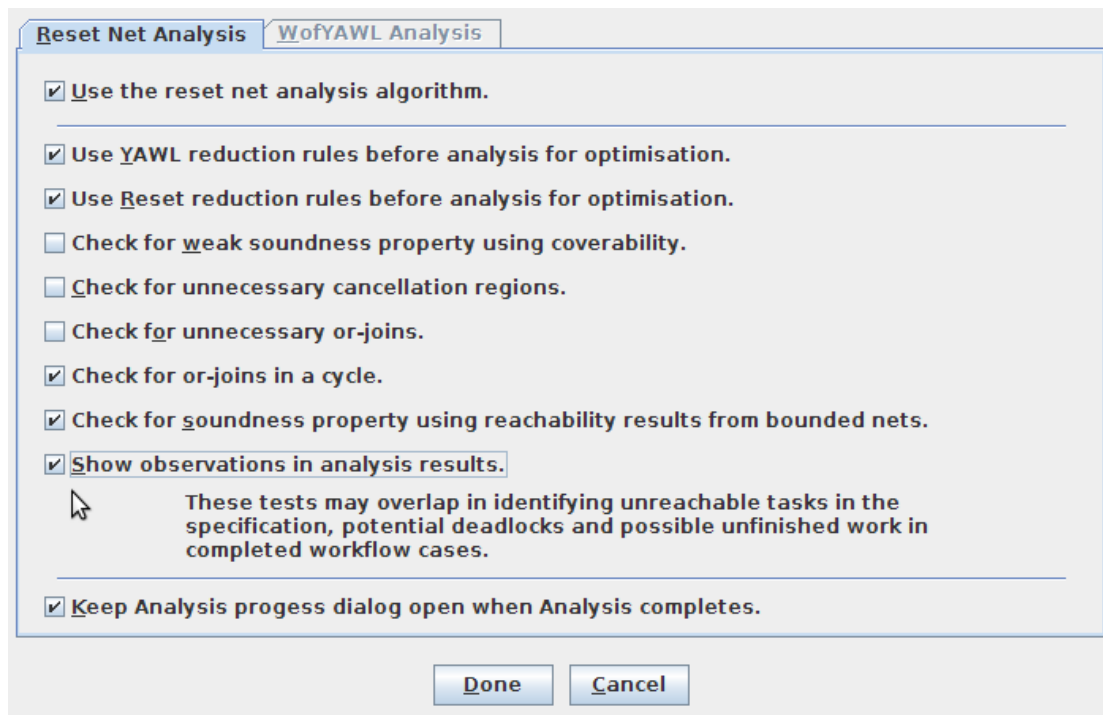


Computer Lab Exercises: YAWL Control Flow

Class 16

Exercise 1 (Editor Configuration):

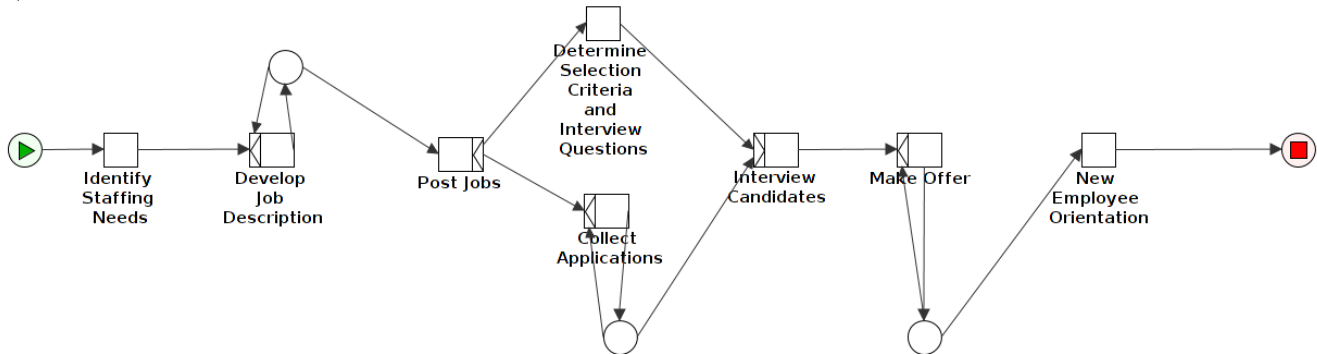
- Start the YAWL editor
- Configure the YAWL editor. See the handout “Configuring YAWL”. You will need to configure (or at least check it) every time you use the YAWL editor!.
- Make sure the YAWL editor shows two green checkmarks at the bottom left.
- In the “Tools” menu, choose “Configure Specification Analysis ...”. In the following dialog box, tick the box that says “Show observations in analysis results”



Exercise 2 (Control Flow):

- Download the YAWL process “busi2710lab_recruitment)short.yawl” from the course web site.
- Open this process with the YAWL editor

Specification ID: recruitmentshort, Net ID: New Net 1



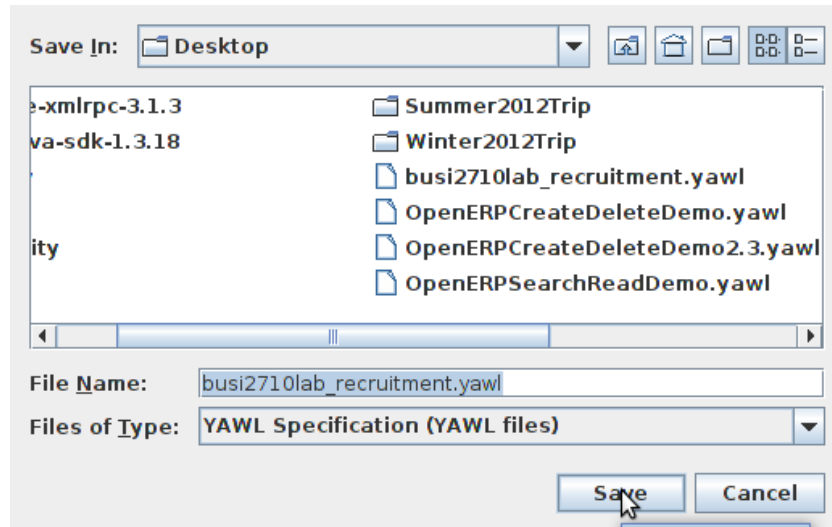
- Select “Specification” -> “Update Specification Properties”.

In the following dialog box, change the specification ID to make it unique, e.g. by prefixing it with your initials, or the last digits of your students id. For example, change it to 1234recruitment. Change the specification name in the same way. You may also want to indicate your name or other identification in the specification description.

Specification ID :	<input type="text" value="recruitment"/>
Specification Name:	<input type="text" value="recruitment"/>
Specification Description:	<input type="text" value="A recruitment process"/>
Specification Author:	<input type="text" value="joerg"/>

Version Number:	<input type="text" value="0.1"/>
Specification valid from:	<input checked="" type="radio"/> always <input type="radio"/> the date of <input type="text" value="28/10/2012"/>
Specification valid until:	<input checked="" type="radio"/> always <input type="radio"/> the date of <input type="text" value="28/10/2012"/>

- Select “Specification” -> “Save SpecificationAs ...”. Save your file using a new and unique name. *Save your file on the Desktop!!*

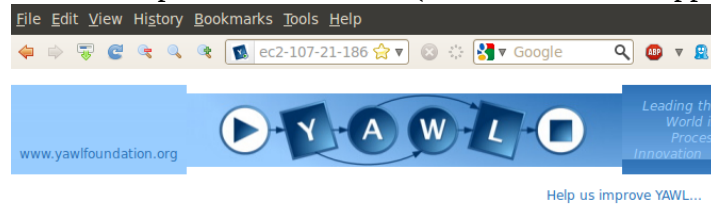


Exercise 3 (User Creation, do only once)

- Using a web browser, log into the YAWL resource service here (You may wish to bookmark this URL.):

<http://ec2-107-21-186-243.compute-1.amazonaws.com:8080/resourceService/>

- Login as user “admin” with password “YAWL” (case-sensitive: all upper case!!).



- Select the “Users” tab, and click the “New” button on the bottom right.

- In the form, fill in at least your first name and your last name.
- The UserID is what you will use to login to the system from now on and must be unique. I recommend that you use your initials and your last digits of your student ID.
- Make sure you tick the box “Administrator”.
- Tick all the privileges on the right of the form.
- Enter a password and confirm it.
- Finally, click the “Add” button when done.
- Log out of YAWL and log in again using the new user account you have just created.

Exercise 4 (Organizational Data Management).

DO THIS IN GROUPS OF TWO OR MORE

To manage organizational data, select the “Org Data” tab at the top.

The screenshot shows a web browser window with the URL `ec2-107-21-186-243.compute-1.amazonaws.com`. The page header includes the YAWL logo and the text "Leading the World in Process Innovation". Below the header is a navigation bar with tabs: "Admin Queues", "Cases", "Users", "Org Data" (selected), "Services", and "Logout". The "Org Data" tab is active, showing a sub-navigation bar with "Roles", "Capabilities", "Positions", and "OrgGroups". The "Roles" sub-tab is selected, displaying a form with the following fields: "Role Names" (a text area), "Description" (a text area), "Notes" (a text area), and "Belongs To" (a dropdown menu). There are four buttons: "Save", "New", "Reset", and "Remove". The browser's address bar shows the URL, and the bottom status bar shows the Zotero logo.

IMPORTANT

For all organizational data you create, make sure you use unique names!!. I recommend you prefix all roles, capabilities, positions and organizational groups with your initials and/or last digits of your student number or some other unique identifier.

For the purposes of the recruitment process, the company description is as follows.

The company has two divisions, a heavy-iron manufacturing and a widget making division. For our purposes, the corporate headquarters are a third division. Within the heavy-iron division, there are two business units, the Big Furnace Steel Mill, and the “I-Beam Formed Steel” divisions, which produce raw steel and formed steel parts respectively. With the widget making division, there is the “AAA Screws and Nails” business unit, as well as the “Supreme Locks and Gates” business unit.

Corporate headquarters has an HR department, a Finance and Accounting department, an Information Technology department, and a Purchasing department. Within the HR department, there is an Internal Recruitment group and an External Recruitment group. There is also an HR Development group and a New Employee Management group.

The three company divisions have a CEO position. The CEOs of the two manufacturing business units report to the CEO of corporate headquarters. The business units have an Executive Vice President position, who report to the CEO positions of the respective divisions. The departments within corporate headquarters also have an Executive Vice President position who report to the CEO of corporate headquarters. The groups within the department have a group leader position, who report to the respective executive vice presidents.

(To make this exercise brief, we will not describe any other positions)

There are a number of important roles to fill in the HR department:

- Recruitment specialist
- Internal recruitment specialist (belongs to Recruitment specialist role)
- External recruitment specialist (belongs to Recruitment specialist role)

The recruitment specialists handle recruitment activities such as posting jobs, collecting resumes, and answering queries about jobs.

- Interviewer

Interviewers are specialists who can conduct and lead interviews with job applicants in person or over the phone. They are specially trained organizational psychologists.

- Job Analyst

A job analyst handles activities related to identifying and specifying existing and future jobs and openings, e.g. the job description, type of job (permanent or temporary), etc.

- HR Manager

The HR manager role handles all decision making within the recruitment process.

- Reference Analyst

The reference analyst role assesses the Cvs and checks references of job applicants. As such, reference analysts have a good understanding of domestic and international qualifications and certifications.

- External HR Analyst

The external HR analyst role is to work with stakeholders outside the HR department and represent their needs and recommendations in the process.

Language skills are important mainly for the interviewers and reference analysts, as they often deal with applicants, references and documents in foreign languages. The company needs the following language capabilities:

- Speaks French
- Speaks Mandarin
- Speaks Spanish

Exercise 5 (Role, Position, Capability Assignment):

After you have added these organizational units, go into the user management part of YAWL and assign yourself some of the roles, positions and capabilities. *This is left up to you, but you should make sure that there is at least one user for each role, position and capability.*

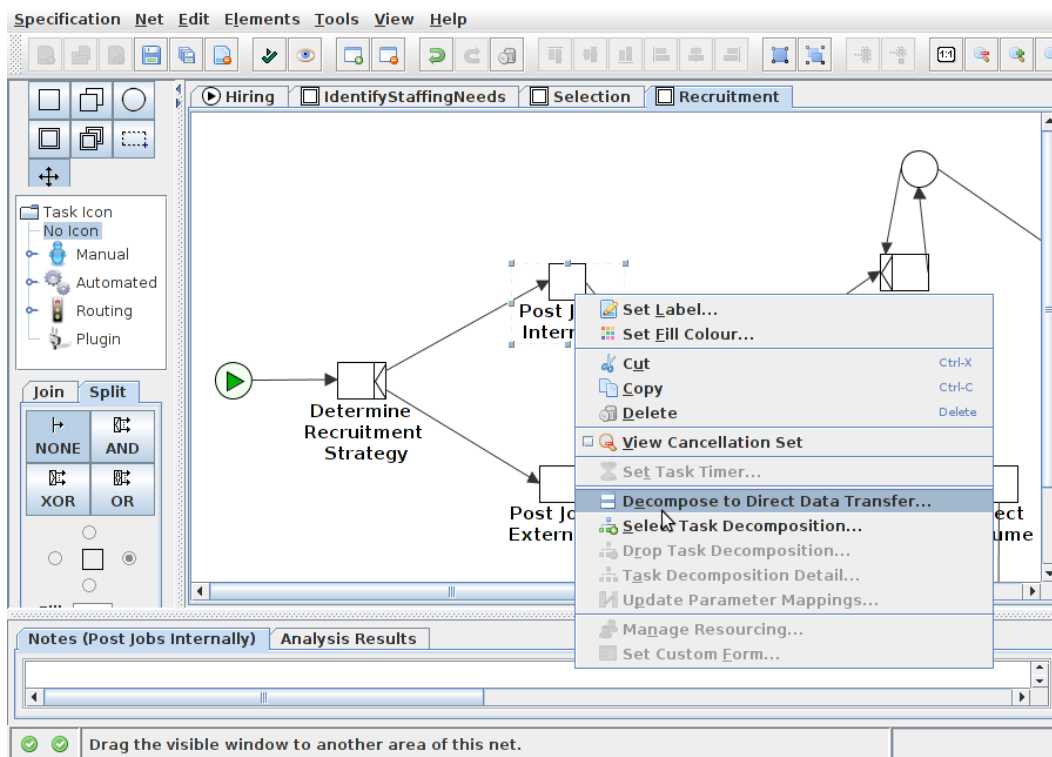
- Select the “Users” tab
- Select the “Participant” for whom you wish to assign roles, positions, and capabilities from the list.
- Add roles, positions, capabilities at the bottom of the form. Each user can fulfill multiple roles, positions and capabilities. Each role and each capability can be fulfilled by many participants, but each position can only be assigned to one participant.
- Click the “Save” button to save the changes to this user/participant.

Exercise 6 (Resourcing the Process):

DO THIS IN GROUPS OF TWO OR MORE

You are now ready to assign resources to each task in the YAWL editor. Only atomic (non-composite) tasks can be assigned resources. Make sure you assign resources for all labeled atomic tasks.

To assign resources, right click on a task and select “Decompose to Direct Data Transfer ...”



In the following dialog box, simply click “Done” (At this point, we have not modelled process data/information, so not much can be done here. We will revisit this during the next lab)

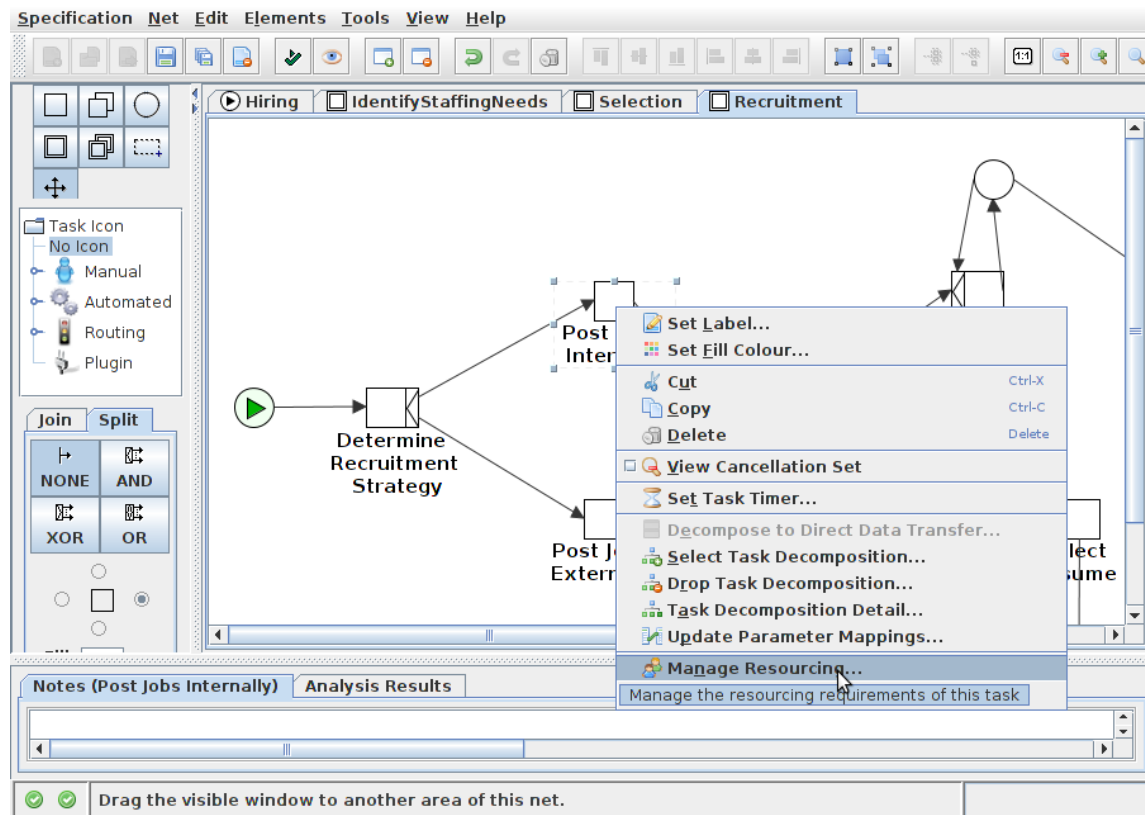
Select a number of net variables to be used as input to this task. Do the same for output. The selected net variables will have type-compatible task variables of the same name created for them, and mappings that will enact a direct data copy between the newly created task variables and the specified selected net variables.

Decomposition name:

Net Variables for Input	
Name	Type

Net Variables for Output	
Name	Type

Right-click on the task again and select “Manage Resourcing...”



- In the following dialogs, enter resource information that appears sensible. You have seen these dialogs in class and they should be familiar to you.
- The information you enter is left up to you, but you should make sure that each task is assigned appropriate resources.

Step 1 : Interaction Points

Each task passes through three decisions, or *interaction points* before a participant begins working on it. For each of the interaction points below, please specify whether the task is to be handled by the *System* (dynamically, based on the settings chosen later in this wizard), or by the *User* (manually, by a participant or an administrator), when the task is executed.

Offer: The task is made available to a number of participants: ☒ User ☐ System

Allocate: The task is assigned to a single participant: ☒ User ☐ System

Start: Work begins on the task: ☒ User ☐ System

< Back > Next Finish

- The more you use “System” offering, assignment and starting of tasks, the less work you will have to do when the process actually runs.
- Once you are done, save the process specification. Make sure you save it on your desktop!!

Exercise 7 (Executing the Process):

DO THIS IN GROUPS OF TWO OR MORE

You are now ready to load the resourced process specification to the YAWL server and execute the process.

- Using a web browser, log into the YAWL resource service here:

<http://ec2-107-21-186-243.compute-1.amazonaws.com:8080/resourceService/>

Log in using your own user name and password.

- Select the “Cases” tab.
- Select “Browse ...” to select a YAWL process specification file to upload. Select the file you have just saved on your computer.
- Select “Upload File”. If all goes well, the process specification with your specification ID will appear in the list of specifications.



- Select your process specification in the list.
- Click the “Launch Case” button. You should now see a new case (process instance) in the list at the bottom. Notice the case number. This is how you can identify which task belongs to which process instance.

Depending on how you assigned resources, tasks are automatically offered, allocated or started to/for various participants. Log in as those participants and check the “Work Queues” tab.

- To accept an offered task, select a task from the “Offered” queue and select “Accept Offer” or “Accept & Start”.
- To start an allocated task, select a task from the “Allocated” queue and select “Start”.
- To complete a started task, select a task from the “Started” queue and select “Complete” (At this point, we have not modelled process data/information, so not much can be done here. We will revisit this during the next lab)

Tasks to which the resource service could not automatically assign resources (because you either selected manual offer/assignment or the initial distribution set is empty) are in the “Admin Queues”, and need to be manually offered or assigned to human resources.