HERALD – a framework by myCTS

a <u>H</u>ighly <u>E</u>xtensible <u>R</u>apid <u>App</u><u>L</u>ication <u>D</u>evelopment framework by myCTS

HERALD – designed for pure server-side management!

❖ It is a framework consisting of the actual user interface (i.e. client) and support routines (login server, menu and user administration, and the control APIs).

❖ Standalone client, without installation, no entries in the Windows registry, free choice of computer, etc.

❖ Works fast and saves bandwidth, because the protocol has been reduced to the minimum. The client itself (currently) takes up 3MB.

❖ The client has been consciously kept simple, i.e. no messy installation for the user, colours are predefined by the server, the font is (currently) set as Courier (monospace). The character size is automatically calculated, depending on screen size, but can be changed to an individual size by the user by specifying a min and max.

❖ The font we have selected (Courier) is supported by Unicode. With a Unicode version of Caché, it is possible to display an address in which, for example, there is a German name with an umlaut, or a Slovakian or Russian (Cyrillic) street name.

❖ Changing language and area (TEST, PROD, etc.) can be freely selected by the user (providing they are authorised).

❖ You can use the individual applications you create virtually by only using either the mouse or keyboard. We are not exponents of the combined approach – type a bit, look for the mouse, look for the right place on the screen and then carry on typing. You either do everything with the mouse or everything with the keyboard.

❖ A liaison between MS components and Caché. For example, you can, if required, load Excel tables from the user's workplace via the client into the Caché server or create Excel tables from the Caché server on the user's PC (without going via CSV). The requirement is that Excel has been installed on the user's PC (you can check whether it is there via the server).

❖ Displaying PDF documents. However, this requires that, at minimum, free AdobeReader has been installed on the user's PC (can be checked via the server).

❖ As well as the standard graphic formats, such as JPG, GIF and PNG (e.g. product images), the client can also display SVG (Scalable Vector Graphics) diagrams or drawings (e.g. dimensions of a room).

❖ The login window is ready to take a logo (e.g. myCTS or customer's logo), the name of the client is also freely selectable, e.g. cts.exe (caché technology solutions) or sbs.exe (steel business system). You can also transfer the client to the user with a login script.

❖ It is obvious that passwords are a target for hackers. Therefore no passwords are transferred from the client to the server (cue network sniffer or Telnet with plain text password). And, in reverse, in order to protect data it is possible to send an encrypted version of the entire communication, or only parts of it, e.g. acquisition price or gross profit fields.

❖ After login, a version comparison is carried out. If the user logs in with another version predefined by the server, he is automatically given an update so all users are working with the same client version.

An extract of the functions and programs provided

A)   CREATION OF GRAPHICAL ELEMENTS
(frames, windows, etc.)

Panel	(Container for labels, edit boxes, etc.)
Memo field	(for texts with RTF formatting)
ListView	
TreeView	(alone or in combination with ListView)
Tab rider	(also multiline)
Container	(for other frames)
Document	(e.g. PDF display)
Image	(e.g. JPEG, PNG, GIF, etc. display)
Graphic	(SVG display)

Creating context menus
Creating buttons
Creating sub and modal windows

B)   CONTROL FUNCTIONS

Frames	positioning/arranging
Tab rider	switching
Focus	setting
Frame contents	deleting
Frames	disabling and enabling
Lines	selecting
Lines	bringing into visible area
Lines	inserting
Lines	deleting
Lines	moving
Checkbox	enabling/disabling
Line numbers	enabling/disabling
Checkboxes	setting/clearing
Cells	selecting
Dividing lines	switching on/off
Borders	switching on/off
Click, double-click	switching on/off
Node	inserting/deleting
Node	opening/closing
Wordwrap	switching on/off

Sorting	switching on/off
Window size	changing
Window to front	minimising, maximising
Set title	(window, application)
Messages	(general, tips, help, etc.)
Status fields	setting

C) INTERACTION WITH LOCAL PROGRAMS

Write and read Excel
Activate local programs (with parameters)
Local printing
Play system and application sound (signals)

D) RETRIEVAL CAPABILITIES SERVER-SIDE

Whether Acrobat (Reader) is installed
Whether Excel/Word is installed
Whether local printer is available

Frame contents (fields, message boxes)
List lines (also search)
Tree lines
Size of windows, frames, characters
Selected lines
Ticked checkboxes
Visible lines

GUI version
Regional settings (language, decimal point, etc.)

E)   INPUTS AND EVENTS

1)   Data input

Input in edit box
Input in drop-down and combo box
Input in message box

2)   Events

Click, double-click
Pop-up
Function buttons
Special functions
Close window (intentionally)

F)   MISCELLANEOUS

Encryption (individual data or all)
Automatic resumption of connection after
data line failure (with few limitations)

Integrated user rights administration
Integrated licence and sub-licence administration
Integrated translation administration

Service program:
     Mask definition
     Menu definition
     Input loops