

INTEGRATING THE PLANNING AND CONTROL OF AUDITING AT THE TORONTO TRANSIT COMMISSION

(CONCLUSION)

RICHARD BEECROFT

This article began in the July issue of *EDPACS*. That material introduced the function and history of the Toronto Transit Commission (TTC); described the organizational structure of the TTC, the various bodies that audit the TTC, and the development of the internal audit function at the TTC; and considered integrated audit planning and control at the TTC in terms of business units, project establishment, and long-range planning. The material in this issue considers integrated audit planning and control at the TTC in terms of risk assessment, formal planning, and project control; and summarizes the role of ADM PLUS at the TTC.

ASSESSING AUDIT RISK

To guide its decisions on when to do particular audits, the TTC audit department came up with a risk assessment process. The first effort, back in 1989, tried to be too sophisticated. The resulting risk assessment had 30 risk factors and was a nightmare. Over the years, the process improved. Presently, nine risk factors are assessed.

[Exhibit 3](#) shows a sample of the ADM PLUS report that displays by business unit the risk factors that the audit department uses, along with their assigned weighting.

In considering the annual TTC audit projects, one can argue whether the risk factors are right or wrong, or whether the weights that have been assigned to them are right or wrong. The important thing is that the TTC audit department has stated these factors to the concerned parties so that they have an expectation of what the audit department should accomplish during the year. In addition, the audit department does not perform this risk assessment in isolation but rather the department works with the responsible TTC senior executives.

The TTC auditors rate the risk factors for the projects that are being considered, based on a combination of their experience and

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Editor
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Exhibit 3. Risk Factors and Weights by Business Unit

Factor Number	Risk Factor	Weight
1	Assets at risk	1.000
2	Prior audit results	0.900
3	Formality and compliance — policy and procedure	0.800
4	Complexity of computerization involved	0.800
5	Negotiability of items handled	0.700
6	Physical security and location	0.600
7	Dollar value	0.550
8	Size of department budget	0.550
9	Profitability or loss factor	0.500

CONTROL

SELF-ASSESSMENT

WOULD BE A

FANTASTIC TOOL

TO USE.

their knowledge of the system that will be the subject of the review. More recently, for the first time, the TTC chief general manager has been involved in this process because he had expressed an expectation of the audit department. Subsequently, it became possible to involve all of the TTC branch general managers in the process. The branch general managers were not asked to rate the entire organization. Rather, they were asked to rate only their own branches. Now the TTC audit risk assessment activity involves the opinions of the auditors, the chief general manager, and the branch general managers. It is desired that this activity will eventually involve all of the TTC managers. But how can this be done effectively? Control self-assessment would be a fantastic tool to use for this risk assessment if one could achieve a practical way of implementing it.

Once the risk assessment is completed, the audit department uses ADM PLUS to produce a report that presents all of the rankings of all of the audits based on their numerical value. [Exhibit 4](#) is a sample of the long-range plan by business unit by risk ranking.

The audit department reviews what is considered to be the base document for the annual audit plan, taking into account the relevant organization environmental factors. Then, the audits are selected that are to be performed during the coming year. This step refers to comprehensive audits. These are approximately 70 percent of the audit department's work. Also, a similar exercise deals with systems development and capital audits. The capital audits are

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Exhibit 4. Long Range Plan by Business Unit by Type by Risk Ranking

LRP Project Number	LRP Project Name/Auditee	Risk Ranking	AUTO	Year of Prior Audit	Hours Used	Year of Last Audit	Hours Used	CYC Complete	2000	2001	2002	2003	2004	Estimated Hours to Complete
Business Unit: Comprehensive														
Type: CMP														
62-10002-00	Station Operations/Collectors	444.60	Y	0	0	99	1226	1	0	1400	0	0	0	0
20-08005-00	Revenue Operations	425.55	Y	0	0	98	1028	1	0	1400	0	0	0	0
61-11001-00	Bus Garages	377.80	Y	0	0	97	0	1	0	1400	0	0	0	0
61-12001-00	Bus Divisions		Y	0	0	97	0	1	0	0	0	0	525	1275
62-15001-00	Signals/Signals Engineering	370.00	Y	0	0	0	0	1	0	0	1000	0	0	0
62-11005-00	Hwy Repair & Overhaul/RSEM	369.05	Y	0	0	0	0	1	0	1400	0	0	0	0
20-10002-00	Technology Architecture/Sys Dev	362.45	Y	0	0	99	1436	1	0	0	0	0	0	1400
62-13002-00	Plant Maintenance	361.20	Y	0	0	0	0	1	0	0	0	1800	0	0
20-10004-00	Computer Operations	356.95	Y	0	0	0	0	1	0	1400	0	0	0	0
20-11006-00	General Stores/Divisional Stores	356.29	Y	0	0	0	0	1	0	0	0	0	1250	0
61-11005-00	Duncan/Harvey Shop/Technical S	355.45	Y	0	0	0	0	1	0	755	0	0	0	0
62-15003-00	Communications/Comm Eng/Spec	353.50	Y	0	0	0	0	1	0	0	1000	0	0	0
62-15002-00	Electrical/Elec Eng/Prac & Pro	352.95	Y	0	0	0	0	1	0	0	0	1000	0	0
30-10001-00	Facilities Construction Mgmt	351.45	Y	0	0	0	0	1	0	1200	0	0	0	0
61-10006-00	Ronc Stor Maint/Stor Tech Svcs	351.30	Y	0	0	99	1220	1	0	0	0	0	1000	0
61-10004-00	Roncesvalles Div/Russell Div	349.65	Y	0	0	99	1213	1	0	0	0	0	1000	0
62-11006-00	Carh's/Std P & Proc/ECD/MW En	349.00	Y	0	0	99	899	1	0	0	0	1800	0	0
20-10003-00	Systems Planning & Project Mgmt	345.50	Y	0	0	0	0	1	0	1400	0	0	0	0

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GENERAL MANAGER
ARRIVED.*

weighted more heavily toward the value of specific TTC capital expenditure contracts and the date of the last audit of each of them.

Actually, the audit department develops a long-range audit plan for each one of the TTC business units. Some of these plans are the same every year. Some of them are reassessed every year. Once the audit department selects the long-range plans, it is able to develop the yearly audit plan. The plan can be adjusted during the year. These adjustments can be based on revisions in the Commission's requirements or any other significant operational changes. Then, the yearly plan is approved by the chief general manager as a part of the audit department budget presentation of the resources that are believed to be required to operate the department for the next year. Once the chief general manager approves the plan, it is forwarded to the TTC commissioners for their approval.

THE IMPORTANCE OF FORMAL PLANNING

The importance of formal planning was illustrated most clearly when the present chief general manager arrived. He was noted for his elimination of unproductive resources. Before he came, everybody was in a panic. The author's initial meeting with him went like this:

The new chief general manager said, "You're the chief auditor."

I said, "Yes."

He said, "You got an audit plan?"

I said, "Yes."

He said, "Can I see it?", and I gave it to him.

He said, "How did you pick these audits?"

I told him basically about the process that has been discussed in this article.

He said, "What happens if you cut staff?"

I said, "Well, I will not do some of the audits."

He said, "Which ones?"

I said, "The ones you choose not to."

Then, the chief general manager looked back at me and said, "Okay, your budget is approved."

The audit department is the only component of the TTC that has never experienced a staff cut during the number of changes that have occurred in the larger organization over a seven-year period. It has to be concluded that there was an expectation that was met by the department.

Once the detailed long-range audit plan has been developed, the chief internal auditor figures out who is going to do what. The plan, together with the designation of the auditors who will do the actual reviews, is provided to the branch general managers and the chief general manager at the time of the review of the audit department budget. Because this budget is a public document, the branch general managers will know who will be auditing them. They

can look at it and say, "These are the auditors who are coming to see me." Also, the general managers know at this time exactly how many hours are assigned to the audit of their areas of responsibility.

AUDIT PROJECT CONTROL

At this point in the audit planning process, the TTC business units are aware of the types of audits that the audit department is going to perform in the upcoming year. The projects have been identified that will be carried over from the current plan and that must be included in the plan for the next year. Also, at this point in the process, the department has identified the new projects that have been chosen. Then the audit department schedules the audit projects for the upcoming year using the scheduling capability of ADM PLUS. Staff resources are assigned to each project and a budget is established for it. ADM PLUS enables the department to clone information from one year to the next. Thus, it is not necessary to re-enter it all. And it is possible at this same time to create administrative projects.

What happens during the upcoming year? It is possible with ADM PLUS to add or delete projects as the year progresses. Project schedules can be changed during the year, as well, with ADM PLUS. With performance monitoring, one also has project and task reporting. For every project, the TTC uses three reporting formats: (1) planning the project, (2) conducting the project, and (3) reporting the project. It is planning, conducting, and reporting that are the important considerations. It is possible to have up to ten factors recorded under the task listing. The important thing is to use whatever is considered to be important in a particular audit environment.

The TTC audit department also monitors the cost of an audit. One of the things that keeps resurfacing is the cost of auditing. For example, somebody says, "I want you to do another fare evasion audit." The department can use the information in ADM PLUS to arrive at a cost figure and then can reply, "Well, it will cost \$75,000 to do it. Do you want me to go ahead?" And the requestor might say, "Oh, no, I did not realize that it would cost that much." It is as easy as one push of a button to supply this kind of information with ADM PLUS.

The audit department uses variance analysis with ADM PLUS data. The individual audit project managers are not penalized if they do not stay within their budgeted hours. However, the managers are expected to report to the chief auditor why they did not meet their budget target, whether their performance has been either over or under that mark. The author feels that *under* is as critical as *over*.

The responsible audit project manager completes the Project Planning and Control form as a contract with the chief auditor as to when the deliverables can be expected to be completed. If the dates that have been specified change, the audit project manager is required to submit a revised Project Planning and Control form, confirming what and where the

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Exhibit 5. Project Planning and Control Form

Project Status Report—2000

Revised: April 14, 2000

Audit Process—Rpt. 07/2000 60-10001-00				Hours	Original Date (MM/DD/YY)	Revised Planned Date (MM/DD/YY)	Adjusted Date (MM/DD/YY)	Actual Date (MM/DD/YY)
Planning Phase—01								
No. of Days:	13	OSP	April 21, 2000	300	N/P			
Start Date:	April 17, 2000	Survey	May 10, 2000		N/P			
Conducting Phase—02								
No. of Days:	22	Audit Programs	April 21, 2000	500	N/P			
Start Date:	May 11, 2000	Conducting Completed	June 20, 2000		N/P			
Reporting Phase—03								
No. of Days:	9	Initial Draft	July 6, 2000	200	N/P			
Start Date:	June 21, 2000	Final Draft						
		Presentation to CGM (2 months after Final Draft)						
Total Hours:				1000				

Reason for Adjustment/Variance:

Business Unit	Comprehensive	Priority	1
Project Number	60-10001-00	Frequency	5
Audit Entity	Training	Category	A
Link Number	601001OP	Manager	Dick Beecroft
Division	OP	In Charge	Dave Soper
Type	CMP		

Area to be filled in by Audit Project Manager

Submitted By: _____ Date: _____

Chief Auditor: _____ Date: _____

changes are. A sample of the Project Status Report is shown as [Exhibit 5](#).

The Project Status Report tells the audit department what the project is, what the budget for it is, how the budget has been spent, and where the project is within the completion phase. The department applies a project status code that is supported by ADM PLUS: *R* means Reporting, *C* means Conducting, *P* is Planning. The reports are issued by business units.

A sample of the Project by Period by Business Unit is shown as [Exhibit 6](#).

Exhibit 6. Project by Period by Business Unit

Project Name	Project Number	Current Period Hrs.	YTD Hrs.	Current Project Budget	YTD Audit Costs	Estimated Completion Date	Actual Report Date	Project Status
Business Unit: Comprehensive								
Corporate Security	10-10001-00	0.00	36.00	0.00	1,659.33	7/23/99	1/18/00	F
SAF Audit & Eng/Safety Ops/QA	20-05009-00	0.00	24.00	0.00	1,086.66	10/29/99	3/16/00	F
Property Management	20-07002-00	5.50	598.00	570.00	24,913.47	4/25/00		R
Revenue Operations	20-08005-00	0.00	2.00	0.00	96.26	2/8/99	3/31/00	F
Systems Devel/Planning, Quality	20-10003-00	0.00	0.00	1400.00	0.00	8/19/00		B
Computer Operations	20-10004-00	0.00	0.00	1400.00	0.00	11/4/00		B
Purchasing & Sales	20-11002-00	8.00	8.00	1500.00	365.48	9/9/00		P
Revenue Operations—2000	20-80006-00	0.00	0.00	325.00	0.00	1/15/01		B
E & C—Design/Control	30-09002-00	0.00	0.00	1400.00	0.00	8/19/00		B
Facilities Construction Management	30-10001-00	0.00	0.00	135.00	0.00	3/2/01		B
Training	60-10001-00	149.50	162.50	1000.00	6,832.57	9/6/00		P
Streetcar Way	61-10003-00	7.00	1001.50	600.00	46,724.73	5/17/00		R
Bus Garages	61-11001-00	0.00	0.00	1400.00	0.00	12/2/00		B
Duncan/Harvey Shop/Technical Svcs	61-11005-00	16.00	1405.50	1400.00	60,821.27	6/11/00		R
W/T Transportation—Maintenance	61-12002-00	204.00	1429.00	1400.00	58,943.15	6/30/00		R
Station Operations/Collectors	62-10002-00	0.00	202.00	0.00	8,899.56	12/22/99		R
Station Operations/Collectors—2000	62-10003-00	0.00	0.00	440.00	0.00	3/31/01		B
Grwd Shop/Rsem	62-11005-00	0.00	77.00	1400.00	2,959.95	9/1/00		P
Carh's/Std P & Proc/ECD/M/V Eng	62-11006-00	0.00	107.00	525.00	4,214.78	10/1/99	4/18/00	F
Business Unit Total:		390.00	5052.50	14895.00	217,517.21			
Business Unit: Capital Projects								
Capital Projects—Summary	100-0000-00	98.00	807.00	3000.00	36,760.22	12/31/00		A
Business Unit Total:		98.00	807.00	3000.00	36,760.22			
Business Unit: Administration								
Admin—Summary	90-80001-00	122.00	1058.00	1800.00	47,266.96	12/31/00		A
Admin—Training	90-80002-00	0.00	95.00	750.00	4,061.25			
Admin—Stat Holidays	90-80006-00	105.00	224.00	945.00	9,654.96			
Admin—Vacation	90-80007-00	66.50	392.00	2345.00	16,577.33			
Admin—Sick Time	90-80009-00	28.00	80.00	315.00	3,322.04			
Business Unit Total:		321.50	1849.00	6155.00	80,882.54			

Sometimes, it is helpful to know what the individual auditor has been doing, especially if the long-range goal is to assign that auditor to do something new and challenging next year. [Exhibit 7](#) is a sample of the Hours by Task by Auditor report.

ADM PLUS can also provide an Auditor Hours By Task report. With this report, it is possible to compare how much time is being spent by each auditor on a given type of task along with how much time other auditors are spending on that

Exhibit 7. Hours by Task by Auditor

		Current Period (Hours)	Year to Date (Hours)	Inception to Date (Hours)
C. Leach				
Administration				
Admin—Meetings & Presentations	90-80001-01	5.5	45.5	45.5
Admin—General	90-80001-04	6.5	75.5	75.5
Admin—Followup Audits	90-80001-10	0	0.5	0.5
Training—External—Operating	90-80002-03	0	7	7
Admin—Stat Holidays—Operating	90-80006-01	7	14	14
Admin—Sick Time—Operating	90-80009-01	0	3.5	3.5
		19	146	146
Comprehensive				
Property Management—Planning	20-07002-01	0	17	90
Property Management—Conducting	20-07002-02	0	81.5	81.5
Property Management—Reporting	20-07002-03	5.5	121	121
Revenue Operations—Planning	20-08005-01	0	0	26.5
Revenue Operations—Conducting	20-08005-02	0	0	149
Revenue Operations—Reporting	20-08005-03	0	2	207.5
Station Operations/Collectors—Planning	62-10002-01	0	0	160.5
Station Operations/Collectors—Conducting	62-10002-02	0	0	184
Station Operations/Collectors—Reporting	62-10002-03	0	121.5	234
GRWD Shop/Rsem—Planning	62-11005-01	0	4	4
GRWD Shop/Rsem—Conducting	62-11005-02	0	0	0
GRWD Shop/Rsem—Reporting	62-11005-03	0	0	0
		5.5	347	1258

task. For example, one can look at the report to the end of the year and see that one auditor may have spent 20 hours on meetings and another auditor may have spent 400 hours on meetings during the same period. This report should be looked at throughout the year on an ongoing basis to determine what the individual auditors are spending their time doing. Do not wait until the end of the year to notice the hours. Is something going wrong? This information is easy to get. It can be requested from ADM PLUS.

Some of the utilities that the audit department uses in ADM PLUS are applied to establish business unit standards, adjust prior information that has been entered incorrectly, move new projects to time reporting from the existing

long-range plan, carry out year-end procedures, and back up reports and records to archive data.

THE ROLE OF ADM PLUS AT THE TTC

When the TTC audit department began with ADM PLUS years ago, the product was a DOS version. It was a wonderful program, even at that time. The ADM PLUS developers introduced and the department implemented a large number of new and improved versions until 1995 when ADM PLUS introduced the entirely new Windows version. The department fought changing to the Windows version until the dilemma had to be confronted that the DOS version was not designed to survive the Year 2000 crisis.

Finally accepting the Windows version, the audit department realized that version included a number of enhancements. The department has found that the system setup and maintenance requirements are much easier. Modifying and maintaining business units, input project information, and the assignment of auditors to specific projects have proven to be much easier to do. Thus, the department progressed from fighting to keep the DOS version working, to being an enthusiastic supporter of the Windows version. In addition to providing all of the features of DOS, the Windows version of ADM PLUS supports alternate reporting databases. In addition, the department appreciates having access to the online product manual.

The TTC audit department utilizes ADM PLUS as a planning tool to develop its long-range plan. It is applied to the identification of its audit universe and the analysis of the risk factors that are associated with it. The department uses ADM PLUS because the TTC has many different types of business units, and ADM PLUS helps the department keep track of things in a systematic way as it mirrors the TTC audit universe. Projects are allocated to particular business units in a manner that recognizes the diversity of the organizational entity.

ADM PLUS offers the TTC excellent project control capabilities that help the audit management team allocate resources to projects and to monitor and analyze performance. The ADM PLUS databases are easily exported in both dBase and MS Access relational database formats. This arrangement allows the external generation of audit reports. Excel enables the alternate production of additional reports. In the near future, there is a plan to start using the recommendation tracking capabilities of ADM PLUS to add to its current uses by the TTC.

ADM PLUS is a product of Pleier & Associates of Mission Viejo, California. A complimentary full-featured evaluation version of ADM PLUS can be downloaded from www.pleier.com. ■

Richard (Dick) Beecroft, CIA, has been the Chief Auditor at the Toronto Transit Commission (TTC) since 1989. Prior to coming to the TTC, he worked for the Ontario provincial government. The early part of Beecroft's career was spent in the engineering operations of the Provincial Ministry of Transportation. Subsequently, he transferred to Internal Audit. Beecroft has been very active in the Toronto chapter of the Institute of Internal Auditors (IIA). He is a past president of the chapter, has held various chapter executive and committee positions, and has served on the Conference Committee for the last two IIA international conferences that were held in Toronto.