
TSL™ SuperView Version 1.5
User's manual

**Program for presentation of raster,
vector and hybrid documents**

for Microsoft Windows™



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1. Introduction

1.1. Basic functions of the program

SuperView is a *composite document* viewer. It allows to collect a set of raster or vector documents into a single composite document. Individual drawings in the composite document can be selected to allow changing of their parameters, their position in common world coordinates and their visible areas (viewports). The current coordinates of the mouse cursor in the composite document world are displayed in the status bar. It is also possible to measure distances between selected points. SuperView can print composite documents and is their OLE 2.0 server. It can be also programmed using OLE 2.0 Automation for easy integration with other applications. Composite documents are stored in files with the TCD (*Tessel Composite Document*) extension and can also be embedded in other documents. Composite documents currently contain references to document files but do not contain document files themselves. Composite documents are especially useful in GIS applications for seamless display of neighbouring or overlapping sections of raster and vector maps.

SuperView displays composite documents that refer to document files saved in various raster and vector formats. The full list of formats supported by SuperView can be found in *Appendix A. Supported File Formats* at the end of this manual. File names of raster and vector documents must have extensions appropriate for their formats. Several composite documents can be open in one SuperView session. You may arrange the positions and sizes of windows, as to view all or selected documents that are open in the session.

Individual documents and composite documents can be selected for viewing by entering their file names or using 'drag and drop' technique.

Document files can come from outside of the system or they can be acquired with an installed scanner. SuperView cooperates with any scanner that is compatible with the TWAIN standard.

Scanned and vector documents displayed by SuperView can be printed on any device, printer or plotter, which is controlled by an MS Windows graphics printer driver. SuperView can print to standard MS Windows drivers, drivers provided by printer/plotter vendors or drivers developed by Tessel Systems for selected raster devices.

SuperView can efficiently print documents of any size supported by given output device. The printing process is always performed using full resolution data from scanned or vector document file scaled to the demanded output size.

1.2. Program requirements

In order to use SuperView you should have:

- IBM-PC class computer with 80386 (or higher) processor (the use of 80386-SX is also possible);
- at least 3 MB of free hard disk space;
- mouse or other pointing device supported by MS Windows;
- graphics card and monitor of at least EGA or VGA capabilities;
- 4 MB of RAM;
- MS-DOS version 3.1 or higher;
- Microsoft Windows version 3.1 or higher.

1.3. Program installation and running

SuperView consists of the main program file TSLSV.EXE and several auxiliary libraries. Compressed versions of all these files and the installation program SETUP.EXE are on the installation disks. Installation procedures for both single user and network configuration are described below.

After proper installation SuperView can be run by clicking on the SuperView icon in the Tessel Software Line window or from command line (Program Manager window, File command, Run option). While running SuperView from a command line you can supply a list of full path names of document files as parameters. For example, the command line can read as follows:

```
C:\TSL\TSLSV.EXE C:\TSL\DOC\ GOTEBORG.TCD PHONE.PCX
```

where C:\TSL is the directory, in which SuperView has been installed, C:\TSL\DOC\ is the directory containing document and document files, GOTEBORG.TCD is the file name of a composite document and PHONE.PCX is the file name of a picture, which are to be loaded at start-up. When the program starts, it will open each composite document file in a separate document window. The *CmdLineParsMode* parameter in the *SuperView Settings* section in the TSLSV.INI file allows you to control how SuperView opens simple document files

in raster or vector format supplied on the command line list (see Appendix B for description of TSLSV.INI file). By default (*CmdLineParsMode=0*) SuperView opens simple document files in a separate document windows. If you set *CmdLineParsMode* parameter to 1 than all simple document files are opened in a single document window.

1.3.1. Single user installation

The installation of SuperView on a single computer (not connected to a network) is described below.

In order to install SuperView use the Run command from the File menu of Program Manager. In the command line enter the full path to the installation program SETUP.EXE, for example A:\SETUP.EXE. Clicking the *OK* button will start the installation process. You will be asked whether you want a full or a minimal installation and you will have to select the directory, in which SuperView will be installed. The default directory name is C:\TSL (if selected directory does not exist, it will be created, even with parent directories).

After successful installation all SuperView files are in the chosen directory. The list of operations performed during installation is saved in the TSLSV.LOG file in the same directory. If the full installation was selected, demo files are copied to the additional DOC subdirectory. They can be used to show program features. If these files are not needed, you may delete them together with their subdirectory. The newly created program group Tessel Software Line contains two items: SuperView and SuperView Read Me. The former is used to run SuperView and the later launches MS Windows system Notepad with a short document containing important notes about installation and using of SuperView. The text file TSLSV.INI is copied to the \WINDOWS directory. It contains option settings and default parameter values for some of SuperView commands.

1.3.2. Network installation

The installation program SETUP.EXE can also install SuperView on a network. As a result of such installation a copy of SuperView will be placed on and run from a file server. If the performance of the network is not adequate, SuperView can be installed locally on a workstation, not only from installation disks but also from the network installation.

In order to perform network administrator's installation of SuperView, select the *Run* command from the *File* menu of Program Manager. As a command line enter a full path to the SETUP.EXE file with /a parameter, for example:

```
A:\SETUP.EXE /a
```

Clicking the *OK* button will start the installation process. In this part it is similar to the single user installation, except that the installation program is also installed on the server with its necessary files.

After installation on the server, a workstation installation is also needed. As indicated earlier, there are two possibilities:

- common installation, in which only necessary SuperView environment files are copied to the workstation; common installation is invoked by the following command line:

```
X:\TSL\OFV_NET\SETUP /n
```

where X stands for network disk drive letter and TSL is sample directory in which SuperView has been installed in administrator mode;

- ordinary installation, in which all SuperView environment files are copied to the workstation; ordinary installation is invoked by the following command line:

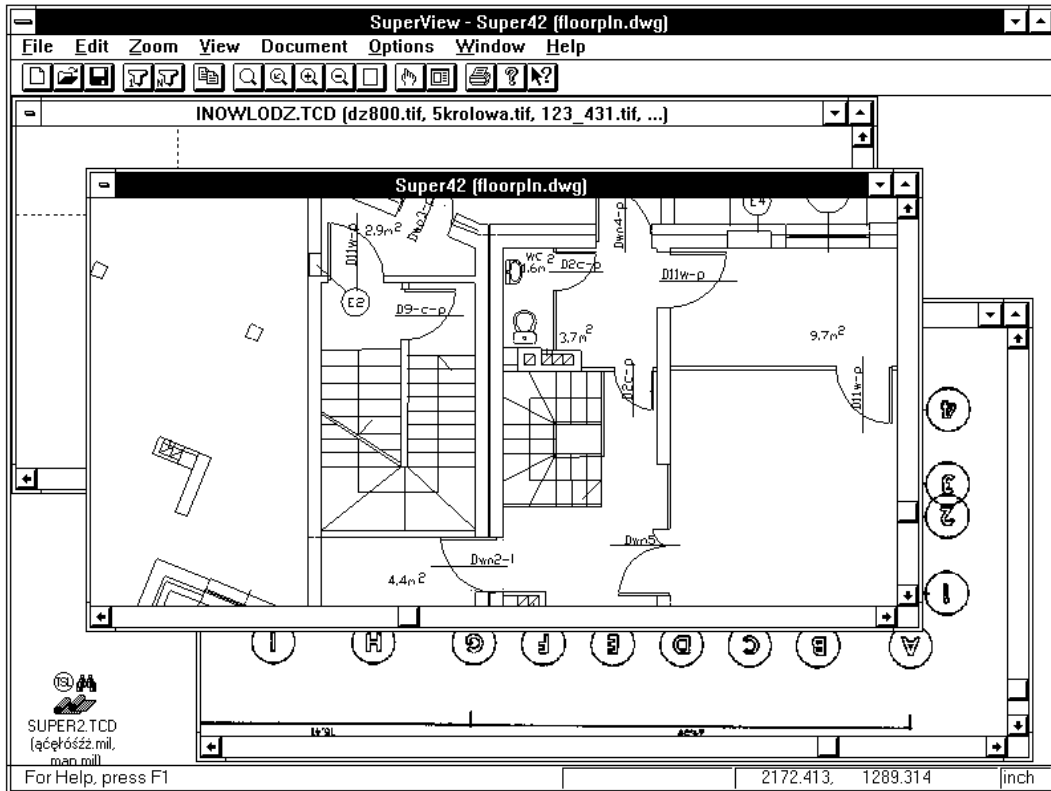
```
X:\TSL\OFV_NET\SETUP
```

where X stands for a network disk drive letter and TSL is a sample directory, in which SuperView has been installed in administrator mode.

Note: Users of common network SuperView installation must always have full access rights (for reading) in the directory, in which SuperView has been installed and in all its subdirectories. In an ordinary installation full access rights are needed only during the installation process.

1.4. Windows and menus layout

The figure below shows the SuperView program window.



The SuperView main window title bar contains not only application name but also the name of the file with the active (current) composite document, i.e. the document displayed in the active window (active window title bar is displayed in a different color). After the name of the current document there is a list of the first three component drawings of this composite document in brackets. Below there is the main menu bar with the program's menus. Each of them is an entry to a pull-down menu with a set of commands. An optional toolbar is displayed under the main menu bar and contains icons, which allow access to the most frequently used commands. Documents are displayed in the remaining place of the main window. A status bar, also optional, is displayed under window(s) with documents. It shows the information supporting the user such as messages, system Help information, selected information concerning the active document and some keyboard status information.

Each of composite documents displayed by SuperView (an open document) has its own window with scrollbars. In the caption bar of each document window, after the document name, there is a list of the first three component drawings of this composite document (in brackets). The layout of windows with documents can be changed automatically (with commands invoked from the *Window* menu) or manually according to specific user's needs. A document window can be minimized to a SuperView icon labelled with the document name. Such a document is still present on the list of open documents in the *Window* menu.

When none of documents is open, for example immediately after program start-up or after closing all of document windows, the program main menu is in shortened form with only *File*, *View*, *Options* and *Help* entries. Using them you can open document(s), configure system by attaching printer, plotter or scanner,

start acquiring document from a scanner and perform raster files format conversion. You can also disable or enable the toolbar and status bar. The *Help* command is always accessible.

When the first document is opened, the main menu is extended with new commands, so that all program functions are available. They are described in detail in the section “SuperView commands”.

1.5. SuperView as OLE server

The ability to transfer data between applications is one of the most important features of the MS Windows system. It allows, for example, to place a document created by one application inside a document in another application. *Copy* and *Paste* commands are used for transferring data between applications. The *Copy* command puts information in an appropriate format to the MS Windows Clipboard. The *Paste* command gets information from the Clipboard to another application in one of the formats supported by that application.

SuperView works as a server application, which means that it provides information, which can be pasted by other applications. SuperView allows to use any composite document in other MS Windows applications. A document can be copied to the Clipboard in one of the standard MS Windows document formats:

- Device Dependent Bitmap
- Device Independent Bitmap
- MS Windows metafile

Object Linking and Embedding (OLE) is a more advanced technology for the information transfer between applications. OLE makes it possible to create a document containing information from different applications and to modify this information without leaving that document. SuperView supports OLE 2 standard of object linking and embedding. If the object of appropriate type is in the Clipboard, it can be embedded or linked in client application using the *Paste* command. Otherwise this can be achieved using the *Insert/Object* command. “Drag and drop” is another, easy way of object embedding. Press and hold the left mouse button while in active SuperView document window, then move mouse cursor to the open window of the client application and release the button.

SuperView allows to control formats of data copied to the Clipboard. Relevant parameters in TSLSV.INI file, described in Appendix B and in section 2.2, are used for switching on and off the copying of data in different formats. Moreover, it is also possible to control the moment, in which data will be copied to the Clipboard. Document data can be copied immediately after issuing the *Copy* command or only when the data is embedded to a document in client application.

As the most advanced method of integration with other applications, SuperView provides a set of functions accessible through OLE 2.0 Automation interface. As an example, the following Microsoft applications can use OLE 2 Automation for communication with other applications: Visual Basic 3.0, MS Word 6.0, MS Excel 5.0, MS Access 2.0. A detailed description of the SuperView functionality available through OLE 2.0 Automation interface can be found in Appendix C.

For more information on data transfer between applications please read the *Integration of Applications in Windows* section in the MS Windows user's manual.

2. SuperView commands

2.1. File menu Commands

File	
N ew	
O pen...	Ctrl+O
S ave	Ctrl+S
S ave A s...	
C lose	
C onvert...	
P rint...	Ctrl+P
P rint P review	
P rint S etup...	
A cquire	▶
S elect S ource	
1 SUPER2.TCD	
2 SUPER4.TCD	
3 SUPER3.TCD	
4 W:\DEMO.CDR\WIDOW1.TCD	
E xit	

The *File* menu commands are used for selection of documents to be opened, for selection of scanner and for starting the scanning, for document printing or conversion to different raster formats, for closing the documents and for exiting the program.

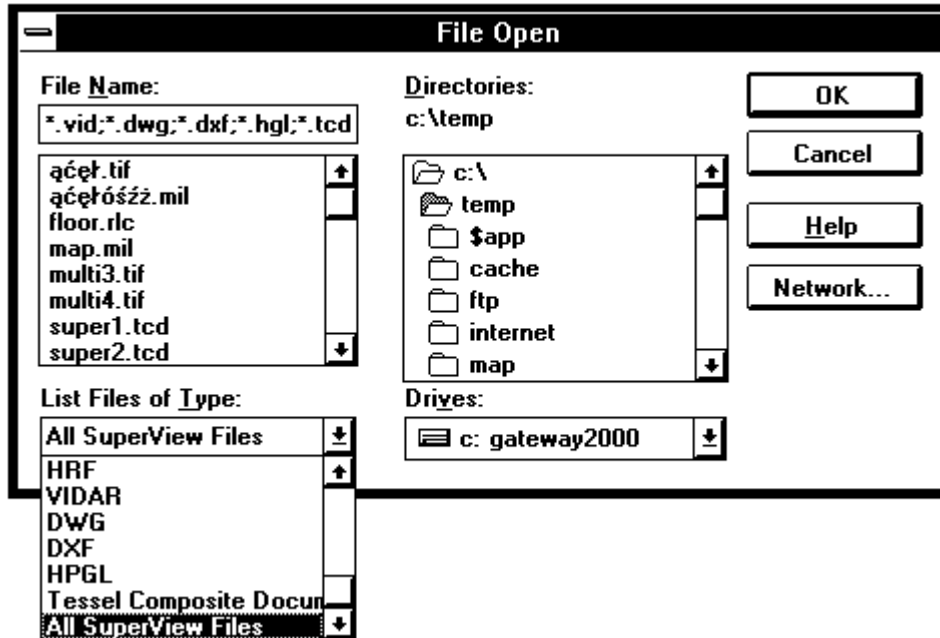
This menu also shows up to four file names of documents that were most recently used. Clicking on a name opens the selected document. Names of these files are stored in the TSLSV.INI file in the section *Recent File List*.

2.1.1. New

The *New* command is used to create a new empty composite document. Drawings can be added to such a document using the *Add Subdoc* command from the *Document* menu.

2.1.2. Open...

The *Open* command is used for selection of a composite document or a single drawing file, which is to be opened by SuperView. In the dialog box, launched by the *Open* command, you should select a needed file format type, disk drive and directory on this drive.



As a result of these selections the program will display the list of all files in the selected directory with the selected extension. Every change of the format type or of a disk and/or directory is immediately reflected in the displayed list of files. Opening of a document file from that list is done by its selection with the left mouse button click and then clicking the *OK* button; the left mouse button double click on the file name on the list is an alternative method.

When you select raster or vector drawing file for opening, SuperView creates a new composite document, which contains a single drawing just selected.

When the *Shift* or *Control* key is pressed, it is possible to select multiple file names. When the *Shift* key is pressed, you select only the first and the last of files you want to open and all the files between them on the list will also be selected. When the *Control* key is pressed, you select multiple file names by clicking on each of them separately - they do not have to be neighbours on the list. After selecting all desired file names, you click the *OK* button and all selected files are opened - each in its own window.

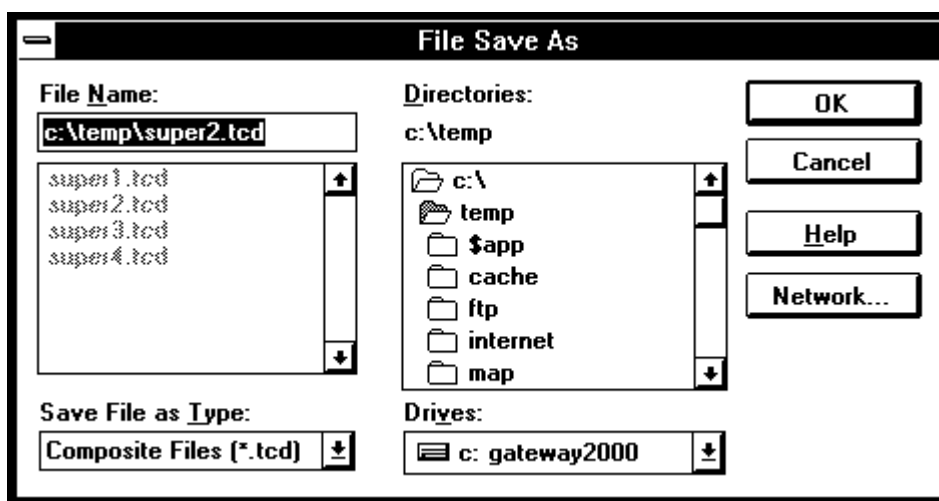
The *Open* command can be always used, i.e. you can view more than one document at any given moment. Documents are displayed in separate windows. Only one of them is active at any given moment - its title bar is displayed in a different color - and all commands apply to this document. To make another document window active, you simply click this window area. If it is invisible, you

select it from the list available in the *Window* menu. The *Window* menu is also used for document windows ordering.

2.1.3. Save

The *Save* command is used for saving the changes to the current composite document in the same file from which the document has been loaded (opened). The *Save* command is available if the current document is a new document or if it has been modified using commands from the *Document* menu.

2.1.4. Save as...



The *Save as...* command is used to save the current document in a file different from which that document has been loaded. When several documents are loaded, the *Save as...* command refers only to the active document. In the dialog box, invoked by this command, you select a disk drive and a directory on this drive. Then enter, or select from the displayed list, a file name with TCD extension. If the file with the entered name exists, the program launches additional dialog box that asks you, if you want to overwrite the existing file.

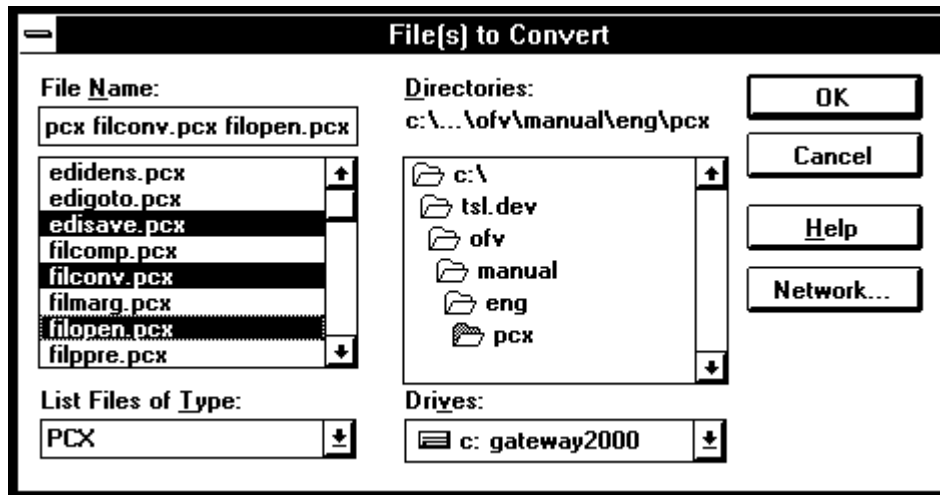
2.1.5. Close

The *Close* command is used to terminate displaying a document by closing the file with its contents. When multiple documents are open simultaneously, the command refers only to the active document. When in the course of the session the document has been modified, the user is asked to decide whether to save the changes. If positive, the document will be saved in the same file from which it has been loaded (opened).

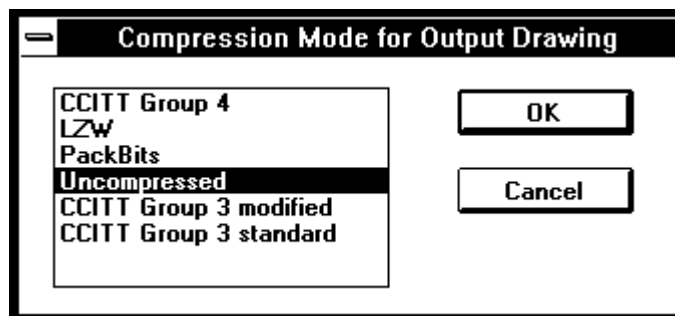
If a composite document being closed was created by opening a single raster or vector drawing and no viewport or parameter changes were made, then *Close* does

not ask for saving this document and, if it is to be saved, it must be done explicitly using the *Save As...* or *Save* command. This facilitates the viewing of single raster and vector files without creating trivial composite documents that refer to one file only.

2.1.6. Convert...



The *Convert...* command is used to create a new version of a drawing in a raster format different than the original. This command launches the dialog box named *Input File*, otherwise identical to the dialog box in the *Open* command and serving the similar purpose of the drawing file selection. The selected file in this case will not be displayed but only read in order to be converted. After the input file is selected, the analogical dialog box *Output File* appears. It allows to select a new drawing format, file name and destination (disk drive and directory). If the newly selected file format supports multiple compression modes, an additional dialog box appears for precise selection of a desired file subformat.



The list of output file formats and compression modes depends on the format of the converted (input) file. The full list of formats that are available in each case is displayed in the *File Type* list box.

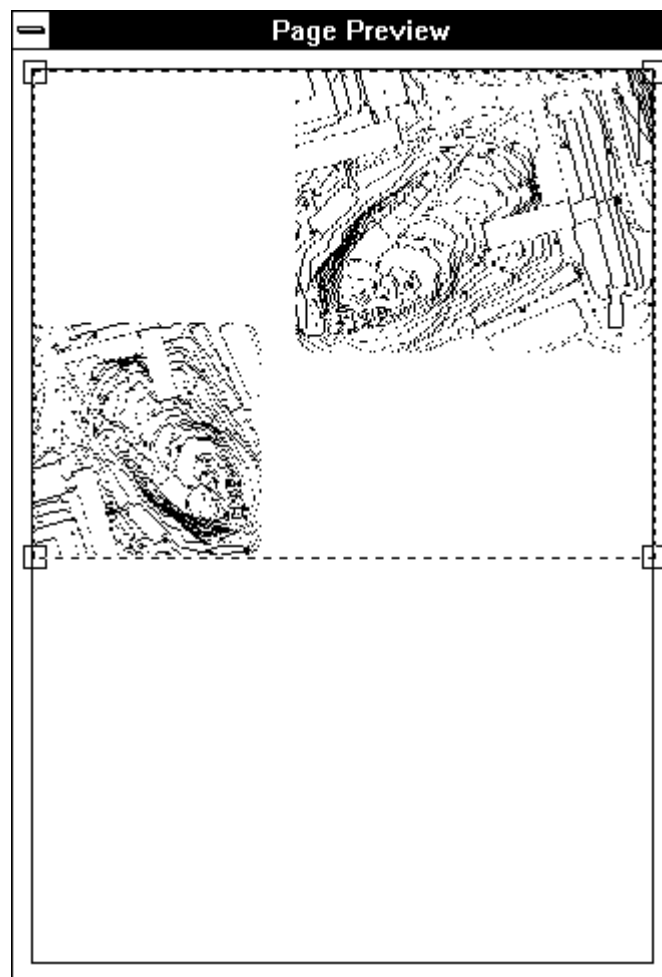
When multiple input files are selected, they are converted to a single file in one of multi-page formats (TIFF, DCX). Each page in the resulting document contains

data from the corresponding input file. You can suppress this feature and convert each input file to a separate destination file by setting the *ConvertToOneFile* parameter in the TSLSV.INI file to 0 (see Appendix B for description of TSLSV.INI file).

2.1.7. Print preview...

The *Print preview...* command in the *File* menu launches the *Print* dialog box and the *Page Preview* window. The *Print* dialog box allows setting several important print parameters and printing (see the *Print* section). The *Page Preview* window allows setting the layout of the printed document view on the displayed paper sheet.

The *Print* dialog box is described in the section *Print*.



The *Page Preview* dialog box delivers the following functions:

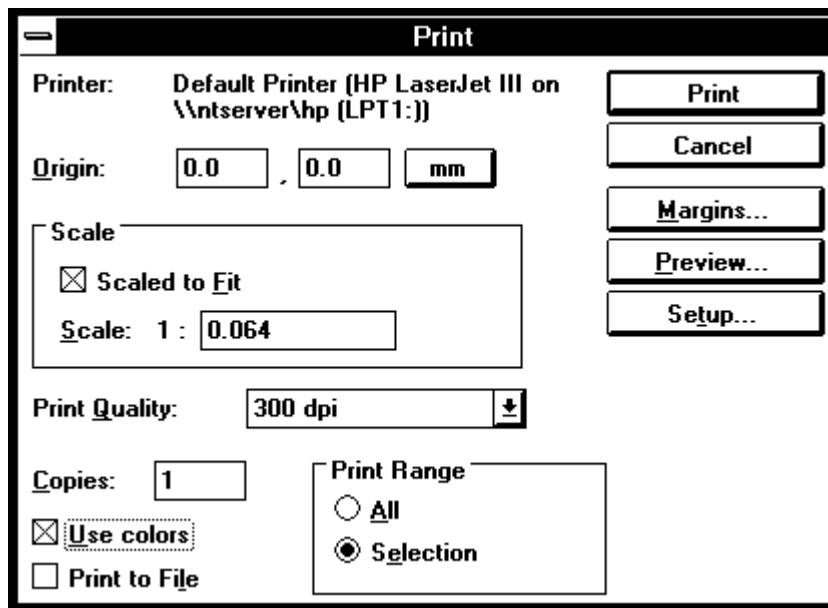
- showing the position of the document on paper;
- changing the position of the document on paper, without changing the print scale, by dragging it with the mouse (after clicking in the document area with a mouse and holding the left mouse button down you can drag the document to the desired place);

- changing the print scale by dragging the markers in the corners of the document with the mouse.

If the *Scale* parameter in the *Print* window was set to *Scaled to Fit*, then as a result of dragging, the *Scale* control becomes active and shows the scale calculated from the current parameters. When the corner markers are dragged, the value of this parameter is changing respectively to contain the value of the current print scale. Similarly the *Origin* parameter is changing, when the upper left corner of the document is moved.

2.1.8. Print

The *Print* command launches the *Print* dialog box.



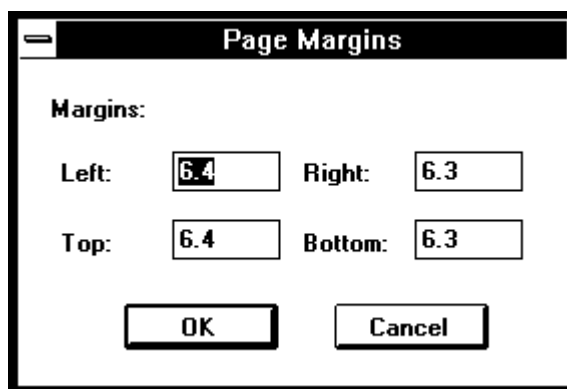
This dialog box is also launched by the *Print Preview* command. It displays the information about the output device, on which the printing is done, and current values of several print parameters. These parameters are:

- *Origin*: the coordinates of the document's start position (usually the upper left corner) on paper; they can be changed by entering desired numerical values to coordinates boxes (in inches or in millimeters) or with the mouse - dragging the document in the *Page Preview* window (see the *Print Preview* section); actual coordinates entered there define the document's start position relatively to the upper left corner of page margins (see below the description of *Margins* button and the units setting); it is possible to enter negative origin values, which are useful while placing documents larger than the printable area. Document portions outside page margins will be clipped;
- *Units* button: the label on this button is either inch or mm (pressing the button toggles the label) and defines the units in which the *Origin* parameter and the values in the *Page Margins* dialog box are expressed;

- *Scale*: parameter, which defines the factor of modification (scaling up or down) of the printed view relatively to the original document (the ratio of input dimensions - i.e. document dimensions - to output dimensions - i.e. printout dimensions); two modes of operation are available here:
 - *Fit*: the scale is automatically calculated, so that the document covers maximal area of the paper sheet;
 - *Scale*: in this mode the user enters numerically the desired scale (if a document printed with a given scale exceeds margins of the printable area, the printout is clipped accordingly); the scale can be also changed by dragging small rectangular markers displayed in the corners of the document in the *Page Preview* window.
- *Print Quality*: this parameter defines a vertical and horizontal print resolution (in dots per inch); the selection is made from the list of possible values;
- *Copies*: the number of copies to be printed;
- *Use colors*: when this option is switched off (no cross in the relevant box) a monochrome print can be done on a color printing device;
- *Print to File*: when this option is switched on (cross in the relevant box) the print-out will be directed to a file - after pressing the *Print* button, a dialog box appears, in which the name of the output file should be entered;
- *Print Range*: two modes are available:
 - *All*: the whole document will be printed - independently of the current view;
 - *Selection*: the current view of the document will be printed.

There are following buttons in the *Print* window:

- *Print*: pressing this button starts printing of the current document on the active printing device according to the parameters which are set in the *Print* window. Printing process is divided in two phases:
 1. Preparing data for the *Print Manager* program. During this phase a window *Printing.. <document name>* is displayed with two meters: the percentage of filling the internal program data buffer and the percentage of sending the data to the *Print Manager*. This progress window has also the *Cancel* button. Pressing this button cancels printing and is the only action available to the user in this phase of printing.
 2. Transferring the data from the *Print Manager* to a printer or plotter. During this phase it is already possible to work with SuperView. When the *Print Manager* is turned off (in the *Control Panel*) SuperView sends the data to a printer/plotter directly.
- *Cancel*: pressing this button closes the *Print* dialog box and reverts any changes that might have been done to the print parameters after the last opening of this dialog box;
- *Margins*: pressing this button launches the *Page Margins* dialog box. You can define the page margins values using four controls in this dialog box: *Left*, *Top*, *Right*, *Bottom*. They are represented in the same units (inches or millimeters) as the *Origin* parameter in the *Print* dialog box.



The *Origin* parameter added to the margin values (upper left corner) defines the beginning of the paper area on which the document will be printed. Margin values must be positive and greater than physical printer margins. The *Origin* parameter can be negative, but the result of adding it to the upper left corner of margins must be positive (or at least zero); in this way it is possible to use physical printer margins to crop the document to a degree; pressing the *Cancel* button restores the previous state of margin parameters;

- *Preview*: pressing this button activates the *Page Preview* dialog box (see the *Print Preview* section);
- *Setup*: pressing this button launches the *Print Setup* dialog box (see the *Print Setup* section).

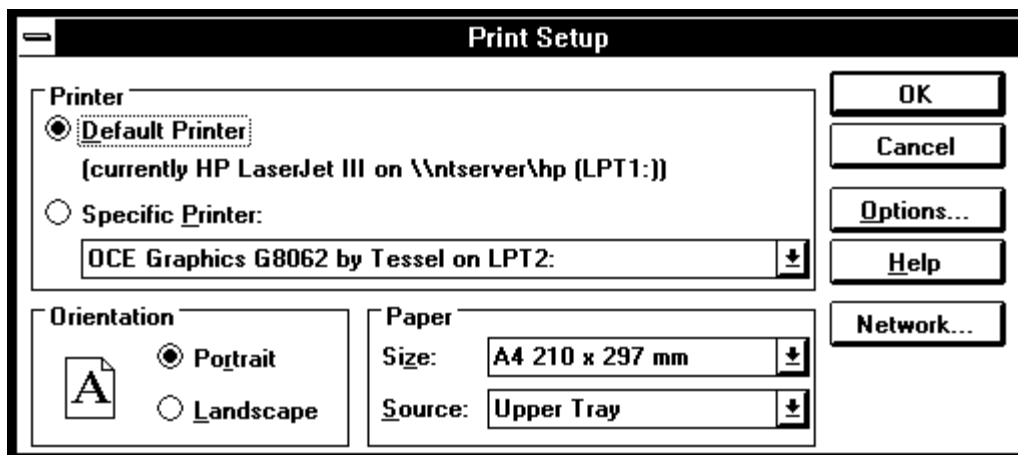
Print origin, scale (and scaling mode), margins and other print parameters remain constant until the next change. In this way the same parameter settings can be used to print many documents - using the *Print* command only.

The changes of print parameters in the *Print* dialog box are reflected in the *Page Preview* window only after moving the input focus to another control in this dialog box. Only the changes of the *Scaled to Fit* check box are reflected immediately.

Initial values of print parameters are stored between sessions in the TSLPPL section of the TSLSV.INI file (see Appendix B).

2.1.9. Print Setup...

The *Print Setup...* command launches the *Print Setup* dialog box.

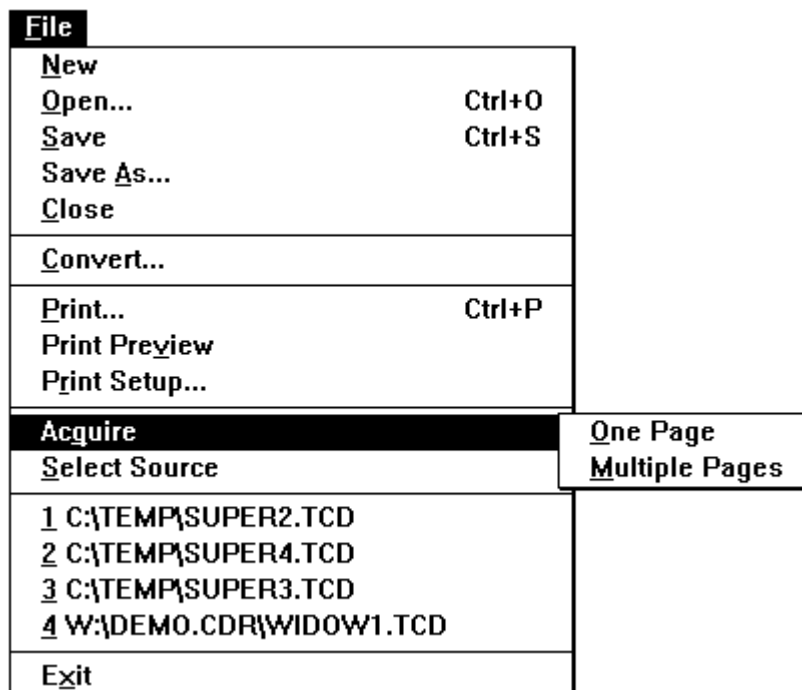


In this dialog box it is possible to:

- select the current print device from the list of available devices;
- change some printer parameters (e.g. print orientation, paper size, paper source);
- set print quality parameters in the *Options* dialog box, which is displayed after pressing the *Options* button.

New printer drivers can be added and printer to port mappings can be changed using the MS Windows system *Control Panel*.

2.1.10. Acquire



The *Acquire* command is used to start scanning of a new document. Depending on the kind of scanned document (single-page or multiple-page) one of two options can be selected:

- *One page*;

- *Multiple pages.*

Before scanning it is necessary to select a file name and a raster format of the drawing that will be created as a result of scanning. After scanning, a new composite document is created, containing a single raster file with the scanned image.

2.1.10.1. One page

This command starts scanning of a single-page document.

Depending on the type of the selected scanner it may be necessary to start scanning physically, e.g. by pressing a button on the scanner. Some scanners can start scanning automatically, others can display their proprietary window with information about scanning progress. The scanned document is then displayed in a window labelled with a temporary name, e.g. SCAN_1.

2.1.10.2. Multiple pages

This command starts scanning of a multiple-page document.

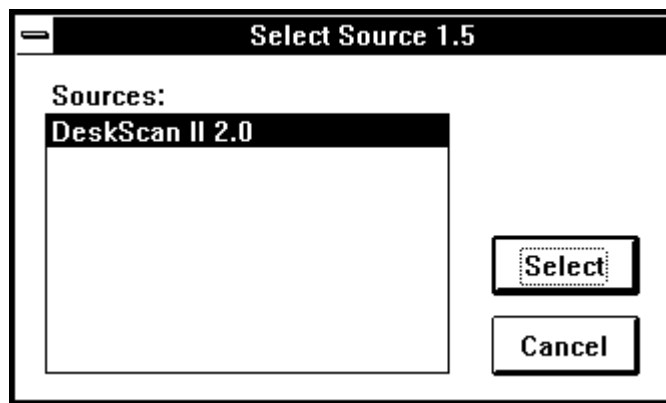
The process of multiple-page scanning is similar to the single-page scanning. After each page the dialog box appears and informs about the number of pages scanned so far. Four buttons are available (some of them can be disabled, depending on the situation):

- *Next* - confirms the last scanned page and starts scanning of the next one;
- *The Same* - repeats scanning of the last page;
- *Close* - confirms the last scanned page and stops scanning; the file will contain the number of pages as currently displayed in the dialog box;
- *Cancel* - stops scanning and discards pages scanned so far.

The first page of the scanned document is displayed in a window labelled with a temporary name, e.g. SCAN_1.

2.1.11. Select Source

The *Select Source* command is used for selection of the current scanning device (see the *Acquire* command). The *Select Source* command is relevant only when more than one scanner is installed.

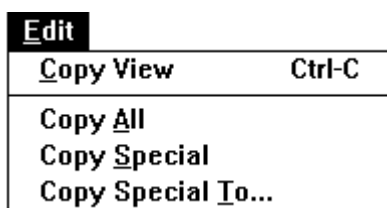


Click a name and press the *Select* button to choose a scanning device. Particular scanning parameters can be set using the *Scan Parameters* command from the *Options* menu. The list shows only TWAIN-compatible devices that have been properly installed. When the part of scanning software that is responsible for cooperation with applications that use the TWAIN standard is present, the device should appear on the list of available scanners (no additional installation on the part of SuperView is required).

2.1.12. Exit

The *Exit* command closes the SuperView application. If the user has made any changes to a document(s), he can choose to save or cancel the changes using buttons of the dialog box that appears automatically.

2.2. Edit menu commands



The commands from the *Edit* menu are used for transferring data representing the current document to the MS Windows system Clipboard or to a file in order to be used by other applications. The type of the data transferred through the Clipboard is defined by CopyEmbedded, CopyLink, CopyBitmap, CopyDIBitmap and CopyMetafile variables in the TSLSV.INI file in the TSLRVC Library Settings section. This and related copy parameters are described in Appendix B.

2.2.1. Copy View

The *Copy View* command is used to transfer the current view of the current document to the MS Windows system Clipboard. Only the currently visible part of the document is transferred in its current scale. Independently of the values of *CopyEmbedded* and *CopyLink* variables in the TSLSV.INI file, the *Copy View* command does not allow to embed or link data from the Clipboard to other applications. The copy of the document view can be prepared only in DDB bitmap, DIB bitmap and metafile formats (see section 1.5).

2.2.2. Copy All

The *Copy All* command is used to send a copy of the current document to the MS Windows system Clipboard. Basically it is used for simple interchange of documents between different MS Windows applications.

The *Copy All* command, unlike the *Copy View* command, prepares data from the whole document, no matter what the current view is. It is also possible to define sizes and resolution for preparing a copy of the document. Four variables are used for this purpose, *Width*, *Height*, *Xres* and *Yres*, all with the *ClipboardCopy* prefix defined in the TSLRVC Library Settings section of the TSLSV.INI file. All these parameters can be changed by editing this file. New values are used next time the program is run.

The default settings of variables result in making a copy of a document that is 6.67 inches wide and 5 inches high with 96 dots per inch resolution. These parameters reflect the size and resolution of a typical monitor screen. A document will be scaled in such a way that it will cover the demanded area as fully as possible. A document can be copied in every available format (embedded object, link, bitmaps and metafile).

When multiple documents are displayed, the command acts only on the current document.

2.2.3. Copy Special

The *Copy Special* command is used for sending a copy of the current document to the MS Windows system Clipboard. Basically it is used for an interchange other than simple interchange of documents between different MS Windows applications (see *Copy All*). The command also copies the whole document, no matter what the current view is, but it uses parameters defining sizes and resolution of the document copy, different than the *Copy All* command. These parameters are read from four variables, *Width*, *Height*, *Xres* and *Yres*, all with the *ClipboardCopySpec* prefix defined in the TSLRVC Library Settings section of TSLSV.INI file. All these parameters can be changed by editing this file. New values are used next time the program is run.

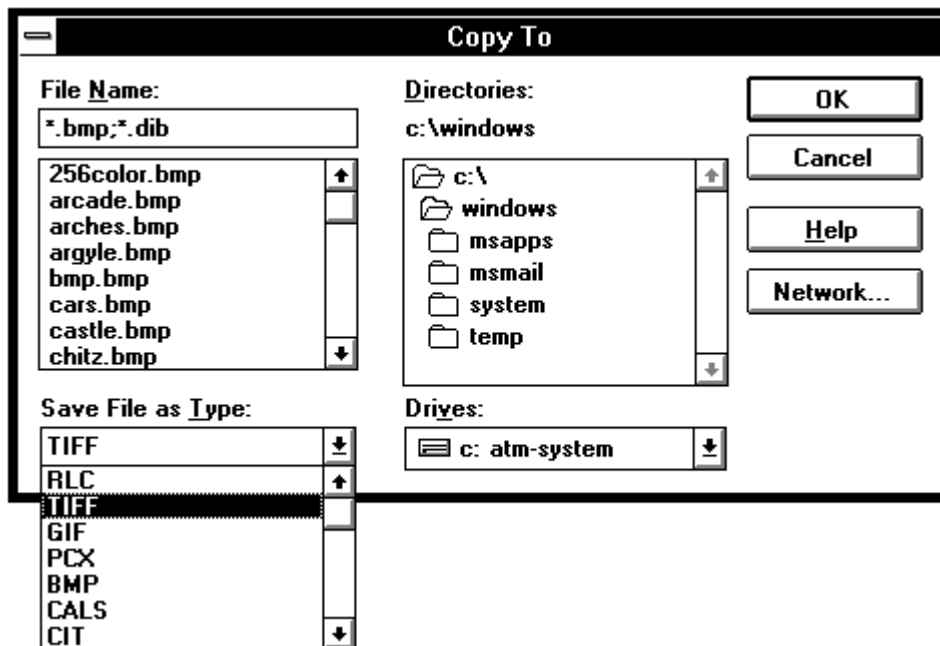
The default parameter values are prepared for 1:1 copying of documents in a typical fax format, i.e. 8 inches wide, 11 inches high, 96 dots per inch of vertical resolution and 203 dots per inch of horizontal resolution.

If the current document is greater than the demanded copy size, then it is scaled, so that it fills the requested copy size as fully as possible. A document can be copied in every available format (embedded object, link, bitmaps and metafile).

When multiple documents are displayed, the command acts only on the current document.

2.2.4. Copy Special To...

The *Copy Special To...* command is used to make a copy of a document and save it to a selected file. The width, height and resolution of created file are defined by the same parameters as in the *Copy Special* command.



The default parameters are set for copying to the A4-size page with a resolution typical for fax devices. These parameters are read from four variables, *Width*, *Height*, *Xres* and *Yres*, all with the *ClipboardCopySpec* prefix defined in the TSLRVC Library Settings section of the TSLSV.INI file. All these parameters can be changed by editing this file. New values are used next time the program is run.

Saving a document in a new file can be combined with changing of the raster format and compression mode (see the *Convert...* command from the *File* menu).

When multiple documents are displayed, the command acts only on the current document.

In the dialog box invoked by the *Copy Special To...* command you select a raster format type, a disk drive and a directory on this drive. Next, you enter a file name with an extension that is appropriate for the selected raster format type. You may type it or select it from the displayed list of files with previously chosen extension. If another file with the same name exists, the program asks you, if you want to overwrite the existing file. If the selected output file type supports multiple compression modes, you can choose a compression mode in an additional dialog box *Compression Mode for Output Document*, which opens automatically.

2.3. Zoom menu commands

Zoom	
W indow	Ctrl-W
P revious	
I n	Ctrl-N
O ut	Ctrl-T
E xtents	Ctrl-E
Scale 1:1	

The *Zoom* menu commands are used for displaying selected fragments of documents and for magnifying or lessening the current view.

For each open document SuperView keeps a full view of this document. This feature allows to execute the *Zoom - Extents* command very fast. Full view cache is also used for other zooms, unless it decreases view quality too much. The *Regenerate* command forces the full resolution redraw without using the intermediate stored view. Storing and using of the full view cache can be disabled by setting the *UseFullViewCache* parameter in the TSLSV.INI file to 0 (see Appendix B for description of the TSLSV.INI file).

2.3.1. Window

The *Zoom-Window* command allows to define any rectangular view of a document. After defining a rectangle, the raster area inside it is redisplayed according to a new scale, such that the selected area fills up the whole current document window. View expansions in one direction, if necessary, are added automatically. The *Zoom-Window* command is the default action when the user selects a rectangle in a document window, so it is not necessary to invoke this command directly to execute it - selecting a rectangle to be viewed with the mouse is enough.

2.3.2. Previous

The *Zoom-Previous* command displays the previously defined view of the current document (if such a view exists). The maximal number of remembered views is 15.

2.3.3. In

The *Zoom-In* command magnifies the current view (approximately two times) relatively to its center point. The view will present a smaller document area but will contain more details.

2.3.4. Out

The *Zoom-Out* command increases the area covered by the current view (approximately two times) relatively to its center point. The view will present a larger document area but will contain less details.

2.3.5. Extents

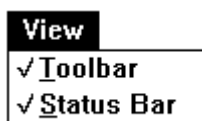
The *Zoom - Extents* command is used to display the view of the whole current document (by magnifying or lessening its view), so that it fills up possibly largest part of its full window.

2.3.6. Scale 1:1

The *Zoom - Scale 1:1* command is used to view a single drawing document on the screen in its original physical dimensions. When the current composite document contains more than one drawing, this command is not available.

In this command the vector or raster data is displayed on the screen in such a way, that one inch on the screen is equivalent to one inch on the paper document original (with maximal possible accuracy).

2.4. View menu commands



The *View* menu contains commands to activate and deactivate *Toolbar* and *Status Bar*.

2.4.1. Toolbar

The *Toolbar* command toggles the display status (visible/invisible) of the toolbar (see the *Windows and menus layout* section), which is on the top of the main SuperView window, just below the main menu bar.



If this option is switched on - what is indicated by the presence of a marker before the command name in the *View* menu - then the toolbar is displayed and through icons displayed on itself allows for fast access to the most frequently used SuperView commands. The verbal description of commands available through the toolbar is displayed on the status bar, when the left mouse button is press and held with the cursor over a toolbar icon. Switching the *Toolbar* option off by clicking on its name in the *View* menu results in disappearing of the toolbar. The next click on the option name switches the option and the toolbar on.

The list of commands invoked by the toolbar icons (from left to right):

File - New;
File - Open;
File - Save;
File - Acquire - Multiple Pages;
File - Acquire - One Page;
Edit - Copy All;
Zoom - Window;
Zoom - Previous;
Zoom - In;
Zoom - Out;
Zoom - Extents;
Document - Selecting;
Document - Composite Document;
File - Print;
Help - Contents;
Help - Search for Help on....

2.4.2. Status bar

The *Status Bar* command toggles the display state (visible/invisible) of the status bar (see the *Windows and menus layout* section), which is located at the bottom of the main SuperView window.

For Help, press F1		14818.871, 105190.181	inch
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If this option is switched on - what is indicated by the presence of a marker before the command name in the *View* menu - then the status bar is displayed, presenting in its left part the verbal description of the command currently being selected from the application menu or from the toolbar. Library procedures also display its messages on the status bar - mostly with percentages of progress of their complex operations. The *Measure Distance* command from the *Options* menu displays its results on the left side of the status bar.

There are three information windows on the right side of the status bar. They are used to display (from left to right):

- the first window is filled only in selecting state (see the description of *Document - Selecting* command) - when one component drawing is selected, its name is displayed, when two or more drawings are selected, their number is displayed (e.g.: “Sel: 2 of 4”);
- current coordinates of the mouse cursor in the world coordinate system of the composite document displayed in the current window;
- presentation units of the document displayed in the current window; mouse cursor coordinates are expressed in these units.

Switching the *Status Bar* option off by clicking on its name in the *View* menu results in disappearing of the status bar. The next click on the option name switches the option and the status bar on.

2.5. Document menu commands

Document
Composite Document...
Add subdoc Delete subdoc
Enable Disable Order ▶ Move Reset Viewport
Params... Pages...
Regenerate Selecting

The *Document* menu commands are used for composite document management. Using these commands it is possible to add and delete drawings to/from composite

document, to change the order in which they overlap one another, to change properties of individual drawings belonging to the composite document (like their position, current page or visibility status) and to change parameters of the composite document as a whole (e.g. its presentation units).

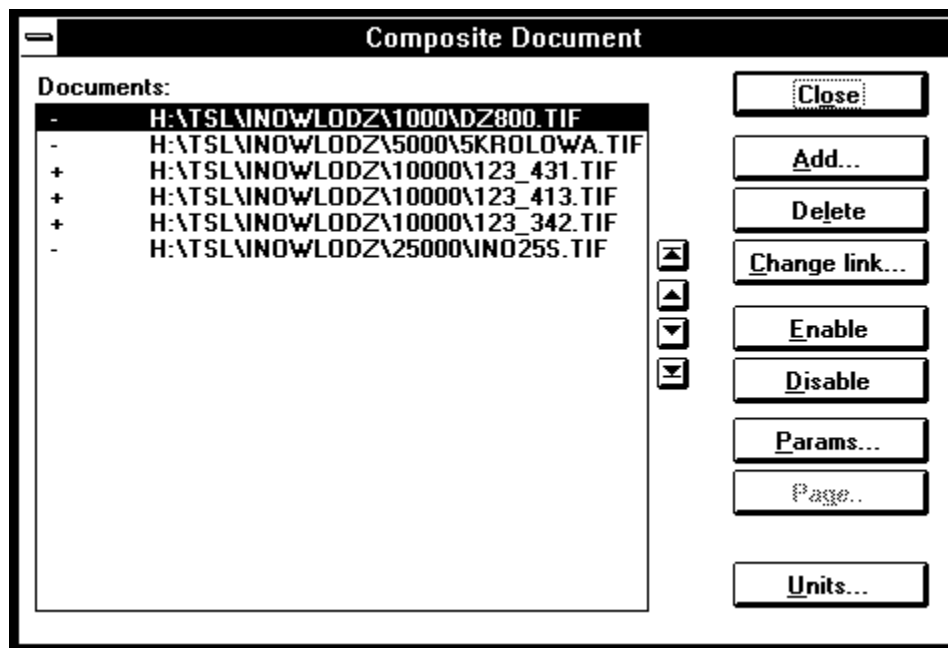
For each component drawing its visible area, called viewport, is defined. Initially (after adding the drawing to the document) it is set to full drawing extents. Viewport areas can be changed after entering the *Selecting* mode using the *Selecting* command from the *Document* menu (also available on toolbar). The *Reset Viewport* command sets the viewports of currently selected documents to their initial size (full extents of each respective drawing).

Entering the *Selecting* mode is also necessary when one of: *Enable*, *Disable*, *Change Link...*, *Copy...*, *Order*, *Move*, *Properties...*, *Undo*, *Redo* commands from the *Document* menu is to be issued, because each of these commands operates on currently selected drawings (*Change Link...*, *Copy...*, *Properties...*, *Undo*, *Redo* are active only when exactly one drawing is selected).

2.5.1. Composite Document...

Document
Composite Document...
Add subdoc Delete subdoc
Enable Disable Order ▶ Move Reset Viewport
Params... Pages...
Regenerate Selecting

The *Composite Document...* command launches the *Composite Document* dialog box. This dialog box groups together most of commands available in the *Document* menu (described in following sections). In addition to buttons for issuing these commands, the *Composite Document* dialog box displays a list of component drawings in the current composite document. Using this list it is easy to select drawings as arguments to commands that operate on specified drawings.



The *Composite Document* dialog box lists the component drawings in four columns. The first, the second and the third column show the drawing status information, and the fourth one displays drawing file names. The first column contains plus sign (+), if the corresponding drawing is enabled (visible) or minus sign (-), if the drawing is disabled (invisible). The second column can be empty or it can contain either the “N/A” text, if the drawing’s file can not be found, or the “R/O” text, if the drawing is open in the read-only mode. The third column contains “S” character, if the corresponding drawing is selected.

If the *Composite Document...* command is issued in the selecting state (see description of the *Selecting* command), currently selected drawings will be shown as selected in the dialog box list. After closing the *Composite Document* dialog box in the selecting state, drawings which were selected in the dialog box list remain selected and the other drawings are not selected. This way it is possible to perform drawing selection from the list of component drawings. This selection method is alternative to the mouse click selection method described in the *Selecting* command section below.

2.5.2. Add subdoc

The *Add subdoc* command from the *Document* menu is used to add a new component drawing to the current composite document. It launches a dialog box for selection of a drawing to be added.

2.5.3. Delete subdoc

The *Delete subdoc* command from the *Document* menu removes currently selected drawings (see the *Selecting* command) from the current composite document. Of course, it does not delete the drawing’s file.

2.5.4. Select

The *Select* command from the *Document* menu changes to *selected* the state of the drawings, which names are currently selected (printed on the dark background) on the drawing list box. The “S” character appears before the name of each indicated drawing.

2.5.5. Unselect

The *Unselect* command from the *Document* menu changes to *not selected* the state of the drawings, which names are currently selected (printed on the dark background) on the drawing list box. The “S” character disappears from before the name of each indicated drawing.

2.5.6. Change Link...

The *Change Link...* command from the *Document* menu is used to enter the new location of selected composite document element. It is especially useful when the previous drawing location is not valid (indicated by “N/A” on the list of component drawings). It can be issued only when exactly one drawing is selected.

2.5.7. Copy...

The *Copy...* command from the *Document* menu is active only when exactly one drawing is selected. It copies component drawing (with its associated parameter file, if one exists) to the location specified by the user with *Copy...* dialog box. The new drawing created this way reflects current edition state of the source drawing.

2.5.8. Enable

The *Enable* command from the *Document* menu turns the currently selected drawings visible (see the *Selecting* command).

2.5.9. Disable

The *Disable* command from the *Document* menu turns the currently selected drawings invisible (see the *Selecting* command).

2.5.10. Order

Document	
Composite Document...	
Add subdoc Delete subdoc	
Enable Disable	
Order	Bring to front
Move Reset Viewport	Send to back Bring forward Send backward
Params...	
Pages...	
Regenerate ✓ Selecting	

The *Order* command from the *Document* menu allows to control the order in which component drawings overlap one another, when the composite document is displayed or printed. The *Order* command has four subcommands described below. Each of them moves selected drawings (see *Selecting* command) on the composite document's drawing list.

2.5.10.1. Bring to front

The *Bring to front* command moves selected drawings (see the *Selecting* command) to the front end of the composite document's drawing list, i.e. makes them cover the other drawings.

2.5.10.2. Send to back

The *Send to back* command moves selected drawings (see the *Selecting* command) to the back end of composite document's drawing list, i.e. puts them under the other drawings.

2.5.10.3. Bring forward

The *Bring forward* command moves selected drawings (see the *Selecting* command) one step in the front direction on the composite document's drawing list, i.e. makes them cover the drawing which preceded them immediately on the composite document's drawing list. Issuing the *Bring forward* command sufficient number of times is equivalent to issuing the *Bring to front* command one time.

2.5.10.4. Send backward

The *Send backward* command moves selected drawings (see the *Selecting* command) one step in the back direction on the composite document's drawing list, i.e. puts them under the drawing which followed them immediately on composite document drawing's list. Issuing the *Send backward* command sufficient number of times is equivalent to issuing the *Send to back* command one time.

2.5.11. Move

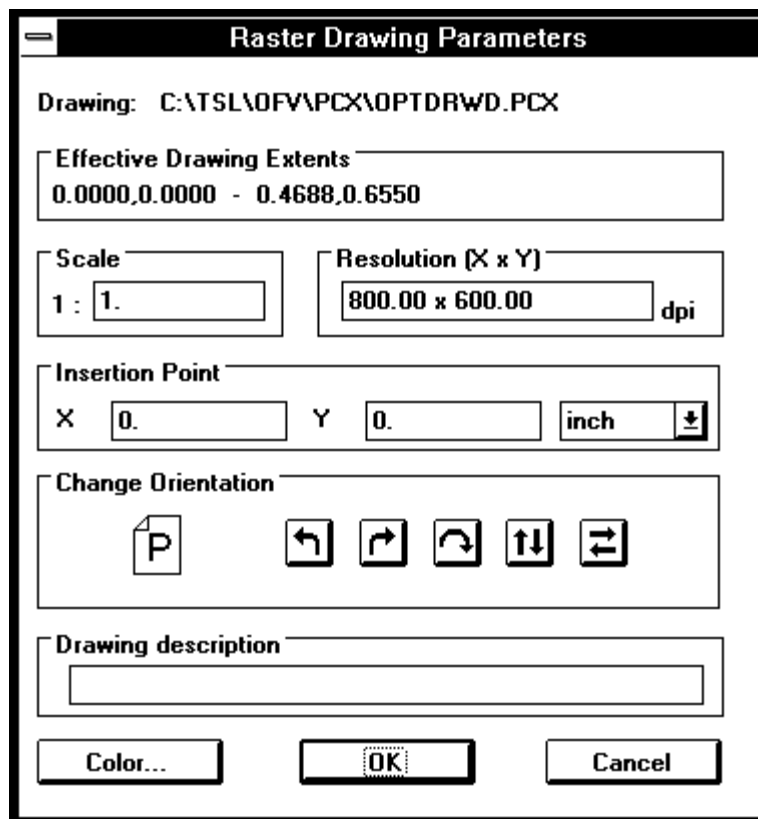
The *Move* command from the *Document* menu allows to change the position of the selected drawing (see the *Selecting* command) in the composite document world coordinate system. After selecting one drawing and issuing the *Move* command, click the point (within the selected drawing) to be moved and then click at the place that you want the first point to be moved to. The viewport (i.e. visible area) of the drawing being moved is moved with it as well. This way the same area of the drawing remains visible.

2.5.12. Reset Viewport

The *Reset Viewport* command from the *Document* menu resets the viewports of currently selected documents to their initial sizes (full extents of each respective drawing).

2.5.13. Properties...

The *Properties...* command from the *Document* menu is active only when exactly one drawing is selected. This command launches the *Raster Drawing Parameters* dialog box (or *Vector Drawing Parameters*, depending on the current drawing type), which allows to edit technical parameters of the selected drawing.

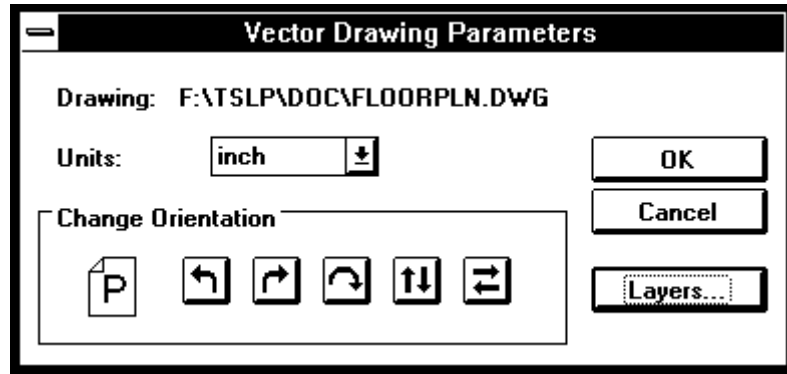


The *Raster Drawing Parameters* dialog box is a tabbed dialog. It can have from one up to three pages. The page titled *Parameters* is always present. The page titled *Pages* is present only when properties of multipage raster drawing are shown. The page titled *Colors* is present only when at least one drawing page is monochrome. On the *Parameters* page you can set the following:

- *Effective Drawing Extents* - values calculated from the other parameters;
- *Scale* - it is possible to set the nominal scale of the document;
- *Resolution X x Y* - it is possible to set the nominal horizontal and vertical resolutions of the bitmap in dots per inch;
- *Insertion Point* - it is possible to enter the insertion point coordinates, i.e. world coordinates of the bottom left corner of the drawing;
- *Units* - list box allowing to select units for the insertion point;
- *Change orientation* - it is possible to rotate the view of the drawing left, right, by 180 degrees or perform vertical or horizontal mirroring of the view;
- *Color* - pressing this button launches the *Raster Color* dialog box; color can be defined only for monochromatic raster drawings;
- *Drawing Description* - it is possible to add textual document description.

On the *Pages* page you can select the current page of multipage raster drawing.

On the *Colors* page you can select color of monochrome raster drawing.



Vector Drawing Parameters dialog box is a tabbed dialog. It has two pages: *Parameters* and *Layers*. On the *Parameters* page you can set the following parameters:

- *Units* - list box allowing to select units for the vector drawing;
- *Change orientation* - it is possible to rotate the view of specified drawing left, right, by 180 degrees or perform vertical or horizontal mirroring of the view;

On the *Layers* page it is possible to enable or disable displaying of particular layer of the vector drawing.

In the *Change Orientation* group of both drawing parameter dialogs there are icons with arrows describing available orientation changes. To make orientation changes even simpler there is also an icon with the *P* character. After entering the *Drawing Parameters* dialog box this icon shows the *P* character in normal orientation. After pressing any of buttons with arrows, the *P* character rotates accordingly, thus showing how drawing will be rotated when the *OK* button is pressed.

The values of drawing parameters are saved in the drawing file, if the drawing format allows for it, and in an additional parameter file with the same name as drawing file name but with TAF extension (see Appendix D for description of the TAF file format). The additional file is located in the same disk directory as the drawing file. The additional parameter file is necessary, because not every parameter can be saved in the original drawing file. Some drawing file formats allow to store more parameters than other formats. Parameters saved in the original drawing file override parameters saved in its additional parameter file. Creation and reading of parameter files can be controlled using the *BRAOpenOptions* parameter in the TSLSV.INI file (see Appendix B for description of the TSLSV.INI file).

The parameter values are read from the drawing file and possibly from its parameter file. All of them can be changed, except for *Drawing Extents* that are calculated from other parameters. When any parameter has been changed, the drawing is considered changed, and SuperView asks the user for saving changes in a file, when it is about to be closed.

2.5.14. Undo

The *Undo* command from the *Document* menu is active only when exactly one drawing is selected and if the changes have been made to its parameters since its opening or the most recent saving. The *Undo* command cancels the changes made in the last step of edition. If there have been several steps of edition, the *Undo* command can be issued several times, moving one step backward each time. One step of edition is the set of parameter changes made between opening *Raster/Vector Drawing Parameters* dialog box and closing it.

2.5.15. Redo

The *Redo* command from the *Document* menu is active only when exactly one drawing is selected and if the changes have been made and then undone (with the *Undo* command) to its parameters since its opening or the most recent saving. The *Redo* command repeats the changes undone in the last *Undo* command. If the *Undo* command has been issued several times, the *Redo* command can be issued the same number of times, moving one step forward each time. One step of edition is the set of parameter changes made between opening *Raster/Vector Drawing Parameters* dialog box and closing it.

2.5.16. Regenerate

SuperView is performance-optimized for viewing large raster and vector documents. For each open document it keeps a full view of this document. This feature allows to execute the *Zoom-Extents* command very fast. In some situations, however, the use of full view cache can somewhat decrease the quality of document display. In this case the user can issue the *Regenerate* command which forces full resolution redraw without using the stored view. Storing and using of full view cache can be disabled by setting the *UseFullViewCache* parameter in the TSLSV.INI file to 0 (see Appendix B for description of the TSLSV.INI file).

2.5.17. Selecting

The *Selecting* command from the *Document* menu toggles (switches back and forth) SuperView between the *normal* and *selecting* states.

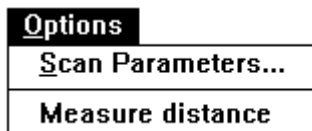
In the *normal* state, pressing the left mouse button and dragging (moving mouse while button is pressed) mouse in the document window is used to enter a zoom window which will be shown after the button is released (automatic issue of the *Zoom-Window* command).

In the *selecting* state, the interpretation of the window entered by pressing and dragging the mouse is different. This interpretation depends on two factors: the state of the *Shift* key during the window input and the direction of mouse dragging (from left to right or from right to left). If the mouse was dragged from left to right, only those drawings, which lie completely inside the entered window are selected (or deselected). If the mouse was dragged from right to left, drawings with extents intersecting the entered window are selected (or deselected). If the *Shift* key was released during mouse action, relevant drawings are selected and remaining drawings are deselected. If the *Shift* key was pressed, the selection state of relevant drawings is changed (selected are deselected and deselected are selected).

It is also possible to select and deselect component drawings just clicking with a mouse on the document area. Also here the state of *Control* and *Shift* keys is important. If the *Control* key was pressed, all drawings clicked on are selected, but if the *Control* key was released, only one of drawings clicked on is selected. While choosing drawing(s) to be selected, first the viewports are taken into account, but if there is no viewport at the mouse click point, full drawing extents areas are taken. Exactly as while selecting with window (described in the above paragraph), pressing the *Shift* key indicates, that the selection state of relevant drawings is to be changed (selected are deselected and deselected are selected). If the *Shift* key was released during the mouse click, relevant drawings are selected and remaining drawings are deselected.

For each component drawing its visible area, called viewport, is defined. Initially (after adding the drawing to the composite document) it is set to full drawing extents. A viewport can be resized by selecting relevant drawing and dragging small black rectangles (called trackers) that appear in the corners and in the middles of edges of the selected drawing's viewport. A viewport can be moved by selecting the relevant drawing and dragging its viewport window. The *Reset Viewport* command from the *Document* menu resets the viewports of currently selected documents to their initial sizes (full extents of each respective drawing).

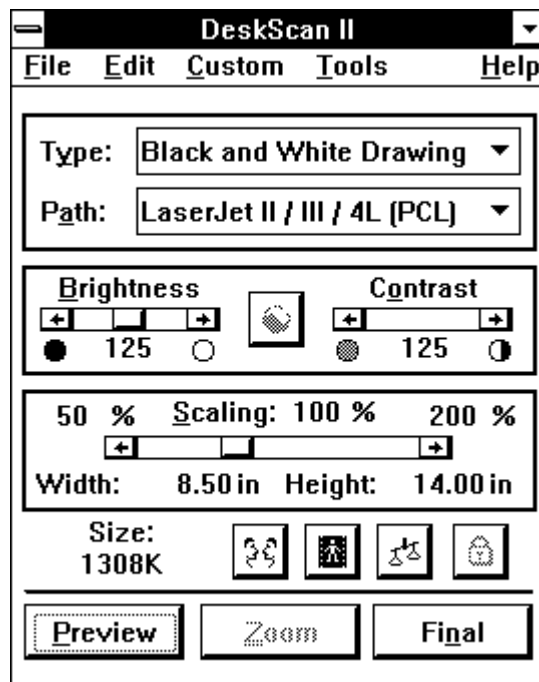
2.6. Options menu commands



The *Options* menu commands can be used to set some parameters of the current scanner and to measure distance (in the real world units) between points of the current document.

2.6.1. Scan Parameters...

The *Scan Parameters...* command launches a dialog box which allows to set technical parameters of the scanning process. This dialog box depends on the current scanner type and is displayed and managed by its driver. The parameters are specific for the particular type of the scanner that is currently used. After setting parameter values one must initialize the scanning process.

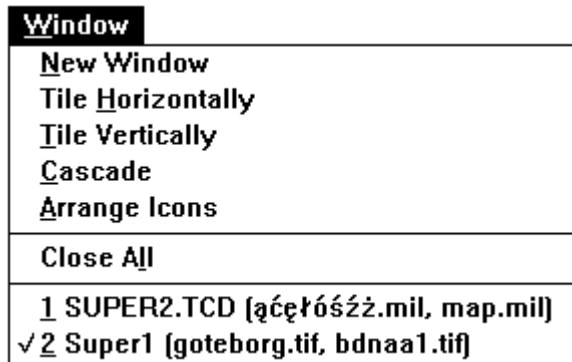


NOTE: Saving the parameter values is done during scanning. That is why in order to save parameters, one must perform “dummy” scanning - it is not enough just to set parameters up.

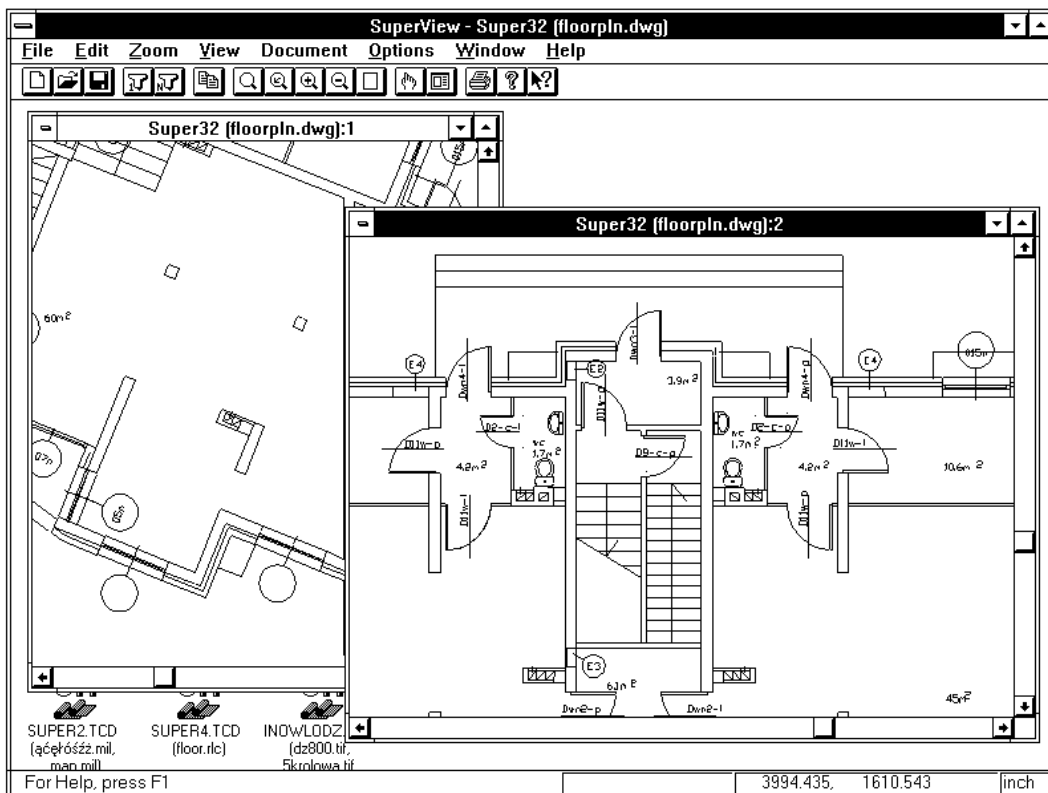
2.6.2. Measure distance

The *Measure distance* command expects you to click the mouse left button at two points of the current document area. It then displays the real world (not paper document) distance between these points on the left side of the status bar (see also the *Status Bar* command).

2.7. Window menu commands



The purpose of the *Window* menu commands is to change the layout of open document windows. The third part of this menu displays a list of open document names. These names are equivalent to document window names, which allows to select a new current (active) window. This is necessary, since the required window may be completely covered by other windows. The current window is marked in the menu with a check marker.



2.7.1. New Window

The *New Window* command opens a new window with the current document. The next ordinal number of the window (opened with the same composite

document as the previous current window) is displayed on the title bar of this window to the right of the file name(s).

2.7.2. Tile Horizontally

When more than one document window is open, the *Tile Horizontally* command divides the whole SuperView main window between all equally sized document windows. When just one document is open, its window is expanded to fill the entire SuperView main window.

As a result of this command, open document windows are arranged in such a way, that each is visible and does not overlap with any of the other windows and the neighbouring windows have common horizontal borders.

2.7.3. Tile Vertically

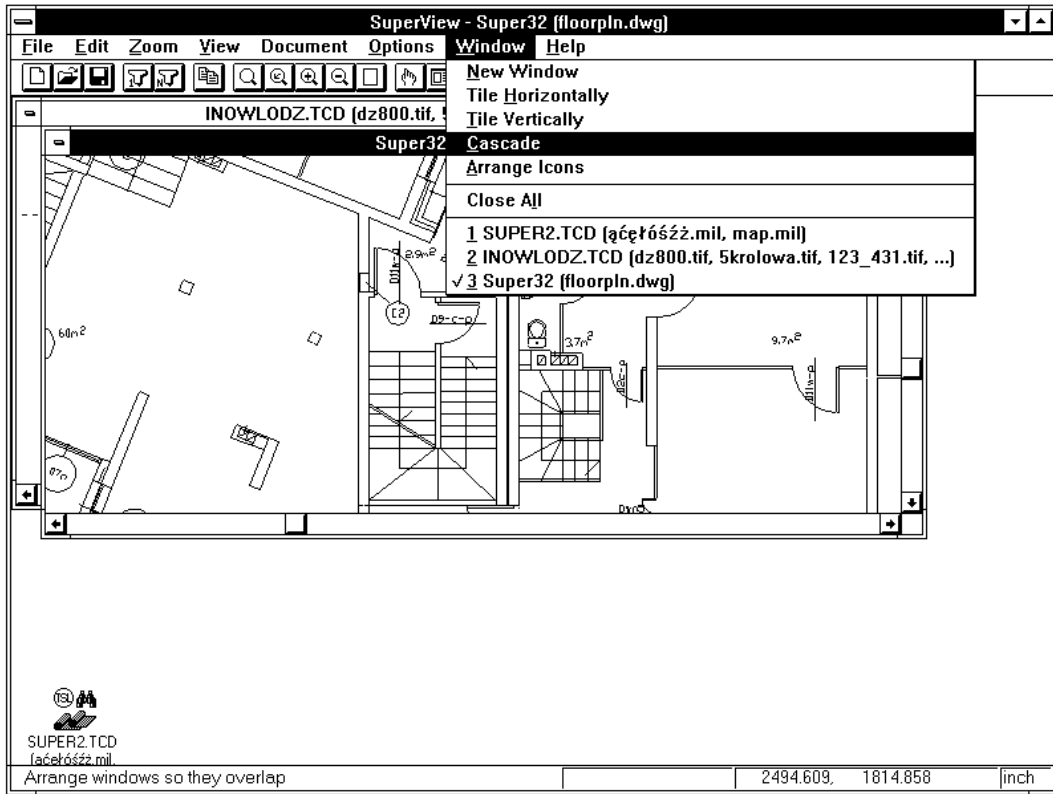
When more than one document window is open, the *Tile Vertically* command divides the whole SuperView main window between all equally sized document windows. When just one document is open, its window is expanded to fill the entire SuperView main window.

As a result of this command, open document windows are arranged in such a way, that each is visible and does not overlap with any of the other windows and the neighbouring windows have common vertical borders.

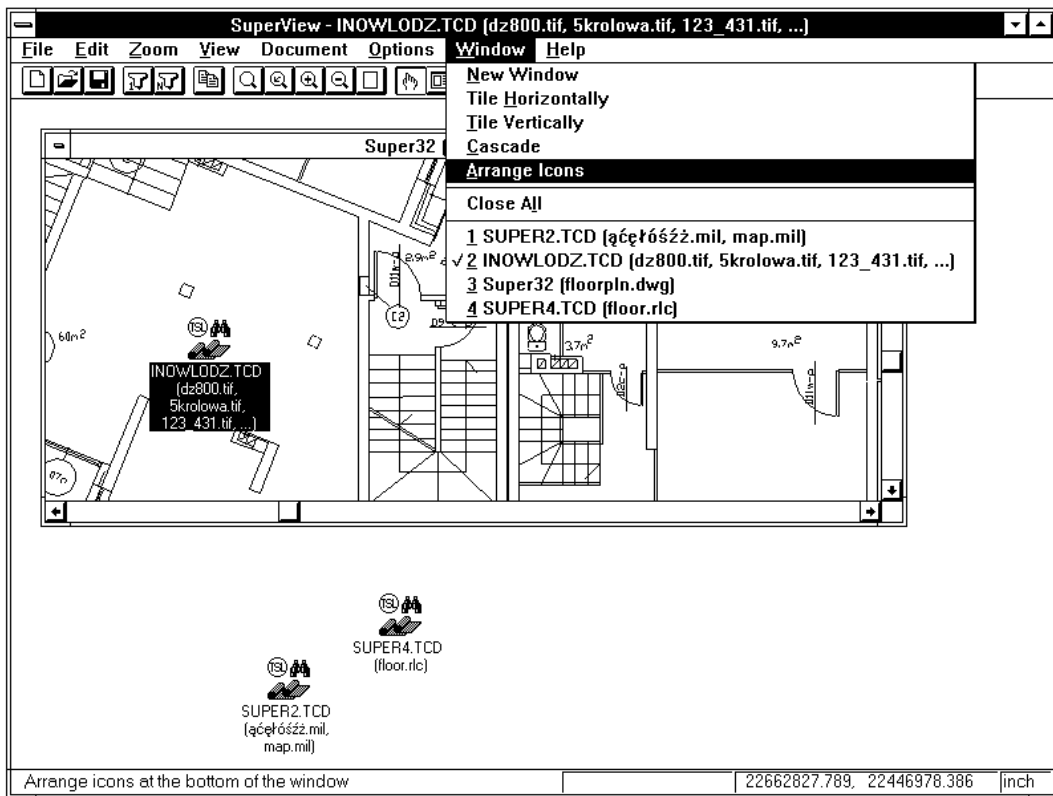
2.7.4. Cascade

When more than one document window is open, the *Cascade* command arranges open document windows on the main SuperView window in such a way, that they overlap and form a kind of stack but each is shifted a little, so that their title bars are visible. The current document window remains active and is put on the top of the stack of document windows.

When just one document is open, its window is expanded to fill the entire SuperView main window.



2.7.5. Arrange Icons



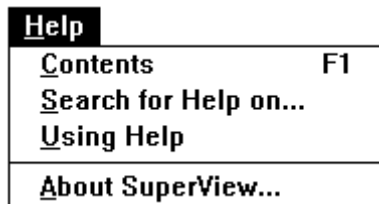
Every document window can be minimized to a form of a SuperView icon labelled with a document name. The names of minimized windows (documents) remain present on the list of open documents in the *Window* menu.

These icons can be dragged with the mouse one by one to a new place. The *Arrange Icons* command changes the placement of this icons. It puts them in a row(s) at the bottom of the main SuperView window. When you double click with a mouse on a document icon or click on a document name on the list in the *Window* menu, the selected document window opens again at the previous place and size. The *Arrange Icons* command does not move open windows, so they may overlap the area, where document icons are placed. In such a situation you can uncover the icons by resizing the windows manually or with the *Cascade* command.

2.7.6. Close All

The *Close All* command closes all open document windows and is particularly useful when many documents are simultaneously open in one session.

2.8. Help menu commands



2.8.1. Contents

The *Contents* command displays the help file index which contains items described in the help file. To see an item description, click this item on the list.

2.8.2. Search for Help on...

The *Search for Help on...* command is an efficient method of searching for necessary help information. The command activates the *Search* dialog. You can enter the phrase you search for help on or select it from the list. When you start writing the phrase to the edit box, the list will show you the phrases that are similar to what you have entered so far. After selecting a phrase, you press the *Show Topics* button that will display the list of topics with information on the selected phrase. Next you select a topic and press the *Go To* button to have the desired information displayed.

2.8.3. Using Help

The *Using Help* command displays information about using the SuperView help system.

2.8.4. About SuperView...

The *About SuperView...* command displays the SuperView serial number and copyright information.

3. Appendices

A. Supported file formats

SuperView supports viewing, converting and printing documents in the following formats:

Format	Format description	Supported compression modes	Extensions	Color	Multiple pages
RLC	Run Length Code		RLC		
TIFF	Tagged Image File Format	Uncompressed, PackBits LZW CCITT Group 3 Standard CCITT Group 3 Modified CCITT Group 4	TIF	√ √ √	√ √ √ √ √
GIF	CompuServe format		GIF	√	
PCX	Paintbrush format			√	
BMP RLE	Windows bitmap	Uncompressed, RLE4, RLE8	BMP DIB	√ √	
DMI			DMI		
ITI			ITI		
CALS			GP4 GC4 CAL MIL		
VIDAR		Uncompressed CCITT Group 3 Standard CCITT Group 3 Modified CCITT Group 4 Vidar RLE	VIM,VID		
DCX	Fax format		DCX		√
CIT	Intergraph G4		CIT		
RLE	Intergraph RLE		RLE		
IG4	CAD-Overlay	Group 4	IG4		
DWG	AutoDesk		DWG	√	
DXF	Standard vector format		DXF	√	
HPGL	Hewlett-Packard		HGL	√	

B. TSLSV.INI file

The TSLSV.INI text file is copied to the C:\WINDOWS directory during the single user installation or to the user directory during the network installation. It is used to store various SuperView control parameters. Some of them may be changed by SuperView commands, others can be changed only by editing the file.

File line syntax: *<Parameter_name>=<value>*

Comment line syntax: [*<comment>*]

Binary values of some parameters are coded as *0* or *1*, which means *switched off* or *on* respectively.

The list of parameters in the TSLSV.INI file:

[SuperView Settings] section:

- **CmdLineParsMode**
binary value; this parameter controls how SuperView opens simple document files (in raster or vector format) supplied on the command line list (see section 1.3):
0 - each simple document file is opened in separate document window (SuperView default); 1 - all simple document files from command line are opened in single document window ;

[TSLRVC Library Settings] section:

- **LastSaveDir**
path name to the disk directory of the most recently open file;
- **LastSaveFilter**
file format code number of the most recently open file (this parameter must not be changed);
- **LastSaveSubFormat**
file compression mode code number of the most recently open file (this parameter must not be changed);
- **ViewBitmapWidth** (*parameter for later use*)
view bitmap width in pixels
- **ViewBitmapHeight** (*parameter for later use*)
view bitmap height in pixels;
- **ClipboardCopyWidth**
width of document copy in inches for the *Copy All* command;
- **ClipboardCopyHeight**
height of document copy in inches for the *Copy All* command;
- **ClipboardCopyXRes**
horizontal resolution of document copy for the *Copy All* command;
- **ClipboardCopyYRes**
vertical resolution of document copy for the *Copy All* command;

- **ClipboardCopySpecWidth**
width of document copy in inches for the *Copy Special* and *Copy Special To...* commands;
- **ClipboardCopySpecHeight**
height of document copy in inches for the *Copy Special* and *Copy Special To...* commands;
- **ClipboardCopySpecXRes**
horizontal resolution of document copy for the *Copy Special* and *Copy Special To...* commands;
- **ClipboardCopySpecYRes**
vertical resolution of document copy for the *Copy Special* and *Copy Special To...* commands;
- **DelayedClipboardRendering**
binary value; immediate or delayed data rendering for data transfer through the Clipboard;
- **CopyEmbedded**
binary value; copying data in the embedded object format to the Clipboard;
- **CopyLink**
copying data in the link to a linked object format to the Clipboard;
- **CopyBitmap**
copying data in the Device Dependent Bitmap format to the Clipboard;
- **CopyDIBitmap**
copying data in the Device Independent Bitmap format to the Clipboard;
- **CopyMetafile**
copying data in the MS Windows system metafile format to the Clipboard;
- **BRAOpenOptions**
decimal (without prefix) or hexadecimal (prefixed with 0x) number; used for control of document parameter files; zero or sum of some of the following values:
 - 0x0200 - read document parameters from RLD file (can be used for backward compatibility);
 - 0x0800 - read document parameters from TAF file;
 - 0x1000 - do not save document parameters to RLD file;
 - 0x2000 - do not save document parameters to TAF file;For example, setting this parameter to 0x1A00 (which is a sum of 0x1000, 0x0800 and 0x0200) means: “read and write TAF file; read RLD file”. This is the default SuperView behaviour.
- **DefXRes**
default raster drawing horizontal resolution;
- **DefYRes**
default raster drawing vertical resolution;
- **MaximizeApplication**
binary value; setting it to 1 causes SuperView to cover the full screen when opened;
- **MaximizeView**
binary value; setting it to 1 causes open document window to cover the whole SuperView main window when opened;

- **UseFullViewCache**
binary value; setting it to 0 disables creation and use of full view cache (see also the description of the *Regenerate* command);
- **CopyToOneFile**
binary value; setting it to 0 disables creation multi-page destination file while converting multiple input files;
- **ShowTwainInterface**
binary value; activates a scanner interface;

[TSLPPL Library Settings] section:

- **FitToPage**
binary value; causes such calculation of print scale, that a document covers maximal area of paper page;
- **PrintColors**
binary value; enables color printing;
- **MetricUnits**
binary value; when set to 1, print margins and origin are expressed in millimeters, otherwise in inches;
- **PrintingScale**
real number representing printing scale;
- **XOffset**
horizontal distance between the upper left corner of the document area on paper and the upper left corner of page margins; if negative, then a part of the document lies within the left margin area and is not printed;
- **YOffset**
vertical distance between the upper left corner of the document area on paper and the upper left corner of page margins; if negative, then a part of the document lies within the upper margin area and is not printed;
- **Selection**
binary value; when set to 1, the whole document is printed, otherwise its current view only;
- **BufferSize24**
the size (in kilobytes) of internal SuperView buffer used for printing of 24-bits-per-pixel color documents;
- **BufferSize**
the size (in kilobytes) of internal SuperView buffer used for printing of color documents (except for 24-bits-per-pixel color documents);

[Recent File List] section:

- The entries in this section specify the names of 4 documents most recently opened by SuperView.

C. TAF parameter file

Each drawing file can have a parameter file associated with it, where drawing's technical parameters are stored. It is especially useful to store parameters that can not be stored in the drawing file itself due to its format limitations. Some drawing file formats allow to store more parameters than others. The values of drawing parameters are saved in the drawing file, if the drawing format allows for it, and in additional parameter file with the same name as the drawing file name but with TAF (*Tessel Attributes File*) extension. The TAF file is located in the same disk directory as the drawing file. Parameters saved in the original drawing file override parameters saved in the additional parameter file. Creating and using of parameter files can be disabled using the *BRAOpenOptions* parameter in the TSLSV.INI file (see Appendix B).

A TAF file is a text file formatted in sections (like INI files). If the drawing file is a multipage raster file, each section describes a separate page. The first page is described with the [RasterDrawingParams] section, the second page is described with the [RasterDrawingParams.1] section and so on. Parameters of a drawing file in one of vector formats (DWG, DXF or HPGL) are specified in the [VectorDrawingParams] section. Thus it is possible to have two drawing files with the same file name and different file name extensions in one disk directory: one in raster format and one in vector format and to use common TAF file for them. Their parameters are located in different sections of TAF file. Vector drawings use only two parameters: *Units* and *Orientation*.

Section name line syntax: [*<section_name>*]

Parameter line syntax: *<Parameter_name>=< Parameter_value>*

Parameters description:

Units - code number of units used to define the insertion point of the drawing;
one of the following values:

- 1 - inch
- 2 - foot
- 3 - yard
- 4 - mile
- 5 - millimeter
- 6 - centimeter
- 7 - meter
- 8 - kilometer

Color - color number from the AutoCAD palette (for monochrome raster drawings only)

Orientation - drawing orientation. Defined in the raster terms (lines and columns of pixels) but maintaining analogical meaning also for vector drawings. Orientation can have one of the following values:

- 1 - first line at the top, first column at the left side
- 2 - first line at the top, first column at the right side
- 3 - first line at the bottom, first column at the right side
- 4 - first line at the bottom, first column at the left side
- 5 - first line at the left side, first column at the top
- 6 - first line at the right side, first column at the top
- 7 - first line at the right side, first column at the bottom
- 8 - first line at the left side, first column at the bottom

XInsertionPoint - X coordinate of the lower left corner of the drawing;

YInsertionPoint - Y coordinate of the lower left corner of the drawing;

XScale - horizontal scale of the drawing;

YScale - vertical scale of the drawing;

XResolution - drawing's horizontal resolution;

YResolution - drawing's vertical resolution;

Length - the number of pixels in single raster line;

Width - the number of raster lines;

Comment - drawing's description or a remark text.

D. Programming SuperView with OLE 2 Automation

SuperView can be programmed by external applications using OLE 2.0 Automation. SuperView implements nine types of programmable objects. It is possible to charge SuperView with specific tasks by the use of these objects. These objects communicate using IDispatch interfaces which are compatible with the OLE 2.0 standard. These interfaces are directly available in Visual Basic, Visual Basic for Applications, Access and other applications which are OLE 2.0 Automation clients.

SuperView programmable objects

SuperView implements the following types of programmable objects:

- *AppHandle*;
- *Application*;
- *Document*;
- *CompDoc*;
- *SimpleDoc*;
- *CompElem*;
- *CompEnum*;
- *View*;
- *ExtFileName*;

AppHandle and *ExtFileName* objects have programmatic identifiers "TSLSuperView.AppHandle" and "TSLSuperView.FileName" respectively. They can be created directly in external applications (e.g. in Visual Basic with the CreateObject function). Objects of remaining types are created by calling specific methods of already existing objects. An exception is a *Document* object, which can be also created using the Insert Object command.

D.1. AppHandle object

In order to start SuperView using OLE 2.0 Automation, an *AppHandle* object should be created (with programmatic identifier "TSLSuperView.AppHandle"). The main aim of this object is to provide access to the *Application* object to external applications. For technical reasons the *Application* object must not be created directly.

Methods

RvcApp

Parameters: None.

Result type: DISPATCH_OBJECT

Description: Returns the IDispatch interface of an *Application* object representing an instance of the SuperView application.

CloseRvcApp

Parameters: None.

Result type: LONG

Description: Closes SuperView.

D.2. Application object

Application object represents an instance of the SuperView application. To obtain access to this object, the *RvcApp* method of the *AppHandle* object (created solely for this purpose) should be called.

Properties

WindowHandle

Type: LONG

Description: MS Windows system API handle of the main SuperView window. This property is read-only.

Methods

OpenDocument

Parameters: STRING FileName

Result type: DISPATCH_OBJECT

Description: Opens in SuperView a document which name was given as a parameter to the call of this method, and returns the IDispatch interface of the *Document* object created by SuperView for this document. The name of the document should be a name of existing file in the TCD composite document format or in one of raster or vector formats, supported by SuperView.

CloseDocument

Parameters: DISPATCH_OBJECT Document

Result type: None.

Description: Accepts as a parameter the IDispatch interface of a *Document* object. Closes in SuperView the document associated with this object.

Scan

Parameters: SHORT PageNum

Result type: DISPATCH_OBJECT

Description: Creates a new document and performs scanning to it from the current source. When successful, returns the IDispatch interface of the newly created *Document* object. If the PageNum parameter equals 1, a single page document is scanned, otherwise multi-page scanning is performed.

D.3. Document object

A *Document* object can be created by calling the `OpenDocument` method of an *Application* object. It is also possible to refer to an object created using the `Insert Object` command of an external application.

Properties

ExtentsXmin, ExtentsXmax, ExtentsYmin and ExtentsYmax

Type: DOUBLE

Description: World coordinates of the document's rectangular extents. These four properties are read-only.

View

Type: DISPATCH_OBJECT

Description: View property contains the `IDispatch` interface of a *View* object, associated with the given *Document* object. This property is read-only.

ParentApplication

Type: DISPATCH_OBJECT

Description: The `ParentApplication` property contains the `IDispatch` interface of the *Application* object that is the parent of the given *Document* object. This property is read-only.

CompositeDoc

Type: DISPATCH_OBJECT

Description: The `CompositeDoc` property contains the `IDispatch` interface of the *CompDoc* object which is associated with the given *Document* object. This property is read-only.

Methods

CopyViewToClipboard

Parameters: DOUBLE Xmin
DOUBLE Ymin
DOUBLE Xmax
DOUBLE Ymax
DOUBLE Width
DOUBLE Height
DOUBLE XRes
DOUBLE YRes
SHORT Flags

Result type: SHORT

Description: Copies to the Clipboard a view of the given document. The Xmin, Ymin, Xmax and Ymax parameters define the source view window to be copied. The Width and Height parameters define the destination size of the copied view and XRes and YRes - its destination resolution (horizontal and vertical respectively). The Flags parameter is a sum of some values with the following meanings:

- 1 - discard Flags parameter and use default values (from the TSLSV.INI file);
- 2 - copy data in the Device Dependent Bitmap format;
- 4 - copy data in the Device Independent Bitmap format;
- 8 - copy data in the metafile format;
- 16 - copy link to OLE object;
- 32 - copy OLE object;
- 64 - delayed rendering of data to be copied.

CopyDocToClipboard

Parameters: DOUBLE Width
DOUBLE Height
DOUBLE XRes
DOUBLE YRes
SHORT Flags

Result type: SHORT

Description: Copies the given document to the Clipboard. The Width and Height parameters define the destination sizes of the copied document, XRes and YRes - its destination resolution (horizontal and vertical respectively). The Flags parameter has the same meaning as in the CopyViewToClipboard method.

CopyDocToFile

Parameters: DOUBLE Width
 DOUBLE Height
 DOUBLE XRes
 DOUBLE YRes
 DISPATCH_OBJECT ExtFileName

Result type: SHORT

Description: Copies the given document to a file. The Width, Height, XRes and YRes parameters have the same meaning as in the CopyDocToClipboard method. ExtFileName parameter defines the name and format of the destination file.

Regenerate

Parameters: None.

Result type: None.

Description: Updates and displays the view of the given document.

GetExtFileName

Parameters: None.

Result type: DISPATCH_OBJECT ExtFileName

Description: Creates *ExtFileName* object containing information about the file name, file format and compression mode of the given document's file.

Save

Parameters: None.

Result type: SHORT

Description: If the document has been changed since the last save (e.g. one of its properties has been modified), then calling the Save method will cause the relevant update of the document file. Returns 1 on success and 0 otherwise.

SaveAs

Parameters: DISPATCH_OBJECT ExtFileName

Result type: SHORT

Description: Saves the given document in a file which name is defined in the *ExtFileName* object given as a parameter. Returns 1 on success and 0 on failure. The SaveAs method does not check, whether the given document can be saved in given format. Interactive selection of a file name is provided by the SaveFileDialog method of the *ExtFileName* object.

D.4. CompDoc object

CompDoc object can be obtained from CompositeDoc property of *Document* object.

Properties

IsSimple

Type: SHORT
Description: Constant non-zero value.

IsOnStorage

Type: SHORT
Description: Read-only value. If given composite document has been opened on file, then returns 0. If given composite document has been opened on storage (e.g. when parent document is embedded), then returns non-zero.

SelectedElementCount

Type: SHORT
Description: Number of selected elements in the composite document. Read-only value.

DocName

Type: STRING
Description: The given composite document's name.

ElementCount

Type: SHORT
Description: The number of elements in the given composite document. Read-only value.

Units

Type: SHORT
Description: Code number of composite document's units. This property can have values as the list of unit codes for TAF files (see *Appendix C* for details).

ExtXmin, ExtYmin, ExtXmax and ExtYmax

Type: DOUBLE

Description: Composite document's extents expressed in inches. These four properties are read-only.

Methods

SetExtents

Parameters: DOUBLE Xmin
DOUBLE Ymin
DOUBLE Xmax
DOUBLE Ymax
SHORT Units

Result type: SHORT

Description: Sets composite document's extents. *Units* parameter can have values as in the list of unit codes for TAF files (see *Appendix C* for details). Returns 0 on success and non-zero otherwise.

CopyToFile

Parameters: STRING FileName

Result type: SHORT

Description: Copies the given composite document to the given file. Returns 0 on success and non-zero otherwise.

AddElement

Parameters: STRING ElementName

Result type: DISPATCH_OBJECT

Description: Creates a new *CompElem* object and adds it to composite document structure. Returns the interface to the created object.

DeleteElement

Parameters: STRING ElementName

Result type: SHORT

Description: Deletes the *CompElem* object from the given composite document. Returns 0 on success and non-zero otherwise.

FindElement

Parameters: STRING ElementName

Result type: DISPATCH_OBJECT

Description: Finds element with the given name in the given composite document. Returns the interface to the *CompElem* object found.

StartEnumeration

Parameters: SHORT Options

Result type: DISPATCH_OBJECT

Description: Creates a new *CompEnum* object and returns the interface to it. Using such object it is possible to enumerate elements of composite documents. The *Options* parameter is a logical combination (OR) of some of the following values (flags):

- 1 - using this flag prevents descending into lower levels of the composite document's tree structure;
 - 2 - using this flag forces enumeration of only visible documents;
 - 4 - using this flag forces enumeration of simple documents only;
 - 8 - using this flag forces enumeration of only selected documents;
-

ManageDialog

Parameters: LONG ParentWindowHandle

Result type: SHORT

Description: Launches the *Composite Document* dialog which allows to edit the given composite document interactively. Returns 0 on success and non-zero otherwise.

CRMAddFile

Parameters: STRING FileName
 STRING ElementName
 SHORT ConnectionType

Result type: DISPATCH_OBJECT

Description: Adds the given drawing file to the continuous raster map - positions this file in the same world coordinate system as the given composite document. CRMAddFile method is a convenient way of doing several operations, that otherwise would have to be done separately:

- creates a new *CompElem* object;
- creates a new *SimpleDoc* object based on the given drawing file;

- sets the just created *SimpleDoc* object as the child document of the just created *CompElem* object;
- sets the viewport and window of the *CompElem* object to the same window as the *SimpleDoc* extents;
- returns the interface to the *CompElem* object created at the beginning.

The *ConnectionType* parameter in the current SuperView version should be always set to zero.

D.5. CompElem object

CompElem objects are elements of *CompDoc* objects. Each *CompElem* object is associated with one parent *CompDoc* object. Each *CompElem* object can have one *CompDoc* or one *SimpleDoc* child object associated with it. *CompElem* object defines what part of its child document will be visible in what part of its parent document world. Two important terms are used to define it: a *window* and a *viewport*. *Viewport* is the area defined in parent document coordinates, that is occupied by the *window* area of a child document. *Window* is the area defined in the child document coordinates, that is visible in the parent document *viewport*.

Properties

ElementName

Type: STRING

Description: The name of the given element.

ElementDocConnectionType

Type: SHORT

Description: Read-only value. In the current SuperView version it is set to zero. It means that child document is in separate disk file.

ElementStatus

Type: SHORT

Description: Read-only value. Logical combination (OR) of some of the following flags:
1 - the element is enabled (its child document is visible);
2 - the element is selected.

IsEnabled

Type: SHORT

Description: Read-only value. Non-zero means the element is enabled (visible), zero means the element is not enabled.

IsSelected

Type: SHORT

Description: Read-only value. Non-zero means the element is selected, zero means the element is not selected.

HasDocument

Type: SHORT

Description: Read-only value. Non-zero means the element has a child document associated with it, zero means element does not have any child documents associated with it yet.

IsDocumentSimple

Type: SHORT

Description: Read-only value. If the given element has a child document and this child document is simple, then this property is non-zero. Otherwise it is zero.

WindowXmin, WindowYmin, WindowXmax and WindowYmax

Type: DOUBLE

Description: The element's window expressed in inches. The area defined in child document coordinates, that is visible in the parent document viewport. These four properties are read-only.

ViewportXmin, ViewportYmin, ViewportXmax and ViewportYmax

Type: DOUBLE

Description: Element viewport expressed in inches. The area defined in parent document coordinates, that is occupied by the window area of the child document. These four properties are read-only.

Methods

SetElementDoc

Parameters: SHORT ConnectionType
 STRING FileName
 SHORT Mode

Result type: DISPATCH_OBJECT

Description: Creates a child document and attaches it to the given *CompElem* object. If the *FileName* parameter is a name of raster or vector drawing file, a *SimpleDoc* object is created as a child document. If the *FileName* parameter is a name of a composite document file, a *CompDoc* object is created as a child document. In the current version of SuperView the *ConnectionType* and *Mode* parameters should be always set to zero.

GetElementDoc**Parameters:** None.**Result type:** DISPATCH_OBJECT**Description:** Returns the interface to the child document object. It can be a *SimpleDoc* or *CompDoc* object. By reading the *IsSimple* property of an object obtained with this method it is possible to find out its type.

MoveElement**Parameters:** SHORT MoveType**Result type:** SHORT**Description:** Elements belonging to each *CompDoc* object are ordered. This order affects the sequence in which their child documents are painted. By changing this order it is possible to control the way in which drawings overlap one another. The *MoveType* parameter can have one of following values:

- 0 - move the given element to the top;
- 1 - move the given element one step up;
- 2 - move the given element one step down;
- 3 - move the given element to the bottom.

SetElementViewport**Parameters:** DOUBLE Xmin
 DOUBLE Ymin
 DOUBLE Xmax
 DOUBLE Ymax**Result type:** SHORT**Description:** Sets the viewport area of the given composite document element. The composite document element viewport is the area defined in the parent document's coordinates, that is occupied by the window area of the element child document.

SetElementWindow**Parameters:** DOUBLE Xmin
 DOUBLE Ymin
 DOUBLE Xmax
 DOUBLE Ymax**Result type:** SHORT**Description:** Sets the window area of the given composite document element. The composite document element's window is the area defined in the child document's coordinates, that is visible in the parent document's viewport.

D.6. SimpleDoc object

A *SimpleDoc* object represents a simple, one-drawing document in the composite document's structure. The interface of an existing *SimpleDoc* object can be obtained from the *GetElementDoc* method of a *CompElem* object. A *SimpleDoc* object can be created using the *SetElementDoc* method of a *CompElem* object or using the *CRMAddFile* method of a *CompDoc* object.

Properties

IsSimple

Type: SHORT
Description: Constant zero value.

IsOnStorage

Type: SHORT
Description: Read-only value. If the given simple document drawing has been opened on file, then returns 0. If the given simple document has been opened on storage, then returns non-zero.

LibID

Type: SHORT
Description: 1 for raster drawings, 2 for vector drawings.

DocName

Type: STRING
Description: The name of the simple document.

CurrentPage

Type: SHORT
Description: The current page in the drawing file. Read-only value.

TotalPages

Type: SHORT

Description: The total number of pages in the drawing file. Read-only value.

DrawingFileName

Type: STRING

Description: The name of the file, on which the simple document drawing has been open. Read-only value.

Units

Type: SHORT

Description: The code number of the simple document units. This property can have values as in the list of unit codes for TAF files (see *Appendix C* for details).

Orient

Type: SHORT

Description: The code number of the simple document orientation. This property can have values as in the of orientation codes for TAF files (see *Appendix C* for details).

RasterWidth

Type: SHORT

Description: Read-only value defined only for raster drawings. The number of pixels per one raster line of the drawing file.

RasterHeight

Type: SHORT

Description: Read-only value defined only for raster drawings. The number of raster lines in the drawing file.

NumOfColors

Type: LONG

Description: Read-only value. The number of colors in the drawing file. Equal to 2 to the power of number of bits per pixel (for raster files) or 256 (for vector files).

Scale

Type: DOUBLE

Description: The scale of the raster file.

Xins, Yins

Type: DOUBLE

Description: Read-only values. The coordinates of the lower left drawing's corner (the insertion point).

ExtXmin, ExtYmin, ExtXmax and ExtYmax

Type: DOUBLE

Description: The simple document's extents expressed in inches. These four properties are read-only.

Method

SetInsPnt

Parameters: DOUBLE Xins
DOUBLE Yins

Result type: SHORT

Description: Sets the insertion point (the lower left corner) of the raster drawing. Returns 0 on success or non-zero otherwise.

D.7. CompEnum object

The *CompEnum* object is used to enumerate the composite document's elements. It is created using the *StartEnumeration* method of a *CompDoc* object. The *Options* parameter of this method allows to control which elements are to be enumerated.

Properties

CurrentElement

Type: DISPATCH_OBJECT

Description: If the *GetNextElement* method finds a subsequent element to be enumerated, it puts its interface to this property.

EndOfEnumeration

Type: SHORT

Description: If the *GetNextElement* method finds a subsequent element to be enumerated, it returns non-zero and sets this property to zero. Otherwise this property is non-zero.

Methods

GetNextElement

Parameters: None.

Result type: SHORT

Description: Finds the next element to be enumerated. If such an element is found, its interface is put to the *CurrentElement* property, the *EndOfEnumeration* property is set to zero and this method returns a non-zero value. Otherwise the *EndOfEnumeration* property is set to non-zero and the *GetNextElement* method returns zero.

StopEnumeration

Parameters: None.

Result type: SHORT

Description: Deletes the *CompEnum* object. Returns 0 on success and non-zero otherwise.

D.8. View object

The access to a *View* object is provided by the *View* property (read-only) of the *Document* object.

Properties

BitmapSizeX and BitmapSizeY

Type: SHORT

Description: Sizes of the bitmap used for the given view representation.

WorldWindowXmin, WorldWindowXmax, WorldWindowYmin and WorldWindowYmax

Type: DOUBLE

Description: World coordinates of the given view rectangle. These four properties are read-only.

WindowHandle

Type: LONG

Description: MS Windows system API handle of the given view window. This property is read-only.

Methods

ZoomExtents

Parameters: None.

Result type: SHORT

Description: Performs the whole document zoom. Returns 0.

ZoomWindowImmediate

Parameters: DOUBLE ZoomXmin
 DOUBLE ZoomYmin
 DOUBLE ZoomXmax
 DOUBLE ZoomYmax

Result type: SHORT

Description: Performs zoom of the rectangle given in the world coordinates. Returns 0.

ZoomWindowInteractive

Parameters: SHORT Type

Result type: SHORT

Description: Allows for an interactive (using the mouse) selection of a zoom rectangle. The type parameter is reserved. Returns 0.

ZoomPrevious

Parameters: None.

Result type: SHORT

Description: Restores the previous view (zoom) rectangle. Returns 0.

ZoomIn

Parameters: DOUBLE Ratio

Result type: SHORT

Description: Performs zoom of the rectangle, which is the Ratio times smaller, than the current view rectangle, and has the same center point. Returns 0.

ZoomOut

Parameters: DOUBLE Ratio

Result type: SHORT

Description: Performs zoom of the rectangle, which is the Ratio times bigger, than the current view rectangle, and has the same center point. Returns 0.

Zoom1x1

Parameters: None.

Result type: SHORT

Description: Performs such a zoom, that one inch on the current display screen is equivalent to one inch on the paper original of the given document. Returns 0.

Print

Parameters: None.

Result type: SHORT

Description: Prints the current view using the current print parameter settings. Returns 0.

PrintSetup

Parameters: None.

Result type: SHORT

Description: Launches the dialog box for interactive editing of print parameters.
Returns 0.

PrintPreview

Parameters: None.

Result type: SHORT

Description: Launches the print preview dialog box and the page preview dialog
box. Returns 0.

D.9. ExtFileName object

Objects of the *ExtFileName* type can be used independently of other SuperView implemented objects. They can be used to collect in one object the following information about a document: file name, format name and compression mode name.

Properties

FileName

Type: STRING
Description: Document file name.

FormatName

Type: STRING
Description: Document file format name.

SubformatName

Type: STRING
Description: Document file compression mode name.

Methods

IsRasterFile

Parameters: None.
Result type: BOOL
Description: Returns TRUE, if the FileName property is the name of a raster drawing file with an extension supported by SuperView, otherwise returns FALSE.

IsVectorFile

Parameters: None.
Result type: BOOL
Description: Returns TRUE, if the FileName property is the name of a vector drawing file with an extension supported by SuperView, otherwise returns FALSE.

OpenFileDialog

Parameters: STRING Caption

Result type: SHORT

Description: Launches the *File - Open* dialog box, which allows to select existing files in one of the file formats supported by SuperView. If a file is selected, its parameters are saved to the specific *ExtFileName* object properties and the OpenFileDialog method returns 0. If the file has not been selected, the method returns -1.

SaveFileDialog

Parameters: STRING Caption

Result type: SHORT

Description: Launches the *Save As* dialog box, which allows to select a destination file for the document. If a file is selected, its parameters are saved to the specific *ExtFileName* object properties and the SaveFileDialog method returns 0. If no file has been selected, the method returns -1. The property values can be retrieved or the entire *ExtFileName* object can be passed to the *SaveAs* method of the *Document* object as a parameter.

DetectFormat

Parameters: None.

Result type: SHORT

Description: Sets the FormatName and SubformatName properties based on the FileName property value. When format detection is successful returns 0, otherwise returns -1.

D.10. Examples of calling SuperView from Visual Basic

SuperView is automatically started, when an application creates an *AppHandle* or an *ExtFileName* object. Usually the *AppHandle* object is created first, because it is used to create the *Application* object, as in the following example.

```
Dim AppHandle As Object
Dim App As Object
```

```
Set AppHandle = CreateObject ("TSLSuperView.AppHandle")
Set App = AppHandle.RvcApp
```

With use of *Application* object it is possible, for example, to scan a document and save it to a file with an interactively selected name, format and compression mode.

```
Dim Doc As Object
Set Doc = App.Scan (1)           `single-page document scanning with
                                 saving the document in the file with
                                 interactively selected parameters

App.CloseDocument Doc           `closing the document
Set Doc = Nothing                `removing the Doc object
```

It is also possible to open a document on a disk and, for example, change its parameters.

```
Dim File As Object
```

```
While File.OpenFileDialog ("Select the name of the file to open")
Wend
```

```
Set Doc = App.OpenDocument (File.FileName)
Set File = Nothing             `removing the File object
```

```
Dim View As Object
```

```
Set View = Doc.View
View.ZoomIn 0.8                 `changing the document view
```

```
If Doc.CompDoc.ManageDialog (me.hWnd) `launch dialog for document and
                                 its drawings parameter edition
```

```
    Doc.Regenerate                `update document view, if any parameter
                                 has changed
```

```
End If
```

App.CloseDocument Doc	`closing the document
Set View = Nothing	`removing the View object
Set Doc = Nothing	`removing the Doc object
AppHandle.CloseRvcApp	`closing SuperView
Set App = Nothing	
Set AppHandle = Nothing	

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