readable.
- Thickness of lines** As standard is set basic thickness of lines for display and for printing (1 dot). For display it always suits well, on printer (especially if plotter is used) is line too thin. Two or more times thicker line can be used.
-  **Info** Opens window with basic data about PLOTFILE file: complete name, list of drawings, their size and information texts if any were saved. Programs PLOT6 and PLOT0 can give similar but more detailed information.
- Help** Includes basic information about program PLOT5.



Toolbar Icon hides the toolbar. It can be reopened from window “Settings”.



Status line Hide or show status line. On status line are displayed help messages, information about actual drawings and about status of NumLock, CapsLock and ScrollLock.

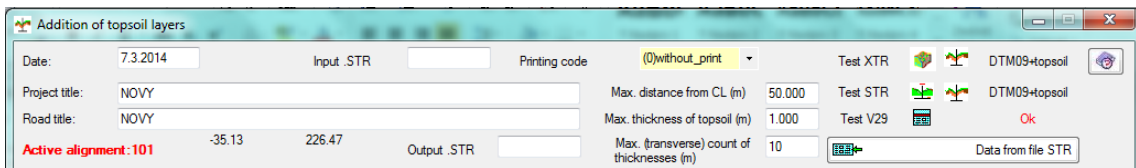
Detailed description of all possibilities of program PRAGOPLLOT is in separate manual.

2.8 RoadPAC - programs for editing of input data.

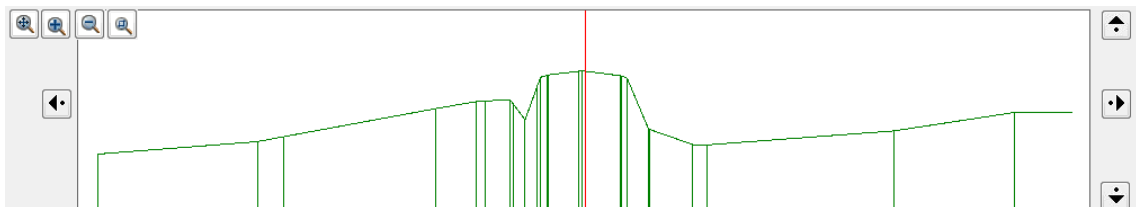
Each program of RoadPAC package has its own dialog pre-program for input data preparation. The input data are provided by filling and editing of tables or to click on controls placed on forms appearing on the computer display. Forms usually incorporate common control part, graphical part if it is useful and input data part. A Picture box, if is placed on form, serve to display current results.

Example of one simple program, that includes all typical controls (functions), follows.

Control data part:



Graphical part:



Input data part:

0.000000 Range of task: From (km): 0 To (km): 4.69565 Max. distance for data interpolation (m): 4697 Max. distance for data copying (m): 0.02 Background color

Chainage (km)	1. thickness (m)	<-boundary> (+/-m)	2. thickness (m)	<-boundary> (+/-m)	3. thickness (m)	<-boundary> (+/-m)	4. thickness (m)	<-boundary> (+/-m)	5. thickness (m)	<-boundary> (+/-m)
0.000000	0.400	-11.183	0.100	-6.170	-0.700	4.325	0.100	6.424	0.400	50.00
0.020000	0.400	-11.267	0.100	-5.235	-0.700	4.261	0.100	6.093	0.400	50.00
0.040000	0.400	-10.675	0.100	-4.085	-0.700	4.156	0.100	5.961	0.400	50.00
0.046361	0.400	-10.197	0.100	-3.985	-0.700	4.099	0.100	6.032	0.400	50.00
0.060000	0.400	-9.175	0.100	-3.962	-0.700	3.977	0.100	6.183	0.400	50.00

Operate table. Table is activated by click on any table sell. From cell to cell user can moves either by pushdown key <Enter> or by mouse down on any cell. Active cell background is colored and active value is painted in red. Written cell values confirms

by key <Enter> or by mouse down on any next cell. For entered cell values are encoded, if it is useful, built-in functions for both syntax and logical checking. Rows can be also sorted, if it is useful, according ascending/ descending chainage.

RP	Vzdálenost od osy(m)	Výška (m/nm)	Vzdálenost od osy(m)	Výška (m/nm)	Vzdálenost od osy(m)	Výška (m/nm)	Vzdálenost od osy(m)	Výška (m/nm)
	-50,000	236,325	-45,500	236,252	-40,502	236,218	-31,676	236,154
	-31,330	236,151	-31,135	236,149	-30,429	236,142	-16,770	236,003
	-12,988	235,981	-6,310	235,893	-3,816	235,862	-2,404	235,858
	2 696	235 796	11 961	235 700	19 056	235 628	26 326	235 556

Inserting and deleting of rows. It is possible to insert or delete rows in tables. User can by click on zero table column marks up any row. (Selected row background is then colored.) Then user click either key <Insert>, a new row is inserted above selected row, or key <Delete>, selected row is deleted. If is marked up more rows, see above picture, more rows will be deleted at the same time. At the time one row can be inserted only. By click on left upper table cell <RP> whole content of table is selected. Then whole content of table can be deleted. By same key <Delete> can be deleted individual cell value if one table cell is selected only.

Inserting and deleting of rows can be also done from context menu. **Context** menu appears if right mouse button is pushdown over table area. See first and second row of context menu.

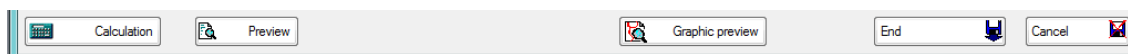
All dialogue tables allow copy and paste data between dialogue and program MS – Excel or OpenOffice. When you click Right mouse button at any field of the yellow header of table, context menu with next commands is available.

Read from excel. It is function for transfer of selected data from and to opened application Microsoft office Excel.

Read from OpenOffice Calc. It is function for transfer of selected data from and to opened application OpenOffice.

Rows copy. It is possible copy table row by key <Ctrl+C> a <Ctrl+V>. User must select by above mentioned way zero column of table row. (Row background color is changed.) Then user pushdown the key <Ctrl> by left hand and key <C> by right hand. After that user select other row by click on its zero column, and by key <Ctrl+V> is row copied. (Note: Key <Ctrl+X> is not functional!)

Calculation, Preview, Graphic preview, End and Cancel controls appears on almost each form. Button **Calculation** saves the content of form into input data and carry out current working calculation. Button **End** performs the same but carry out final calculation and save data to project directory. Button **Cancel** will terminate the form processing and no data are saved/ changed into input data file. For **Graphic preview** see chapter 2.7.



When opening the dialog form, actual tables are automatically filled from input file "*Road* .VXX" in case that input data already exists.

TextBox Is another frequent control which appears in forms. It is used for entering individual texts or numbers. Functions for both syntax and logical checking of data are built-in.

3. STRUCTURE OF ROADPAC PACKAGE

Two directories are important in RoadPAC program package:

- * Data directory (current directory)
- * Program directory (RoadPAC directory)

Data directory is directory, where all data files of package RoadPAC are saved. Usually is one separated directory allocated for each Project, but in case of need several Projects can share the same directory. Structure of set of data files is described in paragraph. 3.1.

Program directory is directory, where program modules of RoadPAC are stored together with some data files that are necessary for work of programs. At installation time any directory can be chosen for RoadPAC package. Installation of RoadPAC is described in chapter 4.

3.1 Data files of RoadPAC

The set of data files refers to each Project. Within one Project it is possible to work with several Roads. For each Road the following types of data files exist:

'*Road*' .VXX input data file for program XX, where XX is number of program.

Input data file is prepared by appropriate dialog program.

'*Road*' .SAA is binary data file describing the data of Road. There are several types of data files:

- SSS file of chainage
- SHB horizontal alignment file
- SNI vertical alignment file
- SKR cross section arrangement, superelevation and grading details file
- STR terrain cross section
- SPR corridor cross section file
- SOM side limits
- SPP existing profile of terrain

The relation between data files of type 'Road' .SXX and programs RPXX is described in paragraph 3.2 of this manual.

'Road' .LXX file includes listing of program RPXX. Each program creates listing, the size and details depend on user requirements.

'Road' .OXX binary data file describing the drawing in PLOTFILE form. For example name of file containing drawing of longitudinal profile is 'Road'y .O34 where "y" is numbers of probable sections <1, 9>.

3.2 Relation between programs and data files

In table at the end of this chapter is shown the relation between the programs of RoadPAC and data files of .SXX type. Arrow in direction towards the program means data transfer from file to program (input file). Arrow in direction from the program means data transfer from program to file (output file, either creation or modification).

Black filled arrow in direction towards program means that input file must exist before the program is started. Black filled arrow in direction towards file means that this file is always created or modified during the program execution. Standard, thin arrows means that inputs and outputs are controlled by input data file according to requirements of user.

Example: Cross sections drawing generation

Drawing of cross sections can be generated by program RP53. File of type .SPR is necessary for this work. This file is created by program RP51. Before using program RP51 files of type .SNI, .STR, .SKR must exist. File .SNI can be prepared by program RP31 or VIANIV. File .STR can be created by program RP27 or DTM, additional data about geology and soil added by program RP28/29. File .SKR can be prepared by program RP43.

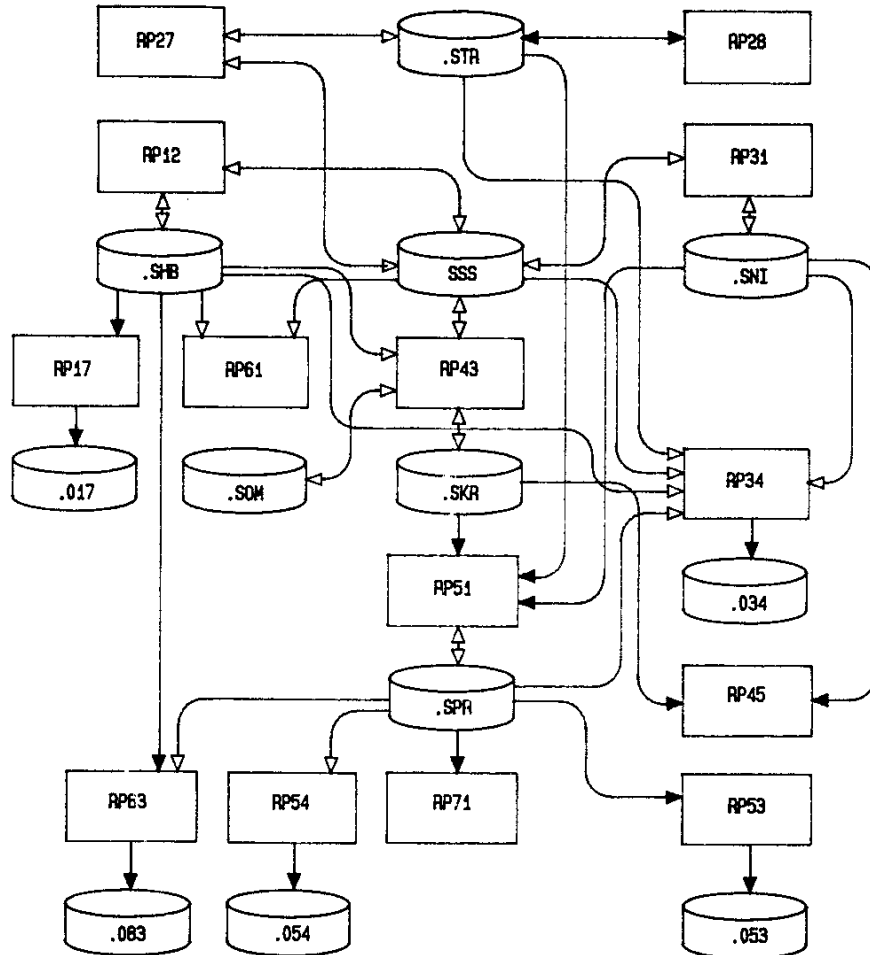
For designing of cross sections drawing and generally for processing any graphic enclosures in package RoadPAC is recommended to use programs in following order:

numeric section		graphic section
RP12	->	VIEWER or VIAAXI+
RPPP	->	RP34
RP27 + RP28 / RP29		
RP31	->	RP34
(RP41) + RP43 (RP45)		
RP51	->	RP53 -> RP34 -> RP83
RP71	->	RP76
RP61		

Programs RP15 and RP16 can be used after creation of file .SHB by program RP12 or VIAAXI.

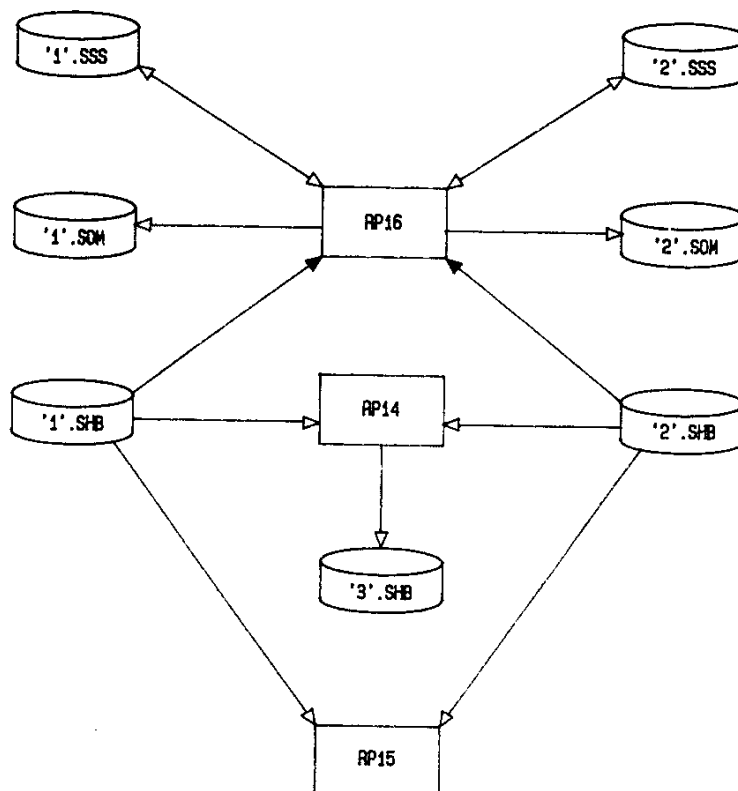
3.2.1 Programs for processing one Road

Following scheme shows connections between data files and programs of RoadPAC. Some programs can work with more then only one Road at a time.



3.2.3 Programs for processing more Roads

Following scheme shows relation between data files and programs of ROADPAC. Chosen program can work with more Roads in the same time and can produce another Road (e.g. interchange ramps).



3.3 Table of relations between the programs and data files

Names of files are listed horizontally. Names of programs are listed vertically.

PROGRAM \ FILE	.SSS	.SHB	.SNI	.STR	.SKR	.SPR	.SOM	.SPS	.SBS	.Oxx	.SPP
RP12	↔↑	↔↑									
RP14		↔↑									
RP15		↔↑									
RP16	↔↑	↔↑					↑↑				
RP17		↔↑								↑	
RP27	↔↑			↔↑							
RP28				↔↑							
RP31	↔↑		↔↑								
RP34	↔↑	↔↑	↔↑	↔↑		↔↑				↑	↔↑
RP43	↔↑	↔↑			↔↑		↔↑				
RP45			↔↑		↔↑						
RP51			↔↑	↔↑	↔↑	↑					
RP53						↔↑				↑	
RP54						↔↑		↔↑	↔↑	↑	
RP61	↔↑	↔↑									
RP71						↔↑					
RP83		↔↑				↔↑				↑	
RPPP											↑

4. INSTALLATION OF SYSTEM ROADPAC

4.1. Generally

Installation is done by standard program SETUP. It is recommended to use directory C:\Roadpac, C:\Program Files\Roadpac or C:\Program Files(x86)\Roadpac as installation directory of program Roadpac. As far as the automatic upgrading of Roadpac package is available now, we strongly recommend use the same directory for all installations in whole company.

4.2. First installation

This installation must be done only once (first installation on computer). In many cases software driver for HASP protection is already installed, so it is not necessary to choose the option HASP during installation process. When program SETUP tries to install HASP driver over an existing newer one, some problems can occur.

Existence of HASP driver can be checked by command "hinstall -info" (program hinstall.exe is on CD).

4.3. Future installation of upgrades

Once program ROADPAC is correctly installed on the computer, it is sufficient to run program SETUP again and confirm all selections, which are proposed by program. Program SETUP does not interfere in your AutoCAD/BricsCAD settings, so your setting will be kept unchanged.

4.4. Files and definitions

Setup.exe	Installation program, consists all necessary components of program
Readme1st_EN	Short Guide for Installation
Install comments	Full Installation Guide
Hinstall.exe	Last HASP driver

\Roadpac	Roadpac files in uncompressed form
\Support	Utilities for administrators
\Docs	User Guides of Roadpac 2014
\Samples	Sample data for testing