C&SMWG17-6.9A

Improved placement of numerical values of planned tracks according to the horizontal angle of the particular track leg.

SUMMARY	
Executive summary:	- Proposed discussion at CSMWG16 (CSMWG16 Minutes, 6.11 actions) - S-52, Appendix 2 Version 4.2 requires upright placement of numerical values of track courses along each leg of planned tracks. Due to the obvious deficiency of the applying text instruction in place, the leg of track which belongs to displayed numerical value cannot be detected unambiguously in all arrangements.
Actions to be taken:	- To be discussed during CSMWG and possibly to be adopted as deferred amendment. - Modificaton of all text instructions which carry 'ORIENT' - Adaptation of OEM ECDIS Software - No CSP of PresLib 3.3 (3.4) affected
Related documents:	- S-52, Appendix 2 Version 4.2 – March 2004 - Future C & S Maintenance Document No 5 – July 2007

As a pending topic of CSMWG16, Monaco 2006 there was a small discussion of an improved placement of numerical values of planned tracks according to the horizontal angle of the track leg.

An example of the current situation as controled by the current look up table entries for text instructions of planned tracks is given in figure 1.

It is proposed to place numericals of all lines which carry the "ORIENT" attribute according to the following sequence.

- Figure out if the length of the visible part of the line at the selected display scale is as long as the text string to be used for the display of the numerical value.
  If not then do nothing.
- Calculate the centre point of the visible part of the line and then place the text string horizontally centered at the calculated point with no x-offset and an y-offset of -1 (one hights of line upper).

The second and third figure show the result for both track legs with horizontal and turned orientation.

It is proposed to modify all entries carrying text instructions which include the attribute ’ORIENT’ as follows:

S52 Presentation Library original:

TE('%03.0lf deg','ORIENT',3,1,2,'15110',1,-1,CHBLK,11)

HJUST= 3 : LEFT justified
XOFFS= 1
YOFFS= -1

New for the prosoed text positions:

TE('%03.0lf deg','ORIENT',**1**,1,2,'15110',**0**,-1,CHBLK,11)

HJUST= **1** : CENTRE justified
XOFFS= **0** : no x-offset
YOFFS= -1

Explantation: YOFFS = -1 is necessary for position the text above an horizontal line and not overwriting the horrizontal line.

"DWRTCL","","LC(DWLDEF01);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","DISPLAYBASE","15010"
"DWRTCL","CATTRK1TRAFIC1","LC(DWRTCL08);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","DISPLAYBASE","15010"
"DWRTCL","CATTRK1TRAFIC2","LC(DWRTCL08);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","DISPLAYBASE","15010"
"DWRTCL","CATTRK1TRAFIC3","LC(DWRTCL08);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","DISPLAYBASE","15010"
"DWRTCL","CATTRK1TRAFIC4","LC(DWRTCL06); TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","DISPLAYBASE","15010"
"DWRTCL","CATTRK2TRAFIC1","LC(DWRTCL07); TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","DISPLAYBASE","15010"
"DWRTCL","CATTRK2TRAFIC2","LC(DWRTCL07); TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","DISPLAYBASE","15010"
"DWRTCL","CATTRK2TRAFIC3","LC(DWRTCL07); TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","DISPLAYBASE","15010"
"DWRTCL","CATTRK2TRAFIC4","LC(DWRTCL05); TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","DISPLAYBASE","15010"
"DWRTCL","TRAFIC1","LC(DWRTCL07);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","DISPLAYBASE","15010"
"DWRTCL","TRAFIC2","LC(DWRTCL07);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","DISPLAYBASE","15010"
"DWRTCL","TRAFIC3","LC(DWRTCL07);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","DISPLAYBASE","15010"
"DWRTCL","TRAFIC4","LC(DWRTCL05);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","DISPLAYBASE","15010"

"NAVLNE","CATNAV1","LS(DASH,1,CHGRD);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","4","O","STANDARD","25010"
"NAVLNE","CATNAV2","LS(DASH,1,CHGRD);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","4","O","STANDARD","25010"

"RADLNE","","LS(DASH,2,TRFCD);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","STANDARD","25040"

"RCRTCL","","LC(RCRDEF11);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","DISPLAYBASE","15020"
"RCRTCL","CATTRK1TRAFIC1","LC(RCRTCL14);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","DISPLAYBASE","15020"
"RCRTCL","CATTRK1TRAFIC2","LC(RCRTCL14);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","DISPLAYBASE","15020"
"RCRTCL","CATTRK1TRAFIC3","LC(RCRTCL14);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","DISPLAYBASE","15020"
"RCRTCL","CATTRK1TRAFIC4","LC(RCRTCL13);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","DISPLAYBASE","15020"
"RCRTCL","CATTRK2TRAFIC1","LC(RCRTCL12);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","DISPLAYBASE","15020"
"RCRTCL","CATTRK2TRAFIC2","LC(RCRTCL12);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","DISPLAYBASE","15020"
"RCRTCL","CATTRK2TRAFIC3","LC(RCRTCL12);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","DISPLAYBASE","15020"
"RCRTCL","CATTRK2TRAFIC4","LC(RCRTCL11);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","DISPLAYBASE","15020"
"RCRTCL","TRAFIC1","LC(RCRTCL12);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","DISPLAYBASE","15020"
"RCRTCL","TRAFIC2","LC(RCRTCL12);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","DISPLAYBASE","15020"
"RCRTCL","TRAFIC3","LC(RCRTCL12);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","DISPLAYBASE","15020"
"RCRTCL","TRAFIC4","LC(RCRTCL11);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","DISPLAYBASE","15020"

"RECTRC","","LC(RECDEF02); TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","STANDARD","25020"
"RECTRC","CATTRK1TRAFIC1","LC(RECTRC12);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","STANDARD","25020"
"RECTRC","CATTRK1TRAFIC2","LC(RECTRC12);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","STANDARD","25020"
"RECTRC","CATTRK1TRAFIC3","LC(RECTRC12);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","STANDARD","25020"
"RECTRC","CATTRK1TRAFIC4","LC(RECTRC10);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","STANDARD","25020"
"RECTRC","CATTRK2TRAFIC1","LC(RECTRC11);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","STANDARD","25020"
"RECTRC","CATTRK2TRAFIC2","LC(RECTRC11);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","STANDARD","25020"
"RECTRC","CATTRK2TRAFIC3","LC(RECTRC11);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","STANDARD","25020"
"RECTRC","CATTRK2TRAFIC4","LC(RECTRC09);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","STANDARD","25020"
"RECTRC","TRAFIC1","LC(RECTRC11);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","STANDARD","25020"
"RECTRC","TRAFIC2","LC(RECTRC11);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","STANDARD","25020"
"RECTRC","TRAFIC3","LC(RECTRC11);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","STANDARD","25020"
"RECTRC","TRAFIC4","LC(RECTRC09);TE(‘%03.0lf deg’,’ORIENT’,**1**,1,2,’15110’,**0**,-1,CHBLK,11)","6","O","STANDARD","25020"

Figure 1:
current solution:

Position of numericals are at the corners of the line.

It is not clear for the user for which part of the line the displayed orientation belongs to.

It may happen that the text is visible over the **wrong** part of the line !
Example:
Left: “281 deg”

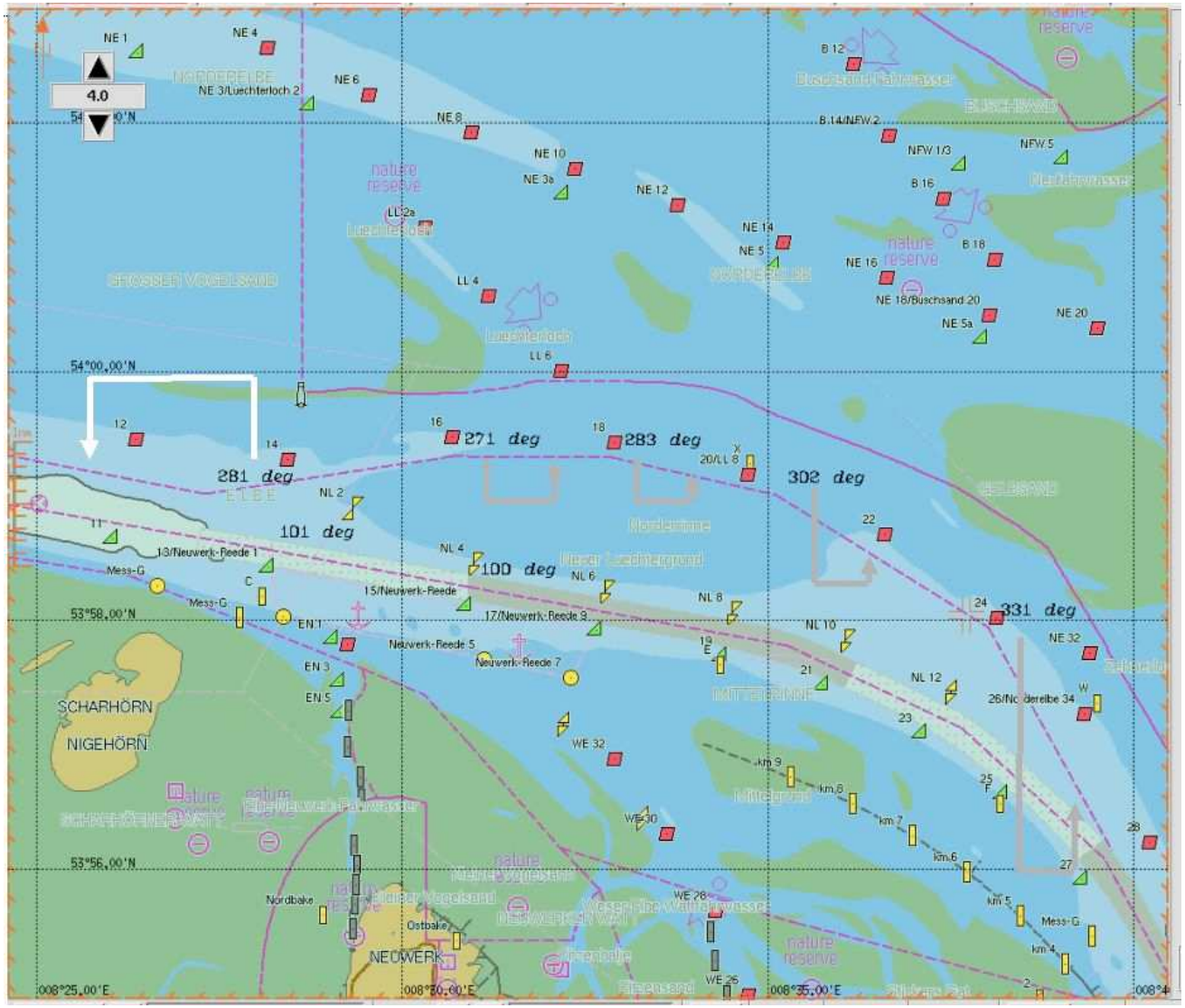

Figure 2
Proposed new solution - Example 1:

Display:
North Up

Position of Numericals are at the centre position of the visible part of the line.

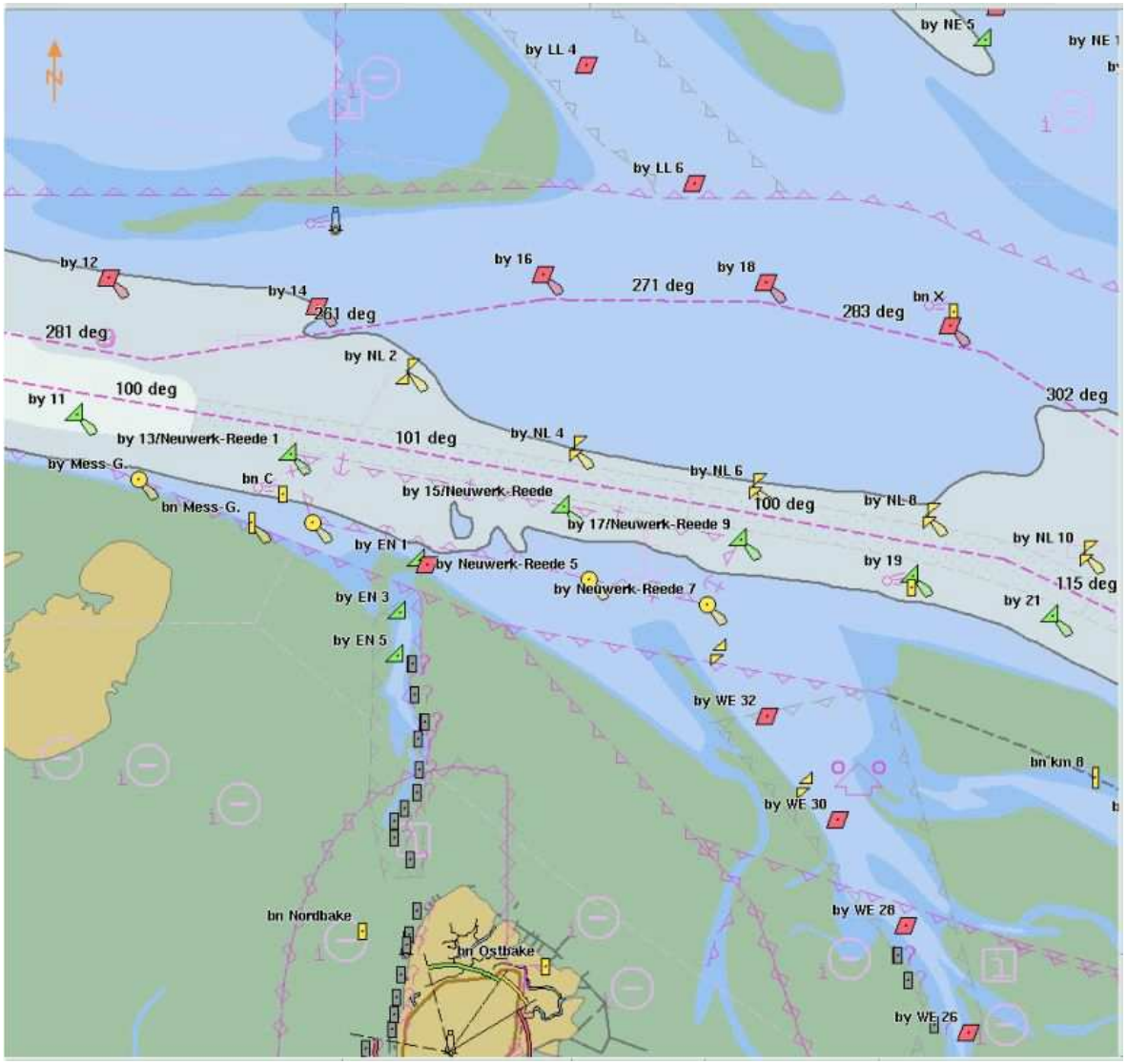

Figure 3
Proposed new solution - Example 2:

Display:
Head Up
Rel. Motion

Position of Numericals are at the centre position of the visible part of the line.

If the chart is moving over the screen then the next line with the orientation will become visible ahead and the centred text will become visible with the displayed part of the line automatically.