ICZ LETVIS® - CWS
Controller WorkStation

ICZ LETVIS® SYSTEM USER INTERFACE

THE ICZ LETVIS® CWS (CONTROLLER WORKSTATION) PRODUCT PROVIDES A USER INTERFACE (HMI) FOR THE ICZ LETVIS® SYSTEM – FROM DISPLAYING THE REQUIRED INFORMATION (AIRSPACE INFORMATION, SAFETYNETS, STRIPS, ETC.) THROUGH TO INTERACTIVE WORK WITH THE SYSTEM AND INFORMATION.

The ICZ LETVIS® CWS product is the main workstation for the ICZ LETVIS® system. ICZ LETVIS® CWS is a graphical terminal for the ICZ LETVIS® system, enabling the monitoring of the airspace situation and additional information in the form of flight plans, airspace management, sectorisation, etc. It also provides an HMI for work with this information.

[ BASIC FUNCTIONS ]

ICZ LETVIS® CWS workstation has a main display (radar) window covering the whole screen, which cannot be minimised, shrunk or closed. There are, however, predefined additional radar windows that can be opened/closed, and minimised, and whose size can be changed. The display options are configurable separately for each radar window. In addition to the radar windows, the workstation can provide configurable information in additional windows (strips, safetynets, etc.), and additional supplementary functionality (work with QNH, ASM, etc.).

RADAR WINDOWS

Radar windows are conceptually designed as configurable linking of images made up of multiple layers to create the resulting image. The basic layers are tracking, plotting, scanning, weather, map, and additional user-defined layers. The way the layers are connected is configurable (transparency, etc.).

Basic information displayed in the radar window:

- Multitrack information
  - various track symbols
  - variable-configuration forms
- Scans (“Raw video”) from multiple sources
- Plots from multiple sources
- Local tracks from multiple sources
- Cloud cover (weather image)
- Static map data (layered vector maps)
  - broken down into object types
- Dynamic map data
  - performs automatic map rendering
- Additional information (track trajectory history, route plans, etc.)

Basic options for configuring each radar window:

- Various projections
- Predictive timeline
- Number of displayed tracking points history
- Configurable position of forms with respect to track symbols
- Content and display of elements in track forms
- Track view filters according to altitude and significance criteria and source of position information
- Window titles, font used in track forms
- Content and layers of static map background objects
- Enable/disable display of dynamic map data (FUA spaces)
- Enable/disable display of scans, plots, and local tracks from individual sources
- Enable/disable display of supplementary information
- HMI over the display
**APPLICATION SW AND OPERATING SYSTEM**

<table>
<thead>
<tr>
<th>OPERATING SYSTEM</th>
<th>LINUX SLED 12 (and higher), WINDOWS 8 (and higher)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Application SW</strong></td>
<td>The ICZ LETVIS® CWS SW product includes:</td>
</tr>
<tr>
<td></td>
<td>ICZ LETVIS® CWS user application</td>
</tr>
<tr>
<td></td>
<td>ArchDrec &amp; ArchDrep process</td>
</tr>
</tbody>
</table>

**HARDWARE AND TECHNICAL PARAMETERS**

<table>
<thead>
<tr>
<th>Basic HW</th>
<th>HP/DELL/COTS - INTEL platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAN</td>
<td>Ethernet, TCP/IP, UDP/IP</td>
</tr>
<tr>
<td>Special HW</td>
<td>Graphics adapter and high-resolution monitor</td>
</tr>
<tr>
<td>Display resolution</td>
<td>2048x2048, 1920x1200, 1600x1200, 1280x1024</td>
</tr>
<tr>
<td>Programming language</td>
<td>QT, C++</td>
</tr>
<tr>
<td>Graphical interface</td>
<td>OpenGL</td>
</tr>
<tr>
<td>Input data protocol</td>
<td>ALAS 6 (ASTERIX 62/65 = ALES SDI)</td>
</tr>
<tr>
<td></td>
<td>Asterix 01/02, 34/48, 62/65-standard, 19, 20, 21</td>
</tr>
<tr>
<td></td>
<td>ALES-XML (FPL, ASM, Safety Nets, etc.)</td>
</tr>
<tr>
<td></td>
<td>ALES-scan</td>
</tr>
<tr>
<td></td>
<td>ALES-meteo</td>
</tr>
<tr>
<td>Guaranteed number of plots per source/64 sources</td>
<td>1 000/64 000</td>
</tr>
<tr>
<td>Guaranteed number of local tracks per source/64 sources</td>
<td>1 000/64 000</td>
</tr>
<tr>
<td>Guaranteed number of strips</td>
<td>1 000</td>
</tr>
<tr>
<td>Map files</td>
<td>Shp, ALES map format</td>
</tr>
<tr>
<td>Guaranteed number of map objects</td>
<td>1 000 000 WGS coordinates, 100 display layers</td>
</tr>
</tbody>
</table>

**COMMERCIAL CONTACT**

ICZ a.s.  
Na hrebenech II 1718/10  
140 00 Prague 4  
TEL.: +420 222 271 111  
E-MAIL: marketing@i.cz

ALES a.s.  
Soblahovská 2050  
911 01 Trenčín  
TEL.: +421 326 582 580  
E-MAIL: sales@ales.sk

**COMPILED IN**

ICZ PL_TRANS_ICZ LETVIS CWS_EN_1801_PRINT_01  
www.iczgroup.com  
ICZ_PL_TRANS_ICZ LETVIS CWS_EN_1801_PRINT_01  
page | 2 | of 2