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Student
Ballooning
Course

MS Project Example

Project Management Unit #4a

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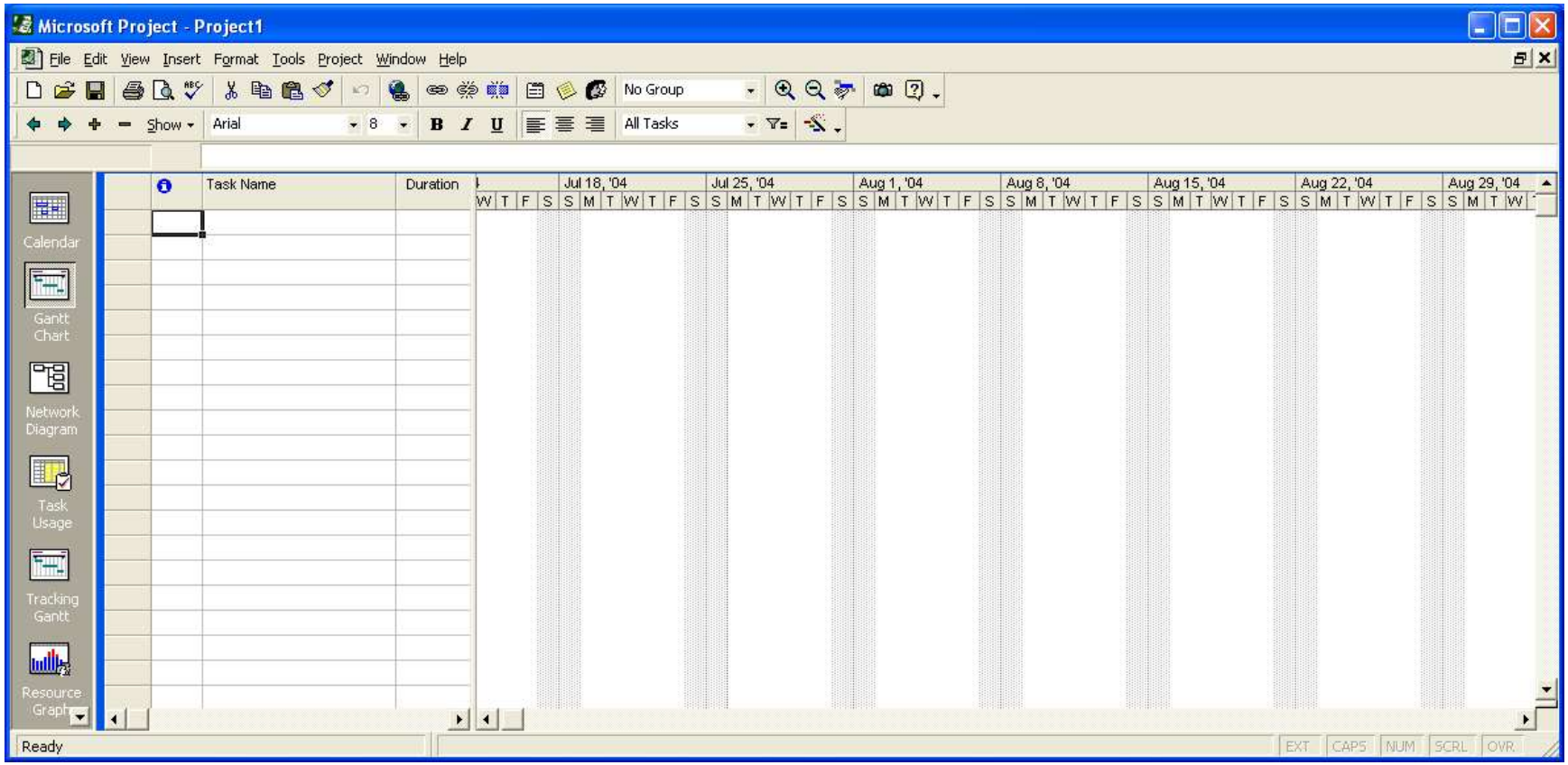
New Project Screen

- On starting Project a blank template will appear.



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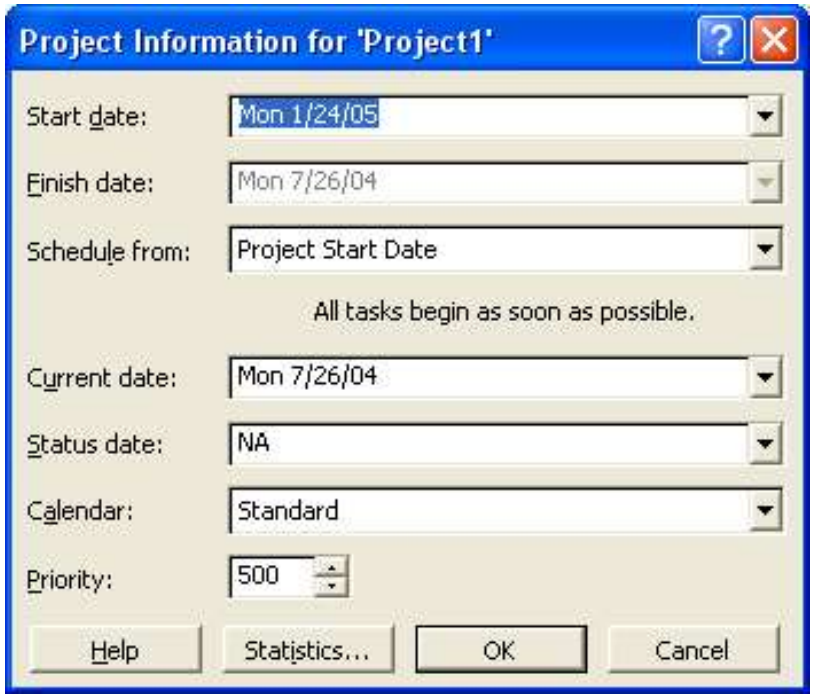
Basic Project Information

- From the “Project” menu select “Project Information” and enter the anticipated project start date.



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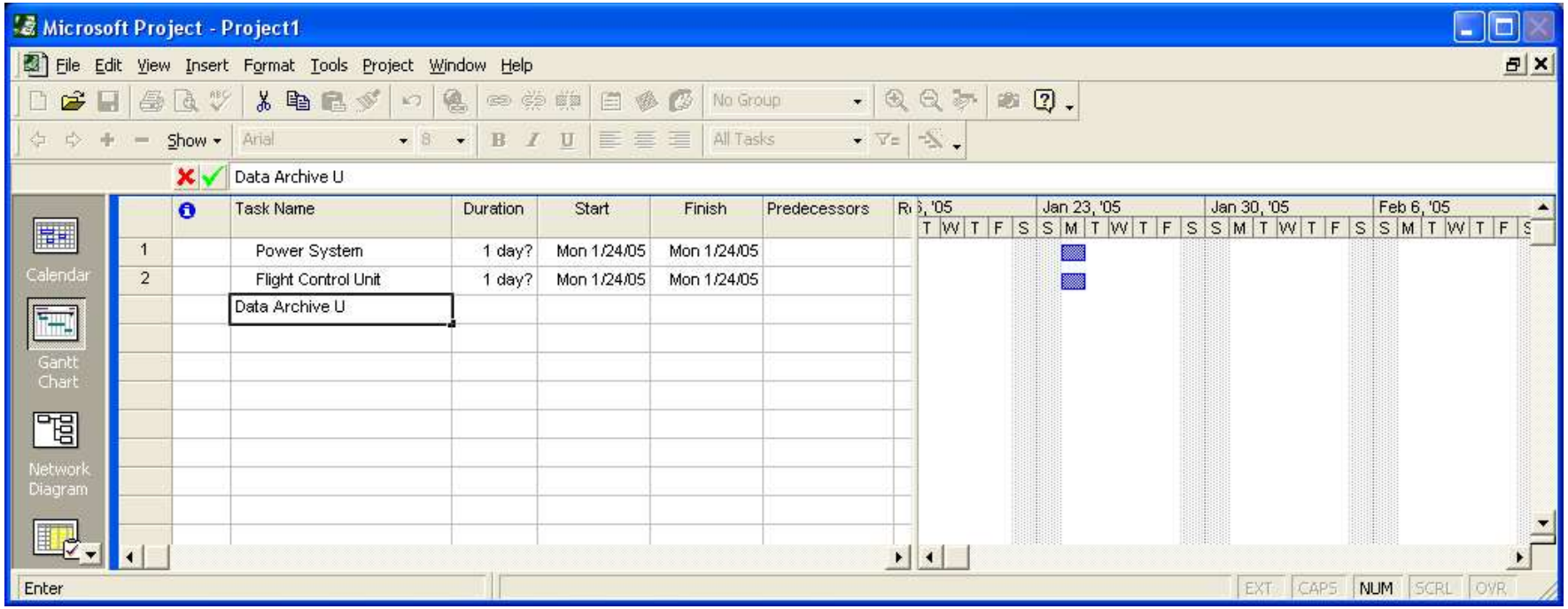
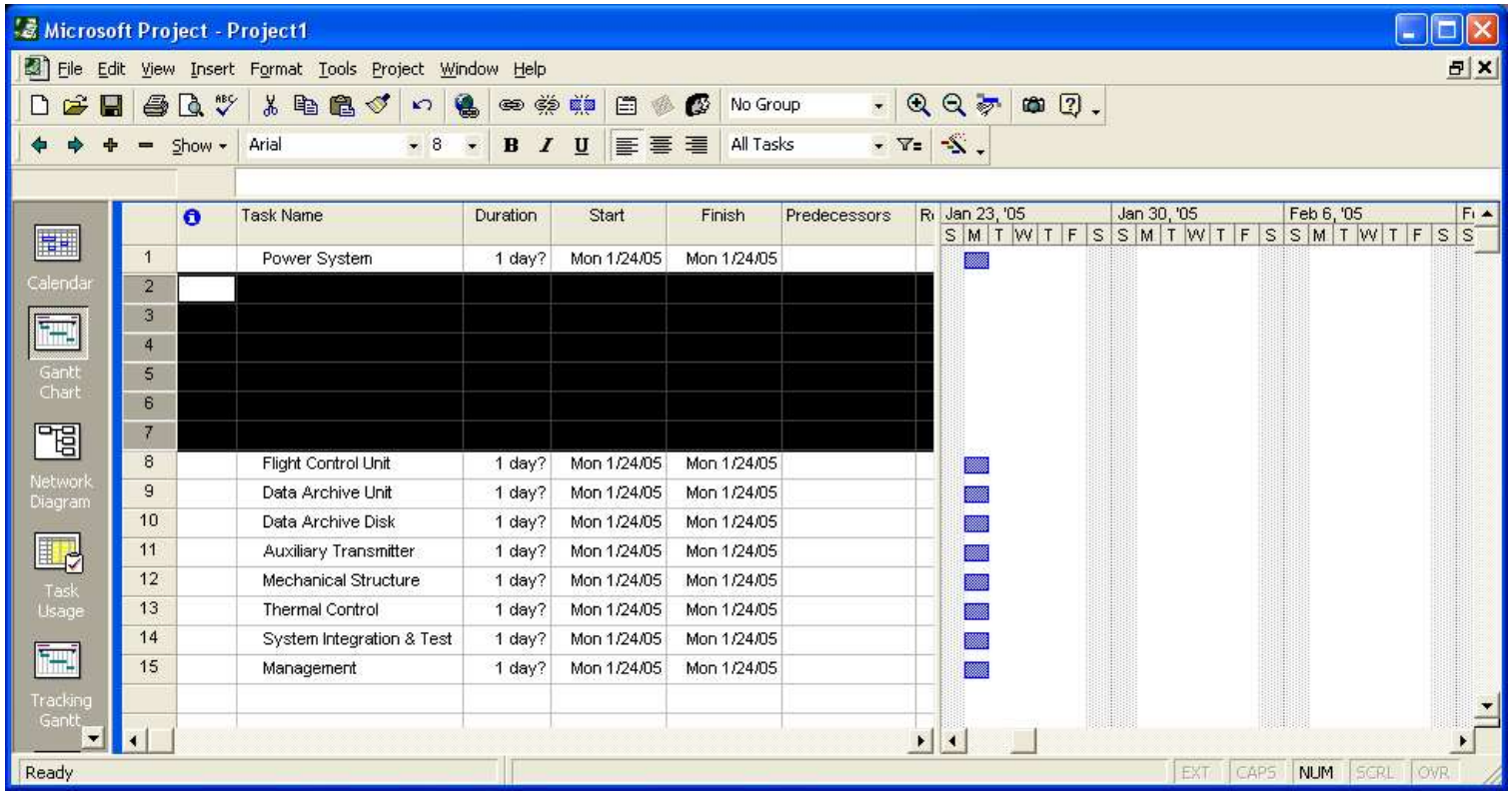
Enter the major tasks

- Type in the major tasks (WBS level 1) in the “Task Name” box.
- Each row is a separate task
- Do not worry about the rest of the columns for now



Insert Rows

- Select the row above which you want to insert a subunit
- Select “New Task” from the “Insert” menu
- To delete a row, select the row and press the “Delete” key



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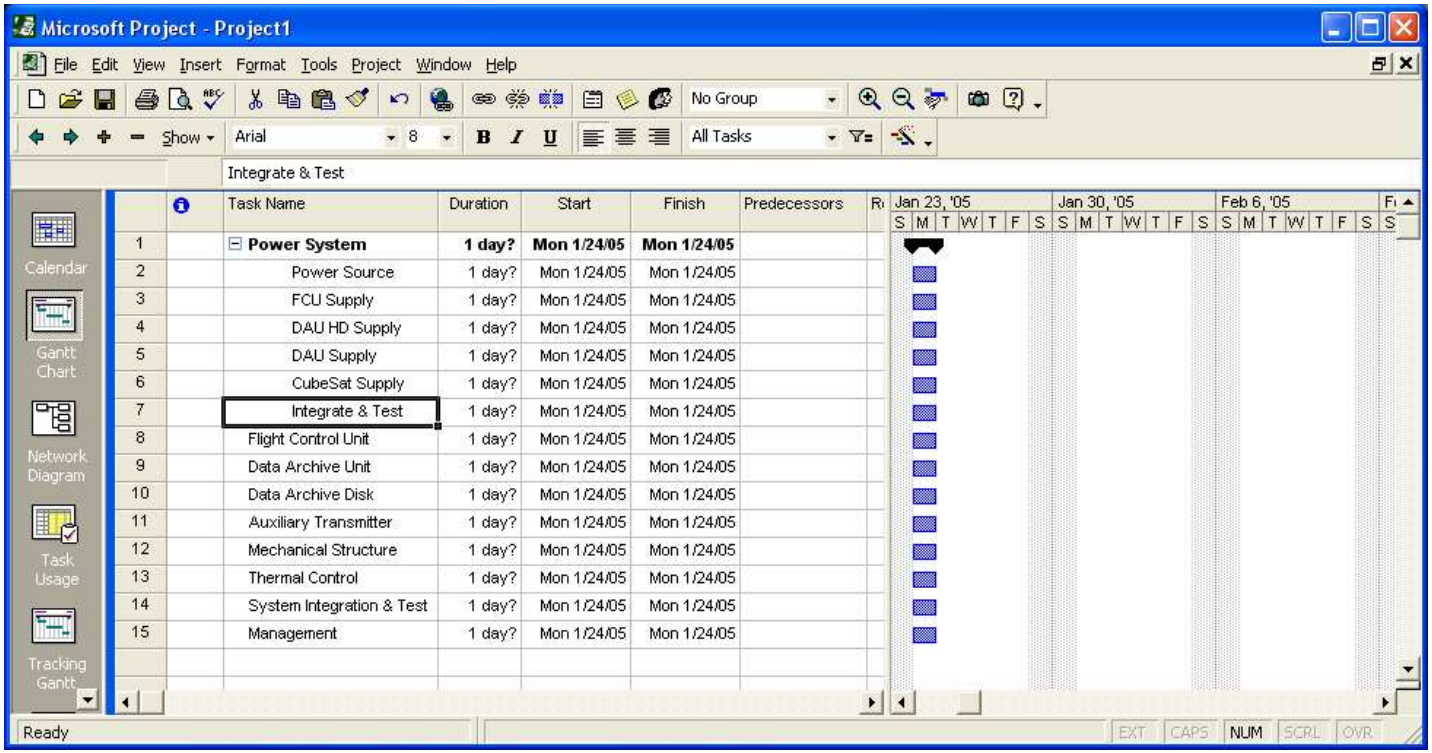
Enter the subunit task names

- Type in the name of the subunit task in the “Task Name” field
- Subunits are “indented” with the right arrow on the task bar
- When subunits are so “indented” the major unit will become bold and the Gantt chart bar will change shape



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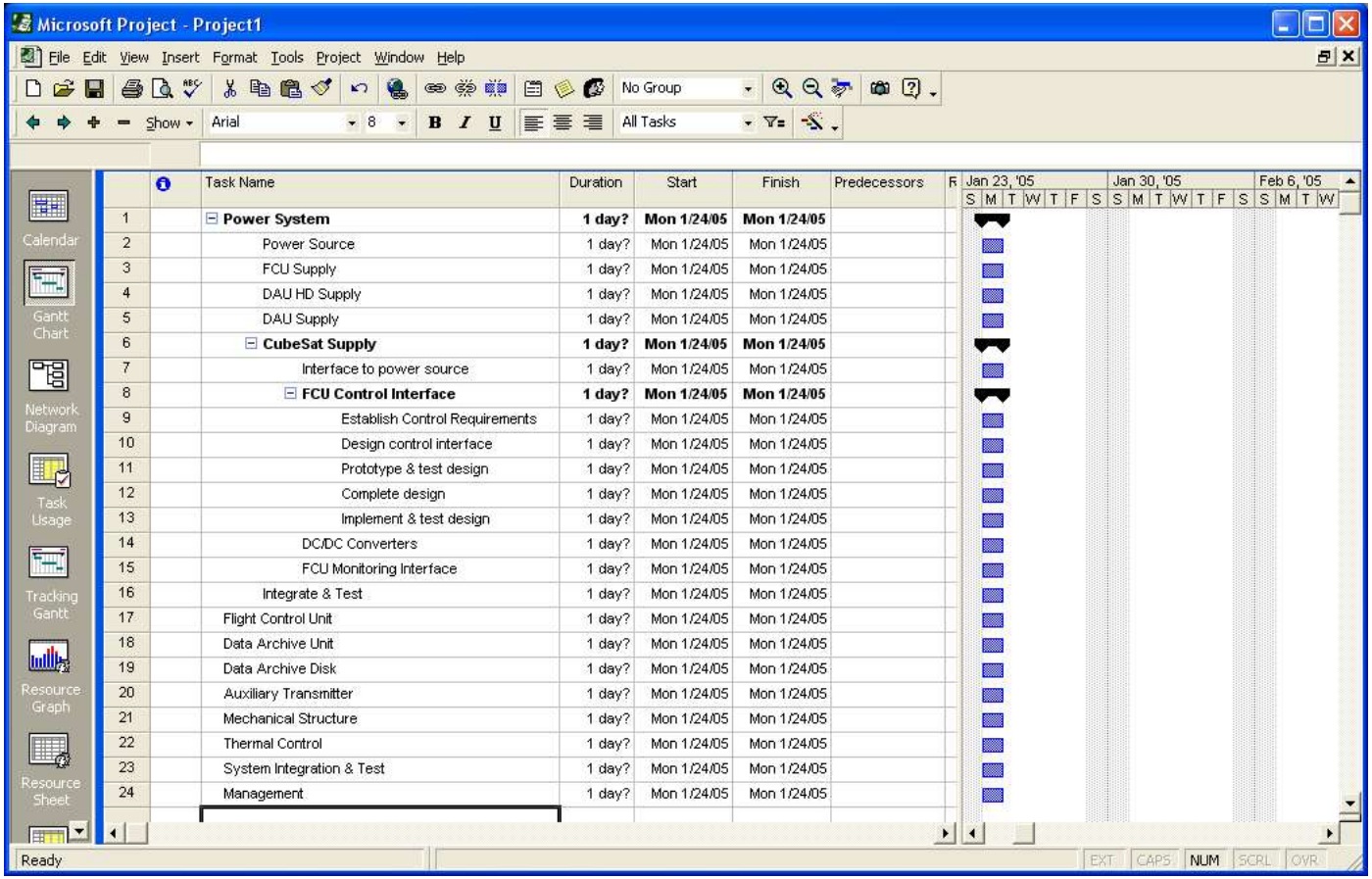
Complete entering WBS

- Process of inserting rows, typing in the task name and indenting the subunit continues until all tasks in the WBS are entered



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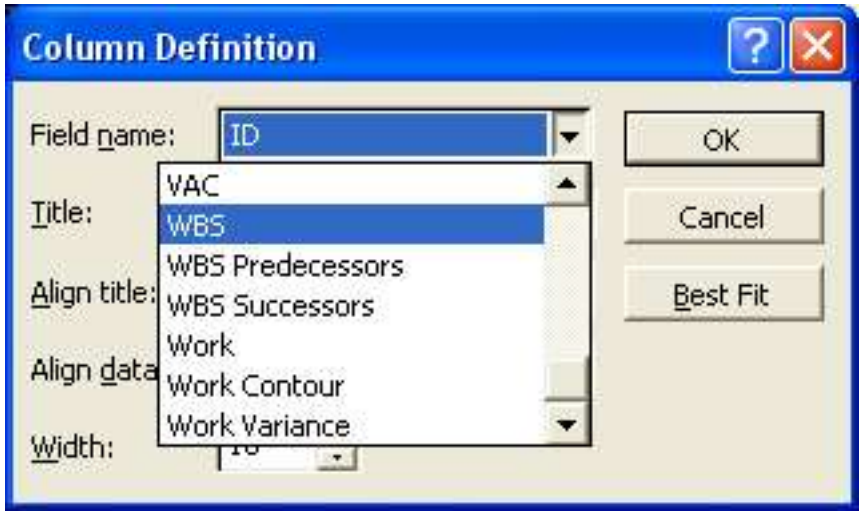
Display the WBS code

- Select the “Information” column, right click and choose “Hide Column”.
- Next select the “Task Name” column and from the “Insert” menu select “Column”. The following pop-up will appear.
- Choose “WBS” as the “Field name”



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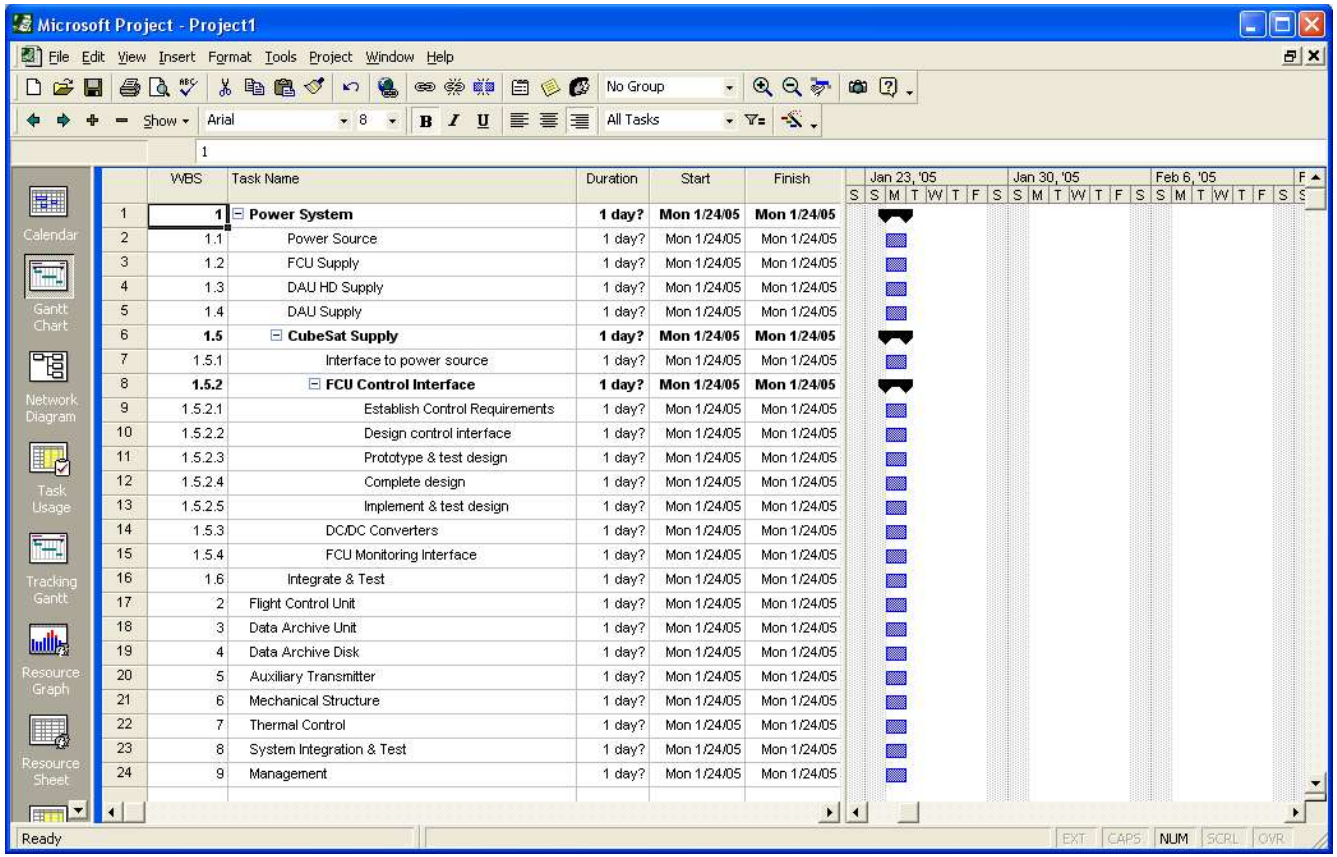
Showing the WBS code

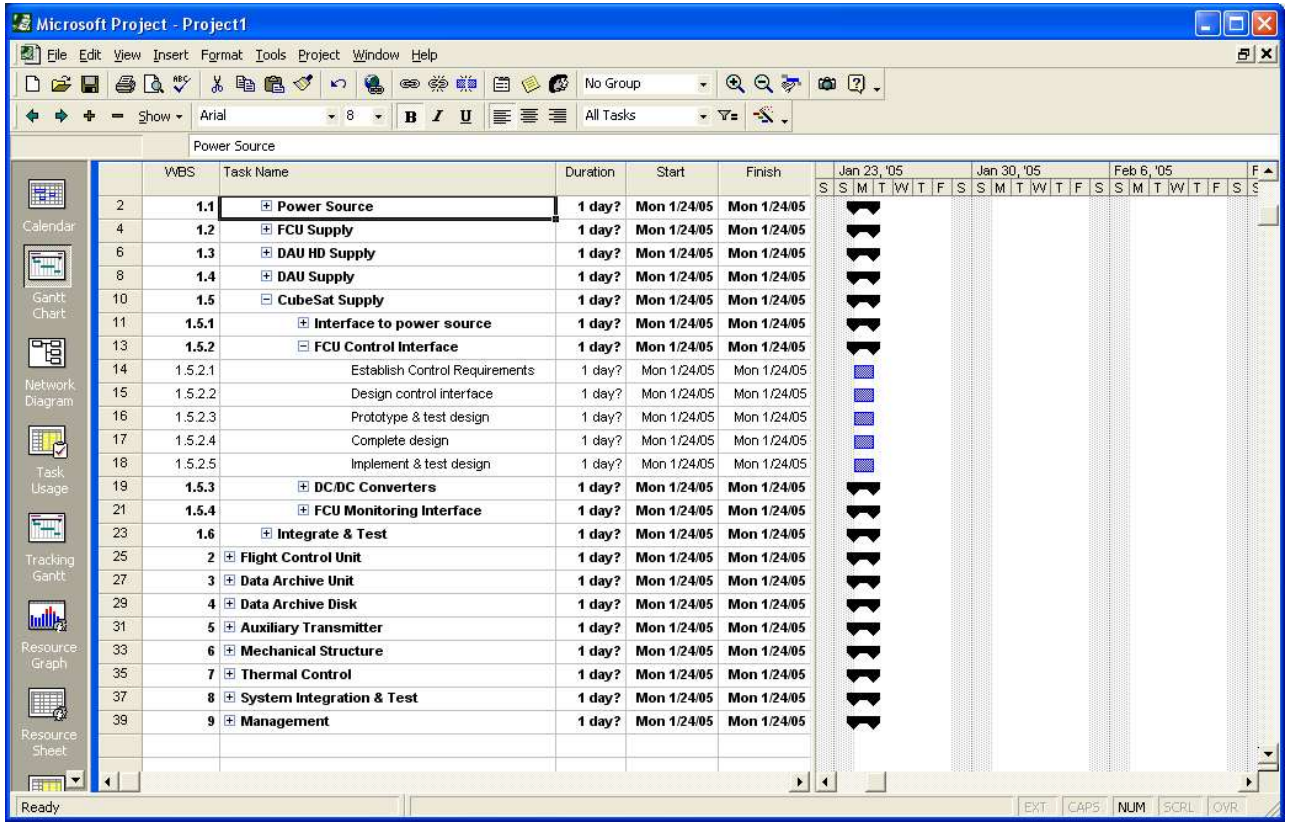
- The correct WBS code number will now be displayed for all tasks



	WBS	Task Name	Duration	Start	Finish
1	1	**Power System**	**1 day?**	**Mon 1/24/05**	**Mon 1/24/05**
2	1.1	Power Source	1 day?	Mon 1/24/05	Mon 1/24/05
3	1.2	FCU Supply	1 day?	Mon 1/24/05	Mon 1/24/05
4	1.3	DAU HD Supply	1 day?	Mon 1/24/05	Mon 1/24/05
5	1.4	DAU Supply	1 day?	Mon 1/24/05	Mon 1/24/05
6	**1.5**	**CubeSat Supply**	**1 day?**	**Mon 1/24/05**	**Mon 1/24/05**
7	1.5.1	Interface to power source	1 day?	Mon 1/24/05	Mon 1/24/05
8	**1.5.2**	**FCU Control Interface**	**1 day?**	**Mon 1/24/05**	**Mon 1/24/05**
9	1.5.2.1	Establish Control Requirements	1 day?	Mon 1/24/05	Mon 1/24/05
10	1.5.2.2	Design control interface	1 day?	Mon 1/24/05	Mon 1/24/05
11	1.5.2.3	Prototype & test design	1 day?	Mon 1/24/05	Mon 1/24/05
12	1.5.2.4	Complete design	1 day?	Mon 1/24/05	Mon 1/24/05
13	1.5.2.5	Implement & test design	1 day?	Mon 1/24/05	Mon 1/24/05
14	1.5.3	DC/DC Converters	1 day?	Mon 1/24/05	Mon 1/24/05
15	1.5.4	FCU Monitoring Interface	1 day?	Mon 1/24/05	Mon 1/24/05
16	1.6	Integrate & Test	1 day?	Mon 1/24/05	Mon 1/24/05
17	2	Flight Control Unit	1 day?	Mon 1/24/05	Mon 1/24/05
18	3	Data Archive Unit	1 day?	Mon 1/24/05	Mon 1/24/05
19	4	Data Archive Disk	1 day?	Mon 1/24/05	Mon 1/24/05
20	5	Auxiliary Transmitter	1 day?	Mon 1/24/05	Mon 1/24/05
21	6	Mechanical Structure	1 day?	Mon 1/24/05	Mon 1/24/05
22	7	Thermal Control	1 day?	Mon 1/24/05	Mon 1/24/05
23	8	System Integration & Test	1 day?	Mon 1/24/05	Mon 1/24/05
24	9	Management	1 day?	Mon 1/24/05	Mon 1/24/05

Task bars

- With all subunits inserted the lowest level will be blue rectangles and higher levels will be black bars with points on the ends.



	WBS	Task Name	Duration	Start	Finish
2	1.1	Power Source	1 day?	Mon 1/24/05	Mon 1/24/05
4	1.2	FCU Supply	1 day?	Mon 1/24/05	Mon 1/24/05
6	1.3	DAU HD Supply	1 day?	Mon 1/24/05	Mon 1/24/05
8	1.4	DAU Supply	1 day?	Mon 1/24/05	Mon 1/24/05
10	1.5	CubeSat Supply	1 day?	Mon 1/24/05	Mon 1/24/05
11	1.5.1	Interface to power source	1 day?	Mon 1/24/05	Mon 1/24/05
13	1.5.2	FCU Control Interface	1 day?	Mon 1/24/05	Mon 1/24/05
14	1.5.2.1	Establish Control Requirements	1 day?	Mon 1/24/05	Mon 1/24/05
15	1.5.2.2	Design control interface	1 day?	Mon 1/24/05	Mon 1/24/05
16	1.5.2.3	Prototype & test design	1 day?	Mon 1/24/05	Mon 1/24/05
17	1.5.2.4	Complete design	1 day?	Mon 1/24/05	Mon 1/24/05
18	1.5.2.5	Implement & test design	1 day?	Mon 1/24/05	Mon 1/24/05
19	1.5.3	DC/DC Converters	1 day?	Mon 1/24/05	Mon 1/24/05
21	1.5.4	FCU Monitoring Interface	1 day?	Mon 1/24/05	Mon 1/24/05
23	1.6	Integrate & Test	1 day?	Mon 1/24/05	Mon 1/24/05
25	2	Flight Control Unit	1 day?	Mon 1/24/05	Mon 1/24/05
27	3	Data Archive Unit	1 day?	Mon 1/24/05	Mon 1/24/05
29	4	Data Archive Disk	1 day?	Mon 1/24/05	Mon 1/24/05
31	5	Auxiliary Transmitter	1 day?	Mon 1/24/05	Mon 1/24/05
33	6	Mechanical Structure	1 day?	Mon 1/24/05	Mon 1/24/05
35	7	Thermal Control	1 day?	Mon 1/24/05	Mon 1/24/05
37	8	System Integration & Test	1 day?	Mon 1/24/05	Mon 1/24/05
39	9	Management	1 day?	Mon 1/24/05	Mon 1/24/05

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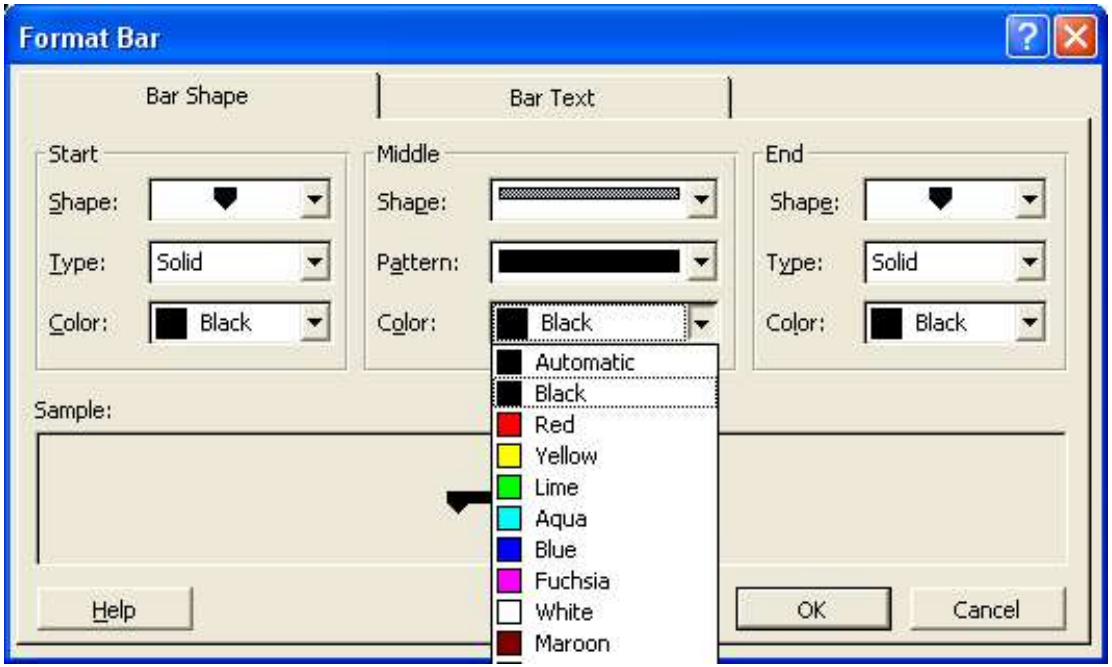
Distinguishing different levels

- You can change the color of the task bar to distinguish between the different levels in your WBS
- Select the task bar to change (in the Gantt chart area), right click and select “Format Bar”.
- Change the color of the “Start”, “Middle” and “End”



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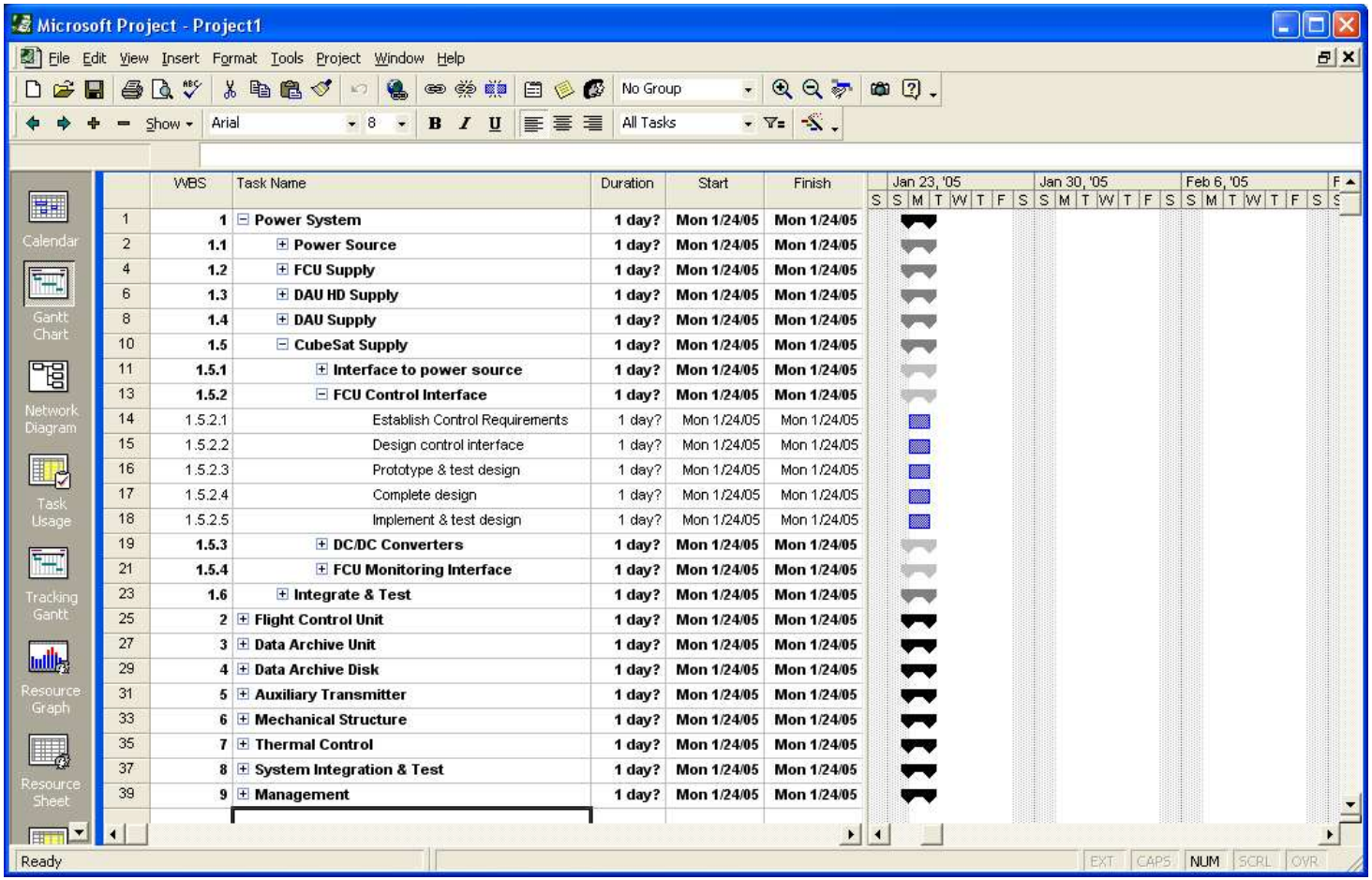
Results after task bar change

- The results of changing the task bar color are shown below



	WBS	Task Name	Duration	Start	Finish
1	1	Power System	1 day?	Mon 1/24/05	Mon 1/24/05
2	1.1	Power Source	1 day?	Mon 1/24/05	Mon 1/24/05
4	1.2	FCU Supply	1 day?	Mon 1/24/05	Mon 1/24/05
6	1.3	DAU HD Supply	1 day?	Mon 1/24/05	Mon 1/24/05
8	1.4	DAU Supply	1 day?	Mon 1/24/05	Mon 1/24/05
10	1.5	CubeSat Supply	1 day?	Mon 1/24/05	Mon 1/24/05
11	1.5.1	Interface to power source	1 day?	Mon 1/24/05	Mon 1/24/05
13	1.5.2	FCU Control Interface	1 day?	Mon 1/24/05	Mon 1/24/05
14	1.5.2.1	Establish Control Requirements	1 day?	Mon 1/24/05	Mon 1/24/05
15	1.5.2.2	Design control interface	1 day?	Mon 1/24/05	Mon 1/24/05
16	1.5.2.3	Prototype & test design	1 day?	Mon 1/24/05	Mon 1/24/05
17	1.5.2.4	Complete design	1 day?	Mon 1/24/05	Mon 1/24/05
18	1.5.2.5	Implement & test design	1 day?	Mon 1/24/05	Mon 1/24/05
19	1.5.3	DC/DC Converters	1 day?	Mon 1/24/05	Mon 1/24/05
21	1.5.4	FCU Monitoring Interface	1 day?	Mon 1/24/05	Mon 1/24/05
23	1.6	Integrate & Test	1 day?	Mon 1/24/05	Mon 1/24/05
25	2	Flight Control Unit	1 day?	Mon 1/24/05	Mon 1/24/05
27	3	Data Archive Unit	1 day?	Mon 1/24/05	Mon 1/24/05
29	4	Data Archive Disk	1 day?	Mon 1/24/05	Mon 1/24/05
31	5	Auxiliary Transmitter	1 day?	Mon 1/24/05	Mon 1/24/05
33	6	Mechanical Structure	1 day?	Mon 1/24/05	Mon 1/24/05
35	7	Thermal Control	1 day?	Mon 1/24/05	Mon 1/24/05
37	8	System Integration & Test	1 day?	Mon 1/24/05	Mon 1/24/05
39	9	Management	1 day?	Mon 1/24/05	Mon 1/24/05

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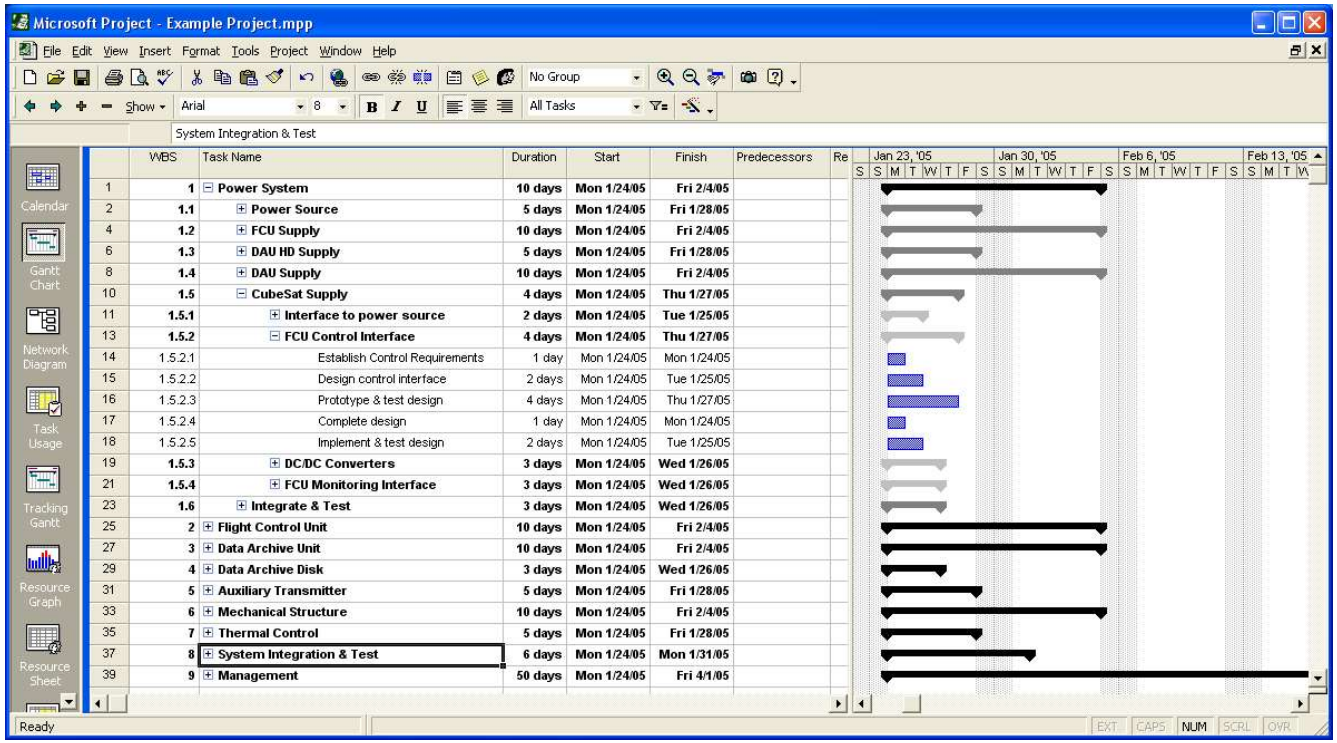
Set the task durations

- Now enter the time associated with each task in the "Duration" field. See the MS Project Help for choices on units.
- Set durations for the lowest level tasks and the total time will be summarized or rolled-up to the next highest level.



	WBS	Task Name	Duration	Start	Finish	Predecessors
1	1	Power System	10 days	Mon 1/24/05	Fri 2/4/05	
2	1.1	Power Source	5 days	Mon 1/24/05	Fri 1/28/05	
4	1.2	FCU Supply	10 days	Mon 1/24/05	Fri 2/4/05	
6	1.3	DAU HD Supply	5 days	Mon 1/24/05	Fri 1/28/05	
8	1.4	DAU Supply	10 days	Mon 1/24/05	Fri 2/4/05	
10	1.5	CubeSat Supply	4 days	Mon 1/24/05	Thu 1/27/05	
11	1.5.1	Interface to power source	2 days	Mon 1/24/05	Tue 1/25/05	
13	1.5.2	FCU Control Interface	4 days	Mon 1/24/05	Thu 1/27/05	
14	1.5.2.1	Establish Control Requirements	1 day	Mon 1/24/05	Mon 1/24/05	
15	1.5.2.2	Design control interface	2 days	Mon 1/24/05	Tue 1/25/05	
16	1.5.2.3	Prototype & test design	4 days	Mon 1/24/05	Thu 1/27/05	
17	1.5.2.4	Complete design	1 day	Mon 1/24/05	Mon 1/24/05	
18	1.5.2.5	Implement & test design	2 days	Mon 1/24/05	Tue 1/25/05	
19	1.5.3	DC/DC Converters	3 days	Mon 1/24/05	Wed 1/26/05	
21	1.5.4	FCU Monitoring Interface	3 days	Mon 1/24/05	Wed 1/26/05	
23	1.6	Integrate & Test	3 days	Mon 1/24/05	Wed 1/26/05	
25	2	Flight Control Unit	10 days	Mon 1/24/05	Fri 2/4/05	
27	3	Data Archive Unit	10 days	Mon 1/24/05	Fri 2/4/05	
29	4	Data Archive Disk	3 days	Mon 1/24/05	Wed 1/26/05	
31	5	Auxiliary Transmitter	5 days	Mon 1/24/05	Fri 1/28/05	
33	6	Mechanical Structure	10 days	Mon 1/24/05	Fri 2/4/05	
35	7	Thermal Control	5 days	Mon 1/24/05	Fri 1/28/05	
37	8	System Integration & Test	6 days	Mon 1/24/05	Mon 1/31/05	
39	9	Management	50 days	Mon 1/24/05	Fri 4/1/05	

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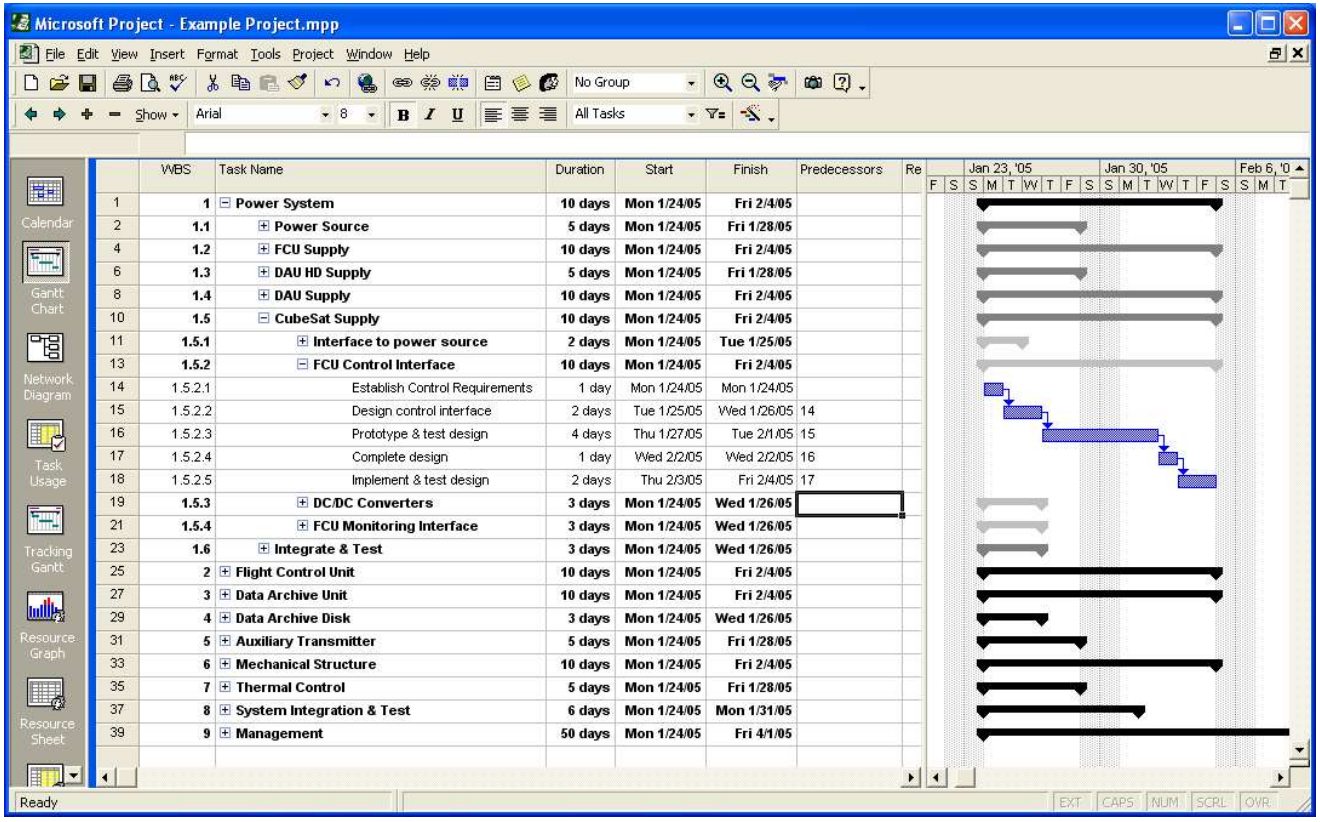
Set the task predecessors

- Enter the task dependence (i.e. which tasks must be complete prior to starting the next task) in the "Predecessors" field.
- You need to use the row number, not the WBS code.



	WBS	Task Name	Duration	Start	Finish	Predecessors	Re
1	1	Power System	10 days	Mon 1/24/05	Fri 2/4/05		
2	1.1	Power Source	5 days	Mon 1/24/05	Fri 1/28/05		
4	1.2	FCU Supply	10 days	Mon 1/24/05	Fri 2/4/05		
6	1.3	DAU HD Supply	5 days	Mon 1/24/05	Fri 1/28/05		
8	1.4	DAU Supply	10 days	Mon 1/24/05	Fri 2/4/05		
10	1.5	CubeSat Supply	10 days	Mon 1/24/05	Fri 2/4/05		
11	1.5.1	Interface to power source	2 days	Mon 1/24/05	Tue 1/25/05		
13	1.5.2	FCU Control Interface	10 days	Mon 1/24/05	Fri 2/4/05		
14	1.5.2.1	Establish Control Requirements	1 day	Mon 1/24/05	Mon 1/24/05		
15	1.5.2.2	Design control interface	2 days	Tue 1/25/05	Wed 1/26/05	14	
16	1.5.2.3	Prototype & test design	4 days	Thu 1/27/05	Tue 2/1/05	15	
17	1.5.2.4	Complete design	1 day	Wed 2/2/05	Wed 2/2/05	16	
18	1.5.2.5	Implement & test design	2 days	Thu 2/3/05	Fri 2/4/05	17	
19	1.5.3	DC/DC Converters	3 days	Mon 1/24/05	Wed 1/26/05		
21	1.5.4	FCU Monitoring Interface	3 days	Mon 1/24/05	Wed 1/26/05		
23	1.6	Integrate & Test	3 days	Mon 1/24/05	Wed 1/26/05		
25	2	Flight Control Unit	10 days	Mon 1/24/05	Fri 2/4/05		
27	3	Data Archive Unit	10 days	Mon 1/24/05	Fri 2/4/05		
29	4	Data Archive Disk	3 days	Mon 1/24/05	Wed 1/26/05		
31	5	Auxiliary Transmitter	5 days	Mon 1/24/05	Fri 1/28/05		
33	6	Mechanical Structure	10 days	Mon 1/24/05	Fri 2/4/05		
35	7	Thermal Control	5 days	Mon 1/24/05	Fri 1/28/05		
37	8	System Integration & Test	6 days	Mon 1/24/05	Mon 1/31/05		
39	9	Management	50 days	Mon 1/24/05	Fri 4/1/05		

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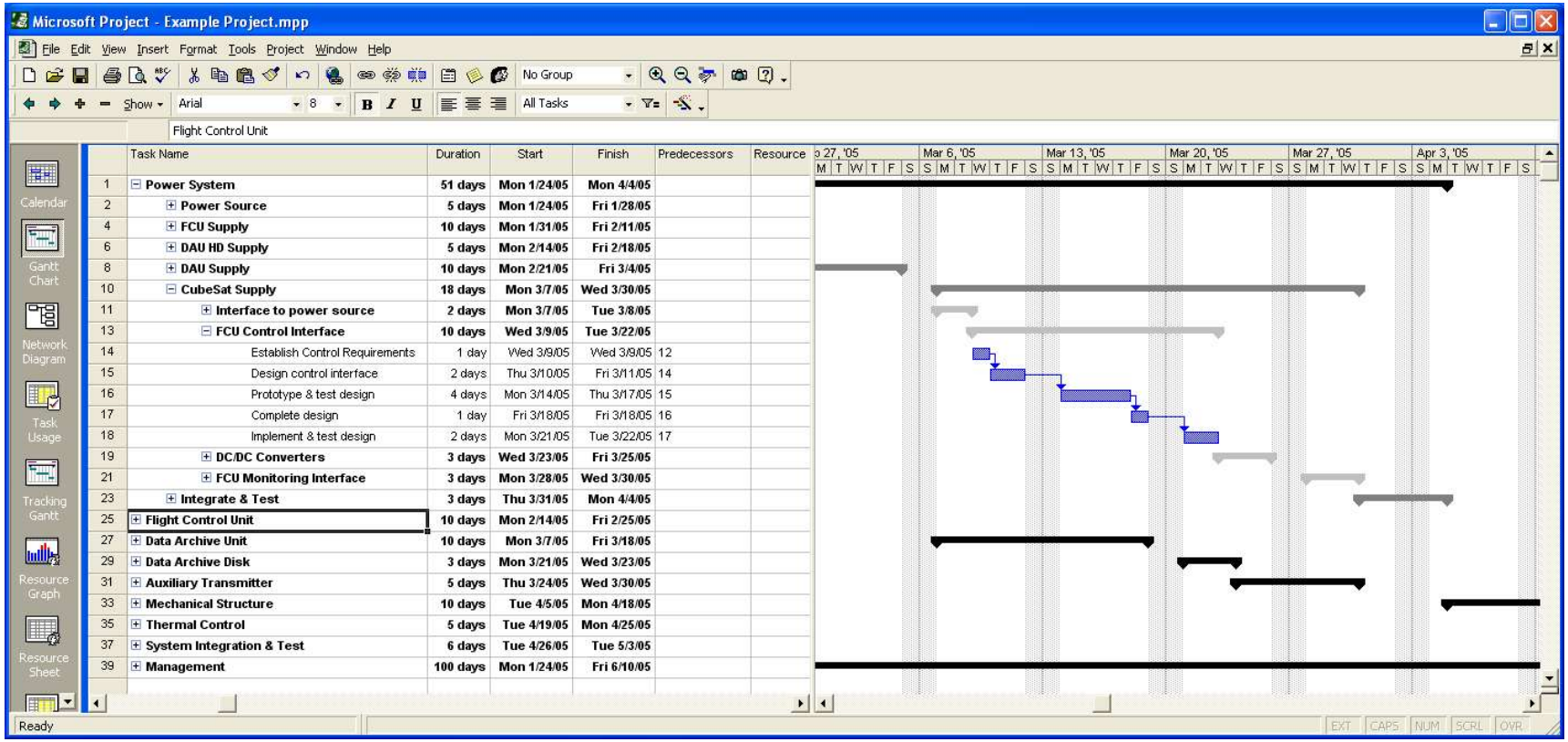
Enter all predecessors

- Here all the task predecessors are determined and entered, but the Gantt chart now needs room to display fully



	Task Name	Duration	Start	Finish	Predecessors	Resource
1	Power System	51 days	Mon 1/24/05	Mon 4/4/05		
2	Power Source	5 days	Mon 1/24/05	Fri 1/28/05		
4	FCU Supply	10 days	Mon 1/31/05	Fri 2/11/05		
6	DAU HD Supply	5 days	Mon 2/14/05	Fri 2/18/05		
8	DAU Supply	10 days	Mon 2/21/05	Fri 3/4/05		
10	CubeSat Supply	18 days	Mon 3/7/05	Wed 3/30/05		
11	Interface to power source	2 days	Mon 3/7/05	Tue 3/8/05		
13	FCU Control Interface	10 days	Wed 3/9/05	Tue 3/22/05		
14	Establish Control Requirements	1 day	Wed 3/9/05	Wed 3/9/05	12	
15	Design control interface	2 days	Thu 3/10/05	Fri 3/11/05	14	
16	Prototype & test design	4 days	Mon 3/14/05	Thu 3/17/05	15	
17	Complete design	1 day	Fri 3/18/05	Fri 3/18/05	16	
18	Implement & test design	2 days	Mon 3/21/05	Tue 3/22/05	17	
19	DC/DC Converters	3 days	Wed 3/23/05	Fri 3/25/05		
21	FCU Monitoring Interface	3 days	Mon 3/28/05	Wed 3/30/05		
23	Integrate & Test	3 days	Thu 3/31/05	Mon 4/4/05		
25	Flight Control Unit	10 days	Mon 2/14/05	Fri 2/25/05		
27	Data Archive Unit	10 days	Mon 3/7/05	Fri 3/18/05		
29	Data Archive Disk	3 days	Mon 3/21/05	Wed 3/23/05		
31	Auxiliary Transmitter	5 days	Thu 3/24/05	Wed 3/30/05		
33	Mechanical Structure	10 days	Tue 4/5/05	Mon 4/18/05		
35	Thermal Control	5 days	Tue 4/19/05	Mon 4/25/05		
37	System Integration & Test	6 days	Tue 4/26/05	Tue 5/3/05		
39	Management	100 days	Mon 1/24/05	Fri 6/10/05		

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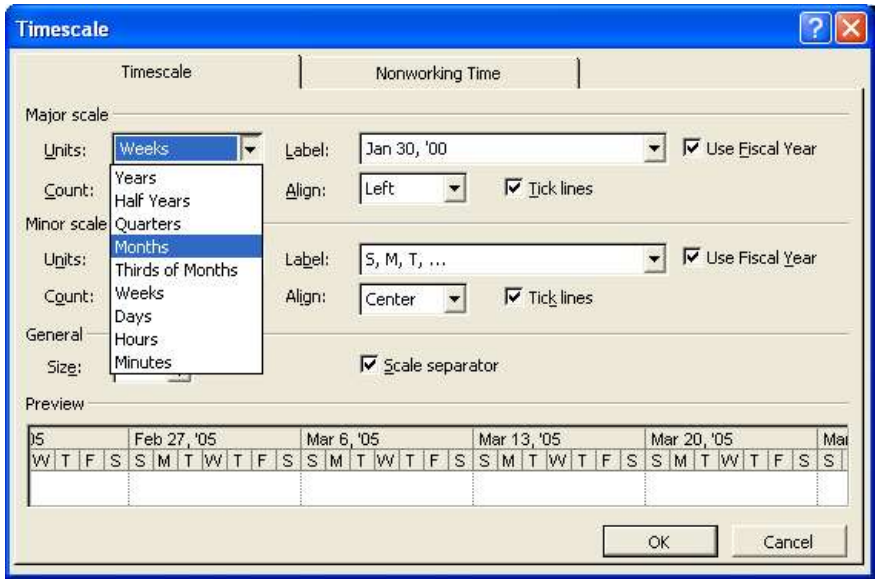
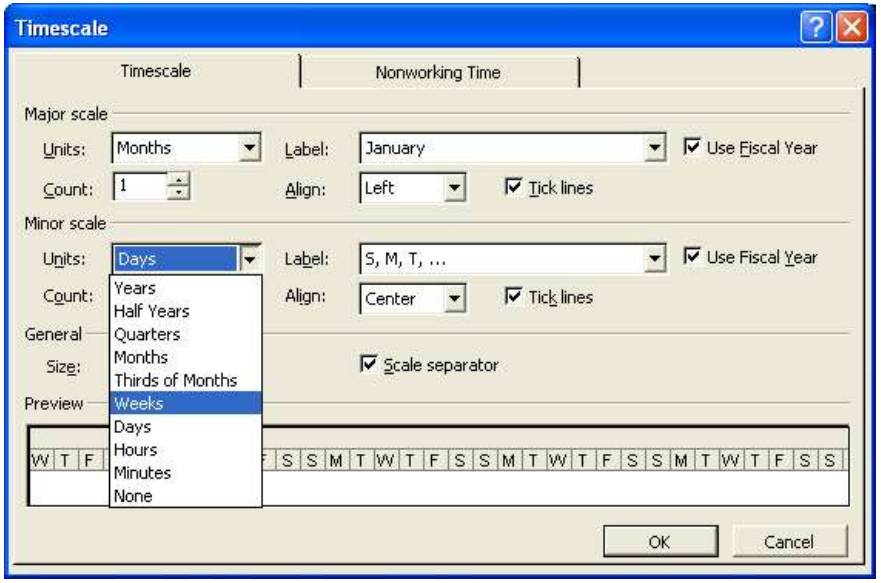
Set the timescale of the chart

- From the “Format” menu select “Timescale”
- Set the Major Scale to Months
- Set the Minor Scale to Weeks





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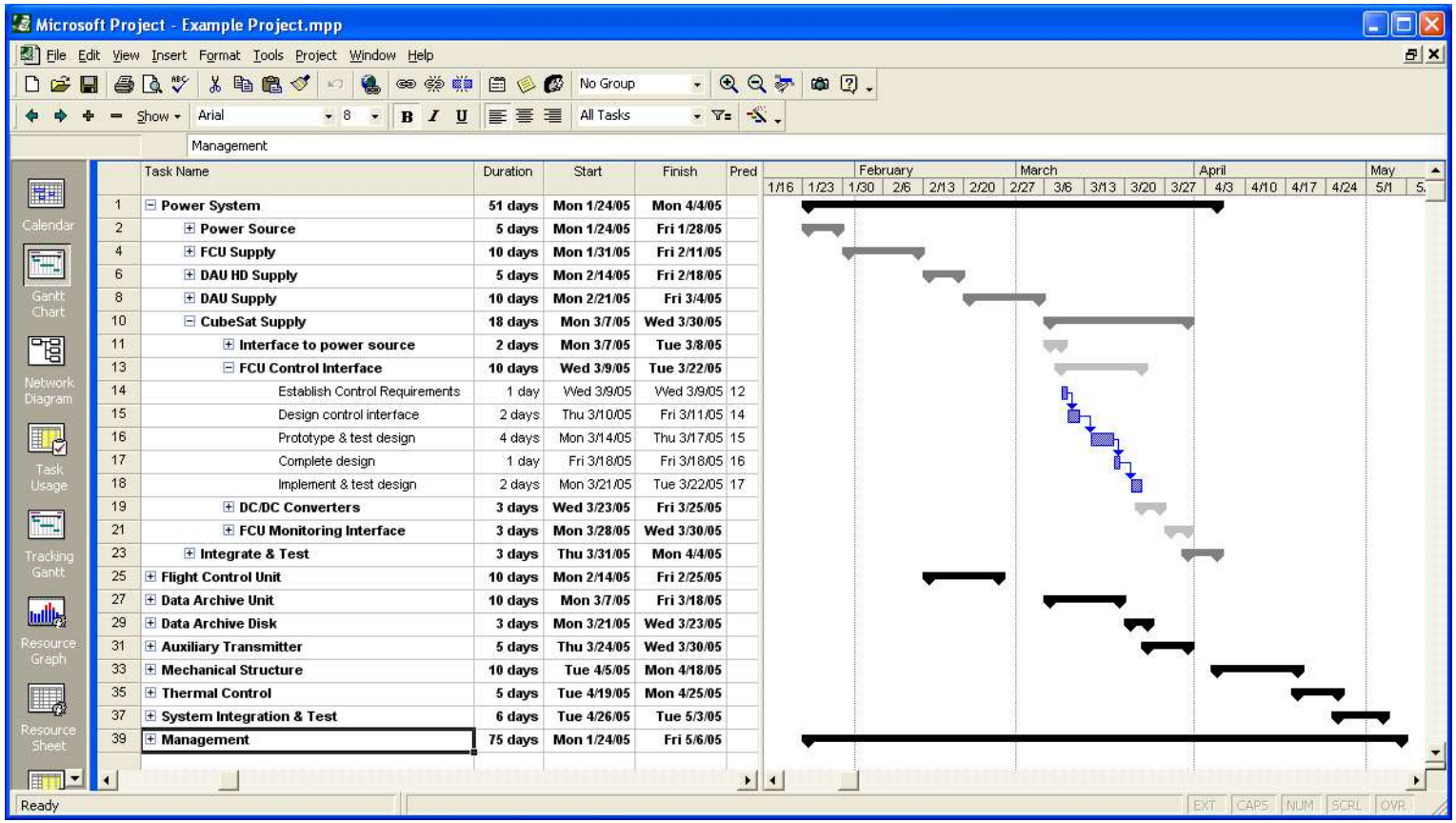
After timescale change

- Now the full Gantt chart from project start to end can be displayed



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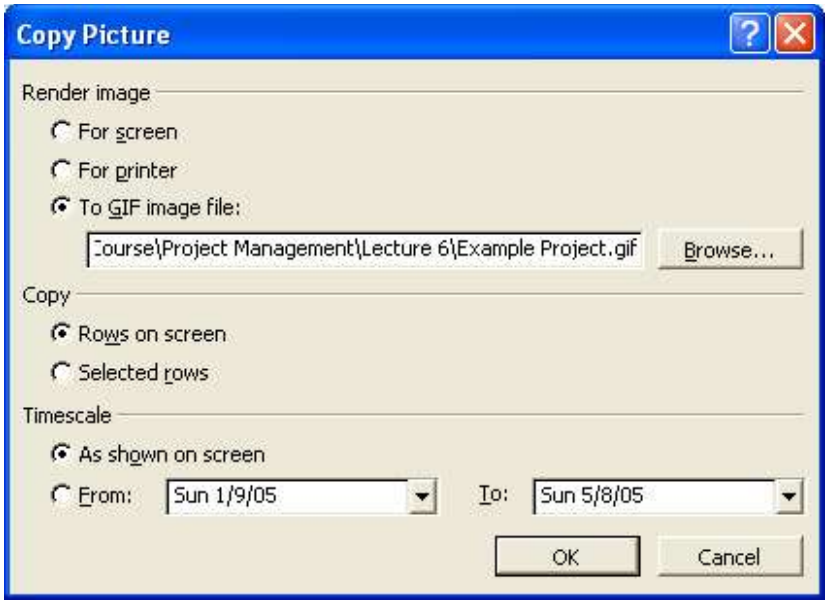
Make an image for documents

- To make a GIF image that can be inserted into documents, first arrange the chart and task info boundaries to display just what you want.
- From the “Edit” menu select “Copy Picture”
- Select “To GIF image file:” and enter a filename for the image



- Select what to copy: Rows on screen or Selected Rows
- Select the timescale as either what is shown on the screen or for specific dates
- Click OK and the image will be generated.

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Final version of project

- Below is the GIF image of the example project ready to be inserted in a document.