**Purpose**: An effort to automate the planning process for measurement based patient specific intensity modulated radiation therapy (IMRT) quality assurance (QA).

**Method**: In our clinic before an IMRT plan is delivered, we perform measurement based QA using ionization chambers, MapCheck diode array and MatriXX chamber array. The patient plan is copied onto the phantom, dose is computed and ionization chamber points are picked or the planar dose planes are exported. This process is resource intensive and would require a physicist to spend time on generating the QA plan. To automate this process of QA plan generation we have implemented a set of software tools on the Pinnacle treatment planning system (TPS). The tools are implemented using Pinnacle scripting combined with other programming languages including Perl and C/C++. The scripts automatically operate the Pinnacle TPS to create the QA plans, export phantom dose data and generate all necessary documents and reports.

**Results and Conclusion**: The developed scripts for QA plan generation have been used in clinic for months. They have aided in speeding up the plan generation process and reducing measurement failure/repetition rate. Overall, these tools are useful to make the daily QA plan generation on Pinnacle automatic, efficient and less repetitive.