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X-ray simulation algorithms used in ISP

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ISP is a simulation code which is sometimes used in the USNDS program. ISP is maintained by Sandia National Lab. However, the X-ray simulation algorithm used by ISP was written by scientists at LANL – mainly by Ed Fenimore with some contributions from John Sullivan and George Neuschaefer and probably others. In email to John Sullivan on July 25, 2016, Jill Rivera, ISP project lead, said “ISP uses the function `xdosemeters_sim` from the `xgen` library.” This is a fortran subroutine which is also used to simulate the X-ray response in `consim` (a descendant of `xgen`). Therefore, no separate documentation of the X-ray simulation algorithms in ISP have been written – the documentation for the `consim` simulation [1] can be used.

References

[1] John P. Sullivan, “X-ray Simulation Algorithms in Consim,” LA-CP-20345 (2016).