

Alignment Measurement Program Design of HITFiL

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the biggest challenges in the design of measuring scheme of Heavy Ion Therapy Facility in Lanzhou is the vertical treatment segment of high-energy transport line which is out of sight and high precision requirements, by using the laser tracker, Portable three coordinate measuring machine and digital levels and so on, and data processing software: SpatialAnalyzer, this article completed the equipment installation project design, such as magnet, vacuum chamber, pipe, Beam diagnostic components, high frequency cavity and so on, the process including control nets transfer measurement, components fiducialization, pre alignment and installation on site. The author use SpatialAnalyzer to simulate the survey of control network and the installation of components, use the bundle adjustment of unified spatial metrology network (USMN), estimated error, and make it satisfy the requirement of accuracy.

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