

Y'S
MEN
INTERNATIONAL

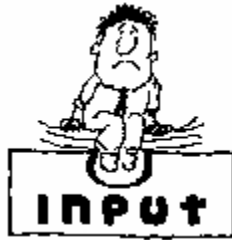


Workshop on
Project Planning
Trainer's
Manual



Y'S MEN INTERNATIONAL, 9 AVENUE SAINTE-CLOTILDE, 1205 GENEVA, SWITZERLAND

cl/MyDocs/M&B/Project Planning Manual



YOUR INPUT REQUESTED

If you have any suggestions on the content of this manual—or ideas for additional sections—please contact IHQ or send an email to ...

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*This manual was adapted from a US Area publication prepared by AP 96/97 Harry Frick.
Alan Wallington of the Kingswood Y's Men's Club, England, helped to prepare it for electronic
distribution.*

GENERAL INSTRUCTIONS FOR THE USE OF THE PROJECT PLANNING TRAINER'S MANUAL

This material is intended for use in providing training to Club, District, Regional and Area Officers to improve project and/or programme planning skills. Techniques covered include Work Breakdown Structure and Activity Diagrams (networking).

Instructions to the trainer are in **bold** type and bracketed in parentheses (). All other words represent what the trainer should *say*.

The trainer should change the spoken words so that they fit his/her “conversational” method of speaking. Everyone says things differently so the trainer should change the words to allow himself/herself to feel natural. One of the trainer's objectives should be to get the “trainees” *actively* involved. This can be done by asking questions of them, having them complete forms or questionnaires, using “case studies” or simulations, etc. Above all, the trainer should read the material a number of times and complete all the exercises that will be required of the trainees in order to ensure familiarity during the presentation. The less “reading” the trainer does, the better the training.

The material is divided in such a way that it may be used for a single two-hour training session or as four separate half-hour training sessions. Different people will take varying amounts of time for the exercises. The trainer can control the time to some degree by allowing more or less time for group participation in the discussion.

Supplies — the following list includes equipment and materials the trainer should have. If anything is *not* going to be provided by the “host” organisation, the trainer should bring it with him/her.

- flip chart (large pad of paper, preferably on an easel or stand)
- coloured marking pens (different colours will provide variety and help keep interest)
- masking tape (the flip chart paper will be fastened to the wall to allow viewing during the training session)
- poster-sized paper for the groups
- overhead projector and transparencies
- copies of the example figures for each trainee

EXPLANATION OF CONTENT

WORK BREAKDOWN STRUCTURE

The Work Breakdown Structure (WBS) is a graphical representation of the breakdown of large projects into successively smaller and smaller components. This breakdown continues to the point where identification of all tasks (and their sequence and interrelationships) can be more easily accomplished. This will reduce the possibility of overlooking a particular task or item that is necessary for successful completion of the project.

An example project illustrating the WBS is the construction of a house. Rather than immediately attempting to identify all the tasks necessary to construct a house, a WBS would be developed as shown in Figure A. The first "level" (numbered from top to bottom) indicates the major "product" or goal of the project. The second level consists of the major components of the house (six major components are shown in Figure A but there may be more). Since all of the necessary tasks cannot be identified at this point, the second level components are broken down even further into "sub-components." The breakdown continues until a level is reached at which every task can be identified for each of the items. There is no set number of levels; nor must each major component be broken down to the same number of levels.

An important point: there is not *one single* WBS for a particular project. Different people may develop different WBSs. In almost all cases, however, the *lowest* level of the various WBSs will consist of the same items. It is the intermediate levels (starting with Level 2) that will differ.

The training material includes the development of a WBS for the organisation of a Regional Convention and for the formation of a new Y's Men's Club. These are shown in Figures 1 and 2. Again, the WBSs actually developed during the training session may differ from the figures — and this is fine.

ACTIVITY DIAGRAM

The activity diagram illustrates the tasks which are necessary to accomplish a particular job, the sequence of those tasks and their interrelationships (an example diagram is shown in Figure B). The diagram consists of a series of arrows and nodes. Each arrow represents an "activity" that requires resources (perhaps strictly manpower) and some amount of time to accomplish. Each node represents an "event," an instantaneous occurrence, consuming no time.

In most diagrams, the activities are defined; that is, the task is written on the arrow or the arrows are numbered and described in an adjoining list (e.g., "writing the report"). In some cases, the events may be described, generally as the completion of an activity (e.g., "report written"). In *all* cases, the beginning event (the node at the very left of the diagram) represents the *beginning* of the project, the beginning of the first activity. *All* other events represent the *conclusion* of the activity. Any event that has two or more activities leading into it represents the completion of *all* activities leading into it. (Event 5 in Figure B represents completion of both "grade land" and "receive trees and bushes." If the trees and bushes have been received but the land has *not* yet been graded, Event 5 has *not* occurred.) Activities leading *from* an event cannot proceed until all activities leading *into* the event have been completed (i.e., the event has occurred).

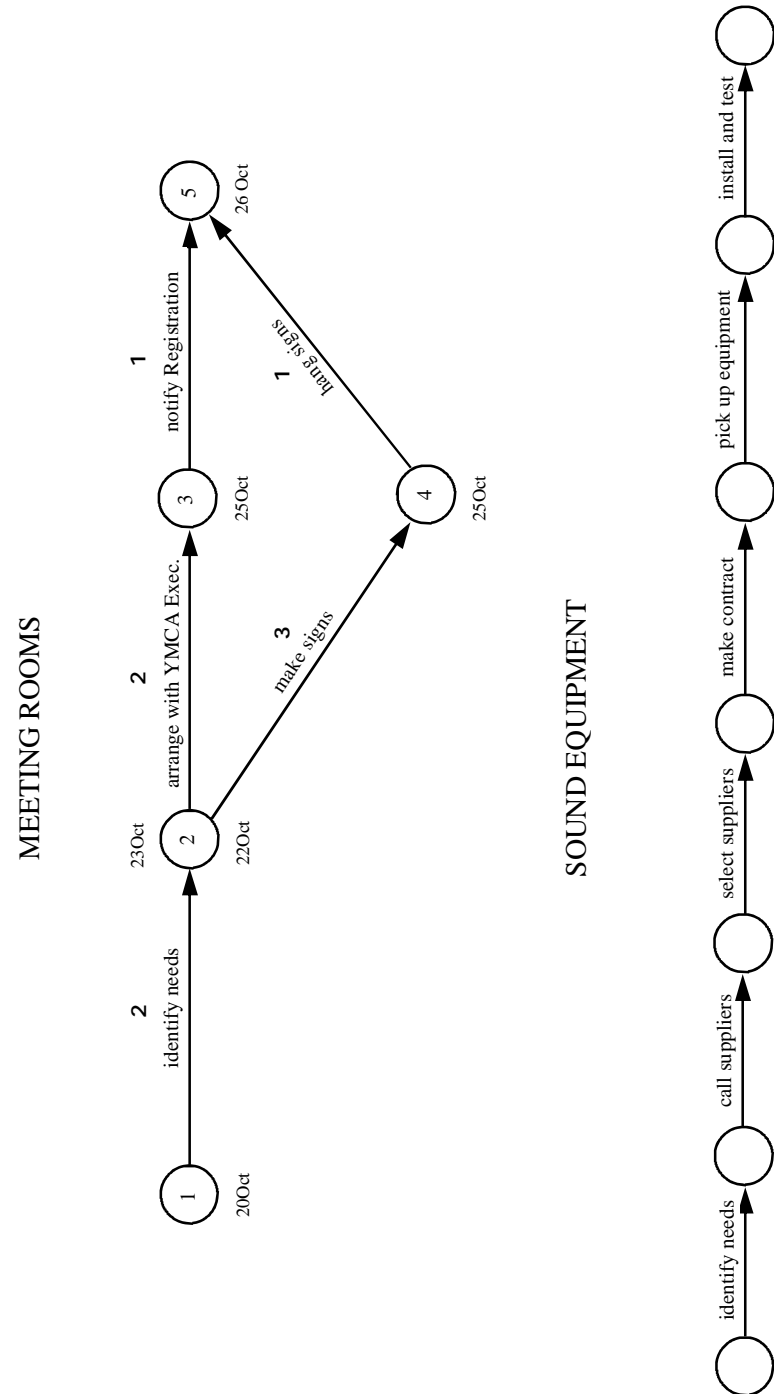
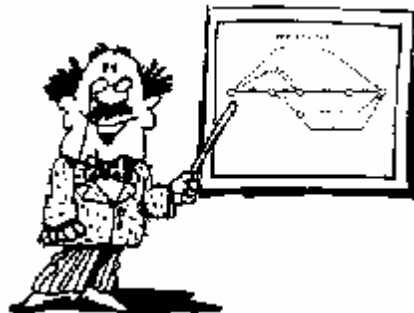


Figure 8

A NEW Y'S MEN'S CLUB

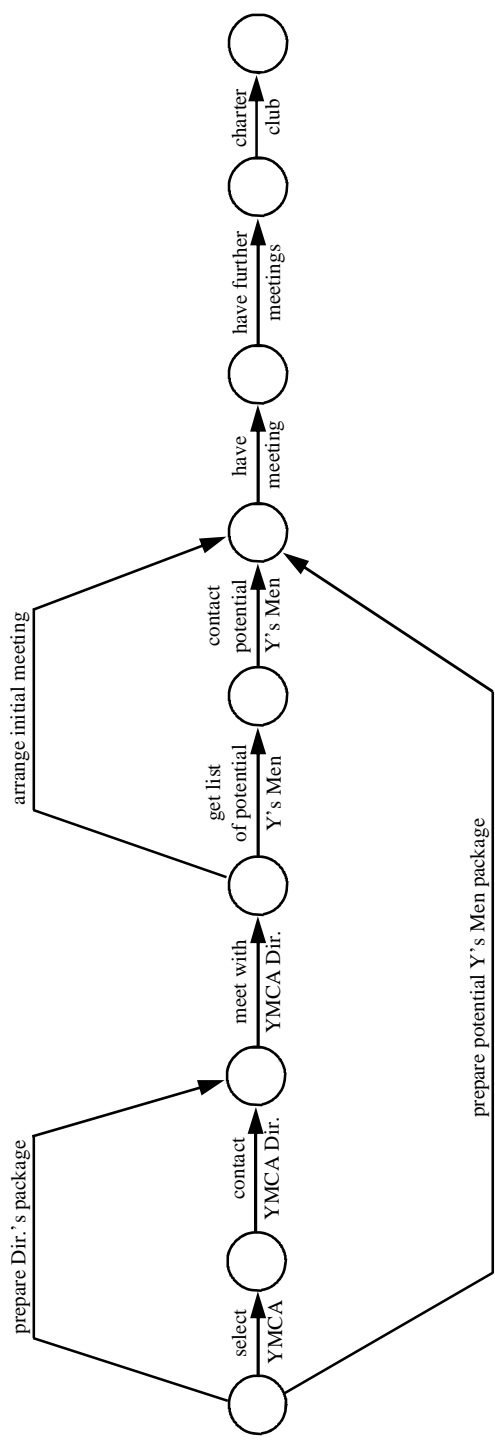


Figure 7

WORK BREAKDOWN STRUCTURE (WBS)

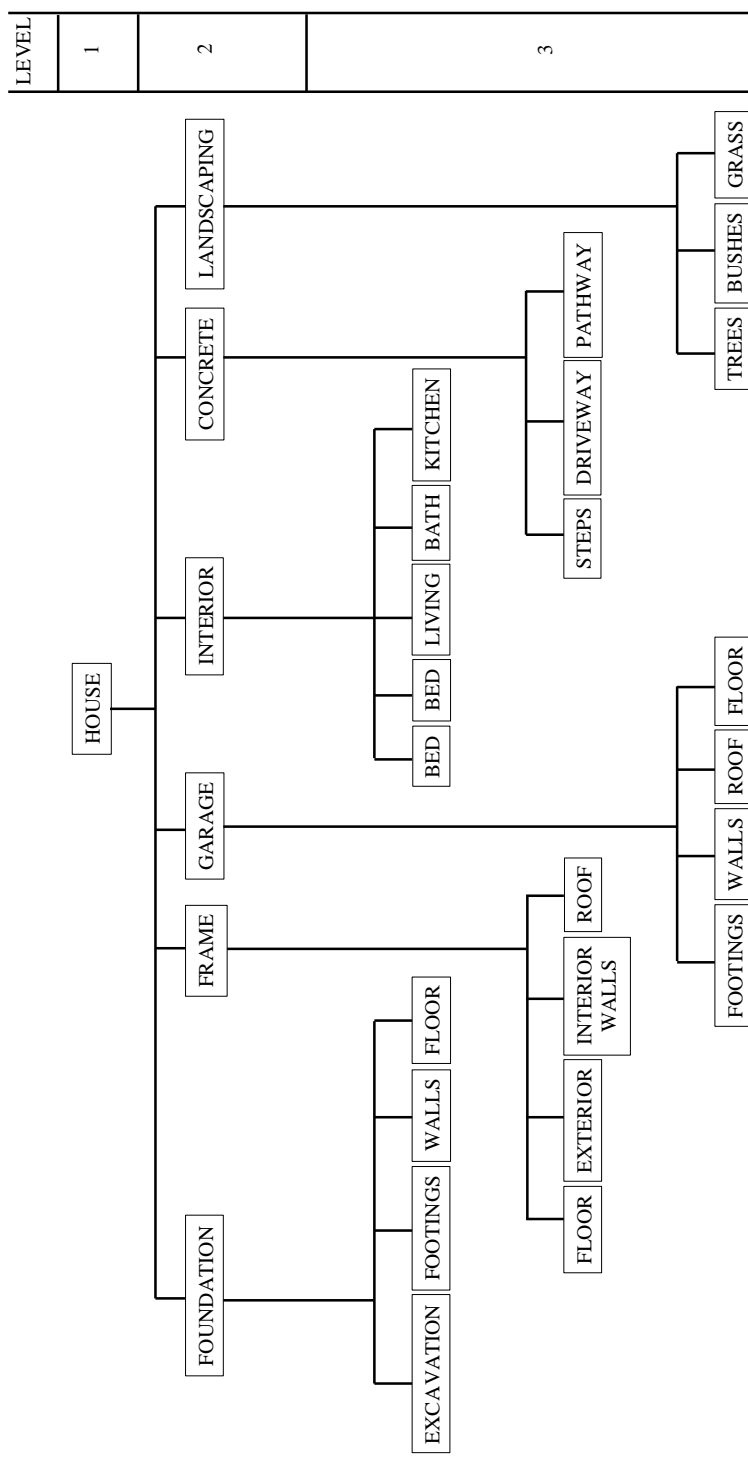


Figure A - Construction of a House

ACTIVITY DIAGRAM

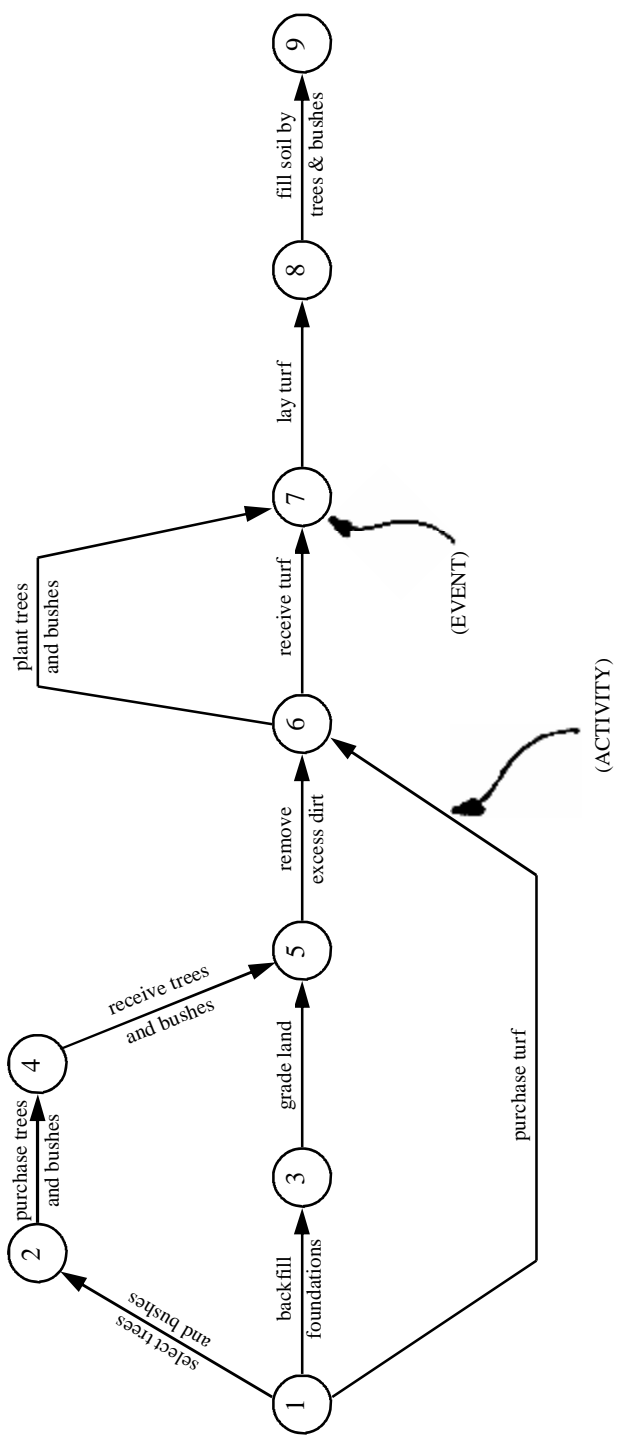
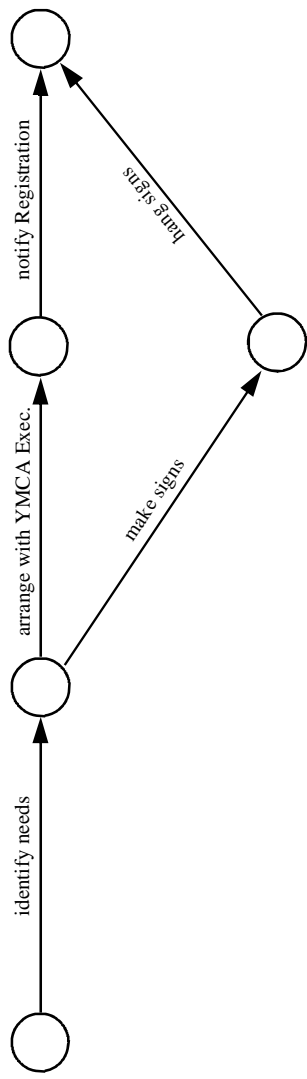


Figure B - Landscaping

MEETING ROOMS

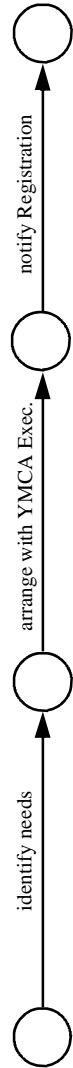


SOUND EQUIPMENT



Figure 6

REGISTRATION SPACE



RECREATION

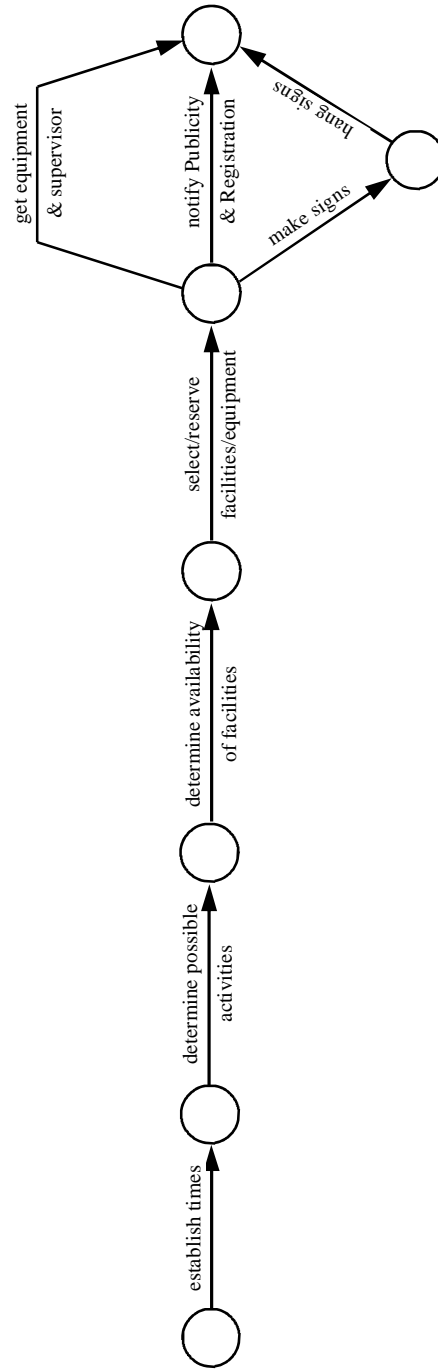


Figure 5

PROJECT PLANNING

INTRODUCTION

All of us have been involved in projects or programmes that for one reason or another just haven't worked out. We've experienced this in our Y's Men's Clubs, at work, at home, everywhere. Before we do anything else today, I want you to think back over your experiences — remember those projects with which you had problems — and tell me what those problems were.



(Trainer: Write the problems on the board as the people mention them. Some that might be mentioned are:

- Don't have enough workers.
- Equipment and facilities are inadequate.
- Customers don't show up.
- Can't get publicity.
- Things don't get done on time.

If nobody mentions any problems, you might ask "Have you ever had a problem getting enough workers?" or "Have you had trouble getting sufficient publicity?" You should lead and encourage responses from the trainees.)

Our most troublesome projects always seem to be the new ones. The old "stand-by" projects that our Club does every year **Trainer: Name some projects that are popular in the particular Region receiving the training — perhaps the Christmas tree sale, or the Service Club Olympics, or the calendar sale.** never cause any great problems — they're a lot of work, but everybody knows what to do and when to do it. Very seldom does anything unexpected occur.

We want to discuss some things that can help us to overcome or prevent some of these problems.

(Trainer: Point to those on the board.)

Let's examine a project that each of us has probably participated in — probably only once, certainly infrequently. Let's plan a Regional Convention.

WORK BREAKDOWN STRUCTURE

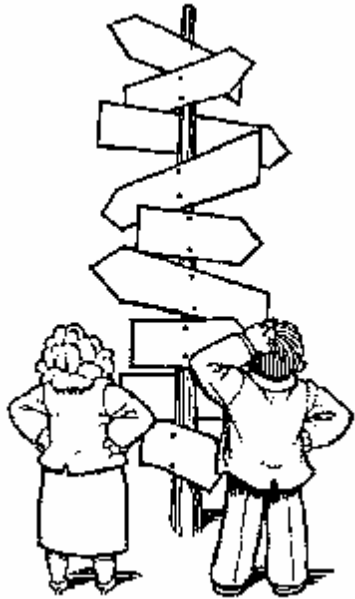
Having attended conventions of one kind or another, most of us know what usually goes on. And we know that there are many different and related tasks that must be done.

There are good conventions and bad ones — the difference is mainly in the planning. To have a good plan, we need to identify all the tasks to be done — and their sequence and interrelationships.



PLAN AHEAD

So what *are* some of the tasks that we'll have to do to have a Regional Convention? (Trainer: As the trainees name the tasks, write them on the board. Stop after about eight tasks are listed. Examine the tasks and indicate where some tasks go together. For example, are there two or more tasks that relate to a component at the second level of Figure 1: The Regional Convention WBS — such as “Food” or “Facilities?”)



We seem to be taking off in all directions here. We don't have any plan or organisation to our “planning.” If we attempt to identify all of the tasks in this manner, it's very possible that we'll overlook something — and pay the price later. We need to get organised.

So let's stop here and change direction a bit. Instead of listing tasks, let's identify the major components of a Regional Convention. We have some listed here.

(Trainer: Looking at the previously identified grouping of the tasks listed on the board, identify one or two of the second level items of the WBS shown in Figure 1. Write “Convention” at the top of the board and write the identified two components of the second level. Erase the list of tasks on the board.)

Now, what are the other major components of the Regional Convention?

(Trainer: As the trainees mention them, write them on the board. Make sure that you do not list any items that are really third level items. Again, see Figure 1 for guidance.)

What we want to do is to continue to break these things down into lower and lower levels. Eventually we'll have this major project, the convention, broken into relatively simple parts, for each of which we can identify *all* of the tasks necessary for completion.

Let's continue this breakdown. What are the major parts of “facilities?”

(Trainer: Continue with the WBS until you reach a level at which the tasks can be identified. It is not necessary that the WBS be exactly as shown in Figure 1.)

You can see that if we can produce or acquire or arrange all of these things at the lowest level of the WBS, we'll have everything we need for a Regional Convention. We haven't talked about a single task or activity *yet*. But we *have* identified everything we need. We have the entire project represented in this picture. We can see how each of these lower level items or goals mesh together to form the major goal.

(Trainer: Give a copy of Figure 1 to each trainee.)

(end of first half hour)

HOUSING

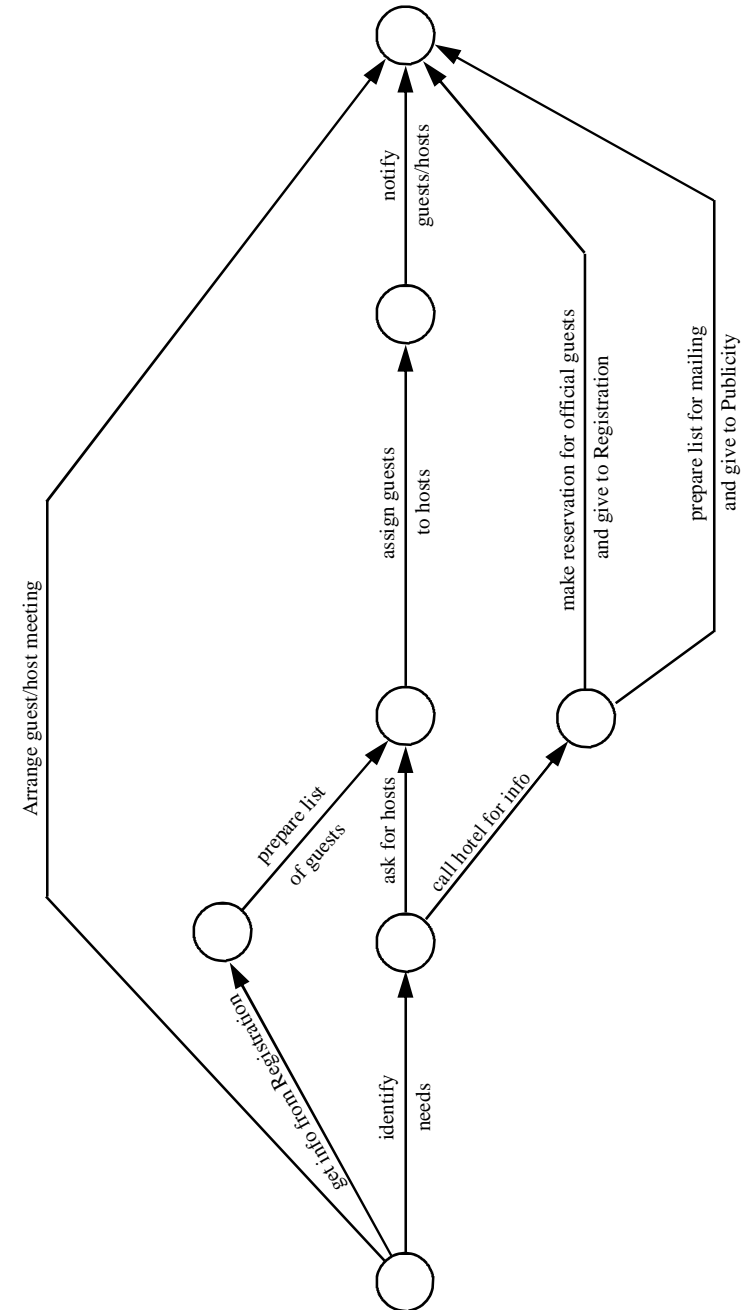


Figure 4

HOUSING ACTIVITIES

- Identify needs.
- Prepare list of guests.
- Make reservations for official guests and give to Registration.
- Prepare list for mailing and give to Publicity.
- Call hotel for information.
- Assign guests to hosts.
- Get information from Registration.
- Arrange guest/host housing.
- Ask for hosts.
- Notify guests/hosts.

Figure 3

Now we're going to separate into "teams" of 4 or 5 people. I want each team to make a Work Breakdown Structure. We'll examine a project that's near and dear to every Y's Men's Club — extension — the organisation of a new Y's Men's Club. *Your* Club is a result of some other club or group of people accomplishing this project.

So, the top or first level of the WBS will be "New Y's Men's Club." I want you to construct a WBS to at least the third level — go further if you want to. Remember now, the WBS does *not* contain tasks or activities — it lists the *results* of accomplishing tasks and activities.

Tasks	X
Activities	X
Results	✓

(Trainer: Separate the trainees into groups of four or five. Have them use poster-size sheets of paper to construct their WBSs because they will later tape them to the wall for review by the entire audience. To improve club relations as well as provide a learning experience, have each group made up of Y's Men from *different* clubs.)

Walk around the room, observing the teams at work — making sure the WBSs do *not* include tasks. This will also allow you to recognise when the teams have completed their WBSs. Some teams will probably be ready before others. It is not necessary for every team to have the WBS complete. Stop the teams when *most* are done — it is undesirable to have some trainees sitting with nothing to do for a lengthy period.

When most groups are done, have all groups tape their WBSs on the wall. One group, or a representative, should stand by its WBS and explain it to the entire group. Then you should ask the groups if there are any questions or criticisms.

Look at the other WBSs and find one that is most different from the one already discussed. Have that team explain its WBS — and ask for questions and criticisms. Finally, ask for questions and comments about any of the other WBSs that are on the wall.

An example WBS is shown in Figure 2.)

(end of second half hour)

ACTIVITY DIAGRAMS

Now, let's look at the WBS for the Regional Convention.

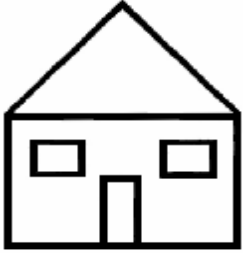
(Trainer: Have audience look at Figure 1 which was given to them previously.)

Remember, we broke the Regional Convention into smaller and smaller products or outputs — down to the point where we feel sure that we can identify *all* of the tasks necessary to produce each output.

For simplicity, let's assume that we're just part of the Convention Committee — and we've been made Chairperson of the Facilities Sub-Committee. So, actually, all we're interested in is this part of the WBS. **(Trainer: Draw a circle around "Facilities" and the Level 3 outputs of facilities. Do this on an overhead projection of this part of the WBS.)**

And, of course, we're also interested in the places where our job interrelates with the other sub-committees. What we need to do is identify the tasks that are necessary to provide the facilities for the Regional Convention.

Let's look first at "Housing." What will we have to do to provide housing for the people who will come to our convention? Let's assume that we're going to arrange "home stays" for people who want them — and provide hotel information for those who want that. What actions will we take?



(Trainer: Write the tasks on the board as the audience identifies them. Provide as little assistance as possible. Do not criticize anything that's mentioned. Be involved in the discussion just enough to keep the audience participating. When the audience finally reaches the point where no more activities are being mentioned, you might have a list as shown in Figure 3.)

Now we're going to start *planning* these activities. What is the first thing that must be done? What is the first thing that we *can* do? (Trainer: Very likely the audience will identify more than one activity that can begin immediately. That is, there will be two or more activities coming out of the beginning event.)

Once we've done this activity, (Trainer: Select one from those just drawn.) what do we do next?

(Trainer: Draw the arrow for the beginning activity and then the arrows for the follow-on activities. Continue this process through all activities. Make sure that you do not draw an activity following another unless that following activity is truly dependent upon the first one being complete. As an example, "Prepare List of Guests" is dependent upon "Get Information from Registration," but has nothing to do with "Call Hotel for Information."

You will find that some activities are dependent not only upon previous activities by this committee, but also upon activities of other committees — the Registration Committee for instance. You will also find that some necessary activities were not identified initially. This is all good because it points out how these planning tools are helping to prevent future problems. An example is shown in Figure 4. The one developed in the training session may be different, depending on the identified tasks.)

The other level 3 outputs of the Facilities Sub-Committee are not nearly as complicated. For "Registration Space" we might have just these three activities — a very straight, sequential diagram, Figure 5.

(Trainer: Show overhead projection of Figure 5.)

The "Recreation" output starts out as strictly sequential and then becomes concurrent at the end, Figure 5. And "Meeting Rooms" is fairly simple, Figure 6.

(Trainer: Show overhead projection of Figure 6.)

"Sound equipment" is completely sequential, Figure 6.

Notice that the more we *know* about producing an "output," the simpler the diagram is. If we know nothing about "Registration Space"

this diagram would be much more complex. (Trainer: Show overhead projection of Figure 5.)

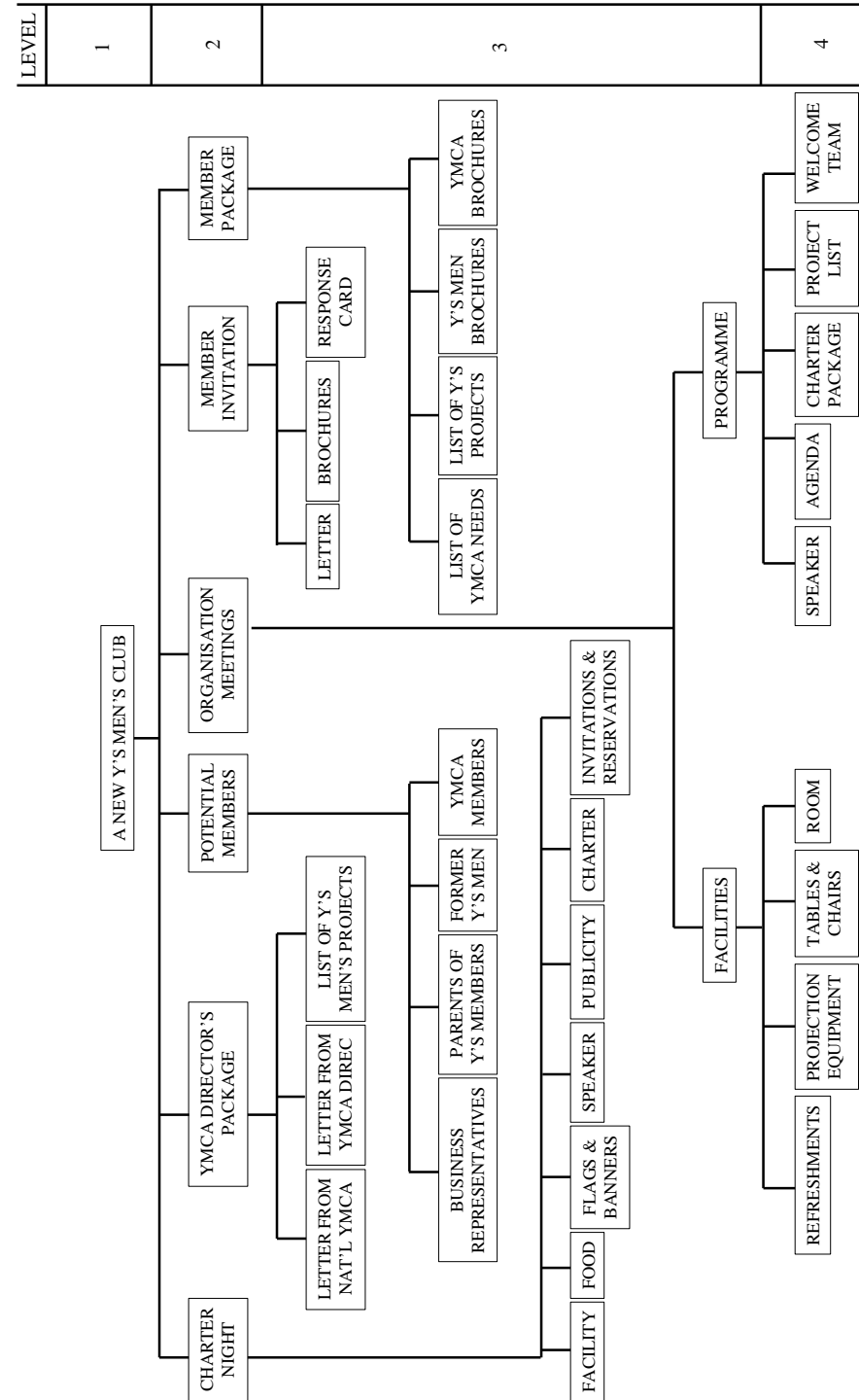


Figure 2— A new Y's Men's Club WBS

(Trainer: Hand out a copy of Figure 7 to each person in the audience and show an overhead projection of it.)

A similar activities diagram covering all aspects of organising a Regional Convention might be very complicated. In order to fit everything onto one piece of paper, some activities would probably have to be combined. Such a simplified diagram would be appropriate for the Convention Chairperson, enabling him/her to “manage” the project by providing an overview of all that needs to be done. The sub-committee chairpersons, on the other hand, would need the greater degree of detail.

CONCLUSION

Throughout this workshop we've been looking at two tools or techniques to assist in the planning of new, large projects. The purpose of the Work Breakdown Structure is to help you identify all the tasks necessary to carry out the project. This is done by breaking the project into smaller and smaller components until the tasks are readily identifiable. This will hopefully eliminate overlooking a particular activity — which could lead to project failure or only limited success.

Once you've identified all the tasks, preparing an activity diagram will show you the sequences and interdependency of the activities. Knowing these relationships will help you communicate and coordinate the various activities.

Due to our limited time, we haven't talked much about project schedule. The activity diagram can be of great help here also. To demonstrate, let's look at the five activities which are necessary to provide meeting rooms for a Regional Convention.

(Trainer: Show an overhead projection of Figure 6.)

How much time would be needed to do each of these?

Let's assume that it will take two days of meetings and telephone calls and whatever else to “identify needs.” Due to the busy work schedule of the YMCA Executive, it will also take two days to make arrangements to reserve the necessary rooms. Only one day will be needed to notify the registration committee. To make all of the signs to identify the rooms will take three days. And one day will be needed to hang the signs.

(Trainer: Mark these time periods beside the activity description as shown in Figure 8.)



Now when does this “mini project” have to be completed? Let's assume that the convention is to be on 27 and 28 October. This means that the “meeting room” project must be completed by 26 October.

(Trainer: Write “26 Oct.” beside the final event of the activity diagram — Event 5 as shown in Figure 8.)

If “Hang Signs” must be completed by 26 October — and it takes one day to hang signs, then “Make Signs” must be done by 25 October.

(Trainer: Write “25 Oct.” by Event 4, as in Figure 8.)

If “Notify Registration” will take one day and must be done by 26 October, then “Arrange with YMCA Executive” must be completed by 25 October.

(Trainer: Write “25 Oct.” by Event 3, as in Figure 8.)

If “Arrange with YMCA Executive” must be completed by 25 October and it will take two days to achieve, then we must be able to start by 23 October.

(Trainer: Write “23 Oct.” by Event 2, as in Figure 8.)

If “Make Signs” must be completed by 25 October and it takes three days to make them, we must be able to start by 22 October.

(Trainer: Write “22 Oct.” by Event 2, as in Figure 8.)

Now we have *two* dates by Event 2. The date that matters is the *earlier* one — 22 October. That date indicates when “Identify Needs” *must* be done. If “Identify Needs” is *not* completed by 22 October, then “Make signs” will not be completed by 25 October and the signs won't be hung by 26 October.

Finally, then, if “Identify Needs” must be completed by 22 October, it must start *no later* than 20 October.

(Trainer: Write “20 Oct.” by Event 1, as in Figure 8.)

These dates represent the *very latest* that those events can occur — *and* the project be done on time. If the events occur earlier, that's great! If they occur later, the planned completion date for the entire project will be delayed.

So you can see that the activity diagram can also be used for developing a schedule by which the tasks must be done — and for managing or evaluating the project once it gets started.

