

WHITE PAPER

MIS Alea as a Groupware Product

(Overcoming the problems inherent in the multi-user spreadsheet)



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MIS ALEA AS A GROUPWARE PRODUCT

MIS Alea is targeted at solving the problem of the "Spreadsheet Workgroup". That is, any group of people working with spreadsheets that need to share information.

The introduction of Lotus 123 in the early 1980's brought enormous productivity gains to individuals doing financial analysis. Financial analysts were then armed with a tool that automated cumbersome repetitive calculations, allowing them to concentrate on understanding numbers rather than wasting time just managing them.

Two to three years after its introduction, however, spreadsheet users began to find that the initial productivity gains they had experienced were disappearing and that they were actually spending more time managing numbers than they had prior to the introduction of the spreadsheet. The reason for this was simple: The spreadsheet's power had led people to move management of the workgroup numbers off the mainframe and on to the desktop PC.

While the spreadsheet is an excellent tool for managing an individual's numbers, it is a disaster when used to manage numbers for a group of people.

Today, almost anybody who is part of a spreadsheet workgroup will agree that they waste an inordinate amount engaged in some or all of the Ten Spreadsheet Time Wasters...

The Ten Spreadsheet *Time Wasters*




- 1. Managing and maintaining group-related data.**
- 2. Re-keying data from spreadsheet to spreadsheet.**
- 3. Maintaining cryptic links between multiple spreadsheets.**
- 4. Consolidating multiple spreadsheets.**
- 5. Cross checking to ensure numbers tie up across multiple spreadsheets.**
- 6. Maintaining monster spreadsheets.**
- 7. Re-keying data from reports to spreadsheets.**
- 8. Rearranging spreadsheets to show new perspectives on the data.**
- 9. Restructuring spreadsheet models to reflect changes in the company organisation.**
- 10. Creating new workbooks every time you want to create a new forecast.**

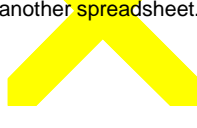
MIS Alea was designed with features that address each of the ten spreadsheet time wasters specifically. Its analytical database functionality represents the best solution available for minimizing the cumbersome clerical work involved in managing the spreadsheet workgroup.

The following pages outline these **TIME WASTERS** and describe how MIS Alea **DELIVERS A SOLUTION** to each of them.

1. MANAGING AND MAINTAINING GROUP-RELATED DATA

<p align="center">Spreadsheet Time Waster <i>Managing and maintaining group-related data</i></p>	<p align="center">MIS ALEA SOLUTION <i>MIS Alea manages the workgroup's data</i></p>
<p>Spreadsheets are designed for individuals, not for groups. When spreadsheets are used to manage group-related numbers, an enormous amount of time is wasted ensuring that numbers in one person's spreadsheet tie up with the rest of the group's data.</p> 	<p>MIS Alea is based on the concept of data independence. Data is centralised on a RAM resident analytical database on a server PC connected to your LAN. The analytical database combines a spreadsheet's calculation power with a database's data handling capacity to manage a group's data better than any other tool currently available. Your data is managed centrally, while your Lotus and Excel spreadsheets are used for the purpose for which they were intended: reporting, graphing and analysis.</p>

2. RE-KEYING DATA FROM SPREADSHEET TO SPREADSHEET

<p align="center">Spreadsheet Time Waster <i>Re-keying data from spreadsheet to spreadsheet</i></p>	<p align="center">MIS ALEA SOLUTION <i>No more re-keying of data</i></p>
<p>Analysts working in a group need to share data across spreadsheets, transferring numbers from one person's spreadsheet to another. The most common way of doing this is re-keying numbers generated in one spreadsheet, into another spreadsheet.</p> 	<p>MIS Alea works by letting Lotus and Excel spreadsheet users write formulae referring to cells in the centralised analytical database. The effect is the same as if you wrote a formula referring to another cell in your spreadsheet... except that the cell you are referring to is in ALEA. If you change a number in your spreadsheet, it changes in the analytical database and is <i>immediately</i> reflected in all other spreadsheets that have formulae referring to that number. The reverse is also true. You see changes other people make instantaneously reflected in your spreadsheets <i>without</i> having to re-key data!</p>

3. MAINTAINING CRYPTIC LINKS BETWEEN MULTIPLE SPREADSHEETS

<p align="center">Spreadsheet Time Waster <i>Maintaining cryptic links between multiple spreadsheets</i></p>	<p align="center">MIS ALEA SOLUTION <i>No more cryptic links to meaningless cell references in other spreadsheets</i></p>
<p>Most modern spreadsheets programs allow you to write formulae in one spreadsheet that address cells in another spreadsheet. The links, however, are hard to maintain. They are cryptic, referring to meaningless cell address such as C1 or J52 in a spreadsheet you cannot see. If a cell is moved in a central spreadsheet, all spreadsheets that have formulae referring to that cell must be updated manually to reflect the change. When many spreadsheets become inter-linked, recalculation can often take hours, even on the fastest PCs.</p>	<p>Since the analytical database is designed to handle much more data than conventional spreadsheets, it has to have a better way of naming cells. In the database, cells are designated by the name of the piece of data contained in the cell, not by cryptic row and column intersections. If you want to refer to a cell in the hyper-spreadsheet you write a formula like: “=(Kent, Product A, Sales, Budget, April)” not: “= BUDAPR.XLS!\$AJ\$105”</p>

4. Consolidating Multiple Spreadsheets

<p align="center">Spreadsheet Time Waster Consolidating multiple spreadsheets</p>	<p align="center">MIS ALEA SOLUTION <i>No more consolidation of multiple spreadsheets</i></p>
<p>To consolidate numbers in multiple spreadsheets that all have the same structure, analysts often use features such as Lotus 123's "/File Combine Add". This is a time-consuming batch process. If the basic structure of any of the component spreadsheet is changed so that it differs from the others, the process will yield erroneous results and if the numbers on any of the component spreadsheets change after consolidation, the whole process must be re-run.</p>	<p>The analytical database not only stores large amounts of data, it also consolidates that data in an easy-to-define, simple manner. Consolidations are clearly defined as relationships between names, not between meaningless cell references. For example, within your P&L you might define Net Sales as "Gross Sales - Returns - Rebates", and within your Regions, you might define Region 1 as "Germany + France". If you update the cell (Germany, Gross Sales, January) the analytical database has the built-in intelligence to automatically update (Region 1, Net Sales, January) as well as (Region 1, Net Sales, Q1) and any other related cells. Consolidations are "live": there's no need to run batch processes. Update a number and the consolidated figures are immediately available to all users. MIS Alea is lightning fast, out-performing most mainframe-based financial consolidation packages.</p>

5. CROSS-CHECKING ACROSS MULTIPLE SPREADSHEETS

<p>Spreadsheet Time Waster</p> <p>Cross-checking across multiple spreadsheets</p>	<p>MIS ALEA SOLUTION</p> <p><i>No more lengthy cross-checking</i></p>
<p>All of the above ways of transferring data from one spreadsheet to another are cumbersome and leave a lot of room for error. This means that even after spending much time to establish and maintain these links, analysts must still cross-check all their printouts to make sure that numbers from each report correlate with the numbers in all other spreadsheet reports.</p>	<p>Because the numbers are centralised, they exist in only one place and not in hundreds of different spreadsheets. Gone is the need to make sure that the January sales numbers for Product A are consistent across 15 different spreadsheets. More important, gone are the embarrassing inconsistencies between reports caused by decentralised numbers.</p>

6. MAINTAINING MONSTER SPREADSHEETS

<p>Spreadsheet Time Waster</p> <p>Maintaining monster spreadsheets</p>	<p>MIS ALEA SOLUTION</p> <p><i>No more monster spreadsheets</i></p>
<p>Since maintaining multiple spreadsheets is so cumbersome, analysts often try to get as much information into one spreadsheet as possible. They build large, complicated spreadsheets that repeat the same report over and over (for example, one spreadsheet might contain P&L for 12 months for each of the countries in Region 1, as well as a consolidated P&L for the regions). These monster spreadsheets are only marginally easier to maintain than multiple spreadsheets and they require powerful PCs with large amounts of RAM to run them.</p>	<p>Data independence means you no longer have to build huge spreadsheets that repeat the same report for multiple entities. Just build one report and let ALEA do the rest. For example, you can structure your spreadsheets so that by changing one simple label, say from Germany to France, entirely new numbers are reflected throughout the report. Change that label from France to Europe, and you get consolidated numbers instantly!</p> <p>ALEA reports are elegantly focussed on the report or analysis being undertaken, with little distraction by any technical considerations – the questions are “what do I want to know?”, not “how do I do this?”.</p>

7. RE-KEYING DATA FROM MAINFRAME REPORTS TO SPREADSHEETS

<p align="center">Spreadsheet Time Waster</p> <p align="center">Re-keying data from mainframe reports to spreadsheets</p>	<p align="center">MIS ALEA SOLUTION</p> <p align="center">MIS Alea is designed to get mainframe data onto your spreadsheet</p>
<p>One of the most cumbersome tasks faced by analysts is getting mainframe data into spreadsheets for evaluation and analysis. In the best of situations, this can be accomplished via a download, where the downloaded data must be extensively reformatted once it lands in a spreadsheet. If the data is required in a different format for different analysis, MIS employees must re-write the download. This means that, more often than not, the primary way of getting data from mainframes into spreadsheets is by re-keying from printed mainframe reports.</p>	<p>MIS Alea loves mainframe data and has facilities for downloading it rapidly and easily into its analytical database. Once the data is downloaded it is immediately available to all spreadsheet users on the system in the same easy-to-access format. You just type a formula into your spreadsheet with the name of the piece of data you want.</p>

8. RE-ARRANGING SPREADSHEETS TO SHOW NEW PERSPECTIVES ON DATA

<p align="center">Spreadsheet Time Waster</p> <p align="center">Re-arranging spreadsheets to show anew perspective on data</p>	<p align="center">MIS ALEA SOLUTION</p> <p align="center">ALEA is a multi-dimensional Analytical database engine</p>
<p>One of the most useful ways of analysing numbers is to change the perspective from which one looks at those numbers. For example: One might find it useful to take the spreadsheet described under "Monster Spreadsheets" above and build a new report comparing sales for each region for 12 months. In two-dimensional and even three-dimensional spreadsheets this is a cumbersome process because the structure of the spreadsheet would prevent simply writing one formula and then copying it across a range. A separate formula would have to be built for each country in the region.</p>	<p>MIS Alea is truly multi-dimensional. That means that it is a database designed specifically for the needs of people analysing large amounts of data. You can look at any two dimensional perspective of the data you need to. It is just as easy to build a spreadsheet showing the P&L by month as it is to build a spreadsheet showing March Sales by Product by Country.</p> <p>New reports of any 'shape' can be built in seconds, using plain English.</p>

9. RESTRUCTURING SPREADSHEETS TO REFLECT COMPANY REORGANISATION

<p>Spreadsheet Time Waster</p> <p>Restructuring spreadsheets to reflect company reorganisation</p>	<p>MIS ALEA SOLUTION</p> <p><i>Reflect organisational changes by changing one formula instead of thousands</i></p>
<p>Spreadsheets are used to report on and analyse the financial conditions of large organisations. The structures of these organisations are never static, changing frequently. If a sales region in a company, for example, is redefined to include extra countries, this change must be reflected by restructuring multitudes of spreadsheets, a cumbersome and time-consuming process.</p>	<p>With MIS Alea, instead of making changes in multiple formulae in multiple spreadsheets, you simply rewrite one formula in the centralised hyper-spreadsheet.</p> <p>If Region 1 is re-defined to include France, the change will automatically be reflected in any spreadsheet that refers to any number related to Region 1.</p>

10. Creating new workbooks every time you want to create a new forecast.

<p>Spreadsheet Time Waster</p> <p><i>So much time is wasted managing spreadsheet workbooks</i></p>	<p>MIS ALEA SOLUTION</p> <p>Using business logic and templates forecasting is a monthly breeze</p>
<p>Every time you need to set-up a new forecast or budget most organisations have to go through a lengthy copying of workbooks; pasting in a new month of actuals; redistributing the workbooks; updating the calculations to the point where monthly reforecasting is no more than taking the actuals to date and using the budget for the remaining months.</p>	<p>After a monthly import of actuals just tell MIS Alea how many periods of actuals is included in the new forecast and a first cut reforecast is delivered within minutes. Users can then adjust the forecast using pre-defined parameters and make forecasting a way of life. And a final thought: When it comes to budgeting just extend the forecast. It's really no contest!!</p>

**THE FINANCE WORKGROUP: A DESCRIPTION OF THE MOST
COMMON SPREADSHEET WORKGROUP**

The most common area (although by no means the only one) where spreadsheet workgroups are found is in the finance departments of large companies. The following table outlines the typical budgeting and planning process in the finance department of a large corporation, and compares it to the same process using MIS Alea. Using conventional spreadsheets on independent stations, only a very small portion of the analyst's time is spent doing analysis. The rest of the time is spent managing numbers. Conversely, with ALEA, the length of the process is significantly reduced and the vast majority of the analyst's time is spent performing analyses.

TASK	CONVENTIONAL SPREADSHEET METHODOLOGY	MIS ALEA METHODOLOGY
Preparation of individual regional, divisional or profit centre budgets.	Analysts prepare budget numbers for planning period via various spreadsheet models.	Analysts prepare budget numbers for planning period via various spreadsheet models.
Consolidation of individual spreadsheet models to generate summary budgets.	Analysts consolidate series of individual spreadsheets using file-combines or complex macros and spreadsheet linking schemes. In less sophisticated organisations, numbers re-keyed from spreadsheet to spreadsheet.	Eliminated. Consolidations of data in individual spreadsheets are constantly and automatically maintained by MIS Alea and always available.
Cross-checking of numbers.	Analysts cross-check numbers across all spreadsheet-generated reports to make sure numbers tie up from spreadsheet to spreadsheet.	Eliminated. Since numbers and consolidations are centrally maintained they will always tie up across individual spreadsheets.
Revision of numbers.	Reports are reviewed by senior managers and returned for revision. Steps 1-3 repeated.	Shortened. Only step 1 is repeated.
Standard performance reporting.	Analysts take performance numbers from mainframe reporting systems and enter them into individual spreadsheets for comparison to budget numbers. In less sophisticated organisations, numbers are re-keyed from paper reports. In more sophisticated organisations, numbers are downloaded into Lotus or Excel and manipulated into a usable format. After low level analysis, individual spreadsheets must be consolidated for summary reports(repeat steps 2 and 3)	Automated. Numbers downloaded automatically from mainframe to MIS Alea analytical database. Standard spreadsheet reports linked to MIS Alea need only be retrieved and printed. Consolidations performed automatically by MIS Alea.

Ad hoc reporting.	After standard reports are analysed, analysts prepare ad hoc reports to provide new perspectives on data to identify sources of negative variances. Data must be re-keyed from spreadsheet to spreadsheet and from mainframe reports. Since data is dispersed and not organised, analysis to determine source of variance problems is time-consuming and tedious. Process involves considerable cross-checking of numbers.	Shortened/Improved. Since numbers are centrally managed, ad hoc reports are easily and quickly generated. MIS Alea "slice" feature automatically generates any perspectives of the data the user needs, allowing rapid and efficient drill down to identify variance sources.
Report Distribution	Once a set of reports is produced there is a need to make these available to managers throughout the organisation. Using conventional email methods is very time consuming.	Improved. All reports can be emailed automatically to managers or published on your intranet.

My key issues with analysis, reporting and forecasting