

Terry Winograd's SHRDLU program: Demo interaction

Person: PICK UP A BIG RED BLOCK.

Computer: OK. (does it)

Person: GRASP THE PYRAMID.

Computer: I DON'T UNDERSTAND WHICH PYRAMID YOU MEAN.

Person: FIND A BLOCK WHICH IS TALLER THAN THE ONE YOU ARE HOLDING AND PUT IT INTO THE BOX.

Computer: BY "IT", I ASSUME YOU MEAN THE BLOCK WHICH IS TALLER THAN THE ONE I AM HOLDING.

Computer: OK. (does it)

Person: WHAT DOES THE BOX CONTAIN?

Computer: THE BLUE PYRAMID AND THE BLUE BLOCK.

Person: WHAT IS THE PYRAMID SUPPORTED BY?

Computer: THE BOX.

Person: HOW MANY BLOCKS ARE NOT IN THE BOX?

Computer: FOUR OF THEM.

Person: IS AT LEAST ONE OF THEM NARROWER THAN THE ONE WHICH I TOLD YOU TO PICK UP?

Computer: YES, THE RED CUBE.

Person: IS IT SUPPORTED?

Computer: YES, BY THE TABLE.

Person: CAN THE TABLE PICK UP BLOCKS?

Computer: NO.

Person: CAN A PYRAMID BE SUPPORTED BY A BLOCK?

Computer: YES.

Person: CAN A PYRAMID SUPPORT A PYRAMID?

Computer: I DON'T KNOW.

Person: STACK UP TWO PYRAMIDS.

Computer: I CAN'T.

Person: WILL YOU PLEASE STACK UP BOTH OF THE RED BLOCKS AND EITHER A GREEN CUBE OR A PYRAMID?

Computer: OK. (does it)

Person: WHICH CUBE IS SITTING ON THE TABLE?

Computer: THE LARGE GREEN ONE WHICH SUPPORTS THE RED PYRAMID.

Person: IS THERE A LARGE BLOCK BEHIND A PYRAMID?

Computer: YES, THREE OF THEM: A LARGE RED ONE, A LARGE GREEN CUBE, AND THE BLUE ONE.

Person: PUT A SMALL ONE ONTO THE GREEN CUBE WHICH SUPPORTS A PYRAMID.

Computer: OK. (does it)

Person: PUT THE LITTLEST PYRAMID ON TOP OF IT.

Computer: OK. (does it)

Person: DOES THE SHORTEST THING THE TALLEST PYRAMID'S SUPPORT SUPPORTS SUPPORT ANYTHING GREEN?

Computer: YES, THE GREEN PYRAMID.

Person: WHAT COLOR IS IT?

Computer: BY "IT", I ASSUME YOU MEAN THE SHORTEST THING THE TALLEST PYRAMID'S SUPPORT SUPPORTS.

Computer: RED

Person: HOW MANY THINGS ARE ON TOP OF GREEN CUBES?

Computer: I'M NOT SURE WHAT YOU MEAN BY "ON TOP OF "IN THE PHRASE "ON TOP OF GREEN CUBES " .

DO YOU MEAN:

1 - DIRECTLY ON THE SURFACE

2 - ANWHERE ON TOP OF ?

Person: 2

Computer: THREE OF THEM.

Person: HAD YOU TOUCHED ANY PYRAMID BEFORE YOU PUT THE GREEN ONE ON THE LITTLE CUBE?

Computer: YES, THE GREEN ONE.

Person: WHEN DID YOU PICK IT UP?

Computer: WHILE I WAS STACKING UP THE RED CUBE, A LARGE RED BLOCK AND A LARGE GREEN CUBE.

Person: WHY?

Computer: TO GET RID OF IT.

Person: WHY DID YOU DO THAT?

Computer: TO CLEAN OFF THE RED CUBE.

Person: WHY DID YOU CLEAR OFF THAT CUBE?

Computer: TO PUT IT ON A LARGE GREEN CUBE.

Person: WHY DID YOU DO THAT?

Computer: TO STACK UP THE RED CUBE , A LARGE RED BLOCK AND A LARGE GREEN CUBE.

Person: WHY DID YOU DO THAT?

Computer: BECAUSE YOU ASKED ME TO.

Person: HOW DID YOU DO IT?

Computer: BY PUTTING A LARGE RED BLOCK ON THE TABLE ; THEN LETTING GO OF IT ; THEN PUTTING A LARGE GREEN CUBE ON IT ; THEN LETTING GO OF THAT CUBE ; THEN PUTTING THE RED CUBE ON THAT CUBE; THEN LETTING GO OF THAT CUBE.

Person: HOW MANY OBJECTS DID YOU TOUCH WHILE YOU WERE DOING IT?

Computer: FOUR OF THEM.

Person: WHAT DID THE RED CUBE SUPPORT BEFORE YOU STARTED TO CLEAN IT OFF?

Computer: THE GREEN PYRAMID.

Person: THERE WERE FIVE BLOCKS TO THE LEFT OF THE BOX THEN.

Computer: NO, ONLY FOUR OF THEM: THE RED CUBE, TWO LARGE GREEN CUBES AND A LARGE RED BLOCK.

Person: PUT THE BLUE PYRAMID ON THE BLOCK IN THE BOX.

Computer: OK. (does it)

Person: IS THERE ANYTHING WHICH IS BIGGER THAN EVERY PYRAMID BUT IS NOT AS WIDE AS THE THING THAT SUPPORTS IT?

Computer: YES, THE BLUE BLOCK.

Person: DOES A STEEPLE

Computer interrupting: SORRY, I DON'T KNOW THE WORD "STEEPLE".

Person: A "STEEPLE" IS A STACK WHICH CONTAINS TWO GREEN CUBES AND A PYRAMID.

Computer: I UNDERSTAND.

Person: ARE THERE ANY STEEPLES NOW?

Computer: NO.

Person: BUILD ONE.

Computer: OK. (does it)

Person: CALL THE BIGGEST BLOCK "SUPERBLOCK".

Computer: OK.

Person: HAVE YOU PICKED SUPERBLOCK UP SINCE WE BEGAN?

Computer: YES.

Person: WHY DID YOU DROP IT?

Computer: BY "IT", I ASSUME YOU MEAN THE SUPERBLOCK.

I CAN'T EXPLAIN A NON-EXISTENT EVENT.

Person: IS THERE ANYTHING TO THE RIGHT OF THE RED PYRAMID?

Computer: YES, FOUR THINGS: THE BOX , THE RED CUBE, THE BLUE PYRAMID
AND THE BLOCK NAMED SUPERBLOCK

Person: THANK YOU.

Computer: YOU'RE WELCOME!