

## Slave Hierarchy for Better Usage of Regions not Interfered by the Master Subframe

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Purpose:

- . Introducing slave hierarchy for better usage of region not interfered by the master subframe.

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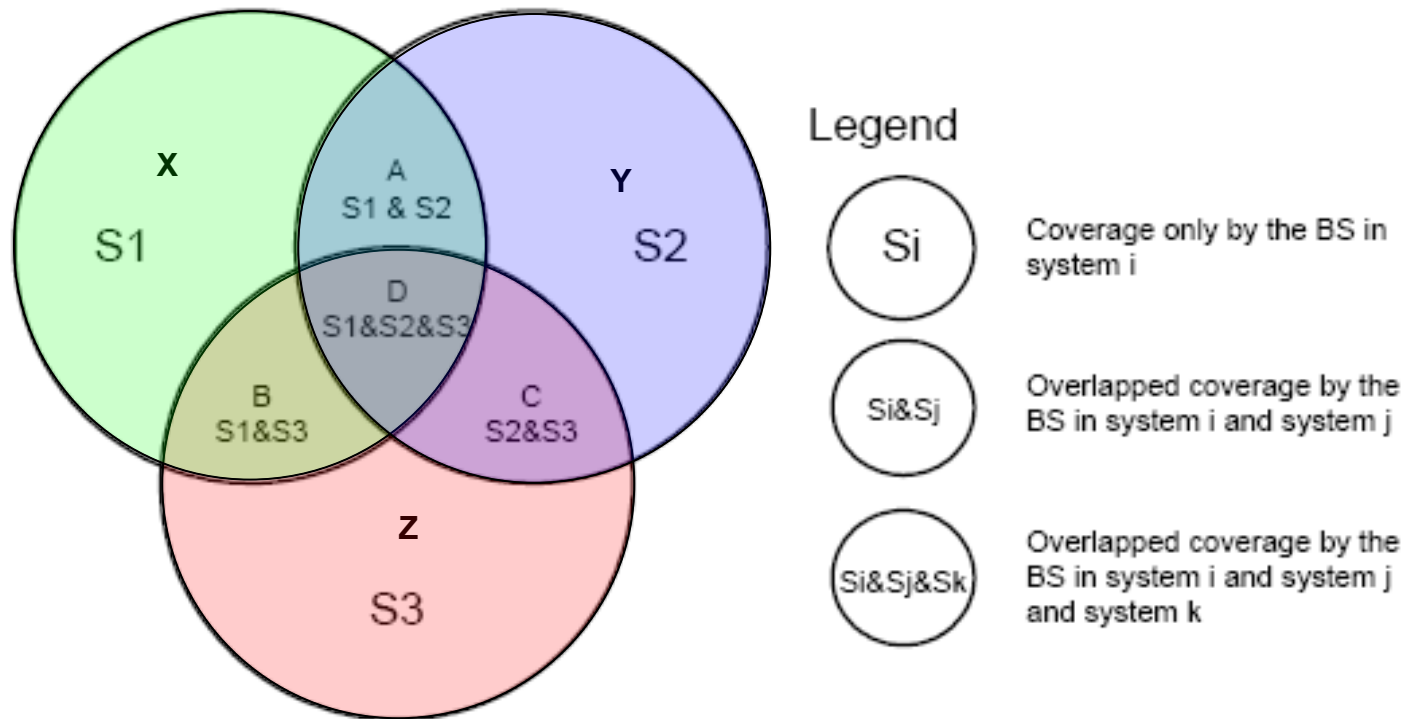
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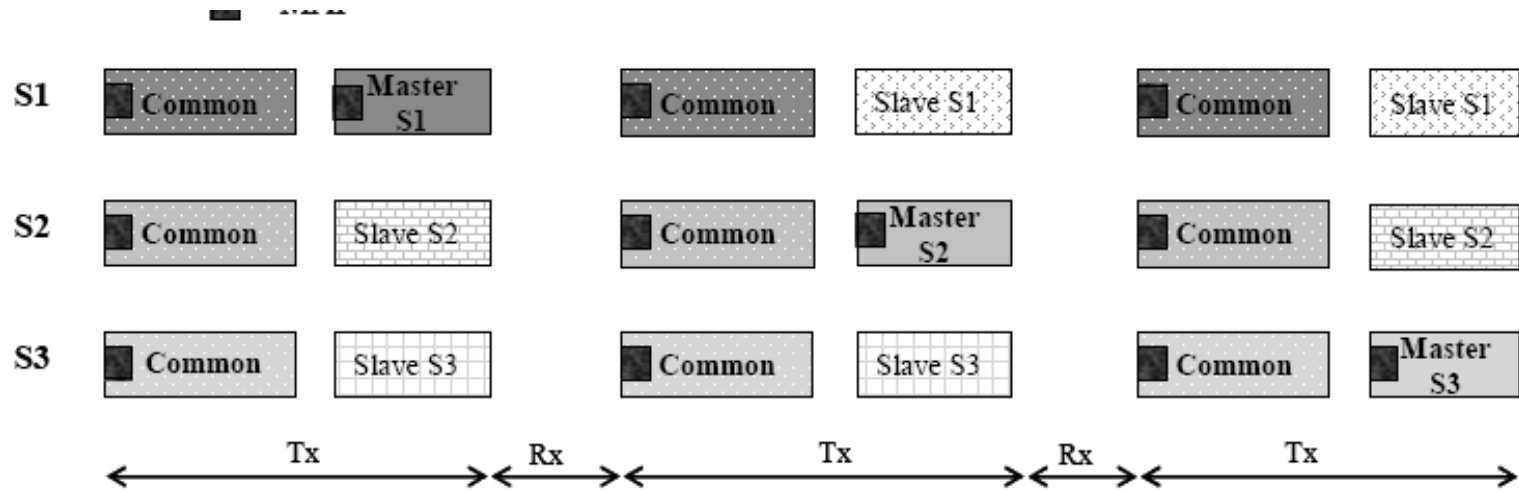
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# **Slave Hierarchy for Better Usage of Regions not Interfered by the Master Subframe**

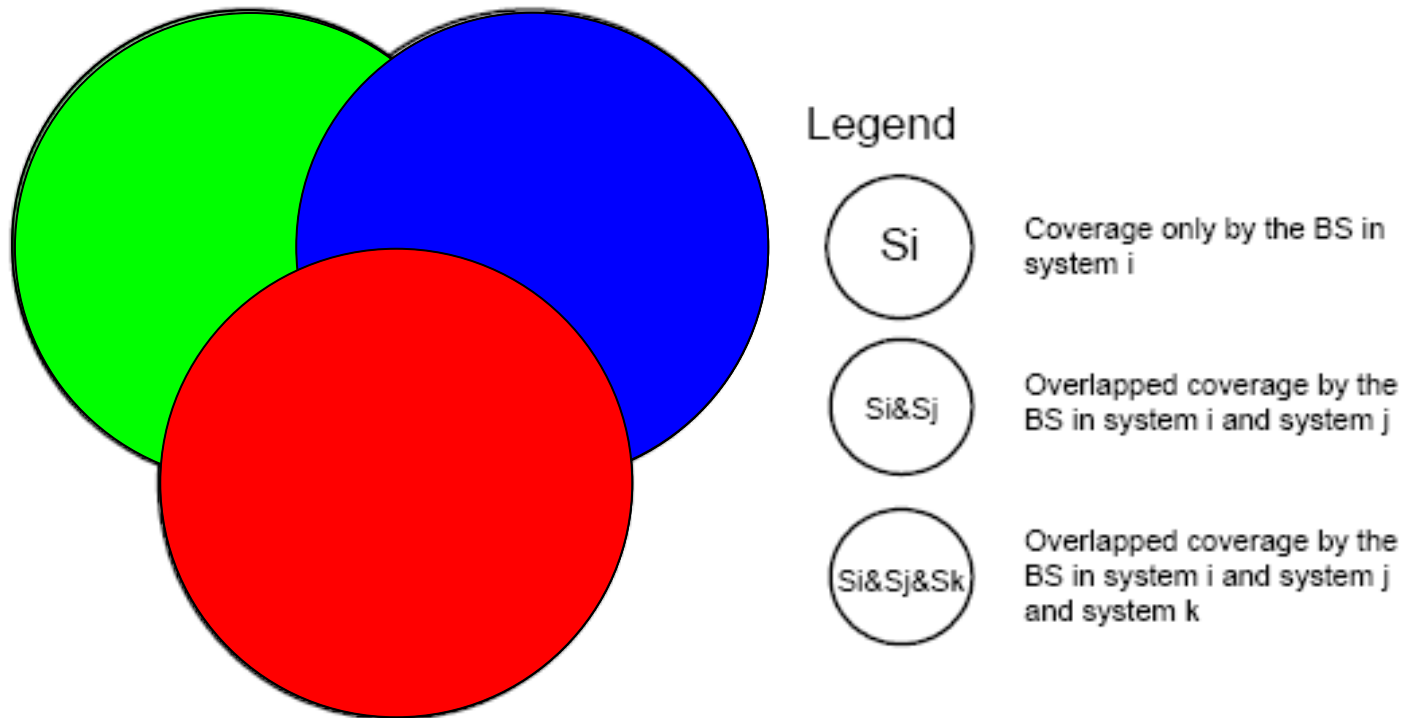
# The operation regions



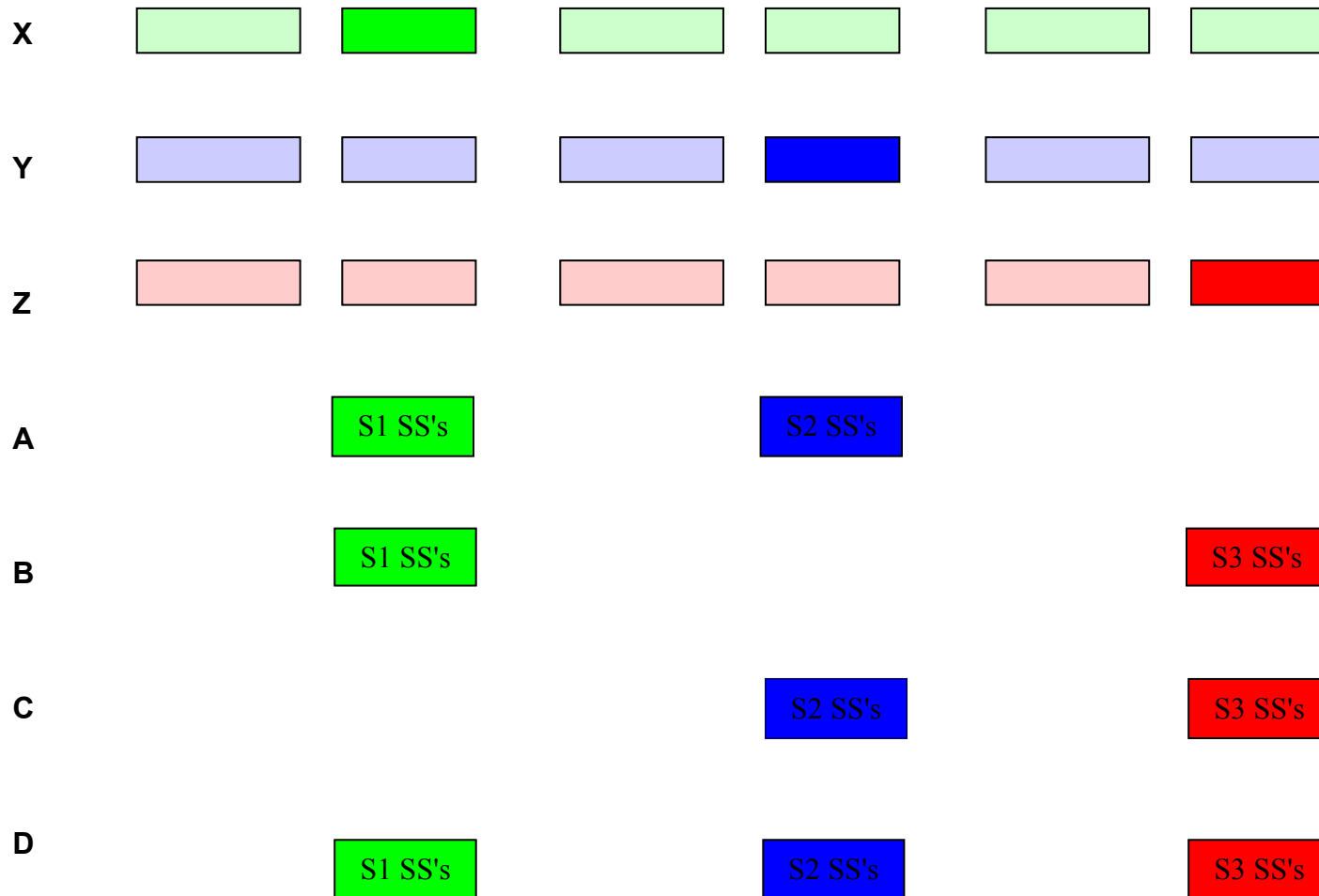
# Type 2 Subframe Structure



# Operation by subframes

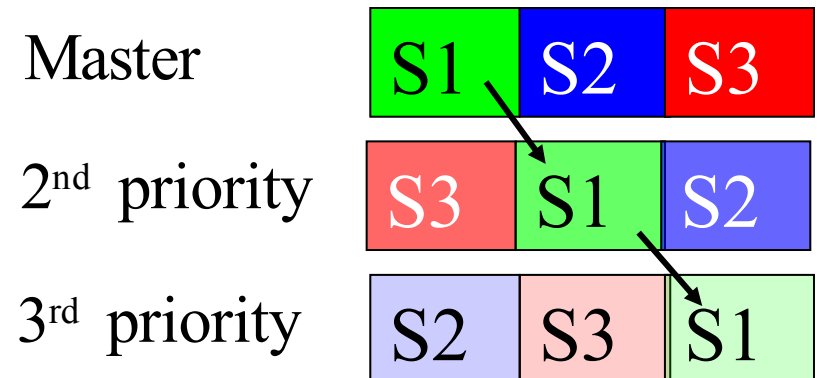


# Operation by regions

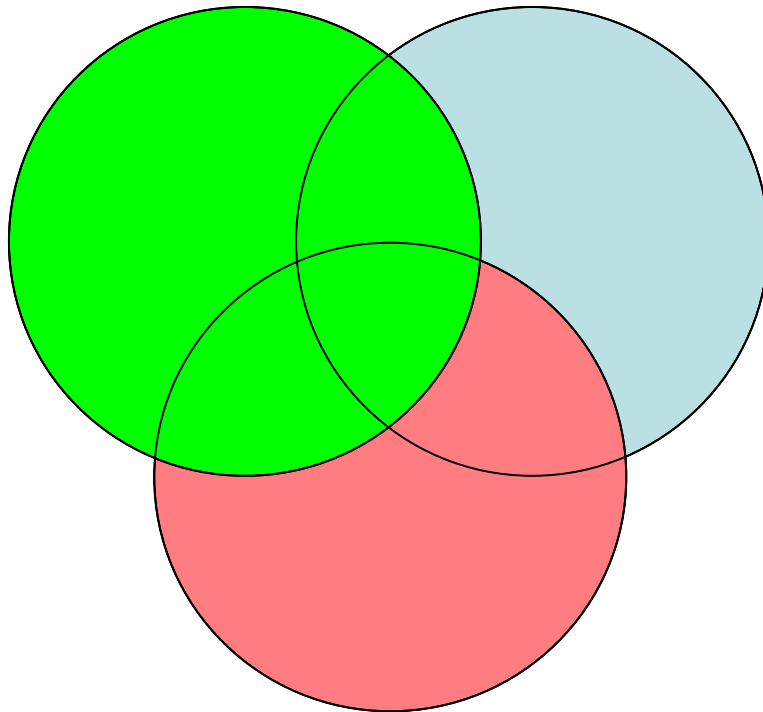


# Introducing Priority

- Introduce a priority rule between slaves, in areas where the master system is not interfered



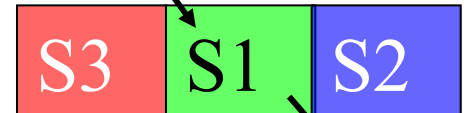
# Subframe 1



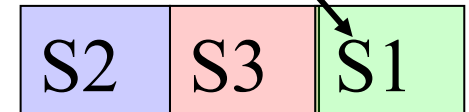
Master



2<sup>nd</sup> priority

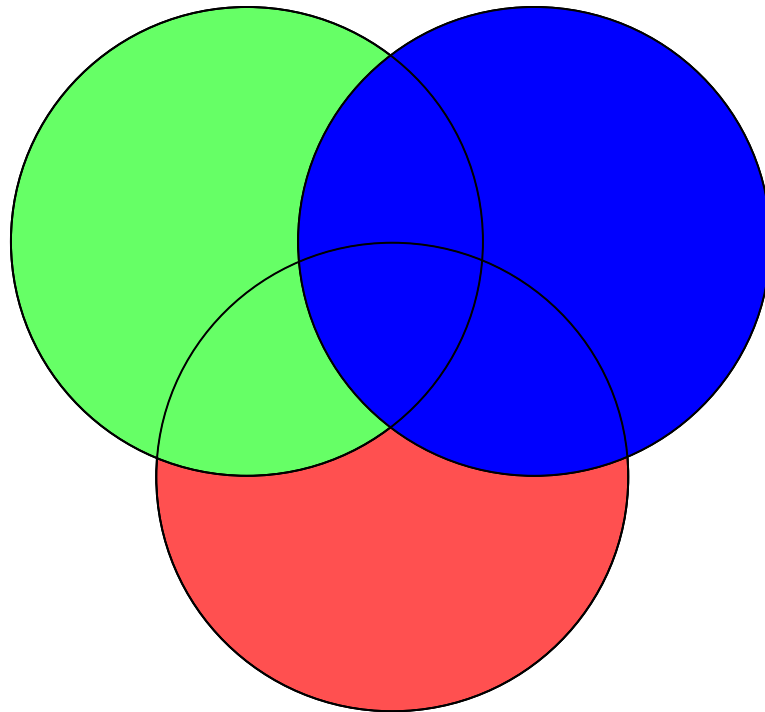


3<sup>rd</sup> priority





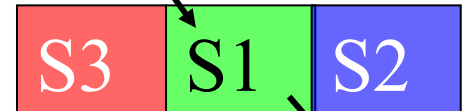
# Subframe 2



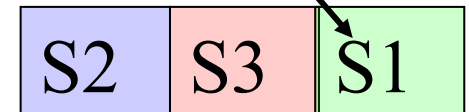
Master



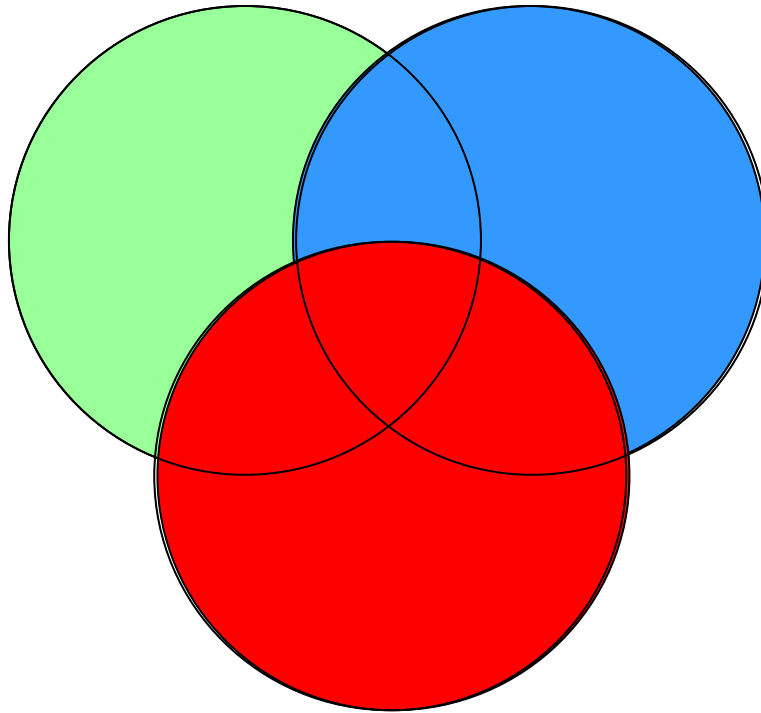
2<sup>nd</sup> priority



3<sup>rd</sup> priority



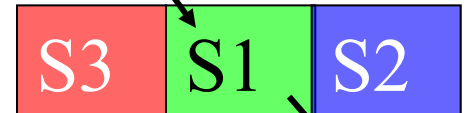
# Subframe 3



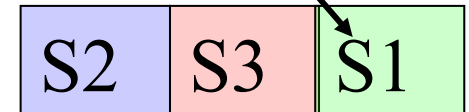
Master



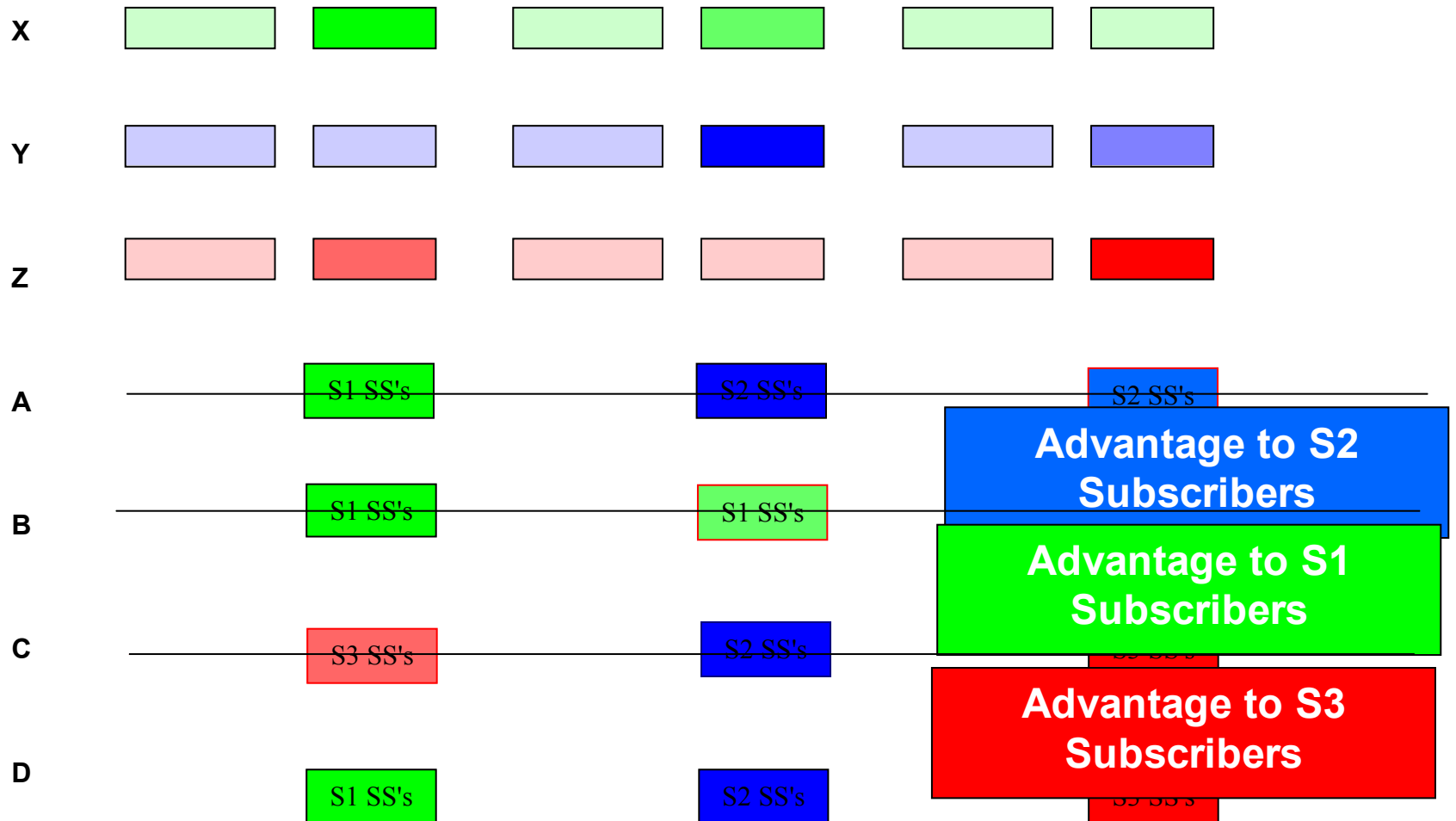
2<sup>nd</sup> priority



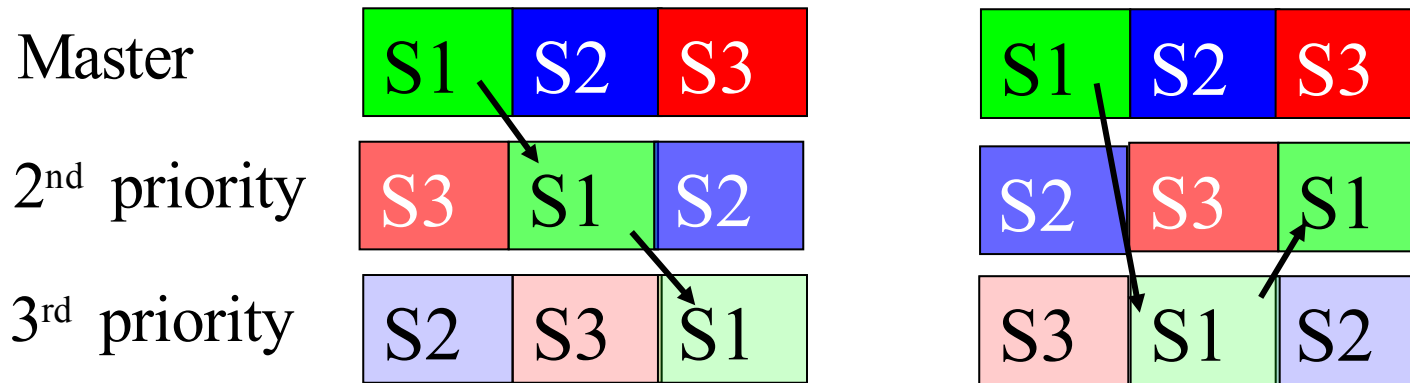
3<sup>rd</sup> priority



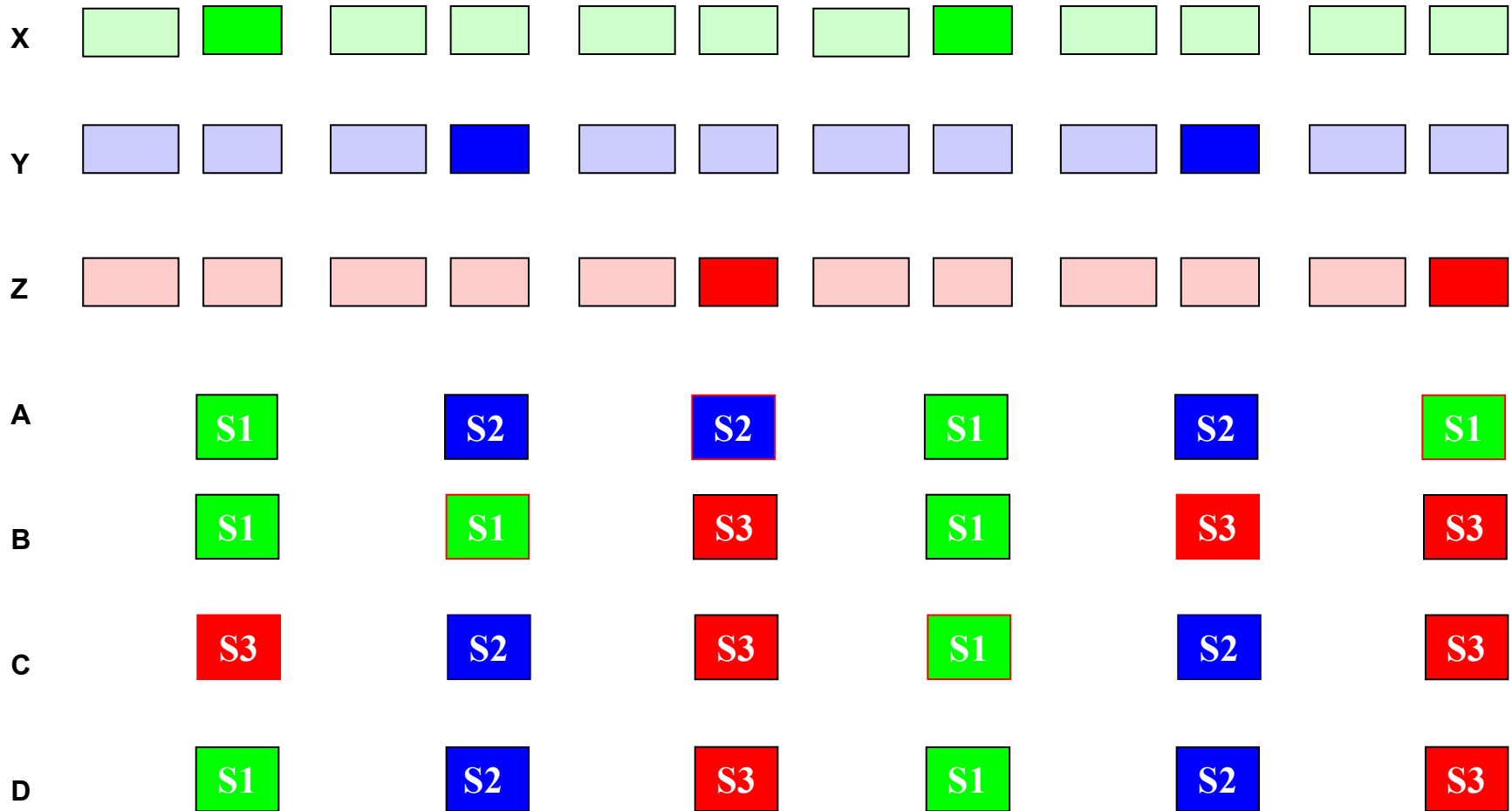
# Operation by regions



# Solution: 2 Cycles Priority



# Operation By Regions



# Proposed Changes

In order to enable service to regions in which two slave systems overlap, a hierarchy structure shall be applied among the slaves, as follows:

- In one MAC frame, in case of type 1 structure, or in the first (N+1) MAC frames, in case of type 2 structure, the system "rank" will be demoted by one in each subframe, namely, the master system of the  $i^{\text{th}}$  sub frame will in subsequent frames still have priority over all the systems that were not given the mater status till that frame.
- In the second MAC frame, in case of type 1 structure, or for the MAC frames from the  $(N+2)^{\text{th}}$  till the  $2(N+1)^{\text{th}}$ , in case of type 2 structure, system "rank" will be promoted in each subframe, namely, the master system of the  $i^{\text{th}}$  sub frame will have in subsequent subframes priority only over systems that were given the master status after it.

Where the "rank" of the system relates to the order of priority it has over other systems. Figure h41a shows the priority order for 3 systems in different sub frame structures. The common parts and TX/RX boundaries are omitted. The arrows show the priority demotion and promotion for system S1.