

# **Emerging DR and CT Technologies and Techniques and Their Rapid Expansion of Applications**

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New advancements in imaging hardware and software are providing system performance improvements of new DR and CT systems as well as existing equipment. These innovations are delivering both higher image contrast and increased spatial resolution. Both DR and CT Technique advancements are also providing methods of further reducing cycle times in production environments. Continued innovations in product handling as well as fully integrated robotics are even further streamlining product flow. New dual robotic imaging systems combined with conventional motion systems are providing extremely versatile imaging capabilities for complex geometry products or products with multiple viewing angles. In emerging manufacturing technologies such as AM (Additive Manufacturing), CT is rapidly becoming the "Go To" technology for qualifying AM processes, evaluating products for internal integrity, and performing metrology of internal and external features. CT is also being used to help develop and qualify AM in-situ monitoring processes. With the rapid expansion of CT applications, it is imperative that CT techniques be adequately qualified. New methods of creating Representative Quality Indicators are being evaluated for use in performing CT. New CT industry standards are being developed for both general and specific applications. This presentation will include examples of the above as applied across various industries and a wide range of product applications.