Breast ultrasound is an important adjunct to mammography for screening and diagnosis of breast cancer in women with dense breast tissue, and could easily displace mammography in dense-breasted, young women. However, ultrasound screening leads to an increased number of visits for further diagnosis, including some unnecessary biopsies. Our ultimate goals are to improve breast ultrasound screening by: 1) performing it in a system integrated quasi-3D mammography (DBT) in order to increase the correlation between lesions found in the x-ray and ultrasound images and 2) using a dual-sided (top/bottom) technique to increase breast coverage and to permit speed of sound imaging for better cancer detection and discrimination. To date, combined DBT and single-sided ultrasound have been investigated, as has dual sided ultrasound in the mammographic geometry, but a separate system. The former has shown how dual sided imaging in this geometry can perform in B-mode and in limited angle transmission tomography. The latter has shown the potential advantages of seeing the multimodality images side by side with pointers showing the same locations in the two images. Limited coverage of the breast in current implementations of both approaches remains a limitation.