

THE GAME OF BEAN TORRENT

ABSTRACT

This game is a variation of [Mancala](#) that was designed to illustrate some of the formal structures of peer-to-peer file sharing protocols without the need for any specific language or technology.

OBJECTIVE

Make TRANSACTIONS in order to distribute all of your BEANS from your HOME SERVER to your PEERS. There are five types of BEANS and there are five PEERS. You must distribute one of each type of BEAN to each one of your PEERS in the least amount of TRANSACTIONS possible.

THE BOARD

The board is divided into two parts.
The NETWORK and the TRACKER.

The NETWORK is where the Player is challenged to distribute the BEANS. The NETWORK is made of five pill shapes to represent your PEERS arranged in a ring around a central circle shape that represents your HOME SERVER. The PEERS are divided into two halves, one half is for active TRANSACTIONS and the other half is for completed TRANSACTIONS. The HOME SERVER is where all the BEANS originate.

The TRACKER is made of a rectangle with six squares inside of it each with a number 0 through 5. The TRACKER is there to let you know what parts of the NETWORK are available to make TRANSACTIONS. There is a TRACKER BEAN that is inside of one of the squares. At the beginning of the game the bean starts in square 3. After every TRANSACTION the player must count the number of TRANSACTIONS that have been made so far. The player then moves the TRACKER BEAN that number of squares to the right or left within the squares of the TRACKER. Which ever square the TRACKER BEAN is on tells you the number of a PEER that is not connected to the NETWORK for that TRANSACTION. A PEER must be connected to the NETWORK in order to make TRANSACTIONS.

MAKING TRANSACTIONS

A TRANSACTION is between any two areas inside of the NETWORK. A TRANSACTION from the HOME SERVER must be of not more than one type of bean. A TRANSACTION between peers must be a TWO WAY TRANSACTION of exactly two types of BEANS. A two way TRANSACTION must be in equal amounts.

