

ICS 121 Lecture on UML Use Cases

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Overview

- What are Use Cases?
 - Use cases
 - Actors
 - Use case diagrams
- An Example
 - TELE Use Cases
- Using Argo/UML for your assignment
 - Launching Argo/UML on a Sun
 - Using Argo/UML
- Your homework:
Use cases for an email system

What are Use Cases?

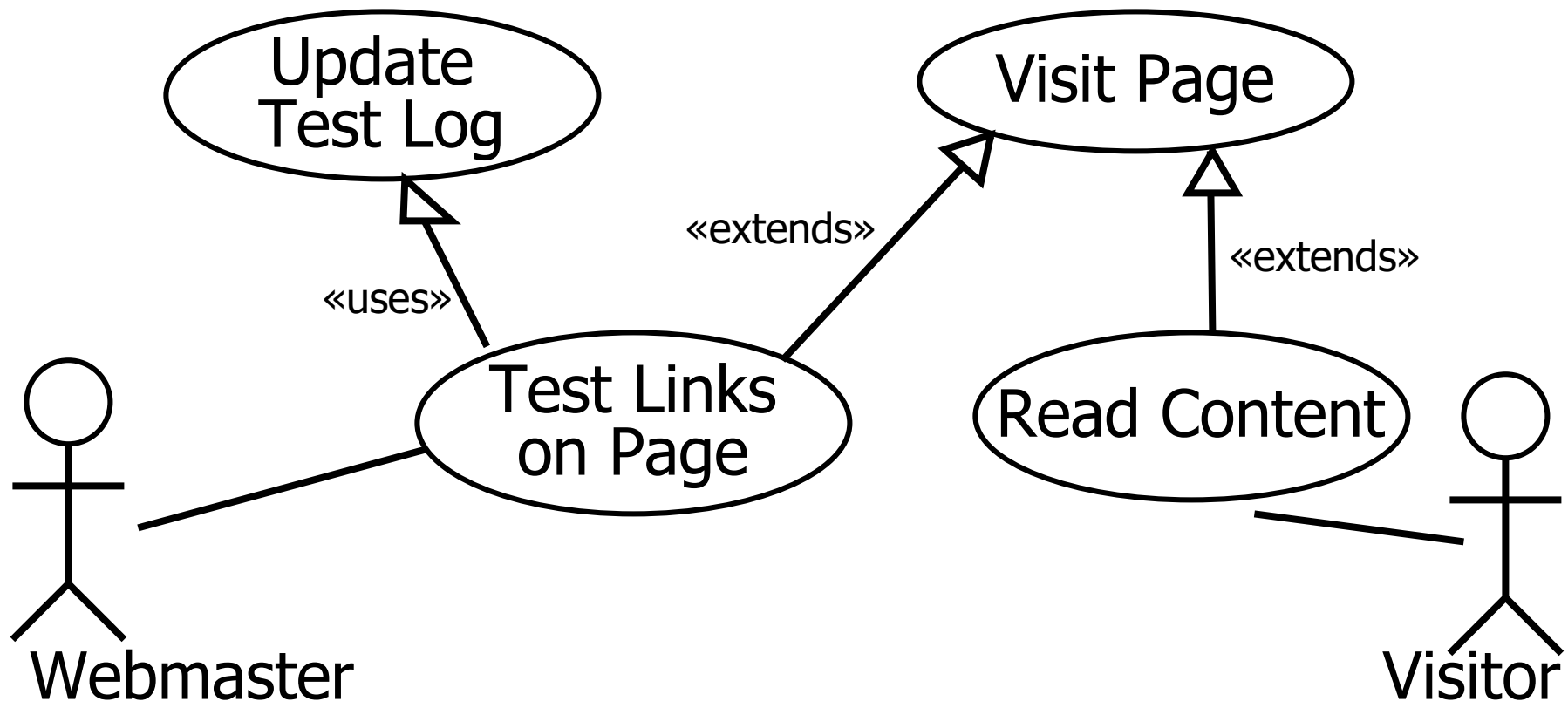
- A “Use Case” is a description of one small task the user would do when using the system.
 - Something that the user wants to accomplish.
E.g., “I would like to check the spelling of my paper.”
 - A conscious and specific user goal.
 - “Write a paper” is too high level.
 - “Spell check a document” is about right.
 - “Press a key” is too low level, and too system oriented.
 - Often corresponds to a feature of the system. E.g., spell checker a word processor document.

What are Actors?

- Actors are types of users
 - Different kinds of people who use the system in different ways
 - Often relates to the roles people play in a company or project
 - For example, one actor might be a “visitor” to a web site, another actor is the “webmaster” of the site
 - And you might also define types of visitors such as first-time visitors, members, contributors, etc.

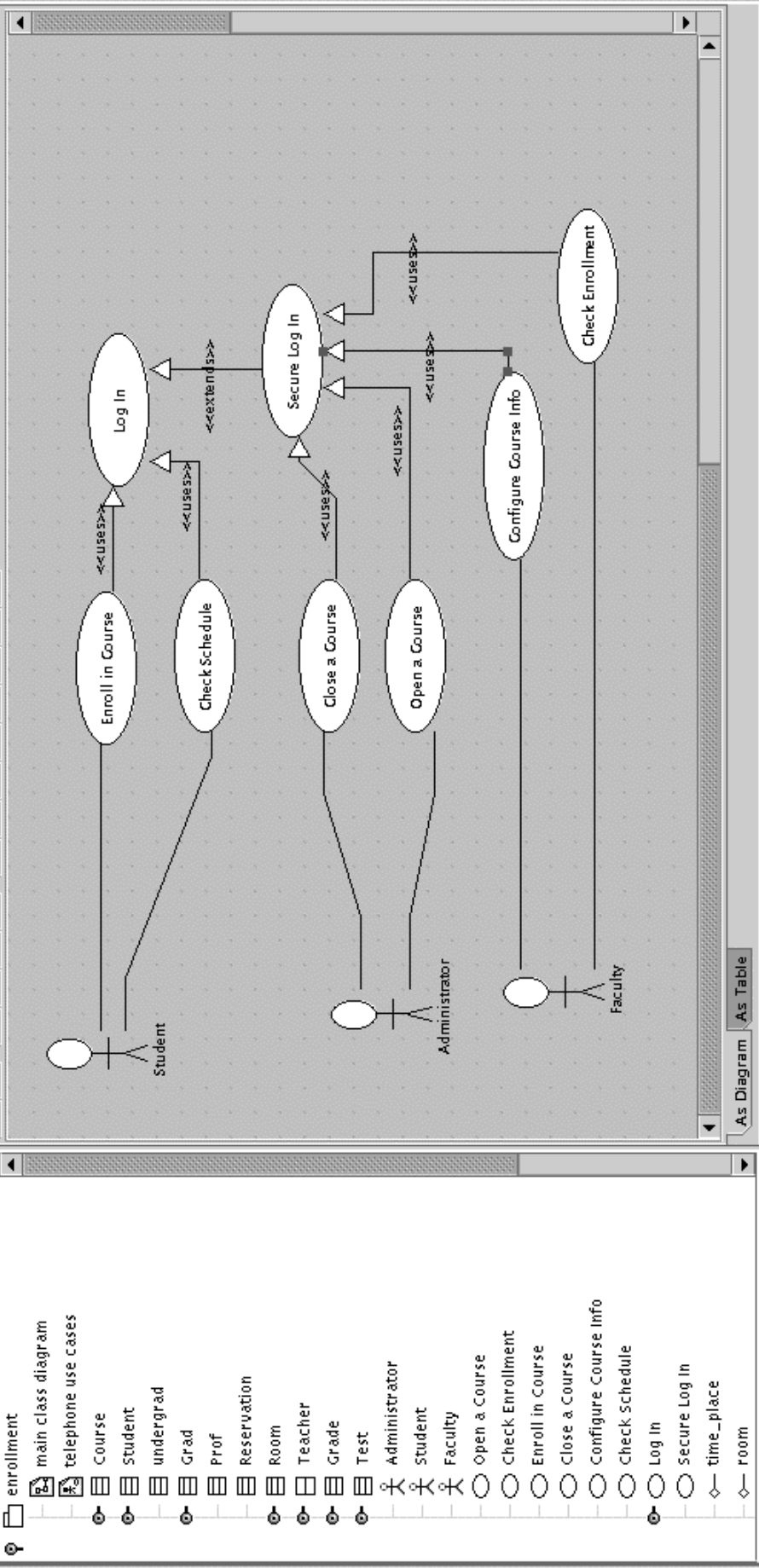
Use Case Diagrams

- Shows expected actors and use cases
- Show which actors do which use cases
- Show dependency and inheritance among use cases



Dependency and Inheritance

- A simple line between an actor and a use case means that that actor is expected to perform that use case
- A line with an arrow head from an actor to an actor defines a special kind of actor: e.g., Student, Grad, Undergrad
- A line with an arrow head from use case to use case is labeled
 - «extends» : The bottom use case is a special way to do the more general task
 - «uses» : The bottom use case is a larger task that includes the top use case as one step



As Diagram As Table

31 Items -

By Priority: High Medium Low

Superclass: Secure Log In

Stereotype: uses

Namespace: enrollment

Subclass: Configure Course Info

▲ To Do Item ▲ Properties ▲ Style ▲ Javadocs ▲ Source ▲ Constraints ▲ Tagged Values ▲ Checklist

Launching Argo/UML on a Sun

Log in to an ICS Sun workstation and type
`/home/jrobbins/argo`

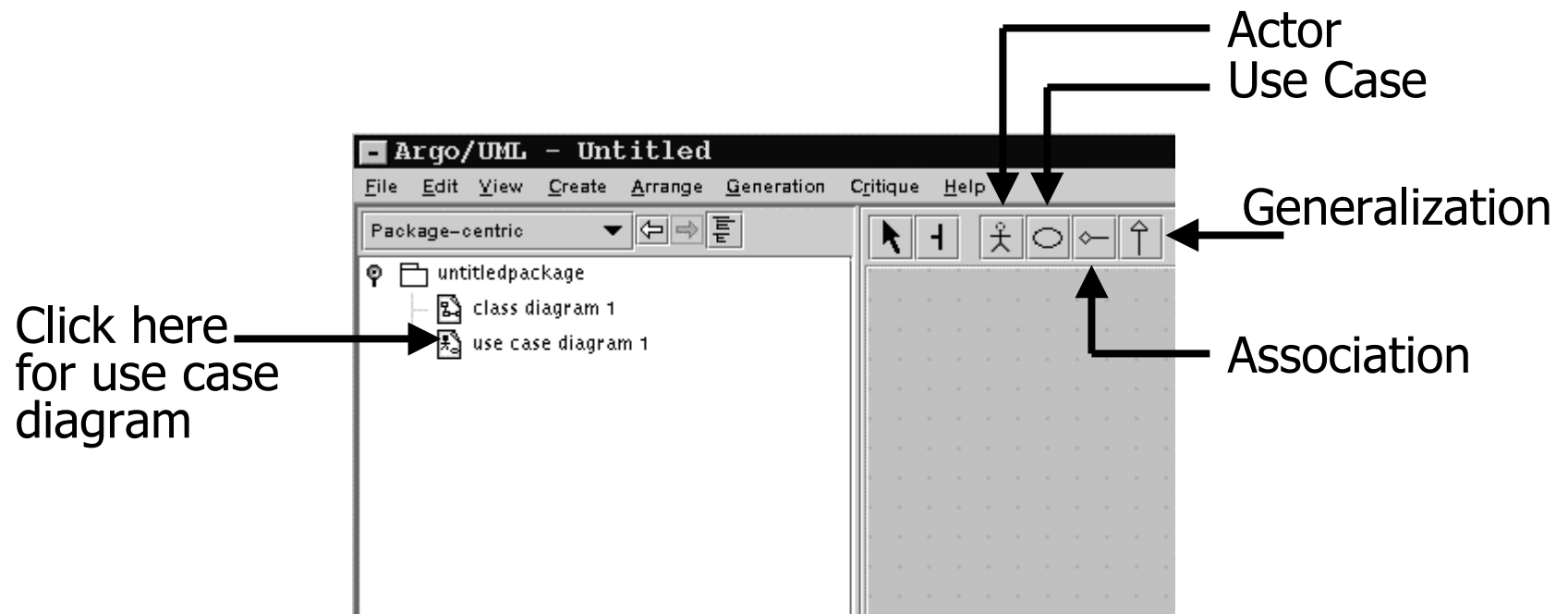
Launching takes 30-60 seconds

If you have trouble, send email to
`jrobbins@ics.uci.edu`

You will also need to be able to run Argo/UML to
complete some other homework assignments later

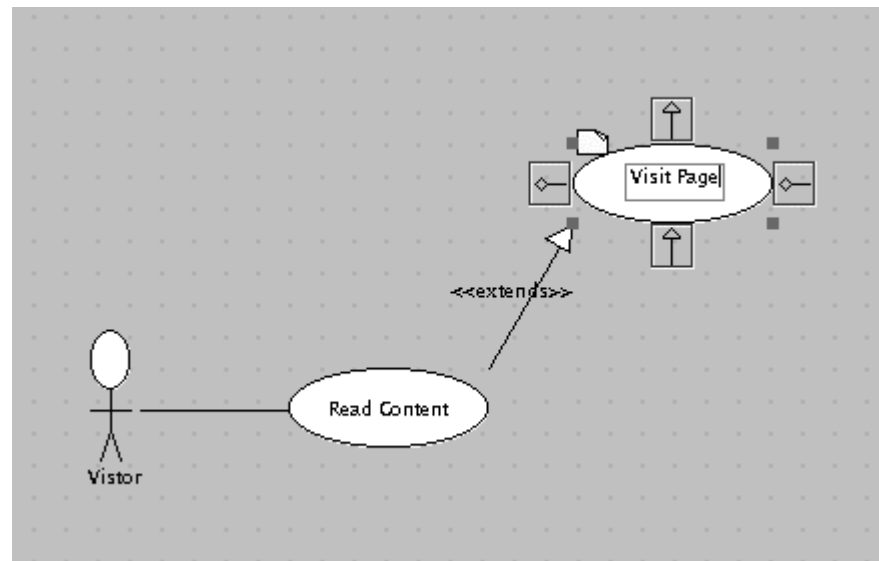
Using Argo/UML

- When you launch Argo/UML it automatically makes a class diagram and a use case diagram
- Click on “use case diagram 1” in tree pane
- Use the toolbar to place actors and use cases



Using Argo/UML

- Click and type to name actors or use cases
- You can use selection buttons or toolbar buttons to make associations or generalizations
- All generalizations are `<<extends>>` by default, use the properties tab to change it to `<<uses>>`



Your homework:

Use cases for an e-mail system

- Define the actors and use cases for an e-mail system.
 - Hint: expect 3-5 actors and 4-8 use cases
- Use Argo/UML to draw a use case diagram.
- Hand in at start of class Thursday May 6:
 - Printed use case diagram
 - Short textual descriptions of each actor and use case
 - Describe one use case in detail: a paragraph with detailed steps