# ITER HOTCELL PROCESS OPERABILITY ANALYSIS USING DESCRETE EVENT SIMULATION TOOLS

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This paper reports on the use of Discrete Event Simulation tools for operability analysis of the Iter Hot-Cell design. A simulation model representing the overall operation of the ITER Hot-Cell during a Tokamak shutdown has been created. The model incorporates the logic for ITER components that are required to be refurbished, maintained and disposed of within the Hot-Cell. This paper will present some results of the simulation indicating the performance of the HC for a number of representative scenarios including Divertor and Port Plug refurbishment.

The simulation has provided a platform to accurately size the capacity of process equipment with respect to given budgetary constraints and to identify opportunities to smooth the process flow. Effects of parameters such as human resource shift patterns, equipment mean time between failure and random variability in process times on overall Hot-Cell productivity were studied. The simulation model is flexible, capable of evolving in parallel with the Hot-Cell design as more detailed input data becomes available thereby providing a valuable decision making tool throughout the development of the Hot-Cell and beyond that into operation.