CS445 / SE463 / ECE 451 / CS645
Software requirements specification
& analysis

More on Domain Modeling for Deliverable

Summer 2023

Daniel Berry

SYS:

In order to help you not to go into implementation details, your model should have *only* one item in the system that is not in the interface that is called "X system", where "X" is the name of your system. This item is effectively the black box that hides *all* implementation details.

SYS:

Thus, if you have more than one item in the SYS that is not also in the ENV, you probably have too many.

Later, you may want to decompose the SYS into pieces to make it easier to give the specification, S, of the system. However, these pieces should be things that are *apparent* to the user who understands the domain, i.e., part of the ENV -- not purely parts of the implementation.

ENV:

Put into it anything that you think now might

- affect or
- be affected by

the system through the interface.

ENV:

Eventually these items will need to include things that are mentioned in the assumptions, exceptions, and variations and the domain assumptions, *D*.

ENV:

It does not hurt to put too much into the ENV, particularly if they help you find all the relevant assumptions, exceptions, and variations and the domain assumptions, D. You can always cut back later to what is actually needed.

INTF:

Many of you are planning to run your system on

- computers
- cellphones
- browsers that run on
  - computers
  - cellphones
  - both

INTF:

These have

- screens
- mice or virtual versions thereof
- keyboards or virtual versions thereof

Should screens, mice, and keyboards be parts of the INTF?

INTF:

The items in the INTF have to be those things that a user of a system must

- be aware of
- control, or
- sense

in order to

- use the system's offered features, and
- to use the results of what the system does in response to the user's control.

INTF:

Thus what is considered an INTF item depends on the system's offered features.

- For an operating system, probably screen, keyboard, and mouse are at the right level, as are other peripherals that fit in the computer's ports.

INTF:

- For an app with specific features that do specific things, then things like screens, keyboards, and mice are too low level and are implementation details. Instead,
  - specific buttons,
  - specific menu items,
  - specific windows, etc.

  are at the right level.

INTF:

- For a meeting platform, you're probably going to have both kinds of items in the INTF.

Most Important
Overall Advice:

It depends on what the system is supposed to do and how it appears to the user!!!

A good place to start is your team's abstract, because you were careful to write it at the user level so as to attract non-techie investors. :-)

CS445 / SE463 / ECE 451 / CS645

Software requirements specification
& analysis

More on Domain Modeling for Deliverable

Summer 2023

Daniel Berry