Microsoft Project Reports

Neville Turbit

Overview

Most of us have struggled with the limited reporting facilities on Microsoft Project. You never seem to be able to find the report you want. There is another way. By saving the Microsoft Project file as a Microsoft Access file, you can write your own reports. Saving as Access does not replace your traditional .mpp file. It creates a second file with an .mdb extension.

Save to Microsoft Access

Go to the "File" menu and select "Save As". Under "Save as Type" select "Microsoft Access Database *.mdb". This does not replace the .mpp file. It creates a second file.

Link to Access

Open a new Microsoft Access Database. Now you can link your Microsoft Project Database to Access.

To do this, in Access

- Go to "File", "Get External Data", "Link Tables"
- Locate the Project database (.mdb) file
- Go to "Tables".
- Select "All" and you are linked.

What linking does is that you have an Access file (your new database) where you can write queries and reports, but the data is in another file - in this case the Access version of the Microsoft Project file. You can tell it is linked if you look at the tables. They have an arrow to the left of each table. You can delete the links without deleting the files.

Now you are linked, you can write your own reports.

Key Tables

One of the key tables you will use is the Task table. MSP_TASKS contains all the details regarding the tasks in your project such as name and duration. It also contains milestones which are tasks with a zero time:

Fields are:

RESERVED_DATA	Text	1
PROJ_ID	Long Integer	4
TASK_ACWP	Double	8
TASK_BCWP	Double	8
TASK_BCWS	Double	8
TASK_DUR_VAR	Long Integer	4
TASK_FINISH_VAR	Long Integer	4
TASK_OUTLINE_NUM	Text	255
TASK_START_VAR	Long Integer	4
TASK_IS_OVERALLOCATED	Yes/No	1
TASK_OVT_WORK	Double	8

TASK_VAC	Double	8
TASK_REG_WORK	Double	8
TASK_NUM_OBJECTS	Long Integer	4
TASK_TOTAL_SLACK	Long Integer	4
EXT_EDIT_REF_DATA	Memo	-
TASK_UID	Long Integer	4
TASK_ID	Long Integer	4
TASK_HAS_LINKED_FIELDS	Yes/No	1
TASK_IS_MILESTONE	Yes/No	1
TASK_IS_CRITICAL	Yes/No	1
TASK_IS_SUMMARY	Yes/No	1
TASK_IS_SUBPROJ	Yes/No	1
TASK_IS_MARKED	Yes/No	1
TASK_IGNORES_RES_CAL	Yes/No	1
TASK_IS_ROLLED_UP	Yes/No	1
TASK_IS_FROM_FINISH_SUBPROJ	Yes/No	1
TASK_BAR_IS_HIDDEN	Yes/No	1
TASK_IS_RECURRING	Yes/No	1
TASK_IS_RECURRING_SUMMARY	Yes/No	1
TASK_IS_EXTERNAL	Yes/No	1
TASK_IS_EFFORT_DRIVEN	Yes/No	1
TASK_IS_COLLAPSED	Yes/No	1
TASK_HAS_NOTES	Yes/No	1
TASK_IS_READONLY_SUBPROJ	Yes/No	1
TASK_LEVELING_CAN_SPLIT	Yes/No	1
TASK_LEVELING_ADJUSTS_ASSN	Yes/No	1
TASK_DUR_IS_EST	Yes/No	1
TASK_EARLY_FINISH	Date/Time	8
TASK_LATE_START	Date/Time	8
TASK_STOP_DATE	Date/Time	8
TASK_RESUME_DATE	Date/Time	8
TASK_FREE_SLACK	Long Integer	4
TASK_OUTLINE_LEVEL	Integer	2
TASK_DUR	Long Integer	4
TASK_DUR_FMT	Integer	2
TASK_ACT_DUR	Long Integer	4
TASK_REM_DUR	Long Integer	4
TASK_BASE_DUR	Long Integer	4
TASK_BASE_DUR_FMT	Integer	2
TASK_CONSTRAINT_TYPE	Integer	2
TASK_LEVELING_DELAY	Long Integer	4
TASK_LEVELING_DELAY_FMT	Integer	2
TASK_START_DATE	Date/Time	8
TASK_FINISH_DATE	Date/Time	8
TASK_ACT_START	Date/Time	8
TASK_ACT_FINISH	Date/Time	8
TASK_BASE_START	Date/Time	8
TASK_BASE_FINISH	Date/Time	8
TASK_CONSTRAINT_DATE	Date/Time	8
TASK_PRIORITY	Integer	2
TASK_PCT_COMP	Integer	2
TASK_PCT_WORK_COMP	Integer	2
TASK_TYPE	Integer	2
TASK_FIXED_COST_ACCRUAL	Integer	2
TASK_CREATION_DATE	Date/Time	8
TASK_PRELEVELED_START	Date/Time	8
TASK_PRELEVELED_FINISH	Date/Time	8
TASK_EARLY_START	Date/Time	8
TASK_LATE_FINISH	Date/Time	8
TASK_CAL_UID	Long Integer	4
TASK_DEADLINE	Date/Time	8
TASK_WORK	Double	8
TASK_BASE_WORK	Double	8
TASK_ACT_WORK	Double	8
TASK_REM_WORK	Double	8
TASK_COST	Double	8
TASK_FIXED_COST	Double	8
TASK_ACT_COST	Double	8
TASK_REM_COST	Double	8
TASK_BASE_COST	Double	8
TASK_ACT_OVT_WORK	Double	8
TASK_REM_OVT_WORK	Double	8

TASK_OVT_COST	Double	8
TASK_ACT_OVT_COST	Double	8
TASK_REM_OVT_COST	Double	8
TASK_WBS	Memo	-
TASK_NAME	Text	255
TASK_WBS_RIGHTMOST_LEVEL	Memo	-
TASK_RTF_NOTES	OLE Object	-
TASK_EAC	Double	8
TASK_PHY_PCT_COMP	Integer	2
TASK_EVMETHOD	Integer	2

Key Fields

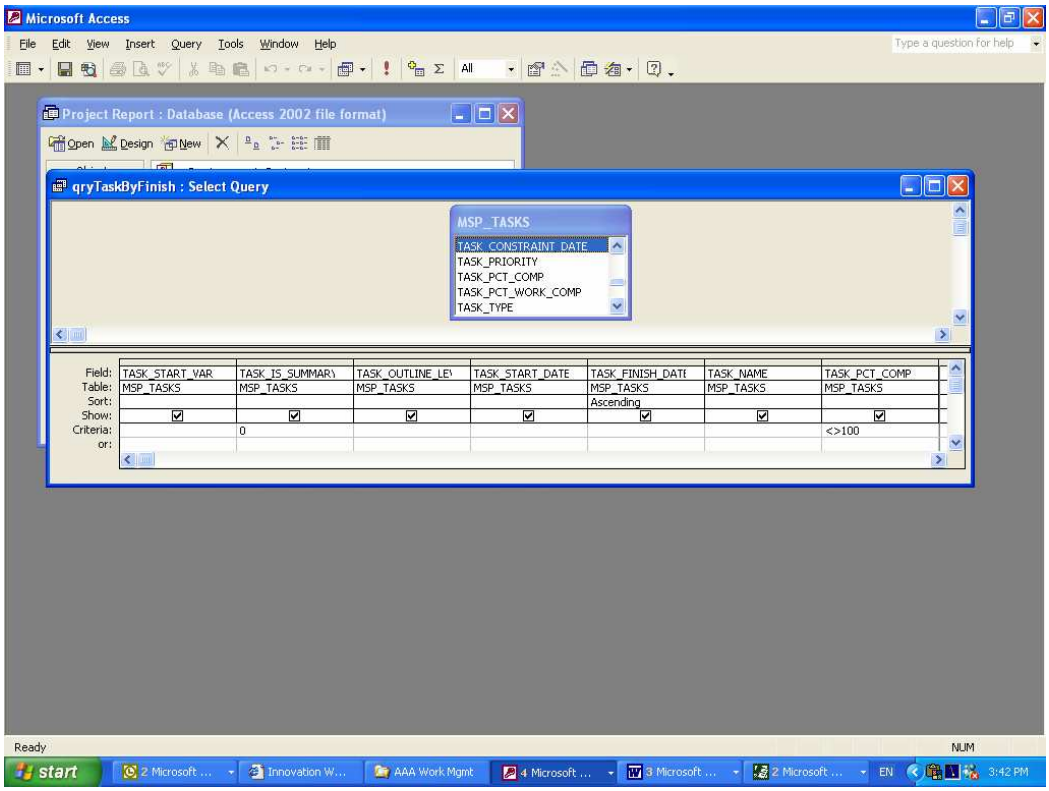
It is not quite as daunting as it looks. You will find most of the fields are blank when you look at the table. A few key fields are

- TASK_NAME which is the name of the task
- TASK_OUTLINE_NUM which has the number of the outline just as you might do with numbering headings in a report e.g. 2.2.3.
- TASK_START_DATE
- TASK_FINISH_DATE.

You can open the table and look at the data to get a better understanding of what is recorded.

Create a Query

By just using the query wizard in Access you can write a report that lists all the tasks in finish date order.



In Criteria, we put 0 under TASK_IS_SUMMARY and <>100 for TASK_PCT_COMP. In other words, the task is not a summary task. and it is not 100% complete.

SQL

The SQL statement looks like this:

```
SELECT MSP_TASKS.TASK_START_VAR,
MSP_TASKS.TASK_IS_SUMMARY, MSP_TASKS.TASK_OUTLINE_LEVEL,
MSP_TASKS.TASK_START_DATE, MSP_TASKS.TASK_FINISH_DATE,
MSP_TASKS.TASK_NAME, MSP_TASKS.TASK_PCT_COMP

FROM MSP_TASKS

WHERE (((MSP_TASKS.TASK_IS_SUMMARY)=0) AND
((MSP_TASKS.TASK_PCT_COMP)<>100))

ORDER BY MSP_TASKS.TASK_FINISH_DATE;
```

For those who are not familiar with SQL, the key components are that you:

- SELECT a number of fields to output for use in a report. Each field is separated with a comma
- Define the condition WHERE. The condition is that the field TASK_IS_SUMMARY is 0 which means it is not a summary task. The second condition is that TASK_PCT_COMP is not 100%. It is not complete.
- Set the ORDER.

Write the Report

Now you have the query, you can write the report. Use the report wizard and you can easily put together a report. This report is useful when you want to see on one page, what is due for completion in date order. It will help you focus on the immediate tasks. I have not been able to find anything in Microsoft Project that gives me this simple information.

The report might look like this:

Tasks in Finish Date order

FINISH	TASK_NAME	START	%COMPLETE
10/06/2004	Gain Agreement to templates	4 /06/2004	50
11/06/2004	Development of "expected turnaround"	24/05/2004	90
15/06/2004	Define & Analysis	19/05/2004	0
24/06/2004	Check Templates through ABC Dept	11/06/2004	0
25/06/2004	Establish current costs	7 /06/2004	0
29/06/2004	Update Template	19/05/2004	0
30/06/2004	Design	16/06/2004	0
2 /07/2004	Develop a path forward with ABC Dept	10/05/2004	25

Conclusion

Many people complain about the limitations of Microsoft Project in terms of reporting however by saving it as an Access database, you can do whatever you like with reporting. Whilst this simple report only uses one table, you can link tables and do all sorts of complex reports to suit your own requirements.

Become a Contributor

I would love to hear from anyone who would like to contribute to our own free "open source" Access database containing reports that are useful to a Project Manager. I am happy to host the download so send me an Access database with your queries and reports (turbit@projectperfect.com.au) and I will roll it into a common file to download. As a start, I am including the file we used to illustrate the example above.

www.projectperfect.com.au/downloads/MicrosoftProjectReports.zip

Neville Turbit has had over 15 years experience as an IT consultant and almost an equal time working in Business. He is the principal of Project Perfect. Project Perfect is a project management software consulting and training organisation based in Sydney Australia. Their focus is to provide creative yet pragmatic solutions to Project Management issues.

Project Perfect sell "Project Administrator" software, which is a tool to assist organisations better manage project risks, issues, budgets, scope, documentation planning and scheduling. They also created a technique for gathering requirements called "Method H"™, and sell software to support the technique. For more information on Project tools or Project Management visit www.projectperfect.com.au