

# Creating your own distributions

Simulation software offer a wide variety of probability distributions that cover most common risk analysis problems. However, one might occasionally wish to generate one's own probability distribution. There are several reasons why one would prefer to make one's own distribution, and there are four main ways to do this. The choice of which method to use will be determined by the following criteria:

- Do you know the [cdf](#) or the [pdf](#) of the continuous distribution, or the [pmf](#) of the discrete distribution? If "yes", try [method 1](#)
- Do you know a relationship to another distribution available in your software? If "yes", try [method 2](#)
- Do you have data from which you wish to construct an empirical distribution? If "yes", try [method 3](#)
- Do you have points on a curve you want to convert to a distribution? If "yes", try [method 4](#)

In addition to creating your own distributions sometimes it is very useful to approximate a distribution with another one which is discussed in the [following section](#).

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