What is claimed is:

1. A system configured to determine coordinates for an area of interest on a specimen, comprising:

an inspection subsystem comprising at least an energy source and a detector, wherein the inspection subsystem is configured to scan energy generated by the energy source over specimens while the detector detects energy from the specimens and generates images responsive to the detected energy; and

one or more computer subsystems configured for:

for an area of interest on another specimen being inspected, identifying one or more targets located closest to the area of interest, wherein the one or more targets comprise one or more patterns in a design for the other specimen that are unique with respect to other patterns located proximate to the one or more targets, and wherein the one or more patterns in the one or more targets are different than patterns in the area of interest;

aligning one or more images for the one or more targets to a reference for the other specimen, wherein the one or more images for the one or more targets and an image for the area of interest are acquired by the inspection subsystem during inspection of the other specimen;

determining an offset between the one or more images for the one or more targets and the reference based on results of said aligning; and

determining modified coordinates of the area of interest based on the offset and coordinates of the area of interest reported by the inspection subsystem.

2. The system of claim **1**, wherein the area of interest is an area on the other specimen in which a defect was detected during the inspection of the other specimen.

3. The system of claim **1**, wherein the area of interest is an area on the other specimen in which a defect was detected during the inspection of the other specimen, and wherein the one or more computer subsystems identify the one or more targets after the defect has been detected and after image acquisition for the inspection of the other specimen is completed by the inspection subsystem.

4. The system of claim **1**, wherein the area of interest is an area on the other specimen in which a defect was detected during the inspection of the other specimen, and wherein the one or more computer subsystems identify the one or more targets while image acquisition for the other specimen is being performed for the inspection of the other specimen by the inspection subsystem.

5. The system of claim **1**, wherein the modified coordinates are design space coordinates.

6. The system of claim **1**, wherein identifying the one or more targets comprises selecting the one or more targets from a set of alignment targets, and wherein the one or more computer subsystems are further configured for aligning the images for the specimens to design information for the specimens to determine design space coordinates of one or more features in the images for the specimens, determining one or more characteristics of results of said aligning the images for the specimens, and selecting the set of alignment targets within the design for the other specimen at a frequency across the design determined based on the one or more characteristics.

7. The system of claim **6**, wherein the one or more characteristics are one or more characteristics of errors in the results of said aligning the images for the specimens.

8. The system of claim **6**, wherein the one or more computer subsystems are further configured for generating a recipe for the inspection of the other specimen such that during the inspection of the other specimen the inspection subsystem acquires the images for the set of alignment targets.

9. The system of claim **8**, wherein the one or more computer subsystems are further configured for storing the images for the set of alignment targets such that the stored images are available for use after scanning of the other specimen performed during the inspection of the other specimen has been completed.

10. The system of claim **8**, wherein the inspection subsystem further acquires images at other locations on the other specimen to be inspected for defects during the inspection, wherein the one or more computer subsystems are further configured for detecting the defects on the other specimen based on the images for the other specimen acquired at the other locations, and wherein detecting the defects comprises determining positions of the defects.

11. The system of claim **10**, wherein detecting the defects is not performed based on the images for the set of alignment targets.

12. The system of claim **10**, wherein selecting the set of alignment targets is performed by the one or more computer subsystems prior to the inspection of the other specimen.

13. The system of claim **10**, wherein selecting the set of alignment targets is performed by the one or more computer subsystems during the inspection of the other specimen and after at least one of the defects is detected.

14. The system of claim **10**, wherein the one or more computer subsystems are further configured for storing the images for the set of alignment targets such that the stored images are available for use after scanning of the other specimen performed during the inspection of the other specimen has been completed and such that the stored images are stored separately from results of said detecting the defects.

15. The system of claim **10**, wherein the area of interest is a position of a first of the detected defects, wherein the reference is the design for the other specimen, wherein the offset is an alignment target-to-design offset, and wherein determining the modified coordinates comprises applying the alignment target-to-design offset to the reported coordinates of the first detected defect to thereby determine design space coordinates for the first detected defect.

16. The system of claim **10**, wherein the area of interest is a position of a first of the detected defects, and wherein the one or more computer subsystems are further configured for sending the image of the area of interest with one or more portions of the design corresponding to the one or more targets located closest to the area of interest to a defect review tool configured to use the one or more portions of the design to relocate the area of interest in a field of view of the defect review tool.

17. The system of claim **1**, wherein the area of interest is a care area on the other specimen.

18. The system of claim **17**, wherein the patterns in the care area do not comprise unique patterns within the design for the other specimen, and wherein the one or more computer subsystems are further configured for selecting the one or more patterns that are unique within the design closest to the area of interest for use as the one or more targets.

19. The system of claim **17**, wherein the care area is an area in which a weak point within the design for the other specimen is located.

20. The system of claim **17**, wherein the care area is located within a memory area of the design for the other specimen.

21. The system of claim **17**, wherein the modified coordinates of the image of the care area arc further determined based on the offset between the one or more images for the one or more targets and the reference and a predetermined offset between the one or more targets and the care area.

22. The system of claim **17**, wherein the one or more targets are used for determining modified coordinates of images of different care areas on the other specimen having different predetermined offsets between the one or more targets and the different care areas.

23. The system of claim **17**, wherein the modified coordinates determined for the image of the care area are specimen space coordinates.

24. The system of claim **17**, wherein the modified coordinates determined for the image of the care area are design space coordinates.

25. The system of claim **1**, wherein the specimens and the other specimen comprise wafers.

26. The system of claim **1**, wherein the specimens and the other specimen comprise reticles.

27. The system of claim **1**, wherein the energy source is a light source, and wherein the energy detected by the detector comprises light.

28. The system of claim **1**, wherein the energy source is an electron beam source, and wherein the energy detected by the detector comprises electrons.

29. A non-transitory computer-readable medium, storing program instructions executable on a computer system for performing a computer-implemented method for determining coordinates for an area of interest on a specimen, wherein the computer-implemented method comprises:

for an area of interest on a specimen being inspected, identifying one or more targets located closest to the area of interest, wherein the one or more targets comprise one or more patterns in a design for the other specimen that are unique with respect to other patterns located proximate to the one or more targets, and wherein the one or more patterns in the one or more targets are different than patterns in the area of interest;

aligning one or more images for the one or more targets to a reference for the specimen, wherein the one or more images for the one or more targets and an image for the area of interest are acquired by an inspection system during inspection of the specimen;

determining an offset between the one or more images for the one or more targets and the reference based on results of said aligning; and

determining modified coordinates of the area of interest based on the offset and coordinates of the area of interest reported by the inspection system.

30. A method for determining coordinates for an area of interest on a specimen, comprising:

for an area of interest on a specimen being inspected, identifying one or more targets located closest to the area of interest, wherein the one or more targets comprise one or more patterns in a design for the other specimen that are unique with respect to other patterns located proximate to the one or more targets, and wherein the one or more patterns in the one or more targets are different than patterns in the area of interest;

aligning one or more images for the one or more targets to a reference for the specimen, wherein the one or more images for the one or more targets and an image for the area of interest are acquired by an inspection system during inspection of the specimen;

determining an offset between the one or more images for the one or more targets and the reference based on results of said aligning; and

determining modified coordinates of the area of interest based on the offset and coordinates of the area of interest reported by the inspection system, wherein said identifying, said aligning, said determining the offset, and said determining the modified coordinates are performed by one or more computer systems.