AreaList Pro

Version 9.9.5

Release notes

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System requirements

AreaList Pro version 9.9.5 is compatible with 4D v11 to v15, for both MacOS and Windows.

It requires MacOS X 10.5 (Intel only, no PPC) or higher and Windows XP SP2 or better.

No 64-bit

AreaList Pro version 9.x is neither compatible with 4D's v15 R releases nor with v16 in 64-bit developer mode. **AreaList Pro version 10 supports these contexts.**

Version 9.9.5

- When using Edit > Select All, only visible rows are selected, not all (visible: not hidden with ALP_Row_Hide or ALP_Object_RowHide and not hidden by collapsing parent row when using hierarchy)
- Fixed drawing of pictures with GDIPlus on Windows
- Fix for row divider (not drawing it in empty last column)
- Fixed selection handling in a component
- Fixed cmd-drag select

Version 9.9.4

- Fixed scrollbar redraw issues on Windows (mouse wheel + 4D < v14 + ALP_Area_WindowsClip = 0)
- Added missing setter for ALP_Area_Name (never worked, only with old *AL_SetAreaName*)
- Support of 4D Runtime and 4D SQL Desktop application types (machine ID)

<center>**Version 9.9.3**</center>

- Setting selection using AL_SetObjects in multiple row selection mode preserves the selected row (bug from 9.9.3b1)
- Longint array displaying time (using "&/" format) always uses time popup icon, not generic popup icon (bug from 9.8.2 - Nov. 2014)
- Clearing the cache using -2 (all rows) no longer provokes a sort
- ARRAY POINTER compatibility extended to 4D v15, not only v11-v14
- Changing the selection programmatically correctly sets the pivot ("clicked" row)
- Fixed a possible "redraw" bug (not clearing the cache when shrinking arrays/selection and then adding new row(s) and using ALP_Area_CheckData - old data would be displayed)
- ALP_Area_MinRowHeight is now honored when drawing empty area below data rows
- Keyboard entry on Mac no longer crashes on OS X 10.12 Sierra

<center>**Version 9.9.2 – New features**</center>

- Version 9.9.2 introduces a sophisticated handling of typeahead in both field and array modes:
  - Typeahead on/off, select first row, keep selection and scroll (legacy behavior), change selection (ALP_Area_TypeAheadEffect)
  - Include field mode (ALP_Area_TypeAheadFieldMode)
  - Set the time during which the typeahead keystrokes are buffered (ALP_Area_TypeAheadTime)
  - Retrieve the buffered string, e.g. manage you own typeahead behavior (ALP_Area_TypeAheadString)
  - Report a specific typeahead event (AL Typeahead event)

  The demonstration database has been updated to show the new typeahead features (AreaList > Configuration options…)
- This version allows any kind of one-dimension array to be added as a column (pointer, blob, object): it is not usable for display, but this new feature can be used to maintain the arrays in sync (using sort or *AL_ModifyArrays*)
- When all columns are from a related table, the area display is based upon the current selection from the master table, not the related table's selection
- New option to draw a column divider after last column and/or in the footers. ALP_Area_ShowColDividers is now a bit-field:

Bit 0	Bit 1	Bit 2	Value	
draw dividers, not last col	hide all footer dividers	draw last col divider		
0	0	0	**0**	No divider
1	0	0	**1**	Draw dividers, including footers, not the last one to the right
0	1	0	**2**	Draw dividers except footers, not the last one to the right (bit 0 ignored)
1	1	0	**3**	Draw dividers except footers, not the last one to the right
0	0	1	**4**	Draw only the last divider to the right including footer
1	0	1	**5**	Draw dividers, including footers, including the last one to the right
0	1	1	**6**	Draw only the last divider to the right except footer
1	1	1	**7**	Draw dividers except footers, including the last one to the right

Version 9.9.2 – New command

- New function *AL_GetPlainText* to get plain text from attributed text:
  - *AL_GetPlainText* (styledText) -> plainText

Version 9.9.2 – New properties and property changes

- New ALP_Area_TypeAheadTime property
  - category: Area/Selection
  - value: "tahT"
  - access: read, write, but not persistent
  - property type: integer
  - default: 2 * double-click time (from OS user's setting)
  - min: -1
  - max: 300
  - usage: this is a time in ticks (1/60 s) which is used to determine if a new typeahead is starting (max time between two keystrokes to be handled as one string)
  - comments: setting value to less than 5 will set the value to default
- New ALP_Area_TypeAheadString property
  - category: Area/Selection
  - value: "tahS"
  - access: read, write, but not persistent
  - property type: string
  - usage: this property returns the string typed by the user used in type-ahead (after the typeahead changed the selection)
- New ALP_Area_TypeAheadFieldMode property
  - category: Area/Selection
  - value: "tahF"
  - access: read, write, but not persistent
  - property type: Boolean

- o default: 0 (False)
- o usage: set to 1 (True) to allow typeahead in fields mode

Note: when ALP_Area_TableID > 0 and ALP_Area_TypeAheadFieldMode = 0, typeahead is fully ignored

- New ALP_Area_TypeAheadEffect property (replaces ALP_Area_SelKeepOnTypeAhead)
  - o category: Area
  - o value: "selT"
  - o type: integer
  - o access: Read/Write, but not Persistent
  - o default: 0
  - o min: -2
  - o max: 2
  - o usage:
    - -2 = report typeahead event (do nothing else)
    - -1 = ignore type-ahead (do nothing)
    - 0 = select first matching row (value >= "search")
    - 1 = select first matching row if selection is empty and scroll view to show first matching row otherwise
    - 2 = change the selection to matching rows (value = "search@")
  - o comments: set to 1 to get the old AreaList Pro version 8 behavior: on typeahead, the selection is not changed when selection mode is multiple rows selection and the current selection is not empty - only the view is scrolled to show the first matching row

Typeahead event is reported when ALP_Area_TypeAheadEffect is 0 or 2

Click event is also reported when ALP_Area_TypeAheadEffect = 2 and deselecting all rows (due to no match)

- ALP_Area_ShowColDividers is now a bit-field:
  - o bit 0: draw over data and footer
  - o bit 1: hide footer dividers (bit 0 ignored if bits 0 and 2 off)

o   bit 2: draw last column divider

AL_SetAreaLongProperty ($area; ALP_Area_ShowColDividers;0) // No divider
AL_SetAreaLongProperty ($area; ALP_Area_ShowColDividers;1) // Draw dividers, including footers, not the last one to the right
AL_SetAreaLongProperty ($area; ALP_Area_ShowColDividers;2) // Draw dividers except footers, not the last one to the right (bit 0 ignored
AL_SetAreaLongProperty ($area; ALP_Area_ShowColDividers;3) // Draw dividers except footers, not the last one to the right
AL_SetAreaLongProperty ($area; ALP_Area_ShowColDividers;4) // Draw only the last divider to the right including footer
AL_SetAreaLongProperty ($area; ALP_Area_ShowColDividers;5) // Draw dividers, including footers, including the last one to the right
AL_SetAreaLongProperty ($area; ALP_Area_ShowColDividers;6) // Draw only the last divider to the right except footer
AL_SetAreaLongProperty ($area; ALP_Area_ShowColDividers;7) // Draw dividers except footers, including the last one to the right

Note: value 2 should logically be "no divider" as value 0 but AreaList Pro ignores bit 0 for compatibility in this case.

Version 9.9.2 – Changes

- Modified constants (you may need to update your code):
    o   ALP_Area_SelSetName was removed, since it was a duplicate of ALP_Area_SelCreateSet (which should be used instead)
    o   ALP_Area_SelKeepOnTypeAhead was removed, replaced by the new ALP_Area_TypeAheadEffect property (same value "selT")
- Typeahead implementation for fields mode
    o   the type-ahead query is executed after the timeout (ALP_Area_TypeAheadTime), not after every keystroke
    o   the query used is QUERY SELECTION when possible (plain text/alpha field), QUERY SELECTION BY FORMULA otherwise
- Added constant for the new typeahead event:
    o   AL Typeahead event:15:L
- Improved speed in getting/setting selection using record numbers (including filling ALP_Area_SelCreateSet on selection change)
- Changed implementation of text drawing (removed rounding when computing word positions - text with spaces using fixed-size fonts didn't align)

Version 9.9.2 – Fixes

- Fixed update issues when old *AL_SetScroll* ($area; 0; 0) is used with v15 (http://forums.e-node.net/viewtopic.php?f=10&t=254)
- Fixed an update issue during entry (http://forums.e-node.net/viewtopic.php?f=10&t=245)
- Fixed some redraw issues with 4D v15
- Fixed scrolling with scrollbars (bug introduced in v9.9.1 mc1) http://forums.e-node.net/viewtopic.php?f=10&t=270

- Fixed possible crash (right-aligned, wrap, leading space, word not fitting into the column)
- Fixed getter for ALP_Object_RowSelection, functionality for ALP_Area_SelPreserve & ALP_Area_SelCreateSet (based on the record numbers)
- Fixed drawing of background color in multistyled text (no "white hair lines" between characters) http://forums.e-node.net/viewtopic.php?f=10&t=286
- Fixed a small problem with first column header drawing in hierarchy mode (measured without disclosure triangle but drawn with the indent)

Warning: behavior changes in 9.9.1

- Since version 9.9.1 (precisely b3), a destination access code "_external" must be set for an area to accept drops from external objects such as 4D draggable objects, text selections, external documents or folders. See the note below for Version 9.9.1 Beta 3
- Since version 9.9.1 (precisely mc4), string formatting strips unused characters from the format instead of replacing "number sign" placeholders by non-breaking space (e.g. "1234" formatted with "###-###-###" will produce "1-234", not " - 1-234" as before)

Version 9.9.1 hotfix 1

- Fixed header/footer height computation (bug from ALP 9.9hf1)

Version 9.9.1 – New features

- **Online instant activation**: Master (unserialized) keys can now directly be entered in the demonstration mode dialog. One-click registration, no need to recompile, no need for serial numbers or machine IDs!
- Alternate row coloring when exporting SuperReport Pro reports (requires SuperReport Pro 3.3)
- Option (alt)-double-click on right column edge resizes all columns (sets all columns to width = 0, not only the single column affected with double-click)
- Background color in attributed text (stored internally by 4D as <SPAN STYLE="background-color:#FFFFFF">)
- New constants for *AL_ModifyArrays*
  - AL Modify Insert info:0:L
  - AL Modify Insert action:1:L
  - AL Modify Delete info:2:L
  - AL Modify Delete action:3:L

<p style="text-align:center; color:magenta">Version 9.9.1 – New properties</p>

- ALP_Area_SelKeepOnTypeAhead to "keep selection on typeahead"
    - category: Area
    - value: "selT"
    - access: read/write, but not persistent
    - type: boolean
    - default: 0 (False)
    - usage: set to 1 (True) to get the old AreaList Pro 8 behavior: on typeahead, the selection is not changed when selection mode is multiple rows selection and the current selection is not empty - only the view is scrolled to show the first matching row

- ALP_Area_Event_Filter
    - category: Event
    - value: "evtF"
    - type: integer
    - access: read/write, but not persistent
    - default: 0
    - min: 0
    - max: 1
    - usage: mask to define which events should <u>not</u> be reported
    - currently only bit 0 is defined: don't report Mouse Moved event (AL Mouse moved event = 18)

- ALP_Area_FillNumberSign
    - category: Plugin
    - value: "fils"
    - access: read, write, but not persistent
    - property type: bool
    - default: 0 (False)
    - usage: if set to 1 (True), string formatting replaces the "number sign" placeholders '#' with non-breaking space (old behavior), otherwise unused part of the format string is removed

- ALP_Area_ReadOnly
    - category: Area
    - value: "ronl"
    - access: read, write, but not persistent
    - property type: integer
    - default: 0
    - min: 0
    - max: 7
    - usage: this is a bit-field which makes the area read-only

- bit 0 (value 1): make area not enterable
- bit 1 (value 2): make area not droppable (ignore drag)
- bit 2 (value 4): make area not draggable

Version 9.9.1 – Changes

- Modified SuperReport Pro report generation (*AL_SuperReport*): when options (parameter 3) bit 0 is 0, the current column width (ALP_Object_ColumnWidth) is used instead of the width set by developer, or by the user resizing columns (ALP_Object_ColumnWidthUser)

- Drag and drop from CalendarSet v4: the CalendarSet area reference is returned as a negative number (opposite of the actual CalendarSet area reference) in the ALP_Drop_DragSrcArea property

- Drag and drop from external (non plugin) sources such as a file or folder, a text selection from another application/window or a 4D object: new "_external" access code to allow this for an area (and the event callback, if installed, must return 1 for $2 = AL Allow drop event, returning 0 will disallow the drop)

- String formatting strips unused characters from the format instead of replacing "number sign" placeholders by non-breaking space (e.g. "1234" formatted with "###-###-###" will produce "1-234", not "   - 1-234" as before)

Version 9.9.1 – Fixes

- On type-ahead, the area is correctly redrawn (sometimes it did not update, only changed the vertical scrollbar position)

- Fixed bugs in *AL_ModifyArrays*
  - row options after the deleted row(s) are no longer reset
  - update occurs after modification

- Fixed a bug in multiple row selection mode when ALP_Area_DontSortArrays = 1 (which is implicitly set when using hierarchy mode): the selected row (ALP_Area_SelRow) was incorrect

- Fixed a bug in drag and drop: the source process ID was not always set

- Fixed possible crash with setting ALP_Area_EntryGotoCell (when using empty string)

- Fixed possible crash with setting ALP_Area_EntryHighlight (when using empty string)

- Fixed *AL_GetObjects* with selector ALP_Object_RowHide (didn't work in field mode)

- Fixed *AL_ModifyArrays* (didn't modify calculated columns in arrays mode)

- Fixed event reported on typeahead selection change (event 101 was reported instead of event 1 since AreaList Pro 9.6hf2)

- Fixed constant ALP_Area_Event_Filter (was not visible by 4D)

- Fixed implementation for mouse moved event filtering

- Fixed auto-sized column code (infinite redraw)

- Fixed starting entry when option-double-click is the method to be used

- Fixed background color being ignored when a long word is split (background color set in the attributed string)

- Fixed possible crash on Mac when starting entry (when font to be used is empty string)

- Fixed ALP_Area_SelRow value on row de-selection in multi-line row selection mode (will contain the first selected row number or zero if selection is empty - it contained the deselected row number)

Version 9.9 – New properties

- ALP_Area_TopRow
  - category: Area/Display
  - value: "artp"
  - access: read-only
  - type: integer
  - usage: the row number of the first (possibly partially) visible row on screen

- ALP_Area_BottomRow
  - category: Area/Display
  - value: "arbt"
  - access: read-only
  - type: integer
  - usage: the row number of the last (possibly partially) visible row on screen

- ALP_Area_CopyOptions
  - category: Area
  - value: "ecop"
  - access: read, write, persistent
  - XML name: "copyOptions"
  - type: bool
  - default: 0 (False)
  - usage: when set to 1, include the headers in the copied / dragged data (but only when the headers are not hidden)

- **Support of the new e-Node Online automatic registration:** this optional registration removes the need to retrieve the serial information or machine ID from the end user setup

- New parameters to *AL_Register* for Online registration:

  AL_Register (licenseKey ; options ; email)
    o options is a longint combining up to 4 bits :
        ▪ bit 0: force check - if this bit is on (true), the provided key is tested regardless of current registration state. If the plugin was not previously registered and the result is 0, it is registered the same way as if the bit was off (or the whole parameter omitted)
        ▪ bit 1: confirm connection "Is it OK to connect to e-Node's license server to register AreaList Pro?"
        ▪ bit 2: display alert if registration error
        ▪ bit 3: display alert if registered
      (default is no force check, silent mode)
    o email is a text parameter holding your email address if you want to be notified when registration is performed (or fails) including the key that was issued and user IP information

- **Support for 64-bit 4D Server on Mac** (only useful for registration purposes, AreaList Pro is not meant to be used on a server)

- INS key during entry on Windows is routed to 4D (e.g. as a shortcut to a button on the layout)

- Changed default for ALP_Area_WindowsClip when 4D v14 is used
    o *AL_GetAreaLongProperty* (0;ALP_Area_WindowsClip) will return 0 on startup
    o cures a 4D v14 issue (not redrawing a plugin area in a subform)

- Added workaround for empty menu items in popups:
    o when the text is the empty string, single space is used as menu text and Char(0x7f) is used as menu parameter
    o when the menu is provided by the developer, Char(0x7f) passed as menu parameter means that it will assign the empty string

- On window deactivation:
    o entry is no longer ended
    o no callback is called

- Named formats are supported: "|format" is resolved when it is set, including text type styles (loading from advanced properties, loading from XML, setting the ALP_Column_Format property)
    o text type formats will only access the styles available in the host database, not components

- 4D v14 + only: added support for **SET OBJECT VISIBLE** - no need to hide/show AreaList Pro manually (4D v14 + feature)

- Time picker: the two hour columns are grouped on the 24 hours display
- Changed implementation of the multiple-row selection
  - matches legacy (v7-v8) behavior

Version 9.9 – Fixes

- When clearing row properties (ALP_Row_ClearStyle), the area redraws automatically
- When clearing cell properties (ALP_Cell_Clear, ALP_Cell_ClearStyle), the area redraws automatically
- When changing some row properties of visible rows while using variable row height, the view does not "jump"
- Key up/down honors invisible rows
- Fixed live scrolling (after opening/closing input form)
- Setting row visibility using *AL_SetObjects* invalidates the area (requests redraw)
  - fixes the following bug :

    $err:=*AL_SetObjects* ($area; ALP_Object_RowHide; ->$array)

    did not invalidate the area : the row heights were not recomputed (the row was not visible, but there was space for it - empty rows).
- When arrays are sorted and ALP_Area_MoveRowOptions is set, the array holding visibility of the rows is included in the sort
- 4D v14 specific:
  - command-double-click begins the entry again
  - in compatibility mode the area is made visible on update event
- Fixed drawing with variable height - sometimes it was drawn clipped (the first time)
- Fixed possible crash in drag and drop
- ALDropArea correctly draws in the Design environment
- Fixed Advanced Properties to correctly work with empty databases (no tables)
- Boolean entry (checkbox/radio) correctly handle keyboard on a Mac
- Areas are correctly redrawn during drag and drop on Mac using pre-v14 4D versions
- Empty areas (no columns) do not show active scrollbars (initial area size was 800 x 600) and correctly draw the "empty column" header
- Fixed "missing data" when switching an area from fields to arrays and the area was vertically scrolled
- Time picker: the DEL key now resets the time (as with the date in the date picker)
- Fixed a bug with zero column width when too many columns are locked and there is no space for unlocked columns (columns not resized after growing the AreaList Pro area)
- Fixed multiple-row selection

- Fixed drawing of the native widget (in entry mode) with 4D v14 on Windows
- Fixed support for 4D objects above the AreaList Pro area on Mac
- Fixed bug with typeahead selection (introduced in 9.9hf1)
- Scrolling 4D form moves the active AreaList Pro entry widget(s)
- Fixed entry cell height when empty string is edited in variable row height

Contact

Free upgrade requests, sales and license information: orders@e-node.net

Technical issues, discussions and requests: forums.e-node.net

AreaList Pro web page: www.e-node.net/alp