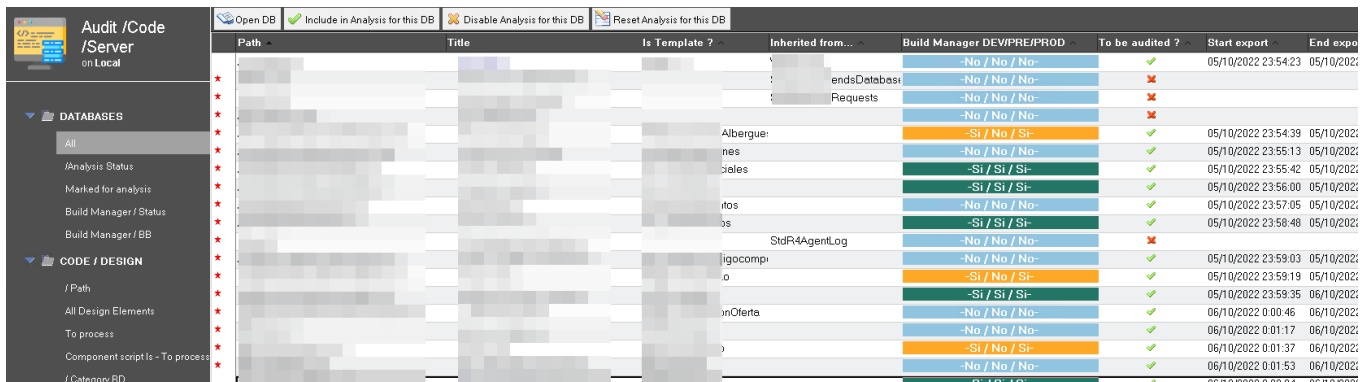


# Audit your existing code in Domino (simply with Lotuscript)

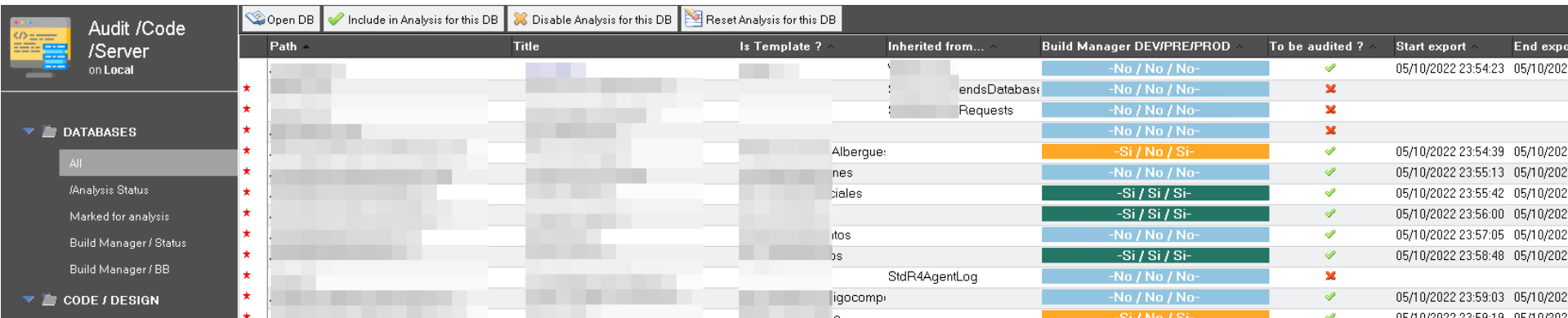


The screenshot displays the Domino Audit /Code /Server interface. The table shows the following data:

Path	Title	Is Template ?	Inherited from...	Build Manager DEV/PRE/PROD	To be audited ?	Start export	End expo
				-No / No / No	✓	05/10/2022 23:54:23	05/10/2022
			endsDatabase	-No / No / No	✗		
			Requests	-No / No / No	✗		
				-No / No / No	✗		
	Alberguer			-Si / No / Si-	✓	05/10/2022 23:54:39	05/10/2022
	nes			-No / No / No	✓	05/10/2022 23:55:13	05/10/2022
	deles			-Si / Si / Si-	✓	05/10/2022 23:55:42	05/10/2022
				-Si / Si / Si-	✓	05/10/2022 23:56:00	05/10/2022
	nos			-No / No / No	✓	05/10/2022 23:57:05	05/10/2022
	os			-Si / Si / Si-	✓	05/10/2022 23:58:48	05/10/2022
			StdR4AgentLog	-No / No / No	✗		
			igocomp	-No / No / No	✓	05/10/2022 23:59:03	05/10/2022
			o	-Si / No / Si-	✓	05/10/2022 23:59:19	05/10/2022
				-Si / Si / Si-	✓	05/10/2022 23:59:35	06/10/2022
			inOferta	-No / No / No	✓	06/10/2022 0:00:46	06/10/2022
				-No / No / No	✓	06/10/2022 0:01:17	06/10/2022
				-Si / No / Si-	✓	06/10/2022 0:01:37	06/10/2022
				-No / No / No	✓	06/10/2022 0:01:53	06/10/2022
				-No / No / No	✓	06/10/2022 0:02:04	06/10/2022

# Audit your existing code in Domino (just with Lotuscript)

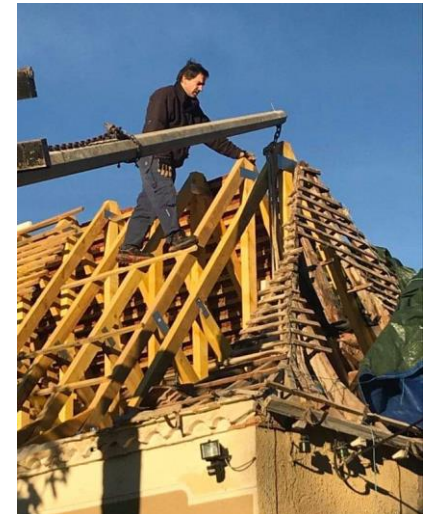
Dominique Perarnaud – Data 101



Path	Title	Is Template ?	Inherited from...	Build Manager DEV/PRE/PROD	To be audited ?	Start export	End export
				-No / No / No-	✓	05/10/2022 23:54:23	05/10/2022
	endsDatabas			-No / No / No-	✗		
	Requests			-No / No / No-	✗		
				-No / No / No-	✗		
	Albergue:			-Si / No / Si-	✓	05/10/2022 23:54:39	05/10/2022
	nes			-No / No / No-	✓	05/10/2022 23:55:13	05/10/2022
	ciales			-Si / Si / Si-	✓	05/10/2022 23:55:42	05/10/2022
				-Si / Si / Si-	✓	05/10/2022 23:56:00	05/10/2022
	itos			-No / No / No-	✓	05/10/2022 23:57:05	05/10/2022
	os			-Si / Si / Si-	✓	05/10/2022 23:58:48	05/10/2022
	StdR4AgentLog			-No / No / No-	✗		
	igocomp			-No / No / No-	✓	05/10/2022 23:59:03	05/10/2022
				-Si / No / Si-	✓	05/10/2022 23:59:10	05/10/2022

- Introduction
- The customer
- The problem to solve > know your code, answer questions
- The guidelines
- How to do it
- Next steps / possible iterations
- Questions.

- Citizen developer / Domino Administrator / In the Yellow bubble since 2001
- Partner at **DATA101**
-  **HCL Ambassador 2021-2022-2023**
- French in the Basque country, North of Spain, for 20 years
- I like to build things ....



# Side business: Anyone interested in World class pipe organ concert ?

## Loreto Aramendi

International concertist – Main organist of the Cavallé-Coll organ (1863) of the Santa Maria Basilica, San Sebastián, Spain; pianist & clavecinist.



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[www.loretoaramendi.com](http://www.loretoaramendi.com)




**organ** \_ Journal für die Orgel

*"Loreto Aramendi delivers a True masterpiece"*  
*"Fabulous & clearly pianistic trained playing technique"*  
*"Liszt's funérailles become a visionary event"*  
*"Rachmaninoff's prelude in c sharp minor receives unimagivable greatness and apocalyptic power"*





**Javier Sánchez Oliva**

 [javiersanchezoliva.com](http://javiersanchezoliva.com)

 @javdev84

**DATA101**

 **HCL SOFTWARE**

Business Partner

Domino/Notes Lead Developer

 **HCL Ambassador**

- We are Data 101, HCL Business Partner based in San Sebastian, Spain



## Donostia / San Sebastian: The Bay and the fine food...

2nd region of Spain by Gross Domestic Product (GDP)  
Biggest concentration of 3\* Michelin Restaurants in Europe





# Audit your existing code in Domino

(simply with Lotuscript)  
(I don't do "API C calls")

Dominique Perarnaud – Data 101

# THE CONTEXT

## Disclaimer:

This is a “Work in Progress” application, we want to show the potential.

Third party products are mentioned here, only to add value to the context of this real use case. In any moment, it is a promotion/ads of these tools.

The Audit tool in itself could be used without them, but mentioning how it integrate them, add value to the Audit and to this presentation.

- City Council > all the data of the citizens must remain on-Premises
- Mantra: “Our citizens are our customers”
- Must respect the “Spanish National Framework for Security” (Real Decreto 311/2022)
- Domino shop already using third party products



## NotesTracker

for HCL / IBM® / Lotus Notes® and Domino®





# HCL Domino

- HCL Domino 12.0.1 FP1
- Installation based on separated Dev / Pre production / Production server
- 1 unique server for development (mainly...)
- Build Manager partially implemented for pushing changes to pre/production
- All type of code: @formula, Lotuscript, Java, Web services, call to external API
- Traditional Notes applications co-existing with pure Java applications/server

# THE PROBLEM TO SOLVE

You are blind when you do not know  
what you have in your `<code>`

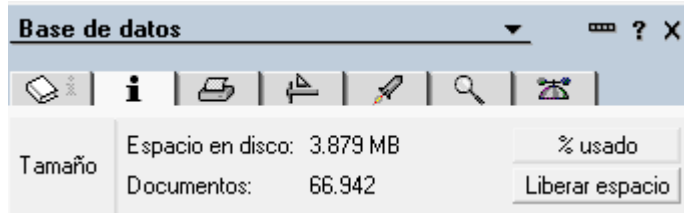
- Accurate and update overview of all database designs / server.
  - Document the database design.
  - Know dependencies between applications (getview/getdatabase)
  - Know use of generic Script Library components throughout all applications
  - Know dependencies between applications for Web Services
  - Document functionalities on a per database basis (complexity)
  - Answer questions when the developer may be gone...
  - Improve security
- This will allow you to evaluate cost changes, make right decisions for maintenance.

- No license fees. (context: IT Cost per user is rising steadily)
- Low cost (only with Lotuscript) & homemade > Rapid Application Development
- UX : Easy to use and understand > Search the data and find
- Deliver an accurate and updated Audit
  - > Audit must always contain up-to-date information
  - > Answering urgent requests from Management
  - > Enabling IT for improving/cleaning/decommissioning Notes applications

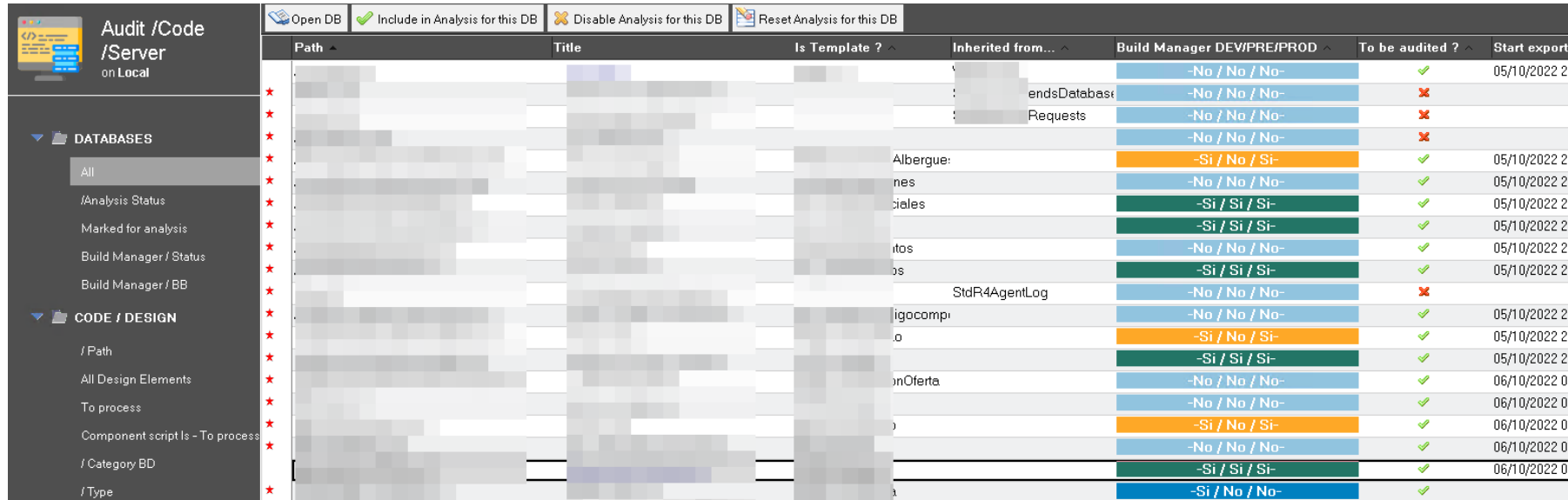
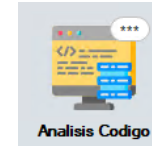
- Know your code – relationship – dependencies between applications
- Security Audit mandate > clean the code
  - > C: references, misuses of tmp folder, hard coding
- Detect Bad practices: cartography of inheritance of design elements
  - > Orphans or not – Do not refresh tags
- Maintenance & improvements
  - > Migration from Word.application to LibreOffice, Identify / evaluate OLE Calls
- Find niddles in my code:
  - > Use case: “errors after v12.0.1 upgrade“
  - > Where are the calls to specific (deprecated) JAR in my server




- Scheduled updated (only update design since last scan)
- Integration with Teamstudio > continuous updates for DBs on Build Manager
- Trigger manual update (available with one button)
- Update start from last point of failure of the scan if the process ended with error
- Size should not be a problem



- We use the design from the v12 system database
- We add some color-specific columns
- We think in usability first (one view = one answer)



Path	Title	Is Template ?	Inherited from...	Build Manager DEV/PRE/PROD	To be audited ?	Start export
				-No / No / No-	✓	05/10/2022 2
*			endsDatabase	-No / No / No-	✗	
*			Requests	-No / No / No-	✗	
*				-No / No / No-	✗	
*			Albergue:	-Si / No / Si-	✓	05/10/2022 2
*			nes	-No / No / No-	✓	05/10/2022 2
*			ciales	-Si / Si / Si-	✓	05/10/2022 2
*			ntos	-No / No / No-	✓	05/10/2022 2
*			os	-Si / Si / Si-	✓	05/10/2022 2
*			StdR4AgentLog	-No / No / No-	✗	
*			igocomp	-No / No / No-	✓	05/10/2022 2
*			o	-Si / No / Si-	✓	05/10/2022 2
*			onOferta	-No / No / No-	✓	06/10/2022 0
*				-No / No / No-	✓	06/10/2022 0
*				-Si / No / Si-	✓	06/10/2022 0
*				-No / No / No-	✓	06/10/2022 0
*				-Si / Si / Si-	✓	06/10/2022 0
*				-Si / No / No-	✓	



## Audit /Code /Server on Local

---

▼ **DATABASES STATUS**

All

- / Analysis Status
- Marked for analysis

▼ **AUTOMATION BUILD MNGR**

- Build Manager / Status
- Build Manager / DB

▼ **DEPENDENCIES**

- Doc Config. Db A call → Db B
- Design Elts calling / DB
- List of LS Components
- Components LS / DB
- Doc Config call by Dependencies

▼ **CODE / DESIGN**

- / Path
- All Design Elements
- To process
- Component script ls - To process
- / Category BD
- / Type
- / Name
- / Name categorized

▼ **SHORT ANSWERS**

- Email in code
- Server Name in code
- Username in code
- DENY ACCESS Users
- .NSF in code
- C:\TMP
- External interfaces
- Do Not Refresh
- Unused script libraries
- Unused values /Doc Config
- Word
- Excel
- Libre Office
- pdf
- Compliant for Nomad Web ?

Configuration :Audit /Code /Serve

---

**Alert**

Alert email for execution

---

**Database with dependencies**

	Server	Path Name
Domino Catalog		
Domino Directory		
Build Manager		
Build Manager REAL		
Component - Script Library		
Dependencies		

---

**Teamstudio**

Show Teamstudio Build Manager analysis  Yes  No

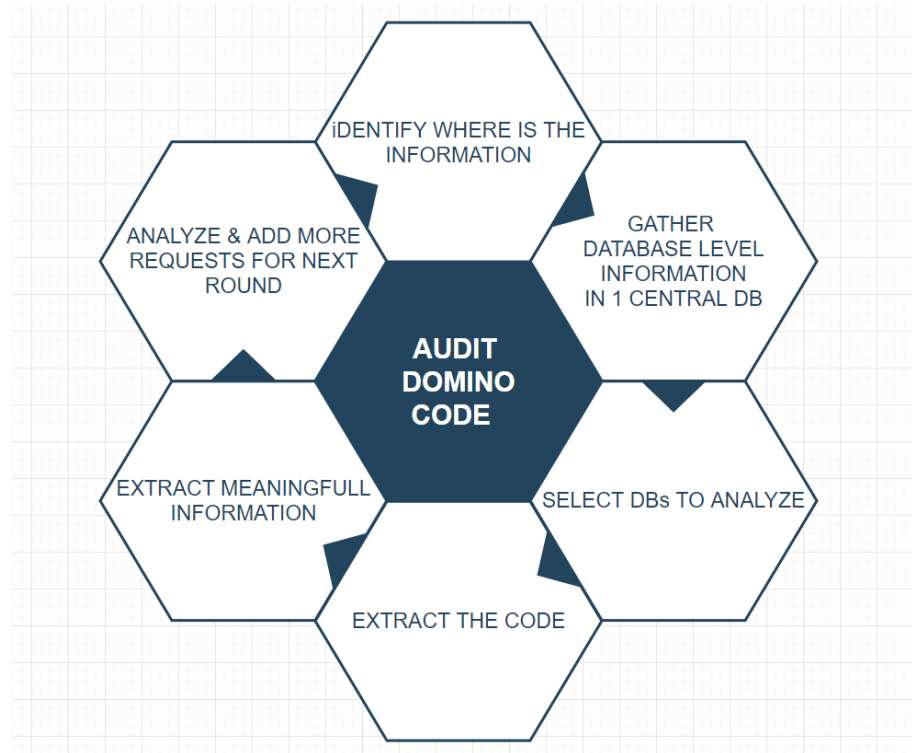
---

**Date of last execution-CORRECT run- of agents**

Schedule export agent	
Last schedule agent	
Last DB scanned	
Last start of scheduled agent	
Last correct end of scheduled agent	
Manual export agent	
Last DB scanned	
Last start of manual agent	



# HOW TO AUDIT THE CODE

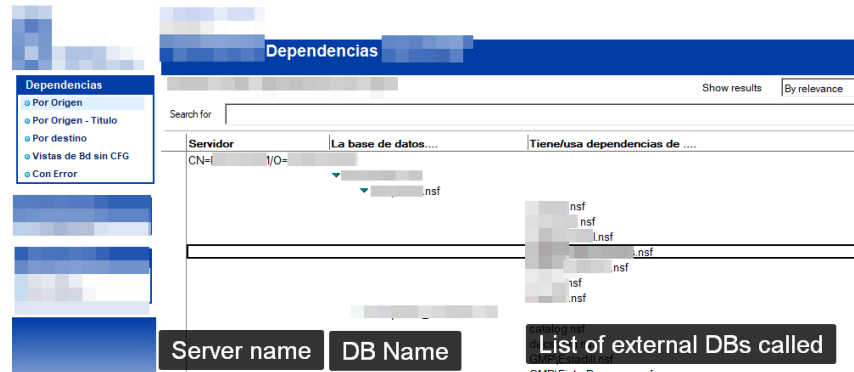




## 3. Central dependencies DB

Each Application DB store one “Configuration document”

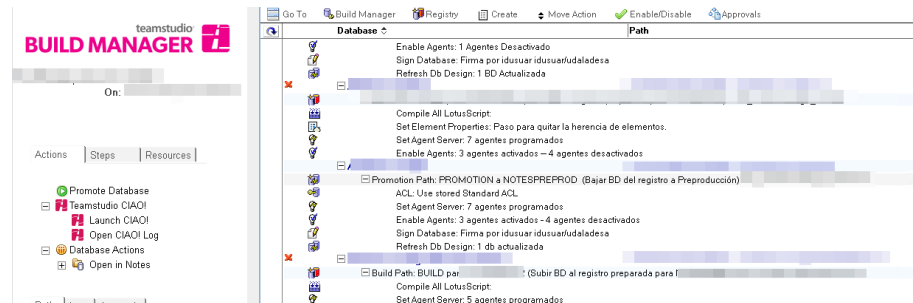
> Dependencies by configuration



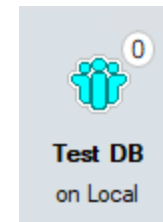
## 5. Script library Component DB



## 4. Build Manager: Who is automated ?



## 6. Each application with his code





- First Part: Gather information from external databases into “Central Audit database”
  - Database document from Catalog.nsf -> Audit Db
  - Doc Configuration from Dependencies DB -> Audit Db
  - Web Services Dependencies -> Audit Db
  - Build Manager -> Analysis + update -> Audit Db
  - Cartography of the central “Script Library Component” DB resource-> Audit Db
- At this point, we have a clear view of dependencies between database, and which one is automated.
- No NTF Dbs, No System Dbs in the list

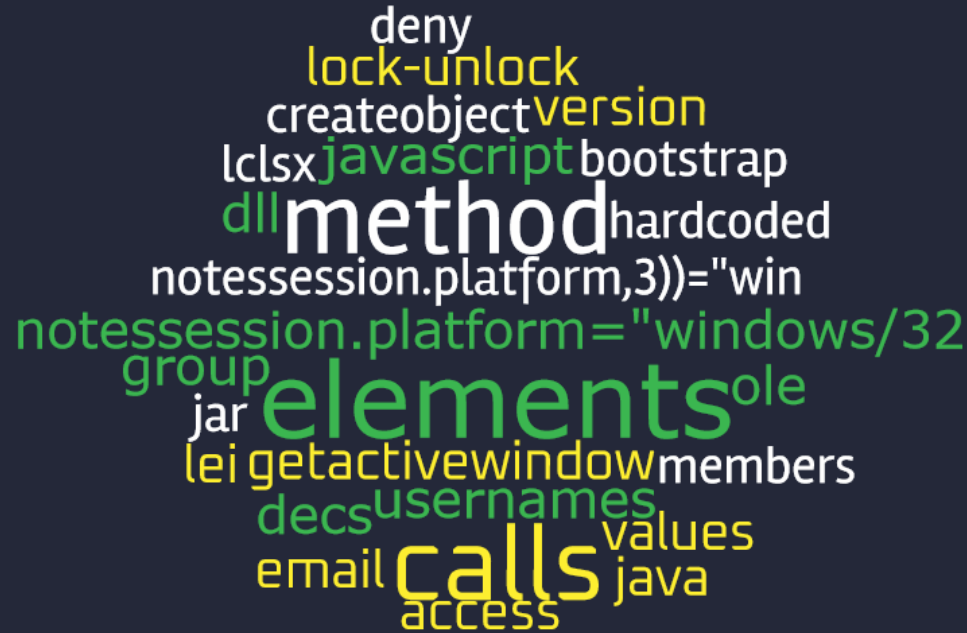


- User enable/ disabled analysis on a per database basis



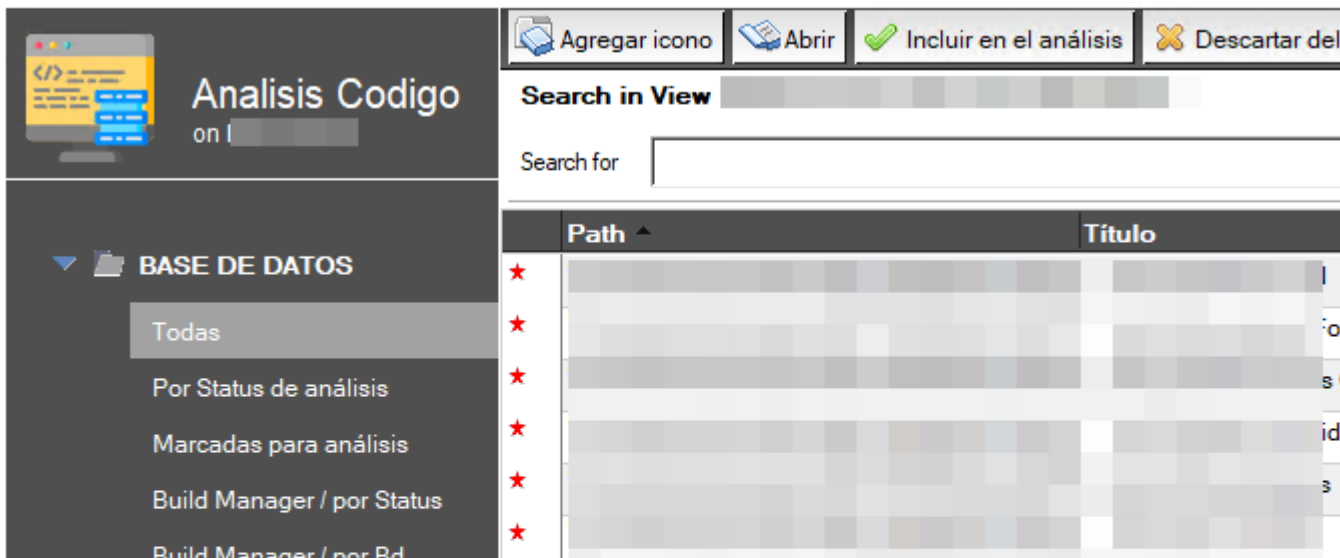
Path	Title	Is Template ?	Inherited from ...	Build Manager DEV/PRE/PROD	To be audited ?	Start expo
Actividad.nsf	Actividades	WEB_ori	WEB_Activ	-No / No / No-	✓	05/10/2022
* activity.nsf	Activity Trends (NOTESCIM)		StdActivityTrendsDatabase	-No / No / No-	✗	
* admin4.nsf	Administration Requests		StdR4AdminRequests	No / No / No-	✗	
* AgentRunner.nsf	Java AgentRunner			-No / No / No-	✗	
Albergues\ReservasAlbergues.nsf	Reservas Albergues	WEB_ReservasAlbergue:		-Si / No / Si-	✓	05/10/2022
* Alcaldia\AlcaldiaInvitaciones.nsf	Invitaciones de Alcaldia	AlcaldiaInvitaciones		-No / No / No-	✓	05/10/2022
* Alcaldia\CochesOficiales.nsf	Coches Oficiales	ALC_CochesOficiales		-Si / Si / Si-	✓	05/10/2022
Alcaldia>ContactosAlcaldia.nsf	Contactos Alcaldia	ALC>Contactos		-Si / Si / Si-	✓	05/10/2022
* Alcaldia\planoeventos.nsf	PlanoEventos	Web_planoeventos		-No / No / No-	✓	05/10/2022
* Alcaldia\SalonPlenos.nsf	Salon de Plenos	ALC_SalonPlenos		-Si / Si / Si-	✓	05/10/2022





A word cloud on a dark blue background featuring various technical terms. The most prominent words are 'method' (white), 'elements' (green), and 'calls' (yellow). Other visible terms include 'deny', 'lock-unlock', 'createobject', 'version', 'lclsx', 'javascript', 'bootstrap', 'dll', 'hardcoded', 'notessession.platform,3))="win', 'notessession.platform="windows/32', 'group', 'jar', 'ole', 'lei', 'getactivewindow', 'members', 'decs', 'usernames', 'values', 'email', 'java', and 'access'.

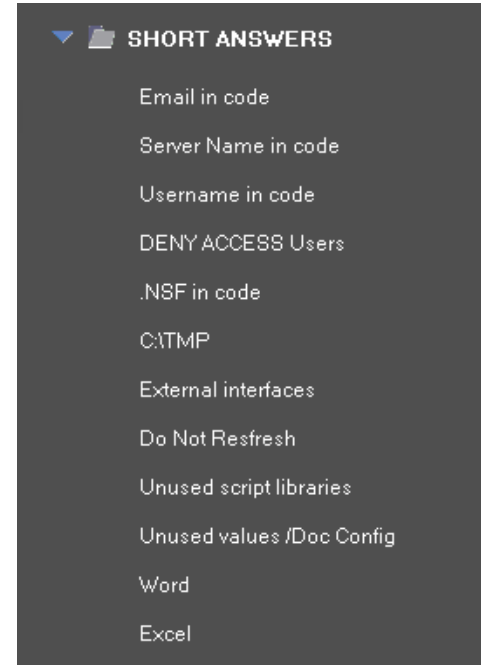
# WHEN THE CODE TALK



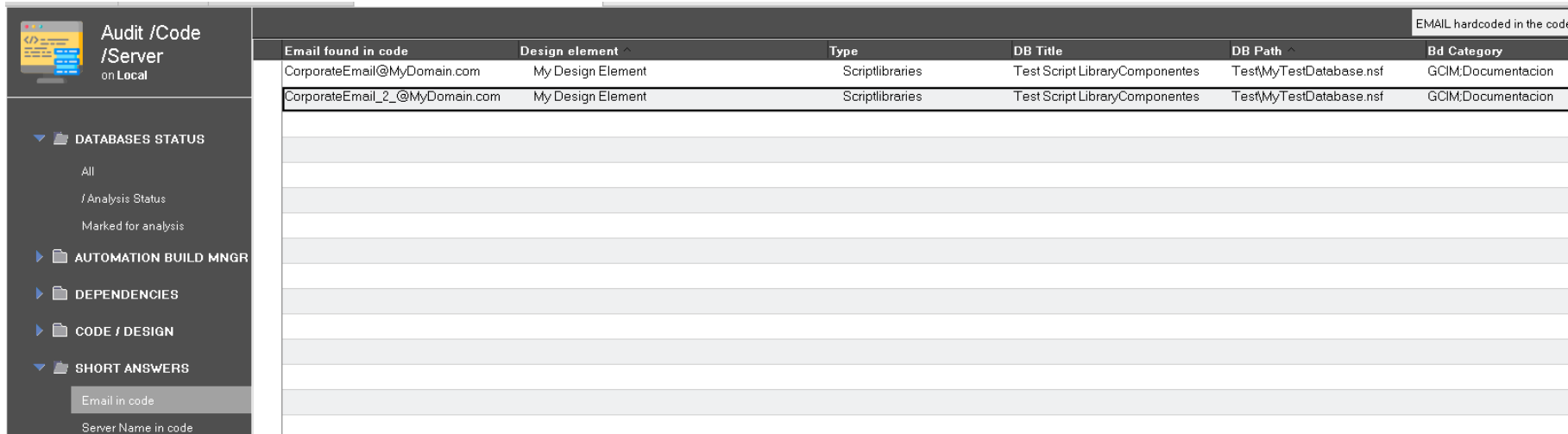
The screenshot shows a software interface for code analysis. At the top, there are four buttons: 'Agregar icono' (Add icon), 'Abrir' (Open), 'Incluir en el análisis' (Include in analysis), and 'Descartar del' (Remove from). Below these is a 'Search in View' section with a search bar and a 'Search for' input field. The main area is a table with two columns: 'Path' and 'Título' (Title). The table contains several rows, each starting with a red star icon. On the left side, there is a sidebar with a tree view under the heading 'BASE DE DATOS' (Database). The sidebar options include 'Todas' (All), 'Por Status de análisis' (By analysis status), 'Marcadas para análisis' (Marked for analysis), 'Build Manager / por Status' (Build Manager / by status), and 'Build Manager / por Bd' (Build Manager / by database).

Path	Título
*	
*	
*	
*	
*	
*	

1. Hardcoded > bad practices like email, server names, usernames, databases names, old employees, Local Temp Folder
2. Dependencies on external interfaces like DLLs/pdf/Word, ODBC, Fax, Outdated third party applications
3. Inheritance - Do Not refresh
4. Dependencies between Dbs
5. Unused Script library
6. Unused values from Configuration document
7. Compliance with for Nomad web



1. Hardcoded > email, server names, usernames, databases names, old employees (DENY ACCESS GROUP)



The screenshot shows the Engage tool interface. On the left is a navigation pane with the following items: Audit /Code /Server on Local, DATABASES STATUS, All, / Analysis Status, Marked for analysis, AUTOMATION BUILD MNGR, DEPENDENCIES, CODE / DESIGN, and SHORT ANSWERS. The 'Email in code' option is selected. The main area displays a table with the following data:

Email found in code	Design element	Type	DB Title	DB Path	Bd Category
CorporateEmail@MyDomain.com	My Design Element	Scriptlibraries	Test Script LibraryComponentes	Test\MyTestDatabase.nsf	GCIM;Documentacion
CorporateEmail_2_@MyDomain.com	My Design Element	Scriptlibraries	Test Script LibraryComponentes	Test\MyTestDatabase.nsf	GCIM;Documentacion

Search Formula of the agent: NAB give us the emails : search and marks them accordingly

## Dependencies on external interfaces

DLLs (pdf Word), ODBC, Fax, Outdated third party applications

The screenshot displays the Audit /Code /Server interface on a local machine. It features a sidebar with navigation options and a main content area with two tables.

**Table 1: Database Dependencies**

Contains C:\	Design element	Type	DB Title	DB Path	Bd Category
Yes	My Design Element	Scriptlibraries	Test Script Library/Componentes	Test(MyTestDatabase.nsf	GCIM.Documentacion
Yes	My Design Element	Scriptlibraries	Test Script Library/Componentes	Test(MyTestDatabase.nsf	GCIM.Documentacion


**Table 2: External Interfaces (LEI, DECS, ODBC)**

External Interfaces (LEI, DECS, ODBC)	Design element
DECS	My Design Element 2
DLL	My Design Element 2
LEI	CIMEmulacion
LEI	My Design Element
LEI	My Design Element

Search formula include specific keywords



## Bad management of inheritance – Do not refresh tags



Audit /Code /Server on Local

- ▼ DATABASES STATUS
  - All
  - /Analysis Status
  - Marked for analysis
- ▶ AUTOMATION BUILD MNGR
- ▶ DEPENDENCIES
- ▶ CODE / DESIGN
- ▼ SHORT ANSWERS
  - Email in code
  - Server Name in code
  - Username in code
  - DENY ACCESS Users
  - .NSF in code
  - C:ITMP
  - External interfaces
  - Do Not Refresh

DO NOT REFRESH - DESIGN					
Design element	Type	DB Title	DB Path	Bd Category	
My Design Element	Scriptlibraries	Test Script LibraryComponentes	Test\MyTestDatabase.nsf	GCIM;Documentacion	
My Design Element	Scriptlibraries	Test Script LibraryComponentes	Test\MyTestDatabase.nsf	GCIM;Documentacion	

# PROMOTE to production server

Audit /Code /Server on Local

Open DB Include in Analysis for this DB Disable Analysis for this DB Reset Analysis for this DB BUILD MANAGER - DATABASES

Build Manager	Path	Filename	DB title	Master template name	Server	Category
▼ No / No / No 7						
★						
★						
★						
★		.nsf				entes
▼ Si / No / No 1						
★		a.nsf	.nsf	Boletin	Boletin_Orokorra	PROD
▼ Si / No / Si 3						
★		.nsf	.nsf	Reservas	WEB	
★		.nsf	.nsf		WEB	
★		.nsf	.nsf		BAR	
▼ Si / Si / No 1						
★		.nsf	.nsf			
▼ Si / Si / Si 5						
★						
★						
★						
★						

17

Navigation sidebar: DATABASES STATUS (All, Analysis Status, Marked for analysis), AUTOMATION BUILD MNGR (Build Manager / Status, Build Manager / DB), DEPENDENCIES, CODE / DESIGN, SHORT ANSWERS (Email in code).

Agent identifies key fields inside Build Manager and mark them accordingly

## Dependencies between Dbs at a design level


Audit /Code /Server on Local

- DATABASES STATUS
  - All
  - / Analysis Status
  - Marked for analysis
- AUTOMATION BUILD MNGR
  - Build Manager / Status
  - Build Manager / DB
- DEPENDENCIES
- CODE / DESIGN
  - / Path
  - All Design Elements
  - To process
  - Component script Is - To process
  - / Category BD
  - / Type
  - / Name
  - / Name categorized
- SHORT ANSWERS

Path	Tipo de elemento	Título	Word-Excel	NO Heredar	C:/	Categorias BD	BDINFO_Server	BDINFO_BD_UN
▼ cim								
▼ Scriptlibraries								E9003C
▼ Scriptlibraries								
	C							2
	C							2
	C							2
	C							2
	C							2
	C							2
	C							2
	C							2
	C							2
	C							2
	C							2
	C							2
	C							2
	C							2
	C							2
	C							2
	C							2
	C							2
	C							2
	C							2
	C							2
	C							2
	C							2

Search by specific fields extracted from the DXL

Search and mark then accordingly

 **Audit /Code /Server**  
on Local

- ▼ **DATABASES STATUS**
  - All
  - / Analysis Status
  - Marked for analysis
- ▶ **AUTOMATION BUILD MNGR**
- ▶ **DEPENDENCIES**
- ▼ **CODE / DESIGN**
  - / Path
  - All Design Elements
  - To process
  - Component script Is - To process
  - / Category BD
  - / Type
  - / Name
  - / Name categorized
- ▶ **SHORT ANSWERS**
- ▶ **CONFIGURATION**

CIMWord-CIMExcel-Word.Application		Usó de C:						
Database Title	Pathname	Element Type	Design Element Title	Word - Excel	Do NOT Refresh	C:/	Databases	
Componentes		Scriptlibraries		!			4.Dc	
Componentes		Scriptlibraries		!			4.Dc	
Componentes		Scriptlibraries		!			4.Dc	
Componentes		Scriptlibraries			!		4.Dc	
Componentes		Scriptlibraries				!	4.Dc	
Componentes		Scriptlibraries	nar_Java			!	4.Dc	
Tei		Scriptlibraries		!		!	11.A	
Tei		Views	a	!			11.A	
Tei		Agents	es		!		11.A	
Tei		Agents			!		11.A	
Tei		Agents			!		11.A	
Tei		Scriptlibraries			!		11.A	
Tei		Agents				!	11.A	
Tei		Agents	ar Anexos			!	11.A	
Tei		Agents	Covid19)			!	11.A	
Tei		Agents	)			!	11.A	
Tei		Agents	Covid19)			!	11.A	
Tei		Agents				!	11.A	
Tei		Agents	icados)			!	11.A	
Tei		Forms				!	11.A	
Tei		Forms				!	11.A	
Tei		Scriptlibraries				!	11.A	
Tei		Scriptlibraries				!	11.A	
Tei		Views	es)			!	11.A	
Tei		Views				!	11.A	

# Unused values from Configuration document

UNUSED VALUES from CONFIGURATION DOCUMENT		
Database.....	Has dependencies on-->	Field involved in Configuration document
Folder/MyTestDB.nsf	DatabaseB.nsf	PathBD_to_Store_Value

Search Field name from the Config Document inside the design of all the design element of the same database

# Unused Script libraries

The screenshot shows a web application interface. On the left is a navigation sidebar with the following items: 'Audit /Code /Server on Local', 'DATABASES STATUS', 'AUTOMATION BUILD MNGR', 'DEPENDENCIES', 'CODE / DESIGN', and 'SHORT ANSWERS'. Under 'SHORT ANSWERS', there is a list of search terms: 'Email in code', 'Server Name in code', 'Username in code', 'DENY ACCESS Users', '.NSF in code', 'C:\TMP', 'External interfaces', 'Do Not Refresh', 'Unused script libraries' (highlighted), and 'Unused values /Doc-Confic'. The main content area is titled 'UNUSED SCRIPT LIBRARY' and contains a table with the following data:

Design element	Type	DB Title	DB Path	Bd Category
My Design Element	Scriptlibraries	Test Script LibraryComponentes	Test\MyTestDatabase.nsf	GCIM.Documentacion
My Design Element	Scriptlibraries	Test Script LibraryComponentes	Test\MyTestDatabase.nsf	GCIM.Documentacion

Search Script Library name present in the DB, in all the design elements of the same database

Add icon | Open DB

## DATABASE ENTRY

Database | Replication | Text Index | ACL | Design Elements - DXL

**Generic information about database**

Title: [blurred]  
 Server: [blurred]  
 Pathname: [blurred]  
 Database type: 0  
 Replica ID: C12580E3:0036370C  
 Administration server: [blurred]  
 Database size: 8.650.752  
 % used: 0  
 Creation date: 29/06/2021 09:18  
 Last modified: 24/04/2019 09:04  
 Link to About database page: [blurred]

**Information about Template and design**

Db template name: [blurred]  
 Inherit from: [blurred]  
 Last Db Design modified: 05/06/2021 01:06  
 Audit the code ? Si  
 Schedule export - Last start: 06/10/2022 0:00:46  
 Schedule export - Last end: 06/10/2022 0:01:17  
 Duration of export: 31  
 Manual export - Last start: [blurred]  
 Manual export - Last end: [blurred]  
 Duration of export: [blurred]  
 Is present in BUILD MANAGER ? No  
 PROMOTE to PREPROD No  
 PROMOTE to PRODUCTION No  
 Number of design elements: 212  
 Agents: 16  
 Database Script: 1  
 Actions: 2  
 Forms: 29  
 ScriptLibraries: 11  
 Pages: 4  
 Subforms: 70  
 Folders: 0  
 Views: 79  
 Web Service Provider WSP: 0  
 Web Service Consumer WSC: 0

**Compliance with Nomad Web**

Use Word  
 Use Excel  
 Use Libre Office  
 Use PDF  
 Use Xpages  
 Use JAVA  
 Use Lotuscript 2 Java Bridge LS2J

**Miscellaneous**

Include in Catalog: Si  
 Categories in the Database catalog: [blurred]

## DATABASE ENTRY

Database | Replication | Text Index | ACL | Design Elements - DXL

Database title	Design element type	Title	Word-Excel	Do Not Refresh	C/J	Categorias BD in Catalog
[blurred]	Actions	\$r				Financiera
[blurred]	Agents	ar				Financiera
[blurred]	Agents	ar				Financiera
[blurred]	Agents	A				Financiera
[blurred]	Agents	ar				Financiera
[blurred]	Agents	cr				Financiera
[blurred]	Agents	Fi				Financiera
[blurred]	Agents	O				Financiera
[blurred]	Agents	R				Financiera
[blurred]	Agents	S				Financiera
[blurred]	Agents	(C				Financiera
[blurred]	Agents	(C				Financiera
[blurred]	Agents	(c				Financiera
[blurred]	Agents	(c				Financiera
[blurred]	Agents	(c				Financiera
[blurred]	Agents	(c				Financiera
[blurred]	Agents	(c				Financiera
[blurred]	Agents	(C				Financiera
[blurred]	Agents	(n				Financiera

## HCL Nomad Web

[https://help.hcltechsw.com/nomad/1.0\\_web/nomad\\_web\\_limitations.html](https://help.hcltechsw.com/nomad/1.0_web/nomad_web_limitations.html)

•Following Java™-based applications are not supported:

- JavaAgents
- XPages (.xsp)
- LotusScript 2 Java Bridge (LS2J – Uselsx “\*javacon” )
- Web services design elements are not supported.
- Dynamic client extensions via native code are not supported.

This includes but is not limited to the following:

- The DXJ name picker implemented for Windows via a DLL.
- Some LotusScript and Formula commands associated are not supported.
- In particular, commands associated with Object Linking & Embedding (OLE) are not supported.
- The LotusScript LSXLC and LSXODBC extensions.



- Regular (and simple) Lotuscript has been used to search, and extract the data, Export DXL and then parse the code...

```
Dim exporter As NotesDXLExporter
Set exporter = session.CreateDXLExporter
Call exporter.SetInput (docDisenoOrigen)

Dim rtCodigo As New NotesRichTextItem(doc

Call exporter.SetOutput (rtCodigo)
Call exporter.Process
```

```
-----
AnalysisCodigo.Config
AnalysisCodigo.ExportToDXL.Constantes
AnalysisCodigo.ExportToDXL.Core
AnalysisCodigo.ExportToDXL.ParseDXL
AnalysisCodigo.ExportToDXL.Utils
```

- Most of the work consist in finding how to gather and organize the information in order to present it in an explicit way.
- Update the Audit is also an important aspect (“<modified> <date>” )

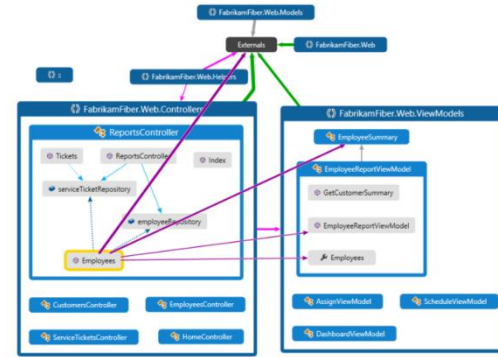
- SHORT ANSWERS
- Email in code
- Server Name in code
- Username in code
- DENY ACCESS member in code
- .NSF in code
- C:\TMP
- Bad practices
- External interfaces
- Bad inheritances
- Dependencies (deep)
- Unused script libraries
- Unused values /Doc Co
- Word
- Excel
- Libre Office
- pdf
- Compliant for Nomad ?

Nombre:  - Alias <Valor calculado> - Tipo:

Email in code	<input type="text" value="Audit_Email T"/>
Server Name in code	<input type="text" value="Audit_Servername T"/>
Username in code	<input type="text" value="Audit_Username T"/>
DENY ACCESS GROUP Member in code	<input type="text" value="Audit_Denyaccessgroup T"/>
.NSF in code	<input type="text" value="Audit_NSF T"/>
Uso de C:	<input type="text" value="Audit_C_TMP T"/>
External Interface	<input type="text" value="Audit_External_Interface T"/>
Do not refresh tag	<input type="text" value="Audit_DoNotRefresh T"/>
Unused script library	<input type="text" value="Audit_Unused_LS T"/>
Use Word	<input type="text" value="Audit_Ms_Word T"/>
Use Excel	<input type="text" value="Audit_Ms_Excel T"/>
Use Libre Office	<input type="text" value="Audit_Libre_Office T"/>
Use PDF	<input type="text" value="Audit_Pdf T"/>

- Check the ACL of the user running the Audit, first. Must be Manager (LocalDomainAdmin)
- Do not Audit if you have NO design change (already integrated)
- Do not Audit mail template (complex, slow)
- Do not Audit mail file
- Do not Audit System database (useless)
- Audit only NSF
- Check what database needs more time to be audited -> complex design

- Add black list “Do not audit” for Database
- Visualize data with Graph (xPages?)
- Local AI + LLM + Lotuscript code ?
- Extend with action in YTRIA Automation API  
Ytria tools can be launched from the agent to generate more data to add to the Audit.
- Integrate with JIRA and homeade ticketing system  
create ticket to ask improvement, linked with some document of this Audit
- Update Audit after each automatic build process launch from Build Manager



# ANSWER OUR QUESTIONS, ASK YOURS

- We want to know your opinion about our work
- Missing features ? Ideas ?
- Loophole you see that we missed ?
- Would you buy a copy of that work ? At which price ?
  
- Contact: [info@data101.es](mailto:info@data101.es)

# Visit our booth to learn about Digital eSignature into HCL Products



{ REST:API }





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Thank you !!