

IOSUD - „Dunărea de Jos” University of Galați
Doctoral School of Social and Human Sciences
Doctoral field: Management



SUMMARY

DOCTORAL THESIS

**The role of internal managerial control as a tool of
management activity developed within public entities in
the detection and prevention of fraud phenomena**

**Doctoral student,
Constantin Daniel**

**Scientific coordinator,
Prof. univ. dr. habil. Nicoleta Cristache**

Series E2 Management no.15
GALAȚI
2022

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Introduction

One of the problems that society as a whole has faced and continues to face is fraud. But this is not a new phenomenon, it is as old as civilization itself. The main motivation for choosing the research topic starts from the fact that one of the sectors most affected by this calamity is the public sector, with all the negative influence then propagated throughout society. In addition to the influence that the legislative framework can have, but also the activity of the criminal investigation bodies and those of the courts in reducing this phenomenon, a tool that is within the reach of managers in public institutions can have an even greater impact, and this tool is internal managerial control.

The purpose of the research topic is to see how an internal managerial control system can be configured in public institutions so that it can ensure not only the prevention, but also the detection of fraud, which is the perception of public sector employees regarding this tool so that improvements can be made to it, possibly from the private sector, so that the incidence and magnitude of fraud can be reduced.

The actuality of the theme comes from the current legislative requirements, where managerial responsibility is defined as a legal relationship of obligation to fulfill the tasks by the head of the public entity, which involves the exercise of management within the limits of internal and external determinations, in order to achieve effective, efficient and in accordance with the legal provisions of the established objectives, but also the communication of responsibility for failure to fulfill managerial obligations in accordance with legal responsibility.

Considering the obligation they have to administer the public patrimony and the funds allocated to fulfill the objectives for which the respective entities were established, their management have the obligation to implement, maintain and develop appropriate management systems. Internal control, when implemented and operating effectively, is the only tool that can give reasonable assurance that the entity's objectives will be achieved in terms of legality, performance and transparency.

Chapter I was based on the bibliographic study of the notion of internal managerial control. The view of management schools on the various components of internal control was presented, starting from the pre-classical period and up to the contemporary school of management. Two currently recognized internal control frameworks (the COSO model and the COCO model) were presented, focusing on the components of internal control as they are recognized today (control environment, risk assessment, control activities, information and communication, monitoring), the relationship between the objectives of the entities and these components, but also its limits. In addition to these, the concept of internal managerial control in Romania was presented, its evolution from a legislative point of view, the components and standards on which it is based.

Considering that the improvement of the internal control system against the risk of fraud cannot be done without a thorough knowledge of this risk, chapter II focused on the concept of fraud. Thus, the definitions given by various specialists, by the Convention on the protection of the financial interests of the European Communities, by the European Parliament, by the

Criminal Code, by the international auditing standards, etc., were presented. The value dimensions of this phenomenon and its evolution during the last years were presented with the help of the data provided by the public reports of the Romanian Court of Accounts, the Public Ministry and the Ministry of Justice, etc. Understanding how fraud occurs must start from assessing the risk of fraud, from understanding its characteristics, the various typologies, so that management can make its contribution by reducing the only attribute of fraud that can be acted upon: the opportunity.

Chapter III is dedicated to the development of internal managerial control so that it can reduce the risk of fraud to which the entities are subject, there are theories that show the fact that the feeling of disinterest, lack of rules, can lead to the emergence and amplification of the violation of norms and rules. The provisions of the national legislation are quite brief and refers only to the improvement of internal managerial control seen as a whole, without any special provisions regarding how to reduce the risk of fraud, the responsibility for managing this risk, as well as the other risks identified at the level of public entities, returning exclusively to management. Instead, we find detailed provisions related to this issue in the framework established by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), being presented how to develop each of the five components to combat fraud.

Also, in this chapter, other methods of developing internal control to reduce the risk of fraud were presented, methods validated by specialized literature and used in the private sector of the economy, but very little or not at all used in the public sector in Romania. The features of trainings for employees regarding fraud, red flags, the principle of four eyes, transaction controls and, considering the exponential development of information technology in recent times, the decision tree, were presented.

Chapter IV is intended to analyze the involvement of the internal managerial control system in order to prevent and detect fraud. The first part of the chapter presents the quantitative study carried out on how the internal control of public administration entities is perceived in the prevention and detection of fraud. This research was carried out based on the answers received to a questionnaire sent to all territorial administrative units in the country and it mainly aimed to find out what is the perception of employees in the local public administration in Romania on internal control, seen as a managerial tool that can act, if fully implemented and properly used, both before and after the occurrence of frauds but also on internal control techniques less used in the public sector.

Through the qualitative study, which represents the second part of chapter IV, it was aimed to expand the horizon of the research from public sector employees to public opinion and that of specialists, aiming to find out what are the attitudes and opinions of the general public as well as of specialists towards fraud and whether the importance of this management tool in reducing fraud is adequately perceived by the public.

The third part of this chapter represents a qualitative - comparative analysis through which was sought to identify the necessary and sufficient measures for the implementation of an internal control system capable of preventing and detecting fraud. The analysis was made on the basis of the questionnaire intended for the local public administration in Romania, selecting two groups of hypotheses: methods currently used in the majority of public institutions in Romania, known to the employees, validated in the analysis by the quantitative method, both in the analysis of correlations and in the analysis of regression, as well as methods less or not at all used in the public system, but certified by specialized studies and by use in the private sector of the economy.

Having in mind the exponential development of information technology in recent times, the ever-increasing computerization of institutions, chapter V presents the data extraction and classification technique used by the decision tree to determine whether this system can be used by managerial internal control in preventing and fraud detection.

Synthetic presentation of the doctoral thesis

Chapter I. The current state of research in the field of internal managerial control

Over time, the notion of internal control has undergone numerous changes, being inventoried no less than 57 definitions of control, all with various meanings, since 1967. Even in the definition of management proposed by Henry Fayol, we encounter the concept of control: "to lead means to foresee and plan, to organize, to command and to control". Thus, one of the functions that the management must fulfill is that of control, of ensuring that all activities are carried out in accordance with the previously implemented rules and the orders given.

This approach is still maintained today, one of the important functions that management must perform is that of control.

In the current period, there are also a multitude of definitions given to internal control by Romanian legislation, by the European Commission, by INTOSAI, by the Committee of Public Entities Sponsoring the Treadway Commission (COSO), by the International Auditing Standards, etc. What all these definitions have in common is the following:

- it is a set of policies, procedures, processes implemented at all levels of the entities;
- the main purpose is to give assurance at a reasonable level that the entity's objectives will be achieved in terms of economy, efficiency and effectiveness;
- ensures compliance with rules, legal norms, policies and management decisions.

Although the integrated approach to internal control is a relatively new one, appearing since the creation of the Treadway Commission in 1985, references to the various components of internal control can be found in all currents that have marked the evolution of management science, from the pre-classical period to managerial theories modern.

In the pre-classical period, concepts related to *work performance, supervision, performance monitoring, competence, duties, functions and tasks* were studied by Robert Owen, Charles Babbage or Henry Towne.

In addition to the above concepts, Frederick Taylor, Frank Gilbreth and Henry Gantt, representatives of the scientific current of the classical school of management, also discuss others, such as *ethics and integrity, organizational structure, procedures and planning*. Gilbreth also talks about *efficiency* when defining work tasks, saying that they should be constructed in the least tiring, least wasteful method, allowing some time for rest and some time for inevitable delays. An important contribution to planning is made by Henry Gantt, by introducing the relationship between events and time with the chart that bears his name.

Henri Fayol, as a representative of administrative management, also studied components of internal control, such as *ethics and integrity, competence and performance, procedures*, etc. Regarding the *organizational structure* of an entity, Fayol saw the existence of the command unit as necessary, in which orders come from a single superior, in order to ensure discipline, compliance with internally established procedures.

In the works of Max Weber, representative of bureaucratic management, we find various references to *competence, performance, attributions, procedures*, etc. Also from Weber we have one of the definitions of *control or imperative (legitimate) control*.

In the behaviorist school, represented by Elton Mayo, Douglas McGregor, Abraham Maslow or Frederick Herzberg, we find the main references regarding *competence and performance*. The focus is now on motivation. Starting from the hierarchy of needs proposed by Maslow, Douglas McGregor opines that there are two approaches that are the basis of

managerial decisions and behavior, known as theory "X" and theory "Y". Also starting from Maslow's theory, Frederick Herzberg believed that there are two groups of factors that influence the employee's opinion towards work: motivational or intrinsic factors and hygienic or extrinsic factors.

In the quantitative school we encounter ideas related to economic *control* as a reason for the introduction of digitization, to the observance of rules by means such as hierarchical command, specialization of functions, uniformity of *procedure* and formal *documentation* (Paul J. Starr) or *risk control* and *competence* (Kenichi Ohmae).

Also, the contemporary school through its representatives (Barnard Chester, Peter Drucker, Henry Mintzberg) deals with problems related to control, norms, procedures, rules, authority, but also about communication, organizational structure, performance, mission and objectives of organizations.

Thus, although it was not addressed in its entirety, studies on the components of internal control are found in the works of representatives of all currents that have marked the evolution of management science.

The development of internal control as it is currently perceived began with the elaboration by the Committee of Sponsoring Organizations of the Treadway Commission - COSO of the material "Internal Control - integrated framework". According to this framework, internal control includes a number of five large integrated components: control environment, risk management, control activities, information and communication, monitoring. Also from COSO we have a comprehensive definition given to internal control, seen as a process built and implemented by the management of organizations that aims to provide a reasonable level of assurance that the entity's objectives (grouped into three broad categories: efficiency and effectiveness of operation, reliability of information provided by financial statements, compliance with legislation and internal rules) will be achieved.

According to the COSO framework, there is an interdependent relationship between the entity's objectives (what must be achieved), the components of internal control (what is necessary to achieve the objectives) and the organizational structure, internal control being of particular importance both for the entity as a whole, but also for each station and compartment separately.

The overall internal control framework, as established by COSO, consists of five components, developed through 17 core principles. Because they flow directly from the control components, an entity can achieve effective internal control by applying all of these principles. All are applicable to operational, reporting and compliance objectives.

The limits of internal control, as defined by COSO, are mainly that it can provide only a reasonable level of assurance about the achievement of the organizations' objectives. These limits come from the action that a series of internal and external factors have on the internal control system that affect its operation, such as human errors, abuse of authority, restriction of independence in carrying out work tasks, changes in the internal environment and external to the entity, inadequate or not properly applied control procedures. To these factors can be added the costs of implementing internal managerial control (because one of the essential characteristics that internal control must have is efficiency, not to generate exaggerated additional expenses compared to the benefits obtained) and the association of two or more people or even the involvement of entity management in circumventing controls.

Another internal control model is the COCO model, proposed by the Canadian Institute of Chartered Accountants in 1985. This definition given for internal control practically complements the definition given by the COSO model, stipulating that it includes resources,

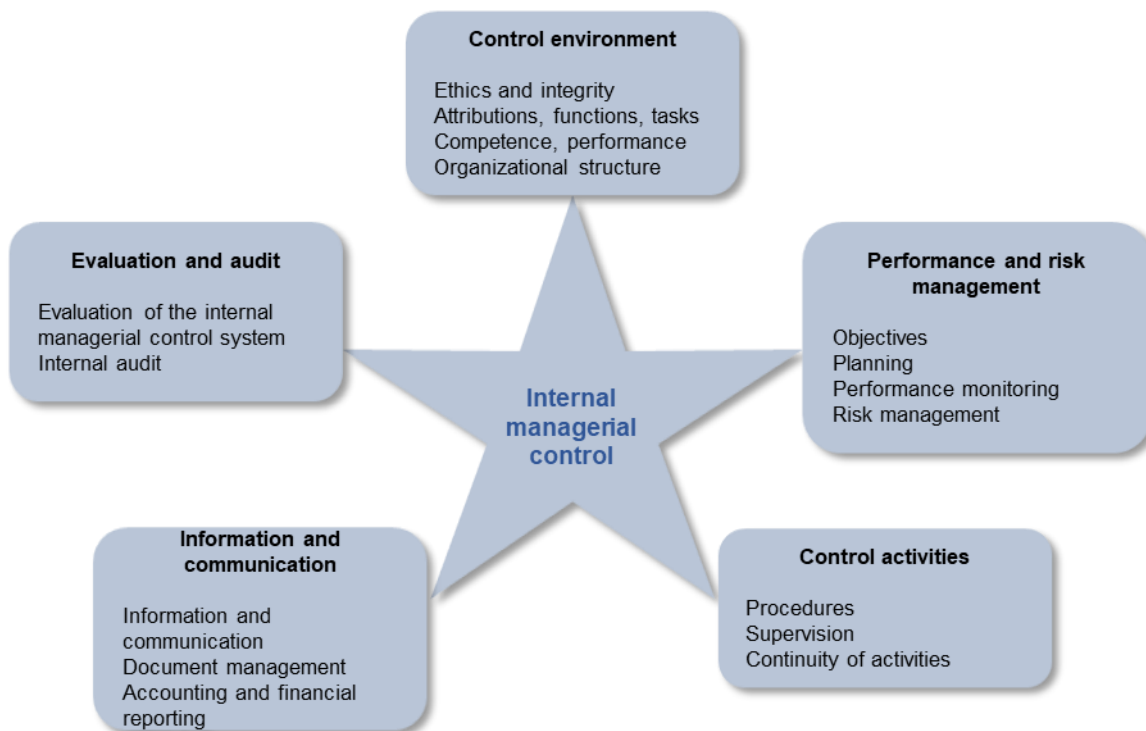
procedures, rules, work tasks and even the culture of the organization, all these used to achieve the objectives. The ultimate purpose of control is the same, to provide the entity with assurance that its objectives will be achieved.

The internal control framework proposed by COCO does not provide detailed policies or procedures, entities having the freedom to pay different attention to each criterion provided by the model. The model proposed by COCO is based on the following core components: purpose, commitment, involvement, capacity, monitoring and learning.

With regard to internal control in Romania, the transition to the market economy and the reforms made with a view to joining the European Union assumed, among other things, the reform of central and local public institutions, as well as the introduction within them of some management tools that had been the prerogative of the private sector.

The first reference in the legislation in which we find the phrase internal managerial control is OG no. 119/1999 regarding internal control and preventive financial control. Until now, a series of changes have been made to the legislative framework in the field, the last being represented by OSGG no. 600/2018 for the approval of the Code of internal managerial control of public entities (which repeals OSGG no. 400/2015 for the approval of the Code of internal/managerial control of public entities).

The Romanian internal control standards were developed based on the COSO internal control framework, the recommendations of INTOSAI, the European Commission and the Canadian Institute of Chartered Accountants. Similar to the COSO framework, internal managerial control in Romania comprises 16 standards, grouped into five components, according to the figure below.



Internal control components and standards in Romania

Source: author processing according to the legislation in force

In conclusion, different components of internal control have been studied over time in all management schools. After the development of the current internal control rules, as established by the COSO and COCO control frameworks, but also based on the recommendations of INTOSAI and the European Commission, the managerial internal control framework was established by legislation in Romania.

Even if these legal norms in force established a unitary framework, its effective implementation in the public sector was carried out differently from one public entity to another, mainly depending on the degree of management involvement, but also on the organizational culture existence. Thus, reluctance was found on the part of some loan officers in introducing internal control in the entities they coordinate, reluctance related to the role and the way this management system works, in some cases indifference in its implementation was also found.

Chapter II. The concept of fraud. Definitions, attributes, evaluation, typology.

In order to be able to determine the ways in which internal managerial control can be developed in order to prevent and detect fraud, it is first necessary to understand the concept of fraud, what are the factors that determine it, what is the typology, how can we assess the risk of fraud and how to act to reduce this phenomenon.

Fraud is not a new concept, there have been mentions of it since ancient times. Currently, a series of definitions of fraud can be found both in the specialized literature and in the various legal provisions.

From an etymological point of view, the term fraud comes from the Latin *fraus*, *fraudis*, the explanatory dictionary of the Romanian language attributes to this term the meaning of theft, of committing in bad faith, in order to obtain benefits, of acts that affect the rights of another (damaging to another person). The definitions given by various specialists, by the Convention on the protection of the financial interests of the European Communities, by the European Parliament, by the Criminal Code, by the international auditing standards have the following elements in common:

- it is an act committed with intent, in bad faith, in violation of the law;
- infringes the rights of another person;
- seeks to obtain undue benefits.

At the same time, a distinction must be made between fraud and error, this being defined as an unintentional mistake.

The importance of implementing an internal control system capable of preventing and detecting fraud derives from the value dimensions of this phenomenon and the way it affects society as a whole. According to ACFE's report to the nations, from the global data analyzed, the average losses related to the three major types of fraud are as follows: \$150,000/case of corruption, \$100,000/case of misappropriation of assets, \$593,000/case of financial statement fraud. Another important element is that fraudsters are not limited to one method, but can use several methods of fraud simultaneously.

In order to evaluate the situation of this phenomenon in our country, we have analyzed the data according to the logical sequence in combating this phenomenon: detection, processing of the file by the criminal investigation bodies, followed by their submission to the courts. Following the processing of the data provided through the public reports of the Romanian Court of Accounts, the Public Ministry and the Ministry of Justice, it turned out that the phenomenon presents a certain constancy in the number of cases in this circuit.

The effects that fraud produces on society as a whole can be of three types:

- financial effects, which lead to a decrease in state revenues and dysfunctions in the way it performs its functions;
- social effects, due to which the social-economic objectives of the government programs can no longer be achieved;
- political effects, leading to a feeling of mistrust in the political forces responsible for governance.

As regards the assessment of the fraud risk to which an entity may be subjected, it is carried out by successively going through five stages: establishing the probability of the occurrence of fraud and its impact (gross risk), assessing the effectiveness of current controls, assessing the net risk having based on the effectiveness of existing controls, the evaluation of the effect of additional controls (residual risk) and the establishment of tolerable risk (net risk).

The reasons underlying the commission of fraud are a critical point in preventing this phenomenon. One of the widely accepted theories in specialized literature is the one formulated by criminalist Donald Cressey in the so-called fraud triangle. Thus, there are three elements underlying the commission of fraud: opportunity, justification and financial pressure. According to this theory, it is impossible for fraud to exist without these three elements, and the seriousness of the fraud depends on the strength of each element. It is considered in this way that prevention can only be achieved in the area of the element of opportunity, this being the only one in which entities can intervene.

Of course, this theory, in addition to the interest with which it was received by researchers, was not without criticism, but above all improvements. To the three component elements presented above, a fourth has been added, namely the ability, which in turn includes a number of six traits or skills necessary for the fraudster (holding a position or position in the organization to be able to take advantage of the various opportunities for fraud, possessing appropriate expertise, self-confidence, the ability to compel others to participate in fraudulent activities, the ability to cope with the stress associated with committing fraud and the ability to conceal).

As for the typology of frauds, there are multiple methods of classifying them, depending on the criterion used (the channel exploited, the position of the fraudster in relation to the defrauded entity, the defrauding entity, intention, motivation, the ability of the fraudster, duration, persistence, etc.) . One of the most well-known classification methods is the one proposed by the Association of Authorized Experts in Fraud Investigation, starting from the entity's vulnerable domains, which is the basis on which the fraud tree was drawn up. According to it, we distinguish three major categories of fraud (fraud in financial statements, misappropriation of assets and corruption), each category containing numerous other subcategories.

Chapter III. The implications and development of the managerial internal control system in order to prevent and detect fraud

Awareness that effective preventive and detective controls are in place can become one of the most powerful fraud deterrents. The need for the existence of fraud defense systems derives from the theory that the lack of rules can lead to the emergence and amplification of violations of norms and rules (for example, the theory of broken windows introduced by Professor Philip Zimbardo of Stanford University).

At the same time, a distinction must be made between prevention and detection. Prevention includes policies, procedures, training and communication that prevent fraud from occurring, while detection focuses on activities and techniques to recognize the occurrence of fraud. Prevention techniques cannot give complete assurance that a fraud will not be committed, so there is a need to supplement them with true detection techniques. Detective controls improve the effectiveness of the fraud risk management program by demonstrating the operation of preventive controls and identifying whether fraud has or has occurred, because not all fraud can be prevented or can be prevented but not economically effectively.

The national legislation provides a flow through which the internal managerial control system can be developed once it has been implemented, its development basically referring to a set of activities and responsibilities for which a framework is established for the full implementation of the standards. There are no special provisions directly related to the risk of fraud, the responsibility of managing this risk, as well as the other risks identified at the level of public entities, rests exclusively with the management of public entities.

Instead, COSO's internal control framework provides a model for its development in order to reduce the risk of fraud. Thus, appropriate measures are provided for each component of internal control, measures that lead to its improvement in order to prevent and detect fraud.

Improvement measures for the prevention and detection of fraud provided by the COSO internal control framework.

Source: author processing according to Internal Control – Integrated Framework

Internal control component	Improvement measures for fraud prevention and detection
Control environment	- promoting honest and ethical behavior, including the ethical management of conflicts of interest;
Code of ethics	- compliance with laws, rules and regulations in force; - prompt internal reporting of code violations; - applicability for all employees but for persons who have a significant influence on relations with suppliers, customers, investors, creditors, insurers, competitors, auditors, etc.;

		- informing effectively both at the time of employment but also periodically thereafter.
Reporting mechanisms (warning programs)		- implementing procedures for receiving, keeping and treating information about alleged incidents; - administration of the program by an independent third party to ensure the confidentiality of the mechanism and independence from the entity's management; - informing employees about the existence of this program.
Hiring and Promotion		- establishing standards for hiring and promoting the most qualified people; - conducting background investigations on persons who are being considered for employment or promotion; - interviews with independent references.
Investigation and remediation		- establishing appropriate methods of investigation and remediation; - taking appropriate measures to address identified significant deficiencies.
Fraud risk assessment		- the fraud risk assessment by the management should be done at the level of the entire entity periodically, but also when various unforeseen events occur; - the nature and extent of risk assessment activities should be proportionate to the size of the entity and the complexity of its operations.
Control activities		- anti-fraud control activities (such as approvals, authorizations, verifications, reconciliations, segregation of duties, reviews, asset security) should take place throughout the organization, at all levels and in all functions; - management must implement and maintain appropriate automatic or manual controls over electronically generated information.
Information and communication		- the content of the anti-fraud policies, together with the responsibilities of each employee, must be communicated to employees effectively, in a way and within a time frame that allows them to fulfill their responsibilities; - every employee must know what behavior is expected or acceptable and what is unacceptable; - ensuring an effective means of communicating significant information about fraud within the organization; - effective communication regarding anti-fraud policies must also take place between the entity and external parties.
Monitoring		- an entity's anti-fraud programs and policies must be subject to continuous and periodic performance evaluations; - the COSO internal control framework identifies two types of such activities, continuous monitoring and separate monitoring; - continuous monitoring takes place during the daily operations carried out and should be integrated into the normal operational activities of the entity; - depending on the fraud risk assessment and the efficiency of the continuous monitoring activity, the coverage area and the time interval between the separate assessments will be established.

In addition to developing internal control measures to mitigate the risk of fraud, the COSO control framework also identifies a number of significant internal control weaknesses and key actions for implementing an effective anti-fraud program.

In addition to these ways of developing internal control, other methods of action against fraud are also known in the specialized literature, the best known and most used being those related to employee training, alarm signals, the principle of the four eyes, various controls of transactions, as well as automated fraud detection methods.

The importance of training employees in recognizing and reporting fraud stems from the fact that they are involved in daily activities and processes and possibly work side by side with potential fraudsters. The need to develop this area of action emerges, for example, from the 2020 ACFE report to nations, which shows that 43% of fraud cases are identified through various "tips" and only 50% of them come from employees. Employee training should include the presentation of the fraud-sensitive areas of the entity, the activities, processes, behaviors and transactions that can be considered suspicious, the characteristics of fraudsters, the reasons that lead them to commit such acts, etc. Another important aspect that the employee should be aware of is the repercussions that fraud has on the employee and the entity.

Alarm signals or fraud risk indicators are another method to combat this phenomenon, recommended by various regulatory authorities. A series of such "red flags" are also presented by Romanian institutions, depending on the fields of activity in which they operate (for example DNA for abuse of office, ONPCSB for money laundering crimes, OLAF for various frauds related to procurement public, etc.).

The principle of the four eyes is a form of control used especially for vulnerable or sensitive activities and operations, a document being checked independently by at least two people, separating the decision-making positions from those of execution and thus increasing the transparency of the processes.

In addition to other fraud detection methods, organizations can use data analytics, continuous auditing techniques (continuous or real-time data analysis), and other IT tools to detect fraudulent activity. The importance of these methods increases as the exponential development of the information technology sector is recorded.

List of papers published and presented

Papers published in BDI-indexed journals

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