Sigma Information Systems,

Member of MANAGEMENT FORCE Group

RISK ASSESSMENT MANAGEMENT

What is this presentation about?

What is RAM?

Why we use RAM?

What makes RAM unique?

A closer look at RAM

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What is RAM?

The **R**isk **A**ssessment **M**anagement is a Windows MSI program for:

- Standardization / homogenization of information
- Monitoring and alerting for tasks
- Proper flexible reporting to management
- Proper and safe sharing of data
- Concurrent data access by multiple users

RAM is designed and maintained by S.I.S. a software company member of MANAGEMENT FORCE Group

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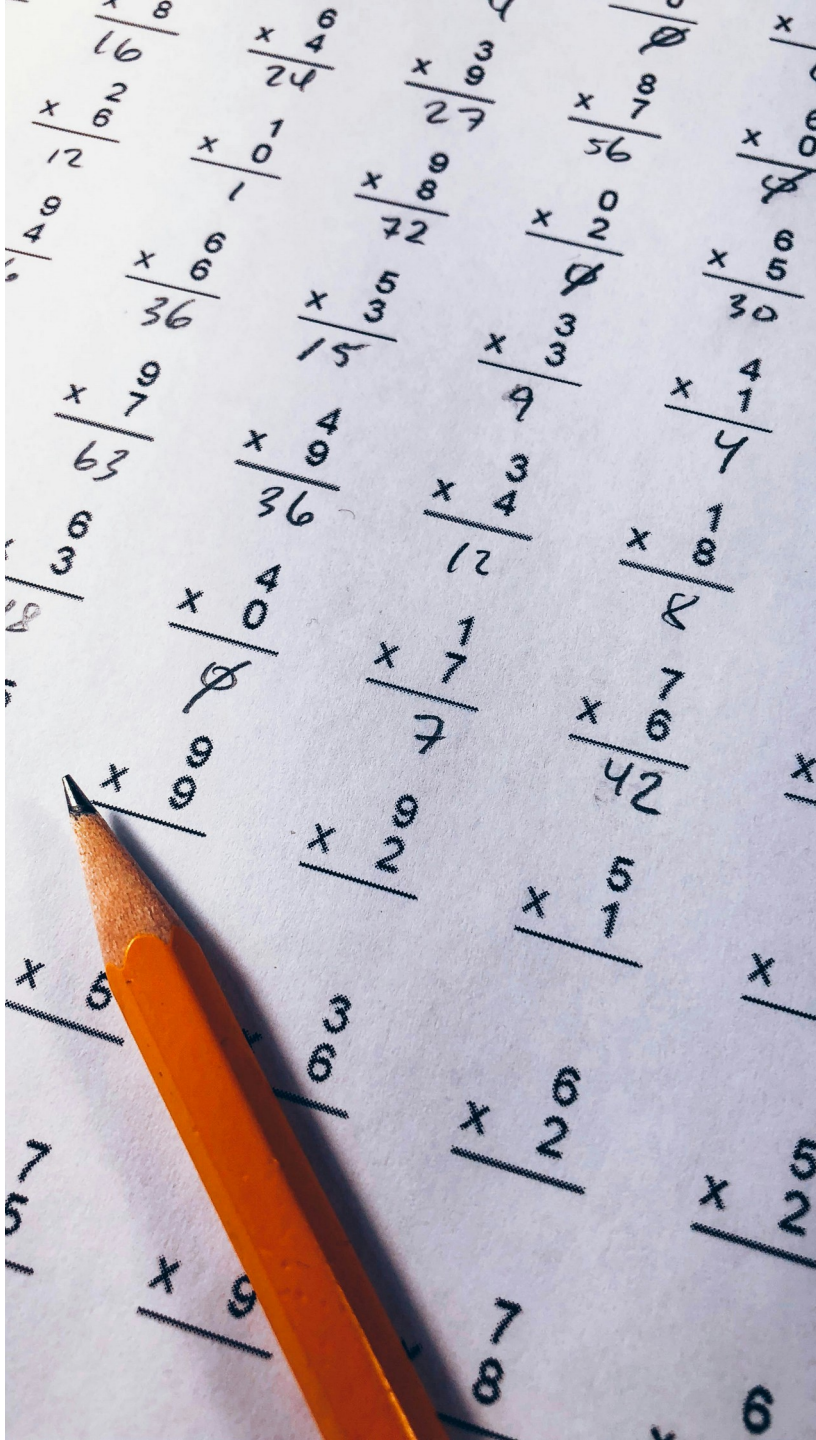
Why use RAM?

A risk assessment process is producing large and complex volumes of data

This data complexity requires further processing for different levels of administration

RAM does this for you!



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What makes RAM unique?

Effectively tackles the challenges for:

- Standardization / homogenization of information
- Monitoring and alerting for tasks and measure assignments
- Proper flexible reporting to management

In dealing with large and complex volume data you need no specialized knowledge or hiring one that does

RAM is specialized to focus on gathering, counting, categorizing, distributing and filing data for future use

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A closer look at RAM

- Separating and focusing on all levels of sources of hazard
- A database of built-in or pre-configured hazards measures and related information
- Selection of assessment methodology
- Risk assessment
- Dynamic reporting
- Multilanguage
- Additional capabilities

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1. Separating and focusing on all levels of sources of hazard

System

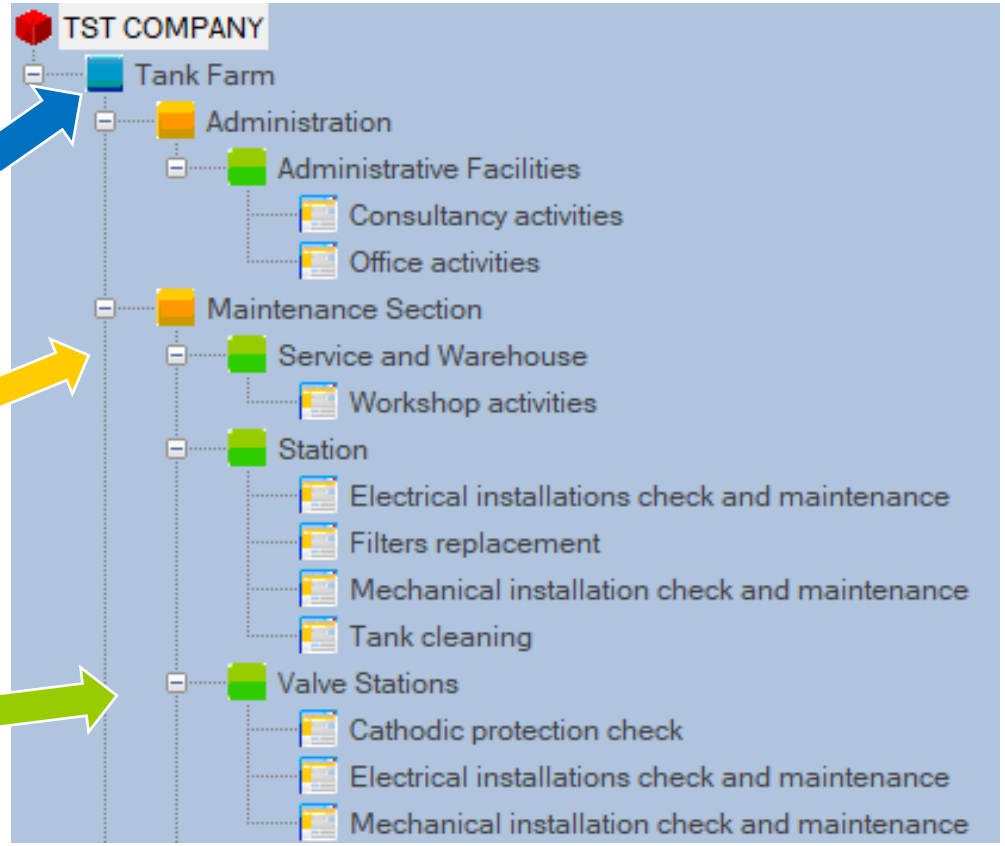
- Includes major system

Subsystem

- Includes system elements

Section

- Includes specific subsystem elements



2a. Built-in hazards and controls database

- RAM contains the hazards and risk assessment records of the projects. It allows entering:

1. *Hazards*
2. *Hazardous factors*
3. *Risk control measures*
4. *Assessment records*

Hazards: Each hazard can be added only once in each risk assessment

Hazardous factors: add a hazardous factors to RAM that belong to the selected hazard

Hazard	Hazardous Factors
Airborne chemical substances	Fuel vapors
Dangerous objects and surfaces (sharp, rough, etc.)	Outstanding parts of structures/...
	Sharp equipment
	Uncovered corners
Extreme weather conditions	Extreme cold
	Strong winds
	Working at height

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2b. Built-in hazards and controls database

1. *Hazards*
2. *Hazardous factors*
3. *Risk control measures*
4. *Assessment records*

- Hazard control measures the addition of hazardous factors to the RA, including

Measure, Implemented, Due date, Category, Responsible, Legislation, Linked file, Comments,

Risk Control Measures

Measure	Implemented	Due Date	Category	Responsible	Legislation	Linked File	Comments
Employee training	☐		Administrative	Resp. Perso...	Leg. 156/17		Comment 1
Employee health monitoring	☐	13/8/2020	Administrative				Comment 2
Closed system well maintained	☑		Technical	Resp. Perso...	Leg. 555/18		
Equipment checking progra...	☑					Equip-Check.xls	
	☐						
Marking of hazardous parts ...	☑						
Safeguards	☐						Comment 4
Use of appropriate safety gl...	☑						Comment 5
	☐						
Employee training	☑			Resp. Perso...			
Use of appropriate water pr...	☑			Resp. Perso...			
Use of water proof safety bo...	☐						
Stop working policy	☑						
Use of appropriate jacket	☑						
	☐						

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2c. Built-in hazards and controls database

1. *Hazards*
2. *Hazardous factors*
3. *Risk control measures*
4. *Assessment records*

- Contains the risk assessment record for each position. The assessment record includes the following:

Position, Severity, Likelihood, Exposure, Initial risk, Final risk

Severity

Severity	Assessment	Description
1	Minor	Insignificant outcome, may be required first aid treatment on site, cor
2	Small	Injuries that may require medical treatment. Absence from work no r
3	Critical	Injuries that require medical treatment and/or hospitalization. Absenc
4	Severe	Serious injuries that require medical treatment and hospitalization. A
5	Catastrophic	Death or 1st degree incapability.

Likelihood

Likelihood	Assessment	Description
1	Very Unlikely	The likelihood t
2	Unlikely	The likelihood t
3	Likely	The likelihood t
4	Very Likely	The likelihood t
5	Certain	The likelihood t

Risk Rating

Risk Level	Color	Description
1 - Trivial	00FF00	Acceptable risk, no additional measures are required.
2 - Low	FF6633	Acceptable risk with control measures in place.
3 - Medium	00FFFF	Acceptable risk, with the provision that control measures will be implemented in long term (no more than 1 y
4 - High	0099FF	Unacceptable risk, control measures to be implemented in short term (no more than 3 months).
5 - Very High	0000FF	Unacceptable risk, stop working until control measures to be implemented.

Calculat

S		
1		
2		
1	3	2 - Low
3	1	2 - Low
1	4	2 - Low
2	2	2 - Low
4	1	2 - Low
1	5	2 - Low
5	1	2 - Low
2	3	3 - Medium

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3. Selection of assessment methodology

Severity (S) *Likelihood (L)* *Frequency of Exposure (E)*

Risk level calculated by product: S x L x E

Severity

Severity	Assessment	Description
1		No impact in health
2		First Aid Injury, Medical Trea
3		LTI, with absence ≤3 workin
4		LTI, with absence between 3
5		LTI, with absence ≥3 workin
6		LTI, with absence ≥3 workin
7		LTI, resulted to light disabilit
8		LTI, resulted to permanent d
9		LTI, resulted to permanent to
10		Fatal injury

Likelihood

Likelihood	Assessment	Description
1		Almost impossible
2	(~1%-10%)	High Unlikely
3	(~10%-25%)	Almost Unlikely
4	(~24%-40%)	Lowly Possible
5	(~40%-50%)	Possible < 50%
6	(~50%-60%)	Very Possible = 50%
7	(~60%-70%)	Highly Possible > 60%
8	(~70%-80%)	Likely
9	(~80%-90%)	Highly Likely
10		Almost certain

Exposure

Exposure	Assessment	Description
1		The employee is exposed once
2		The employee is exposed once
3		The employee is exposed once
4		The employee is exposed once
5		The employee is exposed once
6		The employee is exposed once
7		The employee is exposed once
8		The employee is exposed once
9		The employee is exposed once
10		The employee is exposed conti

Risk Rating

From	To	Risk Level	Color	Description
0	199	Trivial	00FF00	Maintain necessary controls to ensure acceptable risk level
200	399	Low	FF6633	Implementation of controls to reduce the risk in a timeframe of two (2) years
400	599	Medium	00FFFF	Implementation of controls to reduce the risk in a timeframe of one (1) year
600	799	High	0099FF	Implementation of controls to reduce the risk in a timeframe of six (6) months
800	1000	Very High	0000FF	Immediate stop of the activity & implementation immediately of the necessary controls to prevent incidents and minimize the risk

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4. Risk assessment

- Assessment contains the risk record, one for each position.

Each position specification of:

Initial risk level *Final risk level*

is based on the selected methodology (2 or 3 parameters)

	Position	Initial			Final		
		S	L	Risk	S	L	Risk
	Control Room Operators	2	2	2 - Low	2	1	1 - Trivial
	Quality and Safety Inspectors	3	2	3 - Medium	2	2	2 - Low
	Electricians	4	3	4 - High	2	2	2 - Low
▶*							

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5a. Dynamic reporting

- Ram application produces risk assessment reports.

1

Full risk assessment management consist three main sections:

RAM information data
Workplace data and task data
Risk assessment table

2

Layout of the risk assessment reporting depending on:

Select of full RAM report
Configuring measure categories
Modification number of member of methodology parameters
Hide or unhide columns in reports

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5b. Dynamic reporting

TST COMPANY

OCCUPATIONAL RISK ASSESSMENT

Rev. No.	: 0	**Rev. Date**	: 20/3/2020 12:00:00 πμ	**Next Rev. Date**	:
System	: Tank Farm	**SubSystem**	: Operations and Quality Control	**Section**	: Valve Stations
Prepared By	: Safety Practitioner	**Approved By**	: H&S Manager	**Section Responsibility**	: Operations Supervisor
Task	: Valve stations inspection				
No of Employees	: 5	**Shift**	: Morning and evening	**Task General Risk**	: 3 - Medium

Hazard	Implemented Measures	Position	Sev.	Lik.	Risk	Proposed Measures	Resp.	Due Date	Sev.	Lik.	Res. Risk
Airborne chemical substances Hazardous Factor Fuel vapors	Equipment checking program in place Workplace technical ventilation Administrative Employee training (Leg: Leg. 156/17)	Quality and Safety Inspectors	3	1	3	Administrative Employee health monitoring Technical Closed system well maintained (Leg: Leg. 555/18)			2	1	2
Dangerous objects and surfaces (sharp, rough, etc.) Hazardous Factor Outstanding parts of structures/equipment Uncovered corners	Safeguards Use of appropriate safety gloves	Quality and Safety Inspectors	3	2	6	Marking of hazardous parts of equipment			2	2	4

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6a. Multilanguage

- RAM application is fully multilingual

1. Users are free to configure any number of languages in the application and translate all labels and messages

2. All risk assessment information entered in one language and can be easily translated by the user to any other language and produce the same reports in different languages

3. Preconfigured system languages:
   Greek
   English
   Albanian
   Romanian

4. Application environment and data can be translated in any language included in system

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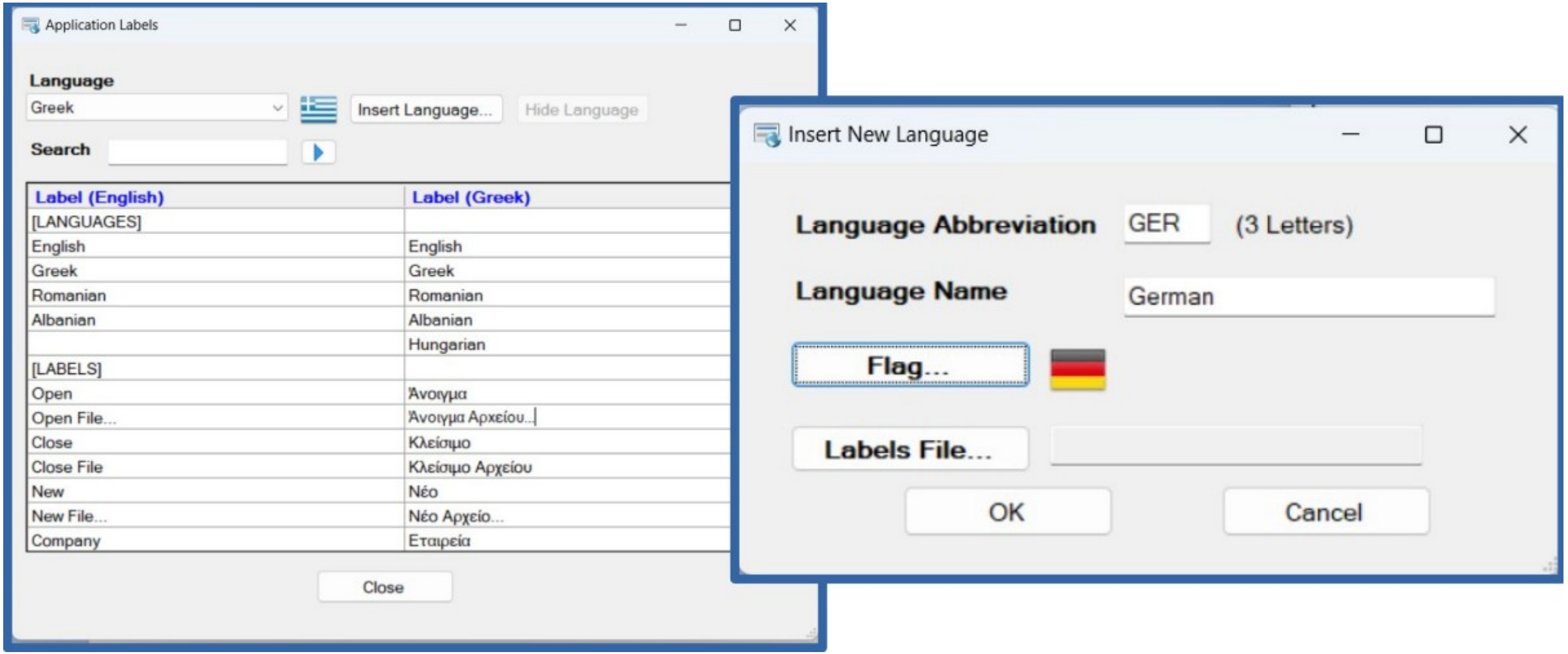
6b. Multilanguage



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7. Additional Capabilities

Revision backup	Overdue actions notification	Risk assessment duplicate	Organization structure duplication	Customization of application labels and messages
• Every revision of a risk assessment is retained in the database and can be accessed through the RA history	• Users are notified for versions and measures that should have been processed	• RA can be copied from one section to another	• Any branch of the hierarchical structure can be copied to another branch in the same file	• All labels and messages in any language can be modified

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Evolution

RAM is now on its 3rd edition and has incorporated the experience of MANAGEMENT FORCE Group risk assessment projects

Sigma Information Systems software development team, will be happy to show you the full capabilities of the RAM

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Thank you for your interest!

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Video review

Questions and Discussion…