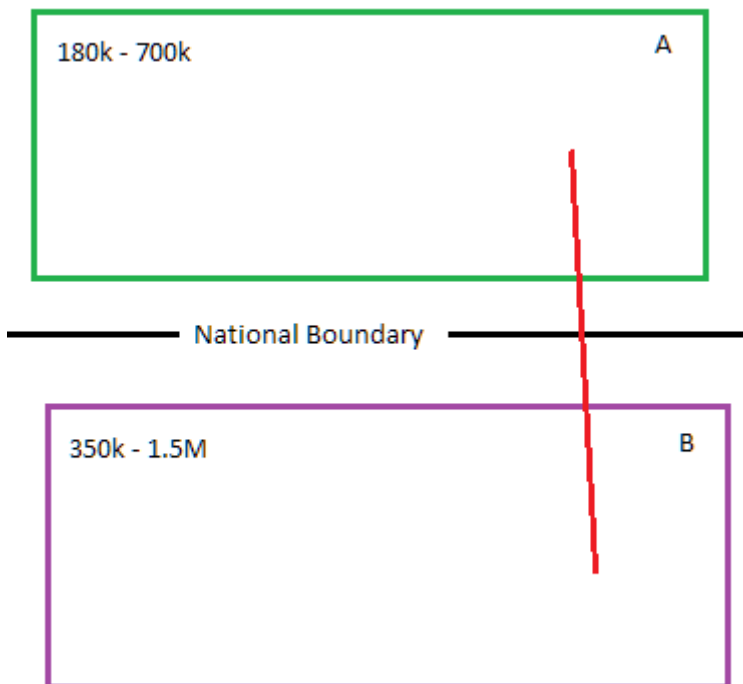Issue with light leg lines (really anything that extends beyond the dataCoverage boundary, could be symbols or text):

180k - 700k A

National Boundary

350k - 1.5M B

Two countries have different tiling / cataloging schemes
Datasets A and B have different scales
Red line = light leg line
If leg line originates from B it will be obscured by skin of the earth in A
• In S-52 the leg line is not obscured because the two datasets will have a common nav purpose

Note: To ensure seamless presentation of a single intended usage (navigational purpose) all objects of same display priority from all cells in same intended usage must be drawn together.

Pol> Agree about the description of the issue. But to my mind it is not an issue due to S-101 specification, == the issue already exists in S57/S52 specifications when two datasets at the boundary have not the same navigation purpose. In S100 world you just replace navigation purpose list by maximum display scale list.

=> In any cases, Producers must harmonize their datasets at the boundary (== produce consistent datasets at the boundary (== with the same "maximum display scale")

Issue with insets:
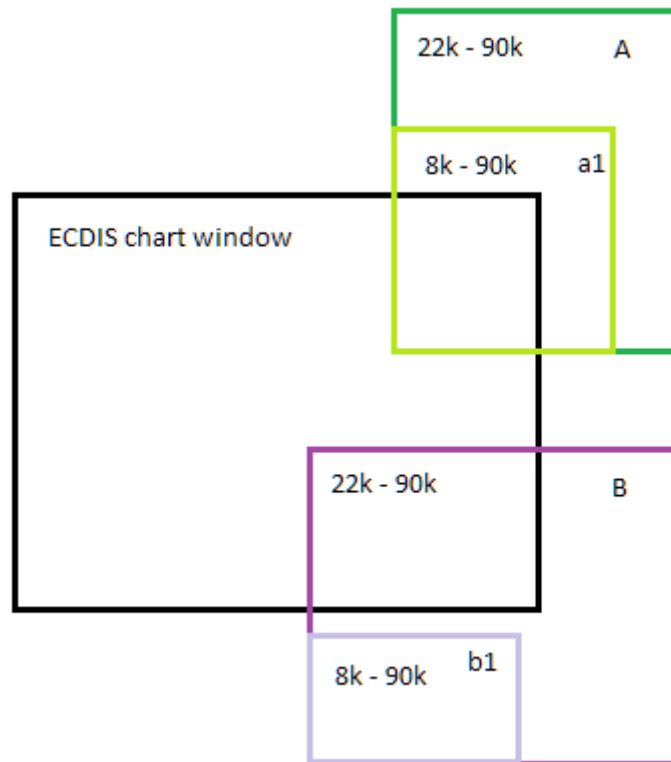
Dataset A has inset a1 (two dataCoverages)
Dataset B has inset b1 (two dataCoverages)MSVS = 22k
Results for S-57:
• Dataset A – not displayed
o Not loaded initially because CSCALE of a1 is ~8k
o Not loaded to fill the display because A likely does not have a more general navigational purpose
• Dataset B - displayed
o Loaded initially because CSCALE of B is ~22k

Pol> "Not loaded initially because CSCALE of a1 is ~8k " . I guess that main manufacturers don't choose this value 8k as a reference for CSCALE, but more around 22k and in turn the DataSet will be selected. In S57 world , it depends of the manufacturer's implementation.

Results for S-101:
• Dataset A - displayed
o Loaded initially because MSVS intersects scale band of a1
o Even if the previous bullet was not true, it would be loaded to fill because 90k min scale of a1 > MSVS
• Dataset B - displayed
o Loaded initially because MSVS intersects scale band of B

• There are also issues with displaying scale boundaries (S-52 rules rely on nav purpose)
Pol> To my understanding, S-100 displaying scale boundaries rely on "maximum display scale list". Have you seen something about this scale boundaries portrayal in the S101 portrayal specification (paper or lua rules ?)

More light leg line issues:
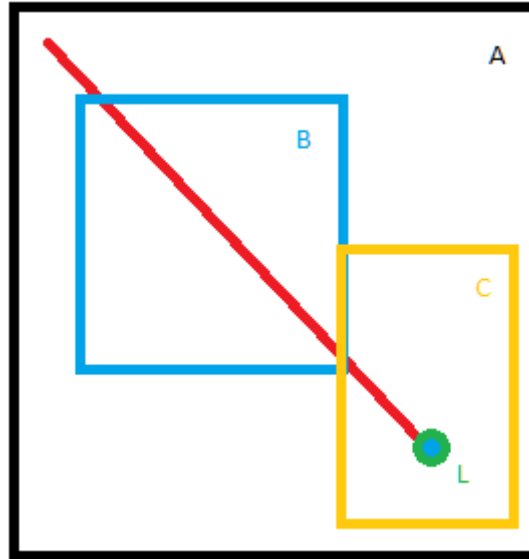
L = Light. Feature exists in A and C.
Red line = leg line
Rectangles = datasets

In S-57/S-52 the red line is visible when:
• The leg line originates from a dataset with the same or better navigational purpose
o Visible in A because C has a better nav purpose, and because a generalized version of L is duplicated in A
▪ Note that there may be two slightly offset lines if the positions of L in A and C don't match exactly
o Visible in B because B and C share the same nav purpose (regardless of individual scales)
o Visible in C because it is the originating dataset

In S-101, the red line is visible when:
• The leg line originates from a dataset with the same or larger maximum display scale
o Visible in A because C has larger max scale
o Visible in B when maxDS(B) <= maxDS(C)

▪ How is maxDS defined when multiple data coverages are present?
• What happens when B has a large scale inset chart?
• What happens if A has a large scale inset chart?
• What happens if A, B, and C have large scale insets?

Pol> In the two world (S100 and S57/S52) , producers have to produce consistent datasets and insets in a way that the legline L will be displayed over (== C must have a larger scale than B and

A). But agree that in some situations we have a problem to display objects with extended geometries (sector lights).
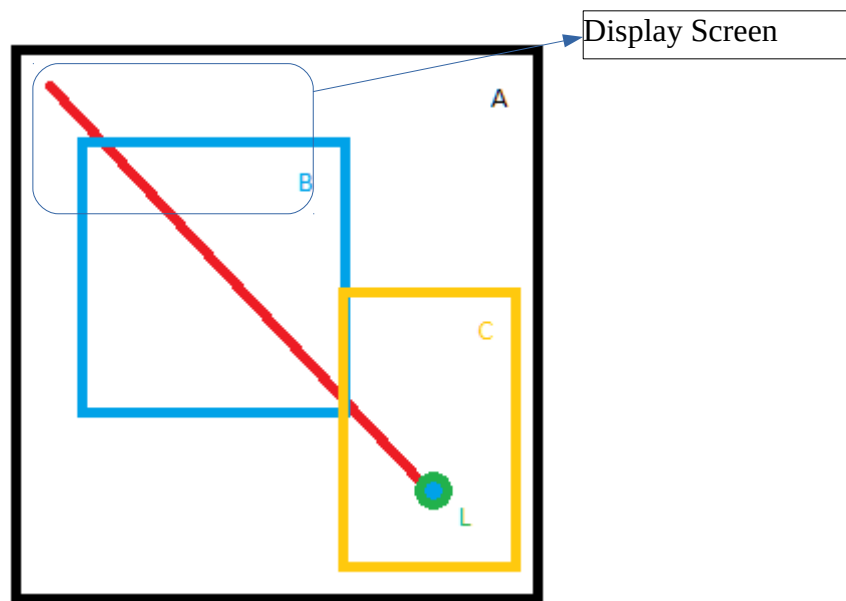
Display Screen

Example above when the geographic arae of datacoverage C is not concerned the display screen , how to express this siuation in the loading/UnLoading algorithm ?
ps this is not an issu specific to S-101 , it already exists in S52/S57 world.