





Logiciel AKIVIŠION-



	_Summar
I - Minimum system requirements	2
I 1 - Minimum configuration required I 2 - Software uninstallation	
I 3 - Launching application	2
II - Software installation	2
III - Software presentation	
III 1 - Home page	3
III1-1- Create new visualisation	
III1-2- Load last visualisation	
III 2 – Interface	
III 2 - Interrace	
III2-1- Tool ball	
III2-2a- General graph	
III2-2b- Values arrays	
III2-2c- Alarms and relay	
III2-3- Menus	
III2-3a- Files	
III2-3b- User	
III2-3c- Display	
III2-3d- Actions	
III2-3e- OptionsIII2-3f- Help	11 15
піz-ы- пеір	13
IV - Create new visualisation	15
IV 1 - Configuration file selection	
IV 2 - Processing file initialization	
IV 3 - Create processing pages	
IV 4 - Save processing file	
IV 5 - Open data processing file	
IV5-1- Access to historic	
IV5-2- Acces to monitoring	
IV 6 - Open an Akivision-A configuration file with Akivision-E software	19





.....I - Minimum system requirements

I 1 – Minimum configuration required

- Windows 2000, XP and Vista
- Communication Port USB and RS 232
- · CD drive
- Internet Explorer 6.0
- RAM 256 Mo
- Free disk space 1Go

I 2 - Software un-installation

Using « Start », « Parameters », « configuration panel », « Add/Delete program », select « AKIVISION E » and follow Windows recommendations to uninstall the application.

I 3 – Application launching

The AKIVISION-E application can be launched by :

Using the appropriate " icon created on your desktop.
or

• Using « Start », « Programmes », « KIMO Instruments » and then click on « AKIVISION-E ».

.....II - Software installation



1. Software installation. DO NOT PLUG SECURITY KEY

Insert CD into CD-ROM drive. The installation auto runs. If not, use your browser to launch the « SetupAKIVISIONE.exe » file from the installation CD.

2. Security key installation. TO PLUG SECURITY KEY,

The installation auto runs. Follows recommendations, click on 'Next' and then on "Finish".

SECURITY KEY



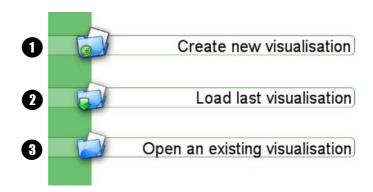
- Plug the security key once the software installation is done.
- In use, the software is checking for the key every 5 minutes, if the key is not connected, the application is aborted.





.....III - Software presentation

III 1 - Home page



III1-1- Create new visualisation 1

Click on "icon to create a new display and follow recommendations further explained in "Create new visualisation" chapter see p.15.

III1-2- Load last visualisation 2

Click on "

" icon, and then click on "yes" to validate or click on "No" to cancel.



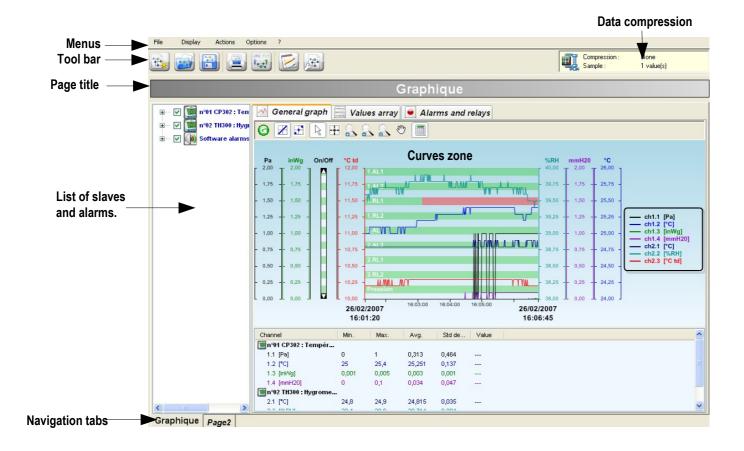
III1-3- Open an existing visualisation 3

Click on "icon to open the existing visualisation. A new window appears, select the required visualisation and then click on "Open". Click on "Cancel" to return to home page.





III 2 - Interface

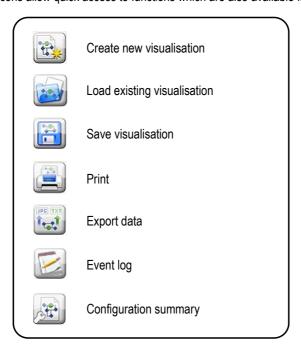


• Display elements: On left side of the window, select element displayed by ticking/unticking the related box



III2-1- Tool bar

The tool bar is composed of icons. Icons allow quick access to functions which are also available from menus.

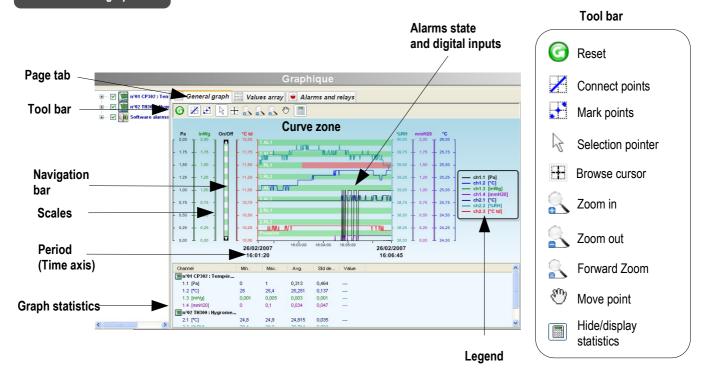






III2-2- Graphic display





Theoretically, an infinite number of curves can be displayed, only the performances of the PC will limit the number of displayable curves. The left/right scales and the time axis are reactive zones, i.e. dedicated menus/tools boxes will appear using the right-click function of your wheel mouse.

The "Statistics" panel with minimum, maximum, average, standard deviation and the measurement value of each channel can be hidden/displayed by clicking on .

Graphic contextual menu

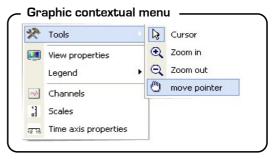
The graphic contextual menu can be accessed by clicking on the right key of your wheel mouse from the visualisation window.

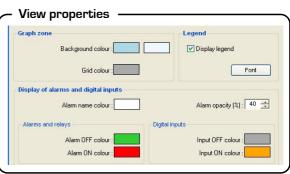
The menu features the following items:

- Tools : selection of tools (also available in the tool bar).
- View properties : open the view properties window.
- Legend : display or hide the dataset legend.
- Channels : open the view properties window of the displayed channels or the properties of the selected channel
- Scales: opens the property windows of the scale.
- Time axis properties : opens the time axis properties window.

« View properties » window

- · Select background color
- · Select grid color
- · Select alarm color
- Hide/visualisation legend
- Title font









« Channel properties » window

The operator may access to the view properties by: Selecting this sub-menu in the graph menu or by double-clicking on a plotted channel.

• Curve panel :

- color, style and width of the curve
- Limits panel :
- High and low limit values and percentage of values above and below those limits.
- Limits color if displayed on the graph.
- Hide/visualisation limits on the graph.

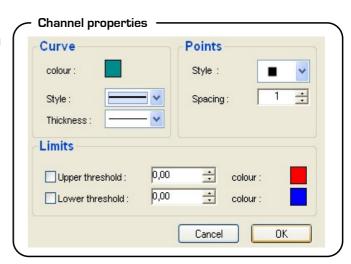
This panel and its function are disabled if no limits are configured.

· Points panel:

- Select point type
- Spacing between plotted points

(Ex : spacing = 5, one every five points will be plotted).

· Validate by clicking in "OK".



"Scale properties" window

The operator may access the scale properties by: Selecting this submenu in the graph menu or by double-clicking on a scale on the graph.

• Range panel :

- Input min and max values of scale (the default values correspond to the calculated min and max values for the current graph).
- Reset min and max values automatic calculation according to chart values.

• Marking panel:

- Select between automatic and defined scale.
- The subdivision value indicates the number of markings (no value) between the 2 main markings (with visualisationed values).

Ex: 0.5 steps with 5 subdivisions.

• Display Panel:

- Select axis color.
- Enable/disable gridlines visualisation.
- Validate by clicking on "OK".

Scale properties -Range Max. value : 2,000 Auto Max Min. value : -2,000 Auto Min Marking Display Automatic colour: 0.500 O Defined Grid Sub-div.: 1 Cancel ΩK.

« Time axis properties » window

The operator may access to the view properties by : Selecting this sub-menu in the graph menu or by double-clicking on the time axis on the graph.

• Period panel :

- Select between an absolute time representation (date and hour) or a relative representation of the time axis (starts at 0).

• Interval panel:

- Select start and end date for the time axis.
- Reset time axis start and stop date. ("First point" and "Last point" keys).

· Marking panel:

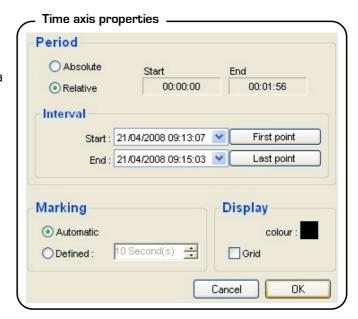
Select between an automatically calculated marking or a user defined one.

• Display panel:

Select axis color.

Enable/disable gridlines visualisation.

· Validate by clicking on "OK".







III2-2b- Values arrays

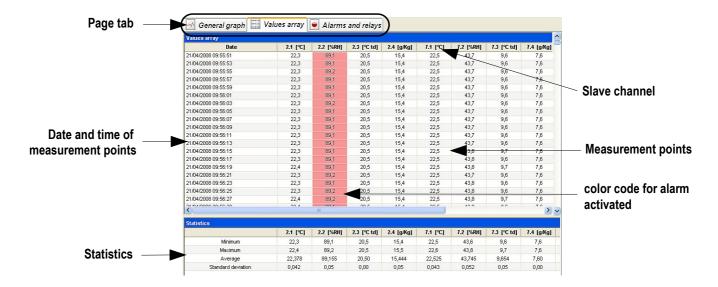


Chart array

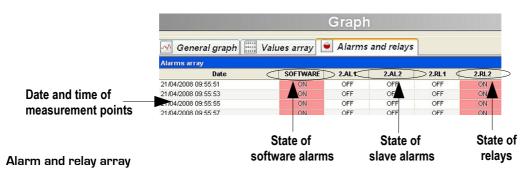
The chart array respectively features (in rows): date, time and value of each channel. The value above the upper alarm limit are listed in red.

Statistics chart

The statistics chart features (for each channel):

- Minimum value
- Maximum value
- Average value
- Standard deviation

III2-2c- Alarms and relays



The array respectively features (in rows) the state of :

- · Software alarms,
- · Slave alarms.
- · Digital inputs,
- Relays.

The alarms and relays activated are listed in red





III2-3- Menus

III2-3a- File

- New visualisation : allows the creation of a new visualisation. See p.15
- Open a visualisation : allows the opening of a file located on the available disks.
- Close: To quit the software. Before quiting, a new window will appear to save the acquisition.
- Save / Save as : allows to save modifications done on the current file.
- Print preview : allows to save data between two backups.
- Print: a opened window allows operator to :
 - enter a title which will appear in the title block
 - select document content you wish to print
- · Last opened file .
- · Quit the software.

III2-4b- User

- Login : allows user to log inLogout : allows user to log out
- Change password : allows user to change password

File Create a next visualisation ... Ctrl+N Open an existing visualisation ... Ctrl+O Close display Save visualisation Save visualisation as ... Export data ... Preview before printing ... Print ... Exploitation260207.akv



III2-3c- Display

The visualisation menu allows to show:

- Tool bar
- List of elements
- Alarm messages. Once you chose to acknowledge an alarm, a message will come out each time the
 alarm is activated or deactivated. See "Alarm acknowledgement" p27.
- Non acknowledged alarm list. To quit click on "Close". See "Alarm acknowledgement" p27.
- Event log. The event log is a report of all happenings which ocurred during data acquisition :
 - Date
 - Source (slave / software)
 - Name
 - Category (deleting / acquisition launching, configuration modification etc...)
 - Alarms description (alarm, relay etc...)
 - Acknowledgement
 - Comment
 - User logged in (if User management is activated)

The period allows to show all happenings that ocurred during a period of time. You must select "from" and "to" and enter dates and hours of the required period and validate by clicking on "Refresh". Quit by clicking on "Close".

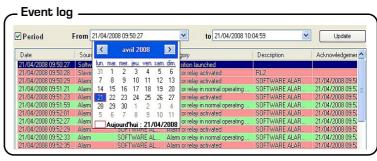
Color code :

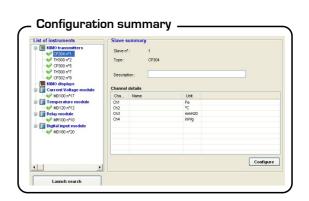
- *Blue*, acquisition started, stopped or security key failure and results of alarm emails sending
- Red, alarm or relay activated
- Green, alarm or relay not activated
- yellow, elements reconfigured or no answering slave.
- Orange, state modification of digital inputs
- · Configuration summary.

By clicking on the elements (slaves or alarms), it is possible to see the configuration.

Click on "Print" or "Close" to close the window.



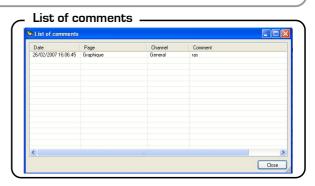






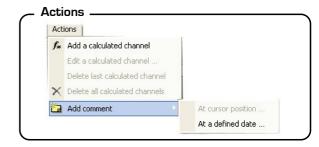


- Trace comment. Displays comments inserted on the curves using the AKIVISION E software. You can print these comments.
- List of comments. The list displays comment details (date, page, channel and comment itself). Click on "Close" to quit the window.

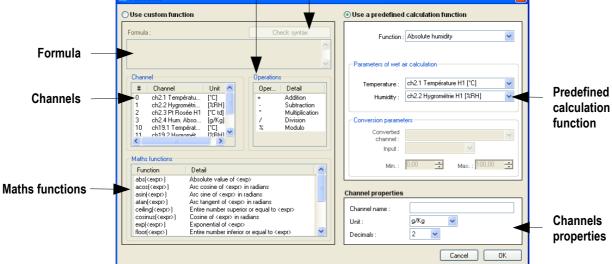


III2-3d- Actions

- Add calculated channels. Allows to add on a channel:
 - Operations or
 - Maths functions or
 - Predifined calculation function



Operations Check syntax Functions Use custom function



Calculated channels are differentiated according their origin:

- Calculated channels A: saved and configurated channels during acquisition with AKIVISION-A software.
- Calculated channels E: calculated channels added with AKIVISION-E operating software.



Calculated channels during acquisition and saved with AKIVISION-A software (calculated channels A) can not be modified in AKIVISION-E software.

1. Operations

How to create an operation :

- Create formula. Click twice on the channel and click twice on the operator (See table below). IE: #001 - #008.
- Check syntax. If syntax is right go to next step otherwise please correct the formula.
- Select channel properties. (Name, units, decimales).
- · Validate by clicking on "OK"

Operator table

+, -, *, /	Addition, substraction, multiplication and division.
%	Modulo . Example : 13 % 3 = 1





2. Maths functions

How to create math function:

- Create formula. Click twice on math function (see Table of math function below) and click twice on the channel or add appropriated number.
- Check syntax. If syntax is right go to next step otherwise please correct the formula.
- Select channel properties. (Name, units, decimales).
- Validate by clicking on "OK"

abs (<expr>)</expr>	Absolute value calculation. ABSV(NameChannel1) calculate absolute value of channel Namechannel1 if it is positive, or the opposite otherwise. ABS(V(NameChannel1)*10.3+V(NameChannel2)) evaluation of expression V(NameChannel1)*10.3+V(NameChannel2) and equals the absolute value.
Acos (<expr>)</expr>	Arc cosinus of expression in rad acos (0) equals 1.5708 acos (-1) equals 3.1416
Asin (<expr>)</expr>	Arc sinus of expression in rad asin (1) equals 1.5708 asin (0) equals 3.1416
Atan (<expr>)</expr>	Arc tangente of expression in rad atan (1) equals 0.7854 atan (0) equals 0
Ceiling (<expr>)</expr>	Whole number greater or equal to expression CEIL (2.9) equals 3 CEIL (-2.9) equals -2
Cosinus (<expr>)</expr>	Cosinus of expression in rad cos (1.5708) equals 0 cos (3.1416) equals -1
Exp (<expr>)</expr>	Exponential of expression
Floor (<expr>)</expr>	Whole number smaller or equal to expression Floor (2.9) equals 2 Floor (-2.9) equals -3
Ln (<expr>)</expr>	Napierian Logarithm of expression (expression must be positive)
Log10 (<expr>)</expr>	Decimal logarithm of expression Log 100 equals 2. Log(V(Namechannel1)*10.3+V(Namechannel2)) evaluation of expression V(Namechannel1)*10.3+V(Namechannel2) and calulate its decimal logarithm. (expression must be positive).
Pow (<expr> ; <pw>)</pw></expr>	Potency raising : <expr> potency raised <pw>. IE : pow (5;3) = 125</pw></expr>
Round (<expr>)</expr>	Rounded value of operator to the closest whole number. Round (2.4) equals 2 Round (2.6) equals 3
Sin (<expr>)</expr>	Sinus of expression in rad Sin (1.5708) equals 1 Sin (3.1416) equals 0
Sqrt (<expr>)</expr>	Square root of expression
Tangent (<expr>)</expr>	Tangent of expression in rad Tan (0.7854) equals 1 Tan (3.1416) equals 0





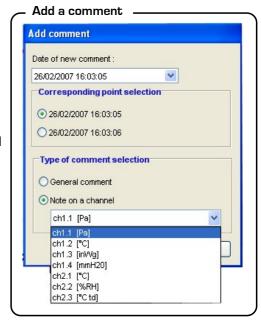
3. Predifined calculation function

How to use a predifined calculation function:

- Tick the box "Use predifined calculation function".
- Select function (See table below for details).
- Select channels corresponding to parameters implicated in calculation
- Select channel properties. Name and decimals, units are automatically selected.
- Validate by clicking on "OK".

Absolute humidity	The amount of water vapor present in a unit volume of air, usually expressed in kilograms per cubic meter. g/Kg.
Dew point	The temperature to which a given air parcel must be cooled at constant pressure and constant water vapor content in order for saturation to occur . °C td.
Wet temperature	Temperature calculated with dry temperature and relative humidity in the air. °C tw.
Enthalpy	This is the heat change which occurs when 1 mol of a substance reacts completely with oxygen to form products at 298 K and 1 atm. Kj/Kg.

- Edit a calculated channel. Select the channel you wish to modify in the "Edit a calculated channel" window, click on "OK" to validate. The windows "Functions" will appear, modify and then validate by clicking on "OK".
- Delete last calculated channel
- Delete all calculated channels.
- Add a comment
- Select a Date :
 - Using the browse cursor position, select the position of the comment.
 - At a predifined date.
- Corresponding point selection. According to the date and hour selected, the 2 closest points are suggested by the software.
- > Type of comment selection.
 - **General comment**, symbolized on the graph by a white arrow, and related to all the channels
 - **Comment on one channel only**, symbolized on the graph by an arrow with the colour of the channel involved.
- > Click on "**OK**" to validate.
- The "Add a comment" window appears, fill the empty space and validate by clicking on "OK". To display comments on the graph, select "Trace comment" in the "Display" menu.



III2-3e- Options

• User management: This tab allows to access user management.



User management is identical to that of Akivision-A sofware (by default, the database is shared by the two softwares) but it is not possible to set Akivision-A software permissions from Akivision-E software.





When installing, two accounts are automatically created: one user account with "user" as username and password and one administrator account with "admin" as username and password.





The window of users and groups management has three tabs: general tab, users tab and groups tab.

• General tab: this tab allows to activate and deactivate user management and specify the location of user database (default location is: C:\Documents and setting\All users\Documents\KIMO\ AKIVISION\akivision.accdb). To modify this location, just click on "Browse".



• **User tab**: this tab allows to add, modify or delete any users accounts of Akivision software.



When creating user account, the following window appears:

To create an account, fill in all fields, in particular "Username" and "Password" fields. Both will allow user connection.



Connection is impossible if user does not belong to any group.







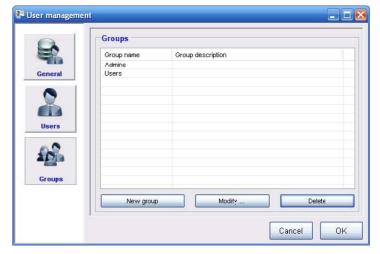
When changing user account, the following window appears:

The changing user account window is the same as creating one, unless for password administration. It is possible to change password (old password will be asked for checking) or reset it.

In case of password reset, password and username will be identical. So, a password changing is recommended to ensure account security.

• **Group tab**: this tab allows to add, modify or delete users groups of Akivision software.





When creating a new user group, the following window appears:

To create a group, fill in all fields and define all the permissions which will be dedicated to users belonging to this new group.

Here is the permission list that could be dedicated to a group :

- General tab :
- Manage users
- · Change password
- AKIVISION-E tab
- > Create a new visualization
- Open an existing visualization
- Save a visualization
- Overwrite an existing visualization
- > Export data
- ≻ Print
- Change logo for printings
- > Add a calculated channel
- Modify a calculated channel
- > Delete a calculated channel
- > Add comments
- Modify comments
- > Delete comments
- > Modify graph options
- Show the eventlog
- > Show configuration summary

Group detail	5		
	ation Group name: odescription:		
Group permi	AKIVISION-E		
✓ Open an ✓ Close a v ✓ Save a v ✓ Overwrit ✓ Reconfig ✓ Reorgani ✓ Start acc ✓ Stop acq ✓ Save his ✓ Configur ✓ Change ✓ Reconfig ✓ Modify c	isualisation e an existing vi ure a visualisation uisition coric e devices communication ure software a alculated chann isplay alarm me edge alarms	isualisation tion tabs parameters of the modules telds	





To modify a group, window is the same as group creation: it is possible to modify name, description and permissions.



Administrator group can not be modified or deleted.

• **User login**: If user management is activated, most of software functions require a permission. User has to be connected.

Then, user enters his username and password.





A user who has not necessary permissions for an action will be informed by the following message :



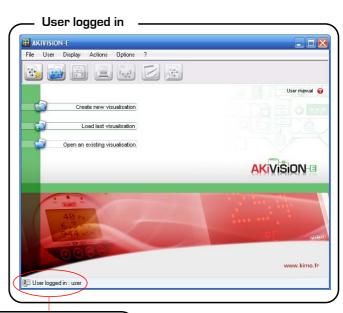
NOTE

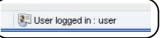
User menu also allows to log out and change password.



More than 10 minutes of inactivity leads to an automatic user logout.

When user is logged in, his username is shown in the status bar.









Cancel OK

"Option" menu also allows to customize the logo used in printings and change the language. To customize the logo used in printings, click on "Browse" to select the logo localisation.

To change software language, select French or English.



Help menu reaches:

• User manual. The user manual is also available at the end of software installation procedure and from the home page or by pressing F1 on your keyboard.

.....IV - Create new visualisation

Software version ('About 'window).

Customization of the logo

From the home page, click on Create new visualisation icon " visualisation".



" or from interface in the "Files" menu click on "New

IV 1 - Configuration file selection

- Click on "Browse", in order to select the visualisation that contain all data harvested thanks to AKIVISION-A software (Example: Visualisation080207.ksv). And then click on "Open".
- Click on "Next" to validate.
- Click on "Cancel" to go back to home page.

File selection Configuration file selection Detail of configuration file

IV 2 - Processing file initialization

2 options are suggested for processing file initialization.

· Create pages as defined in configuration file

By selecting this option, the pages loaded have the same configuration than pages configurated with AKIVISION-A software.

Nevertheless you can add new pages (See create processing pages).



Synoptic visualisations are transformed by the AKIVISION-E software into graphic visualisations containing values and alarms arrays.

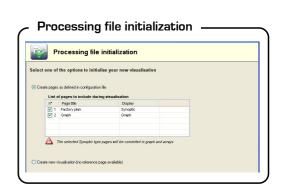
Create new visualisation (No reference page available).

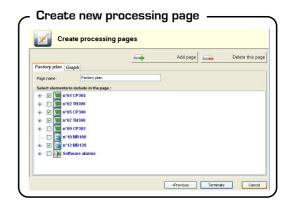
When this option is selected, AKIVISION-E software will not download raw data only. All pages must be recreated (See Create processing pages).

Validate by clicking on "Next".

IV 3 - Create processing pages

- To add a page, click on the "Add page" key and select elements by ticking the relates boxes
- Name the page by writting on the "Page name" zone.
- To delete a page click on "Delete this page".
- Validate by clicking on "Terminate".







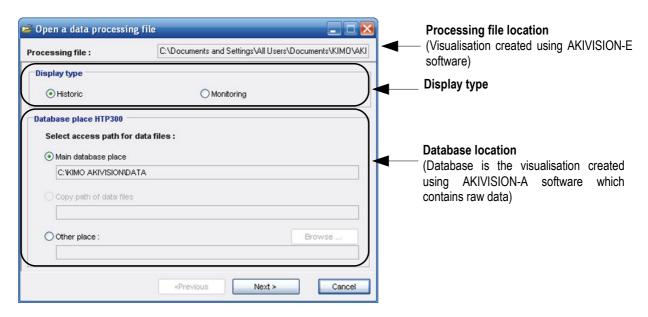


IV 4 - Save processing file

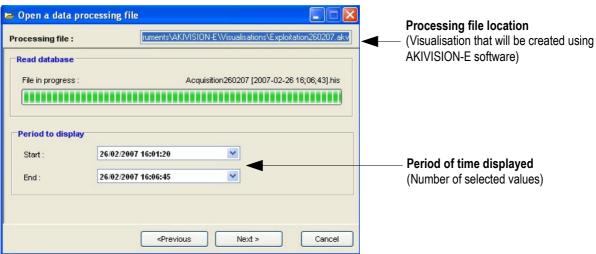
The window "Save as" appears, it allows to name processing file and to select file destination. Click on "Save".

IV 5 - Open a data processing file

IV5-1- Acces to historic



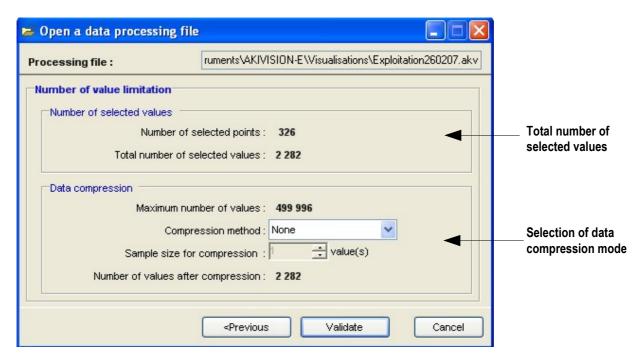
- Select the file destination (Visualisation created using AKIVISION-A software).
- Click on "Next" to validate.



- Wait until database reading terminates.
- Select the period of time you wish to display: enter the **Start** and the **end** of measuring dataset. It is possible to use calendar tool.
- Click on "Validate".
- In few cases, you need to limit the number of downloaded values in order to optimize data processing (see following page).







· Number of measuring point selected

A measuring point is a record of all channels at a "t" time.

• Number of selected values

This number is the number of measuring point multiplied by the number of channels.

• Maximum number of values

The maximum is 500 000 values.

Compression type

- None : all the point are downloaded (Max. 500 000 values)
- Directe value : the first point of each restored sample
- Minimum value: the minimum value of the restored sample
- Maximum value : the maximum value of the restored sample
- Average value : the average value of the restored sample

• Sample size for compression

This zone allows to select the number of measuring points used in compression. The minimum sampling size is calculated according to the number of selected values, but it is possible to select the sampling size bigger to reduce the number of displayed values.

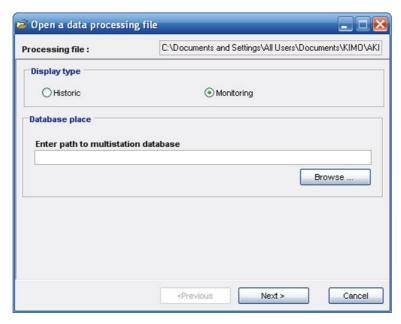
• Number of values restored

Values restored are the number of measuring points restored after compression. The strating and ending point are included in the restored values.



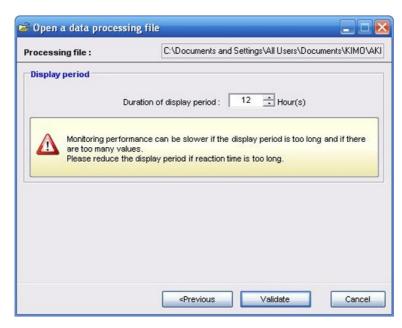


IV5-2- Acces to monitoring



Once monitoring is selected, a location for database is required (folder is specified in general options menu of the Akivision-A software).

Then, choose the period, that means duration of the visible history for the monitoring (with an interval that can reach 20 seconds). This period goes from 1 hour to 24 hours..



During a monitoring, 2 additional buttons appear on the tool bar: one to pause and one to restart refresh of values.





"Play" button is activated once visualization is opened. Monitoring is automatically launched.

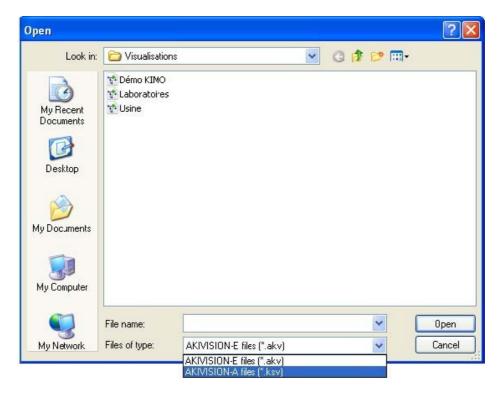


"Stop" button allows to pause visualization. This does not stop monitoring, all non-read points during the pause will be restored when monitoring restarts.



IV 6 - Open an Akivision-A configuration file with Akivision-E software

When opening an existing visualization with Akivision-E software, it is possible to directly open an Akivision-A configuration. For that, you have to change the type of extansion in the window of file selection and browse Akivision-A.



A temporary file (AKV_TempFile.akv) will be created and deleted immediately after its opening, it should therefore save the visualization under a different filename.

www.kimo.fr

Tel: + 33.1.60.06.69.25 - Fax: + 33.1.60.06.69.29

