CHARTERED PROFESSIONAL ACCOUNTANTS CANADA

Implementation Tool for Auditors

CANADIAN AUDITING STANDARD (CAS)

MAY 2018

STANDARD DISCUSSED
CAS 330, *The Auditor's Responses to Assessed Risks*

Information Technology (IT): Why Should Auditors Care?

This ***Implementation Tool for Auditors (Tool)*** is being issued to raise awareness of the implications of IT for the audit when applying certain requirements of Canadian Auditing Standard (CAS) 330, *The Auditor's Responses to Assessed Risks*.

CPA Canada's companion publication *CAS 330 Implementation Tool for Auditors—Common Pitfalls Auditors May Encounter When Designing and Performing Tests of Relevant Controls* addresses the areas where auditors struggle to meet the requirements of CAS 330 in Canada as it relates to designing and performing tests of relevant controls. Auditors are encouraged to use both *Implementation Tools* as part of their planning and/or preparation for the year-end audit engagement as it relates to designing and performing tests of relevant controls, including assessing the impact of IT. These *Tools* do not replace the need to read the entire standard including the application and other explanatory material.

Assumptions

The CPA Canada publication, *Implementation tool for auditors: CAS 315—Understanding the entity through internal control* addresses the following common pitfalls as they relate to the implications of information systems on the audit:

- Pitfall 3—Auditors do not understand the information system relevant to financial reporting, and how the entity has responded to the risks arising from IT.
- Pitfall 4—Auditors do not identify control activities (including those related to IT) relevant to the audit.

For the purposes of this *Tool*, it is assumed the auditor has read and understood the above pitfalls and that the auditor has identified the relevant controls and control activities as per the requirements of CAS 315 and decided to test the operating effectiveness of those relevant control(s).

Why?

Understanding an entity's information system, including related business processes, relevant to financial reporting encompasses the entity's information technology (IT) systems. Obtaining an understanding of how IT affects the entity's information system is an integral part of identifying and assessing risks of material misstatement and of designing and implementing appropriate responses to those risks, including when applicable, performing tests of controls.

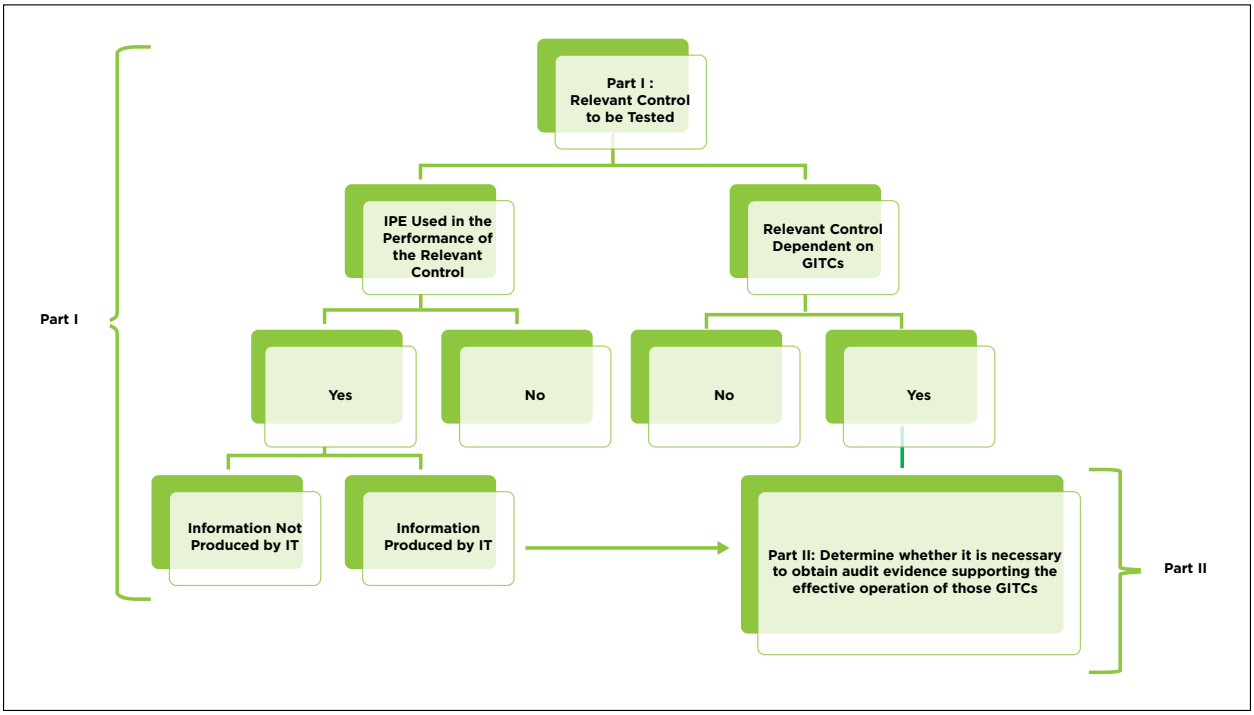
For each relevant control to be tested for operating effectiveness, paragraph 10(b) of CAS 330 requires the auditor to determine:

1. whether the controls to be tested depend upon other controls (indirect controls)
2. if so, whether it is necessary to obtain audit evidence supporting the effective operation of those indirect controls

Similarly, for each relevant control that uses information produced by the entity and needs to be tested for operating effectiveness, paragraph 9(a) of *CAS 500, Audit Evidence* requires the auditor to evaluate whether the information is sufficiently reliable for the auditor's purposes, including obtaining audit evidence about the accuracy and completeness of the information.

This *Tool* addresses paragraph 10(b) of CAS 330 and paragraph 9(a) of CAS 500 outlined above in designing and performing tests of operating effectiveness of relevant controls as it relates to the entity's information technology (IT) systems. Paragraph 10(a) of CAS 330 has been addressed as one of the pitfalls in the companion *CAS 330 Implementation Tool for Auditors*. Paragraph 9(b) of CAS 500 has not been addressed in this *Tool*.

Therefore, Part I of this *Tool* focuses on determining whether the relevant controls to be tested are indirect controls (i.e., controls that depend upon other controls such as general information technology controls [GITCs]), or whether the control(s) relies on information produced by the entity. Part II of the *Tool* helps auditors to determine whether it is necessary to obtain audit evidence supporting the effective operation of those GITCs.



I. Do controls to be tested depend upon other controls (indirect controls) or use IPE in the performance of controls?

The following table provides a summary of types of controls that may exist at an organization. These **types of controls** (CAS 315.A62) will be used throughout this *Tool*:

Types of controls	Dependent on GITCs (Note 1)	Information produced by the entity (IPE) used in the performance of controls (Note 2)	
		Information produced by IT	Information not produced by IT
Control Type 1. Manual controls independent of IT	No	No	Yes
Control Type 2. Manual controls using information produced by IT	Yes	Yes	No
Control Type 3. Automated controls	Yes	No	No
Control Type 4. Manual controls limited to monitoring of IT	Yes—if such controls use information produced by IT (see Control Type 2)	Yes—if such controls use information produced by IT (see Control Type 2)	Possibly—if such controls do *not* use information produced by IT (see Control Type 1)

Note 1

For the purposes of this *Tool*, only general information technology controls (GITCs) will be discussed rather than the broader category of indirect controls.

GITCs are policies and procedures that relate to many applications and support the effective functioning of application controls (manual or automated processes that typically operate at a business process level) by helping to ensure the continued proper operation of information systems. GITCs commonly include controls over the following elements (GITC elements):

- data centre and network operations
- system software acquisition, change and maintenance
- access security
- application system acquisition, development, and maintenance

Note 2

Information produced by the entity (IPE) used in the performance of controls includes information produced by IT, but also information from other internal sources that is not produced by IT.

Therefore, Control Type 1 and Control Type 4 controls may use information produced by the entity that is not produced by IT.

The chart below highlights some examples of IPE used in the performance of controls.

IPE used in the performance of controls may be:	Examples
Information produced by IT	• system-generated reports extracted directly from the system • system-generated reports that can be manually customized • information produced by the entity's service organizations[1] • other information that is system generated (e.g., internally generated sales invoices or purchase orders)
Information *not* produced by IT	• spreadsheets or other reports exported from an IT system which are then manually manipulated and other manually prepared information • other manually generated information (e.g., internally generated invoices or purchase orders)

IPE used in the performance of controls is, by definition, internal information. Therefore, external information used as audit evidence (e.g., bank statements, industry pricing data and other sources of information used in the performance of controls) is not subject to the requirements of paragraph 9 of CAS 500. However, the auditor is still required to consider the relevance and reliability of that information if it is to be used as audit evidence under paragraph 7 of CAS 500.

Paragraph 7 of CAS 500 requires the auditor to consider the relevance and reliability of the information to be used as audit evidence when designing and performing audit procedures. Auditors are required by paragraph 9 of CAS 500 to evaluate whether the IPE is sufficiently reliable for their purposes. This includes, as appropriate, obtaining audit evidence about the accuracy and completeness of the information. Auditors may obtain audit evidence about the accuracy and completeness of IPE for the purposes of testing the operating effectiveness of the manual control using IPE by either (CAS 500.A51):

1. testing management's controls over the accuracy and completeness of the IPE
2. testing the information in the IPE substantively to determine whether it is accurate and complete

1 Services provided by a service organization are part of the user entity's information system, including related business processes, relevant to financial reporting [CAS 402.03 amended]. Generally, this information is produced by the IT of the service organization; controls over ensuring the information produced by the entity's service organization is accurate and complete may be in the service organization's auditors' report.

Based on the above guidance and discussion, four important points arise:

1	Auditors need to identify those relevant controls that depend on GITCs. (Control Type 2, Control Type 3, and possibly Control Type 4)
2	If relevant controls to be tested for operating effectiveness are dependent on GITCs, auditors need to determine whether it is necessary to obtain audit evidence supporting the effective operation of relevant GITCs. (CAS 330.10(b))
3	Auditors need to identify those relevant controls that use IPE. (Control Type 1 or Control Type 2 and possibly Control Type 4)
4	If relevant controls to be tested for operating effectiveness use IPE, auditors need to evaluate whether the IPE is sufficiently reliable for the purpose of the test of operating effectiveness of controls. (CAS 500.09)

Note: The identification of controls dependent on GITCs and controls that use IPE in the performance of controls are not mutually exclusive.

Illustrative Example—Do controls to be tested depend upon general IT controls?

The following table illustrates, for each type of control (control type), the importance of understanding the control in order to determine whether the control the auditor intends to test:

- depends upon GITCs (Is there a GITC dependency?)
- uses IPE in the performance of the control (Is there IPE?)

Note: The controls below are illustrative in nature and are not intended to depict all controls that relate to "what can go wrong" at the assertion level (CAS 315.26(c)), nor all the steps necessary to perform in order for the control to be appropriately designed (CAS 315.A74).

What Can Go Wrong (WCGW): Cheque payments made for incorrect amount
Relevant assertion: Accuracy

Control Type	Description of Process and Controls	Is there a GITC dependency?	Is there IPE?
Manual controls independent of IT	**Process:** The accounts payable supervisor drafts cheques for signature and attaches supporting documentation.	No. This is a Control Type 1. A Control Type 1 does not have a GITC dependency.	No. Information to be used as audit evidence is produced externally.

What Can Go Wrong (WCGW): Cheque payments made for incorrect amount **Relevant assertion:** Accuracy			
Control Type	**Description of Process and Controls**	**Is there a GITC dependency?**	**Is there IPE?**
	Control: The controller manually compares the cheque amount and name against the source documents (e.g., approved invoice from the supplier and proof of delivery of goods to the entity from external carrier) prior to signing the cheques for payment. The controller rejects any cheque where details do not match. The controller signing the cheque or the supporting source documents is evidence of review.		

What Can Go Wrong (WCGW): Allowance for doubtful accounts (AFDA) is not properly valued **Relevant assertion:** Valuation			
Control Type	**Description of Process and Controls**	**Is there a GITC dependency?**	**Is there IPE?**
Manual Controls using information produced by the entity (other than information produced by IT) *(e.g., using manually prepared spreadsheets)*	**Process:** The accounts receivable (A/R) clerk: • exports the A/R information from the IT system into a spreadsheet • sorts the A/R invoices into aging categories based on invoice date using the spreadsheet functionality • calculates the allowance for doubtful accounts (AFDA) provision based on company policy, at a set percentage for each category of aging, within the spreadsheet	No. This is a Control Type 1. A Control Type 1 does not have a GITC dependency.	Yes. Auditors are required to evaluate whether the information (i.e., the manually prepared spreadsheet) is sufficiently reliable for the purpose of the control test.

What Can Go Wrong (WCGW): Allowance for doubtful accounts (AFDA) is not properly valued **Relevant assertion:** Valuation			
Control Type	**Description of Process and Controls**	**Is there a GITC dependency?**	**Is there IPE?**
	• calculates a total provision on the spreadsheet **Control:** The controller reviews the AFDA provision by: • agreeing the A/R invoice amount and the date of the invoice in the spreadsheet, on a test basis, *with the actual invoice* • verifying that the percentages applied to each aging category agree with company policy • verifying the formula in the AFDA provision for each category are correct • verifying the formula for the totals are correct		
Manual Controls using information produced by IT *(e.g., using system generated reports (SGRs))*	**Process:** The A/R clerk: • generates an A/R aging report from the IT system (SGR) which calculates the AFDA provision based on company policy **Control A:** The IT system is configured to automatically age the A/R report based on aging categories set by the software provider.	Control A: Yes. This is a Control Type 3. Control Type 3 does have a GITC dependency. Control B: Yes. This is a Control Type 2 which relies on the effective functioning of Control A. Control Type 2 does have a GITC dependency. The auditor may consider whether the same GITCs will be addressed by the GITCs related to the automated control in Control A.	Control A: No as it relates to the automated control. Control B: Yes. Auditors are required to evaluate whether the information (i.e., the SGR) is sufficiently reliable for the purpose of the control test.

What Can Go Wrong (WCGW): Allowance for doubtful accounts (AFDA) is not properly valued **Relevant assertion:** Valuation			
Control Type	**Description of Process and Controls**	**Is there a GITC dependency?**	**Is there IPE?**
	Control B: The controller reviews the AFDA provision by: • verifying that the aging category amounts used in the AFDA calculation as documented in the accompanying document *agree with the SGR* • verifying the percentages applied by category agree with company policy • recalculating the AFDA provision for each category and the total provision		
Manual Controls using information produced by IT *(e.g., using system-generated reports (SGRs) then manipulating through spreadsheets)*	**Process:** The A/R clerk: • generates an A/R aging report from the IT system (SGR) by inputting the desired parameters and exporting it to a spreadsheet • calculates, using a spreadsheet, the AFDA provision by aging category based on company policy • calculates, using a spreadsheet, a total provision **Control A:** Parameters inputted to the IT system generated the aging categories. The parameters used to generate the aged A/R report (SGR) are displayed on the printed SGR.	Control A: Yes. This is a Control Type 3. Control Type 3 does have a GITC dependency.	Control A: No—as it relates to the automated control.

What Can Go Wrong (WCGW): Allowance for doubtful accounts (AFDA) is not properly valued **Relevant assertion:** Valuation			
Control Type	**Description of Process and Controls**	**Is there a GITC dependency?**	**Is there IPE?**
	Control B: The controller reviews the AFDA provision by: • verifying that the aging category amounts used in the calculation *as documented in the spreadsheet* agree with the SGR • verifying the parameters for the aging categories on the SGR are consistent with company policy • verifying the percentages applied by category agree with company policy • recalculating the total AFDA provision *as documented in the spreadsheet* • verifying the formula used in the AFDA provision *as documented in the spreadsheet* for each category are correct • verifying the formula for the totals *as documented in the spreadsheet* are correct	Control B: • Yes—as it relates to the aged amounts calculated by the IT system included in the SGR. This is a Control Type 2 which relies on the effective functioning of Control A (an automated control). Control Type 2 does have a GITC dependency. • No—as it relates to the spreadsheet. The auditor may consider whether the same GITCs will be addressed by the GITCs related to the automated control in Control A.	Control B: • Yes—as it relates to the SGR. Auditors are required to evaluate whether the information is sufficiently reliable for the purpose of the control test. • Yes—as it relates to the spreadsheet. Auditors are required to evaluate whether the information (i.e., SGR then manipulated through spreadsheets) is sufficiently reliable for the purpose of the control test.
Automated Controls	**Process:** The system calculates the AFDA provision. **Control A:** The IT system is configured to automatically age the A/R based on aging categories.	Control A: Yes. This is a Control Type 3. Control B: Yes. This is a Control Type 3.	Control A: No Control B: No

What Can Go Wrong (WCGW): Allowance for doubtful accounts (AFDA) is not properly valued **Relevant assertion:** Valuation			
Control Type	**Description of Process and Controls**	**Is there a GITC dependency?**	**Is there IPE?**
	Control B: The IT system is configured to automatically calculate the AFDA provision using company policy at a set percentage for each category of aging and calculate the total AFDA provision.	The auditor may consider whether the same GITCs are relevant to address the GITC dependencies of each control discussed.	

What Can Go Wrong (WCGW): Sales are incomplete **Relevant assertion:** Completeness			
Control Type	**Description of Process and Controls**	**Is there a GITC dependency?**	**Is there IPE?**
Manual Controls limited to monitoring of IT	**Process:** The sales are recorded in the POS system. **Control A:** The POS system is configured to automatically transfer sales into the general ledger at the end of each day for each of the entity's 12 retail locations. **Control B:** An accounting clerk manually checks that all sales transfers to the G/L at the end of each day have occurred by inspecting that the G/L has a posting for each retail location. The accounting clerk follows up on any missing sales uploads.	Control A: Yes. This is a Control Type 3. Control B: Yes. This is a Control Type 4. This manual control limited to monitoring of IT has a GITC dependency as it relates to G/L (i.e., a SGR).	Control A: No Control B: Yes—as it relates to the G/L. Auditors are required to evaluate whether the information (the G/L) is sufficiently reliable for the purpose of the control test.

Is there GITC dependency?

Once the auditor has identified which relevant controls to be tested depend on GITCs (i.e., have GITC dependencies), auditors are required to determine whether it is necessary to obtain audit evidence supporting the effective operation of those GITCs (CAS 330.10(b)). Section II assists auditors in making this determination.

Is there IPE?

Once the auditor has identified which relevant controls use IPE in their performance, the auditor evaluates whether the information is sufficiently reliable for the purpose of the control test. This evaluation includes, as appropriate, obtaining audit evidence about the accuracy and completeness of the information. Auditors may obtain audit evidence about the accuracy and completeness of IPE used in the performance of relevant controls by either:

- testing management's controls over the accuracy and completeness of the IPE
- testing the information in the IPE substantively to determine whether it is accurate and complete

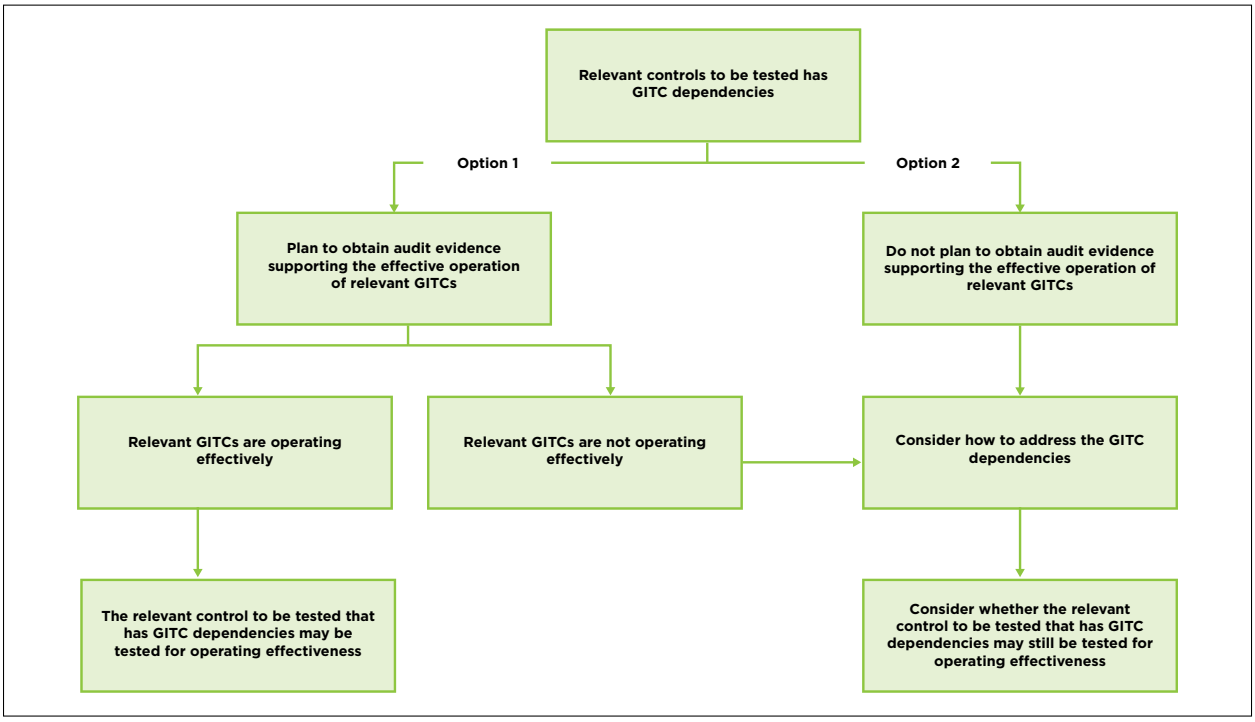
Note that in some cases, testing the operating effectiveness (e.g., through re-performance) of a relevant control that uses IPE (if such relevant control is designed to test accuracy and completeness), may also result in testing the accuracy and completeness of the IPE.

II. Is it necessary to obtain audit evidence supporting the effective operation of relevant GITCs?

Where the relevant controls to be tested depend upon GITCs (i.e., have GITC dependencies), auditors are required to determine whether it is necessary to obtain audit evidence supporting the effective operation of those GITCs (CAS 330.10(b)).

In some circumstances, it may be necessary to obtain audit evidence supporting the effective operation of relevant GITCs (Option 1) (CAS 330.A30), while in other circumstances it may not be necessary to obtain audit evidence supporting the effective operation of relevant GITCs as other procedures may be performed to address the GITC dependencies (Option 2).

The flowchart below demonstrates how to address a GITC dependency.



Once the auditor determines it is necessary to obtain audit evidence supporting the effective operation of GITCs, the auditor identifies which GITCs are relevant to the audit (i.e., relevant GITCs). The auditor may identify those controls over GITC elements (see Note 1 on Page 4) that have an immediate bearing on the operating effectiveness of the control. Involving an IT auditor may assist the engagement team in:

- identifying which controls have GITC dependencies
- identifying which GITCs are relevant to the audit
- performing the necessary procedures to test the operating effectiveness of the controls and relevant GITCs
- evaluating the results of those tests of controls and their impact on the audit

Conclusion

In summary, for each relevant control to be tested for operating effectiveness, the auditor:

- determines whether the relevant control depends upon GITCs
  - if so, determines whether it is necessary to obtain audit evidence supporting the effective operation of those relevant GITCs
- determines whether the relevant control uses IPE in its performance
  - if so, evaluates whether the information is sufficiently reliable for the auditor's purposes.

For more information on tests of operating effectiveness of relevant controls, refer to CPA Canada's companion publication, ***Implementation Tool for Auditors—Common Pitfalls Auditors May Encounter When Designing and Performing Tests of Relevant Controls (CAS 330)***.

Additional Resources

- CPA Canada's *Implementation Tool for Auditors on CAS 315 – Understanding the entity through internal control*.

Consultation and feedback

Comments on this *Implementation Tool for Auditors* or suggestions for future publications should be sent to:

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