today's last discussion, about centred symbols

Raphael Malyankar Thu, Jul 29, 2021 at 11:28 AM
To: "Grant, David M
Cc: "david.grant1" , Julia Powell

I remember going round this before, "representative position" is not the same as "centred in the visible portion". Any portrayal catalogue developer could decide that if the area covers the entire display, the most epresentative position is the midpoints of the four edges of the screen. Possibly displaced enough along the edge so as not to obscure any other symbol that may be there.

In fact, given the case above, the placement above *is* more representative and better from the user's perspective, since it does not clutter the middle portion of the screen, which is where the own ship symbol is likely to be.

Regards,
Raphael

On Thu, Jul 29, 2021 at 10:52 AM Grant, David M
wrote:

> 9-11.1.7 Point Instruction:
>
> **Surface Geometry**
>
> The symbol is drawn at a representative position within the surface. How this position is obtained is controlled by the areaPlacement member of the symbol. The details are described in the documentation of the Symbol package.
>
> 9 12.3.1.1 Symbol

		placed		
Role	areaPlacement	Defines the placement of a symbol within an area	0..1	AreaSymbolPlacement

9-12.3.1.4 AreaSymbolPlacement

Role Name	Name	Description	Mult.	Type
Class	AreaSymbolPlacement	Defines the placement of a symbol within an area	-	-
Attribute	placementMode	The mode that defines how the symbol has to placed.	1	AreaPlacementMode

9-12.3.1.6 AreaPlacementMode

Role Name	Name	Description
Type	AreaPlacementMode	Defines the type of placement of a symbol within an area
Enumeration	visibleParts	The symbol has to be placed at a representative position in each visible part of the surface
Enumeration	geographic	The symbol has to be placed at a representative position of the geographic object

> Note that the symbol does not necessarily appear centered; its position depends on the: SVG viewBox, offset, rotation, and display mode (true/relative motion). Some of the S 52 terminology doesn't apply to S 100, or isn't well defined: "pivot point", "centred symbol".

As I said in the meeting, the wording in Part 9 could be improved if desired, however it's not as simple as just replacing "at a representative position in" with "relative to the centroid of", because the representative position is constrained to remain within each visible part of the surface (i.e. it won't be at the centroid if the visible portion of the surface is concave). Adding wording from PresLib 8.5.1.1 could clarify this.

Note that AreaSymbolPlacement/AreaPlacementMode can also apply to Te t:

9-12.6.3.5 TextPoint

Role Name	Name	Description	Mult.	Type
Class	TextPoint	A graphic element for depicting text relative to a point	-	-
Attribute	offset	Specifies the offset from the anchor point with respect to the portrayal CRS	0..1	GraphicsBase::Vector
Attribute	rotation	Specifies the rotation angle relative to the portrayal CRS. Default = 0	1	double
Role	areaPlacement	Describes the placement of the text when the geometry is a surface	0..1	Symbol:: AreaSymbolPlacement

Additionally, I think this requirement from PresLib 8.5.1 should be added to the S-100 9-12.3.1.6 *visibleParts* description so that implementers know to disable the symbol / text in this case:

If the centre of the symbol bounding box falls outside of the area then it must not be drawn.

V/R,

David Grant

From: Raphael Malyankar
Sent: Thursday, July 29, 2021 9 26 AM
To: david.grant1
Cc: Julia Powell
Subject: [Non-DoD Source] today's last discussion, about centred symbols

Julia, David,

I just searched S-100 4.0.0 for the words centred/centre (also centered/center) and found nothing in Part 9 or elsewhere like the statements in S-98 about centred area symbols. If they exist in S-100 4.0.0 it is up to David to say where.

Regards,
Raphael

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