

There are 3 types of files included in this data set: MagneticDataXXXXXX.csv, VoltageCurrentDataXXXXXX.csv, and XRayDataXXXXXX.csv. The five X characters together make the shot number. Data sets with the same shot number are from the same shot.

XRayDataXXXXXX.csv:

File contains data in an array of 2 columns and 8192 rows preceded by a row of headers. The first column is the time in microseconds. The second column is the output from the X-Ray detector at the time in the same row.

VoltageCurrentDataXXXXXX.csv:

File contains data in an array of 3 columns and 16384 rows preceded by a row of headers. The first column is the time in microseconds. Data in each row corresponds to the time in the first column. The second column is voltage across the electrodes in volts. The third is current in amps.

MagneticDataXXXXXX.csv:

File contains data in an array of 34 columns and 16384 rows preceded by a row of headers. The first column is the time in microseconds. Each of the 33 columns after is the output from one channel of one probe in the array as time passes. Column $(i+1)$ of the data set where i is between 1 and 11 inclusive is the radial component of the magnetic field at position r where $r = 2*i-2$ in units of centimeters. Column $(i+1) + 11$ is the theta component of the magnetic field at the same radial position r . Finally column $(i+1) + 22$ is the z component of the magnetic field at the same radial position r . As an example: The data in column 2 ($i=1$) of the array is the radial component of the magnetic field as a function of time at $r = 0$. The matching theta component would be in column 13 and the z component would be in column 24. The z position of the data is determined by the shot number as follows:

21892-21901 is at $z = 30$ cm
21902-21911 is at $z = 27.5$ cm
21912-21921 is at $z = 25$ cm
21922-21931 is at $z = 22.5$ cm
21932-21941 is at $z = 20$ cm
21942-21951 is at $z = 17.5$ cm
21952-21961 is at $z = 15$ cm
21962-21971 is at $z = 12.5$ cm
21972-21981 is at $z = 10$ cm
21982-21991 is at $z = 7.5$ cm