

White Paper

NAVaudit[®]: Rule-based NAV Controlling Facilitates Fund Accounting

Management Summary

The control of a fund's NAV is a core process of fund accounting, which is traditionally done manually. This white paper discusses the drawbacks of this procedure, sketches the requirements a solution has to meet in order to automate it and finally introduces COMIT's NAVaudit software which not only accelerates this process dramatically but also raises the quality of its results. Readers will learn how they can save time and money while adding value to fund accounting.

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I. Outline – Current situation and drawbacks – Need for a change

Calculating a fund’s Net Asset Value (NAV) is a daily routine for investment bank accountants. This task is commonly done with the help of special accounting software, smoothly integrated into the IT workflow. But when it comes to validating the result, a sudden disruption of the process occurs: Most accountants still calculate and control a fund’s NAV manually.

It is obvious, that the manual control of a fund’s NAV represents a serious obstacle in the workflow of this core process of fund accounting. Several drawbacks are associated with this procedure, e.g.:

- The manual process occupies a lot of the fund accountant’s time. This time could be spent more efficiently completing tasks of higher value.
- Printing, reading and aggregating reports manually inevitably leads to a high number of errors, thus decreasing the reliability of this control method.
- Additionally, the results of the NAV control are seldom documented and open for later scrutiny.
- The control is based on rules which – as the experience shows – vary from one department to the other. Furthermore, these rules are interpreted in diverse ways by different persons, which leads to inconsistent results.

As a consequence, it can be stated that the manual control of a fund’s NAV is too expensive, is unreliable, bears unpredictable risks and brings the quality of the whole process of fund accounting into question.

Fortunately, there is a way to change this! Using the right software like COMIT’s NAVaudit enables investment banks to fully automate the NAV control, turning it into an efficient, secure and dependable process which adds real value to fund accounting.

II. Requirements

Before deploying a software solution for NAV control, there are some points which should be considered:

- **Enforcement of consistency**

The solution has to enforce the consistency of the control results, both across departments and over time. Therefore, the technical foundation has to be a rule engine which enables the accountant to apply the appropriate rules to the NAV and to the basic data which led to its calculation the same way every time.

- **Ease-of-use**

Like all software, an automated NAV solution has to support the daily routine tasks. Due to the business-critical nature of the control process it has to be easy to deploy, easy to use and easy to be adapted to new business needs.

- **Support of workflow**

If the software detects a possible violation of the rules, i.e. an inconsistency of a NAV, it has to inform the right people (e.g. a senior accountant) about the violation and to make sure that a defined workflow is followed to clarify the inconsistency.

- **Secure role concept**

Several people in an investment bank will use the software – accountants, senior accountants, and administrators. Therefore, the software has to leverage a smart and differentiated role concept, which supports a smooth workflow and limits the rights accorded to each person to exactly the tasks needed and to the data to perform the jobs required of them.

- **Auditability**

In times of increasing compliance requirements it is vital that the software allows for the auditing of every control activity and possible corrections and that the results of these processes are available for later scrutiny.

- **Seamless Integration**

The software must fit into an existing IT environment without any performance degradation in peripheral systems. Special care must be taken that the fund accounting solution is not affected.

- **Flexibility**

If there is one constant in business, it is continuous change. A powerful solution for NAV control has to support this dynamic environment, raising the demand for flexible rule handling to adapt the solution to new business needs.

III. Introduction of COMIT's NAVaudit

These were the main market demands which COMIT's engineers had in mind, when they developed NAVaudit. NAVaudit is designed to accelerate the daily routine of NAV control. At the same time it ensures more accurate, reliable and audit-proof results.

In this section, you will learn how NAVaudit works, how it is used, how it fits into your organization, and what main benefits you can expect.

Architectural overview

NAVaudit is built upon a flexible 3-tier architecture, which uses established standards such as Microsoft ISS, an Oracle database and XSL Transformations for advanced data extraction. Data are derived from MultiFonds, the well-established accounting software from IGEFI. NAVaudit's core components are:

Data Management Suite (DMS)

The DMS is COMIT's successful platform for data handling and interface management. It manages the data flow from MultiFonds and ensures that the performance of the accounting software is not affected by NAVaudit. Because NAVaudit interfaces to MultiFonds' live tables NAVs can be checked immediately after they have been calculated. The results of each NAV check are stored in a separate Oracle database.

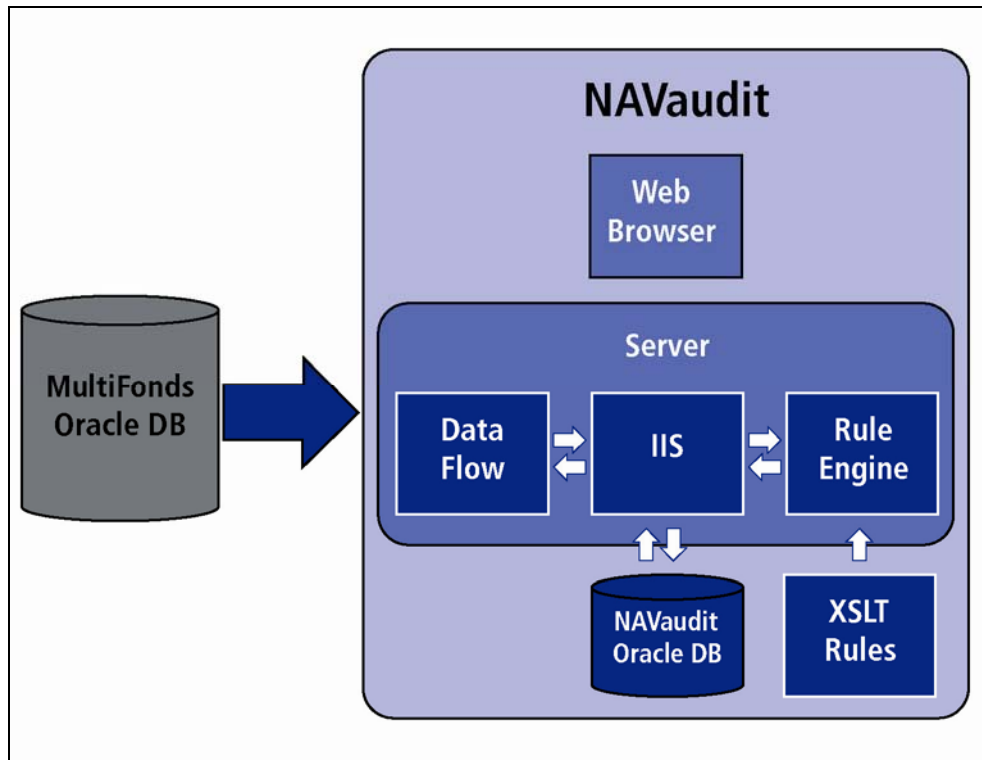


Figure 1: The NAVaudit architecture

Rule Engine

The core element of NAVaudit is a unique and extremely powerful rule engine, which applies XSLT-based rules to the data derived from MultiFonds. The rule engine will be discussed in the section "How rules work" below.

Graphical User Interface

NAVaudit features an intuitive, modern browser based user interface which is easy to use and allows users to communicate with the software.

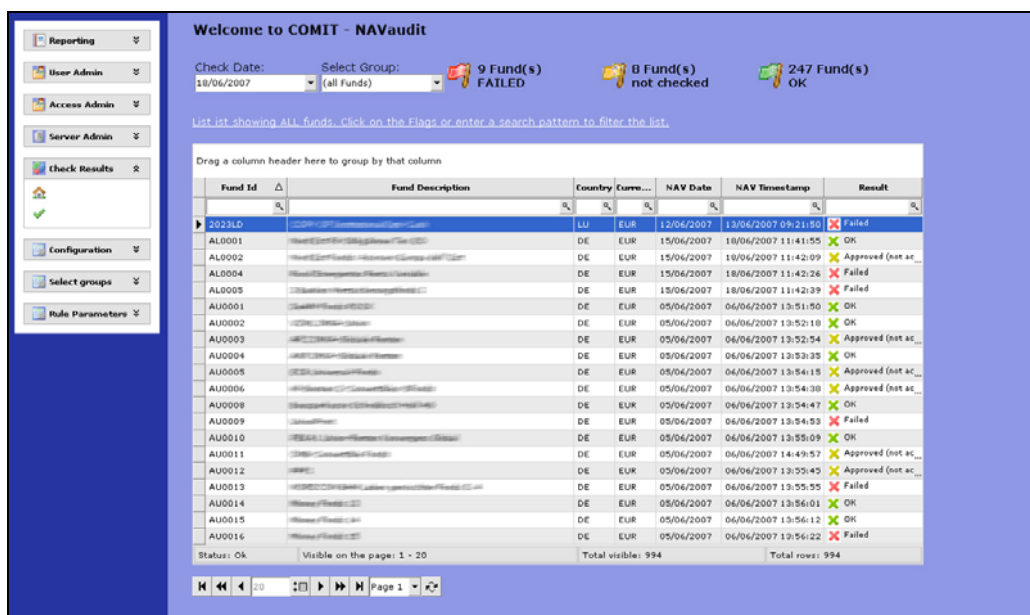


Figure 1: A graphical, browser based GUI facilitates the fund accountant’s work: Funds which failed the plausibility tests can easily be identified.

It is based on web technology which enables authorized remote users to check NAVs which are received from different sites of an investment bank. Special care has been taken to ensure, that the software will appear familiar from day one to keep learning curves and training efforts as low as possible.

How rules work

Depending on the policy of the investment bank which uses NAVaudit, rules are defined to check the funds’ NAVs. It is a core feature of NAVaudit that these rules can be applied to an individual fund, a group of funds or even on certain positions within a fund.

For instance, if you want to limit the variation of capital, a rule is defined which verifies that the net amount of subscriptions and redemptions since the previous official NAV does not represent more than a certain percentage of the current total NAV. Another rule might define that the NAV of a certain fund class may not deviate by more than 5 per cent from the respective benchmark index. These are just two examples from the virtually unlimited possibilities for rule definition. It is even possible to choose the funds for assessment according to certain criteria or priorities, e.g. to ensure that official valuations are checked before unofficial valuations. This helps to balance the load of NAVaudit in accordance to business needs.

2. The accountant sees – at a glance – which funds have passed the plausibility checks and which did not. A mouse-click on the fund in question opens a drilldown window with additional information, e.g. which rules have been violated.
3. The accountant now contacts his or her senior accountant: An e-mail with all relevant information is generated. Additional comments may be added.
4. The senior accountant may approve or refuse the deviation with a simple mouse click on the appropriate link in the e-mail he or she has received. Again, additional comments may be added.
5. Depending on the senior accountant's decision, the NAV will be released to MultiFonds or it will be calculated again.

Comparing this workflow with the traditional procedure, it becomes obvious, that NAVaudit accelerates the whole process. The following estimations are based on empirical experiences and are typical for NAV control.

Traditional Workflow		NAVaudit-supported Workflow	
Evaluate Funds in MultiFonds	1 min	Evaluate Funds in MultiFonds	1 min
First Online Check	1 min	First Online Checks	1 min
Print Reports (up to 50 pages/fund)	10 min		
Work through check list	30 min		
Search errors	30 min	NAVaudit presents error	< 1 min
Clarify deviations (manual process)	10 min	Read additional information about error	< 1 min
Contact senior accountant (manual process)	5 min	Contact senior accountant (automated process, e-mail)	< 1 min
Wait for approval or denial of deviation	5 min	Wait for approval or denial of deviation	5 min
Release NAV Validation in MultiFonds	< 1 min	Release NAV Validation in MultiFonds	< 1 min
Total time	2hours 12 min	Total time	< 11 min

As this example shows, NAVaudit can reduce the time needed for a single NAV control by more than 90 per cent. Additionally, quality aspects, such as the traceability of each process and the reliability results, apply.

IV. Conclusion

Using a dedicated software solution – like NAVaudit – for the validation of funds' Net Asset Values turns an important procedure of an investment bank's business into a core process which adds real value to fund accounting. Accountants, senior accountants and decision makers alike will take advantage of the multitude of NAVaudit's operational benefits, such as:

- **Achieve more in less time**
The time needed to control NAVs is reduced from hours to minutes. Furthermore, there is virtually no time lag between the occurrence of a potential inconsistency and its detection.
- **Increase process quality**
Traditional approaches are inherently bound to produce errors. NAVaudit helps you to minimize the number of errors dramatically. Furthermore, possible errors are detected at an early stage. This significantly reduces the "cost per error" and increases the quality of control procedures.



- **Minimize risks**

Issuing a wrong NAV not only damages the image of an investment bank but also has severe financial and legal consequences. NAVaudit reduces risks and helps protect your organization from getting involved into legal disputes.

- **Meet compliance goals**

The control activities – and possible corrections - for every single NAV are open to later scrutiny, thus rendering the whole process audit-proof. This makes NAVaudit a valuable tool to meet compliance requirements.

- **Reduce costs**

Overall, NAVaudit helps managers to reduce the cost of fund accounting significantly, because fund accountants are more productive, errors will be detected early and are easier to correct.

Additionally, COMIT customers can rely on excellent service, because COMIT experts have a deep understanding of both technological aspects of the industry and of standard software such as MultiFonds. This combined with their long experience in the field of investment banking, ensures that NAVaudit will be deployed in a timely manner to the maximum benefit of its users.

About COMIT

COMIT has served the finance industry for more than 25 years with professional IT services within the value-added chain: from strategic consulting through system implementation to the development and operation of the implemented IT solutions. Our areas of expertise are e consulting & solutions, the implementation of core solutions, especially Avaloq and Finnova core banking platforms, application management, and IT infrastructure services. COMIT is an independent subsidiary of Swisscom IT Services. We employ 700 IT and business specialists at different locations in Switzerland, Austria, Germany, Singapore, and Luxembourg.

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