



## Faça Fácil

### Proficy Historian - Armazenamento de Alarmes e Eventos

#### Objetivos:

Armazenar Alarmes e eventos do iFIX no Proficy Historian

#### Pré-Requisitos:

Conhecer os princípios básicos de configuração do Proficy iFix.

Ter conhecimento da ferramenta de Administração do Proficy Historian

Para utilizar o exemplo de consulta no Proficy Historian:

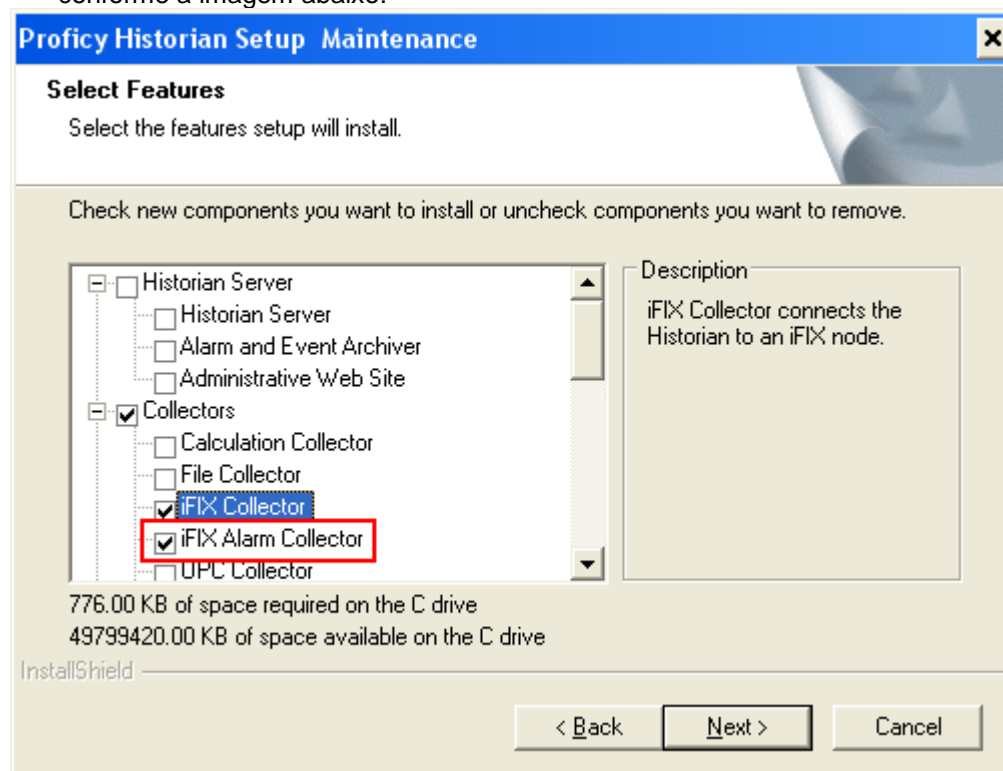
Você deve ter um Servidor do Proficy Historian com Alarm Archiver Instalado e um Servidor SCADA iFIX.

Para esse faça fácil estamos utilizando 2 servidores:

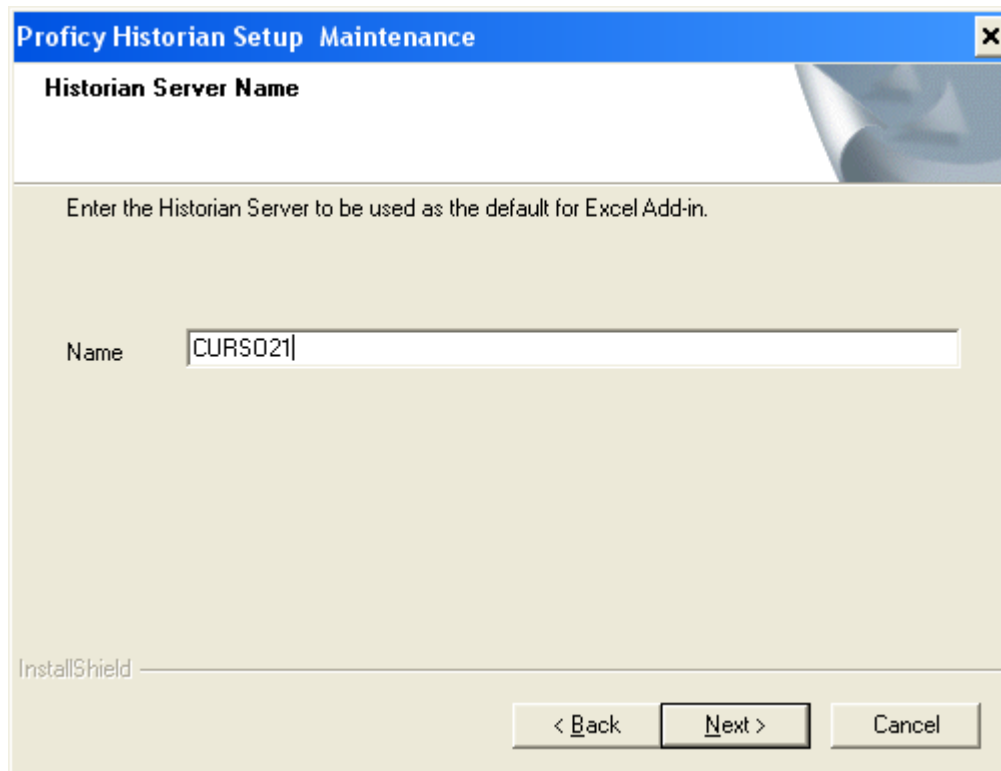
- 1) Servidor Proficy Historian 4.5, previamente instalado com a opção Alarme Archiver, denominado "CURSO21"
- 2) Servidor SCADA iFIX 5.5, configurado com o nome de nó "TESTE" e nome de máquina "CURSO27"

#### Configuração:

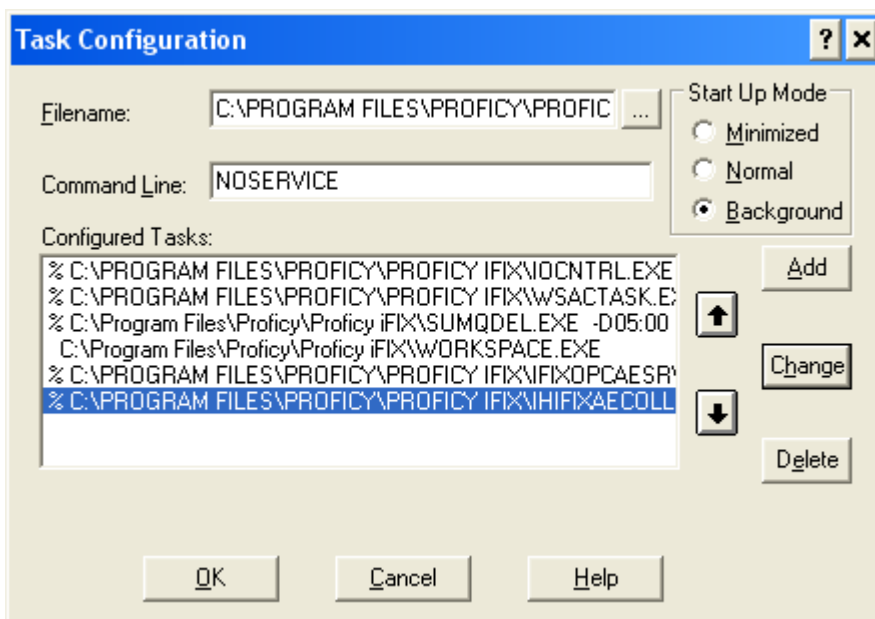
- 1) Instale o coletor "iFIX Alarm Collector", utilizando o CD de instalação do Proficy Historian, conforme a imagem abaixo:



- 2) Informe do Servidor Historian quando solicitado:



- 3) Duas vezes, click no botão "Next" para concluir a instalação.
- 4) Abra o "SCU" (System Configuration) do iFIX.
- 5) Em "Task Configuration", inclua duas tarefas:
  - a. iFixOPCAESrv.exe
  - b. ihiFixAEColllector.exe, com parâmetro NOSERVICE.



- 6) Inicie o iFIX.
- 7) Observe que o Servidor OPC AE do iFIX é iniciado:



Statistic	Value
Sample Period (ms)	1000
Num Event Server Objects	1
Num Subscriptions	1
Num Browser Objects	1
Num Events Generated	216
Num Client Notifications	185
Num Events Last Sample Period	19

8) Pelo Servidor do Historian, utilizando o “Adminstrator” é possível verificar que o coletor também está rodando:

**Proficy Historian Administrator on [CURSO21]**

System Statistics

- Receive Rate: 348 (Events/Min)
- Archive Compression: 79%
- Write Cache Hit: 100%
- Failed Writes: 0 (Events)
- Messages Since Startup: 40 (Messages)
- Alerts Since Startup: 21 (Alerts)
- Calculations: (Enabled)
- Server to Server: (Enabled)
- Alarms Since Startup: 6,480 (Alarms)
- Server Memory: 7%
- Free Space: 99 (MB)
- Consumption Rate: 0.6 (MB/Day)
- Est. Days to Full: 159.0 (Days)
- Tags: 0 (100,000 Licensed)
- Users: 1 (10 Licensed)
- Alarm Rate: 0 (Alarms/Min)

Collector	Status	Computer	Report Rate	Overruns	Compression	Out Of Order	Redundant
CURSO21_File	Running	CURSO21	0	0.0%	%	0	
CURSO21_Simulation	Running	Curso21	0	0.0%	%	0	
CURSO27_iFixAE	Running	Curso27	0	0.0%	N/A	0	

Timestamp	Topic	Message
2/9/2012 3:05:43 PM	Services	DataArchiver(DataArchiver) Interface CURSO27_iFixAE status is running (02/09/12 15:05:43.218)
2/9/2012 3:05:41 PM	Services	DataArchiver(DataArchiver) Interface CURSO27_iFixAE status is unknown (02/09/12 15:05:41.062)
2/9/2012 3:05:39 PM	Services	CURSO27_iFixAE Collector - Startup
2/9/2012 3:03:36 PM	Services	CURSO27_iFixAE Collector - Shutdown
2/9/2012 3:00:58 PM	Services	DataArchiver(DataArchiver) Interface CURSO27_iFixAE status is running (02/09/12 15:00:57.562)
2/9/2012 3:00:55 PM	Services	DataArchiver(DataArchiver) Interface CURSO27_iFixAE status is unknown (02/09/12 15:00:55.421)
2/9/2012 3:00:54 PM	Services	CURSO27_iFixAE Collector - Startup
2/9/2012 2:59:35 PM	Services	CURSO27_iFixAE Collector - Shutdown
2/9/2012 2:56:37 PM	Services	DataArchiver(DataArchiver) Interface CURSO27_iFixAE status is running (02/09/12 14:56:37.203)
2/9/2012 2:56:33 PM	Services	CURSO27_iFixAE Collector - Startup

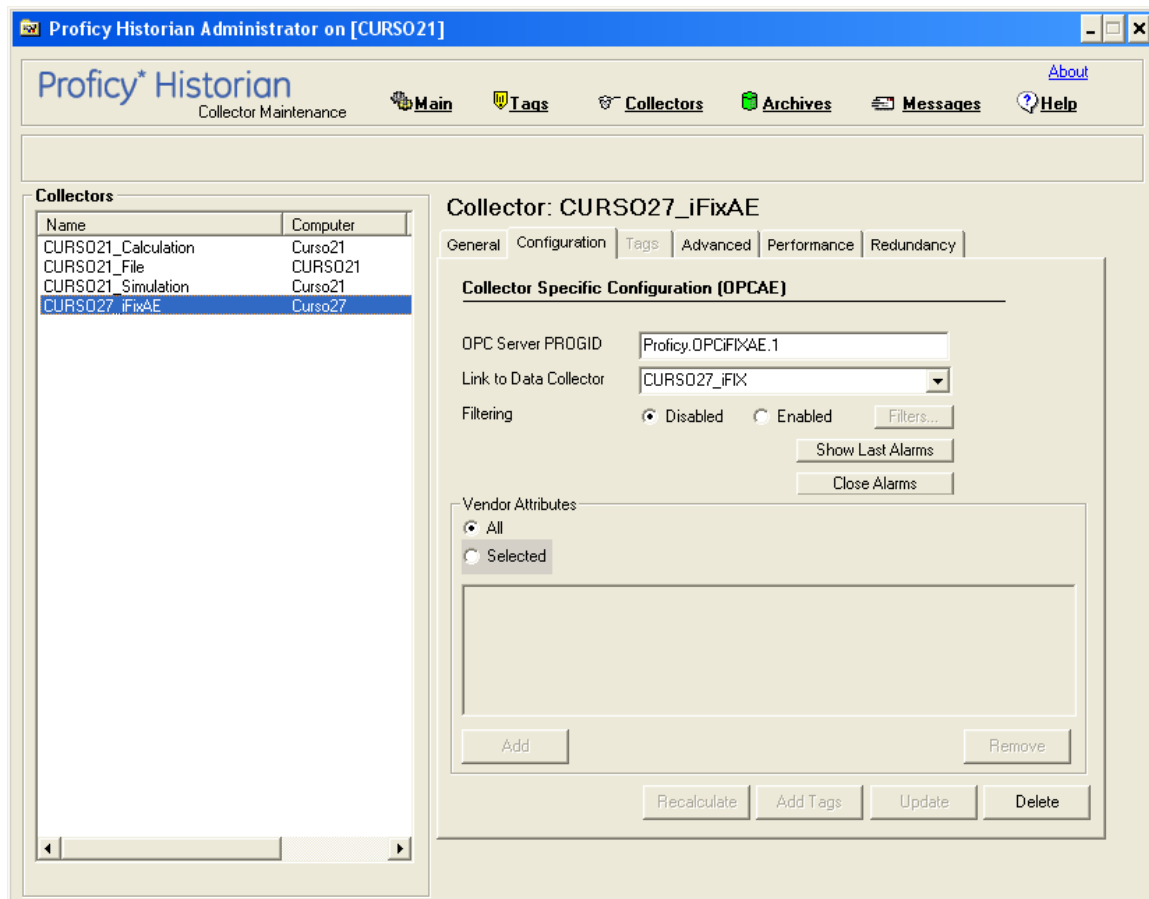
**Pronto!! Os alarmes já estão sendo armazenados!**



## Exemplos de Consulta

Pelo Adminstrator do Historian:

- 1) Abra a ferramenta de administração do Historian.
- 2) Selecione “Collectors”, e em seguida o coletor de Alarmes e Eventos



- 3) Pressione o botão “Show Last Alarms”, a seguinte tela será apresentada com os últimos alarmes e eventos gerados pelo iFIX:



Show Alarms/Events						
Last Alarms						
D...	Source	Start Time	End Time	Condition	Sub Condition	Event Category
	TESTE.MBE_10	2/9/2012 3:21:18 PM	12:00:00 AM	Tag	LOLO	Tag
	TESTE.MBE_10	2/9/2012 3:20:34 PM	2/9/2012 3:20:45 PM	Tag	OK	Tag
	TESTE.MBE_8_3	2/9/2012 3:20:14 PM	2/9/2012 3:20:23 PM	Tag	OK	Tag
	TESTE.MBE_8_5	2/9/2012 3:20:14 PM	2/9/2012 3:20:23 PM	Tag	OK	Tag
	TESTE.MBE_8_8	2/9/2012 3:20:14 PM	2/9/2012 3:20:23 PM	Tag	OK	Tag
	TESTE.MBE_8_7	2/9/2012 3:20:14 PM	2/9/2012 3:20:23 PM	Tag	OK	Tag
	TESTE.MBE_8_...	2/9/2012 3:20:14 PM	2/9/2012 3:20:23 PM	Tag	OK	Tag
	TESTE.MBE_8	2/9/2012 3:20:14 PM	2/9/2012 3:20:23 PM	Tag	OK	Tag
	TESTE.MBE_8_1	2/9/2012 3:20:14 PM	2/9/2012 3:20:23 PM	Tag	OK	Tag
	TESTE.MBE_8_2	2/9/2012 3:20:14 PM	2/9/2012 3:20:23 PM	Tag	OK	Tag

Last Events						
Description	Source	Time Stamp	Event Category	Severity	Quality	
[TESTE ]Fix32.TESTE.MBE_10.F_CV set to 1 by T...	iFIX	2/9/2012 3:21:17 PM	Operator Proce...	150	3	
[TESTE ]Fix32.TESTE.MBE_10.F_CV set to 50 by ...	iFIX	2/9/2012 3:20:44 PM	Operator Proce...	150	3	
[TESTE ]MBE_10 ALARM is acknowledged by TES...	iFIX	2/9/2012 3:20:40 PM	Operator Proce...	150	3	
[TESTE ]Fix32.TESTE.MBE_10.F_CV set to 99 by ...	iFIX	2/9/2012 3:20:34 PM	Operator Proce...	150	3	
[TESTE ]ALL ALARMS acknowledged by TESTE:...	iFIX	2/9/2012 3:20:31 PM	Operator Proce...	150	3	
[TESTE ]MBE_8_3 ALARM is acknowledged by TE...	iFIX	2/9/2012 3:20:28 PM	Operator Proce...	150	3	
[TESTE ]MBE_8_5 ALARM is acknowledged by TE...	iFIX	2/9/2012 3:20:28 PM	Operator Proce...	150	3	
[TESTE ]MBE_8_8 ALARM is acknowledged by TE...	iFIX	2/9/2012 3:20:27 PM	Operator Proce...	150	3	
[TESTE ]MBE_8_7 ALARM is acknowledged by TE...	iFIX	2/9/2012 3:20:26 PM	Operator Proce...	150	3	
[TESTE ]MBE_8_10 ALARM is acknowledged by T...	iFIX	2/9/2012 3:20:26 PM	Operator Proce...	150	3	

Refresh Close

Pelo Excel Add-In:

- 1) Abra o Excel. Certifique-se de que o Historian Excel Add-In está habilitado.
- 2) Selecione o menu "Historian" -> "Query Alarms & Events".
- 3) Configure a tela, conforme imagem abaixo para consultar todos os alarmes de um tag predefinido:



**Proficy Historian Alarm Query**

Server: [CUR5021] Select...

Use Default Server

Input Settings

Query Type:  Alarms  Alarm History  Events

Query Criteria

Add query criteria where

Source: is Equal To (String Mask) value or cell... **TESTE.MBE\_10** Add to Query

Retrieve Alarms Where... Source is Equal To (String Mask) "TESTE.MBE\_10" Remove Selected

Output Settings

Output Cell: **Sheet1!\$A\$3**

Output Orientation:  Columns  Rows

Maximum Results: 100 Records

Output Display: **\*All Standard Attributes**

Output Sorting: Sort By:  Alarm Time  Custom Sort  None

Sortable Attributes: Ack Time, Acked, Actor, Alarm Id, Condition Name, Data Source Name

Check for Descending:  Attribute Sort

Buttons: OK, Help, Cancel

- Em "Query Criteria", selecione "Source".
- Em "Value or cell", defina o nome do tag, no caso TESTE.MBE\_10
- Pressione o botão "Add to Query"
- Em "Output Cell", defina em qual célula as informações serão inseridas
- Mantenha a opção \*All Standard Attributes em "Output Display"
- Pressione OK.

4) O resultado da consulta será:

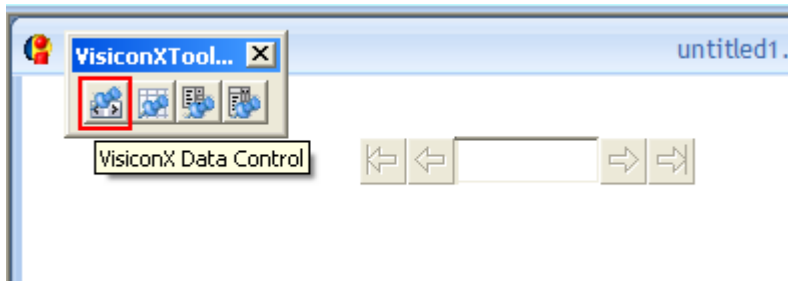
Microsoft Excel - Book2

Alarm Id	Source	Data Source Name	Condition	Sub Condition	Message	Event Category	Start Time	End Time	Acked	Ack Time
3604	TESTE.MBE_10	CURSO27_iFIX	Tag	LOLO		Tag	09-Feb-12 15:21:18		FALSE	
3603	TESTE.MBE_10	CURSO27_iFIX	Tag	OK		Tag	09-Feb-12 15:20:34	09-Feb-12 15:20:45	TRUE	09-Feb-12
10	TESTE.MBE_10	CURSO27_iFIX	Tag	OK		Tag	09-Feb-12 15:05:45	09-Feb-12 15:07:51	FALSE	

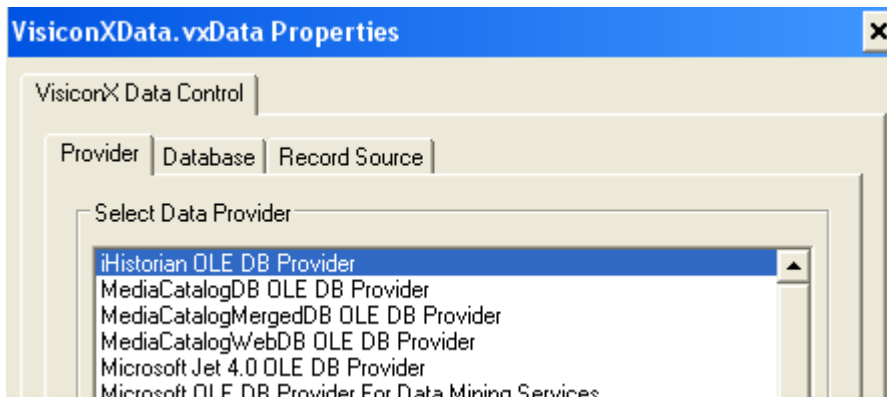


Pelo Visicon X do iFIX:

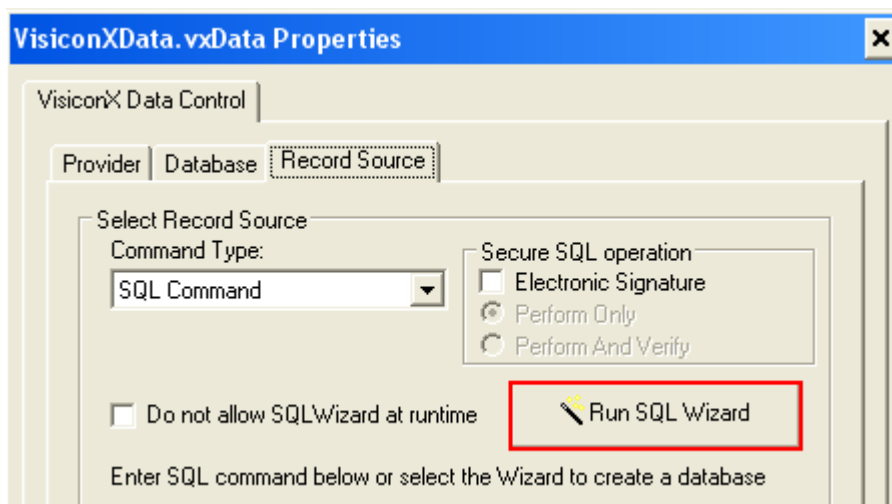
- 1) No Workspace do iFIX em modo de configuração, crie uma nova tela.
- 2) Em seguida, insira o objeto "VisiconX Data Control".



- 3) Abra a tela de configuração do objeto vxData1 com duplo click.
- 4) Na aba provider, selecione "Historian OLE DB Provider":



- 5) Na aba "Record Source" pressione o botão Run SQL Wizard.



- 6) Pressione o botão "Next" na próxima tela e em seguida o botão "SQL Select"



**Select Operation**

SQL Select	Select this option to construct a SQL SELECT command
SQL Insert	Select this option to construct a SQL INSERT command
SQL Update	Select this option to construct a SQL UPDATE command

< Back    Next >    Finish    Cancel    Help

7) E configure conforme a seqüência de imagens para selecionar os alarmes de um tag predefinido:

**Select Tables**

Available Tables:		Selected Tables:
ihArchives	Add ->	ihAlarms
ihCalculationDependencies	All ->>	
ihCollectors	<- Remove	
ihComments	<<- All	
ihMessages		
ihQuerySettings		
ihRawData		
ihTags		
ihTrend		
ihAlarms		

< Back    Next >    Finish    Cancel    Help





### Select Columns

Available Columns:

- \* (All Columns)
- ihAlarms.AlarmID
- ihAlarms.ItemID
- ihAlarms.Source
- ihAlarms.DataSource
- ihAlarms.Tagname
- ihAlarms.AlarmType
- ihAlarms.EventCategory
- ihAlarms.Condition
- ihAlarms.SubCondition
- ihAlarms.StartTime
- ihAlarms.EndTime
- ihAlarms.AckTime

Selected Columns:

- \* (All Columns)

Return Unique Rows

### Create Row Filter

Available Columns:

- ihAlarms.AlarmID
- ihAlarms.ItemID
- ihAlarms.Source
- ihAlarms.DataSource
- ihAlarms.Tagname
- ihAlarms.AlarmType
- ihAlarms.EventCategory
- ihAlarms.Condition
- ihAlarms.SubCondition

Selected Columns:

- ihAlarms.Source

Operator:

and



**Select Columns to Sort by**

Available Columns:

- ihAlarms.AlarmID
- ihAlarms.ItemID
- ihAlarms.Source
- ihAlarms.DataSource
- ihAlarms.Tagname
- ihAlarms.AlarmType
- ihAlarms.EventCategory
- ihAlarms.Condition
- ihAlarms.SubCondition

Add ->

All ->>

<- Remove

<<- All

Selected Columns:

Sort this column: in Ascending Order

< Back
Next >
Finish
Cancel
Help

---

**Finish**

**Below is the SQL statement generated by the Wizard:**

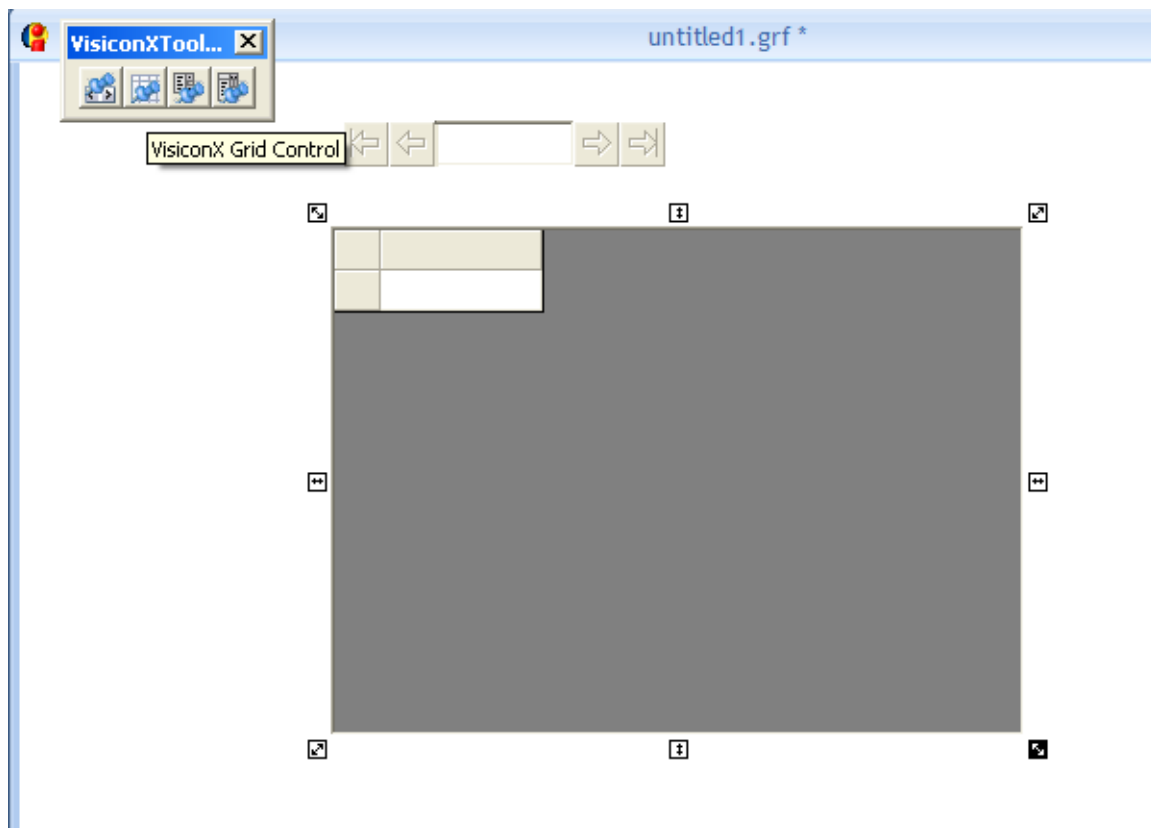
You may manually edit this statement before clicking OK if required

```
SELECT
*
FROM
ihAlarms
WHERE
(ihAlarms.Source = 'TESTE.MBE_10')
```

Click OK to save this query and exit or click Back to make changes

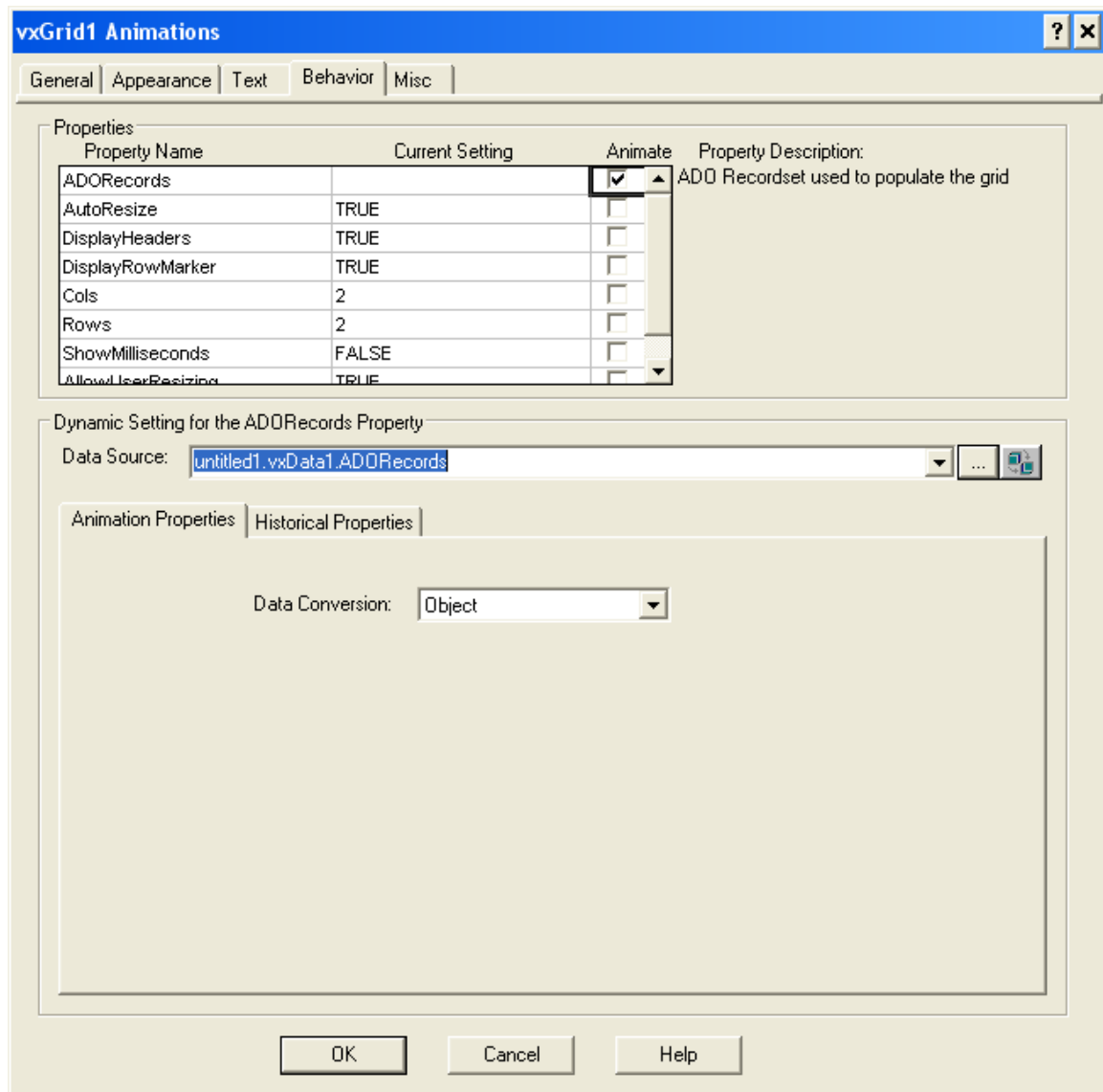
< Back
OK
Cancel
Help

- 8) Pressione OK para finalizar a configuração do objeto de consulta.
- 9) Para apresentar as informações, insira um objeto VisconX Grid Control



10) Pressione sobre o objeto com botão direito do mouse e selecione a opção “Animations...”, em seguida o botão “Configure”

11) Na aba Behavior, configure conforme a imagem abaixo:



12) Salve a tela com o nome desejado e execute:



AE\_Visicon.grf

0

alarmid	itemid	source	datasource	tagname	alarmtype	eventcategory	condition	subcondition
3604	TESTE.MBE_10.F_CV	TESTE.MBE_10	CURSO27_iFIX		Alarms	Tag	Tag	LOLO
10	TESTE.MBE_10.F_CV	TESTE.MBE_10	CURSO27_iFIX		Alarms	Tag	Tag	OK
3603	TESTE.MBE_10.F_CV	TESTE.MBE_10	CURSO27_iFIX		Alarms	Tag	Tag	OK