

## College of Engineering

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### Dear Colleague:

Please find the attached zip file that consists of ten files (five phantom data files and five explanation files for each phantom). The phantoms are UF series B of whole body tomographic phantoms of pediatric patients. The phantom data were originally arranged for the use with the MCNPX code.

The binary formatted phantom data represent sequential slices of the phantom starting from the top of the head to the bottom of the feet. For a given slice (see below example), the data starts from the left top corner to the right bottom. The voxel follows the general CT images on its x-, y-, and z- coordinates. (You are looking at the patient from the bottom toward the head.)



The attached explanation files are excerpts from the MCNPX inputs. They contain the tag numbers (organ index number) and the corresponding information, such as material numbers, densities, and organ volumes. The material compositions consist of Z number and corresponding weight fractions. For example, following material information shows Z numbers and normalized weight fractions. (H 10.6%, C 31.5%, N 2.4%, O 54.7%, etc.)

C Adult female soft tissue (rho=1.02)

|    |       |        |
|----|-------|--------|
| M1 | 1000  | -0.106 |
|    | 6000  | -0.315 |
|    | 7000  | -0.024 |
|    | 8000  | -0.547 |
|    | 11000 | -0.001 |
|    | 15000 | -0.002 |
|    | 16000 | -0.002 |
|    | 17000 | -0.002 |
|    | 19000 | -0.002 |

Please feel free to contact me if you need any further information.